Department of Energy

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SEP 20 2013

PPPO-02-2064611-13

Mr. Todd Mullins
Federal Facility Agreement Manager
Division of Waste Management
Kentucky Department for Environmental Protection
200 Fair Oaks Lane, 2nd Floor
Frankfort, Kentucky 40601

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

Ms. April Webb
Kentucky Department for Environmental Protection
Division of Waste Management
200 Fair Oaks Lane, 2nd Floor
Frankfort, Kentucky 40601

Dear Mr. Mullins, Ms. Tufts, and Ms. Webb:

TRANSMITTAL OF REPLACEMENT PAGES FOR APPENDICES C, E, AND F OF THE U.S. DEPARTMENT OF ENERGY PADUCAH GASEOUS DIFFUSION PLANT FEDERAL FACILITY AGREEMENT SEMIANNUAL PROGRESS REPORT FOR THE FIRST HALF OF FISCAL YEAR 2011 PADUCAH, KENTUCKY (DOE/LX/07-0366/V1)

References:

1. Letter from R. Blumenfeld to C. Collins, T. Mullins, and A. Webb, "U.S. Department of Energy Paducah Gaseous Diffusion Plant Federal Facility Agreement Semiannual Progress Report for the First Half of Fiscal Year 2013, Paducah, Kentucky (DOE/LX/07-1290/V1)," (PPPO-02-1896411-13), dated April 30, 2013
2. Letter from R. Knerr to T. Ballard, A. Webb, and E. Winner, "U.S. Department of Energy Paducah Gaseous Diffusion Plant Federal Facility Agreement Semiannual Progress Report for the First Half of Fiscal Year 2011, Paducah, Kentucky (DOE/LX/07-0366/V1)," (PPPO-02-1191177-11), dated April 29, 2011

Enclosed are the certified replacement pages for Appendices C, E, and F of the *U.S. Department of Energy Paducah Gaseous Diffusion Plant Federal Facility Agreement Semiannual Progress Report for the First Half of Fiscal Year 2011, Paducah, Kentucky*, DOE/LX/07-0366/V1.

The enclosed replacement pages have been prepared to correct reporting errors that occurred as a result of an unintentionally limiting data query. This error was discovered during an independent assessment conducted in April 2013 of the data tables presented in the appendices (C, E, and F) of the report. The submission of these replacement pages has been previously discussed between the Federal Facilities Agreement parties.

If you have any questions or require additional information, please contact Jennifer Woodard at (270) 441-6820.

Sincerely,

Rachel H. Blumenfeld
Acting Paducah Site Lead
Portsmouth/Paducah Project Office

Enclosures:
1. Appendix C Replacement Pages—C-746-K Landfill Data
2. Appendix E Replacement Pages—C-400 Project Groundwater Monitoring Wells Data
3. Appendix F Replacement Pages—C-749 Uranium Burial Ground (SWMU 2) Groundwater Monitoring Wells Data

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CERTIFICATION

Document Identification: **Replacement Pages for Appendices C, E, and F of the *U.S. Department of Energy Paducah Gaseous Diffusion Plant Federal Facility Agreement Semiannual Progress Report for the First Half of Fiscal Year 2011, Paducah, Kentucky* (DOE/LX/07-0366/V1)**

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

LATA Environmental Services of Kentucky, LLC

Mark J. Duff, Paducah Project Manager — 9-20-13 Date Signed

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

U.S. Department of Energy (DOE)

Rachel H. Blumenfeld, Acting Paducah Site Lead
Portsmouth/Paducah Project Office — 9-20-13 Date Signed

DOE/LX/07-0366/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 2011
Paducah, Kentucky

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DOE/LX/07-0366/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 2011 Paducah, Kentucky

Date Issued—April 2011

Prepared for the
U.S. DEPARTMENT OF ENERGY
Office of Environmental Management

Prepared by
LATA Environmental Services of Kentucky, LLC
managing the
Environmental Remediation Activities at the
Paducah Gaseous Diffusion Plant
under contract DE-AC30-10CC40020

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CONTENTS

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TABLES

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ACRONYMS

AM	Action Memorandum
ARRA	American Recovery and Reinvestment Act
BGOU	Burial Grounds Operable Unit
BHHRA	baseline human health risk assessment
BRA	baseline risk assessment
CAB	Citizens Advisory Board
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CRP	Community Relations Plan
D&D	decontamination and decommissioning
DOE	U.S. Department of Energy
EE/CA	Engineering Evaluation/Cost Analysis
EPA	U.S. Environmental Protection Agency
EQ	equalization
ERH	electrical resistance heating
EW	extraction well
FFA	Federal Facility Agreement
FFS	Focused Feasibility Study
FS	Feasibility Study
FSP	Field Sampling Plan
FY	fiscal year
GDP	Gaseous Diffusion Plant
GWOU	Groundwater Operable Unit
IRA	Interim Remedial Action
KDOW	Kentucky Division of Water
LATA Kentucky	LATA Environmental Services of Kentucky, LLC
NEPCS	Northeast Plume Containment System
NWP	Northwest Plume
NWPGS	Northwest Plume Groundwater System
O&M	operation and maintenance
OU	operable unit
PGDP	Paducah Gaseous Diffusion Plant
RAR	Removal Action Report
RAWP	Removal Action Work Plan
RGA	Regional Gravel Aquifer
RI	remedial investigation
ROD	Record of Decision
SER	Site Evaluation Report
SEWP	Sitewide Evaluation Work Plan
SMP	Site Management Plan
SOU	Soils Operable Unit
SST	Swift and Staley Mechanical Contractors, Inc.
SWMU	solid waste management unit
SWOU	Surface Water Operable Unit
TBD	to be determined
Tc-99	technetium-99
TCE	trichloroethene
UCRS	Upper Continental Recharge System
USEC	United States Enrichment Corporation

VFD	variable frequency drive
WAC	waste acceptance criteria
WAG	waste area group

Table 1. Operable Units and Corresponding Report Topics

Operable Unit	Project/Activities
Groundwater Operable Unit	• C-400 Interim Remedial Action • Southwest Plume Sources Interim Remedial Action • Dissolved-Phase Plumes Remedial Action • Northeast Plume Interim Remedial Action • Northwest Plume Interim Remedial Action
Burial Grounds Operable Unit	• Burial Grounds Operable Unit • Solid Waste Management Unit (SWMU) 4 • C-749 Uranium Burial Ground (SWMU 2)
Surface Water Operable Unit	• Removal Action • Remedial Action
Soils Operable Unit	• Remedial Action • Soils Inactive Facilities • Soil and Rubble Areas
Decontamination and Decommissioning Operable Unit	• C-410/420 Complex • C-746-A East End Smelter and C-340 Metals Reduction Plant Complex
Comprehensive Site Operable Unit*	• No Projects
Additional Reporting	• Waste Area Groups 1 and 7 • Community Relations Plan • Site Management Plan • CERCLA Waste Disposal Alternatives Evaluation

* The Comprehensive Site Operable Unit work scope, including GDP shutdown, is defined more clearly in the fiscal year 2010 SMP.

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

V. Primary/Secondary Document Tracking System

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

B) Due dates for completion of review/modification tasks

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

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

VIII. Changes in relevant personnel

IX. Actual cost for operation and maintenance (O&M), if appropriate

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

FEDERAL FACILITY AGREEMENT
SEMIANNUAL REPORT
FIRST HALF OF FISCAL YEAR 2011

Facility: Paducah Gaseous Diffusion Plant
Plant EPA I.D. No.: KY8-890-008-982
Reporting Period: 10/01/2010–3/31/2011

INTRODUCTION

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

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

- Groundwater OU
- Surface Water OU
- Soils OU
- Burial Grounds OU
- Decontamination and Decommissioning OU

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

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

[1] Schedules are included for information and planning purposes only; enforceable schedules are established in the Site Management Plan (SMP).

This report includes seven 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.23, as referenced in the Northeast and Northwest Plume updates.

- Appendix C contains a map depicting the monitoring well (MW) locations: 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 April 2010. This data currently are collected semiannually. C-746-K Landfill groundwater monitoring data for reporting dates October 1, 2010, through March 31, 2011, will be included in the next semiannual report scheduled for October 2011. Sampling of these MWs is outlined in the Record of Decision for Waste Area Groups (WAGs) 1 and 7.

- Appendix D contains updates to the Administrative Record index since the last progress report. This is required by the Paducah FFA (Section XXXII.F).

- Appendix E contains a map depicting the C-400 MW locations; and summary of the C-400 groundwater MW data from June 2009 through June 2010. C-400 groundwater monitoring data for reporting dates October 1, 2010, through March 31, 2011, will be included in the next semiannual report scheduled for October 2011.

- Appendix F contains a map depicting the C-749 Uranium Burial Ground (SWMU 2) groundwater MWs and a summary of the SWMU 2 data for reporting dates, May 1993 through July 2010. SWMU 2 groundwater monitoring data for reporting dates October 1, 2010, through March 31, 2011, will be included in the next semiannual report scheduled for October 2011. Appendix F also contains TCE and technetium-99 (Tc-99) trends for SWMU 2.

- Appendix G, on CD, is the 2007 Technetium-99 Plume Map and the 2009 Trichloroethene Plume Map.

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FEDERAL FACILITY AGREEMENT
SEMIANNUAL REPORT
FIRST HALF OF FISCAL YEAR 2011

Facility: Paducah Gaseous Diffusion Plant
Plant EPA I.D. No.: KY8-890-008-982
Reporting Period: 10/01/2010–3/31/2011

GROUNDWATER OPERABLE UNIT

The scope of the Groundwater OU (GWOU) includes investigation, a baseline risk assessment, evaluation of removal/remedial alternatives, and selection and implementation of actions necessary to achieve protection of human health and the environment from exposure to groundwater contamination that could result in unacceptable risk.

Within the GWOU are these projects: C-400 Interim Remedial Action (IRA), Southwest Plume Sources, 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 concentrations. The most predominant contaminant of concern in the groundwater is TCE. Table 2 provides an overall broad picture of the TCE mass removed by various actions through December 31, 2010. Additionally, the table provides the current understanding of the remaining masses yet to be addressed. Some of the components still are being estimated and are listed as to be determined (TBD).

Table 2. Cumulative TCE Removed and Remaining TCE Estimate at Paducah

Source Area	Cumulative TCE Removed (gal)*	Remaining TCE Estimate (gal)
Northwest Plume Pump-and-Treat	2,470	TBD
Northeast Plume Pump-and-Treat	260	TBD
C-400 Six-Phase Treatability Study	1,900	N/A
C-400 Phase I	580	TBD
C-400 Phase II	0	500–20,000**
Dissolved-Phase Plume	N/A	1,600
Other sources (i.e., SWMU 91-LASAGNA)	246	TBD
Total	5,456	2,100–21,600

* Cumulative through December 31, 2010.
** Ongoing sampling at C-400 will determine TCE remaining in the C-400 area to be treated.

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FEDERAL FACILITY AGREEMENT
SEMIANNUAL REPORT
FIRST HALF OF FISCAL YEAR 2011

Facility: Paducah Gaseous Diffusion Plant
Plant EPA I.D. No.: KY8-890-008-982
Reporting Period: 10/01/2010–3/31/2011

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):

- Completed Phase I remediation. Remedial goals were achieved in the Phase I east and southwest treatment areas.
- Completed demolition/removal of the Phase I treatment system areas and began site restoration activities.
- Completed Phase I postoperation sampling.
- Developed and submitted to EPA and Kentucky a Field Sampling Plan (FSP) for the Phase II treatment area to improve confidence in TCE mass calculations on November 23, 2010. Kentucky approved the document on March 14, 2011; EPA approved it on March 16, 2011.
- Completed evaluation of the Phase I lessons learned. Based on results of the lessons learned evaluation, DOE recommended to the FFA Managers on January 20, 2011, to split Phase II into Phase IIa, Upper Continental Recharge System (UCRS), and Phase IIb, Regional Gravel Aquifer (RGA), and to proceed with the use of electrical resistance heating (ERH) in the UCRS, while evaluating alternate technologies for the RGA.
- Continued evaluating technologies for remediation of contaminates in the Phase II RGA.
- Continued Phase II ERH design for the UCRS remediation changes based on the Phase I lesson learned.
- Continued groundwater monitoring for the C-400 project required by the *Remedial Action Work Plan for the Interim Remedial Action the Volatile Organic Compound Contamination at the C-400 Cleaning Building at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky*, DOE/LX/07-0004&D2/R2. The results of groundwater monitoring for the April 1, 2010, through September 30, 2010, reporting period are included as Appendix E of this report. The results of the groundwater monitoring for the October 1, 2010, through April 1, 2011, reporting period will be included in the October 2011 report.

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

- Complete Phase II TCE mass confirmation sampling.

- Complete the evaluation of technologies for remediation of the Phase II RGA and select an alternative to replace ERH.

- Develop path forward for Phase II and obtain FFA parties' concurrence on path forward.

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

Responsibility for the day-to-day operations of the GWOU belongs to LATA Environmental Services of Kentucky, LLC, (LATA Kentucky) as the DOE prime remediation contractor at the PGDP. In addition, LATA Kentucky provides programmatic and technical support, analytical services, and business management services. Swift and Staley Mechanical Contractors, Inc., (SST) manages the Administrative Record and the Environmental Information Center.

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

The requirements are being met for the GWOU C-400 action subproject.

V. Primary/Secondary Document Tracking System:

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

The FSP has been under development and EPA and Kentucky review during this period.

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

Not applicable.

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

ERH did not reach target temperature in the lower RGA; this is being evaluated and may require significant changes to the design and possibly the method of accomplishment.

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 managers, FFA Senior Managers, local elected officials, and congressional staff.

VIII. Changes in relevant personnel:

None.

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

The total O&M cost for the reporting period was approximately $2.3M. O&M for Phase I was completed in December 2010.

FEDERAL FACILITY AGREEMENT
SEMIANNUAL REPORT
FIRST HALF OF FISCAL YEAR 2011

Facility: Paducah Gaseous Diffusion Plant
Plant EPA I.D. No.: KY8-890-008-982
Reporting Period: 10/01/2010–3/31/2011

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):

- Developed and issued on January 30, 2011, a revised D1 version of the *Revised Focused Feasibility Study for Solid Waste Management Units 1, 211A, and 211B Volatile Organic Compound Sources for the Southwest Groundwater Plume* (FFS).

- Developed the *Revised Proposed Plan for Solid Waste Management Units 1, 211A, 211B, and Part of 102 Volatile Organic Compound Sources for the Southwest Groundwater Plume* (PP). Issued on February 22, 2011, a D1 Revised PP that included utilizing Alternative 8 (Enhanced Bioremediation) at the Oil Landfarm and Alternative 2 (Long-Term Monitoring) at the C-720 Building sites.

- Received EPA and Kentucky comments on the Revised FFS and Revised PP March 17, 2011, and March 18, 2011, respectively.

- Initiated revision of the Revised FFS and Revised PP for incorporating D1 comments received and issuing D2 versions of each report.

- Initiated development of the Revised Record of Decision for Solid Waste Management Units 1, 211A, 211B, and Part of 102 Volatile Organic Compound Sources for the Southwest Groundwater Plume (ROD).

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

- Work with EPA and Kentucky to develop a mutually agreeable path forward for the selection of the applicable remedial alternatives to the three SWMU source areas.

- Prepare and issue D2 Revised FFS to EPA and Kentucky.

- Prepare and issue a D2 Revised PP to EPA and Kentucky.

- Issue for approval Revised PP for public review and comment.

- Complete preparation and submit a D1 Revised ROD to EPA and Kentucky.

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

Responsibility for the day-to-day operations of the GWOU belongs to LATA Kentucky, as the DOE prime remediation contractor at PGDP. In addition, LATA Kentucky also provides programmatic and technical support, analytical services, and business management services. SST manages the Administrative Record and the Environmental Information Center.

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

Development and submission of decision documents for the Southwest Plume source areas are being met consistent with the negotiated timelines as agreed to by the FFA parties. A notification of 30-day extension for the submittal of the D2 Revised Proposed Plan (PP) was submitted to EPA and Kentucky, making its due date May 16, 2011.

V. Primary/Secondary Document Tracking System:

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

- D2 Revised FFS for the Southwest Plume Sources is in preparation for issuance on May 1, 2011.
- D2 Revised PP for the Southwest Plume Sources is in preparation for issuance on May 16, 2011.

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

- EPA and Kentucky comments/approval on D2 Revised FFS for the Southwest Plume sources is anticipated by May 31, 2011.

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

The potential exists for one or more of the FFA parties to invoke informal dispute related to retention of alternatives and analysis that has been the subject of substantive comment generation during regulatory agency review of the D1 Revised FFS and D1 Revised PP, and/or associated with pending schedule extension requests related to realignment of the CERCLA document sequence.

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 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.

FEDERAL FACILITY AGREEMENT
SEMIANNUAL REPORT
FIRST HALF OF FISCAL YEAR 201`

Facility: Paducah Gaseous Diffusion Plant
Plant EPA I.D. No.: KY8-890-008-982
Reporting Period: 10/01/2010–3/31/2011

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):

None.

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

This project has been resequenced and the milestone for submittal of the D1 Remedial Investigation Work Plan has been moved from fiscal year (FY) 2012 to FY 2013. 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:

Responsibility for the day-to-day operations of the GWOU belongs to LATA Kentucky as the DOE prime remediation contractor at PGDP. In addition, LATA Kentucky provides programmatic and technical support, analytical services, and business management services. SST manages the Administrative Record and the Environmental Information Center.

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

Project implementation has been resequenced as described in Section II.

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 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.

FEDERAL FACILITY AGREEMENT
SEMIANNUAL REPORT
FIRST HALF OF FISCAL YEAR 2011

Facility: Paducah Gaseous Diffusion Plant
Plant EPA I.D. No.: KY8-890-008-982
Reporting Period: 10/01/2010–3/31/2011

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 42,981,225 gal of contaminated groundwater and achieved an operational efficiency of 97.3%. The average system treatment rate for the reporting period was 164 gal/min and was calculated assuming 100% operational uptime. Operational efficiencies for the reporting period were as follows: October 2010, 100%; November 2010, 100%; December 2010, 100%; January 2011, 100%; February 2011, 84.5%; and March 2011, 98%.

A) Process Operations:

The NEPCS consists of two extraction wells (EWs), an underground equalization (EQ) tank, transfer piping, a cooling tower for air stripping, and MW network.

B) Process Testing:

Operation of the NEPCS began February 28, 1997. As of March 31, 2011, the NEPCS has processed a total of approximately 1,157,870,000 gal of water. The monthly withdrawal volumes this reporting period are presented in Appendix A, Table A.1, of this report. This table includes a summary of the withdrawn water volumes and average daily rates.

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

Due to sample analysis time and the data assessment process, the analytical data included in this report lags operational data by three months. This report presents analytical data from July through December 2010.

Influent sample results, compared to the effluent (cooling tower shower) sample results, indicated that TCE was effectively removed below the operational goal of 5 micrograms/liter (µg/L). The influent flow is a composite from two EWs. Influent TCE analytical data from 1997 through the end of December 2010 are presented in Appendix B, Figure B.1. Environmental samples were collected monthly from the treatment system influent and effluent for the period of July through December 2010. High, low, and average influent and effluent TCE concentrations for these months are presented in Table 3. Values reported as less than the reporting limit of 1 µg/L are considered to be 1 µg/L for averaging and graphing purposes.

Table 3. TCE Concentrations for Northeast Plume

	TCE (µg/L)		
	High	**Low**	**Average**
Influent (EQ Tank)	200	170	184
Effluent (Cooling Tower Effluent)*	< 1	< 1	< 1

* For the purpose of determining efficiency, a reading of < 1 is assumed to be zero.

As presented in Table 2, the NEPCS continued to remove TCE effectively. The system operated with an average removal efficiency of approximately 100% for TCE. All effluent TCE samples showed less than the reporting limit.

The EWs were sampled quarterly during this reporting period. The results of the sampling showed no significant change in TCE levels since the last reporting period. Extraction well EW331 had an average TCE concentration of 165 µg/L, while EW332 had an average concentration of 213 µg/L.

Concentrations of Tc-99 in water samples collected from the EQ tank did not exceed shut down action level of 3,600 pCi/L. The highest Tc-99 concentration from the EQ tank was 42.6 pCi/L.

D) Maintenance Activities:

Routine Maintenance Activities:

Daily, monthly, quarterly, and annual routine maintenance activities were conducted in accordance with the *Paducah Plume Operations Maintenance, Calibration, and Testing Plan*, PAD-ENM-001, September 2010.

Instances of downtime occurred during the reporting period relating to power outages, routine maintenance, and calibration of system components.

Nonroutine Maintenance Activities:

At approximately 1600 hours on Thursday, February 24, 2011, the NEPCS was removed from service. Routine calibration and maintenance checks conducted on the pressure switches (PSL/PAL-7A and PSL/PAL-7B) on the effluent lines at the C-637-2A and C-637-2B cooling towers identified the switches were not functioning as designed. The switches are installed to monitor the pressure of the contaminated groundwater in the transfer line to the C-637 Cooling Tower (tower A or B). If the operating pressure of the line gets to 1 to 3 psi, the pressure switch is designed to send a low pressure alarm to the C-614 control panel and shut down the NEPCS (EW pumps and transfer pump will stop). This did not happen during calibration checks. These checks are performed quarterly, and the last check was successfully conducted on December 29, 2010. A work request to repair the problem with the pressure switches was prepared immediately and troubleshooting efforts were initiated. At approximately 1500 hours on Tuesday, March 1, 2011, the NEPCS was returned to service. The pressure switch on the C-637-2A side of the cooling tower was replaced. The low pressure limit on the pressure switch was established at 10 psi. The previous pressure limit on the original pressure switch was 1 psi, plus or minus 1 psi. The normal operating pressure of the effluent pipe line at the cooling towers is 18 to 22 psi. Because of the increase in the

lower pressure limit, the cooling tower now will shut down if the pressure in the effluent line gets to 10 psi rather than 1 psi; thus, it is more conservative, and the system will shut down sooner if there were a leak. The pressure switch on the C-637-2B side of the cooling tower was inspected, and it was determined to be nonrepairable. A replacement pressure switch for the C-637-2B cooling tower side has been ordered and will be installed in May 2011.

E) Effectiveness Monitoring—Monitoring Well Results:

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

MW292 is located approximately 1,200 ft upgradient of the pumping wells to provide an early detection point for Tc-99 migration. During the third and fourth quarters of calendar year 2010, Tc-99 activity at MW292 was 50.7 and 36.4 pCi/L, respectively.

F) Modification of the NEPCS Operations or Configuration:

No modifications were made to the NEPCS operation or configuration during the reporting period.

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

- The project team will continue to conduct and document the necessary tasks required for equipment maintenance, calibration, and operations, as specified within the *Operations and Maintenance Plan for the Northeast Plume Containment System Interim Remedial Action at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky*, DOE/OR/07-1535&D3.

- The project team will conduct an analysis of the existing Northeast Plume extraction and treatment system based on information from new monitoring locations installed as part of the environmental monitoring system upgrade performance system and the goals of the interim ROD to identify and assess potential options for Northeast Plume optimized system configuration and operation.

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

Responsibility for the day-to-day operations of the NEPCS belongs to LATA Kentucky as the DOE prime remediation contractor at PGDP. In addition, LATA Kentucky also provides programmatic and technical support, analytical services, and business management services. SST manages the Administrative Record and the Environmental Information Center.

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

The effluent concentration goal of 5 µg/L for TCE was met during the reporting period. The NEPCS remained operational 97.3% 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):

No future operational problems or delays are anticipated.

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:

Actual costs for O&M of the Northwest/Northeast Plume facilities are tracked jointly. The total operating cost for the reporting period was $312,000.

FEDERAL FACILITY AGREEMENT
SEMIANNUAL REPORT
FIRST HALF OF FISCAL YEAR 2011

Facility: Paducah Gaseous Diffusion Plant
Plant EPA I.D. No.: KY8-890-008-982
Reporting Period: 10/01/2010–3/31/2011

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 49,793,990 gal of contaminated groundwater with an average monthly operational efficiency of 89.9 %. The average system treatment rate for the reporting period was 190 gal/min and was calculated assuming 100% operational uptime. Operational efficiencies for the reporting period were as follows: October 2010, 67.7%; November 2010, 95.8%; December 2010, 93.2%; January 2011, 100%; February 2011, 100%; and March 2011, 83.9%.

- DOE conducted hydraulic monitoring and testing from September 27, 2010, to October 21, 2010, as part of hydraulic performance testing for the optimized NWPGS.

- DOE received approval of 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, from Kentucky on October 4, 2010, and concurrence from EPA on October 8, 2010.

- DOE responded to comments from EPA and Kentucky on the *Explanation of Significant Differences to the Record of Decision for Northwest Plume at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky,* DOE/LX/07-0343&D1, and issued the D2 to EPA and Kentucky on December 8, 2010.

- DOE received approval of the *Explanation of Significant Differences to the Record of Decision for Northwest Plume at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky,* DOE/LX/07-0343&D2, *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, from Kentucky on January 4, 2011, and EPA approval on January 27, 2011.

- DOE conducted quarterly sampling of 22 MWs associated with effectiveness monitoring for the optimized NWPGS in December 2010 and March 2011.

- On January 12, 2011, informational copies of the *Postconstruction Report for the Northwest Plume Optimization at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky,* DOE/LX/07-0359&D1, were transmitted to EPA and Kentucky.

- DOE is conducting a performance assessment analysis of the optimized NWPGS, including analysis of hydraulic monitoring and testing and chemical monitoring of groundwater as

described 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.

A) Process Operations:

The NWPGS previously consisted of two EW fields (north and south with each field having two EWs), for a total of four wells, underground pipeline, treatment facility, and MW network. In August 2010, two new EWs (EW232 and EW233) became operational in the south well field near the north fence line of PGDP. The north well field EWs (EW228 and EW229) were removed from service in August 2010, and the new EWs were placed into operation at that time. EW230 and EW231, also located in the south well field, are kept in standby mode and will be returned to service, as needed.

B) Process Testing:

Operation of the NWPGS began on August 28, 1995. As of March 31, 2011, the NWPGS has processed a total of 1,563,160,000 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 2010.

The influent sample results, compared to the NWPGS effluent results, indicated that the NWPGS continues to effectively remove TCE and Tc-99. Influent and effluent TCE and Tc-99 analytical data are presented in Appendix B on Figures B.13, B.14, B.16, and B.17, respectively.

TCE values reported as less than the reporting limit of 1 µg/L are considered to be 1 µg/L for averaging and graphing purposes. High, low, and average influent and effluent TCE and Tc-99 concentrations from July through December 2010 are presented in Table 4.

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

	TCE (µg/L)			Tc-99 (pCi/L)		
	High	**Low**	**Average**	**High**	**Low**	**Average**
Influent	4,900	700	2,845	623	213	375
Effluent	8.5	1.0	3.75	75.2	14.9	37.1

The treatment system influent, a composite from two to four EWs, was sampled weekly in July and August and changed to monthly in September 2010. The effluent was sampled daily during the first three months (September, October, and November of 2010) after startup of EW232 and EW233. The effluent sampling frequency was changed to weekly in December 2010, because the treatment operational goals were met. These sampling changes were conducted in accordance

with the revised O&M Plan for the Northwest Plume Groundwater System IRA D4/R5, which DOE submitted on September 13, 2010. As presented in Table 3, the NWPGS continued to effectively remove TCE and Tc-99. The system operated with an average removal efficiency of 99.87% for TCE and 90.0% for Tc-99.

The average TCE effluent concentration for this reporting period was 3.75 µg/L, which is less than the treatment goal of 5 µg/L. The average Tc-99 effluent value was 37.1 pCi/L, which is less than the operational goal of 900 pCi/L, during the reporting period.

High, low, and average sample results for this reporting period at the EWs are shown in Table 5. EWs 228 and 229 were removed from operation in August 2010. These wells are not physically tied into the Northwest Plume Treatment Facility and no longer are sampled. EWs 230 and 231 also were removed from operation in August 2010. These wells, however, were sampled in July and December 2010. These wells have been placed in standby and will be sampled quarterly when they are operational. EWs 228 and 229 were sampled once during the reporting period (July 2010). EWs 232 and 233 were sampled monthly in accordance with the revised O&M Plan for the Northwest Plume. After six months of monthly sampling, these wells will be sampled on a quarterly basis.

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

	TCE (µg/L)			Tc-99 (pCi/L)		
	High	**Low**	**Average**	**High**	**Low**	**Average**
EW228	3.1	3.1	3.1	-24.6	-24.6	-24.6
EW229	6.8	6.8	6.8	-26.4	-26.4	-26.4
EW230	9200	5300	7833	1060	674	915
EW231	320	210	247	101	39.6	60.7
EW232	12000	4400	7567	1210	433	766
EW233	720	130	283	336	234	276

D) Treatment Media:

Ion Exchange Resins:

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

Activated Carbon Media:

The NWPGS is equipped with two carbon columns containing granular activated carbon for adsorption of volatile organic compounds from the vapor-phase effluent of the air stripper unit. The carbon in each column is replaced routinely. The carbon in both columns was replaced on March 16, 2011, with new and recycled carbon. The current inventory of

recycled carbon has been depleted and the purchase of additional virgin carbon will be required.

E) Maintenance Activities:

Routine Maintenance Activities:

Daily, monthly, quarterly, and annual routine maintenance activities were conducted in accordance with the *Paducah Plume Operations Maintenance, Calibration, and Testing Plan,* PAD-ENM-0001, September 2010. Instances of minor downtime occurred during the reporting period relating to power outages, maintenance, and calibration of the system.

Nonroutine Maintenance Activities:

1. On October 1, 2010, at 0800 hours through October 11, 2010, at 0830 hours, the NWPGS was removed from service to support a 10-day shutdown of the extraction pumps to assess hydraulic effectiveness of the system. The O&M Plan outlines a 23-day test, three of which are pre-shutdown monitoring, 10 days are Phase I with the pumps shut down, and 10 days are Phase II with the pumps in operation

2. On November 29, 2010, at approximately 1930 hours, an electrical storm caused loss of power and caused damage to the NWPGS. Damages were identified at the K-100 control panel, backwash tank level indicator, and the variable frequency drive (VFD) for EW232. Repairs to the C-612 Treatment Facility were completed, power was restored, and the NWPGS was restarted at 0600 on December 2, 2010, using EW230, EW231, and EW233. Repair of the EW232 VFD was delayed until a replacement VFD could be obtained.

3. On December 14, 2010, a replacement VFD was installed at EW232. The well operated approximately one hour and shut down. During the installation of the VFD on EW232, EW233 also was removed from service to remove two jumpers from the control board. These changes were recommended by the parts manufacturer. After completion of this work, EW233 would not restart. At approximately 1600 hours on December 14, 2010, the NWPGS was shutdown because of the operating problems with EW232 and EW233. The NWPGS cannot consistently run operating only EW230 and EW231, as they do not provide sufficient quantities of water, and the system would start and stop continually. Repairs to EW233 were completed on December 15, 2010, and the NWPGS was restarted at 1300 hours utilizing EW230, EW231, and EW233. The problem identified with EW233 was a faulty communication card at the well control panel. Additional troubleshooting tests also were conducted on EW232, and it was determined that the problem was related to the pump or motor in the well. This diagnosis was confirmed when a test motor was connected directly to the VFD and operated correctly.

4. On December 27, 2010, the pump and motor to EW232 was replaced. EW232 and EW233 were operated, with each pumping approximately 110 gal per minute. The faulty 25 hp well motor in EW232 was covered by the manufacturer's warranty and a new motor was provided.

5. On March 10, 2011, at approximately 1600 hours, the NWPGS was removed from service to support United States Enrichment Corporation (USEC) electrical maintenance

to perform preventive maintenance. The facility was restarted at 0630 hours on March 15, 2011.

F) Effectiveness Monitoring—Monitoring Well Results:

Figures B.18.through B.23 presented in Appendix B, show TCE and Tc-99 concentrations in MWs at the south and north fields of the Northwest Plume and the EWs, respectively. These graphs show all data since monitoring began in 1995 and indicate the position of the MWs relative to the extraction. Figure B.11, included in Appendix B, shows locations of the Northwest Plume monitoring wells. Figure B.12 shows the location of the MWs with the top of McNairy topography. Figure B.15 includes a summary of the TCE removed since the Northeast Plume system began operations in 1995.

G) Modification of the NWPGS Operations or Configuration:

The new EWs, EW232 and EW233, became operational on August 24, 2010. These EWs supplant the existing EWs for recovery of TCE contaminated groundwater from the Northwest Plume. Each of the new wells has a design capacity of 220 gal per minute and is operated full time. EW228 and EW229 have been disconnected from the Northwest Plume Treatment facility. EW230 and EW231 will be kept in standby mode and can be operated, as needed.

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

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

Hydraulic and chemical effectiveness monitoring, as described in the D4/R5 O&M Plan for the Northwest Plume Groundwater System IRA will be initiated during the reporting period.

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

Responsibility for the day-to-day operations of the NWPGS belongs to LATA Kentucky as the DOE prime remediation contractor at PGDP. In addition LATA Kentucky provides programmatic and technical support, analytical services, and business management services. SST manages the Administrative Record and the Environmental Information Center.

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 remained operational 89.9% 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, 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:

In correspondence dated October 12, 2010, from the Kentucky Division of Water (KDOW), KDOW rescinded water withdrawal permit #1345, effective October 12, 2010. KDOW acknowledged that the previously issued water use permit was exempt under 42 U.S.C. § 9621. As a result, the water withdrawal reports to KDOW have been discontinued. A summary of the monthly withdrawal volumes for the reporting period are presented in Appendix A, Table A.2, of this report.

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 $312,000.

FEDERAL FACILITY AGREEMENT
SEMIANNUAL REPORT
FIRST HALF OF FISCAL YEAR 2011

Facility: Paducah Gaseous Diffusion Plant
Plant EPA I.D. No.: KY8-890-008-982
Reporting Period: 10/01/2010–3/31/2011

BURIAL GROUNDS OPERABLE UNIT

The scope of the Burial Grounds Operable Unit (BGOU) includes an Remedial Investigation (RI), Baseline Human Health Risk Assessment, evaluation of remedial alternatives, remedy selection, and implementation of actions, as necessary, for protection of human health and the environment for the following burial grounds: C-749 [Solid Waste Management Unit (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); C-746-P/P1 Scrap Yard (SWMU 13); the residential/inert borrow area (SWMU 145); and the C-746-S&T Landfills (SWMUs 9 and 10).

In addition, DOE conducted a site investigation for the C-746-P/P1 Scrap Yard (SWMU 13) under the BGOU Project.

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

The parties have agreed that SWMU 4 will be addressed as a remedial action and DOE will not accelerate implementation of SWMU 4 excavation as a removal action. As a result, the SWMU 4 Removal Action section of this report will be removed during the next reporting period.

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FEDERAL FACILITY AGREEMENT
SEMIANNUAL REPORT
FIRST HALF OF FISCAL YEAR 2011

Facility: Paducah Gaseous Diffusion Plant
Plant EPA I.D. No.: KY8-890-008-982
Reporting Period: 10/01/2010–3/31/2011

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); the C-746-S&T Landfills (SWMUs 9 and 10); and A Site Investigation for the C-746-P/P1 Scrap Yard (SWMU 13)

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

- DOE submitted a 30-day schedule notification for submittal of the BGOU D2 Feasibility Study (FS), extending the submittal date from November 1, 2011, to December 3, 2010.
- Submitted the BGOU D2 FS to EPA and Kentucky on December 3, 2010, for review and approval.
- Developed the BGOU D1 PP.
- Developed the SWMU 13 Site Evaluation Report (SER).

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

- Resolve the BGOU informal dispute and continue FS development per the terms of the dispute resolution agreement.
- Develop and submit the SWMU 13 SER to EPA and Kentucky by July 22, 2011.

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

Responsibility for the day-to-day operations of BGOU belongs to LATA Kentucky as the DOE prime remediation contractor at PGDP. In addition, LATA Kentucky also provides programmatic and technical support, analytical services, and business management. SST manages the Administrative Record and the Environmental Information Center, and maintains existing burial ground caps.

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

During this reporting period, the FFA parties resolved the November 9, 2010, informal dispute and agreed to modify the following BGOU milestone dates as shown in Table 6. Prior to this modification, the D1 PP was due for submittal to EPA and Kentucky prior to approval of the D2 FS.

Table 6. BGOU Milestone Dates

Deliverable	Previous Due Date	Revised Due Date
D1 PP	10/24/2010	2/28/2011
D1 ROD	10/11/2011	12/16/2011
D1 Remedial Design Work Plan	12/28/2011	03/12/2012

On January 14, 2011, DOE received a nonconcurrence on the BGOU D2 FS and notice of invocation of informal dispute from EPA. On January 31, 2011, Kentucky followed suit with nonconcurrence on the BGOU D2 FS. The informal dispute resolution period has been extended to May 15, 2011, to allow the parties sufficient time to resolve the dispute. The informal dispute resolution includes a meeting among the parties scheduled to begin April 18, 2011, to address the comments on the FS. To support the informal dispute resolution process, the parties are considering dividing the current FS into smaller documents by grouping SWMUs. If agreement is reached, subsequent FS documents would be submitted for each of the designated SWMU groups.

Subsequent to this agreement, and as part of the informal dispute, the FFA managers also agreed to extend the submittal date for the BGOU D1 PP from February 28, 2011, to a future date that will be documented in the BGOU dispute resolution agreement.

V. Primary/Secondary Document Tracking System:

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

- EPA and Kentucky reviewed the BGOU D2 FS Report.
- The BGOU D1 PP was prepared during this reporting period; however, this document was not submitted for EPA and Kentucky review due to the informal dispute resolution invoked on the D2 FS.

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

- The informal dispute resolution period is scheduled to end May 15, 2011.
- The SWMU 13 D1 SER is due to EPA and Kentucky on July 22, 2011.

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

- As noted above, the BGOU (D2) FS is in informal dispute. The informal dispute resolution includes a meeting among the parties scheduled to begin April 18, 2011, to address the comments on the FS. To support the informal dispute resolution process, the parties are considering dividing the current FS into smaller documents by grouping SWMUs. If agreement is reached, subsequent FS documents would be submitted for each of the agreed to SWMU groups and new milestone submittal dates established.

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 managers, FFA senior managers, local elected officials, and congressional staff.

VIII. Changes in relevant personnel:

Lisa Santoro replaced Jeff Snook as DOE's Project manager for the overall BGOU Project.

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

None.

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FEDERAL FACILITY AGREEMENT
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Facility: Paducah Gaseous Diffusion Plant
Plant EPA I.D. No.: KY8-890-008-982
Reporting Period: 10/01/2010–3/31/2011

BURIAL GROUNDS OPERABLE UNIT PROJECT: C-747/C-748-B (SWMU 4)

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

- Developed a D2 Engineering Evaluation/Cost Analysis (EE/CA).
- Developed D2 Draft Removal Action Work Plan (RAWP) Phase I.
- Developed D1 Action Memorandum (AM).
- Developed Draft D1 RAWP (Phase 2).
- Continued development of an FSP to support the design of the removal/remedial action.
- Held scoping meeting with regulators on the SWMU 4 FSP.

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

The parties agreed that SWMU 4 will be addressed as a remedial action. As a result, no additional activity will occur in support of this removal action, and the documents in Section I have been placed on hold, except for the SWMU 4 FSP.

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

Responsibility for the day-to-day operations of SWMU 4 belongs to LATA Kentucky as the DOE prime remediation contractor at PGDP. In addition, LATA Kentucky provides programmatic and technical support, analytical services, and business management. SST manages the Administrative Record and the Environmental Information Center, and maintains existing burial ground cover.

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

The parties agreed that SWMU 4 will be addressed as a remedial action. As a result, no additional activity will occur in support of this removal action, and the documents in Section I have been placed on hold, except for the SWMU 4 FSP.

V. Primary/Secondary Document Tracking System:

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

- The RAWP (Phase 1 and Phase 2) has been under development during this reporting period.

- The AM has been under development during this reporting period.

- The D2 EE/CA has been under development during this reporting period.
- The FSP to support the design of the removal/remedial action has been under development during this reporting period.

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

The parties agreed that SWMU 4 will be addressed as a remedial action. As a result, no additional activity will occur in support of this removal action, and the documents in Section V have been placed on hold, except for the SWMU 4 FSP.

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

The parties agreed that SWMU 4 will be addressed as a remedial action. As a result, no additional activity will occur in support of this removal action, and the documents in Section I and Section V have been placed on hold, except for the SWMU 4 FSP.

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
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Facility: Paducah Gaseous Diffusion Plant
Plant EPA I.D. No.: KY8-890-008-982
Reporting Period: 10/01/2010–3/31/2011

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):

Groundwater monitoring continued 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 for the April 1, 2010, through September 30, 2010, have been included as part of this report. The results of the groundwater monitoring of the groundwater monitoring for October 1, 2010, through March 31, 2011, reporting period are unavailable at this time and will be included in the October 2011 report.

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:

Responsibility for the day-to-day operations of C-749 Uranium Burial Ground belongs to LATA Kentucky as the DOE prime remediation contractor at PGDP. In addition, LATA Kentucky provides programmatic and technical support, analytical services, and business management. SST manages the Administrative Record and the Environmental Information Center, 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.

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

None.

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

None.

VIII. Changes in relevant personnel:

None.

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

Sampling of the C-749 Uranium Burial Ground has been incorporated into the Environmental Monitoring Program. O&M cost is approximately $1,000.00 per year.

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Facility: Paducah Gaseous Diffusion Plant
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SURFACE WATER OPERABLE UNIT

The Surface Water OU (SWOU) includes the Surface Water Removal Action and Surface Water Remedial Action projects. Additionally, O&M is performed on North-South Diversion Ditch Sections 1 and 2 and institutional controls, as required by the *Operations and Maintenance Plan for Sections 1 and 2 of the North-South Diversion Ditch*, DOE/OR/07-2057&D2, and *Operations and Maintenance Plan for the Surface Water Operable Unit at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky*, DOE/OR/07-1904&D1; and O&M activities for the C-613 Basin are done in accordance with the *Operations and Maintenance Plan for the Northwest Storm Water Collection Basin at the Paducah Gaseous Diffusion Plant, Paducah, Kentucky*, DOE/OR/07-2044&D1/R4, respectively. Inspection reports are filed in the Document Management Center, managed by SST. The estimated annual cost of this O&M is $84,000.

Per the *Operations and Maintenance Plan for the Northwest Storm Water Collection Basin 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. No change in the existing linear regression model has occurred since July 2009 and the current maximum discharge limit for turbidity is 53 NTU with a 30-day average not to exceed 29 NTU.

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Facility: Paducah Gaseous Diffusion Plant
Plant EPA I.D. No.: KY8-890-008-982
Reporting Period: 10/01/2010–3/31/2011

SURFACE WATER OPERABLE UNIT PROJECT: Removal Action

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

- Completed excavation of the "seam" at Outfall 015, EU7, and RU16 on September 16, 2010.
- Shipped the final five remaining bags of soils and associated waste for disposal at Clive, Utah. This completed all disposal activities.
- Submitted the D1 version of the SWOU Removal Action Report (RAR) to EPA and Kentucky on October 22, 2010, for review and approval.
- Developed D2 SWOU RAR.
- Completed maintenance action to address erosion along Outfall 015 on March 30, 2011.

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

Monitor maintenance action areas for effectiveness.

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

Responsibility for the day-to-day operations of the SWOU Removal Action belongs to LATA Kentucky as the DOE prime remediation contractor at PGDP. In addition, LATA Kentucky provides programmatic and technical support, analytical services, and business management. SST manages the Administrative Record and the Environmental Information Center.

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

This project is currently on schedule.

V. Primary/Secondary Document Tracking System:

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

The D1 SWOU RAR has been under development and EPA and Kentucky review during this reporting period.

The D2 SWOU RAR is has been under development during this reporting period.

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

The D2 SWOU RAR was submitted to EPA and Kentucky on April 4, 2011. Responses from EPA and Kentucky are due 30 days after submittal or May 4, 2011.

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 managers, FFA Senior Managers, local elected officials, and congressional staff.

VIII. Changes in relevant personnel:

None.

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

Total maintenance action costs are not yet available.

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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):

Held scoping discussions with regulators as follows:

- Participated in a conference call with the SWOU RI scoping team on October 12, 2010.

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

The D1 SWOU RI Work Plan is due to EPA and Kentucky on July 11, 2011.

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

Responsibility for the day-to-day operations of the SWOU Remedial Action belongs to LATA Kentucky, as the DOE prime remediation contractor at the PGDP. In addition, LATA Kentucky provides programmatic and technical support, analytical services, and business management. SST manages the Administrative Record and the Environmental Information Center.

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

Project is on schedule based upon revised Surface Water Remedial Action completion date to December 13, 2017.

V. Primary/Secondary Document Tracking System:

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

The SWOU RI Work Plan is currently under preparation.

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

The D1 SWOU RI Work Plan is due to EPA and Kentucky on July 11, 2011.

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

Based upon target funding for the Paducah Site, the Surface Water Remedial Action completion date of December 13, 2017, is in jeopardy. DOE has requested over-target funding in order to

meet this out-year enforceable milestone. Currently, no delays are anticipated with development of the SWOU RI Work Plan, and a D1 currently is on schedule for submittal to EPA and Kentucky on July 11, 2011.

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 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.

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Reporting Period: 10/01/2010–3/31/2011

SOILS OPERABLE UNIT

The Soils OU (SOU) is being implemented in a phased approach (i.e., pre-GDP shutdown and post-GDP shutdown). The SOU consists of 86 SWMUs/areas of concern; three inactive [C-218 Firing Range (SWMU 181), C-403 Neutralization Tank (SWMU 40), C-410-B HF Neutralization Lagoon (SWMU 19)]; and the soil/rubble areas that have been identified to date. Prior to GDP shutdown, the SOU will focus on accessible plant surface soils (ground surface to 10 ft below ground surface and 16 ft below ground surface in the vicinity of pipelines) not associated with PGDP operations. Following PGDP shutdown, slabs and underlying soils associated with facilities that have undergone Decontamination and Decommissioning (D&D) will be addressed as part of a subsequent action (e.g., post-GDP shutdown for the Soils and Slabs OU).

Due to interferences from ongoing USEC operations, implementation of the response action pursuant to an approved Action Memorandum (*Action Memorandum for Soils Operable Unit Inactive Facilities*, DOE/LX/07-0121&D2/R1) for SWMU 40 will occur after GDP shutdown. Implementation of the SWMU 40 response will be reinstituted with development, review, and approval of an RAWP.

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Reporting Period: 10/01/2010–3/31/2011

SOILS OPERABLE UNIT PROJECT: Remedial Action

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

- Received approval of the D2/R2 SOU RI/FS Work Plan from EPA on October 6, 2010.
- Completed biased radiological surface sampling based on the D2/R2 SOU RI/FS Work Plan on October 28, 2010.
- Submitted the D1 Sitewide Evaluation Work Plan (SEWP) to Kentucky and EPA on December 15, 2010.
- Developing the D2 SEWP for submittal to Kentucky and EPA. Received Kentucky comments on March 14, 2011; EPA comments received April 6, 2011.
- Developing the D1 SOU RI Report for submittal to Kentucky and EPA by July 20, 2011.
- Submitted three data summary packages for the RI field results to Kentucky and EPA. Met with Kentucky and EPA and solicited feedback from January 5, 2011, through February 24, 2011.

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

- Develop the D2 SEWP for submittal to Kentucky and EPA.
- Develop the D1 Sitewide Evaluation Report for submittal to Kentucky and EPA by August 30, 2011.
- Develop the D1 SOU RI Report for submittal to Kentucky and EPA by July 20, 2011.

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

Responsibility for the day-to-day operations of the SOU RI belongs to LATA Kentucky, as the DOE prime remediation contractor at the PGDP. In addition, LATA Kentucky provides programmatic and technical support, analytical services, and business management. SST manages the Administrative Record and the Environmental Information Center.

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

DOE issued a D2/R2 SOU RI Work Plan on June 24, 2010. Multiple extensions for document reviews and submittals have been requested by EPA, Kentucky, and DOE. Extension requests have impacted due dates for documents and impacted project milestones. The project is approximately 12 months behind schedule due to the previously mentioned extension delays prior to and during this reporting period.

V. Primary/Secondary Document Tracking System:

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

- DOE prepared and submitted the D2/R2 SOU RI/FS Work Plan to Kentucky and EPA for final review and approval on September 23, 2010.
- DOE submitted the D1 SEWP to EPA and Kentucky on December 15, 2010, for their review and approval. Received Kentucky comments on March 14, 2011; receipt of EPA comments received April 6, 2011.
- DOE continues developing the D1 SOU RI Report for submittal to Kentucky and EPA.

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

DOE issued the D1 SEWP to EPA and Kentucky as a secondary document with a requested 45-day review and comment period per the FFA. Comments were due on March 15, 2011.

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

DOE requested a milestone extension for the RI Report and subsequent documents based upon delays of approval of the Soils RI/FS Work Plan. The milestone extension was approved for 120 days, and new milestone dates were established and documented in the SMP.

In addition, based upon target funding for the Paducah Site, the Soils Remedial Action completion date of March, 22, 2016, is in jeopardy. DOE has requested over-target funding in order to work this out-year enforceable milestone.

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 managers, FFA Senior Managers, local elected officials, and congressional staff.

VIII. Changes in relevant personnel:

Lisa Santoro replaced Rob Seifert as DOE's Project Manager for the SOU Project.

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

None.

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SOILS OPERABLE UNIT PROJECT: Soils Inactive Facilities

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

DOE submitted the D2 RAR for SOU Inactive Facilities SWMUs 19 and 181 on October 22, 2010. Received approval from Kentucky and EPA on October 27, 2010.

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

None.

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

Responsibility for the day-to-day operations of the Soils Inactive Facilities belongs to LATA Kentucky, as the DOE prime remediation contractor at PGDP. In addition, LATA Kentucky provides programmatic and technical support, analytical services, and business management. SST manages the Administrative Record and the Environmental Information Center.

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

The project is now completed.

V. Primary/Secondary Document Tracking System:

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

DOE developed and submitted the D2 RAR for SOU Inactive Facilities SWMUs 19 and 181, which was reviewed and approved by EPA and Kentucky during the reporting period.

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

DOE received approval of the D2 RAR from Kentucky and EPA on October 27, 2010.

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 managers, FFA Senior Managers, local elected officials, and congressional staff.

VIII. Changes in relevant personnel:

Lisa Santoro replaced Rob Seifert as DOE's Project Manager for the SOU Project.

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

None.

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SOILS OPERABLE UNIT PROJECT: Soil and Rubble Areas

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

- Submitted the D2/R2 SER for Addendum 1B Soil Piles based on additional sampling of six soils piles to Kentucky and EPA on September 3, 2010. Received approval on the D2/R2 SER from Kentucky on October 8, 2010. EPA previously approved the D2/R1 report on May 25, 2010.

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

None.

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

Responsibility for the day-to-day operations of the SOU soil and rubble areas belongs to LATA Kentucky, as the DOE prime remediation contractor at the PGDP. In addition, LATA Kentucky provides programmatic and technical support, analytical services, and business management. SST manages the Administrative Record and the Environmental Information Center.

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

SWMUs/AOCs identified as part of the soil/rubble pile areas scope are being addressed as part of the SOU remedial action project. The Soils and Rubble Areas project now is considered complete.

V. Primary/Secondary Document Tracking System:

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

EPA and Kentucky reviewed the D2/R2 SER during this reporting period.

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

DOE received approval of the D2/R2 SER from Kentucky on October 8, 2010. EPA approved the D2/R1 on May 25, 2010.

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 managers, FFA Senior Managers, local elected officials, and congressional staff.

VIII. Changes in relevant personnel:

Lisa Santoro replaced Rob Seifert as DOE's Project Manager for the SOU Project.

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

None.

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DECONTAMINATION AND DECOMMISSIONING OPERABLE UNIT

The D&D OU will employ the CERCLA removal action process to decommission excess buildings (i.e., inactive with no reuse potential) that have a known or potential release of contamination to the environment. Consistent with the 1995 DOE and EPA Memorandum: *Policy on Decommissioning DOE Facilities under CERCLA*, DOE will employ the CERCLA Non-Time-Critical Removal Action framework when appropriate. In instances where facilities do not have a known or potential release, DOE may decommission the facility as a non-CERCLA demolition action using National Environmental Policy Act documentation.

The remaining scope of the D&D OU prior to PGDP shutdown consists of the following inactive DOE facilities:

- C-410/420 Feed Plant Complex
- C-340 Metals Reduction Complex
- C-746-A East End Smelter

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D&D OPERABLE UNIT: C-410/420 Complex

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

I. Work performed during the reporting period (including summaries of findings and any deviations from the work plan) for the C-410/420 Complex:

- Completed demolition of the transformer shelter on the South Side of the C-410 Complex. The transformer shelter, also known as the "cattleshed," was a three-sided concrete block structure with a concrete roof.

- Submitted replacement pages to respond to verbal comments from the EPA on the D2/R1 RAWP Addendum for the C-410 Complex on October 6, 2010.

- Received Kentucky approval on the D2/R1 RAWP replacement pages on November 10, 2010, and EPA approval on November 15, 2010.

- Completed demolition preparation of 19 of 60 zones, representing approximately 53,000 ft^2 of the approximately 200,000 ft^2 C-410 Complex.

- Removed asbestos wire in conduit from Sector 4 (eastern end of the C-410 Complex) of the C-410 Complex in preparation for beginning demolition.

- Air gapped all remaining piping (piping that will remain in building during demolition) that entered Sector 4 and C-411 from the balance of the C-410 Complex. This air gapping was necessary to ensure Sector 4 structural demolition does not damage remaining portions of building.

- Removed or rerouted all temporary electrical power that entered Sector 4 and C-411 in preparation for demolition of that part of the building.

- Completed final surveys and backfilling of sumps and pits with grout in Sector 4 and C-411 in preparation for starting demolition of this portion of the building (approximately 26,000 ft^2).

- Mobilized subcontractor for performance of Sector 4 and C-411 demolition.

- Completed stabilization, removal, and packaging for disposal approximately 16,000 ft^3 of the installed piping and equipment from the C-410 Complex during the reporting period. Approximately 28,000 ft^3 of additional material requires removal for the building to be demolition ready.

- Completed removal and packaging for disposal of paper-insulated lead cable in the C-410 Complex.
- Completed stabilization of ammonia systems in C-410 Complex.
- Continued stabilization and removal of fluorine, hydrogen, and hydrogen fluoride systems.
- Designed, fabricated, and trained personnel to operate a Chemical Trap to utilize for the stabilization of UF_6 equipment. This trap is designed for the smaller piping and equipment containing UF_6.
- Competed and awarded a subcontract to a specialty subcontractor to provide expertise and equipment for stabilizing larger UF_6 piping and equipment.
- Completed removal of glycol systems in C-410 Building.
- Drained oil and removed Freon condensers in C-410 Building.
- Removed equipment and installed large ramps in Zones 44 and 28 to allow movement of heavy equipment (mobile cranes, excavators with shears, large forklifts) to the varying levels of the C-410 Complex to support equipment removal.
- Initiated operations on a second shift in the C-410 Complex. The second shift will function as a targeted team to focus on the stabilization and removal of UF_6 equipment. The UF_6 systems are considered one of the highest hazard systems to address, and performing this work on a second shift helps mitigate risks associated with UF_6 work.
- Collected characterization samples of the UF_6 tie line that exits the south side of the C-410 Complex to prepare for deactivation and demolition of that line.
- Shipped 50,000 pounds of copper bus work from the C-410 Complex to a private company licensed to handle radiological material for reuse per agreement with Paducah Area Community Reuse Organization.
- Completed characterization that indicates the majority of structural debris from Sector 4 and C-411 demolition will meet the C-746-U Landfill Waste Acceptance Criteria (WAC).
- Completed refurbishment and certification of freight elevator to move equipment and waste in the multistory C-420 Building.

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

- Initiate and complete partial demolition of the C-410 Complex, beginning on the eastern end by demolishing C-411 and Sector 4 (Zones 55-63).
- Complete stabilization and removal of fluorine systems.
- Complete installation of ramps to allow access to equipment in balance of building.
- Continue stabilization of UF_6 systems.

- Complete stabilization of hydrogen fluoride and hydrogen systems.
- Complete removal of items that potentially could be characterized as RCRA or TSCA waste from the building.
- Continue removal of the heating, ventilation, and air-conditioning system; UF_6; uranium powder; vacuum; glycol; alcohol; and ammonia systems.

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

Responsibility for the day-to-day operations of D&D belongs to LATA Kentucky, as the DOE prime remediation contractor at PGDP. In addition, LATA Kentucky provides programmatic and technical support, analytical services, and business management. SST manages the Administrative Record and the Environmental Information Center.

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. Use of American Recovery and Reinvestment Act (ARRA) funding will allow acceleration of DOE baseline schedules and SMP projected completion dates.

V. Primary/Secondary Document Tracking System:

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

D2/R1 RAWP.

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

EPA and Kentucky responses were due 30 days after DOE submittal of the D2/R1 RAWP Addendum for the C-410/420 Complex Demolition, or November 5, 2010. Approvals were received from Kentucky and EPA on November 10, 2010, and November 15, 2010, respectively.

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

Several systems are being identified with substantial chemical or radiologic hold up, which is requiring additional time and effort to stabilize.

For example, the glycol system, reported to have been drained and empty, was found to contain over 1,000 gal of glycol solution that was removed, containerized, and characterized for disposal. Large Freon condensers, planned to be left in place and demolished with the building, were found to contain significant volumes of oils, which necessitated removing the condensers to ensure all oil could be removed. The vacuum system piping in several zones was found to be full or nearly full of uranium powder, complicating the removal due to weight and ensuring control of contamination.

Substantial resources were utilized in Sector 4 to remove nonfriable asbestos-insulated wire contained in conduit. This wire had been planned to be left in the conduit and removed using

shears during demolition. The shearing of the conduit pinches the ends sealing the asbestos inside, and dust suppression activities would minimize asbestos becoming friable at the cut points. Recent WAC changes will not allow bulk container (gondola) shipment of debris containing asbestos, so this method will not be allowed. Similar wire removal is being implemented in the balance of the C-410 Complex, requiring the continued use of additional manpower.

In addition, due to funding constraints, the completion of demolition of the C-410 Complex is expected to be delayed. ARRA-funded activities continue in C-410 to complete deactivation and are scheduled to be completed during the next reporting period. At that time, the building will be placed into a safe condition until funding is available to complete structural demolition.

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

- Provided routine updates on the subproject to the Paducah Site CAB, FFA managers, FFA Senior Managers, local elected officials, congressional staff, and D&D Tri-Party Working Group.

- Developed and issued media press releases for the ARRA-related work.

VIII. Changes in relevant personnel:

None.

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

None.

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D&D OPERABLE UNIT: C-746-A East End Smelter and C-340 Metals Reduction Plant Complex

The scope of this project includes demolition of the C-746-A East End Smelter and C-340 Uranium Metals Reduction Complex, using CERCLA removal actions implemented in accordance with the FFA and consistent with the 1995 EPA and DOE Joint Policy Statement on decommissioning activities.

I. Work performed during the reporting period (including summaries of findings and any deviations from the work plan) for the C-340 Complex and C-746-A East End Smelter:

- Completed final radiological contamination survey at the former East End Smelter on November 4, 2010.
- Submitted D2 RAWP for C-340 Complex to EPA and Kentucky on October 29, 2010.
- Completed backfilling of sumps and pits and application of fixative to East End Smelter slab on November 9, 2010.
- Completed disposal of 38,110 ft^3 of debris from the East End Smelter demolition at Nevada National Site Security (NNSS). One ft^3 of hazardous waste lead fasteners was disposed of at Energy*Solutions* in Clive, UT. All waste was shipped off-site by February 28, 2011.
- Completed equipment decontamination and demobilization from East End Smelter area.
- Characterized and dispositioned decontamination wastewater from the East End Smelter project.
- Initiated development of D1 RAR for East End Smelter.

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

Develop and submit a RAR for East End Smelter to EPA and Kentucky.

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

Responsibility for the day-to-day operations of D&D belongs to LATA Kentucky, as the DOE prime remediation contractor at PGDP. In addition, LATA Kentucky provides programmatic and technical support, analytical services, and business management. SST manages the Administrative Record and the Environmental Information Center.

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. Use of ARRA funding will allow acceleration of DOE baseline schedules and SMP projected completion dates.

V. Primary/Secondary Document Tracking System:

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

Under review or review completed by regulatory agencies:.

- EPA and Kentucky completed review of the C-340-D2 RAWP.

Under development by DOE:

- D1 RAR for East End Smelter is under development.

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

EPA and Kentucky comments are due 90 days after DOE submits the D1 RAR for East End Smelter.

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

C-746-A—None.

C-340—Due to funding constraints, the initiation of demolition of the C-340 Complex is expected to be delayed. ARRA-funded activities continue in C-340 to complete deactivation and are scheduled to be completed during the next reporting period. At that time, the building will be placed into a safe condition until funding is available for the structural demolition.

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

- Provided routine updates on the subproject to the Paducah Site CAB, FFA managers, local elected officials, Congressional staff, and D&D Tri-Party Working Group.
- Developed and issued media press releases for the ARRA-related work.

VIII. Changes in relevant personnel:

None.

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

None.

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COMPREHENSIVE SITE OPERABLE UNIT

There were no reportable activities for the Comprehensive Site Operable Unit during this reporting period.

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ADDITIONAL REPORTING

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

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

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

Surface water and groundwater monitoring continued around the C-746-K Landfill and in Bayou Creek, as required by the *Record of Decision for Waste Area Groups 1 and 7 at PGDP, Paducah, Kentucky,* DOE/OR/06-1470&D3. WAGs 1 and 7 ROD requires these data to be submitted semiannually. The results of the groundwater monitoring for the, April 1, 2010, through September 30, 2010, reporting period, which were unavailable in l October 2010, have been included as part of this report.

The results of the groundwater monitoring for the October 1, 2010, through March 31, 2011, reporting period are unavailable at this time and will be included in the October 2011 report.

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

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

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

Responsibility for the day-to-day operations of WAGs 1 and 7 belongs to LATA Kentucky, as the DOE prime remediation contractor at PGDP. In addition, LATA Kentucky also provides programmatic and technical support, analytical services, and business management. SST manages the Administrative Record and the Environmental Information Center.

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

FEDERAL FACILITY AGREEMENT
SEMIANNUAL REPORT
FIRST HALF OF FISCAL YEAR 2011

Facility: Paducah Gaseous Diffusion Plant
Plant EPA I.D. No.: KY8-890-008-982
Reporting Period: 10/01/2010–3/31/2011

PROJECT: Community Relations Plan

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

DOE received approval of the CRP from Kentucky on January 5, 2010. EPA indicated that they did not have any comments on the document via e-mail correspondence on April 19, 2010. Final document is pending official approval letter from EPA.

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

Obtain final EPA approval of Revision 6 of the CRP and begin development of Revision 7 for submittal to EPA and Kentucky by September 30, 2011.

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

Responsibility for the maintenance of the CRP belongs to LATA Kentucky, as the DOE prime remediation contractor at PGDP. SST manages the Administrative Record and the Environmental Information Center.

The FFA parties have agreed to revise and submit the CRP for review and approval on a bi-annual basis (i.e., status of major projects in Chapter 2, Appendix A—Key Contacts for the PGDP, Appendix B—Public Involvement History). Biennial submittal of the CRP will begin in January of 2012 and occur every even year thereafter.

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

Not applicable.

V. Primary/Secondary Document Tracking System:

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

Revision 6 of the CRP has been under EPA review and approval during this reporting period.

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

- Revision 6 of the CRP was submitted to EPA and Kentucky for review and comment on December 3, 2009.

- DOE received approval of the CRP from Kentucky on January 5, 2010.
- EPA indicated that they did not have any comments on the document via e-mail correspondence on April 19, 2010. Final document still is pending official approval letter from EPA.
- Revision 7 of the CRP is scheduled for submittal to EPA and Kentucky by September 30, 2011.

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 managers, local elected officials, and congressional staff.

VIII. Changes in relevant personnel:

None.

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

Not applicable.

FEDERAL FACILITY AGREEMENT
SEMIANNUAL REPORT
FIRST HALF OF FISCAL YEAR 2011

Facility: Paducah Gaseous Diffusion Plant
Plant EPA I.D. No.: KY8-890-008-982
Reporting Period: 10/01/2010–3/31/2011

PROJECT: Site Management Plan

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

- On November 4, 2010, the FFA managers agreed to extend the submittal date of the D1 *Site Management Plan Annual Revision—FY 2011*, DOE/LX/07-0348&D1, by 30 days from November 15, 2010, to December 15, 2010. The extension allowed time for the FFA parties' respective senior managers to meet November 18, 2010, to discuss the budget and scheduling impacts on the Paducah Remediation Program and for the FFA managers to receive senior management feedback and guidance prior to finalization and issuance of the D1 SMP.

- Based upon feedback received from the November 18, 2010, senior manager meeting and various scoping meetings held with the FFA managers, the FY 2011 D1 SMP was developed and submitted on December 15, 2010.

- Kentucky and EPA submitted scheduled notification requesting that the review time for the FY 2011 D1 SMP be extended due to other high-priority projects/meetings, on January 12, 2011, and January 13, 2011.

- DOE received comments on the FY 2011 D1 SMP on February 1, 2011, and February 8, 2011, from EPA and Kentucky, respectively. DOE submitted a 30-day schedule notification on February 22, 2011, to allow sufficient time to address EPA and Kentucky comments.

- The FFA parties held comment resolution meetings February 23, 2011, and March 17, 2011. DOE addressed comments, and the FY 2011 D2 SMP was issued to EPA and Kentucky on March 23, 2011, for final comments and/or approval.

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

Finalize the FY 2011 SMP and initiate discussions for development of the FY 2012 D1 SMP.

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

Responsibility for the maintenance of the SMP belongs to LATA Kentucky, as the DOE prime remediation contractor at PGDP. In addition, LATA Kentucky provides programmatic and technical support, analytical services, and business management. SST manages the Administrative Record and the Environmental Information Center.

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

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

V. Primary/Secondary Document Tracking System:

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

- The D1 FY 2011 SMP has been under development and EPA and Kentucky review during this reporting period.
- The D2 FY 2011 SMP has been under development during this reporting period.

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

- D1 FY 2011 SMP was due to EPA and Kentucky no later than November 15, 2010. A 30-day extension request agreed to by the FFA parties delayed submittal of the D1 FY 2011 SMP to December 15, 2010. DOE submitted the FY 2011 SMP to EPA and Kentucky on December 15, 2010.
- Comments on the D1 FY 2011 SMP originally were due to DOE within 30 days of the document's being issued or January 15, 2011. A 30-day and 15-day extension request for review and comment submitted by EPA and Kentucky, respectively, extended the comment review period to February 14, 2011.
- The D2 FY 2011 SMP, if required, is due within 15-days of receipt of regulatory comments on the D1 SMP; however, DOE submitted a 30-day extension request, making submittal of the D2 FY 2011 SMP due within 45 days of receipt of regulatory comments or March 25, 2011.

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

1) During the scoping of the FY 2011 SMP, DOE notified EPA and Kentucky of its receipt of target funding level guidance from DOE-Headquarters and its subsequent assessment of the FY + 2 (FY 2012) target funding guidance impacts for the Paducah Site. Discussion of the impacts to the Paducah Site resulted in a delay in the issuance of the D1 FY 2011 SMP. The FFA parties' respective senior managers were briefed as a result of the potential impacts. Senior management feedback, along with additional guidance from DOE Headquarters, resulted in a commitment by DOE to meet the current FY 2011 enforceable milestones and the addition of a footnote that indicates that the out-year enforceable milestone dates are in jeopardy of being missed based upon the funding targets for the Paducah site. EPA and Kentucky have notified DOE of potential delays in the review and approval of the SMP as a result of funding issues.

2) The BGOU project entered into informal dispute regarding the content of the FS during the review of the D1 FY 2011 SMP. The dispute resolution will affect the BGOU scope (e.g., remedial action objectives and planning assumptions) and milestone sections of the SMP. The FFA parties have agreed to align the scope section of the FY 2011 SMP to the approved FY 2010 SMP language and to add text to the scope section that reflects the current status of the

project. In addition, DOE has proposed text concerning the BGOU milestones associated the PP, ROD, and Remedial Design Work Plan for EPA and Kentucky consideration. Any delays in reaching consensus on how the milestones will be addressed will delay approval of the SMP.

3) Subsequent to the March 17, 2011, comment resolution meeting for the FY 2011 D2 SMP, it was determined that the FFA parties are not in agreement with the revised milestone date for the C-400 Remedial Action Completion Report. EPA and Kentucky have notified DOE of potential delays in the review and approval of the SMP as a result of this issue.

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 managers, FFA Senior Managers, local elected officials, and congressional staff.

VIII. Changes in relevant personnel:

None.

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

Not applicable.

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FEDERAL FACILITY AGREEMENT
SEMIANNUAL REPORT
FIRST HALF OF FISCAL YEAR 2011

Facility: Paducah Gaseous Diffusion Plant
Plant EPA I.D. No.: KY8-890-008-982
Reporting Period: 10/01/2010–3/31/2011

PROJECT: CERCLA Waste Disposal Alternatives Evaluation

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

- Kentucky invoked Informal Dispute regarding the *Work Plan for the CERCLA Waste Disposal Alternatives Evaluation Remedial Investigation/Feasibility Study*, DOE/LX/07-0099&D2/R1, dated September 27, 2010, on October 28, 2010.

- EPA withdrew approval of the *Work Plan for the CERCLA Waste Disposal Alternatives Evaluation Remedial Investigation/Feasibility Study*, DOE/LX/07-0099&D2/R1, dated September 27, 2010, on October 28, 2010.

- DOE issued "Response to Kentucky Division of Waste Management Informal Dispute Items and Environmental Protection Agency's Withdrawal of Approval Item submitted October 28, 2010, *Work Plan for the CERCLA Waste Disposal Alternatives Evaluation Remedial Investigation/Feasibility Study* DOE/LX/07-0099&D2/R1, dated September 27, 2010," on November 17, 2010.

- Participated in joint Portsmouth/Paducah Waste Acceptance Criteria modeling call on December 9, 2010.

- FFA parties signed *Memorandum of Agreement for Resolution of Informal Dispute for the Waste Disposal Alternatives Evaluation Remedial Investigation/Feasibility Study Work Plan at Paducah Gaseous Diffusion Plant, Paducah, Kentucky*, DOE/LX/07-099&D2/R1, on January 20, 2011.

- Conducted a Subject Matter Expert Meeting on March 9-10, 2011, as part of the requirements of the Memorandum of Agreement. Participants included Kentucky, EPA, DOE, DOE Low-Level Waste Disposal Facility Federal Review Group, and LATA Kentucky.

- Presented and participated in a submodeling group conference call on March 18, 2011, March 23, 2011, and March 30, 2011.

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

Preliminary WAC modeling will be conducted concurrently by DOE, Kentucky, and EPA. The model results will be incorporated into the RI/FS Report with a target submittal date to the

agencies of July 1, 2011. The exact date of submittal will be influenced by the progress of the joint modeling.

Appendix C of the D2/R1 RI/FS Work Plan, Proposed Groundwater Modeling Methodology, will be revised per the Memorandum of Agreement and subsequent meetings. The target submittal date to the agencies is June 1, 2011.

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

Responsibility for the CERCLA waste disposal evaluation belongs to LATA Kentucky, as the DOE prime remediation contractor at PGDP. In addition, LATA Kentucky provides programmatic and technical support, analytical services, and business management. SST manages the Administrative Record and the Environmental Information Center.

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

Following submittal of the RI/FS Work Plan, the standard FFA review and comment periods for primary documents are expected to apply. A 30-day extension request was submitted by DOE for submittal of the D2 RI/FS Work Plan.

V. Primary/Secondary Document Tracking System:

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

- A revised Appendix C to the D2/R1 RI/FS Work Plan is being developed.
- The D1 RI/FS Report currently is being developed.

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

Approval of the revised Appendix C to the D2/R1 RI/FS Work Plan will be due within 30 days of submittal to EPA and Kentucky.

Comments and/or approval of the D1 RI/FS Work Plan will be due within 90 days of submittal to EPA and Kentucky.

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

There are no FFA dates that are being impacted.

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 managers, FFA Senior Managers, local elected officials, and congressional staff. In addition, DOE held two Public Information Exchanges, one each on January 18 and 19, 2011. During these exchanges, DOE and LATA Kentucky representatives were available at several information stations to illustrate different aspects of the project and answer questions. The exchanges were covered by the press and attended by members of the public and CAB, state and federal regulatory agencies, and state government representatives.

VIII. Changes in relevant personnel:

Rob Seifert replaced Jeff Snook as DOE's Project Manager for the CERCLA Waste Disposal Alternatives Evaluation.

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

Not applicable.

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APPENDIX A

NORTHEAST AND NORTHWEST PLUME WATER WITHDRAWAL REPORTS

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Table A.1. Northeast Plume Containment System
Water Withdrawal Reporting From (gallons of water pumped)

Day	October 2010	November 2010	December 2010	January 2011	February 2011	March 2011
1	121,100	257,000	246,400	254,840	240,900	194,400
2	121,100	245,600	256,775	254,840	260,800	265,900
3	121,100	265,900	256,775	267,100	255,375	255,125
4	215,800	260,925	256,775	256,500	255,375	255,125
5	291,400	260,925	256,775	244,200	255,375	255,125
6	252,000	260,925	254,600	255,150	255,375	255,125
7	195,600	260,925	248,500	255,150	247,800	249,200
8	245,900	259,700	256,600	255,150	254,800	255,600
9	245,900	254,300	250,500	255,150	264,300	245,800
10	245,900	251,700	250,500	243,800	257,875	257,400
11	276,700	250,075	250,500	251,000	257,875	257,400
12	261,300	250,075	250,500	251,000	257,875	257,400
13	246,100	250,075	256,300	254,780	257,875	257,400
14	228,820	250,075	241,200	254,780	234,800	249,500
15	228,820	249,800	266,000	254,780	245,200	248,200
16	228,820	243,100	250,075	254,780	256,000	263,700
17	228,820	250,900	250,075	254,780	210,100	253,725
18	228,820	206,200	250,075	254,200	210,100	253,725
19	168,700	206,200	250,075	249,800	210,100	253,725
20	211,400	206,200	240,800	254,825	210,100	253,725
21	235,250	206,200	249,150	254,825	240,600	250,100
22	235,250	249,600	249,150	254,825	253,700	264,100
23	235,250	191,633	249,150	254,825	257,400	267,400
24	235,250	191,633	249,150	257,400	88,800	258,650
25	259,300	191,633	249,150	242,100	0	258,650
26	229,500	191,633	249,150	263,700	0	258,650
27	232,800	191,633	257,000	252,750	0	258,650
28	179,275	191,633	225,300	252,750	0	260,900
29	179,275	244,700	254,840	252,750	NA	215,500
30	179,275	262,100	254,840	252,750	NA	256,400
31	179,275	NA	254,840	256,700	NA	206,125
Monthly Total	6,743,800	7,053,000	7,781,520	7,871,980	5,738,500	7,792,425
*Daily Average	217,542	235,100	251,017	253,935	239,104	251,369
Days water pumped	31	30	31	31	24	31

*Value based on number of days water was pumped.

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Table A.2. Northwest Plume Groundwater System
Water Withdrawal Reporting Form (gallons of water pumped)

Day	October 2010	November 2010	December 2010	January 2011	February 2011	March 2011
1	17,570	315,150	0	303,416	309,800	314,320
2	0	314,350	304,673	303,416	318,220	315,750
3	0	317,910	304,673	314,570	317,923	317,105
4	0	320,900	304,673	316,970	317,923	317,105
5	0	320,900	304,673	320,940	317,923	317,105
6	0	320,900	302,360	318,675	317,923	317,105
7	0	320,900	286,000	318,675	313,970	312,110
8	0	313,270	299,210	318,675	315,240	307,090
9	0	322,280	299,063	318,675	323,190	319,860
10	0	304,420	299,063	313,830	311,448	123,870
11	295,380	256,943	299,063	318,930	311,448	0
12	297,430	256,943	299,063	311,940	311,448	0
13	324,020	256,943	292,200	316,892	311,448	0
14	303,380	256,943	44,470	316,892	317,950	0
15	303,380	317,730	272,210	316,892	319,090	307,850
16	303,380	314,260	301,953	316,892	316,970	205,450
17	303,380	322,580	301,953	316,892	316,298	313,750
18	300,650	275,120	301,953	312,610	316,298	313,750
19	324,960	275,120	301,953	314,210	316,298	313,750
20	303,100	275,120	311,950	317,103	316,298	313,750
21	307,778	275,120	308,643	317,103	318,830	308,560
22	307,778	307,580	308,643	317,103	311,290	317,340
23	307,778	167,187	308,643	317,103	321,480	327,740
24	307,778	167,187	308,643	327,310	318,215	316,048
25	321,710	167,187	308,643	304,070	318,215	316,048
26	289,620	167,187	308,643	314,950	318,215	316,048
27	304,820	167,187	312,230	317,158	318,215	316,048
28	320,343	167,187	314,020	317,158	303,740	317,300
29	320,343	67,150	303,416	317,158	NA	312,170
30	320,343	0	303,416	317,158	NA	308,570
31	320,343	NA	303,416	319,460	NA	313,860
Monthly Total	6,505,260	7,631,650	8,819,508	9,792,822	8,845,300	8,199,450
*Daily Average	295,694	263,160	293,984	315,897	315,904	303,683
Days water pumped	22	29	30	31	28	27

*Value based on number of days water was pumped.

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APPENDIX B

NORTHEAST PLUME AND NORTHWEST PLUME GRAPHS AND MAPS FIGURES B.1 THROUGH B.23

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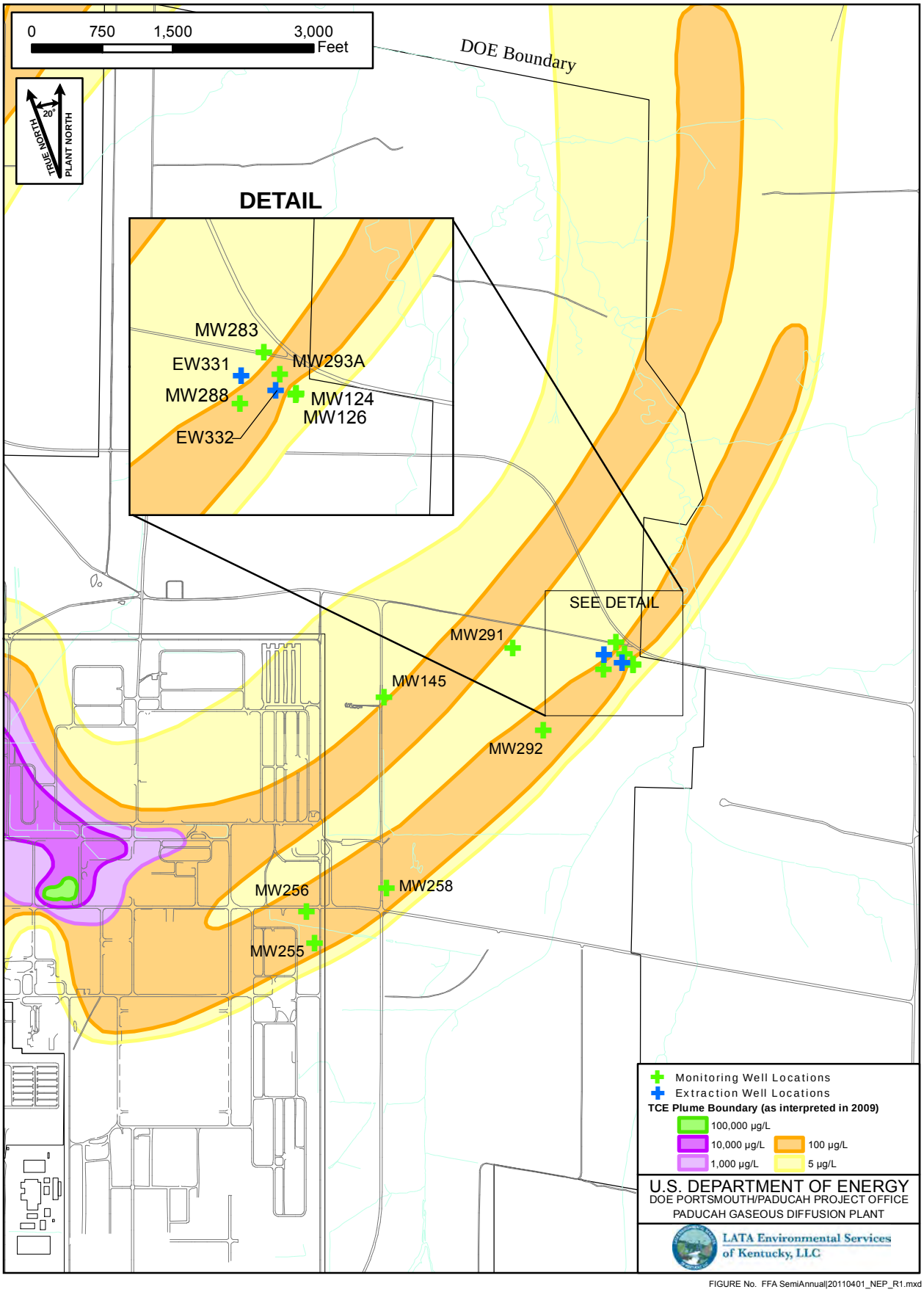


Figure B.1. Northeast Plume Groundwater Wells and Extraction Wells

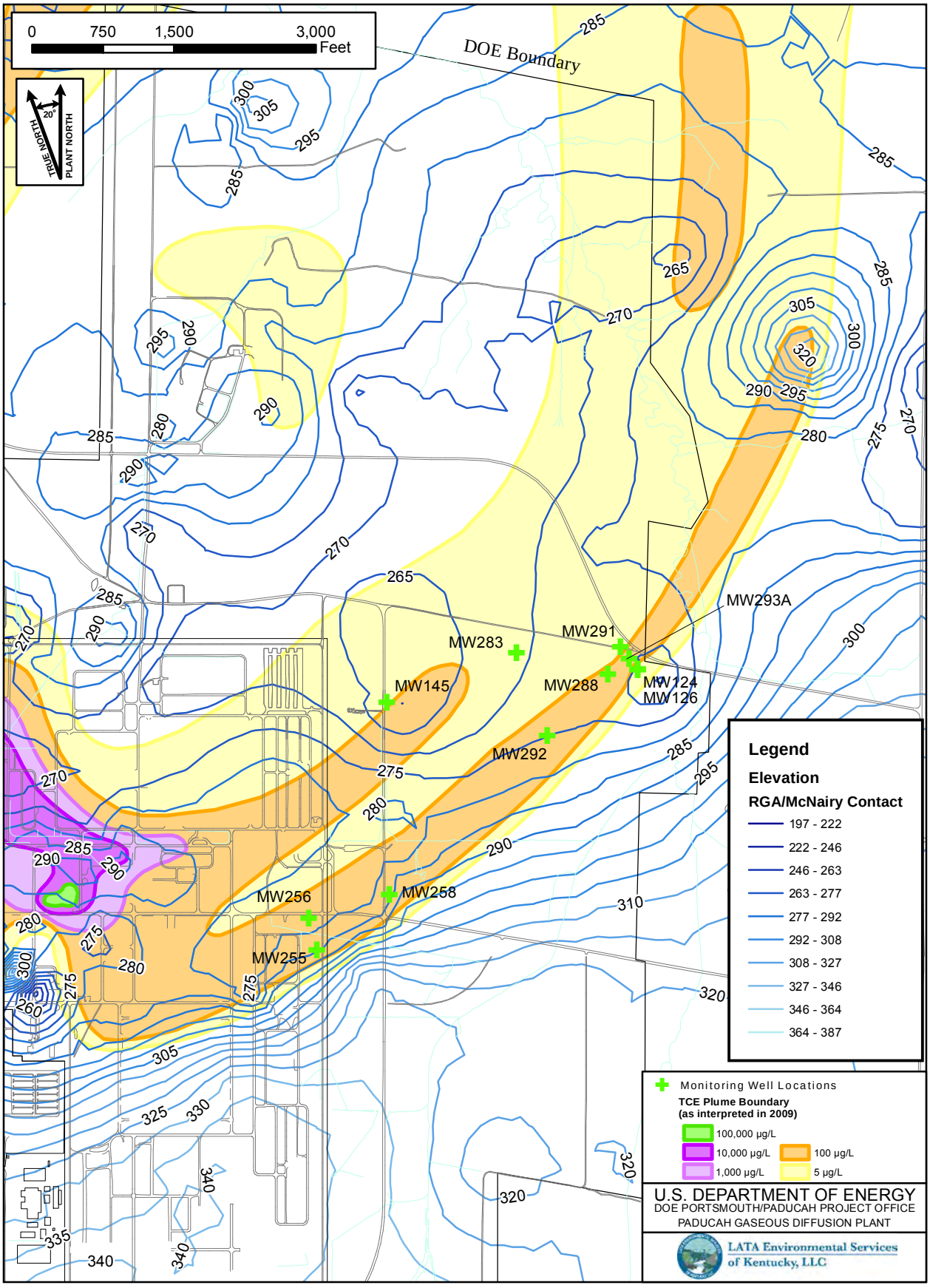
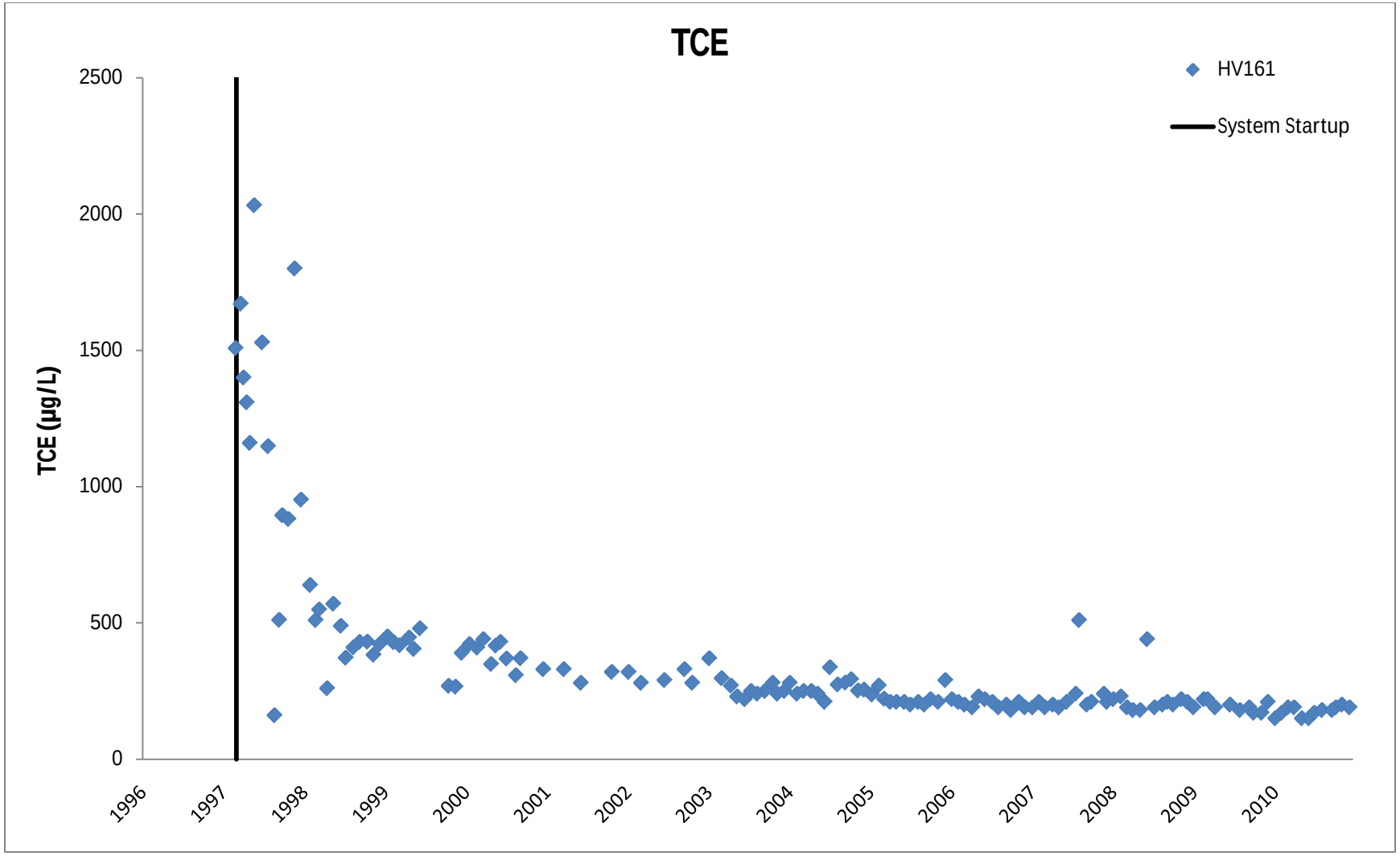
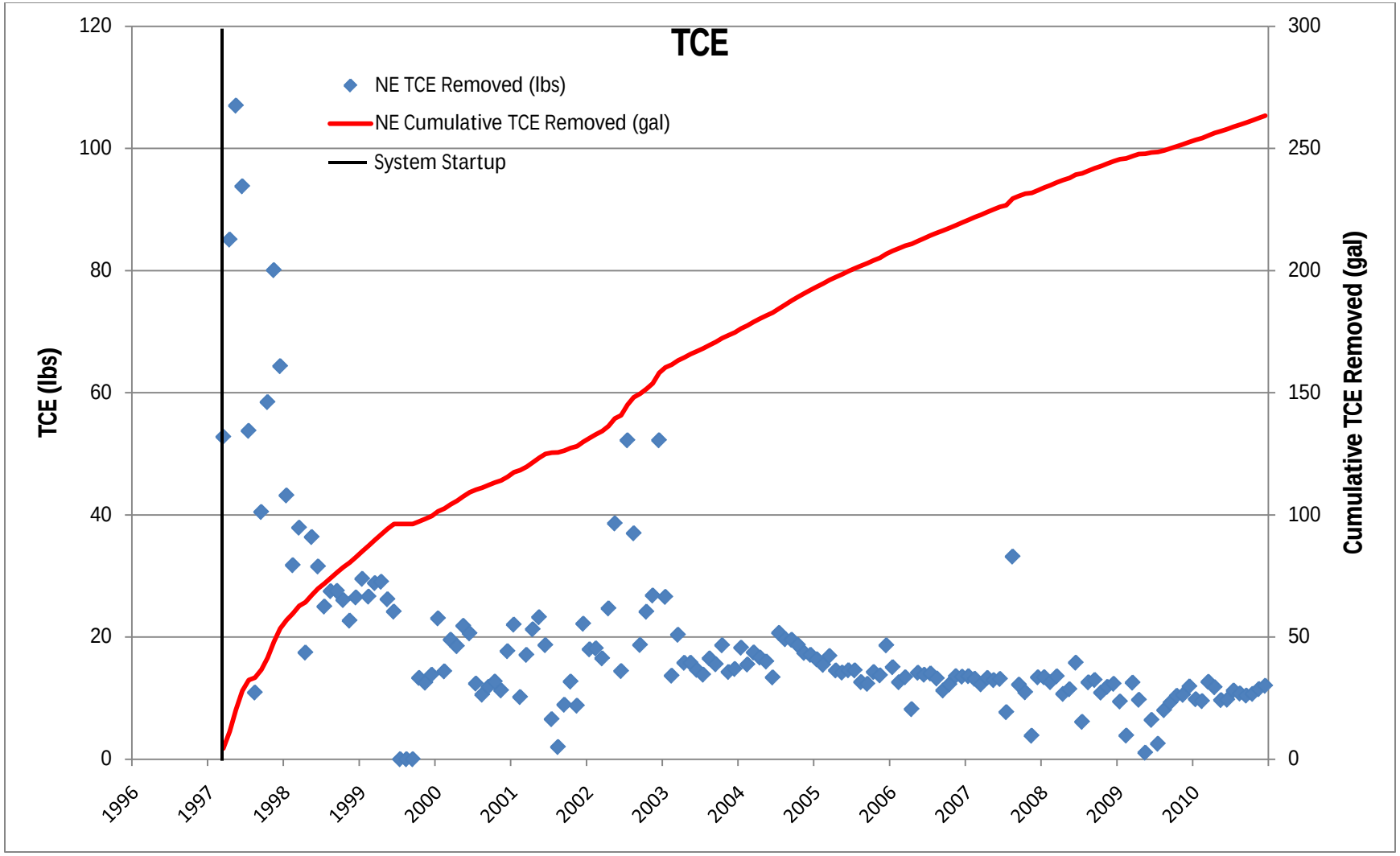


Figure B.2. Northeast Plume Groundwater Wells with Elevation of RGA/McNairy Contact



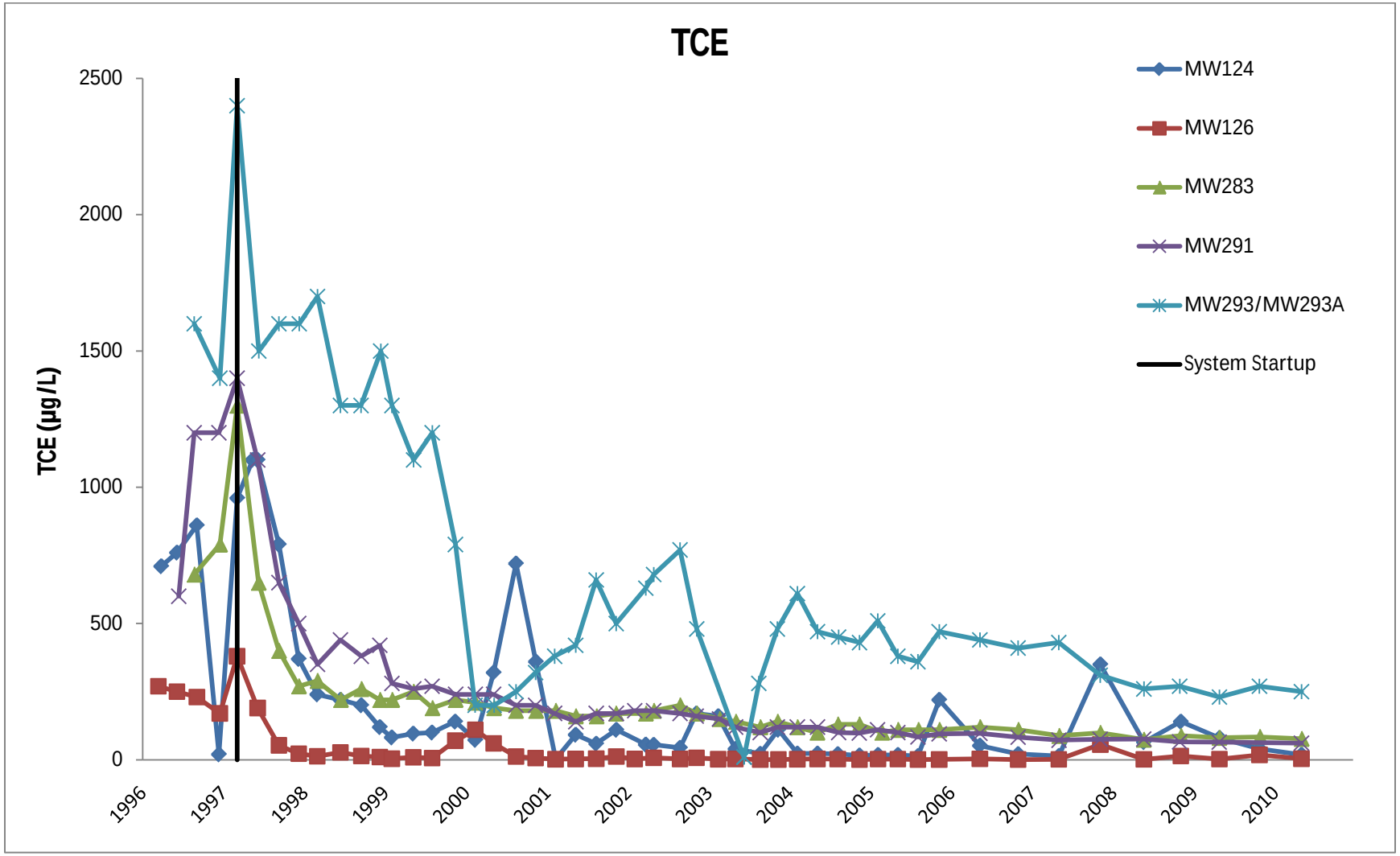
NOTE: Data rejected by validation or assessment have not been graphed.

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



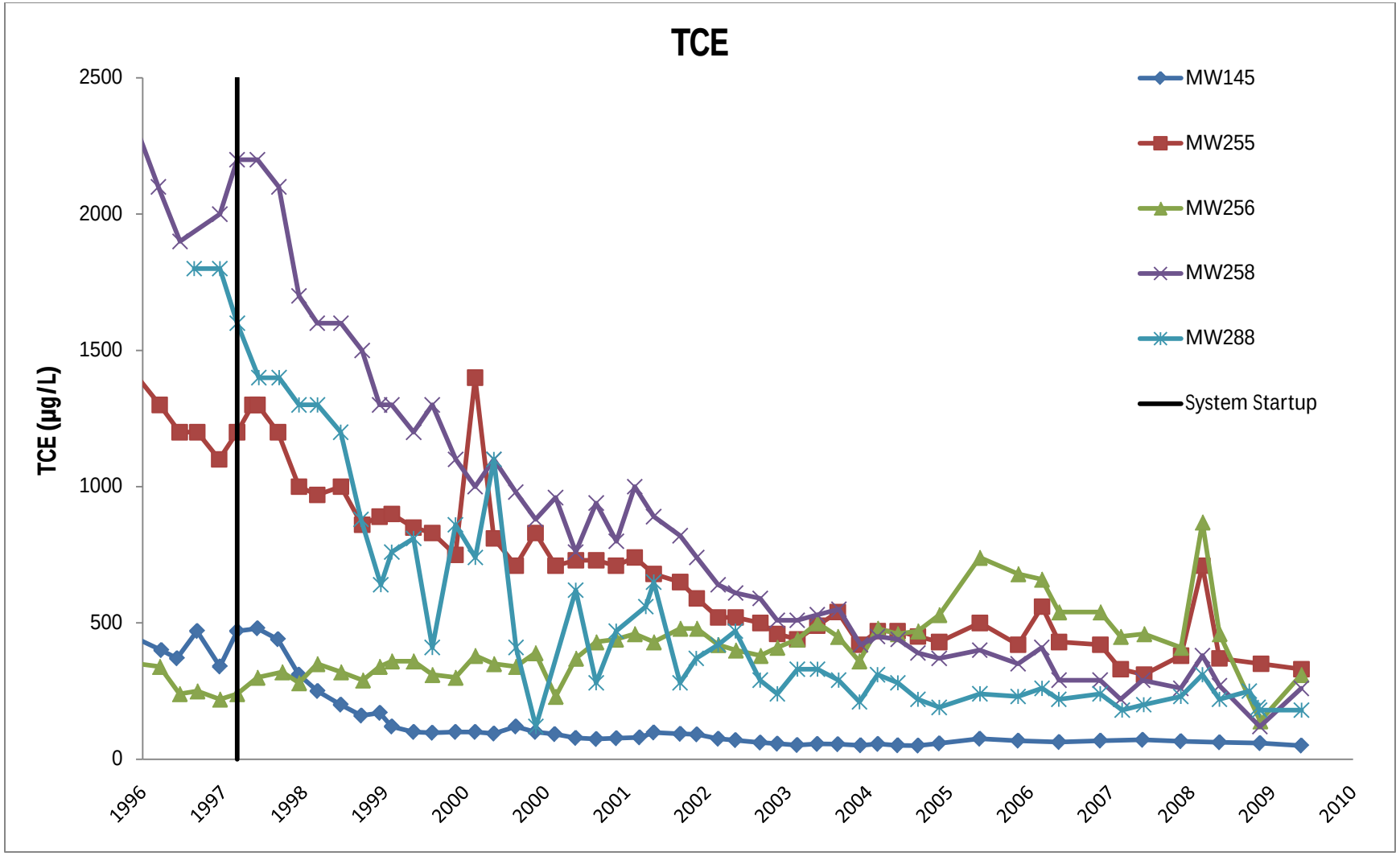
NOTE: Data rejected by validation or assessment are included on the graph.

Figure B.4. Northeast Plume Containment System TCE Removed



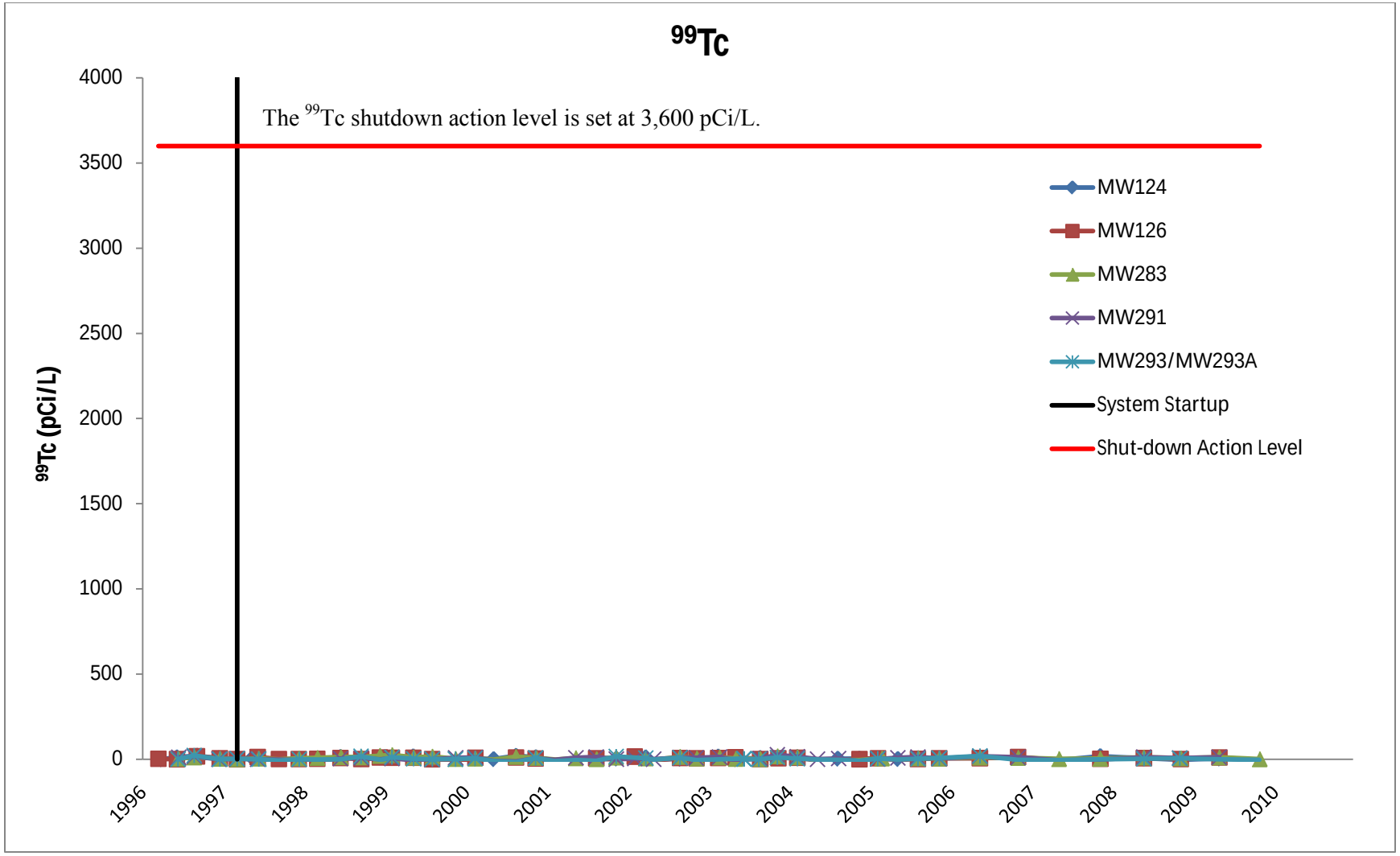
NOTE: Data rejected by validation or assessment have not been graphed.

Figure B.5. Northeast Plume—TCE Concentrations in Downgradient Wells



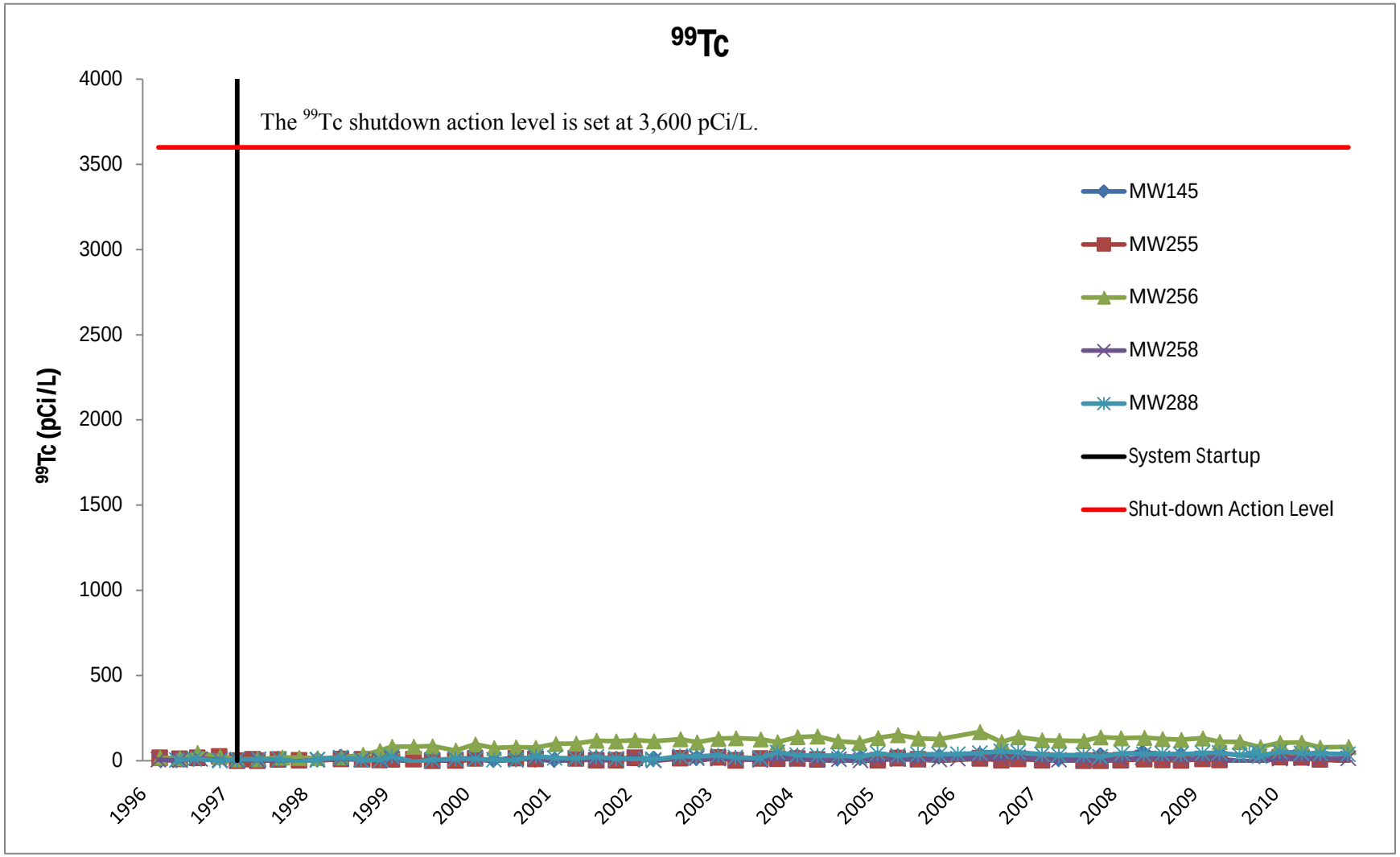
NOTE: Data rejected by validation or assessment have not been graphed.

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



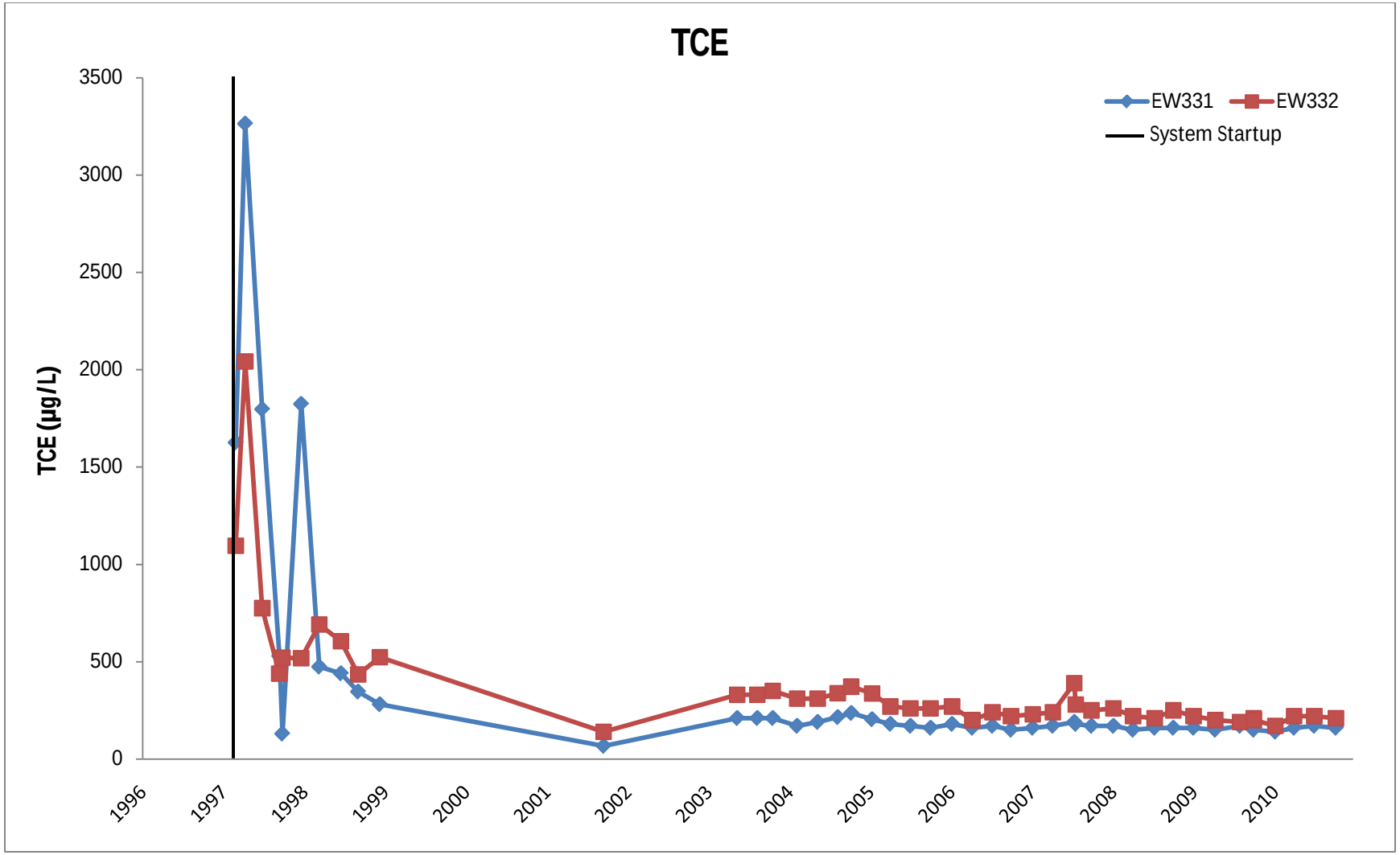
NOTE: Data rejected by validation or assessment have not been graphed.

Figure B.7. Northeast Plume—^{99}Tc Activities in Downgradient Wells



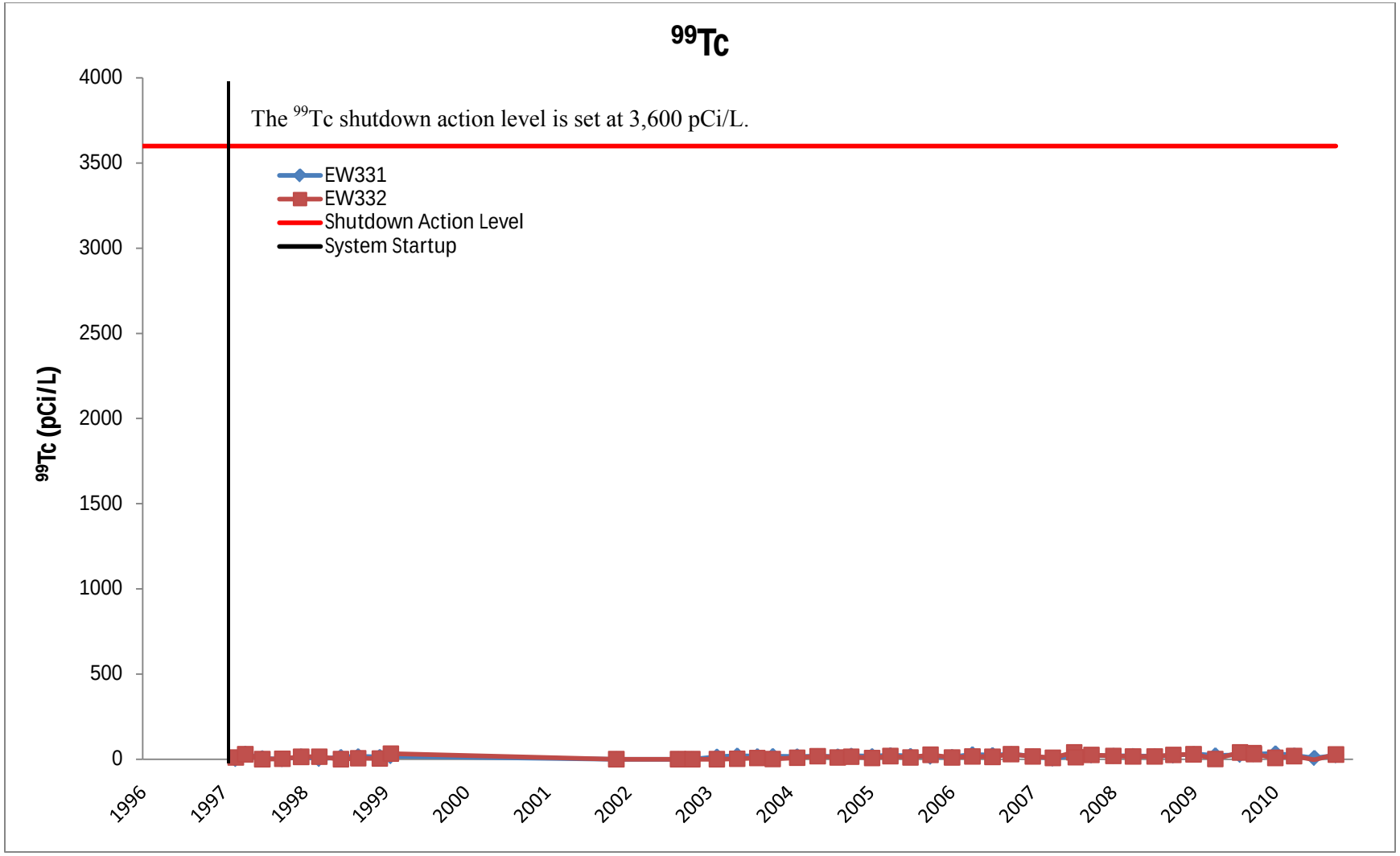
NOTE: Data rejected by validation or assessment have not been graphed.

Figure B.8. Northeast Plume—^{99}Tc Activities in Upgradient Wells



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

Figure B.9. Northeast Plume—TCE Concentrations in Extraction Wells



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

Figure B.10. Northeast Plume—^{99}Tc Activities in Extraction Wells

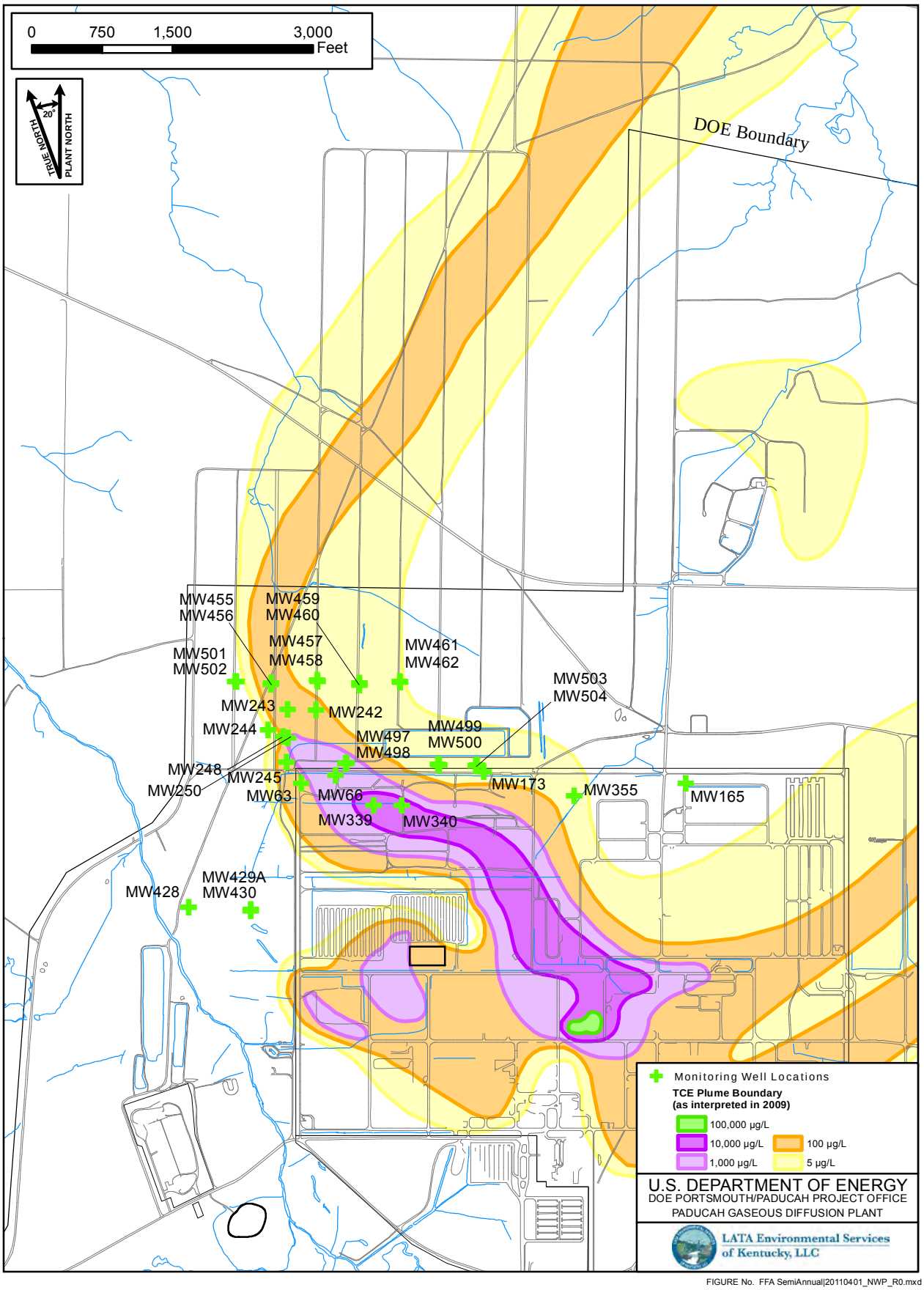


Figure B.11. Northwest Plume Groundwater Wells

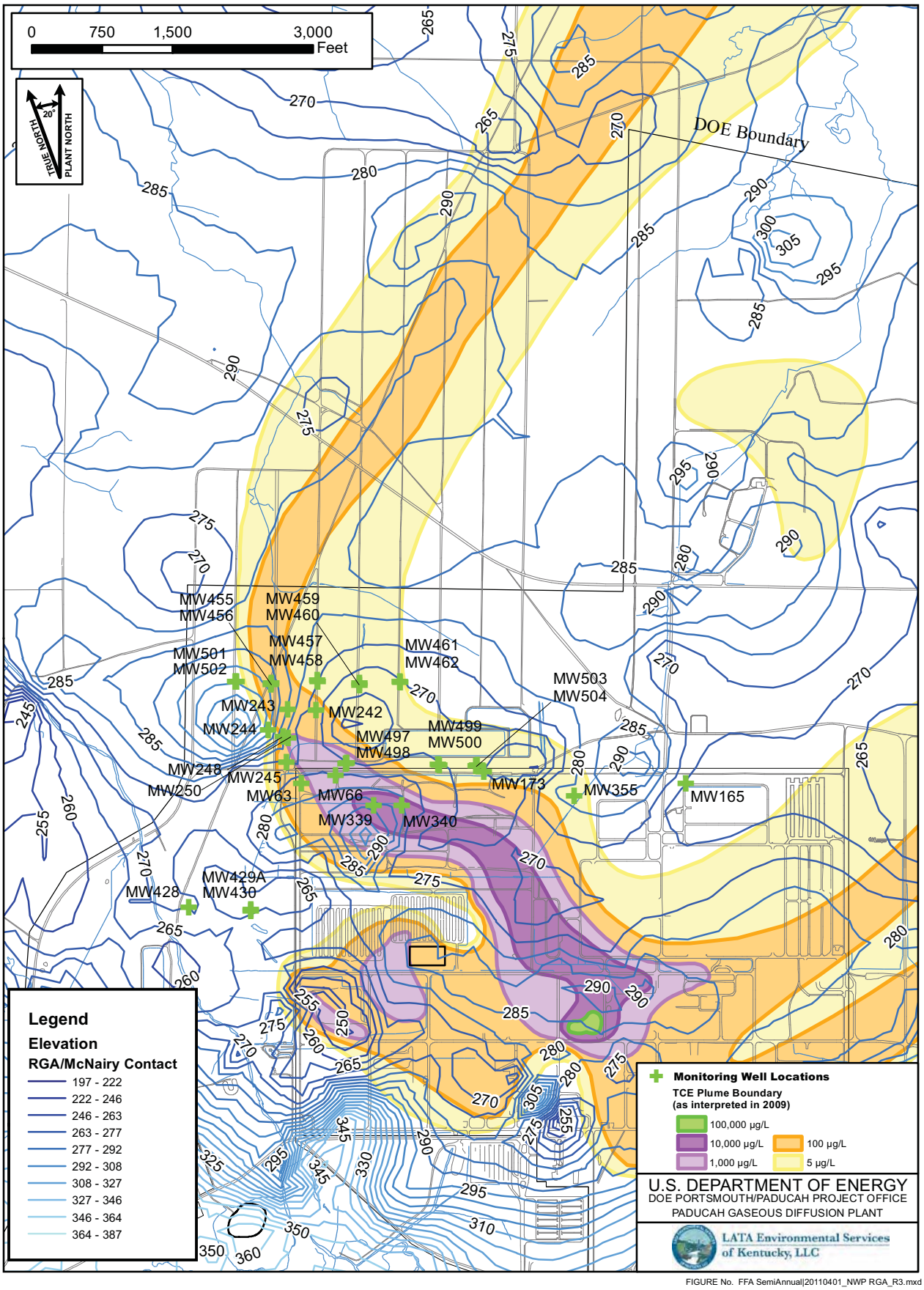
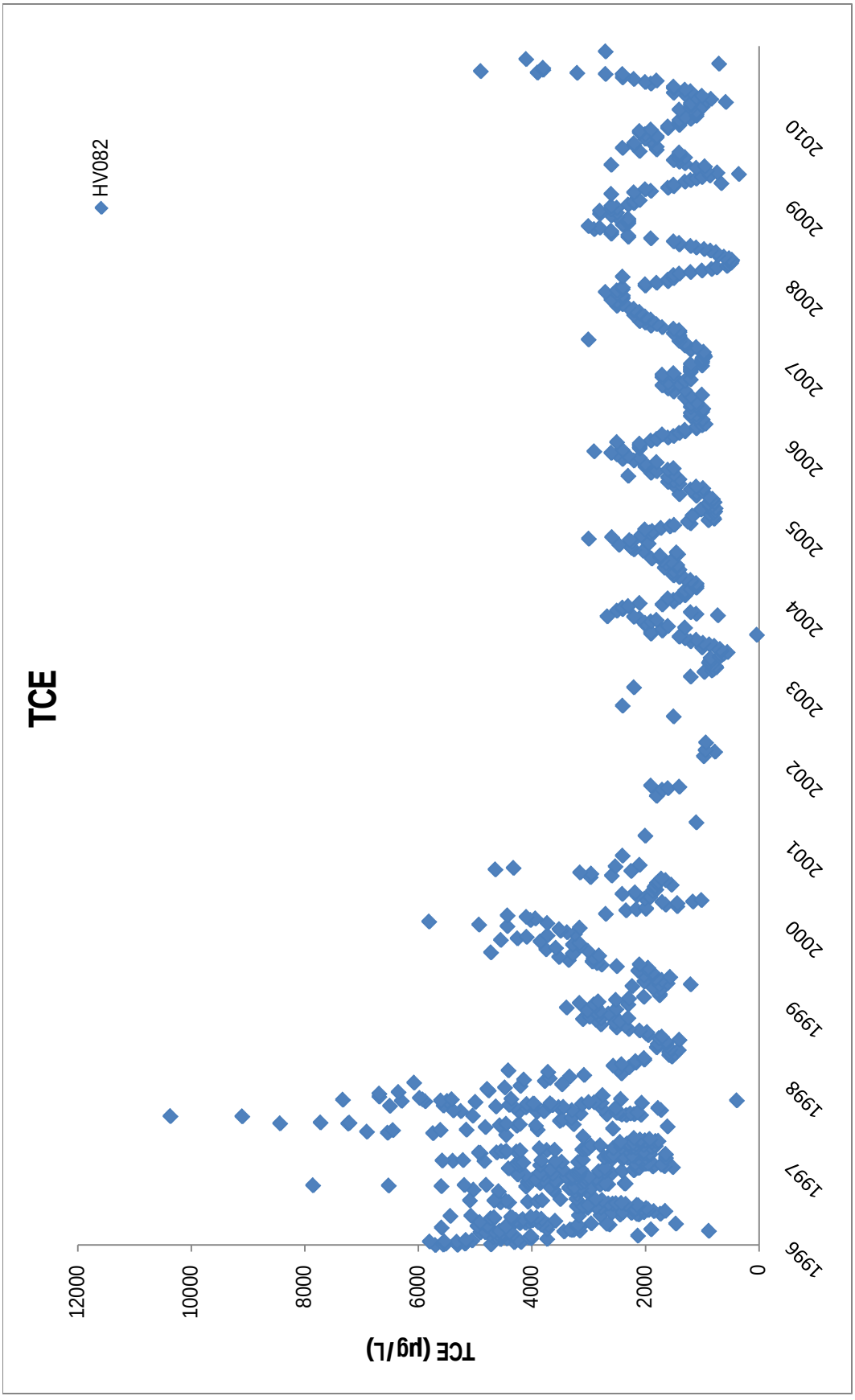
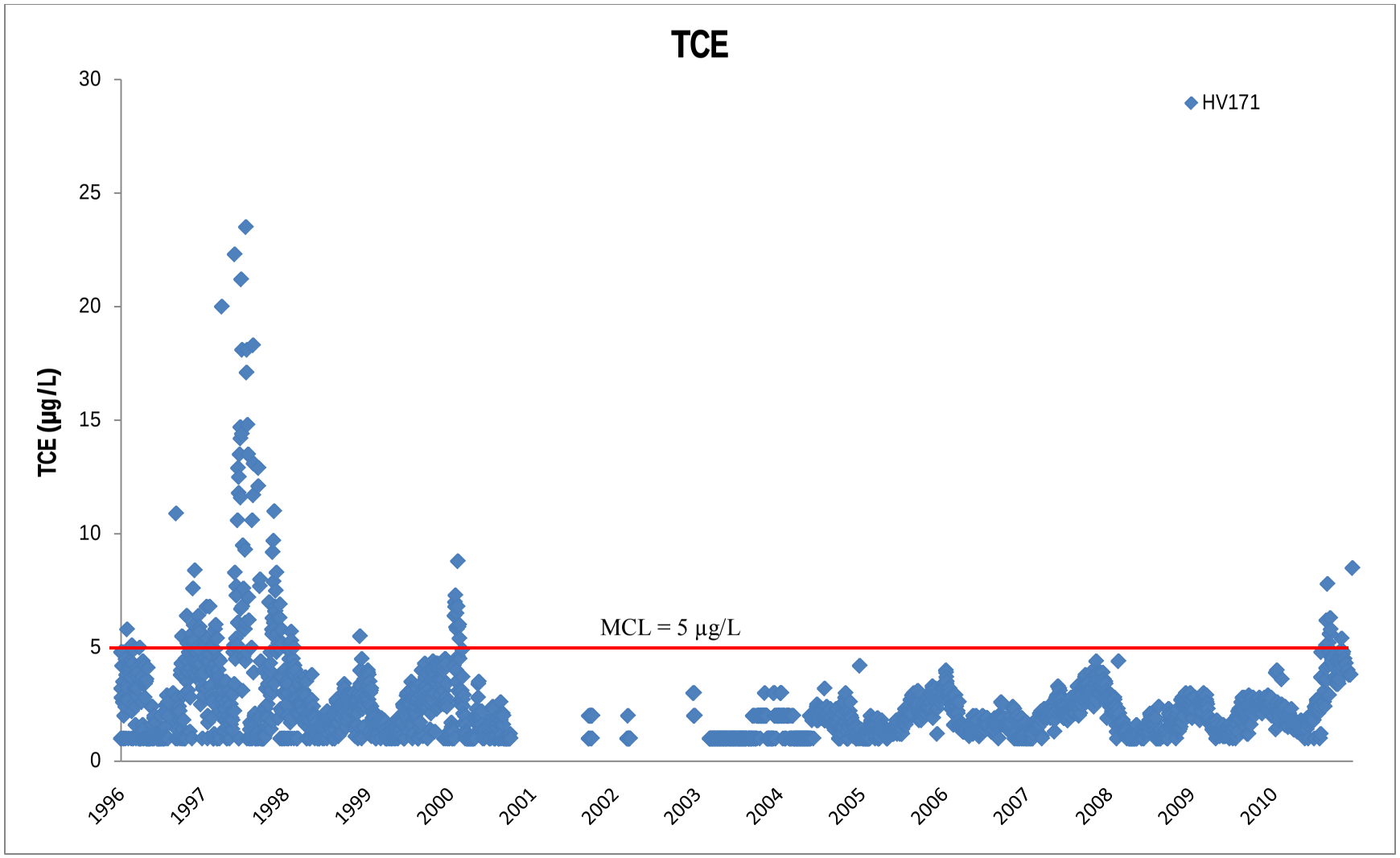


Figure B.12. Northwest Plume Groundwater Wells with Elevation of RGA/McNairy Contact



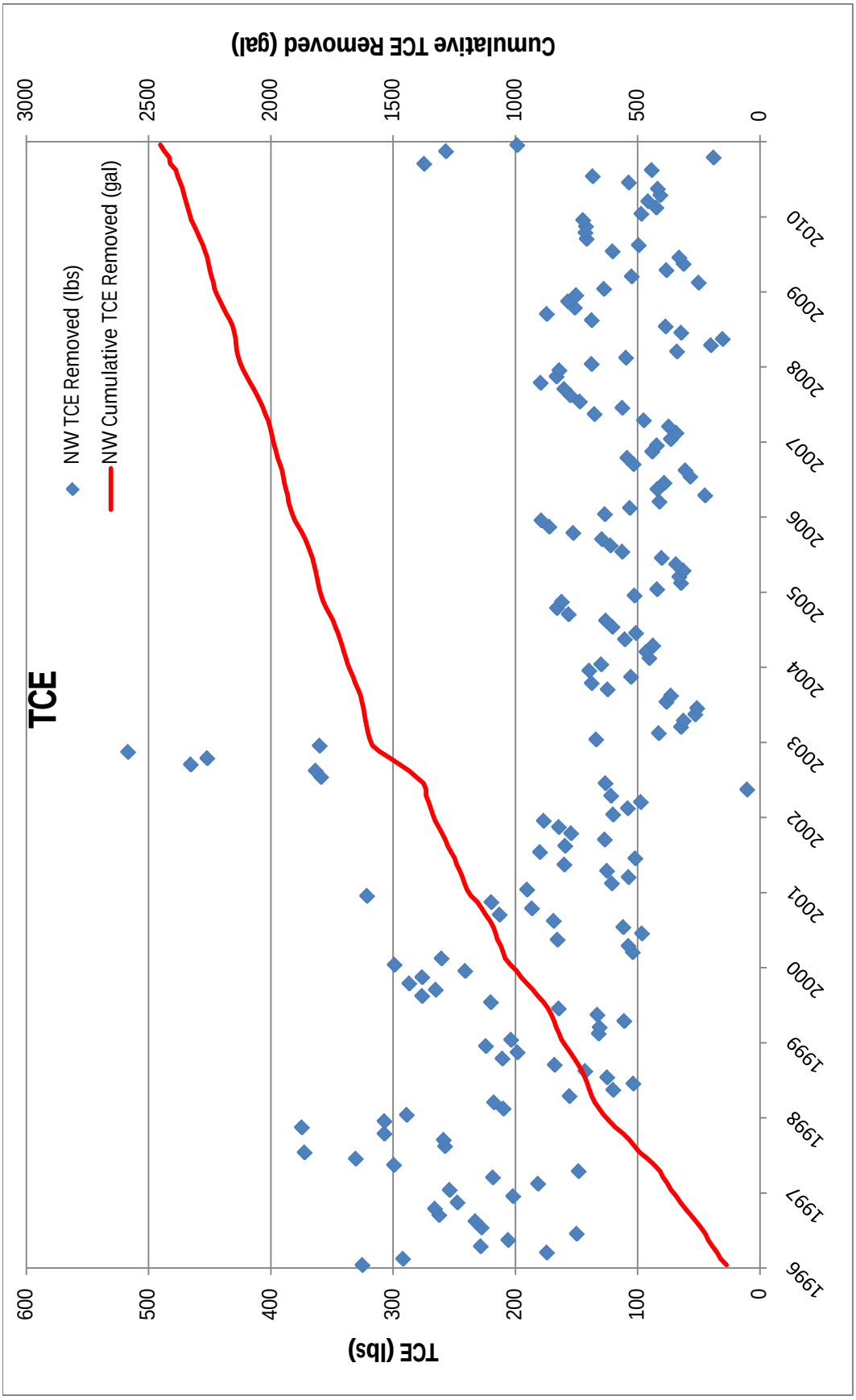
NOTE: Data rejected by validation or assessment have not been graphed.

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



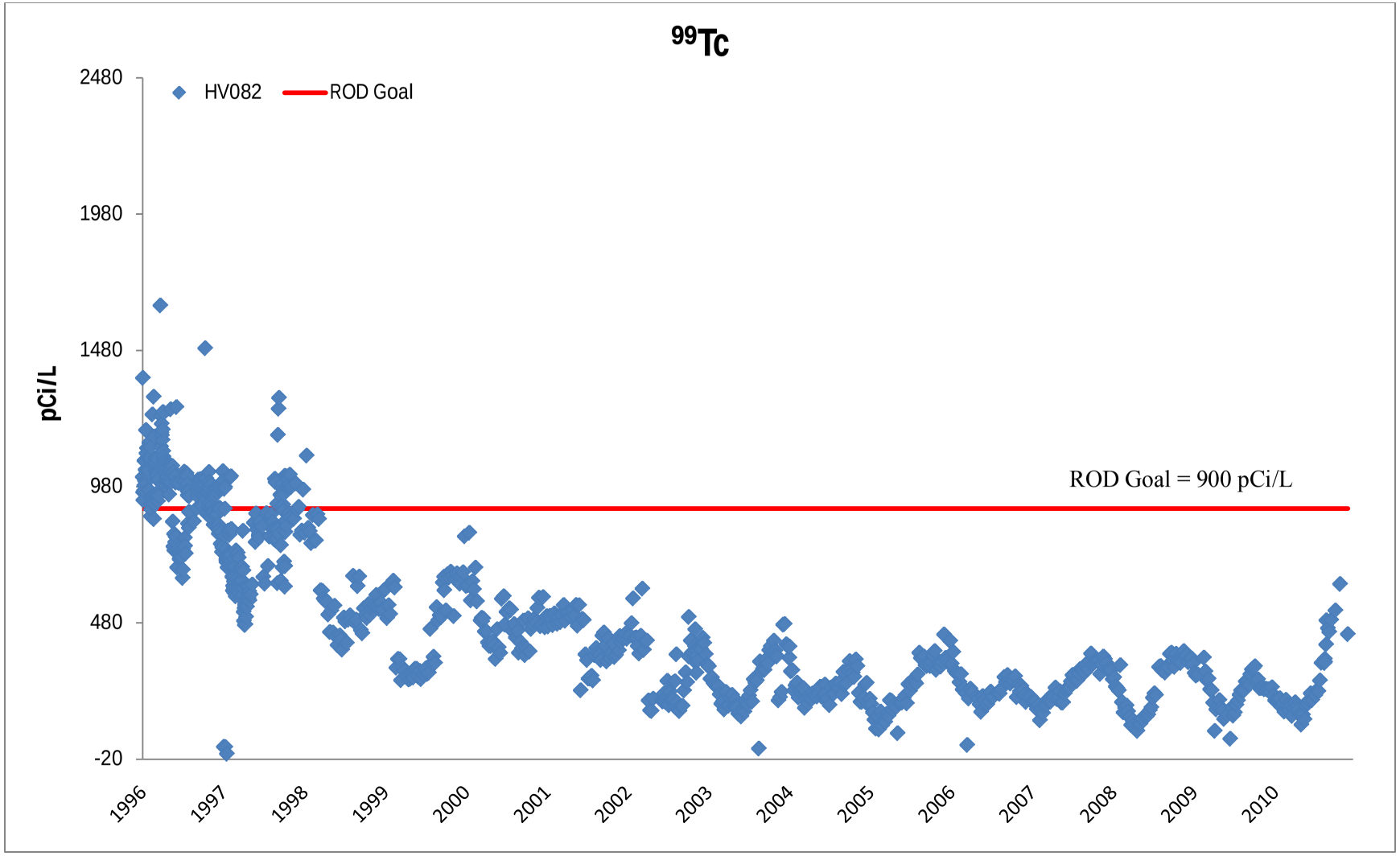
NOTE: Data rejected by validation or assessment have not been graphed.

Figure B.14. Northwest Plume Groundwater System Effluent TCE Concentrations



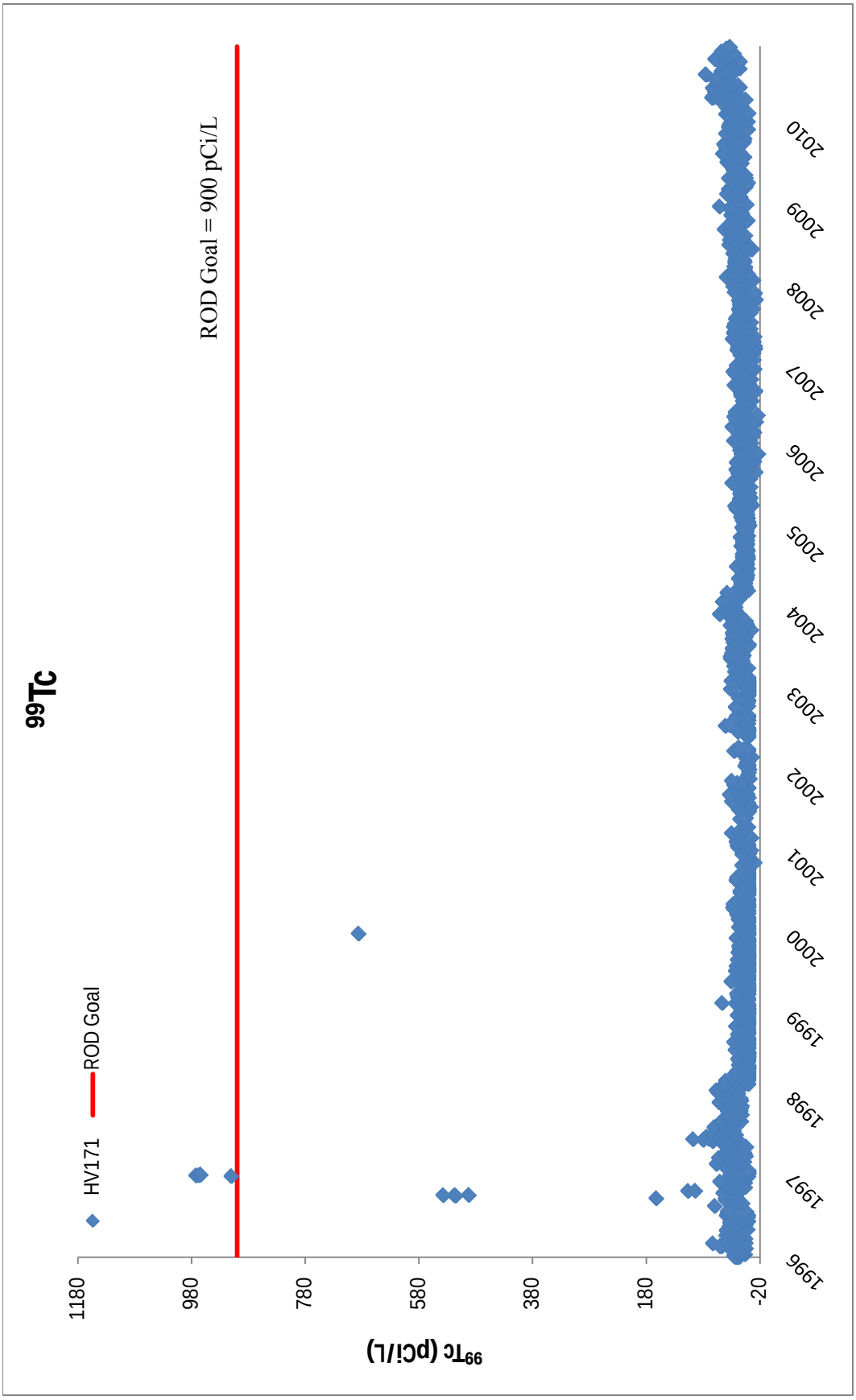
NOTE: Data rejected by validation or assessment are included on the graph.

Figure B.15. Northwest Plume Groundwater System TCE Removed



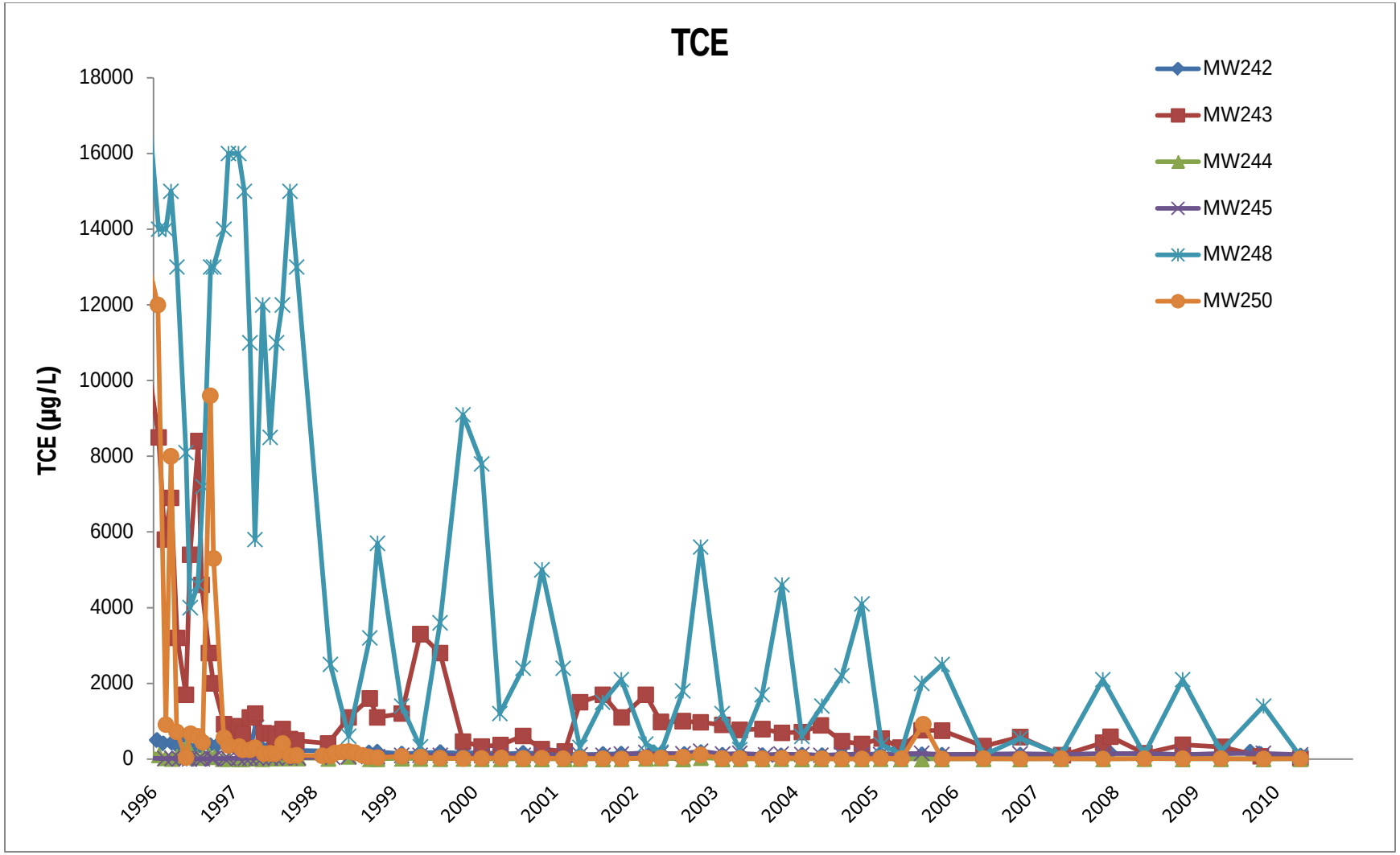
NOTE: Data rejected by validation or assessment have not been graphed.

Figure B.16. Northwest Plume Groundwater System Influent ^{99}Tc Activities



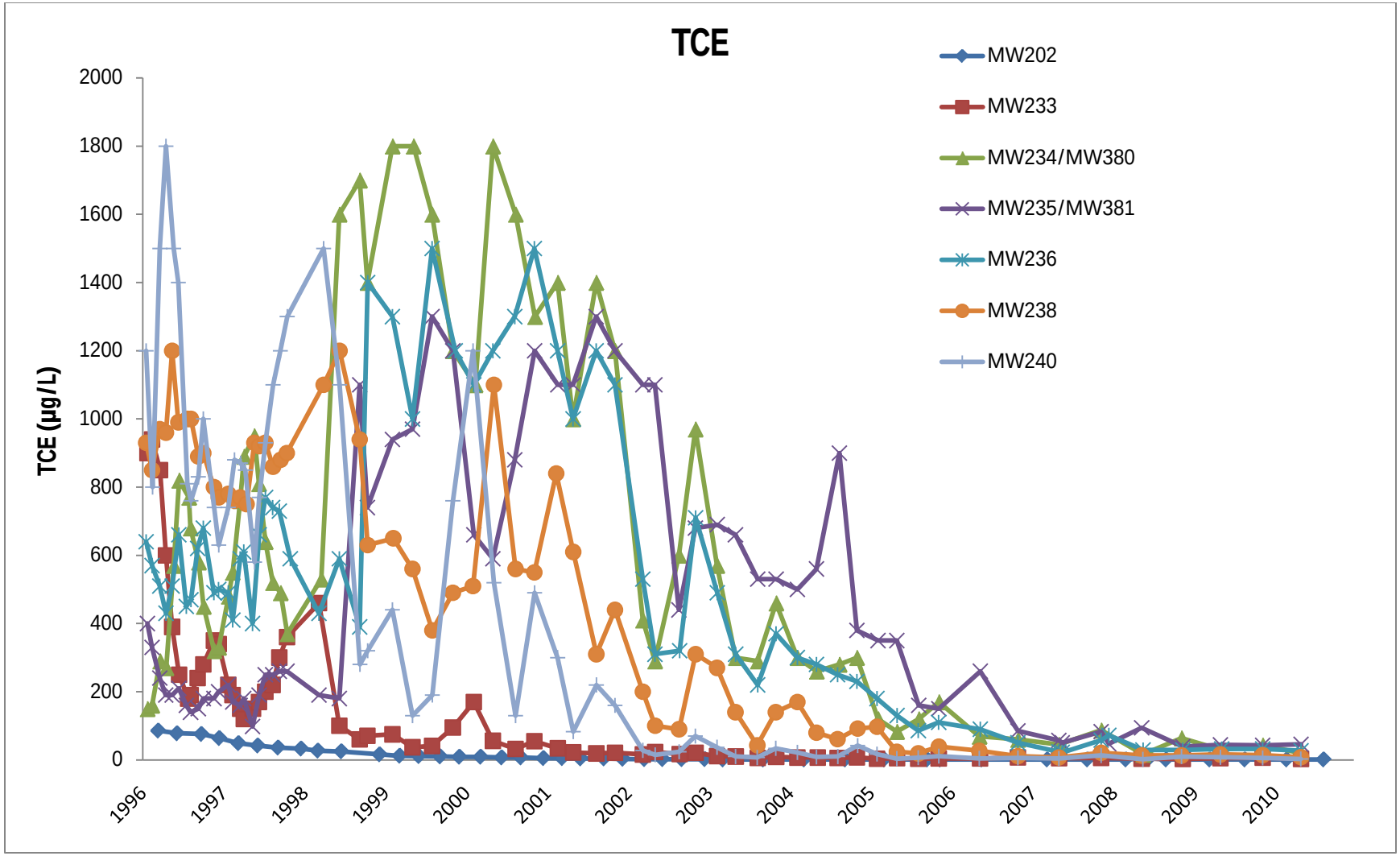
NOTE: Data rejected by validation or assessment have not been graphed.

Figure B.17. Northwest Plume Groundwater System Effluent ^{99}Tc Activities



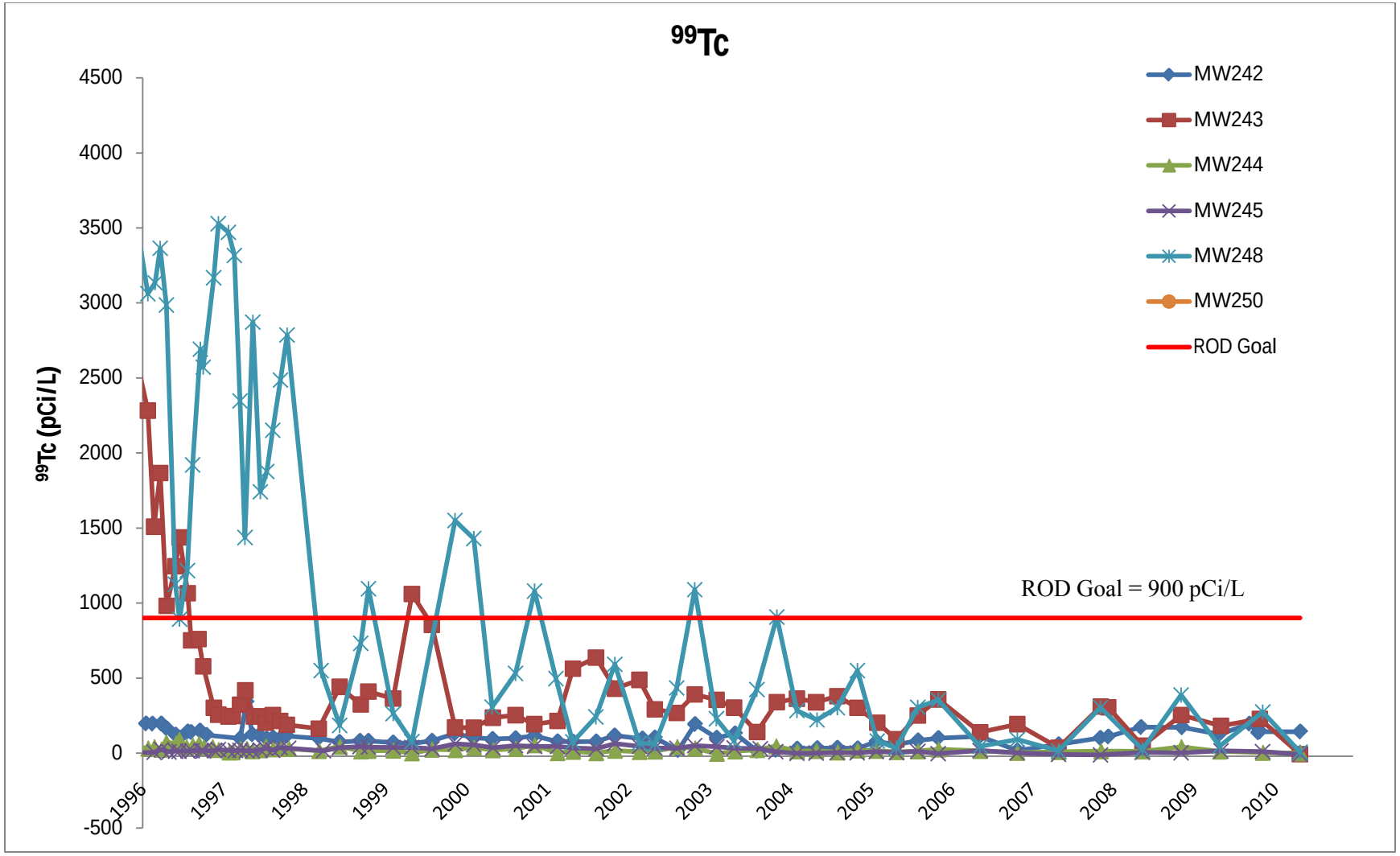
NOTE: Data rejected by validation or assessment have not been graphed.

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



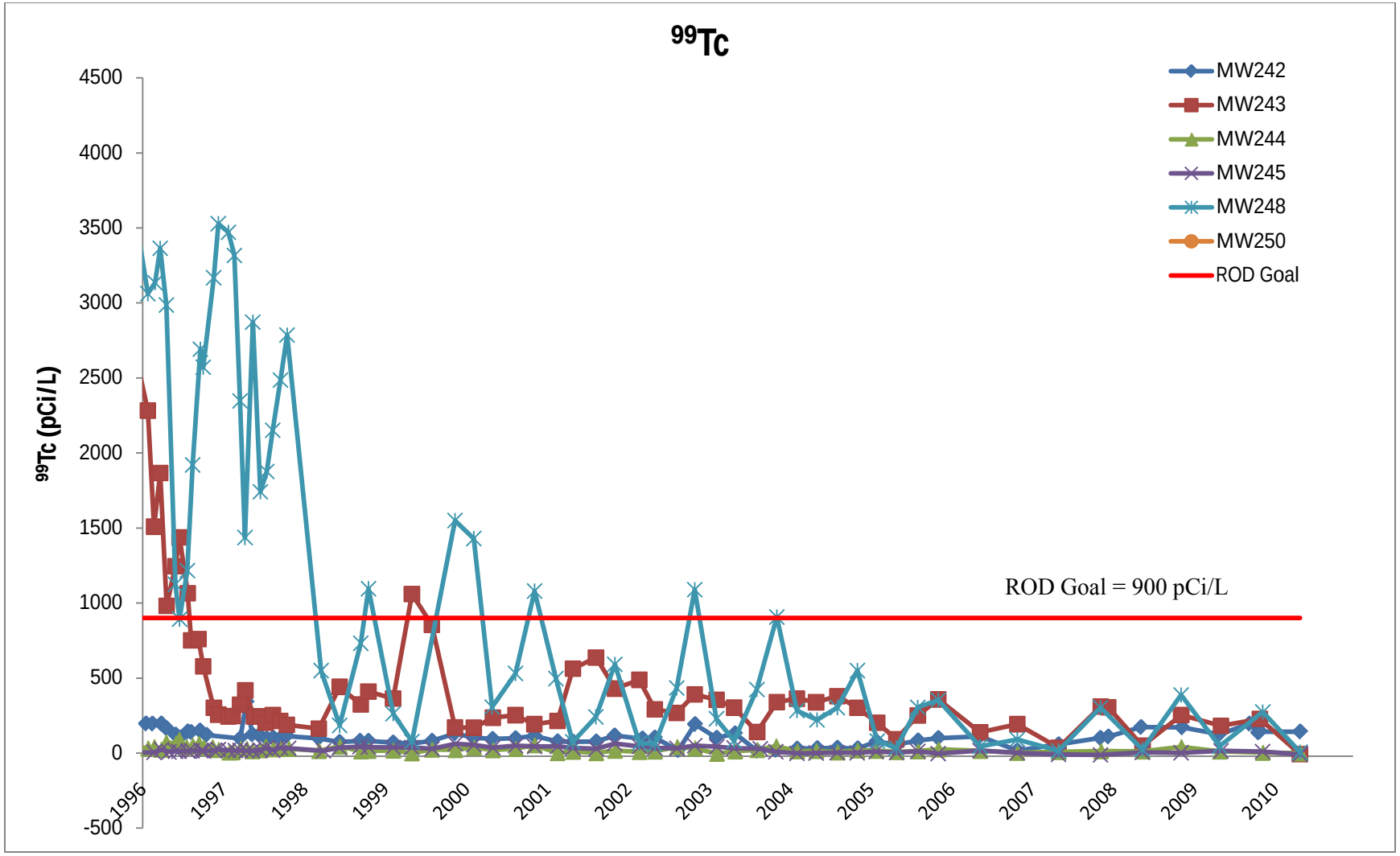
NOTE: Data rejected by validation or assessment have not been graphed.

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



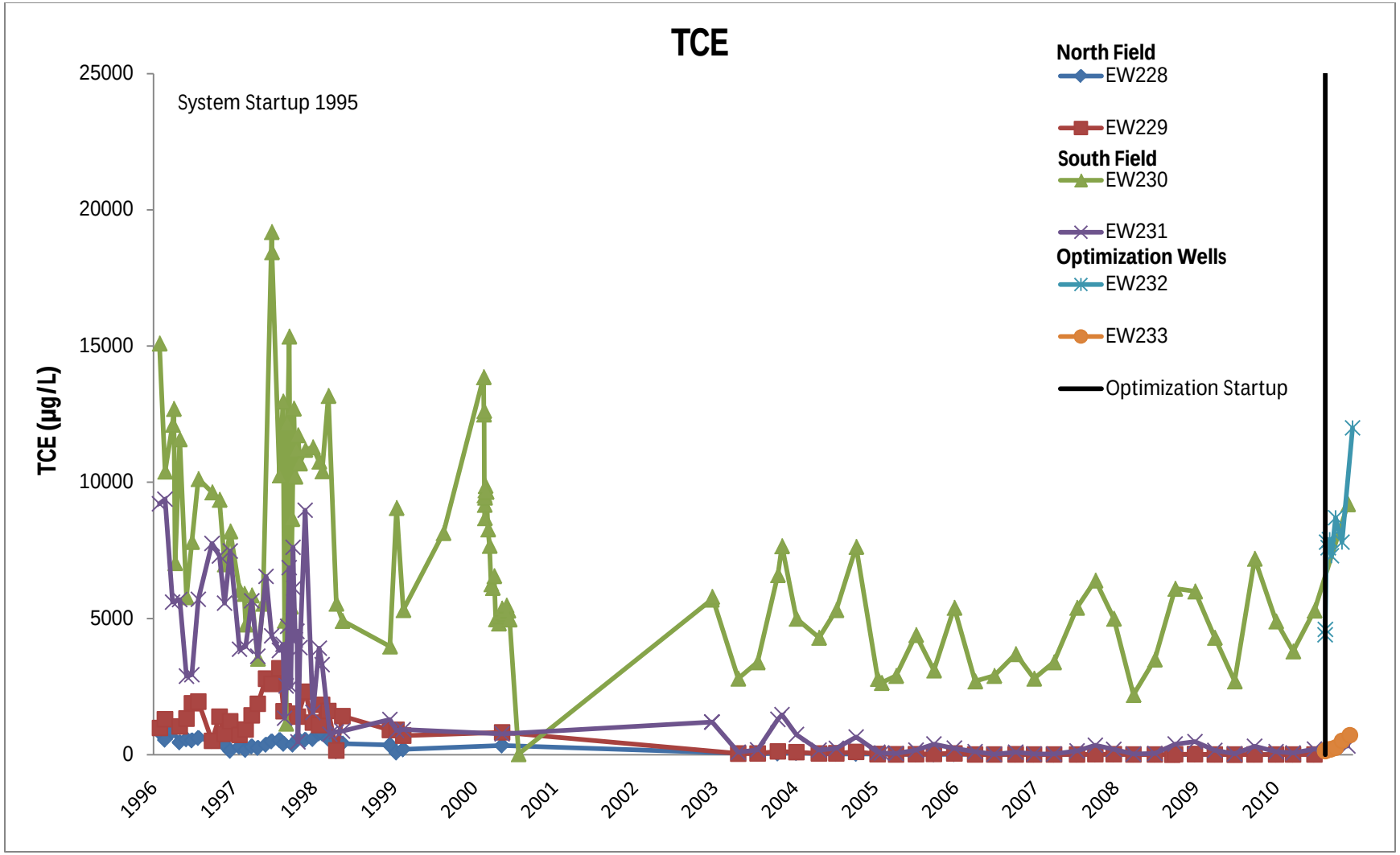
NOTE: Data rejected by validation or assessment have not been graphed.

Figure B.20. Northwest Plume—South Well Field ^{99}Tc Activities



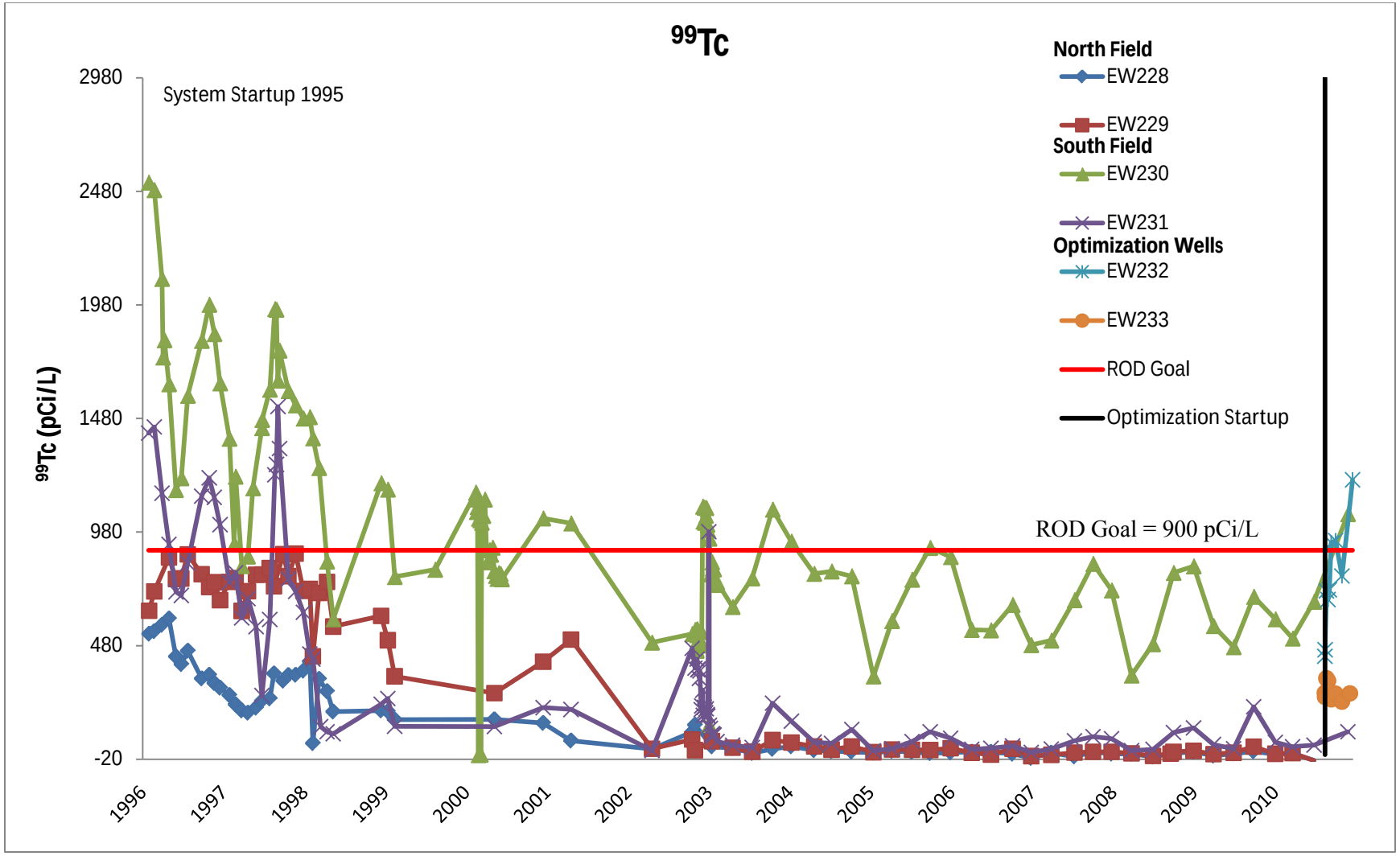
NOTE: Data rejected by validation or assessment have not been graphed.

Figure B.21. Northwest Plume—North Well Field ^{99}Tc Activities



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

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



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

Figure B.23. Northwest Plume—^{99}Tc Activities in Extraction Wells

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APPENDIX C

C-746-K LANDFILL DATA

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C-746-K Landfill groundwater data for reporting period 10//1/2010—3/31/2011 are not available at the time of preparation of this report. The data will be included in the next report.

C-746-K Landfill groundwater data for Reporting Period 4/1/2010—9/30/2010 has been included.

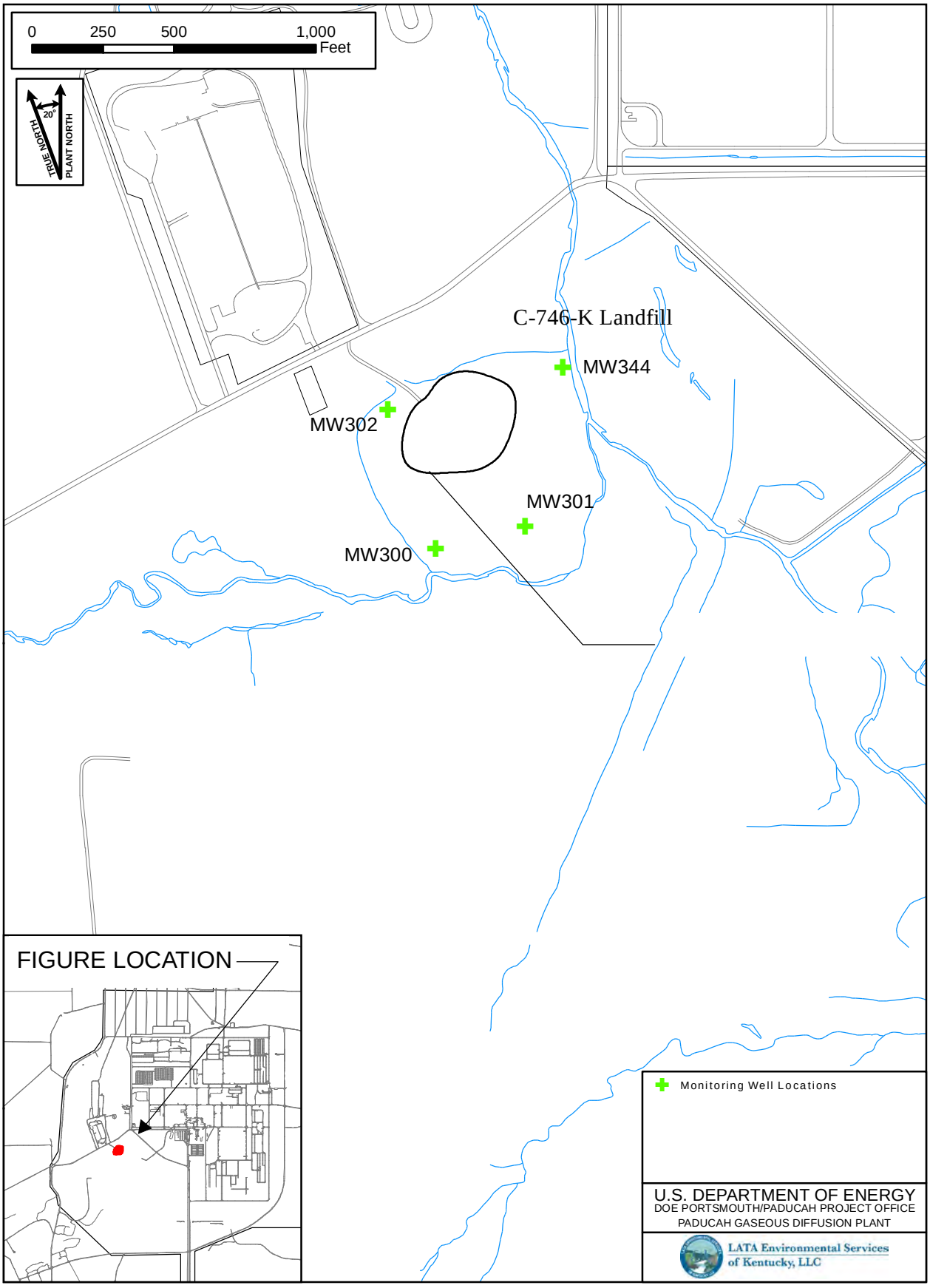

Figure C.1. Monitoring Well Locations

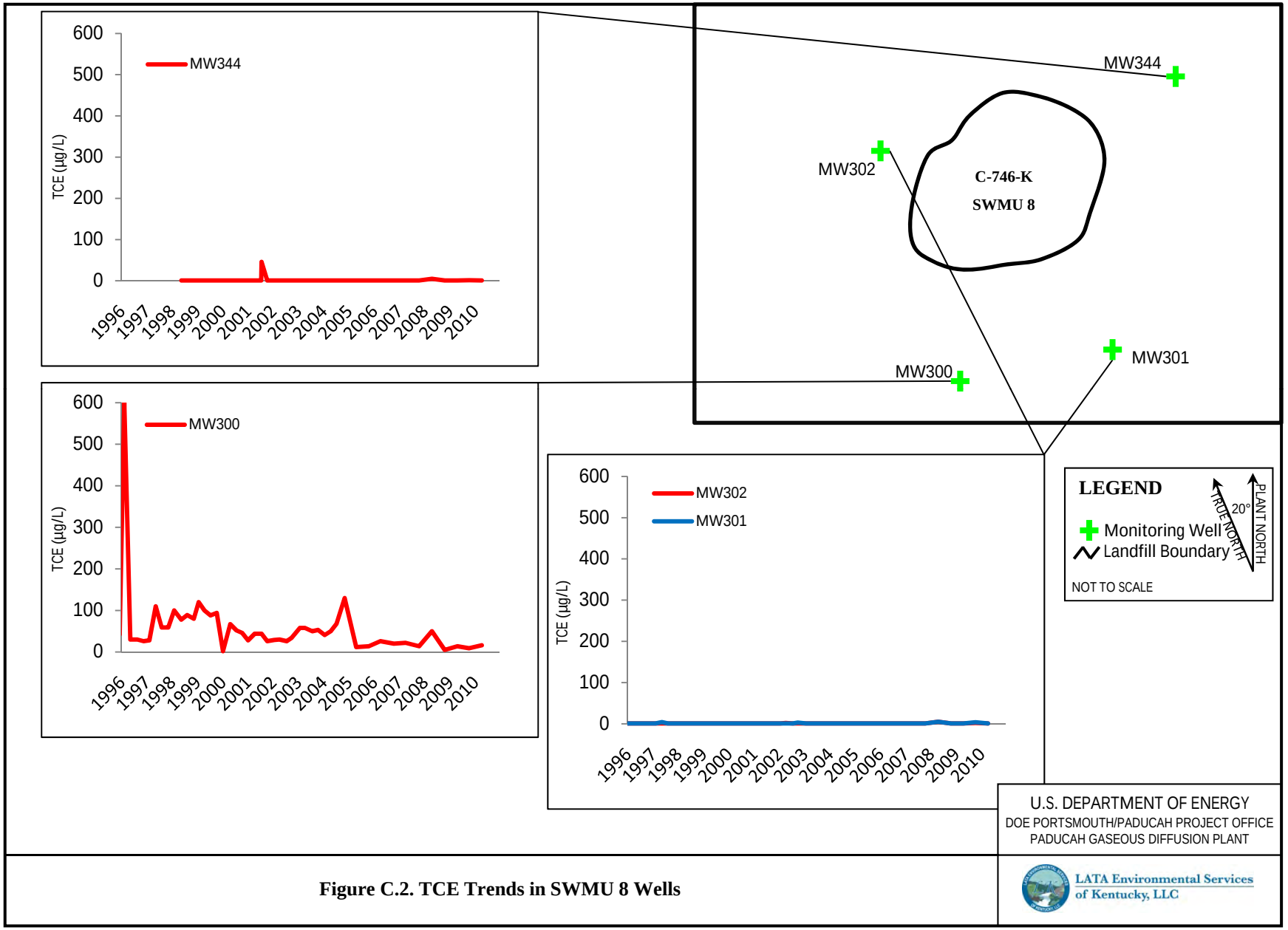

Figure C.2. TCE Trends in SWMU 8 Wells

T:\ER\PROJECTS\NE NW Plumes\FFA Semi-Annual Report\2011-03 Figures\20110412 SWMU 8 trends REG R0.pptx

C-746-K Landfill Monitoring

Water Quality Records for

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	.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	< -.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

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MW300

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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	.0101	.33	36.9	< 26.9	< 24.9	17.5	C022760027
1/30/2003	58	160	100	< 50	< 50	10.8	395	23.5	< 3.65	< 3.52	< 1.19	C030310020
4/15/2003	58	180	< 100	< 100	< 100	6.86	437	22.9	< 2.47	< 20.3	< 4.19	C031050068
7/30/2003	42	< 100	< 100	< 100	< 100	21.9	409	27	< 9.4	< 48.7	< 1.31	C032110044
7/30/2003	50	< 100	< 100	< 100	< 100	14.3	382	25.4	< 51.5	53.5	< 4.26	C032110045
10/21/2003	53	92	63	< 50	< 50	.55	497	24.9	< 39.1	< 38	< -4.59	C032950017
1/26/2004	41	120	< 100	< 100	< 100	.471	414	1.91	< 50.1	< 1.36	< 6.71	C040260079
4/21/2004	50	140	< 100	< 100	< 100	.591	327	17.2	< -5.55	< 8.26	< -1.58	C041130033
7/15/2004	68	160	< 100	< 100	< 100	.69	424	24.2	< 21.8	< -11.1	< -7.47	C041970166
7/15/2004	55	140	< 100	< 100	< 100	.882	396	22.9	< 15	< 17.4	< -6.91	C041970167
11/9/2004	130	110	< 100	< 100	< 100	.99	369	22.9	< 12	< 29.7	< -2.6	C043150018
4/27/2005	12	51	< 50	< 50	< 50	.289	126	11.8	< 19.1	39.8	< -2.41	C051170049
10/25/2005	14	65	< 50	< 50	< 50	.344	178	15.2	< 2.14	29.6	< 6.49	C052990006
10/25/2005	13	55	< 50	< 50	< 50	.259	199	16.1	< 18.1	38.4	< 8.37	C052990007
4/11/2006	26	120	77	< 50	< 50	< .2	161	16.5	< .896	< 28.2	< -2.86	C061020009
10/23/2006	< 20	< 100	< 100	< 100	< 100	.334	124	16.2	< -.251	< 16.2	< 8.62	C062960050
4/12/2007	22	120	60	< 50	< 50	< .2	203	18.1	< -3.16	< 33.1	< -1.66	C071030007
10/25/2007	14	120	77	< 5	< 5	< .2	162	19.7	< -.658	< 25.1	< 1.82	C072980183
10/25/2007	13	120	75	< 5	< 5	< .2	166	20.2	< 4.54	27.8	< 1.13	C072980184
4/28/2008	< 5	42	34	< 25	< 5		117	16.8	< -.155	64.4	< .8	C081200001
10/29/2008	< 5	48	32	< 25	< 5	< .2	63.9	15	< 6.06	43.7	< 11.7	C08304013001
10/29/2008	< 5	46	29	< 25	< 5	< .2	110	16.9	< 5.22	34.8	< 6.45	C08304013002
4/30/2009	14	93	52	< 5	< 5	< .2	104	27.4	< -.39	37	< 5.55	C09120015001
10/19/2009	11	39	24	< 2	< 2	< .2	36.9	11.2	< -1.13	28.4	< -8.36	C09292035001
10/19/2009	9	41	24	< 2	< 2	< .2	65	9.73	< -2.41	27.1	< -8.19	C09292035002
4/20/2010	16	130	58	< 25	< 5	< .2	121	19.2	< -4.11	33.6	< -1.74	C10110009002

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

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1/25/2002	< 1	< 5	< 5	< 5	< 5	< .2	146	14.5	< 3.69	< 28.3	< 2.51	C020250055
1/25/2002	< 1	< 5	< 5	< 5	< 5	< .2	154	15.4	< -2.44	51.6	< 6.3	C020250056
4/10/2002	< 1	< 5	< 5	< 5	< 5	.317	172	16.2	< 19	< 5.09	< .617	C021010049
7/24/2002	< 1	< 5	< 5	< 5	< 5	< .2	186	15.4	< 36.1	< 23.5	17.8	C022060005
10/3/2002	3	< 5	< 5	< 5	< 5	< .002	< .2	14.5	< 5.72	46.8	< 15	C022760029
1/30/2003	< 1	< 5	< 5	< 5	< 5	.287	166	15.5	< -1.71	< 6.29	< -.324	C030310017
1/30/2003	< 1	< 5	< 5	< 5	< 5	4.62	203	16.1	< .197	< 3.65	< 3.3	C030310018
4/14/2003	< 1	< 5	< 5	< 5	< 5	1.03	232	17.2	< .227	< 37.1	< -.162	C031040077
7/30/2003	< 1	< 5	< 5	< 5	< 5	.71	218	15.4	< 32.9	50.2	< 2.84	C032110046
10/21/2003	< 1	< 5	< 5	< 5	< 5	< .2	257	17.4	< 9.47	< 31.4	< 0	C032950018
1/26/2004	< 1	< 5	< 5	< 5	< 5	.39	267	19.6	< 14.9	53.3	< 10.8	C040260080
1/26/2004	< 1	< 5	< 5	< 5	< 5	.577	266	19.3	< 17.7	73	< 11.7	C040260081
4/21/2004	< 1	< 5	< 5	< 5	< 5	< .2	238	18	< 9.42	< 42.4	< -3	C041130034
7/15/2004	< 1	5	5	< 5	< 5	< .2	277	19.8	< 17.3	< 40.3	< -12.4	C041970168
10/19/2004	< 1	< 5	< 5	< 5	< 5	< .2	152	13.7	< -32.8	< 33.7	< -1.56	C042940033
4/27/2005	< 1	< 5	< 5	< 5	< 5	< .2	232	20.1	< -.987	129	< -6.58	C051170050
10/25/2005	< 1	5.1	5.6	< 5	< 5	< .2	289	19.9	< -12.7	51.3	< 4.49	C052990008
4/11/2006	< 1	< 5	5.2	< 5	< 5	< .2	287	20.9	< 8.03	50.9	< -2.97	C061020010
4/11/2006	< 1	< 5	5.4	< 5	< 5	< .2	279	19.6	< 3.04	62	< 8.86	C061020011
10/23/2006	< 1	5.9	5.8	< 5	< 5	.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	2.9	< 5	< 1		192	15.3	< 25.6	45.9	< -3.1	C081190047
4/28/2008	< 1	< 1	2.8	< 5	< 1		185	14.7	< 20.4	79.9	< -4.91	C081190048
10/29/2008	< 1	3.8	3.9	< 5	< 1	< .2	240	16.3	< 7.81	77.1	< 5.16	C08304013003
4/30/2009	< 1	4.5	4.4	< 1	< 1	< .2	160	14.5	< 17.8	85	< 12.3	C09120015003
4/30/2009	< 1	3.8	3.9	< 1	< 1	< .2	228	15.9	< 7.32	71	< 7.74	C09120015002
10/19/2009	3.8	5.5	4.8	< 1	< 1	< .2	208	14	< .393	58.6	< -1.75	C09292035003
4/20/2010	< 1	< 5	3	< 5	< 1	< .2	198	13.8	< 11.5	50.7	< -8.41	C10110009004
4/20/2010	< 1	< 5	2.9	< 5	< 1	< .2	196	13.7	< -7.51	45.2	< -8.84	C10110009005

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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		.415	.238	.189	< 3.09	< 3.11	< .94	3220301
3/21/1995	< 1	< 5	< 5	< 5	< 5		2.6	.26	2.2	5	8	950322-048
7/12/1995	< 1	< 5	< 5	< 5	< 5		.702	.175	4	13	6	950713-149
9/11/1995	< 1	< 5	< 5	< 5	< 5	1.3	1.06	.139	7.2	2	13	950912-007
12/7/1995	< 1	< 5	< 5	< 5	< 5		2.39	.087	6.2	3	2	951211-018
2/13/1996	< 1	< 5	< 5	< 5	< 5	2.14	1.68	.08	-6	-2	1	960214-054
2/13/1996	< 1	< 5	< 5	< 5	< 5	2.61	2.14	.099	-5.4	-4	0	960214-058
5/9/1996	< 1	< 5	< 5	< 5	< 5	< .75	< .3	.041	.9	17	6	960513-009
8/20/1996	< 1	< 5	< 5	< 5	< 5	< .75	< .3	< .05	12.3	5	11	960821-020
8/20/1996	< 1	< 5	< 5	< 5	< 5	< .75	< .3	.058	4.4	6	6	960821-022
2/10/1997	< 1	< 5	< 5	< 5	< 5	< .75	.31	.157	-.2	1	0	970211-011
2/10/1997	< 1	< 5	< 5	< 5	< 5	< .75	1.64	.19	2.9	3	0	970211-010
5/13/1997	< 1	< 5	< 5	< 5	< 5	< .75	< .3	.099	5.9	3	10	970514-044
8/7/1997	< 1	< 5	< 5	< 5	< 5	< 1	< .25	< .1	2.8	1	0	970807-144
8/7/1997	< 1	< 5	< 5	< 5	< 5	< 1	< .25	.12	1.6	1	2	970807-145
11/10/1997	< 1	< 5	< 5	< 5	< 5	1.02	1.09	.11	9.8	14	0	971110-118
2/5/1998	< 1	< 5	< 5	< 5	< 5	< 1	< .5	.114	< 1.8	< 0	< 5	C980370102
2/5/1998	< 1	< 5	< 5	< 5	< 5	< 1	< .5	< .1	< 1.2	< 4	< -2	C980370103
5/20/1998	< 1	< 5	< 5	< 5	< 5	< 1	< .25	.167	< -.9	8	< 2.8	C981400087
5/20/1998	< 1	< 5	< 5	< 5	< 5	< 1	< .25	.164	< 2.3	37	< 2.1	C981400088
8/11/1998	< 1	< 5	< 5	< 5	< 5	< 1	< .2	.173	< 7.6	11	< -7.6	C982240043
8/11/1998	< 1	< 5	< 5	< 5	< 5	< 1	< .2	.143	< 1	< 4	< -1	C982240044
11/16/1998	< 1	< 5	< 5	< 5	< 5	< 1	< .2	.1	< 3.6	8.03	< -7.2	C983200082
1/25/1999	< 1	< 5	< 5	< 5	< 5	< 1	< .2	.11	< .86	< .3	< -19.8	C990250156
4/19/1999	< 1	< 5	< 5	< 5	< 5	.22	< .2	.122	< 1.67	< 4.72	< -18.5	C991090062
7/15/1999	< 1	< 5	< 5	< 5	< 5	< .2	< .2	.157	< .82	< -20.12	< 5.04	C991960148
10/14/1999	< 1	< 5	< 5	< 5	< 5	< .2	< .2	.069	< 4.18	< 3.33	< -1.15	C992870107
1/13/2000	< 1	< 5	< 5	< 5	< 5	< .2	.381	.05	< .05	< 5.09	< 1.59	C000130119
4/27/2000	< 1	< 5	< 5	< 5	< 5	< .2	< .2	.11	< 4.56	< 2.89	< -21.3	C001190011
4/27/2000	< 1	< 5	< 5	< 5	< 5	< .2	< .2	.118	< 1.91	< 4.14	< -16.4	C001190012
7/27/2000	< 1	< 5	< 5	< 5	< 5	.203	.315	.185	< 6.72	< 4.08	< -2.03	C002090104
10/16/2000	< 1	< 5	< 5	< 5	< 5	< .2	< .2	.08	< 2.79	22.54	< 5.95	C002910046

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MW302

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	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	< .2	< .2	.101	< -4.7	< 3.52	< 2.65	C010100095
1/10/2001	< 1	< 5	< 5	< 5	< 5	< .2	< .2	.112	< .329	< 5.56	< 8.77	C010100096
4/16/2001	< 1	< 5	< 5	< 5	< 5	< .2	< .2	.068	< -4.37	< 1	< 12.2	C011060086
7/24/2001	< 1	< 5	< 5	< 5	< 5	< .2	< .2	.053	< 1.09	< 1.72	< 12.4	C012060011
10/15/2001	< 1	< 5	< 5	< 5	< 5	< .2	< .2	.207	< 2.32	< .344	< 4.48	C012880076
1/22/2002	< 1	< 5	< 5	< 5	< 5	< .2	< .2	.047	< 5.75	< 1.7	< 11.5	C020220047
4/10/2002	< 1	< 5	< 5	< 5	< 5	< .2	< .2	.054	< 5.56	< -1.95	< 4.88	C021010050
4/10/2002	2	< 5	< 5	< 5	< 5	< .2	< .2	.062	< 2.37	< -2.75	< -3.64	C021010051
7/24/2002	< 1	< 5	< 5	< 5	< 5	< .2	< .2	.056	9.53	< 2.21	< 14.7	C022060006
10/3/2002	< 1	< 5	< 5	< 5	< 5	< .002	< .002	.0688	< 9.5	< 2.76	< 10.1	C022760028
1/30/2003	< 1	< 5	< 5	< 5	< 5	.639	.762	.144	< -.209	< 1.74	< 2.05	C030310021
4/15/2003	< 1	< 5	< 5	< 5	< 5	< .2	< .2	.0607	< 2.62	< 1.04	< 4.54	C031050066
4/15/2003	< 1	< 5	< 5	< 5	< 5	< .2	< .2	.0609	< -4.39	43.1	16.2	C031050067
7/30/2003	< 1	< 5	< 5	< 5	< 5	< .2	.523	1.3	< 6.9	< 4.11	< -9.55	C032110047
10/21/2003	< 1	< 5	< 5	< 5	< 5	< .2	5.77	1.88	< 4.13	< 2.82	< -6.62	C032950016
1/26/2004	< 1	< 5	< 5	< 5	< 5	< .2	2.64	1.98	< -3.37	9.48	< 6.25	C040260078
4/21/2004	< 1	< 5	< 5	< 5	< 5	< .2	.611	1.63	< 6.89	< -1.62	< -.819	C041130035
4/21/2004	< 1	< 5	< 5	< 5	< 5	< .2	.302	1.71	< -1.61	< -.897	< 5.4	C041130036
7/15/2004	< 1	< 5	< 5	< 5	< 5	< .2	1.18	1.63	< 5.85	< -.825	< -12.4	C041970169
10/19/2004	< 1	< 5	< 5	< 5	< 5	< .2	.244	1.06	< -4.94	< 3.65	< 4.4	C042940032
4/27/2005	< 1	< 5	< 5	< 5	< 5	< .2	.154	.708	< .394	< .723	< 15.5	C051170051
4/27/2005	< 1	< 5	< 5	< 5	< 5	< .2	< .1	.675	< 1.48	< 3.76	< 15.3	C051170052
10/25/2005	< 1	< 5	< 5	< 5	< 5	< .2	< .1	1.35	< -1.17	< .46	< 9.83	C052990009
4/11/2006	< 1	< 5	< 5	< 5	< 5	.418	1.02	.572	< -1.64	< 3.54	< .914	C061020008
10/26/2006	< 1	< 5	< 5	< 5	< 5	.347	.479	.99	< -.702	< 3.23	< 8.62	C062990102
10/26/2006	< 1	< 5	< 5	< 5	< 5	< .2	.128	.986	< -3.44	< 2.09	< 8.97	C062990103
4/12/2007	< 1	< 5	< 5	< 5	< 5	< .2	.131	.345	< 4.96	< 3.59	< 13.1	C071030006
10/25/2007	< 1	< 1	< 1	< 1	< 1	< .2	.317	.622	< 3.48	< 4.7	< -3.38	C072980110
4/28/2008	< 1	< 1	< 1	< 5	< 1		< .1	.263	< 3.99	< -.184	< -5.34	C081190049
10/29/2008	< 1	< 1	< 1	< 5	< 1	.23	.281	.319	< 1.16	< .994	< 10.6	C08304013004
4/30/2009	< 1	< 1	< 1	< 1	< 1	< .2	< .1	.215	< 1.78	< 1.17	< 1.39	C09120016001
10/19/2009	2.1	< 1	< 1	< 1	< 1	.493	.425	.433	< .942	< 1.51	< -6.33	C09292035004

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MW302

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4/20/2010	< 1	< 5	< 1	< 5	< 1	.933	1.5	1.01	< 1.13	< 1.46	< -.868	C10110009001

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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	.663	< 4	24	< -2.8	C981400089
8/11/1998	< 1	< 5	< 5	< 5	< 5	7.65	13.1	.946	< 3.2	11	< -1.3	C982240042
11/16/1998	< 1	< 5	< 5	< 5	< 5	2.65	12.2	.83	< 5.66	8.45	< 6.8	C983200078
11/16/1998	< 1	< 5	< 5	< 5	< 5	2.43	9.51	.65	< 2.27	9.59	< -3.1	C983200079
1/25/1999	< 1	< 5	< 5	< 5	< 5	8.54	13	.79	< .1	14.19	< 8.4	C990250157
4/19/1999	< 1	< 5	< 5	< 5	< 5	9.26	16.1	.827	< 4.05	8.24	< -9.06	C991090063
7/15/1999	< 1	< 5	< 5	< 5	< 5	3.21	13.6	.756	< 3.29	< 3.03	< 7.03	C991960149
10/14/1999	< 1	< 5	< 5	< 5	< 5	8.76	13.1	.871	5.38	< 5.75	< 7.28	C992870108
1/13/2000	< 1	< 5	< 5	< 5	< 5	1.35	9.06	.565	< .74	12.89	< 6.94	C000130121
4/27/2000	< 1	< 5	< 5	< 5	< 5	3.68	10.8	.523	< 2.81	19.31	< -2.65	C001190013
7/27/2000	< 1	< 5	< 5	< 5	< 5	1.92	8.16	.531	7.68	12.31	< 10.4	C002090102
7/27/2000	< 1	< 5	< 5	< 5	< 5	1.27	6.22	.404	< 4.3	14.19	< -6.62	C002090103
10/16/2000	< 1	< 5	< 5	< 5	< 5	1.92	6.81	.525	< 1.79	15.94	< .674	C002910047
10/16/2000	< 1	< 5	< 5	< 5	< 5	1.5	5.4	.37	< -.9	21.88	< 1.57	C002910048
1/10/2001	< 1	< 5	< 5	< 5	< 5	4.4	6.02	.396	< .529	< 1.5	< 4.46	C010100099
4/16/2001	< 1	< 5	< 5	< 5	< 5	2.3	7.02	.411	< 1.98	6.24	< -7.79	C011060089
7/19/2001	< 1	< 5	< 5	< 5	< 5	1.83	5.1	.355	< -2.34	< 1.95	< 7.79	C012010060
7/24/2001	46	100	59	< 50	< 50	15.8	315	27.7	< 32.1	< 25.1	< 12.4	C012060009
10/15/2001	< 1	< 5	< 5	< 5	< 5	.655	3.55	.399	< 4.6	< 2.4	< -2	C012880066
10/15/2001	< 1	< 5	< 5	< 5	< 5	.797	3.79	.329	< .901	9.99	< -8.48	C012880067
1/22/2002	< 1	< 5	< 5	< 5	< 5	1.37	5.33	.366	< 5.38	6.15	< 6.69	C020220045
4/10/2002	< 1	< 5	< 5	< 5	< 5	1.63	7.58	.378	< -.899	< 2.73	< 4.04	C021010052
7/24/2002	< 1	< 5	< 5	< 5	< 5	2.07	5.44	.49	10.2	< 6.95	< 4.82	C022060007
10/3/2002	< 1	< 5	< 5	< 5	< 5	.00423	.00456	.323	< 5.83	< 5.09	18.5	C022760030
10/3/2002	< 1	< 5	< 5	< 5	< 5	.00323	.00478	.366	< 2.54	< 2.37	< 13.8	C022760031
1/30/2003	< 1	< 5	< 5	< 5	< 5	1.68	4.16	.378	< -2.18	< .631	< 2	C030310019
4/14/2003	< 1	< 5	< 5	< 5	< 5	3.92	3.28	.268	< .0183	< 8.74	20.4	C031040078
7/30/2003	< 1	< 5	< 5	< 5	< 5	21.9	35.4	6.18	< 12.1	< 6.22	< 12.3	C032110048
10/21/2003	< 1	< 5	< 5	< 5	< 5	4.19	32.6	.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

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MW344

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7/15/2004	< 1	< 5	< 5	< 5	< 5	< .2	12.9	1.61	< .82	< 2.89	< -8.52	C041970170
10/19/2004	< 1	< 5	< 5	< 5	< 5	2.99	11.8	1.63	< -2.19	< .172	< 4.34	C042940035
10/19/2004	< 1	< 5	< 5	< 5	< 5	2.51	13.2	1.56	< -.79	9.99	< -3.88	C042940034
4/27/2005	< 1	< 5	< 5	< 5	< 5	3.67	7.9	.692	< .794	5.87	< 10.7	C051170053
10/25/2005	< 1	< 5	< 5	< 5	< 5	1.49	5.25	.714	< 2.1	< 5.13	< 8.07	C052990010
4/11/2006	< 1	< 5	< 5	< 5	< 5	2.55	6.79	.419	< 2.13	< 5.53	< .686	C061020012
10/26/2006	< 1	< 5	< 5	< 5	< 5	4.32	5.55	.472	< 2.45	< 5.05	< 13.9	C062990104
4/12/2007	< 1	< 5	< 5	< 5	< 5	13.5	7.9	.279	< 6.28	< 4.88	< -3.22	C071030003
4/12/2007	< 1	< 5	< 5	< 5	< 5	7.87	6.28	.286	8.77	< 7.36	< 7.1	C071030004
10/25/2007	< 1	< 1	< 1	< 1	< 1	5.46	4.1	.217	< 2.24	< 2.43	< 1.88	C072980185
4/28/2008	< 1	< 1	< 1	< 5	< 1		.947	.183	< 1.35	< 4.02	< 2.67	C081200002
10/29/2008	< 1	< 1	< 1	< 5	< 1	3.36	3.64	.256	< 2.88	< 4.82	< .645	C08304013005
4/30/2009	< 1	< 1	< 1	< 1	< 1	4	3.56	.19	< 2.62	5.57	< 10.1	C09120016002
10/19/2009	1.3	< 1	< 1	< 1	< 1	3.55	3.04	.299	< 1.6	< 4.25	< -.283	C09292035005
4/20/2010	< 1	< 5	< 1	< 5	< 1	11.5	22	.262	9.17	8.43	< 10	C10110009003

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APPENDIX D

ADMINISTRATIVE RECORD AND POST-DECISION RECORD INDICES

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Paducah Documents Added to the Administrative Record Files- Fourth Quarter CY 2010

Document Status	Date On Document	Document Id	Title	Author Affiliation	To Affiliation	Protected Information	Object Name
ARF4-1	10/19/10	DOE/LX/07-0335&D2	APPROVAL OF THE EXTENSION REQUEST FOR SUBMITTAL OF THE ENGINEERING EVALUATION COST ANALYSIS FOR A REMOVAL ACTION AT THE C-747 CONTAMINATED BURIAL YARD AND C-748-B BURIAL AREA (SWMU 4)(DOE/LX/07-0335&D2)	KDEP	DOE-PPPO	**No**	I-05212-0016
ARFBGOU	10/18/10	PPPO-02-1028411-11	NOTIFICATION OF SCHEDULE EXTENSION FOR SUBMITTAL OF THE D2 FEASIBILITY STUDY FOR THE BURIAL GROUND OPERABLE UNIT AT PGDP AND PROPOSED MILESTONE MODIFICATION REQUEST FOR D1 PROPOSED PLAN, ROD,REMEDIAL DESIGN WORK PLAN AND THE COMPLETION REPORT	DOE-PPPO	USEPA-4	**No**	I-05211-0027
ARFC-340	09/23/10	PPPO-02-1024730-10	NOTIFICATION OF REMOVAL ACTION START FOR THE PADUCAH C-746-A EAST END SMELTER	DOE-PPPO	USEPA-4	**No**	I-05616-0017
ARFC-340	09/29/10	PPPO-02-1031663-10	NOTIFICATION OF SCHEDULE EXTENSION FOR THE REMOVAL ACTION WORK PLAN FOR THE C-340 METALS REDUCTION PLANT COMPLEX AT THE PADUCAH GASEOUS DIFFUSION PLANT, PADUCAH, KENTUCKY (DOE/LX/07-0344&D2)	DOE-PPPO	USEPA-4	**No**	I-05616-0018
ARFSOU	10/08/10	DOE/LX/07-0225&D2/R2	APPROVAL OF THE SITE EVALUATION REPORT FOR ADDENDUM 1-B SOILS PILES AT THE PADUCAH GASEOUS DIFFUSION PLANT, PADUCAH, KENTUCKY (DOE/LX/07-0225&D2/R2)	KDEP	DOE-PPPO	**No**	I-04907-0104

Paducah Documents Added to the Post-Decision Files- Fourth Quarter CY 2010

Document Status	Date On Document	Document Id	Title	Author Affiliation	To Affiliation	Protected Information	Object Name
GW1-PD	09/13/10	PPPO-02-893867-10B	TRANSMITTAL OF THE D4/R5 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)	DOE-PPPO	USEPA-4	**No**	I-00127-0061
GW1-PD	09/30/10	PPPO-02-988426-10B	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&D1)	DOE-PPPO	USEPA-4	**No**	I-00113-0025
GW1-PD	10/06/10	DOE/OR/07-1253&D4R5	CONCURRENCE ON THE OPERATION AND MAINTENANCE PLAN FOR THE NORTHWEST PLUME GROUNDWATER EXTRACTION SYSTEM INTERIM REMEDIAL ACTION FOR THE PADUCAH GASEOUS DIFFUSION PLANT (PGDP)(DOE/OR/07-1253&D4R5)	USEPA-4	DOE-PPPO	**No**	I-00127-0060

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Document Status	Date On Document	Document Id	Title	Author Affiliation	To Affiliation	Protected Information	Object Name
ARF4-1	10/20/10	DOE/LX/07-0335&D2	APPROVAL OF THIRD EXTENSION REQUEST BY DOE FOR THE D2 ENGINEERING EVALUATION COST ANALYSIS FOR THE C-747 CONTAMINATED BURIAL YARD AND C-748-B BURIAL AREA (SWMU 4) AT THE PADUCAH GASEOUS DIFFUSION PLANT (DOE/LX/07-0335&D2)	USEPA-4	DOE-PPPO	**No**	I-05212-0021
ARFBGOU	10/26/10	DOE/LX/07-0130&D2	REPLY TO THE EXTENSION REQUEST FOR SUBMITTAL OF THE FEASIBILITY STUDY FOR THE BGOU AND THE PROPOSED MILESTONE MODIFICATION REQUEST FOR SUBMITTAL OF THE FOLLOWING BGOU D1 DOCUMENTS: PROPOSED PLAN, ROD, REMEDIAL DESIGN WORK PLAN, & REMEDIAL ACTION COMPLETIO	KDEP	DOE-PPPO	**No**	I-05211-0036
ARFBGOU	12/20/10	DOE/LX/07-0130&D2	EXTENSION REQUEST FOR REVIEW OF THE FEASIBILITY STUDY FOR THE BURIAL GROUNDS OPERABLE UNIT (DOE/LX/07-0130&D2)	KDEP	DOE-PPPO	**No**	I-05211-0037
ARFBGOU	01/12/11	PPPO-02-1105598-11	MILESTONE MODIFICATION FOR THE BURIAL GROUNDS OPERABLE UNIT PROJECT AT THE PADUCAH GASEOUS DIFFUSION PLANT	DOE-PPPO	USEPA-4	**No**	I-05209-0071
ARFBGOU	01/14/11	DOE/LX/07-0130&D2	EPA NON-CONCURRENCE WITH THE FEASIBILITY STUDY FOR THE BURIAL GROUNDS OPERABLE UNIT AT THE PADUCAH GASEOUS DIFFUSION PLANT (PGDP) (DOE/LX/07-0130&D2)	USEPA-4	DOE-PPPO	**No**	I-05211-0038
ARFC-340	09/23/10	PPPO-02-1024730-10	NOTIFICATION OF REMOVAL ACTION START FOR THE PADUCAH C-746-A EAST END SMELTER	DOE-PPPO	USEPA-4	**No**	I-05616-0023
ARFC-340	09/29/10	PPPO-02-1031663-10	NOTIFICATION OF SCHEDULE EXTENSION FOR THE REMOVAL ACTION WORK PLAN FOR THE C-340 METALS REDUCTION PLANT COMPLEX AT THE PADUCAH GASEOUS DIFFUSION PLANT, PADUCAH, KENTUCKY (DOE/LX/07-0344&D2)	DOE-PPPO	USEPA-4	**No**	I-05616-0024
ARFC-340	10/01/10	DOE/LX/07-0344&D2	APPROVAL OF EXTENSION REQUEST FOR SUBMITTAL OF THE REMOVAL ACTION WORK PLAN FOR THE C-340 COMPLEX DECOMMISSIONING (DOE/LX/07-0344&D2)	KDEP	DOE-PPPO	**No**	I-05616-0025
ARFC-340	11/04/10	DOE/LX/07-0344&D2	[KDEP] APPROVAL OF THE REMOVAL ACTION WORK PLAN FOR THE C-340 COMPLEX DECOMMISSIONING (DOE/LX/07-0344&D2)	KDEP	DOE-PPPO	**No**	I-05616-0026
ARFC-410	10/06/10	PPPO-02-1017454-11	TRANSMITTAL OF THE REPLACEMENT PAGES FOR THE REMOVAL ACTION WORK PLAN ADDENDUM FOR C-410 COMPLEX INFRASTRUCTURE DECONTAMINATION AND DECOMMISSIONING PROJECT AT THE PADUCAH GASEOUS DIFFUSION PLANT, PADUCAH, KENTUCKY (DOE/LX/07-0304&D2/R1)	DOE-PPPO	USEPA-4	**No**	I-05116-0103
ARFC-410	11/10/10	DOE/LX/07-0304&D2/R1	[KDEP] APPROVAL OF THE REMOVAL ACTION WORK PLAN ADDENDUM FOR C-410 COMPLEX INFRASTRUCTURE DECONTAMINATION AND DECOMMISSIONING PROJECT (DOE/LX/07-0304&D2/R1)	KDEP	DOE-PPPO	**No**	I-05116-0106
ARFC-410	11/15/10	DOE/LX/07-0304&D2/R1	EPA APPROVAL OF THE REMOVAL WORK PLAN ADDENDUM FOR THE C-410 BUILDING COMPLEX AT THE PADUCAH GASEOUS DIFFUSION PLANT (DOE/XL/07-0304&D2/R1)	USEPA-4	DOE-PPPO	**No**	I-05116-0105
ARFC-410	01/11/11	PPPO-02-1105621-11	DECLARATION OF COMPLETION FOR THE C-410 AMERICAN RECOVERY AND REINVESTMENT ACT PROJECT	DOE-PPPO	DOE-PPPO	**No**	I-05119-0001

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ARFCC	11/17/10	PPPO-02-1057481-11A	REPLY TO KY DIVISION OF WASTE MANAGEMENT LETTER INVOKING INFORMAL DISPUTE FOR AND THE EPA WITHDRAWAL OF APPROVAL OF THE WORK PLAN FOR THE CERCLA WASTE DISPOSAL ALTERNATIVES EVALUATION REMEDIAL INVESTIGATION FEASIBILITY STUDY (DOE/LX/07-0099&D2/R1)	DOE-PPPO	KDWM	**No**	I-05309-0036
ARFCC	11/23/10	PPPO-02-1057481-11B	PADUCAH FEDERAL FACILITY AGREEMENT NOTIFICATION OF EXTENSION OF INFORMAL DISPUTE RESOLUTION ON THE WASTE DISPOSAL ALTERNATIVES EVALUATION RI/FS WORK PLAN AT THE PADUCAH GASEOUS DIFFUSION PLANT (DOE/LX/07-0099&D2/R1)	DOE-PPPO	USEPA-4	**No**	I-05309-0037
ARFCC	12/22/10	PPPO-02-1057481-11D	PADUCAH FEDERAL FACILITY AGREEMENT EXTENSION OF INFORMAL DISPUTE RESOLUTION ON THE WASTE DISPOSAL ALTERNATIVES EVALUATION REMEDIAL INVESTIGATION FEASIBILITY STUDY WORK PLAN AT THE PADUCAH GASEOUS DIFFUSION PLANT (DOE/LX/07-0099&D2/R1)	DOE-PPPO	USEPA-4	**No**	I-05309-0038
ARFCC	01/10/11	PPPO-02-1057481-11E	PADUCAH FEDERAL FACILITY AGREEMENT EXTENSION OF INFORMAL DISPUTE RESOLUTION ON THE WASTE DISPOSAL ALTERNATIVES EVALUATION REMEDIAL INVESTIGATION FEASIBILITY STUDY WORK PLAN AT THE PADUCAH GASEOUS DIFFUSION PLANT (DOE/LX/07-0099&D2/R1)	DOE-PPPO	USEPA-4	**No**	I-05309-0035
ARFREF	11/15/10	PPPO-02-1065478-11	MILESTONE MODIFICATION REQUEST FOR SUBMITTAL OF THE D1 FISCAL YEAR 2011 SITE MANAGEMENT PLAN, PADUCAH GASEOUS DIFFUSION PLANT, PADUCAH, KENTUCKY (DOE/LX/07-0348&D1)	DOE-PPPO	USEPA-4	**No**	I-02001-0799
ARFREF	11/29/10	DOE/LX/07-0348&D1	[KDEP]APPROVAL OF A MODIFICATION TO THE PADUCAH FEDERAL FACILITY AGREEMENT, SUBMITTAL OF THE D1 FISCAL YEAR 2011 SITE MANAGEMENT PLAN (DOE/LX/07-0348&D1)	KDEP	DOE-PPPO	**No**	I-02001-0795
ARFREF	12/22/10	PPPO-02-1085988-11	FEDERAL FACILITY AGREEMENT PROJECT MANAGERS MEETINGS CONDUCTED MAY 20, JUNE 17, JUNE 30-JULY 1, AND AUGUST 18, 2010	DOE-PPPO	USEPA-4	**No**	I-02001-0797
ARFREF	01/12/11	DOE/LX/07-0348&D1	EXTENSION REQUEST FOR SUBMITTAL OF COMMENTS TO THE 2011 SITE MANAGEMENT PLAN (DOE/LX/07-0348&D1)	KDEP	DOE-PPPO	**No**	I-02001-0800
ARFREF	01/13/11	DOE/LX/07-0348&D1	EXTENSION NOTICE, FY 2011 SITE MANAGEMENT PLAN FOR THE PADUCAH GASEOUS DIFFUSION PLANT, DOE/LX/07-0348&D1	USEPA-4	DOE-PPPO	**No**	I-02001-0796
ARFREF	02/01/11	DOE/LX/07-0348&D1	EPA COMMENTS, FY 2011 SITE MANAGEMENT PLAN FOR THE PADUCAH GASEOUS DIFFUSION PLANT, DOE/LX/07-0348&D1	USEPA-4	DOE-PPPO	**No**	I-02001-0801
ARFREF	02/08/11	DOE/LX/07-0348&D1	[KDEP] COMMENTS ON THE 2011 SITE MANAGEMENT PLAN (DOE/LX/07-0348&D1)	KDEP	DOE-PPPO	**No**	I-02001-0802
ARFREF	02/11/11	PPPO-02-1136688-11	FEDERAL FACILITY AGREEMENT INTEGRATED PRIORITY LIST AND ASSESSMENT OF BUDGET TARGETS ON SITE PRIORITIES	DOE-PPPO	USEPA-4	**No**	I-02001-0803
ARFSOU	10/06/10	DOE/LX/07-0120&D2/R2	[EPA] APPROVAL OF THE D2/R2 WORK PLAN FOR THE SOILS OPERABLE UNIT REMEDIAL INVESTIGATION FEASIBILITY STUDY AT THE PADUCAH GASEOUS DIFFUSION PLANT, PADUCAH, KENTUCKY (DOE/LX/07-0120&D2/R2)	USEPA-4	DOE-PPPO	**No**	I-04909-0158
ARFSOU	11/18/10	PPPO-02-1040473-11	PROPOSED MILESTONE MODIFICATION FOR THE SOILS OPERABLE UNIT REMEDIAL ACTION PROJECT AT THE PADUCAH GASEOUS DIFFUSION PLANT	DOE-PPPO	USEPA-4	**No**	I-04909-0154

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ARFSOU	12/17/10	DOE/LX/07-0120&D2/R2	[EPA] REPLY TO DOE'S MILESTONE MODIFICATION REQUEST FOR THE SOILS OPERABLE UNIT REMEDIAL ACTION PROJECT AT THE PADUCAH GASEOUS DIFFUSION PLANT	USEPA-4	DOE-PPPO	**No**	I-04909-0156
ARFSOU	12/20/10		[KDEP] REPLY TO DOE'S MILESTONE MODIFICATION REQUEST FOR THE SOILS OPERABLE UNIT REMEDIAL ACTION PROJECT AT THE PADUCAH GASEOUS DIFFUSION PLANT	KDEP	DOE-PPPO	**No**	I-04909-0157
ARFSOU	01/24/11	PPPO-02-1123892-11	PADUCAH FEDERAL FACILITY AGREEMENT RESOLUTION OF THE DOE NOTIFICATION OF INVOCATION OF INFORMAL DISPUTE OF THE MILESTONE MODIFICATION REQUEST FOR SUBMITTAL OF THE D1 REMEDIAL INVESTIGATION REPORT AND SUBSEQUENT DOCUMENTS FOR SOILS OPERABLE UNIT AT PGDP	DOE-PPPO	USEPA-4	**No**	I-04910-0015
ARFSOU	02/11/11	PPPO-02-1140391-11	MILESTONE MODIFICATION FOR THE SOILS OPERABLE UNIT PROJECT AT THE PADUCAH GASEOUS DIFFUSION PLANT	DOE-PPPO	USEPA-4	**No**	I-04910-0014

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6PHASE-PD	10/25/10	DOE/LX/07-0004&D2/R2	MODIFICATION OF A FINAL PRIMARY DOCUMENT, REMEDIAL ACTION WORK PLAN FOR THE C-400 CLEANING BLDG INTERIM REMEDIAL ACTION (DOE/LX/07-0004&D2/R2) AT THE PADUCAH GASEOUS DIFFUSION PLANT (PGDP)	USEPA-4	DOE-PPPO	**No**	I-04616-0108
6PHASE-PD	11/23/10	PPPO-02-1065539-11	TRANSMITTAL OF THE ADDENDUM TO THE REMEDIAL ACTION WORK PLAN FOR THE INTERIM REMEDIAL ACTION FOR THE VOLATILE ORGANIC COMPOUND CONTAMINATION AT THE C-400 CLEANING BUILDING AT THE PADUCAH GASEOUS DIFFUSION PLANT, PADUCAH, KENTUCKY (DOE/LX/07-0004&D2/R2/A1)	DOE-PPPO	USEPA-4, KDEP	**No**	I-04616-0111
6PHASE-PD	12/29/10	DOE/LX/07-0004&D2/R2/A1	NOTICE OF 30-DAY EXTENSION FOR EPA REVIEW OF THE REMEDIAL ACTION WORK PLAN FOR THE INTERIM REMEDIAL ACTION (IRA) FOR VOC CONTAMINATION AT THE C-400 CLEANING BUILDING AT THE PADUCAH GASEOUS DIFFUSION PLANT (PGDP)(DOE/LX/07-0004&D2/R2/A1)	USEPA-4	DOE-PPPO	**No**	I-04616-0113
6PHASE-PD	01/04/11	DOE/LX/07-0004&D2/R2/A1	EPA REVIEW OF THE REMEDIAL ACTION WORK PLAN APPENDIX E, FIELD SAMPLING PLAN FOR PHASE 2 OF THE IRA FOR VOC CONTAMINATION AT THE C-400 CLEANING BUILDING AT THE PADUCAH GASEOUS DIFFUSION PLANT (PGDP)(DOE/LX/07-0004&D2/R2/A1)	USEPA-4	DOE-PPPO	**No**	I-04616-0110
6PHASE-PD	01/05/11	DOE/LX/07-0004&D2/R2/A1	NOTICE OF 30-DAY EXTENSION FOR REVIEW OF THE FIELD SAMPLING PLAN FOR DEVELOPING PREDICTIVE RELATIONSHIPS AND AUGMENTATION OF RESULTS OF THE MEMBRANE INTERFACE PROBE LOGS OF THE SOUTHEAST C-400 DENSE NON-AQUEOUS-PHASE LIQUID AREA (DOE/LX/07-0004&D2/R2/A1)	KDEP	DOE-PPPO	**No**	I-04616-0114
6PHASE-PD	01/18/11	DOE/LX/07-0004&D2/R2/A1	FIELD SAMPLING PLAN FOR DEVELOPING PREDICTIVE RELATIONSHIPS AND AUGMENTATION OF RESULTS OF THE MEMBRANE INTERFACE PROBE LOGS OF THE SOUTHEAST C-400 DENSE NONAQUEOUS-PHASE LIQUID AREA (DOE/LX/07-0004&D2/R2/A1)	KDEP	DOE-PPPO	**No**	I-04616-0115
GW1-PD	12/08/10	PPPO-02-1056580-11, DOE/LX/07-0343&D2	TRANSMITTAL TO THE 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-PPPO	USEPA-4, KDEP	**No**	I-00126-0013
GW1-PD	01/04/11	DOE/LX/07-0343&D2	[KDEP]APPROVAL OF THE EXPLANATION OF SIGNIFICANT DIFFERENCES TO THE RECORD OF DECISION FOR THE INTERIM REMEDIAL ACTION OF THE NORTHWEST PLUME(DOE/LX/07-0343&D2)	KDEP	DOE-PPPO	**No**	I-00126-0014

APPENDIX E

C-400 PROJECT GROUNDWATER MONITORING WELLS DATA

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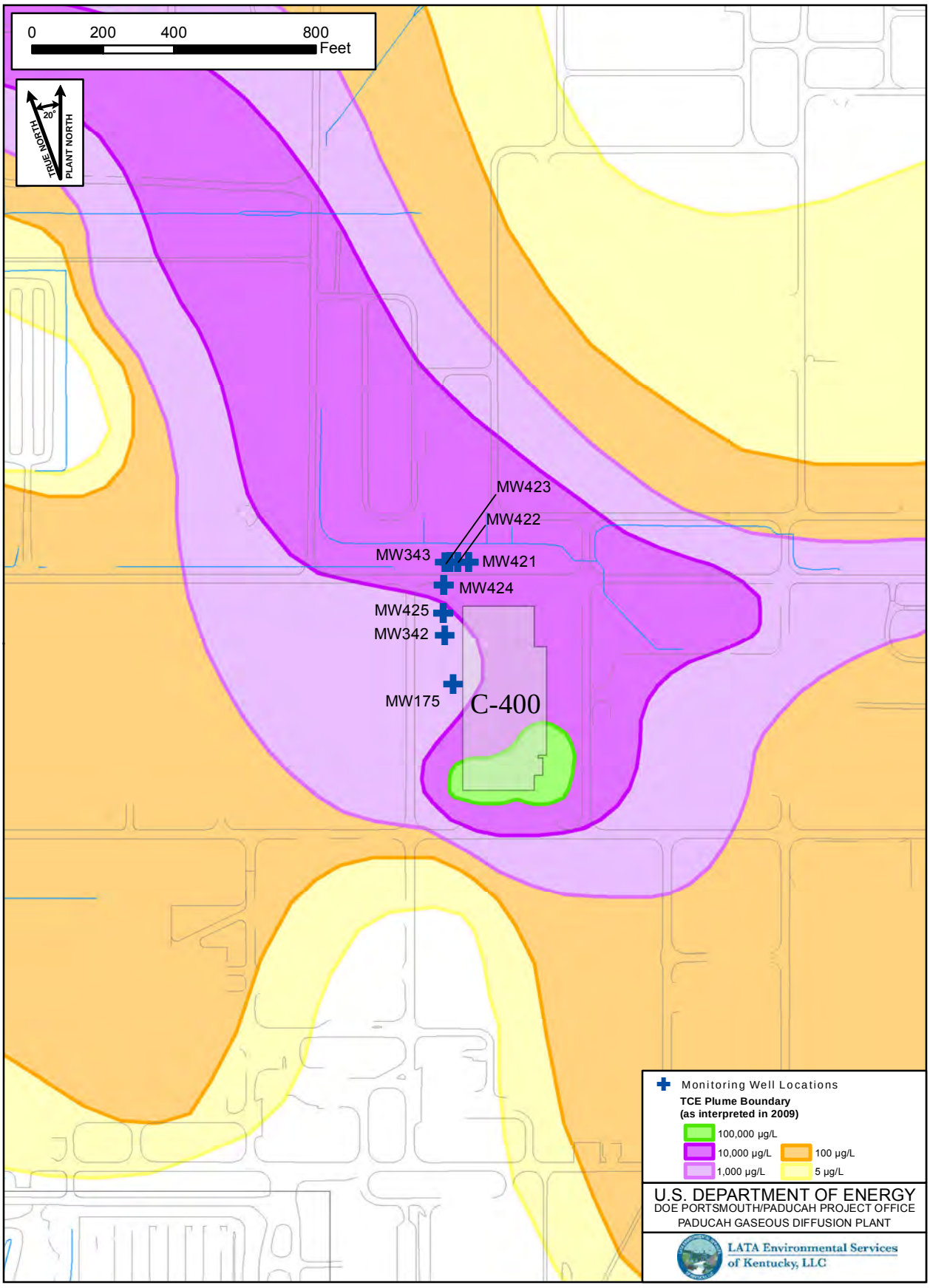

Figure E.1. C-400 Monitoring Wells

C-400 Monitoring

Water Quality Records for

MW175

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	
6/16/2009	4900	< 50			< 50	11.7	447	508	< .005	< .17	< .18	< .14	< .1	< .12	< .07	< .05	< .09	C09168007001
7/20/2009	4400	< 250			< 50	< 3.65	415	438	< .005	< .16	< .17	< .14	< .1	< .12	< .07	< .05	< .09	C09201015001
8/18/2009	4400	< 50			< 50	9.43	416	375	< .005	< .17	< .18	< .14	< .1	< .12	< .07	< .05	< .09	C09230023001
12/14/2009	7900	< 250			< 50	< -.722	363	357	< .005	< .16	< .17	< .13	< .09	< .11	< .07	< .05	< .08	C09348024001
3/24/2010	5600	< 50			< 50	< 1.61	211	360	< .005	< .16	< .17	< .13	< .09	< .11	< .07	< .05	< .08	C10083023001
6/23/2010	4800	< 250			< 50	< 4.95	292	343	< .005	< .16	< .17	< .14	< .1	< .12	< .07	< .05	< .09	C10174017001
6/23/2010	5100	< 250			< 50	12.9	301	315	< .005	< .16	< .17	< .13	< .1	< .11	< .07	< .05	< .09	C10174017002

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

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C-400 Monitoring

Water Quality Records for

MW342

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	
6/16/2009	3000	< 50			< 50	16.7	616	805	< .005	< .16	< .17	< .14	< .1	< .12	< .07	< .05	< .09	C09168006001
7/20/2009	4300	< 250			< 50	< -.785	510	837	< .005	< .16	< .17	< .13	< .1	< .11	< .07	< .05	< .09	C09201016001
8/18/2009	5800	< 50			< 50	16	985	1130	< .005	< .17	< .18	< .14	< .1	< .12	< .07	< .05	< .09	C09230024001
12/14/2009	9500	< 250			< 50	< -6.46	978	1290	< .005	< .16	< .17	< .13	< .09	< .11	< .07	< .05	< .08	C09348024002
12/14/2009	9900	< 250			< 50	< .633	926	1280	< .005	< .16	< .17	< .13	< .1	< .11	< .07	< .05	< .09	C09348024003
3/23/2010	4700	< 50			< 50	10.3	386	827	< .005	< .16	< .17	< .13	< .09	< .11	< .07	< .05	< .08	C10082025007
6/22/2010	5400	< 250			< 50	11.4	642	750	< .005	< .16	< .17	< .13	< .1	< .11	< .07	< .05	< .09	C10173039001

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C-400 Monitoring

Water Quality Records for

MW343

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	
6/16/2009	41000	< 500			< 500	82.1	6710	9090	< .005	< .16	< .17	< .14	< .1	< .12	< .07	< .05	< .09	C09168007002
7/20/2009	31000	< 2500			< 500	< 4.65	6730	9010	< .005	< .16	< .17	< .13	< .09	< .11	< .07	< .05	< .08	C09201066001
8/18/2009	31000	< 400			< 400	19.7	7420	8770	< .005	< .17	< .18	< .14	< .1	< .12	< .07	< .05	< .09	C09230023002
9/21/2009	27000	< 1000	< 200	< 1000	< 200	< -119	6980	9230	< .005									C09265006005
12/14/2009	43000	< 2000			< 400	< -176	6970	9250	< .005	< .16	< .17	< .14	< .1	< .12	< .07	< .05	< .09	C09348027001
3/22/2010	37000	< 400	< 250	< 250	< 250	< -90.6	5370	8960	< .005									C10082002001
3/22/2010	37000	< 250			< 250	37.4	6850	8920	< .005	< .16	< .17	< .13	< .1	< .11	< .07	< .05	< .09	C10082005001
3/22/2010	37000	< 250			< 250	92.1	5660	9010	< .005	< .16	< .17	< .14	< .1	< .12	< .07	< .05	< .09	C10082005002
6/22/2010	32000	< 2500			< 500	22	6440	9250	< .005	< .16	< .17	< .13	< .1	< .11	< .07	< .05	< .09	C10173027001

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C-400 Monitoring

Water Quality Records for

MW421-PRT1

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	20000	< 1000			< 200	38	1780	1650	< .005	< .16	< .17	< .14	< .1	< .12	< .07	< .05	< .09	C09202027001
8/25/2009	21000	< 200			< 200	< -.377	1300	1670	< .005	< .16	< .17	< .13	< .09	< .11	< .07	< .05	< .08	C09237029001
9/29/2009	22000	< 200			< 200	33	878	1240	< .005	< .16	< .17	< .14	< .1	< .12	< .07	< .05	< .09	C09273002001
12/16/2009	27000	< 1000			< 200	27.7	906	1160	< .005	< .16	< .17	< .13	< .09	< .11	< .07	< .05	< .08	C09350025004
3/23/2010	24000	< 200			< 200	15.5	1180	1780	< .005	< .16	< .17	< .13	< .1	< .11	< .07	< .05	< .09	C10082025004
6/23/2010	58000	< 500			< 500	18.4	1710	2340	< .005	< .16	< .17	< .13	< .1	< .11	< .07	< .05	< .09	C10172026001

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

Prepared by: **LATA Environmental Services of Kentucky, LLC**
761 Veterans Avenue, PO Box 280
Kevil, KY 42053

C-400 Monitoring

Water Quality Records for

MW421-PRT2

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	< .005	< .17	< .18	< .14	< .1	< .12	< .07	< .05	< .09	C09202027002
8/25/2009	53000	< 500			< 500	6.73	865	1120	< .005	< .16	< .17	< .14	< .1	< .12	< .07	< .05	< .09	C09237029002
9/29/2009	53000	< 500			< 500	27.9	639	882	< .005	< .16	< .17	< .14	< .1	< .12	< .07	< .05	< .09	C09273002002
12/16/2009	62000	< 2500			< 500	4.74	475	618	< .005	< .16	< .17	< .13	< .1	< .11	< .07	< .05	< .09	C09350025005
3/23/2010	55000	< 500			< 500	12.7	417	777	< .005	< .16	< .17	< .13	< .09	< .11	< .07	< .05	< .08	C10082025005
6/21/2010	51000	< 500			< 500	26.9	514	813	< .005	< .16	< .17	< .13	< .1	< .11	< .07	< .05	< .09	C10172026002

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Prepared by: **LATA Environmental Services of Kentucky, LLC**
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Kevil, KY 42053

C-400 Monitoring

Water Quality Records for

MW421-PRT3

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	63000	< 2500			< 500	< 3.73	327	302	< .005	< .16	< .17	< .14	< .1	< .12	< .07	< .05	< .09	C09202027003
8/25/2009	66000	< 500			< 500	< 3.62	398	451	< .005	< .16	< .17	< .13	< .1	< .11	< .07	< .05	< .09	C09237029003
9/29/2009	61000	< 500			< 500	8.99	323	335	< .005	< .16	< .17	< .13	< .1	< .11	< .07	< .05	< .09	C09273002003
12/16/2009	77000	< 2500			< 500	4.67	226	345	< .005	< .16	< .17	< .13	< .1	< .11	< .07	< .05	< .09	C09350025006
3/23/2010	70000	< 500			< 500	12.8	218	376	< .005	< .16	< .17	< .13	< .09	< .11	< .07	< .05	< .08	C10082025006
6/21/2010	68000	< 500			< 500	< 4.02	278	251	< .005	< .16	< .17	< .13	< .1	< .11	< .07	< .05	< .09	C10173001001

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

Prepared by: **LATA Environmental Services of Kentucky, LLC**
761 Veterans Avenue, PO Box 280
Kevil, KY 42053

C-400 Monitoring

Water Quality Records for

MW422-PRT1

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	10000	< 500			< 100	< -96.7	10400	13600	< .005	< .16	< .17	< .13	< .1	< .11	< .07	< .05	< .09	C09202018001
8/24/2009	13000	< 100			< 100	95	12900	15600	< .005	< .16	< .17	< .13	< .1	< .11	< .07	< .05	< .09	C09237007001
9/28/2009	12000	< 100			< 100	59.7	14200	16900	< .005	< .16	< .17	< .14	< .1	< .12	< .07	< .05	< .09	C09271021004
12/16/2009	16000	< 1000			< 200	< -15.7	10200	13900	< .005	< .16	< .17	< .13	< .1	< .11	< .07	< .05	< .09	C09350025001
3/23/2010	14000	< 100			< 100	< -25.6	8460	13400	< .005	< .16	< .17	< .13	< .09	< .11	< .07	< .05	< .08	C10082025001
6/21/2010	14000	< 100			< 100	< -60.6	11600	15500	< .005	< .16	< .17	< .14	< .1	< .12	< .07	< .05	< .09	C10173001002

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Prepared by: **LATA Environmental Services of Kentucky, LLC**
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Kevil, KY 42053

C-400 Monitoring

Water Quality Records for

MW422-PRT2

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	< .005	< .16	< .17	< .13	< .1	< .11	< .07	< .05	< .09	C09202019001
8/24/2009	47000	< 500			< 500	28.2	1650	2150	< .005	< .16	< .17	< .14	< .1	< .12	< .07	< .05	< .09	C09237008001
9/28/2009	45000	< 500			< 500	18.5	1490	2020	< .005	< .16	< .17	< .13	< .09	< .11	< .07	< .05	< .08	C09271021005
12/16/2009	53000	< 2500			< 500	16.1	1110	1660	< .005	< .16	< .17	< .13	< .1	< .11	< .07	< .05	< .09	C09350025002
3/23/2010	51000	< 500			< 500	24	823	1600	< .005	< .16	< .17	< .13	< .09	< .11	< .07	< .05	< .08	C10082025002
6/21/2010	90000	< 400			< 400	17.5	1060	1620	< .005	< .16	< .17	< .13	< .1	< .11	< .07	< .05	< .09	C10173001003

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Prepared by: **LATA Environmental Services of Kentucky, LLC**
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Kevil, KY 42053

C-400 Monitoring

Water Quality Records for

MW422-PRT3

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	45000	< 2500			< 500	< -.394	1650	2310	< .005	< .16	< .17	< .13	< .1	< .11	< .07	< .05	< .09	C09202019002
8/24/2009	46000	< 500			< 500	15.4	1380	1960	< .005	< .16	< .17	< .14	< .1	< .12	< .07	< .05	< .09	C09237008002
9/28/2009	45000	< 500			< 500	15.5	1560	1940	< .005	< .16	< .17	< .14	< .1	< .12	< .07	< .05	< .09	C09271021006
12/16/2009	58000	< 2500			< 500	20.7	1230	1630	< .005	< .16	< .17	< .14	< .1	< .12	< .07	< .05	< .09	C09350025003
3/23/2010	53000	< 500			< 500	19.6	866	1490	< .005	< .16	< .17	< .13	< .1	< .11	< .07	< .05	< .09	C10082025003
6/21/2010	72000	< 1000			< 1000	15.1	883	1520	< .005	< .16	< .17	< .13	< .09	< .11	< .07	< .05	< .08	C10173001004

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Kevil, KY 42053

C-400 Monitoring

Water Quality Records for

MW423-PRT1

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	
7/22/2009	13000	< 500			< 100	< -60	8610	10400	< .005	< .16	< .17	< .13	< .1	< .11	< .07	< .05	< .09	C09203009001
8/25/2009	12000	< 200			< 200	81	9720	12100	< .005	< .17	< .18	< .14	< .1	< .12	< .07	< .05	< .09	C09237022001
9/28/2009	11000	< 100			< 100	87.3	11100	14000	< .005	< .16	< .17	< .13	< .1	< .11	< .07	< .05	< .09	C09271021001
12/15/2009	15000	< 1000			< 200	< -236	11500	14400	< .005	< .16	< .17	< .14	< .1	< .12	< .07	< .05	< .09	C09349015001
3/22/2010	15000	64			< 25	45.5	8550	13800	< .005	< .16	< .17	< .14	< .1	< .12	< .07	< .05	< .09	C10082005003
6/22/2010	12000	< 500			< 100	< -79.6	10100	13400	< .005	< .16	< .17	< .13	< .09	< .11	< .07	< .05	< .08	C10173027002

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

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761 Veterans Avenue, PO Box 280
Kevil, KY 42053

C-400 Monitoring

Water Quality Records for

MW423-PRT2

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	
7/22/2009	42000	< 2500			< 500	< -8.97	3760	4840	< .005	< .17	< .18	< .14	< .1	< .12	< .07	< .05	< .09	C09203009002
8/25/2009	47000	< 500			< 500	34.3	3420	4880	< .005	< .16	< .17	< .13	< .1	< .11	< .07	< .05	< .09	C09237022002
9/28/2009	44000	< 500			< 500	35.8	3820	5230	< .005	< .16	< .17	< .13	< .1	< .11	< .07	< .05	< .09	C09271021002
12/15/2009	54000	< 2500			< 500	< -51.8	3650	4930	< .005	< .16	< .17	< .13	< .1	< .11	< .07	< .05	< .09	C09349015002
3/22/2010	52000	< 500			< 500	40.2	2260	4310	< .005	< .16	< .17	< .13	< .1	< .11	< .07	< .05	< .09	C10082005004
6/22/2010	45000	< 2500			< 500	< -2.09	3050	4530	< .005	< .16	< .17	< .13	< .09	< .11	< .07	< .05	< .08	C10173027003

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Prepared by: **LATA Environmental Services of Kentucky, LLC**
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Kevil, KY 42053

C-400 Monitoring

Water Quality Records for

MW423-PRT3

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	
7/22/2009	42000	< 2500			< 500	< -4.38	2660	4350	< .005	< .16	< .17	< .14	< .1	< .12	< .07	< .05	< .09	C09203009003
8/25/2009	47000	< 500			< 500	23.4	2850	4440	< .005	< .16	< .17	< .14	< .1	< .12	< .07	< .05	< .09	C09237022003
9/28/2009	14000	< 500			< 500	97.8	10600	13500	< .005	< .16	< .17	< .13	< .09	< .11	< .07	< .05	< .08	C09271021003
12/15/2009	53000	< 2500			< 500	< -48.6	2970	4030	< .005	< .16	< .17	< .13	< .09	< .11	< .07	< .05	< .08	C09349015003
3/22/2010	51000	< 500			< 500	43.5	1960	3810	< .005	< .16	< .17	< .13	< .1	< .11	< .07	< .05	< .09	C10082005005
6/22/2010	49000	< 2500			< 500	5.16	2930	3850	< .005	< .16	< .17	< .13	< .09	< .11	< .07	< .05	< .08	C10173027004

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Prepared by: **LATA Environmental Services of Kentucky, LLC**
761 Veterans Avenue, PO Box 280
Kevil, KY 42053

C-400 Monitoring

Water Quality Records for

MW424-PRT1

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	
7/23/2009	7200	< 500			< 100	< -7	2300	1790	< .005	< .16	< .17	< .13	< .1	< .11	< .07	< .05	< .09	C09204021001
8/27/2009	7100	< 50			< 50	< 3.09	2680	3330	< .005	< .16	< .17	< .13	< .09	< .11	< .07	< .05	< .08	C09239018001
9/30/2009	7700	< 100			< 100	125	4580	6150	< .005	< .16	< .17	< .13	< .09	< .11	< .07	< .05	< .08	C09273021001
12/17/2009	9200	< 100			< 100	< -31.9	7760	10000	< .005	< .16	< .17	< .14	< .1	< .12	< .07	< .05	< .09	C09351022002
3/24/2010	7900	< 100			< 100	86.8	4420	6540	< .005	< .16	< .17	< .13	< .1	< .11	< .07	< .05	< .09	C10083023002
6/23/2010	7900	< 250			< 50	14	4020	5080	< .005	< .16	< .17	< .13	< .1	< .11	< .07	< .05	< .09	C10174017003

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

Prepared by: **LATA Environmental Services of Kentucky, LLC**
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Kevil, KY 42053

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C-400 Monitoring

Water Quality Records for

MW424-PRT2

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	
7/23/2009	17000	< 1000			< 200	< -29.4	4170	5680	< .005	< .16	< .17	< .14	< .1	< .12	< .07	< .05	< .09	C09204022001
8/27/2009	16000	< 200			< 200	< -4.44	6130	5900	< .005	< .16	< .17	< .13	< .1	< .11	< .07	< .05	< .09	C09239019001
9/30/2009	16000	< 200			< 200	91.8	5200	7100	< .005	< .16	< .17	< .13	< .09	< .11	< .07	< .05	< .08	C09273023001
12/17/2009	18000	< 200			< 200	7.27	4010	6180	< .005	< .16	< .17	< .13	< .09	< .11	< .07	< .05	< .08	C09351022003
3/24/2010	17000	< 250			< 250	52.8	2940	6240	< .005	< .16	< .17	< .13	< .09	< .11	< .07	< .05	< .08	C10083023003
6/22/2010	17000	< 1000			< 200	12.7	5150	7070	< .005	< .16	< .17	< .14	< .1	< .12	< .07	< .05	< .09	C10174017004

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

Prepared by: **LATA Environmental Services of Kentucky, LLC**
761 Veterans Avenue, PO Box 280
Kevil, KY 42053

C-400 Monitoring

Water Quality Records for

MW424-PRT3

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	
7/23/2009	22000	< 1000			< 200	< -7.72	1900	2770	< .005	< .16	< .17	< .13	< .1	< .11	< .07	< .05	< .09	C09204023001
8/27/2009	23000	< 200			< 200	< 5.21	3400	4970	< .005	< .16	< .17	< .14	< .1	< .12	< .07	< .05	< .09	C09239020001
9/30/2009	23000	< 250			< 250	78.9	3350	4660	< .005	< .16	< .17	< .13	< .1	< .11	< .07	< .05	< .09	C09273024001
12/17/2009	23000	< 200			< 200	12.3	2960	4500	< .005	< .16	< .17	< .13	< .1	< .11	< .07	< .05	< .09	C09351022004
3/24/2010	23000	< 250			< 250	< -39.3	2810	4600	< .005	< .16	< .17	< .13	< .09	< .11	< .07	< .05	< .08	C10083023004
6/23/2010	21000	< 1000			< 200	10.2	3160	4740	< .005	< .16	< .17	< .14	< .1	< .12	< .07	< .05	< .09	C10174017005

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

Prepared by: **LATA Environmental Services of Kentucky, LLC**
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Kevil, KY 42053

C-400 Monitoring

Water Quality Records for

MW425-PRT1

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	
7/22/2009	5100	< 250			< 50	< 2.26	755	789	< .005	< .17	< .18	< .14	< .1	< .12	< .07	< .05	< .09	C09203011001
8/26/2009	8200	< 100			< 100	9.62	4390	3870	< .005	< .16	< .17	< .14	< .1	< .12	< .07	< .05	< .09	C09238024001
9/29/2009	11000	< 100			< 100	107	6500	8580	< .005	< .16	< .17	< .13	< .1	< .11	< .07	< .05	< .09	C09273002004
12/16/2009	13000	< 500			< 100	26.5	6360	9490	< .005	< .16	< .17	< .14	< .1	< .12	< .07	< .05	< .09	C09350025007
3/23/2010	8900	< 100			< 100	51.4	2200	3010	< .005	< .16	< .17	< .14	< .1	< .12	< .07	< .05	< .09	C10082005006
6/22/2010	8300	< 500			< 100	25	1340	1330	< .005	< .16	< .17	< .14	< .1	< .12	< .07	< .05	< .09	C10173039002

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C-400 Monitoring

Water Quality Records for

MW425-PRT2

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	
7/22/2009	6300	< 250			< 50	< 3.37	2930	4460	< .005	< .16	< .17	< .14	< .1	< .12	< .07	< .05	< .09	C09203011002
8/26/2009	6100	< 50			< 50	< -19.6	3370	4550	< .005	< .16	< .17	< .13	< .1	< .11	< .07	< .05	< .09	C09238024002
9/29/2009	7500	< 50			< 50	121	4600	5900	< .005	< .16	< .17	< .14	< .1	< .12	< .07	< .05	< .09	C09273002005
12/16/2009	11000	< 500			< 100	< -17.7	5550	7850	< .005	< .16	< .17	< .13	< .09	< .11	< .07	< .05	< .08	C09350025008
3/23/2010	9300	< 50			< 50	49.5	3710	5600	< .005	< .16	< .17	< .13	< .1	< .11	< .07	< .05	< .09	C10082005007
6/22/2010	8400	< 250			< 50	43.7	2900	3850	< .005	< .16	< .17	< .14	< .1	< .12	< .07	< .05	< .09	C10173039003

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C-400 Monitoring

Water Quality Records for

MW425-PRT3

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	
7/22/2009	6200	< 250			< 50	< .86	3380	4420	< .005	< .16	< .17	< .13	< .1	< .11	< .07	< .05	< .09	C09203011003
8/26/2009	4700	< 50			< 50	< -23.2	3770	4120	< .005	< .16	< .17	< .14	< .1	< .12	< .07	< .05	< .09	C09238024003
9/29/2009	6900	< 50			< 50	96.2	3490	4570	< .005	< .16	< .17	< .14	< .1	< .12	< .07	< .05	< .09	C09273002006
12/17/2009	8100	< 100			< 100	39.3	3620	5210	< .005	< .16	< .17	< .13	< .09	< .11	< .07	< .05	< .08	C09351022001
3/23/2010	7600	< 50			< 50	57	2590	4290	< .005	< .16	< .17	< .14	< .1	< .12	< .07	< .05	< .09	C10082005008
6/22/2010	7700	< 250			< 50	33.6	2790	3760	< .005	< .16	< .17	< .14	< .1	< .12	< .07	< .05	< .09	C10173039004

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APPENDIX F

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

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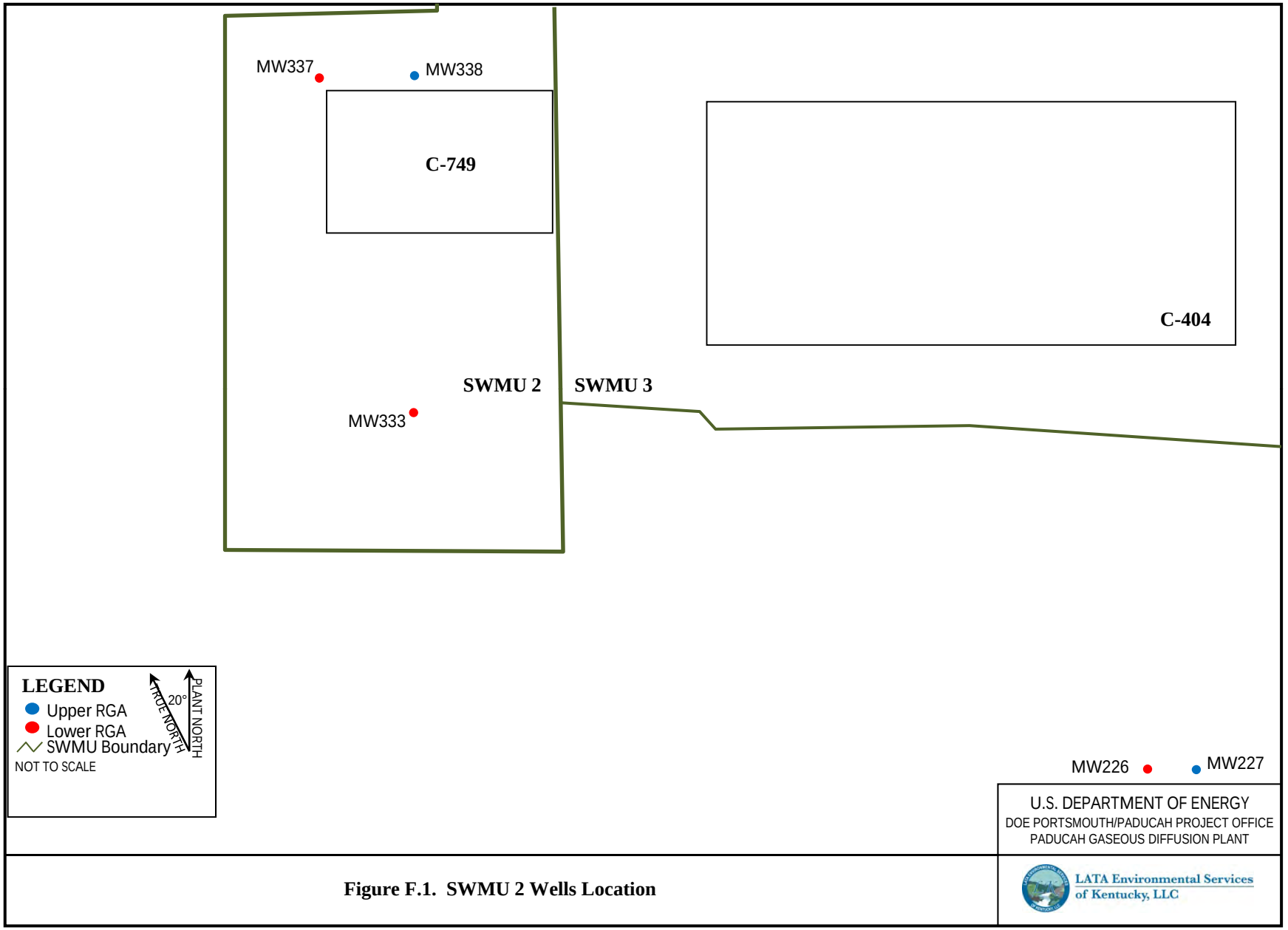

Figure F.1. SWMU 2 Wells Location

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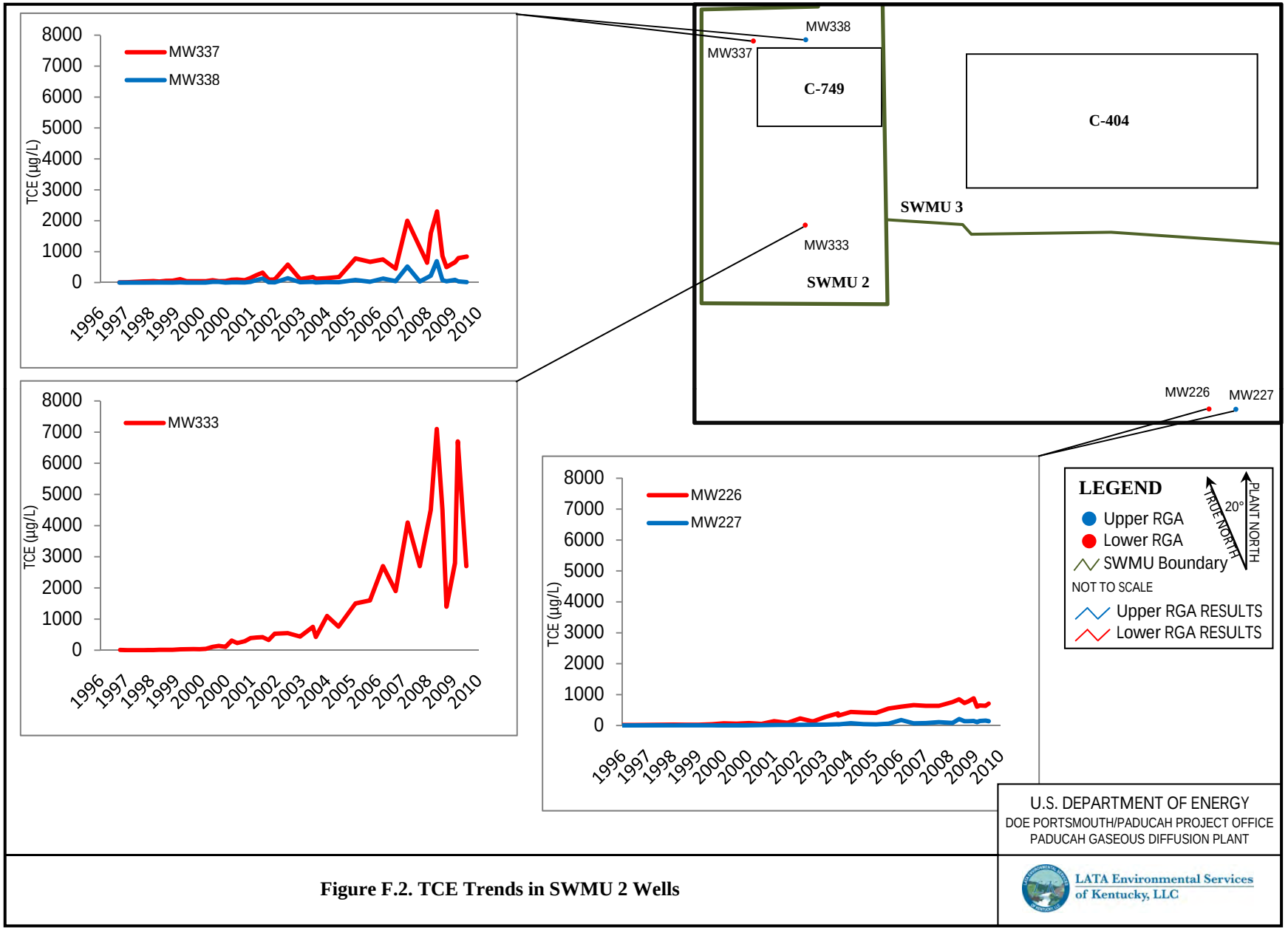

Figure F.2. TCE Trends in SWMU 2 Wells

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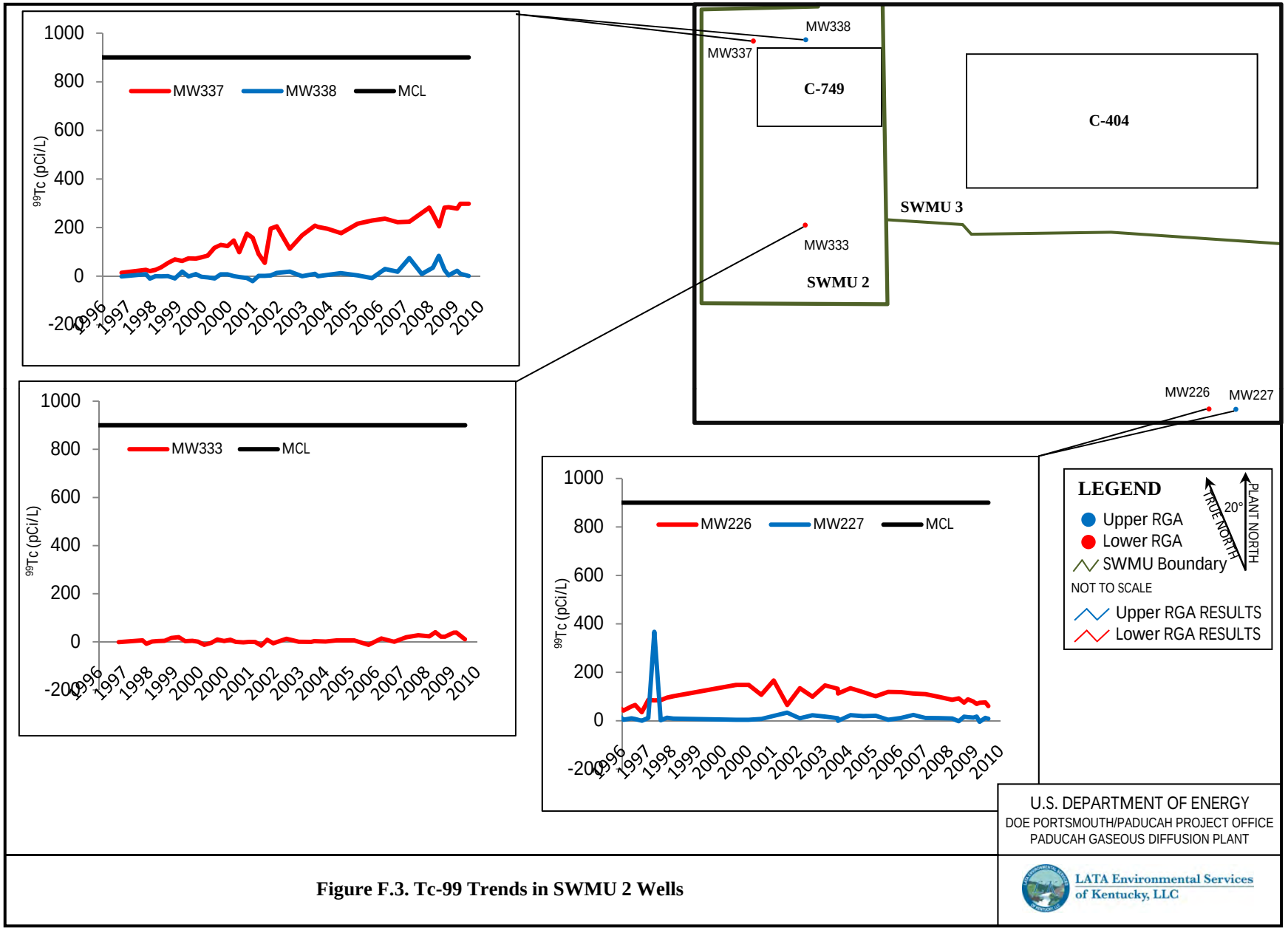

Figure F.3. Tc-99 Trends in SWMU 2 Wells

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C-749 Uranium Burial Ground (SWMU2) Monitoring

Water Quality Records for

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

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C-749 Uranium Burial Ground (SWMU2) Monitoring

Water Quality Records for

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								49				950509-041
5/8/1995								43				950509-033
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								40				951031-056
10/30/1995								36				951031-060
11/8/1995								54				951110-059
11/15/1995								55				951116-020
1/22/1996	20							42				960122-119
5/17/1996								59				960521-007
7/10/1996	20							65				960710-204
10/14/1996								35				961015-019
1/16/1997	24							86				970121-043
4/14/1997								84				970414-100
7/14/1997	26							84				970714-133
7/14/1997	27							85				970714-134

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Water Quality Records for

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											C981960004
7/13/1998	25											C981960005
1/11/1999	26											C990110084
7/20/1999	40											C992020007
7/20/1999	42											C992020008
1/11/2000	71											C00011009
7/12/2000	61							148				C00194009
1/9/2001	81							148				C01010001
7/11/2001	55							107				C01193000
1/8/2002	140							166				C02008009
7/22/2002	89							64.7				C022030175
1/21/2003	230							134				C030210115
7/23/2003	130							98.9				C032040144
1/21/2004	280							146				C040210090
7/22/2004	340	12	< 5	< 5	< 5	< .668	57.7	132	< .0902	< .0122	< .348	C042050009
7/22/2004	394											C042050002
7/27/2004	320							112				C042090056
1/24/2005	440							134	< .0357	< .0147	< -.0135	C050240045
7/27/2005	420							118	< .0346	< .00589	< .00252	C052080180
1/24/2006	410							101	< .0973	< -.0183	< .0768	C060240039
7/24/2006	550							119	< 1.07	< .187	< .282	C062050057
1/24/2007	610							118	< 1.03	< -.00311	< .21	C070240038
7/24/2007	660							112	< .0971	< -.0355	< .0361	C072060043

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C-749 Uranium Burial Ground (SWMU2) Monitoring

Water Quality Records for

MW226

Sample Date	Organic Laboratory Analysis Results: TCE µg/L	1,1-DCE µg/L	1,1-DCA µg/L	1,2-DCA µg/L	trans-1,2-DCE µg/L	Radiological Laboratory Analysis Results: Alpha Activity pCi/L	Beta Activity pCi/L	Tc-99 pCi/L	U-234 pCi/L	U-235 pCi/L	U-238 pCi/L	Lab Sample ID
1/15/2008	640							110	< -.0264	< .0644	< .00478	C080160004
7/24/2008	640							98.7	< .0399	< .00678	< -.00253	C082060091
2/5/2009	760							86.5				C09036036004
5/12/2009	850	26	< 5	< 5	< 5	< -.403	49.2	92.3				C09132009001
7/28/2009	730							74.6				C09209020001
9/21/2009	780	< 25	< 5	< 25	< 5	< 2.56	46.3	88.1				C09265006002
12/10/2009	880							79.1				C09344026005
1/26/2010	610							69.3				C10026023001
3/9/2010	650	22	< 10	< 10	< 10	4.2	49.4	74				C10068052
6/1/2010	640							75.7				C10152026
7/14/2010	710							60.7				C10195040

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C-749 Uranium Burial Ground (SWMU2) Monitoring

Water Quality Records for

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	3	< 5	< 5	< 5	< 5							S408081-01V
8/10/1994	4							14				940811-063
8/10/1994	4							10				940811-075
8/18/1994	4							3				940818-131
1/17/1995	4							9				950118-204
1/23/1995	3							18				950125-093
1/23/1995	4							10				950125-097

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C-749 Uranium Burial Ground (SWMU2) Monitoring

Water Quality Records for

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							4				960122-123
1/22/1996	4							3	2.9	.18	6.69	960122-115
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

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Water Quality Records for

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							< 9				C980140120
1/12/1998	4							< 8				C980140122
7/13/1998	6											C981960003
1/11/1999	6											C990110085
1/11/1999	6											C990110086
7/20/1999	8											C99202000
1/11/2000	3											C00011009
7/12/2000	6							< 3.92				C00194009
1/9/2001	3							< 3.82				C01010001
7/11/2001	7							< 7.5				C01193000
1/8/2002	23							20.2				C02008009
7/22/2002	23							33.4				C022030172
1/21/2003	24							< 9.75				C030210114
7/23/2003	26							22.5				C032040145
1/21/2004	31							< 17				C040210091
7/22/2004	40											C042050003
7/22/2004	33	< 1	< 1	< 1	< 1	5.9	10.1	< 10.4	< .284	< .00706	< .412	C042050010
7/27/2004	39							< -.469				C042090057
1/24/2005	76							22.8	< .348	< -.0287	< .122	C050240047
7/27/2005	45							18.9	< .0822	< .0131	< .0649	C052080181
1/25/2006	38							20.3	< .0898	< .004	< .0169	C060250133
7/24/2006	61							< 4.11	< 1.36	< .263	< .298	C062050058
1/24/2007	180							< 11	< .219	< .0426	< .0696	C070240039

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C-749 Uranium Burial Ground (SWMU2) Monitoring

Water Quality Records for

MW227

Sample Date	Organic Laboratory Analysis Results: TCE µg/L	1,1-DCE µg/L	1,1-DCA µg/L	1,2-DCA µg/L	trans-1,2-DCE µg/L	Radiological Laboratory Analysis Results: Alpha Activity pCi/L	Beta Activity pCi/L	Tc-99 pCi/L	U-234 pCi/L	U-235 pCi/L	U-238 pCi/L	Lab Sample ID
7/24/2007	73							24	< .124	< -.0338	< .0891	C072060044
1/16/2008	79							< 11	< .21	< .00145	< .0742	C080160068
7/24/2008	110							< 10.9	< .0526	< .00769	< -.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	< .447	7.47	< 14.8				C09265006003
12/10/2009	150							< 12.6				C093440260[illegible]
1/26/2010	110							< 17.1				C10026023
3/9/2010	150	3.5	< 1	< 1	< 1	< 2.74	7.52	< -4.34				C10068052
6/1/2010	160							< 11.8				C10152026
7/14/2010	140							< 8.12				C10195040

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C-749 Uranium Burial Ground (SWMU2) Monitoring

Water Quality Records for

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								-1.1				96M04623-3761
10/14/1996	10				< .48							96M04623-3717
10/14/1996									9.66		.14	96M04623-3731
1/29/1997	5	< 5	< 5	< 5	< 5							970130-051
9/23/1997	5	< 5	< 5	< 5	< 5	-.2	2	6				970923-064
11/19/1997	6	< 5	< 5	< 5	< 5	-.7	2	-8				971119-080
2/9/1998	8	< 5	< 5	< 5	< 5	< 2.3	< 1	< 1				C980420046
5/4/1998	14	< 5	< 5	< 5	< 5	< 5.1	15	< 3				C98125003
8/10/1998	16	< 5	< 5	< 5	< 5	< 4.3	6	< 3.9				C98222010
11/12/1998	16	< 5	< 5	< 5	< 5	< -1.37	5.36	< 16				C98316008
3/3/1999	30	< 5	< 5	< 5	< 5	< .68	< 2.83	19.27				C99062003
6/4/1999	33	< 5	< 5	< 5	< 5	< 1.23	< .07	< 2.81				C99158002
9/15/1999						< -.79	4.12	< 4.13				C99258021
12/7/1999	29	< 5	< 5	< 5	< 5	2.48	< 1.48	< .475				C993410100
12/7/1999	33	< 5	< 5	< 5	< 5	< .45	< .49	< -6.17				C993410101
3/8/2000	46	< 5	< 5	< 5	< 5	< 1.58	< 4.62	< -12.8		< 0		C000680108
6/14/2000	110	< 5	< 5	< 5	< 5	< .52	< -.97	< -4.54				C001670002
9/12/2000	140	< 5	< 5	< 5	< 5	< 2.67	< 3.97	< 9.38				C002560135
12/18/2000	110	< 10	< 10	< 10	< 10	< .462	< .604	< 3.24				C003540006
3/19/2001	310	< 5	< 5	< 5	< 5	< -.5	< .794	< 8.5				C010780093
6/6/2001	230	< 25	< 25	< 25	< 25	< 1.62	4.76	< -.303				C011570178
9/25/2001	290	< 25	< 25	< 25	< 25	< 2.25	< 1.41	< -2.35		< -9.94		C012680234
12/17/2001	390	< 25	< 25	< 25	< 25	< 1.86	< -.125	< -.337				C013510092
3/13/2002	410	< 25	< 25	< 25	< 25	< 1.13	< .94	< -.654				C020720130
3/13/2002										< -3.95		C020720129

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Water Quality Records for

MW333

Sample Date	Organic Laboratory Analysis Results: TCE µg/L	1,1-DCE µg/L	1,1-DCA µg/L	1,2-DCA µg/L	trans-1,2-DCE µg/L	Radiological Laboratory Analysis Results: Alpha Activity pCi/L	Beta Activity pCi/L	Tc-99 pCi/L	U-234 pCi/L	U-235 pCi/L	U-238 pCi/L	Lab Sample ID
6/10/2002	420	< 50	< 50	< 50	< 50	< 1.57	< -2.59	< -15.7				C021610047
9/5/2002	330	< 50	< 50	< 50	< 50	< -.977	< -.125	< 8.51				C022480132
12/2/2002	530	< 25	< 25	< 25	< 25	< 1.7	< .462	< -6.2				C023370013
6/10/2003	550	< 25	< 25	< 25	< 25	< 1.08	< 1.1	< 12.4				C031620013
12/4/2003	440	< 25	< 25	< 25	< 25	< .213	< 2.21	< 0				C033380096
6/7/2004	750	< 50	< 50	< 50	< 50	< -.231	< -.683	< -.384	< 30	< 2.2	< .35	C041590175
7/20/2004	430	< 10	< 10	< 10	< 10	< 1.44	< 1.43	< 2.73	< .198	< .00505	< .363	C042020116
12/30/2004	1100	< 50	< 50	< 50	< 50	< -.0341	< .436	< 1.21				C043650022
6/14/2005	760	< 50	< 50	< 50	< 50	< .455	< 2.91	< 6.24	< .0723	< -.0127	< .0115	C051650115
2/14/2006	1500	< 50	< 50	< 50	< 50	< -.267	< 3.66	< 6.25				C060450085
2/14/2006	1300	< 50	< 50	< 50	< 50	< 2.43	< 3.19	< 5.18				C060450085
9/12/2006	1600	< 120	< 120	< 120	< 120	< 1.58	4.31	< -12.7				C062550165
3/19/2007	2700	< 100	< 100	< 100	< 100	4.34	8.66	< 13.8				C070780102
9/19/2007	1900	< 20	< 20	< 100	< 20	< 2.81	6.15	< .212				C072630092
3/11/2008	4100	< 25	< 25	< 120	< 25	< 1.75	16.9	19				C080710145
9/3/2008	2700	< 25	< 25	< 120	< 25	< .456	6.72	27.3				C082470086
2/9/2009	4500							22.7				C09040013001
5/7/2009	7100	< 250	< 50	< 250	< 50	< 2.35	22	39.9				C09127062003
7/28/2009	4500							21.1				C09209012001
9/25/2009	1400	< 50	< 50	< 50	< 50	< .535	17.7	21.3				C09268017001
1/26/2010	2800							38.1				C10026023004
3/8/2010	6700	< 50	< 50	< 50	< 50	< .795	24.7	38.6				C10067037002
7/9/2010	2700							< 10.3				C10190027002

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Water Quality Records for

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				< .48							96M04622-3716
10/4/1996									.38		.27	96M04622-3730
10/4/1996								14				96M04622-3760
1/29/1997	10	< 5	< 5	< 5	< 5							970130-050
9/22/1997	38	< 5	< 5	< 5	< 5	3.8	21	26				970923-040
11/19/1997	41	< 5	< 5	< 5	< 5	.9	22	21				971119-081
2/9/1998	48	< 5	< 5	< 5	< 5	< 1.3	18	26				C980420047
5/4/1998	34	< 5	< 5	< 5	< 5	< 4.4	37	36.8				C98125003
8/10/1998	58	< 5	< 5	< 5	< 5	< .6	35	55.1				C98222011
11/17/1998	61	< 5	< 5	< 5	< 5	3.06	37.83	69.2				C98321002
3/3/1999	110	< 25	< 25	< 25	< 25	< 1.91	< 2.49	62.71				C99062003
6/4/1999	47	< 5	< 5	< 5	< 5	< .4	48.8	73.5				C99158002
9/15/1999						< .8	48.9	72.4				C99258018
12/7/1999	44	< 5	< 5	< 5	< 5	4.34	69.36	77.7				C993410097
3/7/2000	44	< 5	< 5	< 5	< 5	< -.43	79.03	84.8		< -9.63		C000680019
6/14/2000	75	< 5	< 5	< 5	< 5	< 1.02	97.07	117				C001670003
9/12/2000	44	< 5	< 5	< 5	< 5	< 3.09	112.58	129				C002560134
12/18/2000	50	< 5	< 5	< 5	< 5	< -.451	75.1	124				C003540007
3/19/2001	90	< 5	< 5	< 5	< 5	< 1.05	81.1	147				C010780094
6/6/2001	97	< 5	< 5	< 5	< 5	< .921	97.6	98.5				C011570179
9/24/2001	75	< 5	< 5	< 5	< 5	< -2.29	97.2	175		< -8.42		C012680004
12/17/2001	150	< 10	< 10	< 10	< 10	4.96	103	158				C013510093
3/13/2002	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

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Water Quality Records for

MW337

Sample Date	Organic Laboratory Analysis Results: TCE µg/L	1,1-DCE µg/L	1,1-DCA µg/L	1,2-DCA µg/L	trans-1,2-DCE µg/L	Radiological Laboratory Analysis Results: Alpha Activity pCi/L	Beta Activity pCi/L	Tc-99 pCi/L	U-234 pCi/L	U-235 pCi/L	U-238 pCi/L	Lab Sample ID
9/5/2002	96	< 25	< 25	< 25	< 25	< .989	115	196				C022480133
12/2/2002	100	< 5	< 5	< 5	< 5	< 1.72	127	205				C023370011
6/9/2003	580	< 25	< 25	< 25	< 25	< .265	63.1	113				C031600083
12/4/2003	110	< 25	< 25	< 25	< 25	10.8	159	168				C033380097
6/8/2004	180	< 25	< 25	< 25	< 25	< -1.26	111	208	< 30	< 2.2	< .35	C041600042
7/20/2004	120	< 2	2.2	< 2	< 2	3.45	111	203	< .101	< -.00296	< .275	C042020117
12/8/2004	140	< 10	< 10	< 10	< 10	< -2.1	129	195				C043430086
6/21/2005	180	< 10	< 10	< 10	< 10	4.73	113	177	< .059	< -.0123	< .00534	C05172011[illegible]
2/14/2006	780	< 25	< 25	< 25	< 25	< .0576	21.5	216				C06045009
9/12/2006	670	< 50	< 50	< 50	< 50	3.19	157	229				C06255017
3/19/2007	750	< 5	14	< 5	< 5	< 2.38	163	237				C07079006
9/19/2007	450	< 5	< 5	< 25	< 5	4.99	123	222				C07263005
3/6/2008	2000	< 10	< 10	< 50	< 10	4.24	173	224				C08067000[illegible]
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

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C-749 Uranium Burial Ground (SWMU2) Monitoring

Water Quality Records for

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	.7				< .48							96M04621-3715
10/4/1996									.56		.67	96M04621-3729
10/4/1996								-.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	.8	2	-10				971119-082
2/9/1998	< 1	< 5	< 5	< 5	< 5	< 4.2	< 5	< 0				C980420048
5/4/1998	2	< 5	< 5	< 5	< 5	< .2	12	< -.6				C98125003
8/6/1998	< 1	< 5	< 5	< 5	< 5	< -1.9	< 3	< .2				C98218012
11/17/1998	< 1	< 5	< 5	< 5	< 5	< 1.15	< 2.58	< -9.2				C98321002
3/3/1999	5	< 5	< 5	< 5	< 5	< .35	< 1.7	19.04				C99062003
6/3/1999	1	< 5	< 5	< 5	< 5	< .96	19.31	< -.869				C99154017
9/15/1999						< 1.1	5.02	< 8.63				C99258018
12/7/1999	< 1	< 5	< 5	< 5	< 5	< 1.51	< 2.91	< -2.48				C993410096
3/7/2000	< 1	< 5	< 5	< 5	< 5	< 0	5.93	< -4.97		< -11.6		C000680018
6/14/2000	24	< 5	< 5	< 5	< 5	< 1.83	< -2.5	< -9.54				C001670001
9/12/2000	21	< 5	< 5	< 5	< 5	< 2.6	8.27	< 7.94				C002560133
12/18/2000	< 1	< 5	< 5	< 5	< 5	< 3.14	5.38	< 7.73				C003540008
3/19/2001	5	< 5	< 5	< 5	< 5	< -.418	< .657	< .481				C010780095
6/6/2001	8	< 5	< 5	< 5	< 5	< .866	< 2.9	< -3.53				C011570180
9/24/2001	3	< 5	< 5	< 5	< 5	< -.18	< 2.92	< -7.31		< -4.82		C012680005
12/17/2001	24	< 5	< 5	< 5	< 5	< 1.14	< .738	< -20.6				C013510094
3/13/2002										< 0		C020720127
3/13/2002	78	< 5	< 5	< 5	< 5	< -.652	< 4	< 1.2				C020720128
6/10/2002	130	< 10	< 10	< 10	< 10	< 1.08	< 5.59	< 1.54				C021610049

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Water Quality Records for

MW338

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	< .0927	< 2.41	< 2.99				C022480134
12/3/2002	8	< 5	< 5	< 5	< 5	< .447	< 3.19	< 13.4				C023370048
6/9/2003	140	< 10	< 10	< 10	< 10	< -.525	8.03	18.8				C031600084
12/4/2003	9	< 5	< 5	< 5	< 5	< 1.42	6.17	< 0				C033380098
6/8/2004	22	< 5	< 5	< 5	< 5	< -1.41	< .409	< 9.88	< 30	< 2.2	< .35	C041600043
7/20/2004	4.6	< 1	< 1	< 1	< 1	< .125	< 2.32	< -.111	< .169	< .0261	< .423	C042020118
12/8/2004	13	< 5	< 5	< 5	< 5	< .742	< 3.48	< 5.2				C043430088
6/16/2005	11	< 5	< 5	< 5	< 5	< 1.43	< 2.46	< 12.4	< .0101	< -.0133	< -.0335	C051670015
2/14/2006	82	< 5	< 5	< 5	< 5	< -.143	6.12	< 3.55				C06045009
9/12/2006	25	< 5	< 5	< 5	< 5	< .511	7.01	< -7.99				C06255017
3/19/2007	130	< 5	< 5	< 5	< 5	< 1.6	18.3	29.4				C07079006
9/19/2007	44	< 1	< 1	< 5	< 1	< 2.72	9.39	< 12.3				C07263005
9/19/2007	44	< 1	< 1	< 5	< 1	< 1.36	7.27	18.2				C072630053
3/6/2008	520	< 1	< 1	< 5	< 1	< 2.16	60.8	74.6				C080670002
9/2/2008	33	< 1	< 1	< 5	< 1	< 2.39	7.6	< 9.04				C082460126
2/9/2009	220							35.1				C09040021003
5/7/2009	690	< 25	< 5	< 25	< 5	< -.167	64.6	83.5				C09127062004
7/28/2009	80							26.3				C09209006002
9/25/2009	40	< 1	< 1	< 1	< 1	< 3.07	< 3.87	< 3.76				C09268017003
1/27/2010	89							22.4				C10027031001
3/16/2010	36	< 10	< 2	< 10	< 2	< 1.76	8.45	< 10.3				C10075019003
7/14/2010	14							< .779				C10195017003
7/14/2010	14							< -3.51				C10195017002

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APPENDIX G

TECHNETIUM-99 PLUME MAP AND TRICHLOROETHENE PLUME MAP

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APPENDIX G

TECHNETIUM-99 PLUME MAP AND TRICHLOROETHENE PLUME MAP (on CD)

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