PAD-ENM-0085/V1

C-746-S&T Landfills
First Quarter Calendar Year 2013
(January–March)
Compliance Monitoring Report,
Paducah Gaseous Diffusion Plant,
Paducah, Kentucky

This document is approved for public release per review by:

Robert Jones 5-24-13

LATA Kentucky Classification Support Date

PAD-ENM-0085/V1

C-746-S&T Landfills
First Quarter Calendar Year 2013
(January–March)
Compliance Monitoring Report,
Paducah Gaseous Diffusion Plant,
Paducah, Kentucky

Date Issued—May 2013

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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ACRONYMS

CFR	*Code of Federal Regulations*
EPA	U.S. Environmental Protection Agency
KAR	*Kentucky Administrative Regulation*
KDWM	Kentucky Division of Waste Management
LEL	lower explosive limit
LRGA	Lower Regional Gravel Aquifer
MCL	maximum contaminant level
MW	monitoring well
PGDP	Paducah Gaseous Diffusion Plant
RGA	Regional Gravel Aquifer
UCRS	Upper Continental Recharge System
URGA	Upper Regional Gravel Aquifer

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1. INTRODUCTION

This report, *C-746-S&T Landfills First Quarter Calendar Year 2013 (January–March) Compliance Monitoring Report, Paducah Gaseous Diffusion Plant, Paducah, Kentucky,* is being submitted in accordance with Solid Waste Landfill Permit Number 073-00014 for the C-746-S Residential Landfill and Permit Number 073-00015 for the C-746-T Inert Landfill.

The groundwater, surface water, leachate, and methane monitoring sample data reporting form is provided in Appendix A. The facility information sheet is provided in Appendix B. Groundwater analytical results are recorded on the Kentucky Division of Waste Management (KDWM) groundwater reporting forms, which are presented in Appendix C. The total metals results reported in Appendix C are measured in an unfiltered sample, as required by Permit Condition GSTR0003, Standard Requirement 4. The statistical analyses and qualification statement are provided in Appendix D. The groundwater flow rate and direction determination are provided in Appendix E. Appendix F contains the notifications for parameters that exceed the maximum contaminant level (MCL) and for all parameters that had statistically significant increased concentrations relative to background concentrations, including those parameters listed in 40 *CFR* § 302.4, Appendix A. Appendix G provides a chart of MCL exceedances and statistically significant increases that have occurred, beginning in the fourth quarter calendar year 2002. Methane monitoring results are documented on the approved C-746-S&T Landfill Methane Monitoring Report form provided in Appendix H. The form includes pertinent remarks/observations as required by 401 *KAR* 48:090, Section 4. Appendix I contains the surface water monitoring data.

1.1 BACKGROUND

The C-746-S&T Landfills are closed solid waste landfills located north of the Paducah Gaseous Diffusion Plant (PGDP) and south of the C-746-U Landfill. Construction and operation of the C-746-S Residential Landfill were permitted in April 1981 under Solid Waste Landfill Permit Number 073-00014. The permitted C-746-S Landfill area covers about 16 acres and contains a clay liner with a cover of compacted soil. The C-746-S Landfill was a sanitary landfill for PGDP. The C-746-S Landfill is closed and has been inactive since July 1995.

Construction and operation of the C-746-T Inert Landfill were permitted in February 1985 under Solid Waste Landfill Permit Number 073-00015. The permitted C-746-T Landfill area covers about 20 acres and contains a clay liner with a cover of compacted soil. The C-746-T Landfill was used to dispose of construction debris (e.g., concrete, wood, and rock) and steam plant fly ash from PGDP. The C-746-T Landfill is closed and has been inactive since June 1992.

1.2 MONITORING PERIOD ACTIVITIES

1.2.1 Groundwater Monitoring

Groundwater sampling was conducted within the first quarter 2013 during October using LATA Environmental Services of Kentucky, LLC, procedure PAD-ENM-2101, *Groundwater Sampling*. Appropriate sample containers and preservatives were utilized. The laboratories that performed analysis used U.S. Environmental Protection Agency (EPA)-approved methods, as applicable.

Three zones are monitored at the site: the Upper Continental Recharge System (UCRS), Upper Regional Gravel Aquifer (URGA), and the Lower Regional Gravel Aquifer (LRGA). There are 23 monitoring wells

(MWs) under permit for the C-746-S&T Landfills: 5 UCRS wells, 11 URGA wells, and 7 LRGA wells. A map of the monitoring well locations is presented in Figure 1. All MWs were sampled this quarter except 2. MW389 and MW390, screened in the UCRS, had an insufficient amount of water to obtain samples this quarter; therefore, there are no analytical results for these locations. The parameters specified in Permit Condition GSTR0003, Special Condition 3, were analyzed for all locations sampled.

The groundwater flow rate and direction determination are provided in Appendix E. Depth-to-water measurements were collected on January 3, 2013, in MWs of the C-746-S&T Landfills (see Table E.1), in MWs of the C-746-U Landfill, and in MWs of the surrounding region (shown on Figure E.4). Water level measurements in 35 vicinity wells define the potentiometric surface for the Regional Gravel Aquifer (RGA).[1] As in previous quarters, a groundwater mound under the C-746-S&T Landfills resulted in radial flow away from the landfill area. Normal regional flow in the RGA is northeastward, toward the Ohio River. The hydraulic gradient for the RGA in the vicinity of the C-746-S&T Landfills in January was 3.12×10^{-4} ft/ft, while the gradient beneath the C-746-S&T Landfills was 8.64×10^{-4} ft/ft. Calculated groundwater flow rates (average linear velocities) for the RGA at the C-746-S&T Landfills range from 1.47 to 2.50 ft/day (see Table E.3). The mound is an area of high hydraulic potential in the RGA that approximately mirrors the land topography in the area of the landfill.

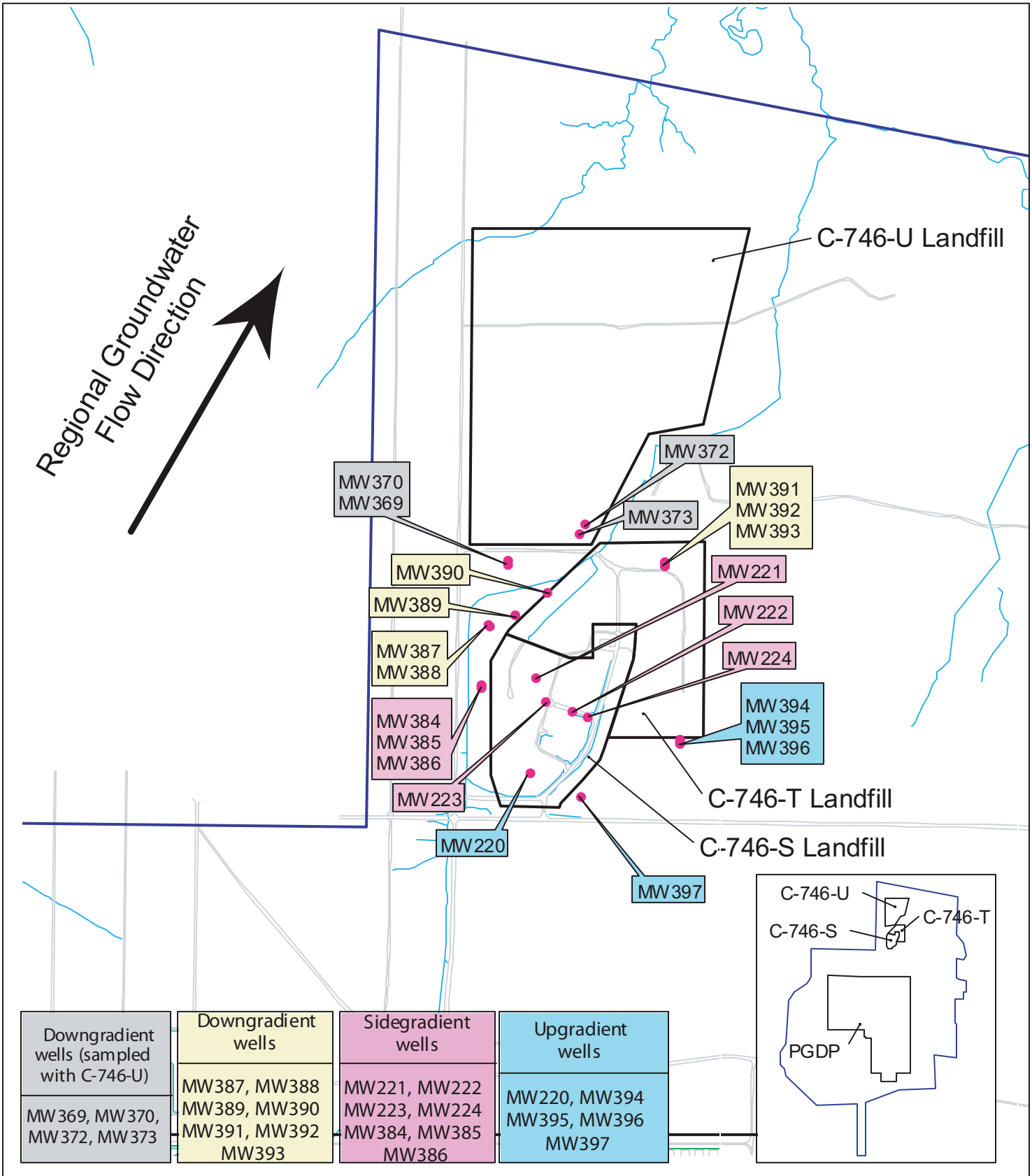
1.2.2 Methane Monitoring

Landfill operations staff monitored for the occurrence of methane on March 14, 2013, in 1 on-site building location, 4 locations along the landfill boundary, and 27 gas-passive vents located in Cells 1, 2, and 3 of the C-746-S Landfill. See Appendix H for a map of the monitoring locations. No potential gas problem areas (i.e., suspect or problem areas) were identified. Monitoring identified 0% of the lower explosive limit (LEL) of methane at all locations, which is compliant with the regulatory requirement of < 100% LEL at boundary locations and < 25% LEL at all other locations. The results are documented on the approved C-746-S&T Landfill Methane Monitoring Report form provided in Appendix H.

1.2.3 Surface Water Monitoring

Surface water sampling was conducted on January 10, 2013, using LATA Environmental Services of Kentucky, LLC, procedure PAD-ENM-2203, *Surface Water Sampling*. Appropriate sample containers and preservatives were utilized. The laboratories that performed analysis used EPA-approved methods, as applicable. The landfills have an upgradient location, L135; a downgradient location, L154; and a location capturing runoff from the landfill surface, L136. A map of the surface water monitoring locations is presented in Figure 2. Surface water was monitored as specified in 401 *KAR* 48:300, Section 2, and the approved surface water monitoring plan. The parameters identified in the Solid Waste Landfill Permit were analyzed for the three locations sampled for reporting only, pursuant to Permit Condition GMNP0003, Standard Requirement 1.

[1] Although depth-to-water is measured in the UCRS wells, the UCRS has a strong vertical hydraulic gradient that varies locally. The UCRS wells are screened over different elevations; therefore, the UCRS well measurements are not sufficient for mapping the potentiometric surface.



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

LATA Environmental Services of Kentucky, LLC

Figure 1. Groundwater Monitoring Well Network for the C-746-S&T Landfills

FIGURE No. c5ac90002sk149.apr
DATE 04-27-11

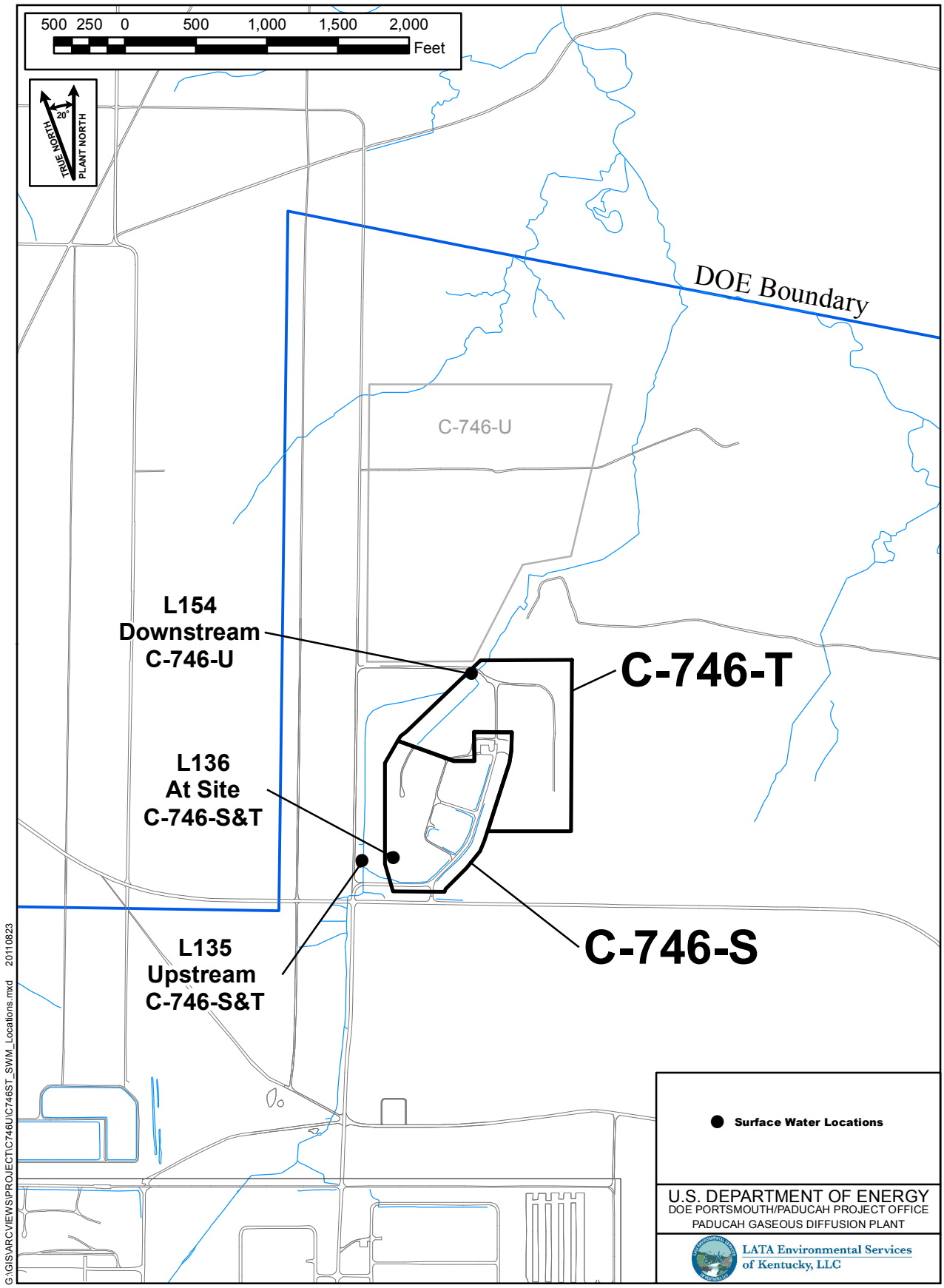


Figure 2. C-746-S&T Landfill Surface Water Monitoring Locations

1.3 KEY RESULTS

The following parameters had concentrations that either exceeded the MCL (Table 1) or were shown to have statistically significant increases (Table 2) in concentrations[2] relative to background concentrations during the first quarter 2013.

Table 1. Summary of MCL Exceedances

UCRS	URGA	LRGA
None	MW372: beta activity, trichloroethene MW384: beta activity MW387: beta activity MW391: trichloroethene MW394: trichloroethene	MW373: beta activity, trichloroethene MW388: beta activity MW392: trichloroethene

Table 2. Summary of Statistical Increases

UCRS	URGA	LRGA
MW386: chemical oxygen demand MW393: oxidation-reduction potential	MW221: oxidation-reduction potential MW222: aluminum MW223: oxidation-reduction potential MW224: oxidation-reduction potential MW369: aluminum, oxidation-reduction potential MW372: calcium, conductivity, dissolved solids, magnesium sodium, sulfate MW384: dissolved solids, pH, sodium, sulfate, technetium-99 MW387: oxidation-reduction potential pH, sulfate, technetium-99 MW391: oxidation-reduction potential	MW370: oxidation-reduction potential, sulfate MW373: calcium, conductivity, dissolved solids, magnesium potassium, sodium, sulfate, technetium-99 MW385: pH, sulfate, technetium-99 MW388: oxidation-reduction potential, sulfate, technetium-99 MW392: oxidation-reduction potential

Sidegradient wells: MW221, MW222, MW223, MW224, MW384, MW385, MW386
Downgradient wells: MW369, MW370, MW372, MW373, MW387, MW388, MW389, MW390, MW391, MW392, MW393
Upgradient wells: MW220, MW394, MW395, MW396, MW397

There were no new MCL exceedances for this quarter. MCL exceedances for beta activity in MW372, MW373, MW384, MW387, and MW388 are related to sources of contamination that are upgradient of the C-746-S&T Landfills. The trichloroethene detected in MW372, MW373, MW391, MW392, and MW394 is derived from an alternate source in the vicinity of the C-746-S&T Landfills. The notification of parameters that exceeded the MCL has been submitted electronically to KDWM in accordance with 401 *KAR* 48:300, Section 7, prior to the submittal of this report.

There was one new statistically significant increase during this quarter. There was a statistically significant increase of pH in MW387. The other 40 statistically significant increases have occurred previously at least once since fourth quarter calendar year 2002.

[2] The term "concentration" may refer to a field measurement result, such as pH, oxidation-reduction potential, or an analytical parameter such as trichloroethene or polychlorinated biphenyls.

This report serves as the notification of parameters that had statistically significant increased concentrations relative to background concentrations, as required by Permit Numbers 073-00014 and 073-00015, Condition GSTR0003, Standard Requirement 8, and 401 *KAR* 48:300, Section 7.

In accordance with Permit Condition GSTR0003, Variance 2, of the Solid Waste Permit (Permit), the groundwater assessment and corrective action requirements of 401 *KAR* 48:300, Section 8, shall not apply to the C-746-S Residential Landfill and the C-746-T Inert Landfill. This variance in the Permit provides that groundwater assessment and corrective actions for these landfills will be conducted in accordance with the corrective action requirements of 401 *KAR* 34:060, Section 12.

2. DATA EVALUATION/STATISTICAL SYNOPSIS

The statistical analyses conducted on the first quarter 2013 groundwater data collected from the C-746-S&T Residential/Inert Landfills MWs were performed in accordance with Permit Condition GSTR0003, Standard Requirement 3, using EPA guidance (EPA 1989), with the exception of pH. The method for conducting the statistical analysis of pH was selected by the project statistician. The statistical analyses for this report utilize data from the first eight quarters that were sampled for each parameter, beginning with the first two baseline sampling events in 2002, when available. The sampling dates associated with background data are listed next to the result in the statistical analysis sheets in Appendix D (D17–D74).

For chemicals with an established MCL, no statistical analysis was performed. Parameters that have an MCL can be found in 401 *KAR* 47:030, Section 6. For parameters with no established MCL, the data are divided into censored (nondetects) and uncensored (detected) observations. The one-sided tolerance interval statistical test is conducted only on parameters that have at least one uncensored observation. Results of the one-sided tolerance interval statistical test are used to determine whether the data show a statistically significant increase in concentration with respect to upgradient (background) well data. For the statistical analysis of pH, a two-sided tolerance interval statistical test was conducted. The test well results were compared to both an upper and lower tolerance limit to determine if statistically significant deviations exist in concentrations with respect to upgradient (background) well data. The statistical analysis was conducted separately for each parameter in each well. The MWs included historically in the statistical analyses are listed in Table 3.

Table 3. Monitoring Wells Included Historically in Statistical Analysis*

UCRS	URGA	LRGA
MW386	MW220 (upgradient)**	MW370
MW389 (dry)***	MW221	MW373
MW390 (dry)	MW222	MW385
MW393	MW223	MW388
MW396 (upgradient)**	MW224	MW392
	MW369	MW395 (upgradient)**
	MW372	MW397 (upgradient)**
	MW384	
	MW387	
	MW391	
	MW394 (upgradient)**	

* A map showing the monitoring well locations is shown in Figure 1.
** Included as background only.
*** MW389 and MW390 had sufficient water to permit a water level measurement but insufficient water to provide water samples for laboratory analysis.

STATISTICAL ANALYSIS OF GROUNDWATER DATA

Parameters requiring statistical analysis are summarized in Appendix D for each hydrological unit. A stepwise list for determining statistically significant increases is provided in Appendix D under Statistical Analysis Process. Appendix G summarizes the occurrences (by well and by quarter) of statistically significant increases and MCL exceedances.

Upper Continental Recharge System

In this quarter, statistical analysis was performed on 17 parameters in the UCRS. The statistical analysis was conducted separately for each parameter in each well. During the first quarter, chemical oxygen demand and oxidation-reduction potential displayed an elevated concentration that was determined to qualify as a statistically significant increase.

Upper Regional Gravel Aquifer

In this quarter, statistical analysis was performed on 21 parameters in the URGA. The statistical analysis was conducted separately for each parameter in each well. During the first quarter, aluminum, calcium, conductivity, dissolved solids, magnesium, oxidation-reduction potential, pH, sodium, sulfate, and technetium-99 displayed elevated concentrations that were determined to qualify as statistically significant increases.

Lower Regional Gravel Aquifer

In this quarter, statistical analysis was performed on 19 parameters in the LRGA. The statistical analysis was conducted separately for each parameter in each well. During the first quarter, calcium, conductivity, dissolved solids, magnesium, oxidation-reduction potential, pH, potassium, sodium, sulfate, and technetium-99 displayed elevated concentrations that were determined to qualify as statistically significant increases.

3. DATA VALIDATION

Data validation was performed on the organic, inorganic, and radiochemical analytical data by an independent third-party validator. Validation qualifiers are not requested on the groundwater reporting forms.

Field quality control samples are collected quarterly during each sampling event. Equipment blanks, field blanks, and trip blanks are obtained to ensure quality control and are reported in the Groundwater Sample Analysis forms in Appendix C. Laboratory quality control samples such as matrix spikes, matrix spike duplicates, and method blanks are performed by the laboratory. Both field and laboratory quality control sample results are reviewed as part of the data validation process.

Data validation results for this data set indicated that all data were considered acceptable.

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4. PROFESSIONAL GEOLOGIST AUTHORIZATION

DOCUMENT IDENTIFICATION: *C-746-S&T Landfills*
First Quarter Calendar Year 2013
(January–March)
Compliance Monitoring Report,
Paducah Gaseous Diffusion Plant,
Paducah, Kentucky (PAD-ENM-0085/V1)

Stamped and signed pursuant to my authority as a duly registered geologist under the provisions of *KRS* Chapter 322A.

Kenneth R. Davis — Kenneth R. Davis

PG1194

May 24, 2013
Date

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5. REFERENCES

EPA (U.S. Environmental Protection Agency) 1989. *EPA Statistical Analysis of Ground-Water Monitoring Data at RCRA Facilities*, Interim Final Guidance, office of Resource Conservation and recovery, U.S. Environmental Protection Agency, Washington, DC.

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APPENDIX A

GROUNDWATER, SURFACE WATER, LEACHATE, AND METHANE MONITORING SAMPLE DATA REPORTING FORM

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GROUNDWATER, SURFACE WATER, AND METHANE MONITORING SAMPLE DATA REPORTING FORM

NATURAL RESOURCES AND ENVIRONMENTAL PROTECTION CABINET
DEPARTMENT FOR ENVIRONMENTAL PROTECTION
DIVISION OF WASTE MANAGEMENT
SOLID WASTE BRANCH
14 REILLY ROAD
FRANKFORT, KY 40601

Facility Name: U.S. DOE - Paducah Gaseous Diffusion Plant (As officially shown on DWM Permit Face) Activity: C-746-S&T Landfills

Permit No: 073-00014 & 073-00015 Finds/Unit No: _____ Quarter & Year 1st Qtr. CY 2013

Please check the following as applicable:

_____ Characterization X Quarterly _____ Semiannual _____ Annual _____ Assessment

Please check applicable submittal(s): X Groundwater X Surface Water

_____ Leachate X Methane Monitoring

This form is to be utilized by those sites required by regulation (Kentucky Waste Management Regulations-401 *KAR* 48:300 and 45:160) or by statute (Kentucky Revised Statues Chapter 224) to conduct groundwater and surface water monitoring under the jurisdiction of the Division of Waste Management. **You must report any indication of contamination within forty-eight (48) hours of making the determination using statistical analyses, direct comparison, or other similar techniques. Submitting the lab report is NOT considered notification.** Instructions for completing the form are attached. Do not submit the instruction pages.

I certify under penalty of law that the 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 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 such violations.

for

Mark J. Duff, Paducah Project Manager
LATA Environmental Services of Kentucky, LLC

05/30/13
Date

Rachel H. Blumenfeld, Acting Paducah Site Lead
U.S. Department of Energy

05/30/13
Date

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APPENDIX B

FACILITY INFORMATION SHEET

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FACILITY INFORMATION SHEET

Sampling Date: Groundwater: January 2013 / Surface Water: January 2013 | County: McCracken | Permit Nos. 073-00014 & 073-00015

Facility Name: U.S. DOE - Paducah Gaseous Diffusion Plant
(As officially shown on DWM Permit Face)

Site Address: 5600 Hobbs Road (Street) | Kevil, Kentucky (City/State) | 42053 (Zip)

Phone No: (270) 441-6800 | Latitude: N 37° 07' 38.87" | Longitude: W 88° 48' 13.42"

OWNER INFORMATION

Facility Owner: U.S. DOE – W. E. Murphie, Manager | Phone No: (859) 219-4001

Contact Person: Mark J. Duff | Phone No: (270) 441-5030

Contact Person Title: Project Manager, LATA Environmental Services of Kentucky, LLC

Mailing Address: 761 Veterans Avenue (Street) | Kevil, Kentucky (City/State) | 42053 (Zip)

SAMPLING PERSONNEL
(IF OTHER THAN LANDFILL OR LABORATORY)

Company: LATA Environmental Services of Kentucky, LLC

Contact Person: Jeff Boulton | Phone No: (270) 441-5444

Mailing Address: 761 Veterans Avenue (Street) | Kevil, Kentucky (City/State) | 42053 (Zip)

LABORATORY RECORD #1

Laboratory: USEC Analytical Laboratories – Paducah | Lab ID No: KY00906 (EPA ID Number)

Contact Person: John Price | Phone No: (270) 441-5867

Mailing Address: P.O. Box 1410 (Street) | Paducah, Kentucky (City/State) | 42002-1410 (Zip)

LABORATORY RECORD #2

Laboratory: TestAmerica Laboratories, Inc. | Lab ID No: MO00054 (EPA ID Number)

Contact Person: Elaine Wild | Phone No: (314) 298-8566

Mailing Address: 13715 Rider Trail North (Street) | Earth City, MO (City/State) | 63045 (Zip)

LABORATORY RECORD #3

Laboratory: | Lab ID No:

Contact Person: | Phone No:

Mailing Address: (Street) | (City/State) | (Zip)

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APPENDIX C

GROUNDWATER SAMPLE ANALYSES AND WRITTEN COMMENTS

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Division of Waste Management
Solid Waste Branch
14 Reilly Road
Frankfort, KY 40601 (502)564-6716

RESIDENTIAL/INERT-QUARTERLY
Facility: US DOE - Paducah Gaseous Diffusion Plant
Permit Number: 073-00014 & 073-00015

FINDS/UNIT: KY8-890-008-982 / 1
LAB ID: None
For Official Use Only

GROUNDWATER SAMPLE ANALYSIS(S)

AKGWA NUMBER[1], Facility Well/Spring Number	8000-5201	8000-5202	8000-5242	8000-5243
Facility's Local Well or Spring Number (e.g., MW-1, MW-2, etc.)	220	221	222	223
Sample Sequence #	1	1	1	1
If sample is a Blank, specify Type: (F)ield, (T)rip, (M)ethod, or (E)quipment	NA	NA	NA	NA
Sample Date and Time (Month/Day/Year hour: minutes)	1/15/2013 12:24	1/17/2013 08:03	1/16/2013 10:35	1/16/2013 08:27
Duplicate ("Y" or "N")[2]	N	N	N	N
Split ("Y" or "N")[3]	N	N	N	N
Facility Sample ID Number (if applicable)	MW220SG2-13	MW221SG2-13	MW222SG2-13	MW223SG2-13
Laboratory Sample ID Number (if applicable)	C13015036001	C13017005001	C13016022001	C13016022002
Date of Analysis (Month/Day/Year) For Volatile Organics Analysis	1/19/2013	1/20/2013	1/19/2013	1/22/2013
Gradient with respect to Monitored Unit (UP, DOWN, SIDE, UNKNOWN)	UP	SIDE	SIDE	SIDE

CAS RN[4]		CONSTITUENT	TD[5]	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL[6]	FLAGS[7]	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS
24959-67-9		Bromide	T	mg/L	9056	<2		<2		<2		<2	
16887-00-6		Chloride(s)	T	mg/L	9056	23		39		29		32	
16984-48-8		Fluoride	T	mg/L	9214	0.18		0.18		0.26		0.3	
S0595- -		Nitrate & Nitrite	T	mg/L	9056	1.3		1.2		1.1		1.3	
14808-79-8		Sulfate	T	mg/L	9056	15		13		9.6		9.7	
NS1894		Barometric Pressure Reading	T	Inches/Hg	Field	30.22		30.1		30.16		30.12	
S0145- -		Specific Conductance	T	μMH0/cm	Field	335		359		319		375	

[1]AKGWA # is 0000-0000 for any type of blank.
[2]Respond "Y" if the sample was a duplicate of another sample in this report.
[3]Respond "Y" if the sample was split and analyzed by separate laboratories.
[4]Chemical Abstracts Service Registry Number or unique identifier number assigned by agency.
[5]"T" = Total; "D" = Dissolved
[6]"<" indicates a non-detect; do not use "ND" or "BDL". Value shown is Practical Quantification Limit.
[7]Flags are as designated, do not use any other type. Use "*," then describe on "Written Comments Page."

STANDARD FLAGS:
* = See Comments
J = Estimated Value
B = Analyte found in blank
A = Average value
N = Presumptive ID
D = Concentration from analysis of a secondary dilution

GROUNDWATER SAMPLE ANALYSIS - (Cont.)

AKGWA NUMBER[1], Facility Well/Spring Number						8000-5201		8000-5202		8000-5242		8000-5243	
Facility's Local Well or Spring Number (e.g., MW-1, MW-2, BLANK-F, etc.)						220		221		222		223	
CAS RN[4]		CONSTITUENT	TD[5]	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS
S0906 - -		Static Water Level Elevation	T	Ft. MSL	Field	322.55		320.67		320.79			*
N238		Dissolved Oxygen	T	mg/L	Field	5.09		5.11		4.45		2.74	
S0266- -		Total Dissolved Solids	T	mg/L	160.1	196		216		236		218	
S0296- -		pH	T	Units	Field	6.86		6.2		6.83		6.87	
NS215		Eh	T	mV	Field	353		806		364		447	
S0907 - -		Temperature	T	°C	Field	11		14.11		10.33		12	
7429-90-5		Aluminum	T	mg/L	6020	<0.2		<0.2		1.29		<0.2	
7440-36-0		Antimony	T	mg/L	6020	<0.005		<0.005		<0.005		<0.005	
7440-38-2		Arsenic	T	mg/L	7060	<0.001		<0.001		0.00131		<0.001	
7440-39-3		Barium	T	mg/L	6020	0.189		0.202		0.282		0.298	
7440-41-7		Beryllium	T	mg/L	6020	<0.001	*	<0.001	*	<0.001	*	<0.001	*
7440-42-8		Boron	T	mg/L	6010	<0.2	B	<0.2	B	<0.2	B	<0.2	B
7440-43-9		Cadmium	T	mg/L	6020	<0.001		<0.001		<0.001		<0.001	
7440-70-2		Calcium	T	mg/L	6010	19.3		19.4		14.6		18.4	
7440-47-3		Chromium	T	mg/L	6020	<0.01	B	<0.01	B	<0.01	B	0.0248	B
7440-48-4		Cobalt	T	mg/L	6020	0.00288		<0.001		0.0039		0.00301	
7440-50-8		Copper	T	mg/L	6020	<0.02		<0.02		<0.02		<0.02	
7439-89-6		Iron	T	mg/L	6010	<0.1		<0.1		2.54		0.123	
7439-92-1		Lead	T	mg/L	6020	<0.0013	B	<0.0013	B	0.00155	B	<0.0013	B
7439-95-4		Magnesium	T	mg/L	6010	7.74		8.55		6.44		7.31	
7439-96-5		Manganese	T	mg/L	6020	0.0206		<0.005		0.055		0.0953	
7439-97-6		Mercury	T	mg/L	7470	<0.0002		<0.0002		<0.0002		<0.0002	

RESIDENTIAL/INERT-QUARTERLY
Facility: US DOE - Paducah Gaseous Diffusion Plant
Permit Number: 073-00014 & 073-00015

FINDS/UNIT: KY8-890-008-982 / 1
LAB ID: None
For Official Use Only

GROUNDWATER SAMPLE ANALYSIS - (Cont.)

AKGWA NUMBER[1], Facility Well/Spring Number						8000-5201		8000-5202		8000-5242		8000-5243	
Facility's Local Well or Spring Number (e.g., MW-1, MW-2, etc.)						220		221		222		223	
CAS RN[4]		CONSTITUENT	TD[5]	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS
7439-98-7		Molybdenum	T	mg/L	6020	0.00118	B	0.00216		<0.001	B	0.00686	
7440-02-0		Nickel	T	mg/L	6020	0.2		0.0489		0.0761		0.0903	
7440-09-7		Potassium	T	mg/L	6010	2.09		1.26		0.515		5.32	
7440-16-6		Rhodium	T	mg/L	6020	<0.005	B	<0.005	B	<0.005	B	<0.005	B
7782-49-2		Selenium	T	mg/L	6020	<0.005		0.00626		<0.005		<0.005	
7440-22-4		Silver	T	mg/L	6020	<0.001	*	<0.001	*	<0.001	*	<0.001	*
7440-23-5		Sodium	T	mg/L	6010	35		41		38.4		40.9	
7440-25-7		Tantalum	T	mg/L	6020	<0.005		<0.005		<0.005		<0.005	
7440-28-0		Thallium	T	mg/L	6020	<0.002		<0.002		<0.002		<0.002	
7440-61-1		Uranium	T	mg/L	6020	<0.001		<0.001		<0.001		<0.001	
7440-62-2		Vanadium	T	mg/L	6020	<0.02	B	<0.02	B	<0.02	B	<0.02	B
7440-66-6		Zinc	T	mg/L	6020	<0.02		<0.02		<0.02		<0.02	
108-05-4		Vinyl acetate	T	mg/L	8260	<0.01		<0.01		<0.01		<0.01	
67-64-1		Acetone	T	mg/L	8260	<0.01	*	<0.01	*	<0.01	*	<0.01	
107-02-8		Acrolein	T	mg/L	8260	<0.01		<0.01		<0.01		<0.01	
107-13-1		Acrylonitrile	T	mg/L	8260	<0.01	*	<0.005	*	<0.01	*	<0.005	
71-43-2		Benzene	T	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	
108-90-7		Chlorobenzene	T	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	
1330-20-7		Xylenes	T	mg/L	8260	<0.015		<0.015		<0.015		<0.015	
100-42-5		Styrene	T	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	*
108-88-3		Toluene	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
74-97-5		Chlorobromomethane	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	

GROUNDWATER SAMPLE ANALYSIS - (Cont.)

AKGWA NUMBER[1], Facility Well/Spring Number						8000-5201		8000-5202		8000-5242		8000-5243	
Facility's Local Well or Spring Number (e.g., MW-1, MW-2, etc.)						220		221		222		223	
CAS RN[4]		CONSTITUENT	TD[5]	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS
75-27-4		Bromodichloromethane	T	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	*
75-25-2		Tribromomethane	T	mg/L	8260	<0.005	*J	<0.005	*J	<0.005	*J	<0.005	*J
74-83-9		Methyl bromide	T	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	J
78-93-3		Methyl ethyl ketone	T	mg/L	8260	<0.01		<0.01		<0.01		<0.01	
110-57-6		trans-1,4-Dichloro-2-butene	T	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	
75-15-0		Carbon disulfide	T	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	
75-00-3		Chloroethane	T	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	
67-66-3		Chloroform	T	mg/L	8260	<0.001	*	<0.001	*	<0.001	*	<0.001	
74-87-3		Methyl chloride	T	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	*
156-59-2		cis-1,2-Dichloroethene	T	mg/L	8260	<0.001	*	<0.001	*	<0.001	*	<0.001	
74-95-3		Methylene bromide	T	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	*
75-34-3		1,1-Dichloroethane	T	mg/L	8260	<0.001	*	<0.001	*	<0.001	*	<0.001	
107-06-2		1,2-Dichloroethane	T	mg/L	8260	<0.001	*	<0.001	*	<0.001	*	<0.001	
75-35-4		1,1-Dichloroethylene	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
106-93-4		Ethane, 1,2-dibromo	T	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	*
79-34-5		Ethane, 1,1,2,2-Tetrachloro	T	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	
71-55-6		Ethane, 1,1,1-Trichloro-	T	mg/L	8260	<0.001	*	<0.001	*	<0.001	*	<0.001	
79-00-5		Ethane, 1,1,2-Trichloro	T	mg/L	8260	<0.001	*	<0.001	*	<0.001	*	<0.001	
630-20-6		Ethane, 1,1,1,2-Tetrachloro	T	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	*
75-01-4		Vinyl chloride	T	mg/L	8260	<0.002	*	<0.002	*	<0.002	*	<0.002	*
127-18-4		Ethene, Tetrachloro-	T	mg/L	8260	<0.001	*	<0.001	*	<0.001	*	<0.001	
79-01-6		Ethene, Trichloro-	T	mg/L	8260	<0.001	*	<0.001	*	<0.001	*	<0.001	

RESIDENTIAL/CONTAINED-QUARTERLY
Facility: US DOE - Paducah Gaseous Diffusion Plant
Permit Number: 073-00014 & 073-00015

FINDS/UNIT: KY8-890-008-982 / 1
LAB ID: None
For Official Use Only

GROUNDWATER SAMPLE ANALYSIS - (Cont.)

AKGWA NUMBER[1], Facility Well/Spring Number						8000-5201		8000-5202		8000-5242		8000-5243	
Facility's Local Well or Spring Number (e.g., MW-1, MW-2, etc.)						220		221		222		223	
CAS RN[4]		CONSTITUENT	TD[5]	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS
100-41-4		Ethylbenzene	T	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	*
591-78-6		2-Hexanone	T	mg/L	8260	<0.01	*	<0.01	*	<0.01	*	<0.01	
74-88-4		Iodomethane	T	mg/L	8260	<0.01	*	<0.01	*	<0.01	*	<0.01	
124-48-1		Methane, Dibromochloro-	T	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	*
56-23-5		Carbon Tetrachloride	T	mg/L	8260	<0.001	*	<0.001	*	<0.001	*	<0.001	
75-09-2		Dichloromethane	T	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	*
108-10-1		Methyl isobutyl ketone	T	mg/L	8260	<0.01	*	<0.01	*	<0.01	*	<0.01	
96-12-8		Propane, 1,2-Dibromo-3-chloro	T	mg/L	8011	<0.0002		<0.0002		<0.0002		<0.0002	
78-87-5		Propane, 1,2-Dichloro-	T	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	
10061-02-6		trans-1,3-Dichloro-1-propene	T	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	
10061-01-5		cis-1,3-Dichloro-1-propene	T	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	*
156-60-5		trans-1,2-Dichloroethene	T	mg/L	8260	<0.001	*	<0.001	*	<0.001	*	<0.001	*
75-69-4		Trichlorofluoromethane	T	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	
96-18-4		1,2,3-Trichloropropane	T	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	
95-50-1		Benzene, 1,2-Dichloro-	T	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	
106-46-7		Benzene, 1,4-Dichloro-	T	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	*
1336-36-3		PCB,Total	T	ug/L	8082		*		*		*		*
12674-11-2		PCB-1016	T	ug/L	8082		*		*		*		*
11104-28-2		PCB-1221	T	ug/L	8082		*		*		*		*
11141-16-5		PCB-1232	T	ug/L	8082		*		*		*		*
53469-21-9		PCB-1242	T	ug/L	8082		*		*		*		*
12672-29-6		PCB-1248	T	ug/L	8082		*		*		*		*

RESIDENTIAL/CONTAINED-QUARTERLY
Facility: US DOE - Paducah Gaseous Diffusion Plant
Permit Number: 073-00014 & 073-00015

FINDS/UNIT: KY8-890-008-982 / 1
LAB ID: None
For Official Use Only

GROUNDWATER SAMPLE ANALYSIS - (Cont.)

AKGWA NUMBER[1], Facility Well/Spring Number						8000-5201		8000-5202		8000-5242		8000-5243	
Facility's Local Well or Spring Number (e.g., MW-1, MW-2, etc.)						220		221		222		223	
CAS RN[4]		CONSTITUENT	TD[5]	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS
11097-69-1		PCB-1254	T	ug/L	8082		*		*		*		*
11096-82-5		PCB-1260	T	ug/L	8082		*		*		*		*
11100-14-4		PCB-1268	T	ug/L	8082		*		*		*		*
12587-46-1		Gross Alpha	T	pCi/L	9310	2.04	*	-0.568	*	-0.271	*	2.48	*
12587-47-2		Gross Beta	T	pCi/L	9310	15.7	*	8.6	*	1.71	*	9.05	*
10043-66-0		Iodine-131	T	pCi/L	RL-7124		*		*		*		*
13982-63-3		Radium-226	T	pCi/L	RL-7129	0.342	*	0.105	*	0.22	*	-0.0571	*
10098-97-2		Strontium-90	T	pCi/L	RL-7140	0.499	B	0.86	B	-0.0773	B	0.153	B
14133-76-7		Technetium-99	T	pCi/L	RL-7100	13.6	*	-2.3	*	-6.05	*	3.45	*
14269-63-7		Thorium-230	T	pCi/L	RL-7128	-0.0346	*	0.0196	*	-0.0244	*	-0.00393	*
10028-17-8		Tritium	T	pCi/L	704R6	587	*	222	*	255	*	3.05	*
S0130- -		Chemical Oxygen Demand	T	mg/L	410.4	<25		<25		<25		<25	
57-12-5		Cyanide	T	mg/L	9010	<0.04		<0.04		<0.04		<0.04	
20461-54-5		Iodide	T	mg/L	345.1	<2		<2		<2		<2	
S0268- -		Total Organic Carbon	T	mg/L	9060	<1	*	<1		<1		<1	
S0586- -		Total Organic Halides	T	mg/L	9020	0.0099		0.011		0.0089		0.012	

Division of Waste Management
Solid Waste Branch
14 Reilly Road
Frankfort, KY 40601 (502)564-6716

RESIDENTIAL/INERT-QUARTERLY
Facility: US DOE - Paducah Gaseous Diffusion Plant
Permit Number: 073-00014 & 073-00015

FINDS/UNIT: KY8-890-008-982 / 1
LAB ID: None
For Official Use Only

GROUNDWATER SAMPLE ANALYSIS(S)

AKGWA NUMBER[1], Facility Well/Spring Number	8000-5244	8004-4820	8004-4818	8004-4808
Facility's Local Well or Spring Number (e.g., MW-1, MW-2, etc.)	224	369	370	372
Sample Sequence #	1	1	1	1
If sample is a Blank, specify Type: (F)ield, (T)rip, (M)ethod, or (E)quipment	NA	NA	NA	NA
Sample Date and Time (Month/Day/Year hour: minutes)	1/17/2013 08:19	1/10/2013 08:27	1/14/2013 08:24	1/9/2013 12:46
Duplicate ("Y" or "N")[2]	N	N	N	N
Split ("Y" or "N")[3]	N	N	N	N
Facility Sample ID Number (if applicable)	MW224SG2-13	MW369UG2-13	MW370UG2-13	MW372UG2-13
Laboratory Sample ID Number (if applicable)	C13017005002	C13010009001	C13014017001	C13009025001
Date of Analysis (Month/Day/Year) For Volatile Organics Analysis	1/20/2013	1/11/2013	1/18/2013	1/11/2013
Gradient with respect to Monitored Unit (UP, DOWN, SIDE, UNKNOWN)	SIDE	DOWN	DOWN	DOWN

CAS RN[4]		CONSTITUENT	TD[5]	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL[6]	FLAGS[7]	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS
24959-67-9		Bromide	T	mg/L	9056	<2		<2		<2		<2	
16887-00-6		Chloride(s)	T	mg/L	9056	16		33		43		47	
16984-48-8		Fluoride	T	mg/L	9214	0.29		0.19		0.16		0.17	
S0595- -		Nitrate & Nitrite	T	mg/L	9056	<1		<1		1.2		<1	
14808-79-8		Sulfate	T	mg/L	9056	9.7		6.5		20		160	
NS1894		Barometric Pressure Reading	T	Inches/Hg	Field	30.1		30.28		30.38		30.23	
S0145- -		Specific Conductance	T	μMH0/cm	Field	405		365		436		860	

[1]AKGWA # is 0000-0000 for any type of blank.
[2]Respond "Y" if the sample was a duplicate of another sample in this report.
[3]Respond "Y" if the sample was split and analyzed by separate laboratories.
[4]Chemical Abstracts Service Registry Number or unique identifier number assigned by agency.
[5]"T" = Total; "D" = Dissolved
[6]"<" indicates a non-detect; do not use "ND" or "BDL". Value shown is Practical Quantification Limit.
[7]Flags are as designated, do not use any other type. Use "*," then describe on "Written Comments Page."

STANDARD FLAGS:
* = See Comments
J = Estimated Value
B = Analyte found in blank
A = Average value
N = Presumptive ID
D = Concentration from analysis of a secondary dilution

RESIDENTIAL/INERT-QUARTERLY
Facility: US DOE - Paducah Gaseous Diffusion Plant
Permit Number: 073-00014 & 073-00015

FINDS/UNIT: KY8-890-008-982 / 1
LAB ID: None
For Official Use Only

GROUNDWATER SAMPLE ANALYSIS - (Cont.)

AKGWA NUMBER[1], Facility Well/Spring Number						8000-5244		8004-4820		8004-4818		8004-4808	
Facility's Local Well or Spring Number (e.g., MW-1, MW-2, BLANK-F, etc.)						224		369		370		372	
CAS RN[4]		CONSTITUENT	TD[5]	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS
S0906 - -		Static Water Level Elevation	T	Ft. MSL	Field	320.8		320.14		319.92		320.04	
N238		Dissolved Oxygen	T	mg/L	Field	1.86		2.43		3.7		1.8	
S0266- -		Total Dissolved Solids	T	mg/L	160.1	254		213		230		506	
S0296- -		pH	T	Units	Field	6.25		6.42		6.2		6.32	
NS215		Eh	T	mV	Field	855		675		725		43	
S0907 - -		Temperature	T	°C	Field	11.5		12.83		14.06		15.78	
7429-90-5		Aluminum	T	mg/L	6020	<0.2		0.475		<0.2		<0.2	
7440-36-0		Antimony	T	mg/L	6020	<0.005		<0.005		<0.005		<0.005	
7440-38-2		Arsenic	T	mg/L	7060	<0.001		0.00109		0.00126		0.00187	
7440-39-3		Barium	T	mg/L	6020	0.232		0.363		0.197		0.0665	
7440-41-7		Beryllium	T	mg/L	6020	<0.001	*	<0.001		<0.001		<0.001	
7440-42-8		Boron	T	mg/L	6010	<0.2	B	<0.2	B	<0.2	B	1.39	B
7440-43-9		Cadmium	T	mg/L	6020	<0.001		<0.001	B	<0.001	B	<0.001	B
7440-70-2		Calcium	T	mg/L	6010	20.5		16.3		29.5		66.9	
7440-47-3		Chromium	T	mg/L	6020	0.053	B	<0.01		<0.01		<0.01	
7440-48-4		Cobalt	T	mg/L	6020	0.00271		0.0121		<0.001		<0.001	
7440-50-8		Copper	T	mg/L	6020	<0.02		<0.02		<0.02		<0.02	
7439-89-6		Iron	T	mg/L	6010	0.554		0.45		<0.1		0.497	
7439-92-1		Lead	T	mg/L	6020	<0.0013	B	0.00474	B	<0.0013	B	<0.0013	B
7439-95-4		Magnesium	T	mg/L	6010	8.93		6.09		11.7		26	
7439-96-5		Manganese	T	mg/L	6020	0.0364		0.0757		<0.005		0.0179	
7439-97-6		Mercury	T	mg/L	7470	<0.0002		<0.0002		<0.0002		<0.0002	

RESIDENTIAL/INERT-QUARTERLY
Facility: US DOE - Paducah Gaseous Diffusion Plant
Permit Number: 073-00014 & 073-00015

FINDS/UNIT: KY8-890-008-982 / 1
LAB ID: None
For Official Use Only

GROUNDWATER SAMPLE ANALYSIS - (Cont.)

AKGWA NUMBER[1], Facility Well/Spring Number						8000-5244		8004-4820		8004-4818		8004-4808	
Facility's Local Well or Spring Number (e.g., MW-1, MW-2, etc.)						224		369		370		372	
CAS RN[4]		CONSTITUENT	TD[5]	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS
7439-98-7		Molybdenum	T	mg/L	6020	0.0016	B	<0.001	B	<0.001	B	<0.001	B
7440-02-0		Nickel	T	mg/L	6020	0.0826		0.00629	B	<0.005	B	<0.005	B
7440-09-7		Potassium	T	mg/L	6010	0.702		0.499		2.44		2.47	
7440-16-6		Rhodium	T	mg/L	6020	<0.005	B	<0.005		<0.005		<0.005	
7782-49-2		Selenium	T	mg/L	6020	<0.005		<0.005		<0.005		0.0057	
7440-22-4		Silver	T	mg/L	6020	<0.001	*	<0.001		<0.001		<0.001	
7440-23-5		Sodium	T	mg/L	6010	54.5		54		39.2		63.7	
7440-25-7		Tantalum	T	mg/L	6020	<0.005		<0.005		<0.005		<0.005	
7440-28-0		Thallium	T	mg/L	6020	<0.002		<0.002		<0.002		<0.002	
7440-61-1		Uranium	T	mg/L	6020	<0.001		<0.001		<0.001		<0.001	
7440-62-2		Vanadium	T	mg/L	6020	<0.02	B	<0.02		<0.02		<0.02	
7440-66-6		Zinc	T	mg/L	6020	<0.02		<0.02		<0.02		<0.02	
108-05-4		Vinyl acetate	T	mg/L	8260	<0.01		<0.01	*J	<0.01		<0.01	*J
67-64-1		Acetone	T	mg/L	8260	<0.01	*	<0.01	*J	<0.01		<0.01	*J
107-02-8		Acrolein	T	mg/L	8260	<0.01		<0.01	J	<0.01		<0.01	J
107-13-1		Acrylonitrile	T	mg/L	8260	<0.01	*	<0.01	*J	<0.01		<0.01	*J
71-43-2		Benzene	T	mg/L	8260	<0.005	*	<0.005		<0.005		<0.005	
108-90-7		Chlorobenzene	T	mg/L	8260	<0.005	*	<0.005		<0.005		<0.005	
1330-20-7		Xylenes	T	mg/L	8260	<0.015		<0.015		<0.015		<0.015	
100-42-5		Styrene	T	mg/L	8260	<0.005	*	<0.005		<0.005		<0.005	
108-88-3		Toluene	T	mg/L	8260	<0.005		<0.005		<0.005	J	<0.005	
74-97-5		Chlorobromomethane	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	

RESIDENTIAL/INERT-QUARTERLY
Facility: US DOE - Paducah Gaseous Diffusion Plant
Permit Number: 073-00014 & 073-00015

FINDS/UNIT: KY8-890-008-982 / 1
LAB ID: None
For Official Use Only

GROUNDWATER SAMPLE ANALYSIS - (Cont.)

AKGWA NUMBER[1], Facility Well/Spring Number						8000-5244		8004-4820		8004-4818		8004-4808	
Facility's Local Well or Spring Number (e.g., MW-1, MW-2, etc.)						224		369		370		372	
CAS RN[4]		CONSTITUENT	TD[5]	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS
75-27-4		Bromodichloromethane	T	mg/L	8260	<0.005	*	<0.005		<0.005	J	<0.005	
75-25-2		Tribromomethane	T	mg/L	8260	<0.005	*J	<0.005	*J	<0.005	J	<0.005	*J
74-83-9		Methyl bromide	T	mg/L	8260	<0.005	*	<0.005		<0.005	J	<0.005	
78-93-3		Methyl ethyl ketone	T	mg/L	8260	<0.01		<0.01		<0.01		<0.01	
110-57-6		trans-1,4-Dichloro-2-butene	T	mg/L	8260	<0.005	*	<0.005		<0.005		<0.005	
75-15-0		Carbon disulfide	T	mg/L	8260	<0.005	*	<0.005		<0.005	J	<0.005	
75-00-3		Chloroethane	T	mg/L	8260	<0.005	*	<0.005		<0.005	*	<0.005	
67-66-3		Chloroform	T	mg/L	8260	<0.001	*	<0.001		<0.001		<0.001	
74-87-3		Methyl chloride	T	mg/L	8260	<0.005	*	<0.005		<0.005	*	<0.005	
156-59-2		cis-1,2-Dichloroethene	T	mg/L	8260	<0.001	*	<0.001		<0.001		<0.001	
74-95-3		Methylene bromide	T	mg/L	8260	<0.005	*	<0.005		<0.005	J	<0.005	
75-34-3		1,1-Dichloroethane	T	mg/L	8260	<0.001	*	<0.001		<0.001		<0.001	
107-06-2		1,2-Dichloroethane	T	mg/L	8260	<0.001	*	<0.001		<0.001		<0.001	
75-35-4		1,1-Dichloroethylene	T	mg/L	8260	<0.001		<0.001		<0.001	J	<0.001	
106-93-4		Ethane, 1,2-dibromo	T	mg/L	8260	<0.005	*	<0.005	*	<0.005		<0.005	*
79-34-5		Ethane, 1,1,2,2-Tetrachloro	T	mg/L	8260	<0.005	*	<0.005		<0.005		<0.005	
71-55-6		Ethane, 1,1,1-Trichloro-	T	mg/L	8260	<0.001	*	<0.001		<0.001		<0.001	
79-00-5		Ethane, 1,1,2-Trichloro	T	mg/L	8260	<0.001	*	<0.001		<0.001	J	<0.001	
630-20-6		Ethane, 1,1,1,2-Tetrachloro	T	mg/L	8260	<0.005	*	<0.005		<0.005		<0.005	
75-01-4		Vinyl chloride	T	mg/L	8260	<0.002	*	<0.002	*	<0.002	*	<0.002	*
127-18-4		Ethene, Tetrachloro-	T	mg/L	8260	<0.001	*	<0.001		<0.001		<0.001	
79-01-6		Ethene, Trichloro-	T	mg/L	8260	<0.001	*	<0.001		0.0017		0.0061	

RESIDENTIAL/CONTAINED-QUARTERLY
Facility: US DOE - Paducah Gaseous Diffusion Plant
Permit Number: 073-00014 & 073-00015

FINDS/UNIT: KY8-890-008-982 / 1
LAB ID: None
For Official Use Only

GROUNDWATER SAMPLE ANALYSIS - (Cont.)

AKGWA NUMBER[1], Facility Well/Spring Number						8000-5244		8004-4820		8004-4818		8004-4808	
Facility's Local Well or Spring Number (e.g., MW-1, MW-2, etc.)						224		369		370		372	
CAS RN[4]		CONSTITUENT	TD[5]	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS
100-41-4		Ethylbenzene	T	mg/L	8260	<0.005	*	<0.005		<0.005		<0.005	
591-78-6		2-Hexanone	T	mg/L	8260	<0.01	*	<0.01		<0.01		<0.01	
74-88-4		Iodomethane	T	mg/L	8260	<0.01	*	<0.01		<0.01		<0.01	
124-48-1		Methane, Dibromochloro-	T	mg/L	8260	<0.005	*	<0.005	*	<0.005		<0.005	*
56-23-5		Carbon Tetrachloride	T	mg/L	8260	<0.001	*	<0.001		<0.001		<0.001	
75-09-2		Dichloromethane	T	mg/L	8260	<0.005	*	<0.005	*	<0.005		<0.005	*
108-10-1		Methyl isobutyl ketone	T	mg/L	8260	<0.01	*	<0.01		<0.01		<0.01	
96-12-8		Propane, 1,2-Dibromo-3-chloro	T	mg/L	8011	<0.0002		<0.0002		<0.0002	*	<0.0002	
78-87-5		Propane, 1,2-Dichloro-	T	mg/L	8260	<0.005	*	<0.005		<0.005		<0.005	
10061-02-6		trans-1,3-Dichloro-1-propene	T	mg/L	8260	<0.005	*	<0.005		<0.005		<0.005	
10061-01-5		cis-1,3-Dichloro-1-propene	T	mg/L	8260	<0.005	*	<0.005	*	<0.005	J	<0.005	*
156-60-5		trans-1,2-Dichloroethene	T	mg/L	8260	<0.001	*	<0.001	*J	<0.001		<0.001	*J
75-69-4		Trichlorofluoromethane	T	mg/L	8260	<0.005	*	<0.005		<0.005		<0.005	
96-18-4		1,2,3-Trichloropropane	T	mg/L	8260	<0.005	*	<0.005		<0.005		<0.005	
95-50-1		Benzene, 1,2-Dichloro-	T	mg/L	8260	<0.005	*	<0.005		<0.005		<0.005	
106-46-7		Benzene, 1,4-Dichloro-	T	mg/L	8260	<0.005	*	<0.005		<0.005		<0.005	
1336-36-3		PCB,Total	T	ug/L	8082		*	<0.18		<0.18		<0.18	
12674-11-2		PCB-1016	T	ug/L	8082		*	<0.17		<0.17		<0.17	
11104-28-2		PCB-1221	T	ug/L	8082		*	<0.18		<0.18		<0.18	
11141-16-5		PCB-1232	T	ug/L	8082		*	<0.14		<0.14		<0.14	
53469-21-9		PCB-1242	T	ug/L	8082		*	<0.1		<0.1		<0.1	
12672-29-6		PCB-1248	T	ug/L	8082		*	<0.12		<0.12		<0.12	

RESIDENTIAL/CONTAINED-QUARTERLY
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Permit Number: 073-00014 & 073-00015

FINDS/UNIT: KY8-890-008-982 / 1
LAB ID: None
For Official Use Only

GROUNDWATER SAMPLE ANALYSIS - (Cont.)

AKGWA NUMBER[1], Facility Well/Spring Number						8000-5244		8004-4820		8004-4818		8004-4808	
Facility's Local Well or Spring Number (e.g., MW-1, MW-2, etc.)						224		369		370		372	
CAS RN[4]		CONSTITUENT	TD[5]	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS
11097-69-1		PCB-1254	T	ug/L	8082		*	<0.07		<0.07		<0.07	
11096-82-5		PCB-1260	T	ug/L	8082		*	<0.05		<0.05		<0.05	
11100-14-4		PCB-1268	T	ug/L	8082		*	<0.09		<0.09		<0.09	
12587-46-1		Gross Alpha	T	pCi/L	9310	-0.528	*	1.54	*	1.88	*	9.39	*
12587-47-2		Gross Beta	T	pCi/L	9310	3.73	*	16.8	*	12.7	*	95.6	*
10043-66-0		Iodine-131	T	pCi/L	RL-7124		*		*		*		*
13982-63-3		Radium-226	T	pCi/L	RL-7129	-0.0237	*	0.14	*	0.107	*	0.121	*
10098-97-2		Strontium-90	T	pCi/L	RL-7140	0.197	B	0.262	*	0.13	*	-0.138	*
14133-76-7		Technetium-99	T	pCi/L	RL-7100	0.751	*	30.5	*	18.3	*	30.6	*
14269-63-7		Thorium-230	T	pCi/L	RL-7128	0.0272	*	0.0937	*	0.0213	*	0.0234	*
10028-17-8		Tritium	T	pCi/L	704R6	163	*	-34.5	*	-279	*	-1.02	*
S0130- -		Chemical Oxygen Demand	T	mg/L	410.4	<25		<25		<25		<25	
57-12-5		Cyanide	T	mg/L	9010	<0.04		<0.04		<0.04		<0.04	
20461-54-5		Iodide	T	mg/L	345.1	<2		<2		<2		<2	
S0268- -		Total Organic Carbon	T	mg/L	9060	<1		1.4		<1	*	2.2	
S0586- -		Total Organic Halides	T	mg/L	9020	0.016		0.029		0.02		0.022	

Division of Waste Management
Solid Waste Branch
14 Reilly Road
Frankfort, KY 40601 (502)564-6716

RESIDENTIAL/INERT-QUARTERLY
Facility: US DOE - Paducah Gaseous Diffusion Plant
Permit Number: 073-00014 & 073-00015

FINDS/UNIT: KY8-890-008-982 / 1
LAB ID: None
For Official Use Only

GROUNDWATER SAMPLE ANALYSIS(S)

AKGWA NUMBER[1], Facility Well/Spring Number	8004-4792	8004-4809	8004-4810	8004-4804
Facility's Local Well or Spring Number (e.g., MW-1, MW-2, etc.)	373	384	385	386
Sample Sequence #	1	1	1	1
If sample is a Blank, specify Type: (F)ield, (T)rip, (M)ethod, or (E)quipment	NA	NA	NA	NA
Sample Date and Time (Month/Day/Year hour: minutes)	1/9/2013 14:05	1/15/2013 07:48	1/15/2013 09:49	1/15/2013 08:47
Duplicate ("Y" or "N")[2]	N	N	N	N
Split ("Y" or "N")[3]	N	N	N	N
Facility Sample ID Number (if applicable)	MW373UG2-13	MW384SG2-13	MW385SG2-13	MW386SG2-13
Laboratory Sample ID Number (if applicable)	C13009025002	C13015026001	C13015026003	C13015026002
Date of Analysis (Month/Day/Year) For Volatile Organics Analysis	1/11/2013	1/18/2013	1/18/2013	1/18/2013
Gradient with respect to Monitored Unit (UP, DOWN, SIDE, UNKNOWN)	DOWN	SIDE	SIDE	SIDE

CAS RN[4]		CONSTITUENT	TD[5]	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL[6]	FLAGS[7]	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS
24959-67-9		Bromide	T	mg/L	9056	<2		<2		<2		<2	
16887-00-6		Chloride(s)	T	mg/L	9056	48		70		22		19	
16984-48-8		Fluoride	T	mg/L	9214	0.17		0.25		0.24		0.61	
S0595- -		Nitrate & Nitrite	T	mg/L	9056	<1		1.2		<1		<1	
14808-79-8		Sulfate	T	mg/L	9056	210		20		19		49	
NS1894		Barometric Pressure Reading	T	Inches/Hg	Field	30.23		30.3		30.28		30.29	
S0145- -		Specific Conductance	T	μMH0/cm	Field	935		592		499		624	

[1]AKGWA # is 0000-0000 for any type of blank.
[2]Respond "Y" if the sample was a duplicate of another sample in this report.
[3]Respond "Y" if the sample was split and analyzed by separate laboratories.
[4]Chemical Abstracts Service Registry Number or unique identifier number assigned by agency.
[5]"T" = Total; "D" = Dissolved
[6]"<" indicates a non-detect; do not use "ND" or "BDL". Value shown is Practical Quantification Limit.
[7]Flags are as designated, do not use any other type. Use "*," then describe on "Written Comments Page."

STANDARD FLAGS:
* = See Comments
J = Estimated Value
B = Analyte found in blank
A = Average value
N = Presumptive ID
D = Concentration from analysis of a secondary dilution

GROUNDWATER SAMPLE ANALYSIS - (Cont.)

AKGWA NUMBER[1], Facility Well/Spring Number						8004-4792		8004-4809		8004-4810		8004-4804	
Facility's Local Well or Spring Number (e.g., MW-1, MW-2, BLANK-F, etc.)						373		384		385		386	
CAS RN[4]		CONSTITUENT	TD[5]	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS
S0906 - -		Static Water Level Elevation	T	Ft. MSL	Field	320.03		320.17		320.13		345.45	
N238		Dissolved Oxygen	T	mg/L	Field	2.21		3.97		1.34		1.32	
S0266- -		Total Dissolved Solids	T	mg/L	160.1	568		313		242		405	
S0296- -		pH	T	Units	Field	6.32		7.82		7.26		7.09	
NS215		Eh	T	mV	Field	83		290		13		22	
S0907 - -		Temperature	T	°C	Field	15.83		5.72		9.89		9.17	
7429-90-5		Aluminum	T	mg/L	6020	<0.2		<0.2		<0.2		<0.2	
7440-36-0		Antimony	T	mg/L	6020	<0.005		<0.005		<0.005		<0.005	
7440-38-2		Arsenic	T	mg/L	7060	0.00119		0.00231		<0.001		0.00355	
7440-39-3		Barium	T	mg/L	6020	0.0256		0.137		0.213		0.217	
7440-41-7		Beryllium	T	mg/L	6020	<0.001		<0.001	*	<0.001	*	<0.001	*
7440-42-8		Boron	T	mg/L	6010	2.02	B	<0.2	B	<0.2	B	<0.2	B
7440-43-9		Cadmium	T	mg/L	6020	<0.001	B	<0.001		<0.001		<0.001	
7440-70-2		Calcium	T	mg/L	6010	82.5		33.9		29.6		21.7	
7440-47-3		Chromium	T	mg/L	6020	<0.01		<0.01	B	<0.01	B	<0.01	B
7440-48-4		Cobalt	T	mg/L	6020	<0.001		<0.001		<0.001		0.00713	
7440-50-8		Copper	T	mg/L	6020	<0.02		<0.02		<0.02		<0.02	
7439-89-6		Iron	T	mg/L	6010	<0.1		0.604		<0.1		3.47	
7439-92-1		Lead	T	mg/L	6020	<0.0013	B	<0.0013	B	<0.0013	B	<0.0013	B
7439-95-4		Magnesium	T	mg/L	6010	30.3		13.1		10.6		8.94	
7439-96-5		Manganese	T	mg/L	6020	0.0192		0.0138		0.00751		0.914	
7439-97-6		Mercury	T	mg/L	7470	<0.0002		<0.0002		<0.0002		<0.0002	

RESIDENTIAL/INERT-QUARTERLY
Facility: US DOE - Paducah Gaseous Diffusion Plant
Permit Number: 073-00014 & 073-00015

FINDS/UNIT: KY8-890-008-982 / 1
LAB ID: None
For Official Use Only

GROUNDWATER SAMPLE ANALYSIS - (Cont.)

AKGWA NUMBER[1], Facility Well/Spring Number						8004-4792		8004-4809		8004-4810		8004-4804	
Facility's Local Well or Spring Number (e.g., MW-1, MW-2, etc.)						373		384		385		386	
CAS RN[4]		CONSTITUENT	TD[5]	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS
7439-98-7		Molybdenum	T	mg/L	6020	<0.001	B	<0.001	B	<0.001	B	<0.001	B
7440-02-0		Nickel	T	mg/L	6020	<0.005	B	<0.005	B	0.0055	B	<0.005	B
7440-09-7		Potassium	T	mg/L	6010	3.26		1.1		1.6		0.324	
7440-16-6		Rhodium	T	mg/L	6020	<0.005		<0.005	B	<0.005	B	<0.005	B
7782-49-2		Selenium	T	mg/L	6020	0.00565		0.00961		<0.005		<0.005	
7440-22-4		Silver	T	mg/L	6020	<0.001		<0.001	*	<0.001	*	<0.001	*
7440-23-5		Sodium	T	mg/L	6010	70.4		59.3		38.2		106	
7440-25-7		Tantalum	T	mg/L	6020	<0.005		<0.005		<0.005		<0.005	
7440-28-0		Thallium	T	mg/L	6020	<0.002		<0.002		<0.002		<0.002	
7440-61-1		Uranium	T	mg/L	6020	<0.001		<0.001		<0.001		<0.001	
7440-62-2		Vanadium	T	mg/L	6020	<0.02		<0.02	B	<0.02	B	<0.02	B
7440-66-6		Zinc	T	mg/L	6020	<0.02		<0.02		<0.02		<0.02	
108-05-4		Vinyl acetate	T	mg/L	8260	<0.01	*J	<0.01		<0.01		<0.01	
67-64-1		Acetone	T	mg/L	8260	<0.01	*J	<0.01		<0.01		<0.01	
107-02-8		Acrolein	T	mg/L	8260	<0.01	J	<0.01		<0.01		<0.01	
107-13-1		Acrylonitrile	T	mg/L	8260	<0.01	*J	<0.01		<0.01		<0.01	
71-43-2		Benzene	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
108-90-7		Chlorobenzene	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
1330-20-7		Xylenes	T	mg/L	8260	<0.015		<0.015		<0.015		<0.015	
100-42-5		Styrene	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
108-88-3		Toluene	T	mg/L	8260	<0.005		<0.005	J	<0.005	J	<0.005	J
74-97-5		Chlorobromomethane	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	

RESIDENTIAL/INERT-QUARTERLY
Facility: US DOE - Paducah Gaseous Diffusion Plant
Permit Number: 073-00014 & 073-00015

FINDS/UNIT: KY8-890-008-982 / 1
LAB ID: None
For Official Use Only

GROUNDWATER SAMPLE ANALYSIS - (Cont.)

AKGWA NUMBER[1], Facility Well/Spring Number						8004-4792		8004-4809		8004-4810		8004-4804	
Facility's Local Well or Spring Number (e.g., MW-1, MW-2, etc.)						373		384		385		386	
CAS RN[4]		CONSTITUENT	TD[5]	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS
75-27-4		Bromodichloromethane	T	mg/L	8260	<0.005		<0.005	J	<0.005	J	<0.005	J
75-25-2		Tribromomethane	T	mg/L	8260	<0.005	*J	<0.005	J	<0.005	J	<0.005	J
74-83-9		Methyl bromide	T	mg/L	8260	<0.005		<0.005	J	<0.005	J	<0.005	J
78-93-3		Methyl ethyl ketone	T	mg/L	8260	<0.01		<0.01		<0.01		<0.01	
110-57-6		trans-1,4-Dichloro-2-butene	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
75-15-0		Carbon disulfide	T	mg/L	8260	<0.005		<0.005	J	<0.005	J	<0.005	J
75-00-3		Chloroethane	T	mg/L	8260	<0.005		<0.005	*	<0.005	*	<0.005	*
67-66-3		Chloroform	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
74-87-3		Methyl chloride	T	mg/L	8260	<0.005		<0.005	*	<0.005	*	<0.005	*
156-59-2		cis-1,2-Dichloroethene	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
74-95-3		Methylene bromide	T	mg/L	8260	<0.005		<0.005	J	<0.005	J	<0.005	J
75-34-3		1,1-Dichloroethane	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
107-06-2		1,2-Dichloroethane	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
75-35-4		1,1-Dichloroethylene	T	mg/L	8260	<0.001		<0.001	J	<0.001	J	<0.001	J
106-93-4		Ethane, 1,2-dibromo	T	mg/L	8260	<0.005	*	<0.005		<0.005		<0.005	
79-34-5		Ethane, 1,1,2,2-Tetrachloro	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
71-55-6		Ethane, 1,1,1-Trichloro-	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
79-00-5		Ethane, 1,1,2-Trichloro	T	mg/L	8260	<0.001		<0.001	J	<0.001	J	<0.001	J
630-20-6		Ethane, 1,1,1,2-Tetrachloro	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
75-01-4		Vinyl chloride	T	mg/L	8260	<0.002	*	<0.002	*	<0.002	*	<0.002	*
127-18-4		Ethene, Tetrachloro-	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
79-01-6		Ethene, Trichloro-	T	mg/L	8260	0.0066		<0.001		<0.001		<0.001	

RESIDENTIAL/CONTAINED-QUARTERLY
Facility: US DOE - Paducah Gaseous Diffusion Plant
Permit Number: 073-00014 & 073-00015

FINDS/UNIT: KY8-890-008-982 / 1
LAB ID: None
For Official Use Only

GROUNDWATER SAMPLE ANALYSIS - (Cont.)

AKGWA NUMBER[1], Facility Well/Spring Number						8004-4792		8004-4809		8004-4810		8004-4804	
Facility's Local Well or Spring Number (e.g., MW-1, MW-2, etc.)						373		384		385		386	
CAS RN[4]		CONSTITUENT	TD[5]	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS
100-41-4		Ethylbenzene	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
591-78-6		2-Hexanone	T	mg/L	8260	<0.01		<0.01		<0.01		<0.01	
74-88-4		Iodomethane	T	mg/L	8260	<0.01		<0.01		<0.01		<0.01	
124-48-1		Methane, Dibromochloro-	T	mg/L	8260	<0.005	*	<0.005		<0.005		<0.005	
56-23-5		Carbon Tetrachloride	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
75-09-2		Dichloromethane	T	mg/L	8260	<0.005	*	<0.005		<0.005		<0.005	
108-10-1		Methyl isobutyl ketone	T	mg/L	8260	<0.01		<0.01		<0.01		<0.01	
96-12-8		Propane, 1,2-Dibromo-3-chloro	T	mg/L	8011	<0.0002		<0.0002		<0.0002		<0.0002	*
78-87-5		Propane, 1,2-Dichloro-	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
10061-02-6		trans-1,3-Dichloro-1-propene	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
10061-01-5		cis-1,3-Dichloro-1-propene	T	mg/L	8260	<0.005	*	<0.005	J	<0.005	J	<0.005	J
156-60-5		trans-1,2-Dichloroethene	T	mg/L	8260	<0.001	*J	<0.001		<0.001		<0.001	
75-69-4		Trichlorofluoromethane	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
96-18-4		1,2,3-Trichloropropane	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
95-50-1		Benzene, 1,2-Dichloro-	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
106-46-7		Benzene, 1,4-Dichloro-	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
1336-36-3		PCB,Total	T	ug/L	8082	<0.18			*		*		*
12674-11-2		PCB-1016	T	ug/L	8082	<0.17			*		*		*
11104-28-2		PCB-1221	T	ug/L	8082	<0.18			*		*		*
11141-16-5		PCB-1232	T	ug/L	8082	<0.14			*		*		*
53469-21-9		PCB-1242	T	ug/L	8082	<0.1			*		*		*
12672-29-6		PCB-1248	T	ug/L	8082	<0.12			*		*		*

RESIDENTIAL/CONTAINED-QUARTERLY
Facility: US DOE - Paducah Gaseous Diffusion Plant
Permit Number: 073-00014 & 073-00015

FINDS/UNIT: KY8-890-008-982 / 1
LAB ID: None
For Official Use Only

GROUNDWATER SAMPLE ANALYSIS - (Cont.)

AKGWA NUMBER[1], Facility Well/Spring Number						8004-4792		8004-4809		8004-4810		8004-4804	
Facility's Local Well or Spring Number (e.g., MW-1, MW-2, etc.)						373		384		385		386	
CAS RN[4]		CONSTITUENT	TD[5]	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS
11097-69-1		PCB-1254	T	ug/L	8082	<0.07			*		*		*
11096-82-5		PCB-1260	T	ug/L	8082	<0.05			*		*		*
11100-14-4		PCB-1268	T	ug/L	8082	<0.09			*		*		*
12587-46-1		Gross Alpha	T	pCi/L	9310	-2.38	*	2.05	*	1.61	*	2.22	*
12587-47-2		Gross Beta	T	pCi/L	9310	56.7	*	180	*	33.3	*	0.832	*
10043-66-0		Iodine-131	T	pCi/L	RL-7124		*		*		*		*
13982-63-3		Radium-226	T	pCi/L	RL-7129	0	*	0.0208	*	0.157	*	0.174	*
10098-97-2		Strontium-90	T	pCi/L	RL-7140	-0.0299	*	0.13	B	-0.0742	B	0.327	B
14133-76-7		Technetium-99	T	pCi/L	RL-7100	64	*	198	*	103	*	-4	*
14269-63-7		Thorium-230	T	pCi/L	RL-7128	-0.00441	*	0.0011	*	-0.0494	*	0.012	*
10028-17-8		Tritium	T	pCi/L	704R6	-192	*	707	*	-52.8	*	-77.2	*
S0130- -		Chemical Oxygen Demand	T	mg/L	410.4	<25		<25		<25		38	
57-12-5		Cyanide	T	mg/L	9010	<0.04		<0.04		<0.04		<0.04	
20461-54-5		Iodide	T	mg/L	345.1	<2		<2		<2		<2	
S0268- -		Total Organic Carbon	T	mg/L	9060	1		1.4	*	<1	*	12.9	D*
S0586- -		Total Organic Halides	T	mg/L	9020	0.036		0.031		0.023		0.24	

Division of Waste Management
Solid Waste Branch
14 Reilly Road
Frankfort, KY 40601 (502)564-6716

RESIDENTIAL/INERT-QUARTERLY
Facility: US DOE - Paducah Gaseous Diffusion Plant
Permit Number: 073-00014 & 073-00015

FINDS/UNIT: KY8-890-008-982 / 1
LAB ID: None
For Official Use Only

GROUNDWATER SAMPLE ANALYSIS(S)

AKGWA NUMBER[1], Facility Well/Spring Number	8004-4815	8004-4816	8004-4812	8004-4811
Facility's Local Well or Spring Number (e.g., MW-1, MW-2, etc.)	387	388	389	390
Sample Sequence #	1	1	1	1
If sample is a Blank, specify Type: (F)ield, (T)rip, (M)ethod, or (E)quipment	NA	NA	NA	NA
Sample Date and Time (Month/Day/Year hour: minutes)	1/14/2013 08:23	1/14/2013 09:56	NA	NA
Duplicate ("Y" or "N")[2]	N	N	N	N
Split ("Y" or "N")[3]	N	N	N	N
Facility Sample ID Number (if applicable)	MW387SG2-13	MW388SG2-13	NA	NA
Laboratory Sample ID Number (if applicable)	C13014024001	C13014024002	NA	NA
Date of Analysis (Month/Day/Year) For Volatile Organics Analysis	1/18/2013	1/18/2013	NA	NA
Gradient with respect to Monitored Unit (UP, DOWN, SIDE, UNKNOWN)	DOWN	DOWN	SIDE	DOWN

CAS RN[4]		CONSTITUENT	TD[5]	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL[6]	FLAGS[7]	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS
24959-67-9		Bromide	T	mg/L	9056	<2		<2			*		*
16887-00-6		Chloride(s)	T	mg/L	9056	40		40			*		*
16984-48-8		Fluoride	T	mg/L	9214	0.7		0.31			*		*
S0595- -		Nitrate & Nitrite	T	mg/L	9056	1.1		1.1			*		*
14808-79-8		Sulfate	T	mg/L	9056	29		30			*		*
NS1894		Barometric Pressure Reading	T	Inches/Hg	Field	30.37		30.41			*		*
S0145- -		Specific Conductance	T	μMH0/cm	Field	526		508			*		*

[1]AKGWA # is 0000-0000 for any type of blank.
[2]Respond "Y" if the sample was a duplicate of another sample in this report.
[3]Respond "Y" if the sample was split and analyzed by separate laboratories.
[4]Chemical Abstracts Service Registry Number or unique identifier number assigned by agency.
[5]"T" = Total; "D" = Dissolved
[6]"<" indicates a non-detect; do not use "ND" or "BDL". Value shown is Practical Quantification Limit.
[7]Flags are as designated, do not use any other type. Use "*," then describe on "Written Comments Page."

STANDARD FLAGS:
* = See Comments
J = Estimated Value
B = Analyte found in blank
A = Average value
N = Presumptive ID
D = Concentration from analysis of a secondary dilution

RESIDENTIAL/INERT-QUARTERLY
Facility: US DOE - Paducah Gaseous Diffusion Plant
Permit Number: 073-00014 & 073-00015

FINDS/UNIT: KY8-890-008-982 / 1
LAB ID: None
For Official Use Only

GROUNDWATER SAMPLE ANALYSIS - (Cont.)

AKGWA NUMBER[1], Facility Well/Spring Number						8004-4815		8004-4816		8004-4812		8004-4811	
Facility's Local Well or Spring Number (e.g., MW-1, MW-2, BLANK-F, etc.)						387		388		389		390	
CAS RN[4]		CONSTITUENT	TD[5]	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS
S0906 - -		Static Water Level Elevation	T	Ft. MSL	Field	320.12		320.18			*		*
N238		Dissolved Oxygen	T	mg/L	Field	4.58		3.5			*		*
S0266- -		Total Dissolved Solids	T	mg/L	160.1	294		287			*		*
S0296- -		pH	T	Units	Field	7.12		6.72			*		*
NS215		Eh	T	mV	Field	486		387			*		*
S0907 - -		Temperature	T	°C	Field	9.39		10.17			*		*
7429-90-5		Aluminum	T	mg/L	6020	<0.2		<0.2			*		*
7440-36-0		Antimony	T	mg/L	6020	<0.005		<0.005			*		*
7440-38-2		Arsenic	T	mg/L	7060	0.00231		0.00191			*		*
7440-39-3		Barium	T	mg/L	6020	0.121		0.197			*		*
7440-41-7		Beryllium	T	mg/L	6020	<0.001	*	<0.001	*		*		*
7440-42-8		Boron	T	mg/L	6010	<0.2	B	<0.2	B		*		*
7440-43-9		Cadmium	T	mg/L	6020	<0.001		<0.001			*		*
7440-70-2		Calcium	T	mg/L	6010	35.8		31.8			*		*
7440-47-3		Chromium	T	mg/L	6020	<0.01		<0.01			*		*
7440-48-4		Cobalt	T	mg/L	6020	<0.001		<0.001			*		*
7440-50-8		Copper	T	mg/L	6020	<0.02		<0.02			*		*
7439-89-6		Iron	T	mg/L	6010	0.19		0.103			*		*
7439-92-1		Lead	T	mg/L	6020	<0.0013	B	0.00186	B		*		*
7439-95-4		Magnesium	T	mg/L	6010	14.7		13.5			*		*
7439-96-5		Manganese	T	mg/L	6020	0.0221		<0.005			*		*
7439-97-6		Mercury	T	mg/L	7470	<0.0002		<0.0002			*		*

RESIDENTIAL/INERT-QUARTERLY
Facility: US DOE - Paducah Gaseous Diffusion Plant
Permit Number: 073-00014 & 073-00015

FINDS/UNIT: KY8-890-008-982 / 1
LAB ID: None
For Official Use Only

GROUNDWATER SAMPLE ANALYSIS - (Cont.)

AKGWA NUMBER[1], Facility Well/Spring Number						8004-4815		8004-4816		8004-4812		8004-4811	
Facility's Local Well or Spring Number (e.g., MW-1, MW-2, etc.)						387		388		389		390	
CAS RN[4]		CONSTITUENT	TD[5]	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS
7439-98-7		Molybdenum	T	mg/L	6020	<0.001	B	<0.001	B		*		*
7440-02-0		Nickel	T	mg/L	6020	<0.005	B	0.00804			*		*
7440-09-7		Potassium	T	mg/L	6010	1.77		1.9			*		*
7440-16-6		Rhodium	T	mg/L	6020	<0.005	B	<0.005	B		*		*
7782-49-2		Selenium	T	mg/L	6020	0.00571		0.00597			*		*
7440-22-4		Silver	T	mg/L	6020	<0.001	*	<0.001	*		*		*
7440-23-5		Sodium	T	mg/L	6010	50		48.7			*		*
7440-25-7		Tantalum	T	mg/L	6020	<0.005		<0.005			*		*
7440-28-0		Thallium	T	mg/L	6020	<0.002		<0.002			*		*
7440-61-1		Uranium	T	mg/L	6020	<0.001		<0.001			*		*
7440-62-2		Vanadium	T	mg/L	6020	<0.02		<0.02			*		*
7440-66-6		Zinc	T	mg/L	6020	<0.02		<0.02			*		*
108-05-4		Vinyl acetate	T	mg/L	8260	<0.01		<0.01			*		*
67-64-1		Acetone	T	mg/L	8260	<0.01		<0.01			*		*
107-02-8		Acrolein	T	mg/L	8260	<0.01		<0.01			*		*
107-13-1		Acrylonitrile	T	mg/L	8260	<0.01		<0.01			*		*
71-43-2		Benzene	T	mg/L	8260	<0.005		<0.005			*		*
108-90-7		Chlorobenzene	T	mg/L	8260	<0.005		<0.005			*		*
1330-20-7		Xylenes	T	mg/L	8260	<0.015		<0.015			*		*
100-42-5		Styrene	T	mg/L	8260	<0.005		<0.005			*		*
108-88-3		Toluene	T	mg/L	8260	<0.005	J	<0.005	J		*		*
74-97-5		Chlorobromomethane	T	mg/L	8260	<0.005		<0.005			*		*

RESIDENTIAL/INERT-QUARTERLY
Facility: US DOE - Paducah Gaseous Diffusion Plant
Permit Number: 073-00014 & 073-00015

FINDS/UNIT: KY8-890-008-982 / 1
LAB ID: None
For Official Use Only

GROUNDWATER SAMPLE ANALYSIS - (Cont.)

AKGWA NUMBER[1], Facility Well/Spring Number						8004-4815		8004-4816		8004-4812		8004-4811	
Facility's Local Well or Spring Number (e.g., MW-1, MW-2, etc.)						387		388		389		390	
CAS RN[4]		CONSTITUENT	TD[5]	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS
75-27-4		Bromodichloromethane	T	mg/L	8260	<0.005	J	<0.005	J		*		*
75-25-2		Tribromomethane	T	mg/L	8260	<0.005	J	<0.005	J		*		*
74-83-9		Methyl bromide	T	mg/L	8260	<0.005	J	<0.005	J		*		*
78-93-3		Methyl ethyl ketone	T	mg/L	8260	<0.01		<0.01			*		*
110-57-6		trans-1,4-Dichloro-2-butene	T	mg/L	8260	<0.005		<0.005			*		*
75-15-0		Carbon disulfide	T	mg/L	8260	<0.005	J	<0.005	J		*		*
75-00-3		Chloroethane	T	mg/L	8260	<0.005	*	<0.005	*		*		*
67-66-3		Chloroform	T	mg/L	8260	<0.001		<0.001			*		*
74-87-3		Methyl chloride	T	mg/L	8260	<0.005	*	<0.005	*		*		*
156-59-2		cis-1,2-Dichloroethene	T	mg/L	8260	<0.001		<0.001			*		*
74-95-3		Methylene bromide	T	mg/L	8260	<0.005	J	<0.005	J		*		*
75-34-3		1,1-Dichloroethane	T	mg/L	8260	<0.001		<0.001			*		*
107-06-2		1,2-Dichloroethane	T	mg/L	8260	<0.001		<0.001			*		*
75-35-4		1,1-Dichloroethylene	T	mg/L	8260	<0.001	J	<0.001	J		*		*
106-93-4		Ethane, 1,2-dibromo	T	mg/L	8260	<0.005		<0.005			*		*
79-34-5		Ethane, 1,1,2,2-Tetrachloro	T	mg/L	8260	<0.005		<0.005			*		*
71-55-6		Ethane, 1,1,1-Trichloro-	T	mg/L	8260	<0.001		<0.001			*		*
79-00-5		Ethane, 1,1,2-Trichloro	T	mg/L	8260	<0.001	J	<0.001	J		*		*
630-20-6		Ethane, 1,1,1,2-Tetrachloro	T	mg/L	8260	<0.005		<0.005			*		*
75-01-4		Vinyl chloride	T	mg/L	8260	<0.002	*	<0.002	*		*		*
127-18-4		Ethene, Tetrachloro-	T	mg/L	8260	<0.001		<0.001			*		*
79-01-6		Ethene, Trichloro-	T	mg/L	8260	<0.001		<0.001			*		*

RESIDENTIAL/CONTAINED-QUARTERLY
Facility: US DOE - Paducah Gaseous Diffusion Plant
Permit Number: 073-00014 & 073-00015

FINDS/UNIT: KY8-890-008-982 / 1
LAB ID: None
For Official Use Only

GROUNDWATER SAMPLE ANALYSIS - (Cont.)

AKGWA NUMBER[1], Facility Well/Spring Number						8004-4815		8004-4816		8004-4812		8004-4811	
Facility's Local Well or Spring Number (e.g., MW-1, MW-2, etc.)						387		388		389		390	
CAS RN[4]		CONSTITUENT	TD[5]	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS
100-41-4		Ethylbenzene	T	mg/L	8260	<0.005		<0.005			*		*
591-78-6		2-Hexanone	T	mg/L	8260	<0.01		<0.01			*		*
74-88-4		Iodomethane	T	mg/L	8260	<0.01		<0.01			*		*
124-48-1		Methane, Dibromochloro-	T	mg/L	8260	<0.005		<0.005			*		*
56-23-5		Carbon Tetrachloride	T	mg/L	8260	<0.001		<0.001			*		*
75-09-2		Dichloromethane	T	mg/L	8260	<0.005		<0.005			*		*
108-10-1		Methyl isobutyl ketone	T	mg/L	8260	<0.01		<0.01			*		*
96-12-8		Propane, 1,2-Dibromo-3-chloro	T	mg/L	8011	<0.0002		<0.0002			*		*
78-87-5		Propane, 1,2-Dichloro-	T	mg/L	8260	<0.005		<0.005			*		*
10061-02-6		trans-1,3-Dichloro-1-propene	T	mg/L	8260	<0.005		<0.005			*		*
10061-01-5		cis-1,3-Dichloro-1-propene	T	mg/L	8260	<0.005	J	<0.005	J		*		*
156-60-5		trans-1,2-Dichloroethene	T	mg/L	8260	<0.001		<0.001			*		*
75-69-4		Trichlorofluoromethane	T	mg/L	8260	<0.005		<0.005			*		*
96-18-4		1,2,3-Trichloropropane	T	mg/L	8260	<0.005		<0.005			*		*
95-50-1		Benzene, 1,2-Dichloro-	T	mg/L	8260	<0.005		<0.005			*		*
106-46-7		Benzene, 1,4-Dichloro-	T	mg/L	8260	<0.005		<0.005			*		*
1336-36-3		PCB,Total	T	ug/L	8082		*		*		*		*
12674-11-2		PCB-1016	T	ug/L	8082		*		*		*		*
11104-28-2		PCB-1221	T	ug/L	8082		*		*		*		*
11141-16-5		PCB-1232	T	ug/L	8082		*		*		*		*
53469-21-9		PCB-1242	T	ug/L	8082		*		*		*		*
12672-29-6		PCB-1248	T	ug/L	8082		*		*		*		*

RESIDENTIAL/CONTAINED-QUARTERLY
Facility: US DOE - Paducah Gaseous Diffusion Plant
Permit Number: 073-00014 & 073-00015

FINDS/UNIT: KY8-890-008-982 / 1
LAB ID: None
For Official Use Only

GROUNDWATER SAMPLE ANALYSIS - (Cont.)

AKGWA NUMBER[1], Facility Well/Spring Number						8004-4815		8004-4816		8004-4812		8004-4811	
Facility's Local Well or Spring Number (e.g., MW-1, MW-2, etc.)						387		388		389		390	
CAS RN[4]		CONSTITUENT	TD[5]	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS
11097-69-1		PCB-1254	T	ug/L	8082		*		*		*		*
11096-82-5		PCB-1260	T	ug/L	8082		*		*		*		*
11100-14-4		PCB-1268	T	ug/L	8082		*		*		*		*
12587-46-1		Gross Alpha	T	pCi/L	9310	-1.4	*	0.642	*		*		*
12587-47-2		Gross Beta	T	pCi/L	9310	84	*	66.3	*		*		*
10043-66-0		Iodine-131	T	pCi/L	RL-7124		*		*		*		*
13982-63-3		Radium-226	T	pCi/L	RL-7129	0.124	*	0.16	*		*		*
10098-97-2		Strontium-90	T	pCi/L	RL-7140	0.243	B	0.769	B		*		*
14133-76-7		Technetium-99	T	pCi/L	RL-7100	105	*	84.9	*		*		*
14269-63-7		Thorium-230	T	pCi/L	RL-7128	0.0764	*	-0.0429	*		*		*
10028-17-8		Tritium	T	pCi/L	704R6	396	*	680	*		*		*
S0130- -		Chemical Oxygen Demand	T	mg/L	410.4	<25		<25			*		*
57-12-5		Cyanide	T	mg/L	9010	<0.04		<0.04			*		*
20461-54-5		Iodide	T	mg/L	345.1	<2		<2			*		*
S0268- -		Total Organic Carbon	T	mg/L	9060	1	*	1	*		*		*
S0586- -		Total Organic Halides	T	mg/L	9020	0.021		0.018			*		*

Division of Waste Management
Solid Waste Branch
14 Reilly Road
Frankfort, KY 40601 (502)564-6716

RESIDENTIAL/INERT-QUARTERLY
Facility: US DOE - Paducah Gaseous Diffusion Plant
Permit Number: 073-00014 & 073-00015

FINDS/UNIT: KY8-890-008-982 / 1
LAB ID: None
For Official Use Only

GROUNDWATER SAMPLE ANALYSIS(S)

AKGWA NUMBER[1], Facility Well/Spring Number	8004-4805	8004-4806	8004-4807	8004-4802
Facility's Local Well or Spring Number (e.g., MW-1, MW-2, etc.)	391	392	393	394
Sample Sequence #	1	1	1	1
If sample is a Blank, specify Type: (F)ield, (T)rip, (M)ethod, or (E)quipment	NA	NA	NA	NA
Sample Date and Time (Month/Day/Year hour: minutes)	1/16/2013 08:37	1/16/2013 12:25	1/16/2013 13:07	1/15/2013 09:09
Duplicate ("Y" or "N")[2]	N	N	N	N
Split ("Y" or "N")[3]	N	N	N	N
Facility Sample ID Number (if applicable)	MW391SG2-13	MW392SG2-13	MW393SG2-13	MW394SG2-13
Laboratory Sample ID Number (if applicable)	C13016007001	C13016023001	C13016023002	C13015017001
Date of Analysis (Month/Day/Year) For Volatile Organics Analysis	1/19/2013	1/19/2013	1/19/2013	1/19/2013
Gradient with respect to Monitored Unit (UP, DOWN, SIDE, UNKNOWN)	DOWN	DOWN	DOWN	UP

CAS RN[4]		CONSTITUENT	TD[5]	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL[6]	FLAGS[7]	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS
24959-67-9		Bromide	T	mg/L	9056	<2		<2		<2		<2	
16887-00-6		Chloride(s)	T	mg/L	9056	47		47		17		55	
16984-48-8		Fluoride	T	mg/L	9214	0.14		0.19		0.15		0.14	
S0595- -		Nitrate & Nitrite	T	mg/L	9056	1		<1		<1		1.3	
14808-79-8		Sulfate	T	mg/L	9056	14		7.4		11		10	
NS1894		Barometric Pressure Reading	T	Inches/Hg	Field	30.1		30.1		30.1		30.29	
S0145- -		Specific Conductance	T	μMH0/cm	Field	390		360		394		398	

[1]AKGWA # is 0000-0000 for any type of blank.
[2]Respond "Y" if the sample was a duplicate of another sample in this report.
[3]Respond "Y" if the sample was split and analyzed by separate laboratories.
[4]Chemical Abstracts Service Registry Number or unique identifier number assigned by agency.
[5]"T" = Total; "D" = Dissolved
[6]"<" indicates a non-detect; do not use "ND" or "BDL". Value shown is Practical Quantification Limit.
[7]Flags are as designated, do not use any other type. Use "*," then describe on "Written Comments Page."

STANDARD FLAGS:
* = See Comments
J = Estimated Value
B = Analyte found in blank
A = Average value
N = Presumptive ID
D = Concentration from analysis of a secondary dilution

RESIDENTIAL/INERT-QUARTERLY
Facility: US DOE - Paducah Gaseous Diffusion Plant
Permit Number: 073-00014 & 073-00015

FINDS/UNIT: KY8-890-008-982 / 1
LAB ID: None
For Official Use Only

GROUNDWATER SAMPLE ANALYSIS - (Cont.)

AKGWA NUMBER[1], Facility Well/Spring Number						8004-4805		8004-4806		8004-4807		8004-4802	
Facility's Local Well or Spring Number (e.g., MW-1, MW-2, BLANK-F, etc.)						391		392		393		394	
CAS RN[4]		CONSTITUENT	TD[5]	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS
S0906 - -		Static Water Level Elevation	T	Ft. MSL	Field	320.41		320.49		336.84		320.36	
N238		Dissolved Oxygen	T	mg/L	Field	4.1		1.45		1.2		3.81	
S0266- -		Total Dissolved Solids	T	mg/L	160.1	208		202		246		218	
S0296- -		pH	T	Units	Field	6.17		6.25		6.3		6.05	
NS215		Eh	T	mV	Field	831		586		450		641	
S0907 - -		Temperature	T	°C	Field	13.06		13.28		14.44		14.39	
7429-90-5		Aluminum	T	mg/L	6020	<0.2		<0.2		<0.2		<0.2	
7440-36-0		Antimony	T	mg/L	6020	<0.005		<0.005		<0.005		<0.005	
7440-38-2		Arsenic	T	mg/L	7060	<0.001		0.00115		0.00233		0.00103	
7440-39-3		Barium	T	mg/L	6020	0.247		0.217		0.106		0.233	
7440-41-7		Beryllium	T	mg/L	6020	<0.001	*	<0.001	*	<0.001	*	<0.001	*
7440-42-8		Boron	T	mg/L	6010	<0.2	B	<0.2	B	<0.2	B	<0.2	B
7440-43-9		Cadmium	T	mg/L	6020	<0.001		<0.001		<0.001		<0.001	
7440-70-2		Calcium	T	mg/L	6010	25.3		24.9		10.4		27	
7440-47-3		Chromium	T	mg/L	6020	<0.01	B	<0.01	B	<0.01	B	<0.01	B
7440-48-4		Cobalt	T	mg/L	6020	<0.001		<0.001		<0.001		<0.001	
7440-50-8		Copper	T	mg/L	6020	<0.02		<0.02		<0.02		<0.02	
7439-89-6		Iron	T	mg/L	6010	0.469		0.139		1.92		0.154	
7439-92-1		Lead	T	mg/L	6020	<0.0013	B	<0.0013	B	<0.0013	B	<0.0013	B
7439-95-4		Magnesium	T	mg/L	6010	10.4		9.53		2.96		11.2	
7439-96-5		Manganese	T	mg/L	6020	0.00572		0.103		0.031		0.0176	
7439-97-6		Mercury	T	mg/L	7470	<0.0002		<0.0002		<0.0002		<0.0002	

GROUNDWATER SAMPLE ANALYSIS - (Cont.)

AKGWA NUMBER[1], Facility Well/Spring Number						8004-4805		8004-4806		8004-4807		8004-4802	
Facility's Local Well or Spring Number (e.g., MW-1, MW-2, etc.)						391		392		393		394	
CAS RN[4]		CONSTITUENT	TD[5]	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS
7439-98-7		Molybdenum	T	mg/L	6020	<0.001	B	<0.001	B	<0.001	B	<0.001	B
7440-02-0		Nickel	T	mg/L	6020	<0.005	B	<0.005	B	<0.005	B	<0.005	B
7440-09-7		Potassium	T	mg/L	6010	1.43		1.73		0.366		0.997	
7440-16-6		Rhodium	T	mg/L	6020	<0.005	B	<0.005	B	<0.005	B	<0.005	B
7782-49-2		Selenium	T	mg/L	6020	0.00711		0.00534		<0.005		0.00749	
7440-22-4		Silver	T	mg/L	6020	<0.001	*	<0.001	*	<0.001	*	<0.001	*
7440-23-5		Sodium	T	mg/L	6010	31.6		28.8		72.3		30.7	
7440-25-7		Tantalum	T	mg/L	6020	<0.005		<0.005		<0.005		<0.005	
7440-28-0		Thallium	T	mg/L	6020	<0.002		<0.002		<0.002		<0.002	
7440-61-1		Uranium	T	mg/L	6020	<0.001		<0.001		<0.001		<0.001	
7440-62-2		Vanadium	T	mg/L	6020	<0.02	B	<0.02	B	<0.02	B	<0.02	B
7440-66-6		Zinc	T	mg/L	6020	<0.02		<0.02		<0.02		<0.02	
108-05-4		Vinyl acetate	T	mg/L	8260	<0.01		<0.01		<0.01		<0.01	
67-64-1		Acetone	T	mg/L	8260	<0.01	*	<0.01	*	<0.01	*	<0.01	
107-02-8		Acrolein	T	mg/L	8260	<0.01		<0.01		<0.01		<0.01	
107-13-1		Acrylonitrile	T	mg/L	8260	<0.01	*	<0.01	*	<0.01	*	<0.005	
71-43-2		Benzene	T	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	
108-90-7		Chlorobenzene	T	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	
1330-20-7		Xylenes	T	mg/L	8260	<0.015		<0.015		<0.015		<0.015	
100-42-5		Styrene	T	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	
108-88-3		Toluene	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	J
74-97-5		Chlorobromomethane	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	

GROUNDWATER SAMPLE ANALYSIS - (Cont.)

AKGWA NUMBER[1], Facility Well/Spring Number						8004-4805		8004-4806		8004-4807		8004-4802	
Facility's Local Well or Spring Number (e.g., MW-1, MW-2, etc.)						391		392		393		394	
CAS RN[4]		CONSTITUENT	TD[5]	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS
75-27-4		Bromodichloromethane	T	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	J
75-25-2		Tribromomethane	T	mg/L	8260	<0.005	*J	<0.005	*J	<0.005	*J	<0.005	J
74-83-9		Methyl bromide	T	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	J
78-93-3		Methyl ethyl ketone	T	mg/L	8260	<0.01		<0.01		<0.01		<0.01	
110-57-6		trans-1,4-Dichloro-2-butene	T	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	
75-15-0		Carbon disulfide	T	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	J
75-00-3		Chloroethane	T	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	*
67-66-3		Chloroform	T	mg/L	8260	<0.001	*	<0.001	*	<0.001	*	<0.001	
74-87-3		Methyl chloride	T	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	*
156-59-2		cis-1,2-Dichloroethene	T	mg/L	8260	<0.001	*	<0.001	*	<0.001	*	<0.001	
74-95-3		Methylene bromide	T	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	J
75-34-3		1,1-Dichloroethane	T	mg/L	8260	<0.001	*	<0.001	*	<0.001	*	<0.001	
107-06-2		1,2-Dichloroethane	T	mg/L	8260	<0.001	*	<0.001	*	<0.001	*	<0.001	
75-35-4		1,1-Dichloroethylene	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	J
106-93-4		Ethane, 1,2-dibromo	T	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	J
79-34-5		Ethane, 1,1,2,2-Tetrachloro	T	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	
71-55-6		Ethane, 1,1,1-Trichloro-	T	mg/L	8260	<0.001	*	<0.001	*	<0.001	*	<0.001	
79-00-5		Ethane, 1,1,2-Trichloro	T	mg/L	8260	<0.001	*	<0.001	*	<0.001	*	<0.001	J
630-20-6		Ethane, 1,1,1,2-Tetrachloro	T	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	
75-01-4		Vinyl chloride	T	mg/L	8260	<0.002	*	<0.002	*	<0.002	*	<0.002	*
127-18-4		Ethene, Tetrachloro-	T	mg/L	8260	<0.001	*	<0.001	*	<0.001	*	<0.001	
79-01-6		Ethene, Trichloro-	T	mg/L	8260	0.013	*	0.013	*	<0.001	*	0.0068	

RESIDENTIAL/CONTAINED-QUARTERLY
Facility: US DOE - Paducah Gaseous Diffusion Plant
Permit Number: 073-00014 & 073-00015

FINDS/UNIT: KY8-890-008-982 / 1
LAB ID: None
For Official Use Only

GROUNDWATER SAMPLE ANALYSIS - (Cont.)

AKGWA NUMBER[1], Facility Well/Spring Number						8004-4805		8004-4806		8004-4807		8004-4802	
Facility's Local Well or Spring Number (e.g., MW-1, MW-2, etc.)						391		392		393		394	
CAS RN[4]		CONSTITUENT	TD[5]	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS
100-41-4		Ethylbenzene	T	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	
591-78-6		2-Hexanone	T	mg/L	8260	<0.01	*	<0.01	*	<0.01	*	<0.01	
74-88-4		Iodomethane	T	mg/L	8260	<0.01	*	<0.01	*	<0.01	*	<0.01	
124-48-1		Methane, Dibromochloro-	T	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	J
56-23-5		Carbon Tetrachloride	T	mg/L	8260	<0.001	*	<0.001	*	<0.001	*	<0.001	
75-09-2		Dichloromethane	T	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	
108-10-1		Methyl isobutyl ketone	T	mg/L	8260	<0.01	*	<0.01	*	<0.01	*	<0.01	
96-12-8		Propane, 1,2-Dibromo-3-chloro	T	mg/L	8011	<0.0002		<0.0002		<0.0002		<0.0002	
78-87-5		Propane, 1,2-Dichloro-	T	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	
10061-02-6		trans-1,3-Dichloro-1-propene	T	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	
10061-01-5		cis-1,3-Dichloro-1-propene	T	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	J
156-60-5		trans-1,2-Dichloroethene	T	mg/L	8260	<0.001	*	<0.001	*	<0.001	*	<0.001	
75-69-4		Trichlorofluoromethane	T	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	
96-18-4		1,2,3-Trichloropropane	T	mg/L	8260	0.016	*	<0.005	*	<0.005	*	<0.005	
95-50-1		Benzene, 1,2-Dichloro-	T	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	
106-46-7		Benzene, 1,4-Dichloro-	T	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	
1336-36-3		PCB,Total	T	ug/L	8082		*		*		*		*
12674-11-2		PCB-1016	T	ug/L	8082		*		*		*		*
11104-28-2		PCB-1221	T	ug/L	8082		*		*		*		*
11141-16-5		PCB-1232	T	ug/L	8082		*		*		*		*
53469-21-9		PCB-1242	T	ug/L	8082		*		*		*		*
12672-29-6		PCB-1248	T	ug/L	8082		*		*		*		*

RESIDENTIAL/CONTAINED-QUARTERLY
Facility: US DOE - Paducah Gaseous Diffusion Plant
Permit Number: 073-00014 & 073-00015

FINDS/UNIT: KY8-890-008-982 / 1
LAB ID: None
For Official Use Only

GROUNDWATER SAMPLE ANALYSIS - (Cont.)

AKGWA NUMBER[1], Facility Well/Spring Number						8004-4805		8004-4806		8004-4807		8004-4802	
Facility's Local Well or Spring Number (e.g., MW-1, MW-2, etc.)						391		392		393		394	
CAS RN[4]		CONSTITUENT	TD[5]	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS
11097-69-1		PCB-1254	T	ug/L	8082		*		*		*		*
11096-82-5		PCB-1260	T	ug/L	8082		*		*		*		*
11100-14-4		PCB-1268	T	ug/L	8082		*		*		*		*
12587-46-1		Gross Alpha	T	pCi/L	9310	-0.416	*	-0.716	*	0.734	*	-0.362	*
12587-47-2		Gross Beta	T	pCi/L	9310	3.09	*	3.38	*	1.21	*	2.54	*
10043-66-0		Iodine-131	T	pCi/L	RL-7124		*		*		*		*
13982-63-3		Radium-226	T	pCi/L	RL-7129	0.173	*	0.109	*	0.156	*	0.296	*
10098-97-2		Strontium-90	T	pCi/L	RL-7140	0.728	B	-0.00346	B	0.451	B	0.0726	B
14133-76-7		Technetium-99	T	pCi/L	RL-7100	7.56	*	17.3	*	-8.51	*	-0.751	*
14269-63-7		Thorium-230	T	pCi/L	RL-7128	0.0311	*	0.0163	*	-0.00227	*	-0.015	*
10028-17-8		Tritium	T	pCi/L	704R6	382	*	460	*	572	*	237	*
S0130- -		Chemical Oxygen Demand	T	mg/L	410.4	<25		<25		<25		<25	
57-12-5		Cyanide	T	mg/L	9010	<0.04		<0.04		<0.04		<0.04	
20461-54-5		Iodide	T	mg/L	345.1	<2		<2		<2		<2	
S0268- -		Total Organic Carbon	T	mg/L	9060	<1		<1		3.2		<1	*
S0586- -		Total Organic Halides	T	mg/L	9020	0.032		0.037		0.035		0.02	

Division of Waste Management
Solid Waste Branch
14 Reilly Road
Frankfort, KY 40601 (502)564-6716

RESIDENTIAL/INERT-QUARTERLY
Facility: US DOE - Paducah Gaseous Diffusion Plant
Permit Number: 073-00014 & 073-00015

FINDS/UNIT: KY8-890-008-982 / 1
LAB ID: None
For Official Use Only

GROUNDWATER SAMPLE ANALYSIS(S)

AKGWA NUMBER[1], Facility Well/Spring Number	8004-4801	8004-4803	8004-4817	0000-0000
Facility's Local Well or Spring Number (e.g., MW-1, MW-2, etc.)	395	396	397	E. BLANK
Sample Sequence #	1	1	1	1
If sample is a Blank, specify Type: (F)ield, (T)rip, (M)ethod, or (E)quipment	NA	NA	NA	E
Sample Date and Time (Month/Day/Year hour: minutes)	1/15/2013 13:05	1/15/2013 12:15	1/15/2013 08:14	01/16/2013 07:10
Duplicate ("Y" or "N")[2]	N	N	N	N
Split ("Y" or "N")[3]	N	N	N	N
Facility Sample ID Number (if applicable)	MW395SG2-13	MW396SG2-13	MW397SG2-13	RI1SG2-13
Laboratory Sample ID Number (if applicable)	C13015036003	C13015036002	C13015017002	C13016006001
Date of Analysis (Month/Day/Year) For Volatile Organics Analysis	1/19/2013	1/19/2013	1/19/2013	01/19/2013
Gradient with respect to Monitored Unit (UP, DOWN, SIDE, UNKNOWN)	UP	UP	UP	NA

CAS RN[4]		CONSTITUENT	TD[5]	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL[6]	FLAGS[7]	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS
24959-67-9		Bromide	T	mg/L	9056	<2		<2		<2			*
16887-00-6		Chloride(s)	T	mg/L	9056	52		87		44			*
16984-48-8		Fluoride	T	mg/L	9214	0.12		0.58		0.14			*
S0595- -		Nitrate & Nitrite	T	mg/L	9056	1.7		<1		1.7			*
14808-79-8		Sulfate	T	mg/L	9056	10		20		12			*
NS1894		Barometric Pressure Reading	T	Inches/Hg	Field	30.29		30.29		30.29			*
S0145- -		Specific Conductance	T	μMH0/cm	Field	384		806		320			*

[1]AKGWA # is 0000-0000 for any type of blank.
[2]Respond "Y" if the sample was a duplicate of another sample in this report.
[3]Respond "Y" if the sample was split and analyzed by separate laboratories.
[4]Chemical Abstracts Service Registry Number or unique identifier number assigned by agency.
[5]"T" = Total; "D" = Dissolved
[6]"<" indicates a non-detect; do not use "ND" or "BDL". Value shown is Practical Quantification Limit.
[7]Flags are as designated, do not use any other type. Use "*," then describe on "Written Comments Page."

STANDARD FLAGS:
* = See Comments
J = Estimated Value
B = Analyte found in blank
A = Average value
N = Presumptive ID
D = Concentration from analysis of a secondary dilution

RESIDENTIAL/INERT-QUARTERLY
Facility: US DOE - Paducah Gaseous Diffusion Plant
Permit Number: 073-00014 & 073-00015

FINDS/UNIT: KY8-890-008-982 / 1
LAB ID: None
For Official Use Only

GROUNDWATER SAMPLE ANALYSIS - (Cont.)

AKGWA NUMBER[1], Facility Well/Spring Number						8004-4801		8004-4803		8004-4817		0000-0000	
Facility's Local Well or Spring Number (e.g., MW-1, MW-2, BLANK-F, etc.)						395		396		397		E. BLANK	
CAS RN[4]		CONSTITUENT	TD[5]	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS
S0906 - -		Static Water Level Elevation	T	Ft. MSL	Field	320.81		363.61		320.27			*
N238		Dissolved Oxygen	T	mg/L	Field	4.17		1.39		5.92			*
S0266- -		Total Dissolved Solids	T	mg/L	160.1	234		464		195			*
S0296- -		pH	T	Units	Field	6.06		6.46		6			*
NS215		Eh	T	mV	Field	527		298		823			*
S0907 - -		Temperature	T	°C	Field	13.44		13.83		12.33			*
7429-90-5		Aluminum	T	mg/L	6020	<0.2		<0.2		0.271		<0.2	
7440-36-0		Antimony	T	mg/L	6020	<0.005		<0.005		<0.005		<0.005	
7440-38-2		Arsenic	T	mg/L	7060	<0.001		0.00173		<0.001		<0.001	
7440-39-3		Barium	T	mg/L	6020	0.257		0.418		0.135		<0.005	
7440-41-7		Beryllium	T	mg/L	6020	<0.001	*	<0.001	*	<0.001	*	<0.001	*
7440-42-8		Boron	T	mg/L	6010	<0.2	B	<0.2	B	<0.2	B	<0.2	B
7440-43-9		Cadmium	T	mg/L	6020	<0.001		<0.001		<0.001		<0.001	
7440-70-2		Calcium	T	mg/L	6010	26.8		38.2		19.5		<1	B
7440-47-3		Chromium	T	mg/L	6020	<0.01	B	<0.01	B	<0.01	B	<0.01	B
7440-48-4		Cobalt	T	mg/L	6020	<0.001		0.00234		<0.001		<0.001	
7440-50-8		Copper	T	mg/L	6020	<0.02		<0.02		<0.02		<0.02	
7439-89-6		Iron	T	mg/L	6010	<0.1		2.17		0.404		<0.1	
7439-92-1		Lead	T	mg/L	6020	<0.0013	B	<0.0013	B	0.00132	B	<0.0013	B
7439-95-4		Magnesium	T	mg/L	6010	11.1		16.2		7.99		<0.025	B
7439-96-5		Manganese	T	mg/L	6020	<0.005		0.507		0.0122		<0.005	
7439-97-6		Mercury	T	mg/L	7470	<0.0002		<0.0002		<0.0002		<0.0002	

RESIDENTIAL/INERT-QUARTERLY
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FINDS/UNIT: KY8-890-008-982 / 1
LAB ID: None
For Official Use Only

GROUNDWATER SAMPLE ANALYSIS - (Cont.)

AKGWA NUMBER[1], Facility Well/Spring Number						8004-4801		8004-4803		8004-4817		0000-0000	
Facility's Local Well or Spring Number (e.g., MW-1, MW-2, etc.)						395		396		397		E. BLANK	
CAS RN[4]		CONSTITUENT	TD[5]	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS
7439-98-7		Molybdenum	T	mg/L	6020	<0.001	B	<0.001	B	<0.001	B	<0.001	B
7440-02-0		Nickel	T	mg/L	6020	<0.005	B	<0.005	B	<0.005	B	<0.005	B
7440-09-7		Potassium	T	mg/L	6010	1.47		0.844		1.81		<0.2	
7440-16-6		Rhodium	T	mg/L	6020	<0.005	B	<0.005	B	<0.005	B	<0.005	B
7782-49-2		Selenium	T	mg/L	6020	0.00667		0.00814		0.00636		<0.005	
7440-22-4		Silver	T	mg/L	6020	<0.001	*	<0.001	*	<0.001	*	<0.001	*
7440-23-5		Sodium	T	mg/L	6010	27.1		108		31.8		<1	
7440-25-7		Tantalum	T	mg/L	6020	<0.005		<0.005		<0.005		<0.005	
7440-28-0		Thallium	T	mg/L	6020	<0.002		<0.002		<0.002		<0.002	
7440-61-1		Uranium	T	mg/L	6020	<0.001		<0.001		<0.001		<0.001	
7440-62-2		Vanadium	T	mg/L	6020	<0.02	B	<0.02	B	<0.02	B	<0.02	B
7440-66-6		Zinc	T	mg/L	6020	<0.02		<0.02		<0.02		<0.02	
108-05-4		Vinyl acetate	T	mg/L	8260	<0.01		<0.01		<0.01		<0.01	
67-64-1		Acetone	T	mg/L	8260	<0.01	*	<0.01	*	<0.01	*	<0.01	*
107-02-8		Acrolein	T	mg/L	8260	<0.01		<0.01		<0.01		<0.01	
107-13-1		Acrylonitrile	T	mg/L	8260	<0.01	*	<0.01	*	<0.01	*	<0.01	*
71-43-2		Benzene	T	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	*
108-90-7		Chlorobenzene	T	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	*
1330-20-7		Xylenes	T	mg/L	8260	<0.015		<0.015		<0.015		<0.015	
100-42-5		Styrene	T	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	*
108-88-3		Toluene	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
74-97-5		Chlorobromomethane	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	

GROUNDWATER SAMPLE ANALYSIS - (Cont.)

AKGWA NUMBER[1], Facility Well/Spring Number						8004-4801		8004-4803		8004-4817		0000-0000	
Facility's Local Well or Spring Number (e.g., MW-1, MW-2, etc.)						395		396		397		E. BLANK	
CAS RN[4]		CONSTITUENT	TD[5]	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS
75-27-4		Bromodichloromethane	T	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	*
75-25-2		Tribromomethane	T	mg/L	8260	<0.005	*J	<0.005	*J	<0.005	*J	<0.005	*J
74-83-9		Methyl bromide	T	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	*
78-93-3		Methyl ethyl ketone	T	mg/L	8260	<0.01		<0.01		<0.01		<0.01	
110-57-6		trans-1,4-Dichloro-2-butene	T	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	*
75-15-0		Carbon disulfide	T	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	*
75-00-3		Chloroethane	T	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	*
67-66-3		Chloroform	T	mg/L	8260	<0.001	*	<0.001	*	<0.001	*	<0.001	*
74-87-3		Methyl chloride	T	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	*
156-59-2		cis-1,2-Dichloroethene	T	mg/L	8260	<0.001	*	<0.001	*	<0.001	*	<0.001	*
74-95-3		Methylene bromide	T	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	*
75-34-3		1,1-Dichloroethane	T	mg/L	8260	<0.001	*	<0.001	*	<0.001	*	<0.001	*
107-06-2		1,2-Dichloroethane	T	mg/L	8260	<0.001	*	<0.001	*	<0.001	*	<0.001	*
75-35-4		1,1-Dichloroethylene	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
106-93-4		Ethane, 1,2-dibromo	T	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	*
79-34-5		Ethane, 1,1,2,2-Tetrachloro	T	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	*
71-55-6		Ethane, 1,1,1-Trichloro-	T	mg/L	8260	<0.001	*	<0.001	*	<0.001	*	<0.001	*
79-00-5		Ethane, 1,1,2-Trichloro	T	mg/L	8260	<0.001	*	<0.001	*	<0.001	*	<0.001	*
630-20-6		Ethane, 1,1,1,2-Tetrachloro	T	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	*
75-01-4		Vinyl chloride	T	mg/L	8260	<0.002	*	<0.002	*	<0.002	*	<0.002	*
127-18-4		Ethene, Tetrachloro-	T	mg/L	8260	<0.001	*	<0.001	*	<0.001	*	<0.001	*
79-01-6		Ethene, Trichloro-	T	mg/L	8260	0.0036	*	<0.001	*	<0.001	*	<0.001	*

RESIDENTIAL/CONTAINED-QUARTERLY
Facility: US DOE - Paducah Gaseous Diffusion Plant
Permit Number: 073-00014 & 073-00015

FINDS/UNIT: KY8-890-008-982 / 1
LAB ID: None
For Official Use Only

GROUNDWATER SAMPLE ANALYSIS - (Cont.)

AKGWA NUMBER[1], Facility Well/Spring Number						8004-4801		8004-4803		8004-4817		0000-0000	
Facility's Local Well or Spring Number (e.g., MW-1, MW-2, etc.)						395		396		397		E. BLANK	
CAS RN[4]		CONSTITUENT	TD[5]	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS
100-41-4		Ethylbenzene	T	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	*
591-78-6		2-Hexanone	T	mg/L	8260	<0.01	*	<0.01	*	<0.01	*	<0.01	*
74-88-4		Iodomethane	T	mg/L	8260	<0.01	*	<0.01	*	<0.01	*	<0.01	*
124-48-1		Methane, Dibromochloro-	T	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	*
56-23-5		Carbon Tetrachloride	T	mg/L	8260	<0.001	*	<0.001	*	<0.001	*	<0.001	*
75-09-2		Dichloromethane	T	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	*
108-10-1		Methyl isobutyl ketone	T	mg/L	8260	<0.01	*	<0.01	*	<0.01	*	<0.01	*
96-12-8		Propane, 1,2-Dibromo-3-chloro	T	mg/L	8011	<0.0002		<0.0002		<0.0002		<0.0002	
78-87-5		Propane, 1,2-Dichloro-	T	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	*
10061-02-6		trans-1,3-Dichloro-1-propene	T	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	*
10061-01-5		cis-1,3-Dichloro-1-propene	T	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	*
156-60-5		trans-1,2-Dichloroethene	T	mg/L	8260	<0.001	*	<0.001	*	<0.001	*	<0.001	*
75-69-4		Trichlorofluoromethane	T	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	*
96-18-4		1,2,3-Trichloropropane	T	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	*
95-50-1		Benzene, 1,2-Dichloro-	T	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	*
106-46-7		Benzene, 1,4-Dichloro-	T	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	*
1336-36-3		PCB,Total	T	ug/L	8082		*		*		*		*
12674-11-2		PCB-1016	T	ug/L	8082		*		*		*		*
11104-28-2		PCB-1221	T	ug/L	8082		*		*		*		*
11141-16-5		PCB-1232	T	ug/L	8082		*		*		*		*
53469-21-9		PCB-1242	T	ug/L	8082		*		*		*		*
12672-29-6		PCB-1248	T	ug/L	8082		*		*		*		*

RESIDENTIAL/CONTAINED-QUARTERLY
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FINDS/UNIT: KY8-890-008-982 / 1
LAB ID: None
For Official Use Only

GROUNDWATER SAMPLE ANALYSIS - (Cont.)

AKGWA NUMBER[1], Facility Well/Spring Number						8004-4801		8004-4803		8004-4817		0000-0000	
Facility's Local Well or Spring Number (e.g., MW-1, MW-2, etc.)						395		396		397		E. BLANK	
CAS RN[4]		CONSTITUENT	TD[5]	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS
11097-69-1		PCB-1254	T	ug/L	8082		*		*		*		*
11096-82-5		PCB-1260	T	ug/L	8082		*		*		*		*
11100-14-4		PCB-1268	T	ug/L	8082		*		*		*		*
12587-46-1		Gross Alpha	T	pCi/L	9310	-0.78	*	-1	*	0.119	*	0.805	*
12587-47-2		Gross Beta	T	pCi/L	9310	6.85	*	1.3	*	14	*	-0.0493	*
10043-66-0		Iodine-131	T	pCi/L	RL-7124		*		*		*		*
13982-63-3		Radium-226	T	pCi/L	RL-7129	0.308	*	0.144	*	0.297	*	-0.0305	*
10098-97-2		Strontium-90	T	pCi/L	RL-7140	0.937	B	-0.298	B	-0.522	B	0.395	B
14133-76-7		Technetium-99	T	pCi/L	RL-7100	-4.1	*	3.9	*	6.96	*	-7.11	*
14269-63-7		Thorium-230	T	pCi/L	RL-7128	0.0749	*	-0.0262	*	-0.0107	*	0.0152	*
10028-17-8		Tritium	T	pCi/L	704R6	638	*	251	*	404	*	157	*
S0130- -		Chemical Oxygen Demand	T	mg/L	410.4	<25		26		<25			*
57-12-5		Cyanide	T	mg/L	9010	<0.04		<0.04		<0.04			*
20461-54-5		Iodide	T	mg/L	345.1	<2		<2		<2		<2	
S0268- -		Total Organic Carbon	T	mg/L	9060	<1		8.3	*	<1	*		*
S0586- -		Total Organic Halides	T	mg/L	9020	0.015		0.21		0.014			*

Division of Waste Management
Solid Waste Branch
14 Reilly Road
Frankfort, KY 40601 (502)564-6716

RESIDENTIAL/INERT-QUARTERLY
Facility: US DOE - Paducah Gaseous Diffusion Plant
Permit Number: 073-00014 & 073-00015

FINDS/UNIT: KY8-890-008-982 / 1
LAB ID: None
For Official Use Only

GROUNDWATER SAMPLE ANALYSIS(S)

AKGWA NUMBER[1], Facility Well/Spring Number					0000-0000		0000-0000		0000-0000		0000-0000	
Facility's Local Well or Spring Number (e.g., MW-1, MW-2, etc.)					F. BLANK		T. BLANK 1		T. BLANK 2		T. BLANK 3	
Sample Sequence #					1		1		1		1	
If sample is a Blank, specify Type: (F)ield, (T)rip, (M)ethod, or (E)quipment					F		T		T		T	
Sample Date and Time (Month/Day/Year hour: minutes)					1/16/2013 12:15		1/14/2013 06:45		1/15/2013 06:45		1/15/2013 07:00	
Duplicate ("Y" or "N")[2]					N		N		N		N	
Split ("Y" or "N")[3]					N		N		N		N	
Facility Sample ID Number (if applicable)					FB1SG2-13		TB1SG2-13		TB2SG2-13		TB3SG2-13	
Laboratory Sample ID Number (if applicable)					C13016024001		C13014023001		C13015039001		C13015039002	
Date of Analysis (Month/Day/Year) For Volatile Organics Analysis					01/19/2013		01/18/2013		01/19/2013		1/19/2013	
Gradient with respect to Monitored Unit (UP, DOWN, SIDE, UNKNOWN)					NA		NA		NA		NA	
CAS RN[4]		**CONSTITUENT**	**TD[5]**	**Unit OF MEASURE**	**METHOD**	**DETECTED VALUE OR PQL[6]**	**FLAGS[7]**	**DETECTED VALUE OR PQL[6]**	**FLAGS**	**DETECTED VALUE OR PQL[6]**	**FLAGS**	**DETECTED VALUE OR PQL[6]**	**FLAGS**
24959-67-9		**Bromide**	**T**	**mg/L**	**9056**		*		*		*		*
16887-00-6		**Chloride(s)**	**T**	**mg/L**	**9056**		*		*		*		*
16984-48-8		**Fluoride**	**T**	**mg/L**	**9214**		*		*		*		*
S0595- -		**Nitrate & Nitrite**	**T**	**mg/L**	**9056**		*		*		*		*
14808-79-8		**Sulfate**	**T**	**mg/L**	**9056**		*		*		*		*
NS1894		**Barometric Pressure Reading**	**T**	**Inches/Hg**	**Field**		*		*		*		*
S0145- -		**Specific Conductance**	**T**	**μMH0/cm**	**Field**		*		*		*		*

[1]AKGWA # is 0000-0000 for any type of blank.
[2]Respond "Y" if the sample was a duplicate of another sample in this report.
[3]Respond "Y" if the sample was split and analyzed by separate laboratories.
[4]Chemical Abstracts Service Registry Number or unique identifier number assigned by agency.
[5]"T" = Total; "D" = Dissolved
[6]"<" indicates a non-detect; do not use "ND" or "BDL". Value shown is Practical Quantification Limit.
[7]Flags are as designated, do not use any other type. Use "*," then describe on "Written Comments Page."

STANDARD FLAGS:
* = See Comments
J = Estimated Value
B = Analyte found in blank
A = Average value
N = Presumptive ID
D = Concentration from analysis of a secondary dilution

RESIDENTIAL/INERT-QUARTERLY
Facility: US DOE - Paducah Gaseous Diffusion Plant
Permit Number: 073-00014 & 073-00015

FINDS/UNIT: KY8-890-008-982 / 1
LAB ID: None
For Official Use Only

GROUNDWATER SAMPLE ANALYSIS - (Cont.)

AKGWA NUMBER[1], Facility Well/Spring Number						0000-0000		0000-0000		0000-0000		0000-0000	
Facility's Local Well or Spring Number (e.g., MW-1, MW-2, BLANK-F, etc.)						F. BLANK		T. BLANK 1		T. BLANK 2		T. BLANK 3	
CAS RN[4]		CONSTITUENT	TD[5]	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS
S0906 - -		Static Water Level Elevation	T	Ft. MSL	Field		*		*		*		*
N238		Dissolved Oxygen	T	mg/L	Field		*		*		*		*
S0266- -		Total Dissolved Solids	T	mg/L	160.1		*		*		*		*
S0296- -		pH	T	Units	Field		*		*		*		*
NS215		Eh	T	mV	Field		*		*		*		*
S0907 - -		Temperature	T	°C	Field		*		*		*		*
7429-90-5		Aluminum	T	mg/L	6020	<0.2			*		*		*
7440-36-0		Antimony	T	mg/L	6020	<0.005			*		*		*
7440-38-2		Arsenic	T	mg/L	7060	<0.001			*		*		*
7440-39-3		Barium	T	mg/L	6020	<0.005			*		*		*
7440-41-7		Beryllium	T	mg/L	6020	<0.001	*		*		*		*
7440-42-8		Boron	T	mg/L	6010	<0.2	B		*		*		*
7440-43-9		Cadmium	T	mg/L	6020	<0.001			*		*		*
7440-70-2		Calcium	T	mg/L	6010	<1	B		*		*		*
7440-47-3		Chromium	T	mg/L	6020	<0.01	B		*		*		*
7440-48-4		Cobalt	T	mg/L	6020	<0.001			*		*		*
7440-50-8		Copper	T	mg/L	6020	<0.02			*		*		*
7439-89-6		Iron	T	mg/L	6010	<0.1			*		*		*
7439-92-1		Lead	T	mg/L	6020	<0.0013	B		*		*		*
7439-95-4		Magnesium	T	mg/L	6010	<0.025	B		*		*		*
7439-96-5		Manganese	T	mg/L	6020	<0.005			*		*		*
7439-97-6		Mercury	T	mg/L	7470	<0.0002			*		*		*

RESIDENTIAL/INERT-QUARTERLY
Facility: US DOE - Paducah Gaseous Diffusion Plant
Permit Number: 073-00014 & 073-00015

FINDS/UNIT: KY8-890-008-982 / 1
LAB ID: None
For Official Use Only

GROUNDWATER SAMPLE ANALYSIS - (Cont.)

AKGWA NUMBER[1], Facility Well/Spring Number						0000-0000		0000-0000		0000-0000		0000-0000	
Facility's Local Well or Spring Number (e.g., MW-1, MW-2, etc.)						F. BLANK		T. BLANK 1		T. BLANK 2		T. BLANK 3	
CAS RN[4]		CONSTITUENT	TD[5]	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS
7439-98-7		Molybdenum	T	mg/L	6020	<0.001	B		*		*		*
7440-02-0		Nickel	T	mg/L	6020	<0.005	B		*		*		*
7440-09-7		Potassium	T	mg/L	6010	<0.2			*		*		*
7440-16-6		Rhodium	T	mg/L	6020	<0.005	B		*		*		*
7782-49-2		Selenium	T	mg/L	6020	<0.005			*		*		*
7440-22-4		Silver	T	mg/L	6020	<0.001	*		*		*		*
7440-23-5		Sodium	T	mg/L	6010	<1			*		*		*
7440-25-7		Tantalum	T	mg/L	6020	<0.005			*		*		*
7440-28-0		Thallium	T	mg/L	6020	<0.002			*		*		*
7440-61-1		Uranium	T	mg/L	6020	<0.001			*		*		*
7440-62-2		Vanadium	T	mg/L	6020	<0.02	B		*		*		*
7440-66-6		Zinc	T	mg/L	6020	<0.02			*		*		*
108-05-4		Vinyl acetate	T	mg/L	8260	<0.01		<0.01		<0.01		<0.01	
67-64-1		Acetone	T	mg/L	8260	<0.01	*	<0.01		<0.01	*	<0.01	*
107-02-8		Acrolein	T	mg/L	8260	<0.01		<0.01		<0.01		<0.01	
107-13-1		Acrylonitrile	T	mg/L	8260	<0.01	*	<0.01		<0.01	*	<0.01	*
71-43-2		Benzene	T	mg/L	8260	<0.005	*	<0.005		<0.005	*	<0.005	*
108-90-7		Chlorobenzene	T	mg/L	8260	<0.005	*	<0.005		<0.005	*	<0.005	*
1330-20-7		Xylenes	T	mg/L	8260	<0.015		<0.015		<0.015		<0.015	
100-42-5		Styrene	T	mg/L	8260	<0.005	*	<0.005		<0.005	*	<0.005	*
108-88-3		Toluene	T	mg/L	8260	<0.005		<0.005	J	<0.005		<0.005	
74-97-5		Chlorobromomethane	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	

GROUNDWATER SAMPLE ANALYSIS - (Cont.)

AKGWA NUMBER[1], Facility Well/Spring Number						0000-0000		0000-0000		0000-0000		0000-0000	
Facility's Local Well or Spring Number (e.g., MW-1, MW-2, etc.)						F. BLANK		T. BLANK 1		T. BLANK 2		T. BLANK 3	
CAS RN[4]		CONSTITUENT	TD[5]	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS
75-27-4		Bromodichloromethane	T	mg/L	8260	<0.005	*	<0.005	J	<0.005	*	<0.005	*
75-25-2		Tribromomethane	T	mg/L	8260	<0.005	*J	<0.005	J	<0.005	*J	<0.005	*J
74-83-9		Methyl bromide	T	mg/L	8260	<0.005	*	<0.005	J	<0.005	*	<0.005	*
78-93-3		Methyl ethyl ketone	T	mg/L	8260	<0.01		<0.01		<0.01		<0.01	
110-57-6		trans-1,4-Dichloro-2-butene	T	mg/L	8260	<0.005	*	<0.005		<0.005	*	<0.005	*
75-15-0		Carbon disulfide	T	mg/L	8260	<0.005	*	<0.005	J	<0.005	*	<0.005	*
75-00-3		Chloroethane	T	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	*
67-66-3		Chloroform	T	mg/L	8260	<0.001	*	<0.001		<0.001	*	<0.001	*
74-87-3		Methyl chloride	T	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	*
156-59-2		cis-1,2-Dichloroethene	T	mg/L	8260	<0.001	*	<0.001		<0.001	*	<0.001	*
74-95-3		Methylene bromide	T	mg/L	8260	<0.005	*	<0.005	J	<0.005	*	<0.005	*
75-34-3		1,1-Dichloroethane	T	mg/L	8260	<0.001	*	<0.001		<0.001	*	<0.001	*
107-06-2		1,2-Dichloroethane	T	mg/L	8260	<0.001	*	<0.001		<0.001	*	<0.001	*
75-35-4		1,1-Dichloroethylene	T	mg/L	8260	<0.001		<0.001	J	<0.001		<0.001	
106-93-4		Ethane, 1,2-dibromo	T	mg/L	8260	<0.005	*	<0.005		<0.005	*	<0.005	*
79-34-5		Ethane, 1,1,2,2-Tetrachloro	T	mg/L	8260	<0.005	*	<0.005		<0.005	*	<0.005	*
71-55-6		Ethane, 1,1,1-Trichloro-	T	mg/L	8260	<0.001	*	<0.001		<0.001	*	<0.001	*
79-00-5		Ethane, 1,1,2-Trichloro	T	mg/L	8260	<0.001	*	<0.001	J	<0.001	*	<0.001	*
630-20-6		Ethane, 1,1,1,2-Tetrachloro	T	mg/L	8260	<0.005	*	<0.005		<0.005	*	<0.005	*
75-01-4		Vinyl chloride	T	mg/L	8260	<0.002	*	<0.002	*	<0.002	*	<0.002	*
127-18-4		Ethene, Tetrachloro-	T	mg/L	8260	<0.001	*	<0.001		<0.001	*	<0.001	*
79-01-6		Ethene, Trichloro-	T	mg/L	8260	<0.001	*	<0.001		<0.001	*	<0.001	*

RESIDENTIAL/CONTAINED-QUARTERLY
Facility: US DOE - Paducah Gaseous Diffusion Plant FINDS/UNIT: KY8-890-008-982 / 1
Permit Number: 073-00014 & 073-00015 LAB ID: None
For Official Use Only

GROUNDWATER SAMPLE ANALYSIS - (Cont.)

AKGWA NUMBER[1], Facility Well/Spring Number						0000-0000		0000-0000		0000-0000		0000-0000	
Facility's Local Well or Spring Number (e.g., MW-1, MW-2, etc.)						F. BLANK		T. BLANK 1		T. BLANK 2		T. BLANK 3	
CAS RN[4]		CONSTITUENT	TD[5]	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS
100-41-4		Ethylbenzene	T	mg/L	8260	<0.005	*	<0.005		<0.005	*	<0.005	*
591-78-6		2-Hexanone	T	mg/L	8260	<0.01	*	<0.01		<0.01	*	<0.01	*
74-88-4		Iodomethane	T	mg/L	8260	<0.01	*	<0.01		<0.01	*	<0.01	*
124-48-1		Methane, Dibromochloro-	T	mg/L	8260	<0.005	*	<0.005		<0.005	*	<0.005	*
56-23-5		Carbon Tetrachloride	T	mg/L	8260	<0.001	*	<0.001		<0.001	*	<0.001	*
75-09-2		Dichloromethane	T	mg/L	8260	<0.005	*	<0.005		<0.005	*	<0.005	*
108-10-1		Methyl isobutyl ketone	T	mg/L	8260	<0.01	*	<0.01		<0.01	*	<0.01	*
96-12-8		Propane, 1,2-Dibromo-3-chloro	T	mg/L	8011	<0.0002		<0.0002		<0.0002		<0.0002	
78-87-5		Propane, 1,2-Dichloro-	T	mg/L	8260	<0.005	*	<0.005		<0.005	*	<0.005	*
10061-02-6		trans-1,3-Dichloro-1-propene	T	mg/L	8260	<0.005	*	<0.005		<0.005	*	<0.005	*
10061-01-5		cis-1,3-Dichloro-1-propene	T	mg/L	8260	<0.005	*	<0.005	J	<0.005	*	<0.005	*
156-60-5		trans-1,2-Dichloroethene	T	mg/L	8260	<0.001	*	<0.001		<0.001	*	<0.001	*
75-69-4		Trichlorofluoromethane	T	mg/L	8260	<0.005	*	<0.005		<0.005	*	<0.005	*
96-18-4		1,2,3-Trichloropropane	T	mg/L	8260	<0.005	*	<0.005		<0.005	*	<0.005	*
95-50-1		Benzene, 1,2-Dichloro-	T	mg/L	8260	<0.005	*	<0.005		<0.005	*	<0.005	*
106-46-7		Benzene, 1,4-Dichloro-	T	mg/L	8260	<0.005	*	<0.005		<0.005	*	<0.005	*
1336-36-3		PCB,Total	T	ug/L	8082		*		*		*		*
12674-11-2		PCB-1016	T	ug/L	8082		*		*		*		*
11104-28-2		PCB-1221	T	ug/L	8082		*		*		*		*
11141-16-5		PCB-1232	T	ug/L	8082		*		*		*		*
53469-21-9		PCB-1242	T	ug/L	8082		*		*		*		*
12672-29-6		PCB-1248	T	ug/L	8082		*		*		*		*

RESIDENTIAL/CONTAINED-QUARTERLY
Facility: US DOE - Paducah Gaseous Diffusion Plant
Permit Number: 073-00014 & 073-00015

FINDS/UNIT: KY8-890-008-982 / 1
LAB ID: None
For Official Use Only

GROUNDWATER SAMPLE ANALYSIS - (Cont.)

AKGWA NUMBER[1], Facility Well/Spring Number						0000-0000		0000-0000		0000-0000		0000-0000	
Facility's Local Well or Spring Number (e.g., MW-1, MW-2, etc.)						F. BLANK		T. BLANK 1		T. BLANK 2		T. BLANK 3	
CAS RN[4]		CONSTITUENT	TD[5]	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS
11097-69-1		PCB-1254	T	ug/L	8082		*		*		*		*
11096-82-5		PCB-1260	T	ug/L	8082		*		*		*		*
11100-14-4		PCB-1268	T	ug/L	8082		*		*		*		*
12587-46-1		Gross Alpha	T	pCi/L	9310	-0.502	*		*		*		*
12587-47-2		Gross Beta	T	pCi/L	9310	0.301	*		*		*		*
10043-66-0		Iodine-131	T	pCi/L	RL-7124		*		*		*		*
13982-63-3		Radium-226	T	pCi/L	RL-7129	-0.0647	*		*		*		*
10098-97-2		Strontium-90	T	pCi/L	RL-7140	-0.0423	B		*		*		*
14133-76-7		Technetium-99	T	pCi/L	RL-7100	12.2	*		*		*		*
14269-63-7		Thorium-230	T	pCi/L	RL-7128	-0.0304	*		*		*		*
10028-17-8		Tritium	T	pCi/L	704R6	-22.3	*		*		*		*
S0130- -		Chemical Oxygen Demand	T	mg/L	410.4		*		*		*		*
57-12-5		Cyanide	T	mg/L	9010		*		*		*		*
20461-54-5		Iodide	T	mg/L	345.1	<2			*		*		*
S0268- -		Total Organic Carbon	T	mg/L	9060		*		*		*		*
S0586- -		Total Organic Halides	T	mg/L	9020		*		*		*		*

Division of Waste Management
Solid Waste Branch
14 Reilly Road
Frankfort, KY 40601 (502)564-6716

RESIDENTIAL/INERT-QUARTERLY
Facility: US DOE - Paducah Gaseous Diffusion Plant
Permit Number: 073-00014 & 073-00015

FINDS/UNIT: KY8-890-008-982 / 1
LAB ID: None
For Official Use Only

GROUNDWATER SAMPLE ANALYSIS(S)

AKGWA NUMBER[1], Facility Well/Spring Number	0000-0000	0000-0000	0000-0000	8004-4805
Facility's Local Well or Spring Number (e.g., MW-1, MW-2, etc.)	T. BLANK 4	T. BLANK 5	T. BLANK 6	391
Sample Sequence #	1	1	1	2
If sample is a Blank, specify Type: (F)ield, (T)rip, (M)ethod, or (E)quipment	T	T	T	NA
Sample Date and Time (Month/Day/Year hour: minutes)	1/16/2013 07:07	1/16/2013 06:45	1/17/2013 07:10	1/16/2013 08:37
Duplicate ("Y" or "N")[2]	N	N	N	Y
Split ("Y" or "N")[3]	N	N	N	N
Facility Sample ID Number (if applicable)	TB4SG2-13	TB5SG2-13	TB6SG2-13	MW391DSG2-13
Laboratory Sample ID Number (if applicable)	C13016026001	C13016021001	C13017006001	C1301600702
Date of Analysis (Month/Day/Year) For Volatile Organics Analysis	1/19/2013	1/19/2013	1/19/2013	1/19/2013
Gradient with respect to Monitored Unit (UP, DOWN, SIDE, UNKNOWN)	NA	NA	NA	DOWN

CAS RN[4]		CONSTITUENT	TD[5]	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL[6]	FLAGS[7]	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS
24959-67-9		Bromide	T	mg/L	9056		*		*		*	<2	
16887-00-6		Chloride(s)	T	mg/L	9056		*		*		*	48	
16984-48-8		Fluoride	T	mg/L	9214		*		*		*	0.15	
S0595- -		Nitrate & Nitrite	T	mg/L	9056		*		*		*	1	
14808-79-8		Sulfate	T	mg/L	9056		*		*		*	13	
NS1894		Barometric Pressure Reading	T	Inches/Hg	Field		*		*		*	30.1	
S0145- -		Specific Conductance	T	μMH0/cm	Field		*		*		*	390	

[1]AKGWA # is 0000-0000 for any type of blank.
[2]Respond "Y" if the sample was a duplicate of another sample in this report.
[3]Respond "Y" if the sample was split and analyzed by separate laboratories.
[4]Chemical Abstracts Service Registry Number or unique identifier number assigned by agency.
[5]"T" = Total; "D" = Dissolved
[6]"<" indicates a non-detect; do not use "ND" or "BDL". Value shown is Practical Quantification Limit.
[7]Flags are as designated, do not use any other type. Use "*," then describe on "Written Comments Page."

STANDARD FLAGS:
* = See Comments
J = Estimated Value
B = Analyte found in blank
A = Average value
N = Presumptive ID
D = Concentration from analysis of a secondary dilution

GROUNDWATER SAMPLE ANALYSIS - (Cont.)

AKGWA NUMBER[1], Facility Well/Spring Number						0000-0000		0000-0000		0000-0000		8004-4805	
Facility's Local Well or Spring Number (e.g., MW-1, MW-2, BLANK-F, etc.)						T. BLANK 4		T. BLANK 5		T. BLANK 6		391	
CAS RN[4]		CONSTITUENT	TD[5]	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS
S0906 - -		Static Water Level Elevation	T	Ft. MSL	Field		*		*		*	320.41	
N238		Dissolved Oxygen	T	mg/L	Field		*		*		*	4.1	
S0266- -		Total Dissolved Solids	T	mg/L	160.1		*		*		*	225	
S0296- -		pH	T	Units	Field		*		*		*	6.17	
NS215		Eh	T	mV	Field		*		*		*	831	
S0907 - -		Temperature	T	°C	Field		*		*		*	13.06	
7429-90-5		Aluminum	T	mg/L	6020		*		*		*	<0.2	
7440-36-0		Antimony	T	mg/L	6020		*		*		*	<0.005	
7440-38-2		Arsenic	T	mg/L	7060		*		*		*	0.00101	
7440-39-3		Barium	T	mg/L	6020		*		*		*	0.242	
7440-41-7		Beryllium	T	mg/L	6020		*		*		*	<0.001	*
7440-42-8		Boron	T	mg/L	6010		*		*		*	<0.2	B
7440-43-9		Cadmium	T	mg/L	6020		*		*		*	<0.001	
7440-70-2		Calcium	T	mg/L	6010		*		*		*	25	
7440-47-3		Chromium	T	mg/L	6020		*		*		*	<0.01	B
7440-48-4		Cobalt	T	mg/L	6020		*		*		*	<0.001	
7440-50-8		Copper	T	mg/L	6020		*		*		*	<0.02	
7439-89-6		Iron	T	mg/L	6010		*		*		*	0.834	
7439-92-1		Lead	T	mg/L	6020		*		*		*	<0.0013	B
7439-95-4		Magnesium	T	mg/L	6010		*		*		*	10.4	
7439-96-5		Manganese	T	mg/L	6020		*		*		*	0.00957	
7439-97-6		Mercury	T	mg/L	7470		*		*		*	<0.0002	

GROUNDWATER SAMPLE ANALYSIS - (Cont.)

AKGWA NUMBER[1], Facility Well/Spring Number						0000-0000		0000-0000		0000-0000		8004-4805	
Facility's Local Well or Spring Number (e.g., MW-1, MW-2, etc.)						T. BLANK 4		T. BLANK 5		T. BLANK 6		391	
CAS RN[4]		CONSTITUENT	TD[5]	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS
7439-98-7		Molybdenum	T	mg/L	6020		*		*		*	<0.001	B
7440-02-0		Nickel	T	mg/L	6020		*		*		*	<0.005	B
7440-09-7		Potassium	T	mg/L	6010		*		*		*	1.42	
7440-16-6		Rhodium	T	mg/L	6020		*		*		*	<0.005	B
7782-49-2		Selenium	T	mg/L	6020		*		*		*	0.00694	
7440-22-4		Silver	T	mg/L	6020		*		*		*	<0.001	*
7440-23-5		Sodium	T	mg/L	6010		*		*		*	30.6	
7440-25-7		Tantalum	T	mg/L	6020		*		*		*	<0.005	
7440-28-0		Thallium	T	mg/L	6020		*		*		*	<0.002	
7440-61-1		Uranium	T	mg/L	6020		*		*		*	<0.001	
7440-62-2		Vanadium	T	mg/L	6020		*		*		*	<0.02	B
7440-66-6		Zinc	T	mg/L	6020		*		*		*	<0.02	
108-05-4		Vinyl acetate	T	mg/L	8260	<0.01		<0.01		<0.01		<0.01	
67-64-1		Acetone	T	mg/L	8260	<0.01	*	<0.01	*	<0.01	*	<0.01	*
107-02-8		Acrolein	T	mg/L	8260	<0.01		<0.01		<0.01		<0.01	
107-13-1		Acrylonitrile	T	mg/L	8260	<0.01	*	<0.01	*	<0.01	*	<0.01	*
71-43-2		Benzene	T	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	*
108-90-7		Chlorobenzene	T	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	*
1330-20-7		Xylenes	T	mg/L	8260	<0.015		<0.015		<0.015		<0.015	
100-42-5		Styrene	T	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	*
108-88-3		Toluene	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
74-97-5		Chlorobromomethane	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	

GROUNDWATER SAMPLE ANALYSIS - (Cont.)

AKGWA NUMBER[1], Facility Well/Spring Number						0000-0000		0000-0000		0000-0000		8004-4805	
Facility's Local Well or Spring Number (e.g., MW-1, MW-2, etc.)						T. BLANK 4		T. BLANK 5		T. BLANK 6		391	
CAS RN[4]		CONSTITUENT	TD[5]	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS
75-27-4		Bromodichloromethane	T	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	*
75-25-2		Tribromomethane	T	mg/L	8260	<0.005	*J	<0.005	*J	<0.005	*J	<0.005	*J
74-83-9		Methyl bromide	T	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	*
78-93-3		Methyl ethyl ketone	T	mg/L	8260	<0.01		<0.01		<0.01		<0.01	
110-57-6		trans-1,4-Dichloro-2-butene	T	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	*
75-15-0		Carbon disulfide	T	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	*
75-00-3		Chloroethane	T	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	*
67-66-3		Chloroform	T	mg/L	8260	<0.001	*	<0.001	*	<0.001	*	<0.001	*
74-87-3		Methyl chloride	T	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	*
156-59-2		cis-1,2-Dichloroethene	T	mg/L	8260	<0.001	*	<0.001	*	<0.001	*	<0.001	*
74-95-3		Methylene bromide	T	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	*
75-34-3		1,1-Dichloroethane	T	mg/L	8260	<0.001	*	<0.001	*	<0.001	*	<0.001	*
107-06-2		1,2-Dichloroethane	T	mg/L	8260	<0.001	*	<0.001	*	<0.001	*	<0.001	*
75-35-4		1,1-Dichloroethylene	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
106-93-4		Ethane, 1,2-dibromo	T	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	*
79-34-5		Ethane, 1,1,2,2-Tetrachloro	T	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	*
71-55-6		Ethane, 1,1,1-Trichloro-	T	mg/L	8260	<0.001	*	<0.001	*	<0.001	*	<0.001	*
79-00-5		Ethane, 1,1,2-Trichloro	T	mg/L	8260	<0.001	*	<0.001	*	<0.001	*	<0.001	*
630-20-6		Ethane, 1,1,1,2-Tetrachloro	T	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	*
75-01-4		Vinyl chloride	T	mg/L	8260	<0.002	*	<0.002	*	<0.002	*	<0.002	*
127-18-4		Ethene, Tetrachloro-	T	mg/L	8260	<0.001	*	<0.001	*	<0.001	*	<0.001	*
79-01-6		Ethene, Trichloro-	T	mg/L	8260	<0.001	*	<0.001	*	<0.001	*	0.012	*

RESIDENTIAL/CONTAINED-QUARTERLY
Facility: US DOE - Paducah Gaseous Diffusion Plant FINDS/UNIT: KY8-890-008-982 / 1
Permit Number: 073-00014 & 073-00015 LAB ID: None
For Official Use Only

GROUNDWATER SAMPLE ANALYSIS - (Cont.)

AKGWA NUMBER[1], Facility Well/Spring Number						0000-0000		0000-0000		0000-0000		8004-4805	
Facility's Local Well or Spring Number (e.g., MW-1, MW-2, etc.)						T. BLANK 4		T. BLANK 5		T. BLANK 6		391	
CAS RN[4]		CONSTITUENT	TD[5]	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS
100-41-4		Ethylbenzene	T	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	*
591-78-6		2-Hexanone	T	mg/L	8260	<0.01	*	<0.01	*	<0.01	*	<0.01	*
74-88-4		Iodomethane	T	mg/L	8260	<0.01	*	<0.01	*	<0.01	*	<0.01	*
124-48-1		Methane, Dibromochloro-	T	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	*
56-23-5		Carbon Tetrachloride	T	mg/L	8260	<0.001	*	<0.001	*	<0.001	*	<0.001	*
75-09-2		Dichloromethane	T	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	*
108-10-1		Methyl isobutyl ketone	T	mg/L	8260	<0.01	*	<0.01	*	<0.01	*	<0.01	*
96-12-8		Propane, 1,2-Dibromo-3-chloro	T	mg/L	8011	<0.0002		<0.0002		<0.0002		<0.0002	
78-87-5		Propane, 1,2-Dichloro-	T	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	*
10061-02-6		trans-1,3-Dichloro-1-propene	T	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	*
10061-01-5		cis-1,3-Dichloro-1-propene	T	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	*
156-60-5		trans-1,2-Dichloroethene	T	mg/L	8260	<0.001	*	<0.001	*	<0.001	*	<0.001	*
75-69-4		Trichlorofluoromethane	T	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	*
96-18-4		1,2,3-Trichloropropane	T	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	*
95-50-1		Benzene, 1,2-Dichloro-	T	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	*
106-46-7		Benzene, 1,4-Dichloro-	T	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	*
1336-36-3		PCB,Total	T	ug/L	8082		*		*		*		*
12674-11-2		PCB-1016	T	ug/L	8082		*		*		*		*
11104-28-2		PCB-1221	T	ug/L	8082		*		*		*		*
11141-16-5		PCB-1232	T	ug/L	8082		*		*		*		*
53469-21-9		PCB-1242	T	ug/L	8082		*		*		*		*
12672-29-6		PCB-1248	T	ug/L	8082		*		*		*		*

RESIDENTIAL/CONTAINED-QUARTERLY
Facility: US DOE - Paducah Gaseous Diffusion Plant FINDS/UNIT: KY8-890-008-982 / 1
Permit Number: 073-00014 & 073-00015 LAB ID: None
For Official Use Only

GROUNDWATER SAMPLE ANALYSIS - (Cont.)

AKGWA NUMBER[1], Facility Well/Spring Number						0000-0000		0000-0000		0000-0000		8004-4805	
Facility's Local Well or Spring Number (e.g., MW-1, MW-2, etc.)						T. BLANK 4		T. BLANK 5		T. BLANK 6		391	
CAS RN[4]		CONSTITUENT	TD[5]	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS
11097-69-1		PCB-1254	T	ug/L	8082		*		*		*		*
11096-82-5		PCB-1260	T	ug/L	8082		*		*		*		*
11100-14-4		PCB-1268	T	ug/L	8082		*		*		*		*
12587-46-1		Gross Alpha	T	pCi/L	9310		*		*		*	0.454	*
12587-47-2		Gross Beta	T	pCi/L	9310		*		*		*	7.05	*
10043-66-0		Iodine-131	T	pCi/L	RL-7124		*		*		*		*
13982-63-3		Radium-226	T	pCi/L	RL-7129		*		*		*	0.351	*
10098-97-2		Strontium-90	T	pCi/L	RL-7140		*		*		*	-0.374	B
14133-76-7		Technetium-99	T	pCi/L	RL-7100		*		*		*	5.15	*
14269-63-7		Thorium-230	T	pCi/L	RL-7128		*		*		*	-0.00882	*
10028-17-8		Tritium	T	pCi/L	704R6		*		*		*	256	*
S0130- -		Chemical Oxygen Demand	T	mg/L	410.4		*		*		*	<25	
57-12-5		Cyanide	T	mg/L	9010		*		*		*	<0.04	
20461-54-5		Iodide	T	mg/L	345.1		*		*		*	<2	
S0268- -		Total Organic Carbon	T	mg/L	9060		*		*		*	<1	
S0586- -		Total Organic Halides	T	mg/L	9020		*		*		*	0.019	

RESIDENTIAL/INERT – QUARTERLY Finds/Unit: KY8-890-008-982 / 1

Facility: US DOE - Paducah Gaseous Diffusion Plant LAB ID:None

Permit Numbers: 073-00014 and 073-00015 For Official Use Only

GROUNDWATER
WRITTEN COMMENTS

Monitoring Point	Facility Sample ID	Constituent	Flag	Description
8000-5201 MW220	MW220SG2-13	Beryllium	X	Other specific flags and footnotes may be required to properly define the results.
		Silver	N	Sample spike recovery not within control limits.
		Acetone	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Acrylonitrile	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Benzene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Chlorobenzene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Styrene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Bromodichloromethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Tribromomethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Methyl bromide	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		trans-1,4-Dichloro-2-butene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Carbon disulfide	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Chloroethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Chloroform	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Methyl chloride	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		cis-1,2-Dichloroethene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Methylene bromide	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,1-Dichloroethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,2-Dichloroethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,2-Dibromoethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,1,2,2-Tetrachloroethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,1,1-Trichloroethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,1,2-Trichloroethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,1,1,2-Tetrachloroethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Vinyl chloride	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Tetrachloroethene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Trichloroethene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Ethylbenzene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		2-Hexanone	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Iodomethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Dibromochloromethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Carbon tetrachloride	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Dichloromethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Methyl Isobutyl Ketone	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,2-Dichloropropane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		trans-1,3-Dichloropropene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		cis-1,3-Dichloropropene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		trans-1,2-Dichloroethene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Trichlorofluoromethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.

RESIDENTIAL/INERT – QUARTERLY Finds/Unit: KY8-890-008-982 / 1

Facility: US DOE - Paducah Gaseous Diffusion Plant LAB ID:None

Permit Numbers: 073-00014 and 073-00015 For Official Use Only

GROUNDWATER
WRITTEN COMMENTS

Monitoring Point	Facility Sample ID	Constituent	Flag	Description
8000-5201 MW220	MW220SG2-13	1,2,3-Trichloropropane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,2-Dichlorobenzene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,4-Dichlorobenzene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		PCB, Total		Analysis of constituent not required and not performed.
		PCB-1016		Analysis of constituent not required and not performed.
		PCB-1221		Analysis of constituent not required and not performed.
		PCB-1232		Analysis of constituent not required and not performed.
		PCB-1242		Analysis of constituent not required and not performed.
		PCB-1248		Analysis of constituent not required and not performed.
		PCB-1254		Analysis of constituent not required and not performed.
		PCB-1260		Analysis of constituent not required and not performed.
		PCB-1268		Analysis of constituent not required and not performed.
		Gross alpha	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 1.06. Rad error is 0.964.
		Gross beta		TPU is 2.76. Rad error is 2.18.
		Iodine-131		Analysis of constituent not required and not performed.
		Radium-226	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.393. Rad error is 0.179.
		Strontium-90	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.153. Rad error is 0.104.
		Technetium-99	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 12.5. Rad error is 12.5.
		Thorium-230	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.892. Rad error is 0.0166.
		Tritium		TPU is 560. Rad error is 556.
		Total Organic Carbon	Y	MS,MSD recovery and/or RPD failed acceptance criteria.

RESIDENTIAL/INERT – QUARTERLY Finds/Unit: KY8-890-008-982 / 1

Facility: US DOE - Paducah Gaseous Diffusion Plant LAB ID:None

Permit Numbers: 073-00014 and 073-00015 For Official Use Only

GROUNDWATER
WRITTEN COMMENTS

Monitoring Point	Facility Sample ID	Constituent	Flag	Description
8000-5202 MW221	MW221SG2-13	Beryllium	X	Other specific flags and footnotes may be required to properly define the results.
		Silver	N	Sample spike recovery not within control limits.
		Acetone	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Acrylonitrile	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Benzene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Chlorobenzene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Styrene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Bromodichloromethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Tribromomethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Methyl bromide	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		trans-1,4-Dichloro-2-butene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Carbon disulfide	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Chloroethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Chloroform	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Methyl chloride	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		cis-1,2-Dichloroethene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Methylene bromide	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,1-Dichloroethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,2-Dichloroethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,2-Dibromoethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,1,2,2-Tetrachloroethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,1,1-Trichloroethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,1,2-Trichloroethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,1,1,2-Tetrachloroethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Vinyl chloride	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Tetrachloroethene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Trichloroethene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Ethylbenzene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		2-Hexanone	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Iodomethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Dibromochloromethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Carbon tetrachloride	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Dichloromethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Methyl Isobutyl Ketone	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,2-Dichloropropane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		trans-1,3-Dichloropropene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		cis-1,3-Dichloropropene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		trans-1,2-Dichloroethene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Trichlorofluoromethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.

RESIDENTIAL/INERT – QUARTERLY Finds/Unit: KY8-890-008-982 / 1

Facility: US DOE - Paducah Gaseous Diffusion Plant LAB ID:None

Permit Numbers: 073-00014 and 073-00015 For Official Use Only

GROUNDWATER
WRITTEN COMMENTS

Monitoring Point	Facility Sample ID	Constituent	Flag	Description
8000-5202	MW221 MW221SG2-13	1,2,3-Trichloropropane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,2-Dichlorobenzene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,4-Dichlorobenzene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		PCB, Total		Analysis of constituent not required and not performed.
		PCB-1016		Analysis of constituent not required and not performed.
		PCB-1221		Analysis of constituent not required and not performed.
		PCB-1232		Analysis of constituent not required and not performed.
		PCB-1242		Analysis of constituent not required and not performed.
		PCB-1248		Analysis of constituent not required and not performed.
		PCB-1254		Analysis of constituent not required and not performed.
		PCB-1260		Analysis of constituent not required and not performed.
		PCB-1268		Analysis of constituent not required and not performed.
		Gross alpha	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.381. Rad error is 0.359.
		Gross beta		TPU is 1.67. Rad error is 1.38.
		Iodine-131		Analysis of constituent not required and not performed.
		Radium-226	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.382. Rad error is 0.158.
		Strontium-90	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.258. Rad error is 0.17.
		Technetium-99	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 11.1. Rad error is 11.1.
		Thorium-230	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.892. Rad error is 0.0446.
		Tritium	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 544. Rad error is 544.

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Facility: US DOE - Paducah Gaseous Diffusion Plant LAB ID:None

Permit Numbers: 073-00014 and 073-00015 For Official Use Only

GROUNDWATER
WRITTEN COMMENTS

Monitoring Point	Facility Sample ID	Constituent	Flag	Description
8000-5242 MW222	MW222SG2-13	Beryllium	X	Other specific flags and footnotes may be required to properly define the results.
		Silver	N	Sample spike recovery not within control limits.
		Acetone	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Acrylonitrile	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Benzene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Chlorobenzene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Styrene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Bromodichloromethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Tribromomethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Methyl bromide	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		trans-1,4-Dichloro-2-butene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Carbon disulfide	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Chloroethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Chloroform	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Methyl chloride	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		cis-1,2-Dichloroethene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Methylene bromide	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,1-Dichloroethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,2-Dichloroethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,2-Dibromoethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,1,2,2-Tetrachloroethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,1,1-Trichloroethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,1,2-Trichloroethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,1,1,2-Tetrachloroethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Vinyl chloride	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Tetrachloroethene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Trichloroethene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Ethylbenzene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		2-Hexanone	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Iodomethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Dibromochloromethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Carbon tetrachloride	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Dichloromethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Methyl Isobutyl Ketone	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,2-Dichloropropane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		trans-1,3-Dichloropropene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		cis-1,3-Dichloropropene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		trans-1,2-Dichloroethene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Trichlorofluoromethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.

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Facility: US DOE - Paducah Gaseous Diffusion Plant LAB ID:None

Permit Numbers: 073-00014 and 073-00015 For Official Use Only

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WRITTEN COMMENTS

Monitoring Point	Facility Sample ID	Constituent	Flag	Description
8000-5242 MW222	MW222SG2-13	1,2,3-Trichloropropane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,2-Dichlorobenzene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,4-Dichlorobenzene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		PCB, Total		Analysis of constituent not required and not performed.
		PCB-1016		Analysis of constituent not required and not performed.
		PCB-1221		Analysis of constituent not required and not performed.
		PCB-1232		Analysis of constituent not required and not performed.
		PCB-1242		Analysis of constituent not required and not performed.
		PCB-1248		Analysis of constituent not required and not performed.
		PCB-1254		Analysis of constituent not required and not performed.
		PCB-1260		Analysis of constituent not required and not performed.
		PCB-1268		Analysis of constituent not required and not performed.
		Gross alpha	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.19. Rad error is 0.18.
		Gross beta	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.383. Rad error is 0.334.
		Iodine-131		Analysis of constituent not required and not performed.
		Radium-226	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.397. Rad error is 0.189.
		Strontium-90	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.0249. Rad error is 0.0177.
		Technetium-99	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 10.5. Rad error is 10.5.
		Thorium-230	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.892. Rad error is 0.037.
		Tritium	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 545. Rad error is 545.

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Facility: US DOE - Paducah Gaseous Diffusion Plant LAB ID:None

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WRITTEN COMMENTS

Monitoring Point	Facility Sample ID	Constituent	Flag	Description
8000-5243 MW223	MW223SG2-13	Static Water Level Elevation		Water level could not be obtained.
		Beryllium	X	Other specific flags and footnotes may be required to properly define the results.
		Silver	N	Sample spike recovery not within control limits.
		Styrene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Bromodichloromethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Tribromomethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Methyl chloride	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Methylene bromide	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,2-Dibromoethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,1,1,2-Tetrachloroethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Vinyl chloride	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Ethylbenzene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Dibromochloromethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Dichloromethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		cis-1,3-Dichloropropene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		trans-1,2-Dichloroethene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,4-Dichlorobenzene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		PCB, Total		Analysis of constituent not required and not performed.
		PCB-1016		Analysis of constituent not required and not performed.
		PCB-1221		Analysis of constituent not required and not performed.
		PCB-1232		Analysis of constituent not required and not performed.
		PCB-1242		Analysis of constituent not required and not performed.
		PCB-1248		Analysis of constituent not required and not performed.
		PCB-1254		Analysis of constituent not required and not performed.
		PCB-1260		Analysis of constituent not required and not performed.
		PCB-1268		Analysis of constituent not required and not performed.
		Gross alpha	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 1.32. Rad error is 1.2.
		Gross beta		TPU is 1.74. Rad error is 1.44.
		Iodine-131		Analysis of constituent not required and not performed.
		Radium-226	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.376. Rad error is 0.114.
		Strontium-90	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.0483. Rad error is 0.0338.
		Technetium-99	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 11.5. Rad error is 11.5.
		Thorium-230	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.892. Rad error is 0.0551.
		Tritium	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 380. Rad error is 380.

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Facility: US DOE - Paducah Gaseous Diffusion Plant LAB ID:None

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WRITTEN COMMENTS

Monitoring Point	Facility Sample ID	Constituent	Flag	Description
8000-5244 MW224	MW224SG2-13	Beryllium	X	Other specific flags and footnotes may be required to properly define the results.
		Silver	N	Sample spike recovery not within control limits.
		Acetone	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Acrylonitrile	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Benzene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Chlorobenzene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Styrene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Bromodichloromethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Tribromomethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Methyl bromide	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		trans-1,4-Dichloro-2-butene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Carbon disulfide	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Chloroethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Chloroform	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Methyl chloride	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		cis-1,2-Dichloroethene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Methylene bromide	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,1-Dichloroethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,2-Dichloroethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,2-Dibromoethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,1,2,2-Tetrachloroethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,1,1-Trichloroethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,1,2-Trichloroethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,1,1,2-Tetrachloroethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Vinyl chloride	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Tetrachloroethene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Trichloroethene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Ethylbenzene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		2-Hexanone	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Iodomethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Dibromochloromethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Carbon tetrachloride	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Dichloromethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Methyl Isobutyl Ketone	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,2-Dichloropropane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		trans-1,3-Dichloropropene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		cis-1,3-Dichloropropene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		trans-1,2-Dichloroethene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Trichlorofluoromethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.

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Facility: US DOE - Paducah Gaseous Diffusion Plant LAB ID:None

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WRITTEN COMMENTS

Monitoring Point	Facility Sample ID	Constituent	Flag	Description
8000-5244 MW224	MW224SG2-13	1,2,3-Trichloropropane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,2-Dichlorobenzene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,4-Dichlorobenzene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		PCB, Total		Analysis of constituent not required and not performed.
		PCB-1016		Analysis of constituent not required and not performed.
		PCB-1221		Analysis of constituent not required and not performed.
		PCB-1232		Analysis of constituent not required and not performed.
		PCB-1242		Analysis of constituent not required and not performed.
		PCB-1248		Analysis of constituent not required and not performed.
		PCB-1254		Analysis of constituent not required and not performed.
		PCB-1260		Analysis of constituent not required and not performed.
		PCB-1268		Analysis of constituent not required and not performed.
		Gross alpha	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.37. Rad error is 0.352.
		Gross beta	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.794. Rad error is 0.684.
		Iodine-131		Analysis of constituent not required and not performed.
		Radium-226	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.18. Rad error is 0.0474.
		Strontium-90	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.062. Rad error is 0.0433.
		Technetium-99	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 11.6. Rad error is 11.6.
		Thorium-230	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.892. Rad error is 0.0423.
		Tritium	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 541. Rad error is 540.

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Facility: US DOE - Paducah Gaseous Diffusion Plant LAB ID:None

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Monitoring Point	Facility Sample ID	Constituent	Flag	Description
8004-4820 MW369	MW369UG2-13	Vinyl acetate	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Acetone	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Acrylonitrile	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Tribromomethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,2-Dibromoethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Vinyl chloride	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Dibromochloromethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Dichloromethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		cis-1,3-Dichloropropene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		trans-1,2-Dichloroethene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Gross alpha	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.798. Rad error is 0.769.
		Gross beta		TPU is 2.4. Rad error is 2.14.
		Iodine-131		Analysis of constituent not required and not performed.
		Radium-226	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.38. Rad error is 0.154.
		Strontium-90	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.0813. Rad error is 0.0559.
		Technetium-99		TPU is 13.5. Rad error is 13.5.
		Thorium-230	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.898. Rad error is 0.0661.
		Tritium	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 559. Rad error is 559.
8004-4818 MW370	MW370UG2-13	Chloroethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Methyl chloride	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Vinyl chloride	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,2-Dibromo-3-chloropropane	X	Other specific flags and footnotes may be required to properly define the results.
		Gross alpha	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.974. Rad error is 0.939.
		Gross beta		TPU is 1.91. Rad error is 1.72.
		Iodine-131		Analysis of constituent not required and not performed.
		Radium-226	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.373. Rad error is 0.137.
		Strontium-90	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.041. Rad error is 0.0286.
		Technetium-99		TPU is 12.4. Rad error is 12.3.
		Thorium-230	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.896. Rad error is 0.0483.
		Tritium	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 548. Rad error is 548.
		Total Organic Carbon	Y	MS,MSD recovery and/or RPD failed acceptance criteria.

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Monitoring Point	Facility Sample ID	Constituent	Flag	Description
8004-4808 MW372	MW372UG2-13	Vinyl acetate	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Acetone	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Acrylonitrile	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Tribromomethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,2-Dibromoethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Vinyl chloride	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Dibromochloromethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Dichloromethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		cis-1,3-Dichloropropene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		trans-1,2-Dichloroethene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Gross alpha		TPU is 3.12. Rad error is 2.83.
		Gross beta		TPU is 9.24. Rad error is 6.79.
		Iodine-131		Analysis of constituent not required and not performed.
		Radium-226	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.398. Rad error is 0.194.
		Strontium-90	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.0448. Rad error is 0.0322.
		Technetium-99		TPU is 13.5. Rad error is 13.4.
		Thorium-230	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.897. Rad error is 0.0619.
		Tritium	UX	Indicates analyte/nuclide was analyzed for, but not detected. Other specific flags and footnotes may be required to properly define the results. TPU is 59.3. Rad error is 59.3.

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WRITTEN COMMENTS

Monitoring Point	Facility Sample ID	Constituent	Flag	Description
8004-4792 MW373	MW373UG2-13	Vinyl acetate	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Acetone	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Acrylonitrile	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Tribromomethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,2-Dibromoethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Vinyl chloride	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Dibromochloromethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Dichloromethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		cis-1,3-Dichloropropene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		trans-1,2-Dichloroethene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Gross alpha	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 1.1. Rad error is 0.972.
		Gross beta		TPU is 7.75. Rad error is 4.7.
		Iodine-131		Analysis of constituent not required and not performed.
		Radium-226	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.491. Rad error is 0.
		Strontium-90	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.00959. Rad error is 0.00682.
		Technetium-99		TPU is 16.2. Rad error is 16.1.
		Thorium-230	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.896. Rad error is 0.0487.
		Tritium	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 547. Rad error is 547.

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Facility: US DOE - Paducah Gaseous Diffusion Plant LAB ID:None

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WRITTEN COMMENTS

Monitoring Point	Facility Sample ID	Constituent	Flag	Description
8004-4809 MW384	MW384SG2-13	Beryllium	X	Other specific flags and footnotes may be required to properly define the results.
		Silver	N	Sample spike recovery not within control limits.
		Chloroethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Methyl chloride	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Vinyl chloride	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		PCB, Total		Analysis of constituent not required and not performed.
		PCB-1016		Analysis of constituent not required and not performed.
		PCB-1221		Analysis of constituent not required and not performed.
		PCB-1232		Analysis of constituent not required and not performed.
		PCB-1242		Analysis of constituent not required and not performed.
		PCB-1248		Analysis of constituent not required and not performed.
		PCB-1254		Analysis of constituent not required and not performed.
		PCB-1260		Analysis of constituent not required and not performed.
		PCB-1268		Analysis of constituent not required and not performed.
		Gross alpha	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.713. Rad error is 0.553.
		Gross beta		TPU is 21.8. Rad error is 9.78.
		Iodine-131		Analysis of constituent not required and not performed.
		Radium-226	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.181. Rad error is 0.0417.
		Strontium-90	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.0412. Rad error is 0.0289.
		Technetium-99		TPU is 24.5. Rad error is 24.
		Thorium-230	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.893. Rad error is 0.0622.
		Tritium		TPU is 566. Rad error is 561.
		Total Organic Carbon	Y	MS,MSD recovery and/or RPD failed acceptance criteria.

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Facility: US DOE - Paducah Gaseous Diffusion Plant LAB ID:None

Permit Numbers: 073-00014 and 073-00015 For Official Use Only

GROUNDWATER
WRITTEN COMMENTS

Monitoring Point	Facility Sample ID	Constituent	Flag	Description
8004-4810 MW385	MW385SG2-13	Beryllium	X	Other specific flags and footnotes may be required to properly define the results.
		Silver	N	Sample spike recovery not within control limits.
		Chloroethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Methyl chloride	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Vinyl chloride	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		PCB, Total		Analysis of constituent not required and not performed.
		PCB-1016		Analysis of constituent not required and not performed.
		PCB-1221		Analysis of constituent not required and not performed.
		PCB-1232		Analysis of constituent not required and not performed.
		PCB-1242		Analysis of constituent not required and not performed.
		PCB-1248		Analysis of constituent not required and not performed.
		PCB-1254		Analysis of constituent not required and not performed.
		PCB-1260		Analysis of constituent not required and not performed.
		PCB-1268		Analysis of constituent not required and not performed.
		Gross alpha	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.788. Rad error is 0.704.
		Gross beta		TPU is 5.13. Rad error is 3.64.
		Iodine-131		Analysis of constituent not required and not performed.
		Radium-226	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.381. Rad error is 0.155.
		Strontium-90	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.0239. Rad error is 0.017.
		Technetium-99		TPU is 19.2. Rad error is 19.
		Thorium-230	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.895. Rad error is 0.0131.
		Tritium	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 546. Rad error is 546.
		Total Organic Carbon	Y	MS,MSD recovery and/or RPD failed acceptance criteria.

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Facility: US DOE - Paducah Gaseous Diffusion Plant LAB ID:None

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Monitoring Point	Facility Sample ID	Constituent	Flag	Description
8004-4804 MW386	MW386SG2-13	Beryllium	X	Other specific flags and footnotes may be required to properly define the results.
		Silver	N	Sample spike recovery not within control limits.
		Chloroethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Methyl chloride	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Vinyl chloride	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,2-Dibromo-3-chloropropane	X	Other specific flags and footnotes may be required to properly define the results.
		PCB, Total		Analysis of constituent not required and not performed.
		PCB-1016		Analysis of constituent not required and not performed.
		PCB-1221		Analysis of constituent not required and not performed.
		PCB-1232		Analysis of constituent not required and not performed.
		PCB-1242		Analysis of constituent not required and not performed.
		PCB-1248		Analysis of constituent not required and not performed.
		PCB-1254		Analysis of constituent not required and not performed.
		PCB-1260		Analysis of constituent not required and not performed.
		PCB-1268		Analysis of constituent not required and not performed.
		Gross alpha	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 1.32. Rad error is 1.23.
		Gross beta	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.191. Rad error is 0.168.
		Iodine-131		Analysis of constituent not required and not performed.
		Radium-226	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.379. Rad error is 0.15.
		Strontium-90	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.102. Rad error is 0.0704.
		Technetium-99	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 10.7. Rad error is 10.7.
		Thorium-230	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.898. Rad error is 0.11.
		Tritium	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 531. Rad error is 531.
		Total Organic Carbon	Y	MS,MSD recovery and/or RPD failed acceptance criteria.

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Facility: US DOE - Paducah Gaseous Diffusion Plant LAB ID:None

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Monitoring Point	Facility Sample ID	Constituent	Flag	Description
8004-4815 MW387	MW387SG2-13	Beryllium	X	Other specific flags and footnotes may be required to properly define the results.
		Silver	N	Sample spike recovery not within control limits.
		Chloroethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Methyl chloride	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Vinyl chloride	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		PCB, Total		Analysis of constituent not required and not performed.
		PCB-1016		Analysis of constituent not required and not performed.
		PCB-1221		Analysis of constituent not required and not performed.
		PCB-1232		Analysis of constituent not required and not performed.
		PCB-1242		Analysis of constituent not required and not performed.
		PCB-1248		Analysis of constituent not required and not performed.
		PCB-1254		Analysis of constituent not required and not performed.
		PCB-1260		Analysis of constituent not required and not performed.
		PCB-1268		Analysis of constituent not required and not performed.
		Gross alpha	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.629. Rad error is 0.549.
		Gross beta		TPU is 11.2. Rad error is 6.45.
		Iodine-131		Analysis of constituent not required and not performed.
		Radium-226	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.407. Rad error is 0.212.
		Strontium-90	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.0762. Rad error is 0.053.
		Technetium-99		TPU is 19.3. Rad error is 19.1.
		Thorium-230	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.893. Rad error is 0.0596.
		Tritium	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 551. Rad error is 549.
		Total Organic Carbon	Y	MS,MSD recovery and/or RPD failed acceptance criteria.

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Monitoring Point	Facility Sample ID	Constituent	Flag	Description
8004-4816 MW388	MW388SG2-13	Beryllium	X	Other specific flags and footnotes may be required to properly define the results.
		Silver	N	Sample spike recovery not within control limits.
		Chloroethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Methyl chloride	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Vinyl chloride	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		PCB, Total		Analysis of constituent not required and not performed.
		PCB-1016		Analysis of constituent not required and not performed.
		PCB-1221		Analysis of constituent not required and not performed.
		PCB-1232		Analysis of constituent not required and not performed.
		PCB-1242		Analysis of constituent not required and not performed.
		PCB-1248		Analysis of constituent not required and not performed.
		PCB-1254		Analysis of constituent not required and not performed.
		PCB-1260		Analysis of constituent not required and not performed.
		PCB-1268		Analysis of constituent not required and not performed.
		Gross alpha	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.289. Rad error is 0.252.
		Gross beta		TPU is 9.13. Rad error is 5.61.
		Iodine-131		Analysis of constituent not required and not performed.
		Radium-226	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.412. Rad error is 0.221.
		Strontium-90	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.234. Rad error is 0.158.
		Technetium-99		TPU is 18. Rad error is 17.9.
		Thorium-230	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 1.26. Rad error is 0.0000000341.
		Tritium		TPU is 564. Rad error is 559.
		Total Organic Carbon	Y	MS,MSD recovery and/or RPD failed acceptance criteria.

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Monitoring Point	Facility Sample ID	Constituent	Flag	Description
8004-4812 MW389		Bromide		During sampling, the well was dry; therefore, no sample was collected.
		Chloride		During sampling, the well was dry; therefore, no sample was collected.
		Fluoride		During sampling, the well was dry; therefore, no sample was collected.
		Nitrate & Nitrite		During sampling, the well was dry; therefore, no sample was collected.
		Sulfate		During sampling, the well was dry; therefore, no sample was collected.
		Barometric Pressure Reading		During sampling, the well was dry; therefore, no sample was collected.
		Specific Conductance		During sampling, the well was dry; therefore, no sample was collected.
		Static Water Level Elevation		During sampling, the well was dry; therefore, no sample was collected.
		Dissolved Oxygen		During sampling, the well was dry; therefore, no sample was collected.
		Total Dissolved Solids		During sampling, the well was dry; therefore, no sample was collected.
		pH		During sampling, the well was dry; therefore, no sample was collected.
		Eh		During sampling, the well was dry; therefore, no sample was collected.
		Temperature		During sampling, the well was dry; therefore, no sample was collected.
		Aluminum		During sampling, the well was dry; therefore, no sample was collected.
		Antimony		During sampling, the well was dry; therefore, no sample was collected.
		Arsenic		During sampling, the well was dry; therefore, no sample was collected.
		Barium		During sampling, the well was dry; therefore, no sample was collected.
		Beryllium		During sampling, the well was dry; therefore, no sample was collected.
		Boron		During sampling, the well was dry; therefore, no sample was collected.
		Cadmium		During sampling, the well was dry; therefore, no sample was collected.
		Calcium		During sampling, the well was dry; therefore, no sample was collected.
		Chromium		During sampling, the well was dry; therefore, no sample was collected.
		Cobalt		During sampling, the well was dry; therefore, no sample was collected.
		Copper		During sampling, the well was dry; therefore, no sample was collected.
		Iron		During sampling, the well was dry; therefore, no sample was collected.
		Lead		During sampling, the well was dry; therefore, no sample was collected.

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WRITTEN COMMENTS

Monitoring Point	Facility Sample ID	Constituent	Flag	Description
8004-4812 MW389		Magnesium		During sampling, the well was dry; therefore, no sample was collected.
		Manganese		During sampling, the well was dry; therefore, no sample was collected.
		Mercury		During sampling, the well was dry; therefore, no sample was collected.
		Molybdenum		During sampling, the well was dry; therefore, no sample was collected.
		Nickel		During sampling, the well was dry; therefore, no sample was collected.
		Potassium		During sampling, the well was dry; therefore, no sample was collected.
		Rhodium		During sampling, the well was dry; therefore, no sample was collected.
		Selenium		During sampling, the well was dry; therefore, no sample was collected.
		Silver		During sampling, the well was dry; therefore, no sample was collected.
		Sodium		During sampling, the well was dry; therefore, no sample was collected.
		Tantalum		During sampling, the well was dry; therefore, no sample was collected.
		Thallium		During sampling, the well was dry; therefore, no sample was collected.
		Uranium		During sampling, the well was dry; therefore, no sample was collected.
		Vanadium		During sampling, the well was dry; therefore, no sample was collected.
		Zinc		During sampling, the well was dry; therefore, no sample was collected.
		Vinyl acetate		During sampling, the well was dry; therefore, no sample was collected.
		Acetone		During sampling, the well was dry; therefore, no sample was collected.
		Acrolein		During sampling, the well was dry; therefore, no sample was collected.
		Acrylonitrile		During sampling, the well was dry; therefore, no sample was collected.
		Benzene		During sampling, the well was dry; therefore, no sample was collected.
		Chlorobenzene		During sampling, the well was dry; therefore, no sample was collected.
		Xylenes		During sampling, the well was dry; therefore, no sample was collected.
		Styrene		During sampling, the well was dry; therefore, no sample was collected.
		Toluene		During sampling, the well was dry; therefore, no sample was collected.
		Chlorobromomethane		During sampling, the well was dry; therefore, no sample was collected.
		Bromodichloromethane		During sampling, the well was dry; therefore, no sample was collected.

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Monitoring Point	Facility Sample ID	Constituent	Flag	Description
8004-4812 MW389		Tribromomethane		During sampling, the well was dry; therefore, no sample was collected.
		Methyl bromide		During sampling, the well was dry; therefore, no sample was collected.
		Methyl Ethyl Ketone		During sampling, the well was dry; therefore, no sample was collected.
		trans-1,4-Dichloro-2-butene		During sampling, the well was dry; therefore, no sample was collected.
		Carbon disulfide		During sampling, the well was dry; therefore, no sample was collected.
		Chloroethane		During sampling, the well was dry; therefore, no sample was collected.
		Chloroform		During sampling, the well was dry; therefore, no sample was collected.
		Methyl chloride		During sampling, the well was dry; therefore, no sample was collected.
		cis-1,2-Dichloroethene		During sampling, the well was dry; therefore, no sample was collected.
		Methylene bromide		During sampling, the well was dry; therefore, no sample was collected.
		1,1-Dichloroethane		During sampling, the well was dry; therefore, no sample was collected.
		1,2-Dichloroethane		During sampling, the well was dry; therefore, no sample was collected.
		1,1-Dichloroethylene		During sampling, the well was dry; therefore, no sample was collected.
		1,2-Dibromoethane		During sampling, the well was dry; therefore, no sample was collected.
		1,1,2,2-Tetrachloroethane		During sampling, the well was dry; therefore, no sample was collected.
		1,1,1-Trichloroethane		During sampling, the well was dry; therefore, no sample was collected.
		1,1,2-Trichloroethane		During sampling, the well was dry; therefore, no sample was collected.
		1,1,1,2-Tetrachloroethane		During sampling, the well was dry; therefore, no sample was collected.
		Vinyl chloride		During sampling, the well was dry; therefore, no sample was collected.
		Tetrachloroethene		During sampling, the well was dry; therefore, no sample was collected.
		Trichloroethene		During sampling, the well was dry; therefore, no sample was collected.
		Ethylbenzene		During sampling, the well was dry; therefore, no sample was collected.
		2-Hexanone		During sampling, the well was dry; therefore, no sample was collected.
		Iodomethane		During sampling, the well was dry; therefore, no sample was collected.
		Dibromochloromethane		During sampling, the well was dry; therefore, no sample was collected.
		Carbon tetrachloride		During sampling, the well was dry; therefore, no sample was collected.

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Monitoring Point	Facility Sample ID	Constituent	Flag	Description
8004-4812 MW389		Dichloromethane		During sampling, the well was dry; therefore, no sample was collected.
		Methyl Isobutyl Ketone		During sampling, the well was dry; therefore, no sample was collected.
		1,2-Dibromo-3-chloropropane		During sampling, the well was dry; therefore, no sample was collected.
		1,2-Dichloropropane		During sampling, the well was dry; therefore, no sample was collected.
		trans-1,3-Dichloropropene		During sampling, the well was dry; therefore, no sample was collected.
		cis-1,3-Dichloropropene		During sampling, the well was dry; therefore, no sample was collected.
		trans-1,2-Dichloroethene		During sampling, the well was dry; therefore, no sample was collected.
		Trichlorofluoromethane		During sampling, the well was dry; therefore, no sample was collected.
		1,2,3-Trichloropropane		During sampling, the well was dry; therefore, no sample was collected.
		1,2-Dichlorobenzene		During sampling, the well was dry; therefore, no sample was collected.
		1,4-Dichlorobenzene		During sampling, the well was dry; therefore, no sample was collected.
		PCB, Total		During sampling, the well was dry; therefore, no sample was collected.
		PCB-1016		During sampling, the well was dry; therefore, no sample was collected.
		PCB-1221		During sampling, the well was dry; therefore, no sample was collected.
		PCB-1232		During sampling, the well was dry; therefore, no sample was collected.
		PCB-1242		During sampling, the well was dry; therefore, no sample was collected.
		PCB-1248		During sampling, the well was dry; therefore, no sample was collected.
		PCB-1254		During sampling, the well was dry; therefore, no sample was collected.
		PCB-1260		During sampling, the well was dry; therefore, no sample was collected.
		PCB-1268		During sampling, the well was dry; therefore, no sample was collected.
		Gross alpha		During sampling, the well was dry; therefore, no sample was collected.
		Gross beta		During sampling, the well was dry; therefore, no sample was collected.
		Iodine-131		During sampling, the well was dry; therefore, no sample was collected.
		Radium-226		During sampling, the well was dry; therefore, no sample was collected.
		Strontium-90		During sampling, the well was dry; therefore, no sample was collected.
		Technetium-99		During sampling, the well was dry; therefore, no sample was collected.

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Monitoring Point	Facility Sample ID	Constituent	Flag	Description
8004-4812 MW389		Thorium-230		During sampling, the well was dry; therefore, no sample was collected.
		Tritium		During sampling, the well was dry; therefore, no sample was collected.
		Chemical Oxygen Demand		During sampling, the well was dry; therefore, no sample was collected.
		Cyanide		During sampling, the well was dry; therefore, no sample was collected.
		Iodide		During sampling, the well was dry; therefore, no sample was collected.
		Total Organic Carbon		During sampling, the well was dry; therefore, no sample was collected.
		Total Organic Halides		During sampling, the well was dry; therefore, no sample was collected.

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Monitoring Point	Facility Sample ID	Constituent	Flag	Description
8004-4811 MW390		Bromide		During sampling, the well was dry; therefore, no sample was collected.
		Chloride		During sampling, the well was dry; therefore, no sample was collected.
		Fluoride		During sampling, the well was dry; therefore, no sample was collected.
		Nitrate & Nitrite		During sampling, the well was dry; therefore, no sample was collected.
		Sulfate		During sampling, the well was dry; therefore, no sample was collected.
		Barometric Pressure Reading		During sampling, the well was dry; therefore, no sample was collected.
		Specific Conductance		During sampling, the well was dry; therefore, no sample was collected.
		Static Water Level Elevation		During sampling, the well was dry; therefore, no sample was collected.
		Dissolved Oxygen		During sampling, the well was dry; therefore, no sample was collected.
		Total Dissolved Solids		During sampling, the well was dry; therefore, no sample was collected.
		pH		During sampling, the well was dry; therefore, no sample was collected.
		Eh		During sampling, the well was dry; therefore, no sample was collected.
		Temperature		During sampling, the well was dry; therefore, no sample was collected.
		Aluminum		During sampling, the well was dry; therefore, no sample was collected.
		Antimony		During sampling, the well was dry; therefore, no sample was collected.
		Arsenic		During sampling, the well was dry; therefore, no sample was collected.
		Barium		During sampling, the well was dry; therefore, no sample was collected.
		Beryllium		During sampling, the well was dry; therefore, no sample was collected.
		Boron		During sampling, the well was dry; therefore, no sample was collected.
		Cadmium		During sampling, the well was dry; therefore, no sample was collected.
		Calcium		During sampling, the well was dry; therefore, no sample was collected.
		Chromium		During sampling, the well was dry; therefore, no sample was collected.
		Cobalt		During sampling, the well was dry; therefore, no sample was collected.
		Copper		During sampling, the well was dry; therefore, no sample was collected.
		Iron		During sampling, the well was dry; therefore, no sample was collected.
		Lead		During sampling, the well was dry; therefore, no sample was collected.

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Monitoring Point	Facility Sample ID	Constituent	Flag	Description
8004-4811 MW390		Magnesium		During sampling, the well was dry; therefore, no sample was collected.
		Manganese		During sampling, the well was dry; therefore, no sample was collected.
		Mercury		During sampling, the well was dry; therefore, no sample was collected.
		Molybdenum		During sampling, the well was dry; therefore, no sample was collected.
		Nickel		During sampling, the well was dry; therefore, no sample was collected.
		Potassium		During sampling, the well was dry; therefore, no sample was collected.
		Rhodium		During sampling, the well was dry; therefore, no sample was collected.
		Selenium		During sampling, the well was dry; therefore, no sample was collected.
		Silver		During sampling, the well was dry; therefore, no sample was collected.
		Sodium		During sampling, the well was dry; therefore, no sample was collected.
		Tantalum		During sampling, the well was dry; therefore, no sample was collected.
		Thallium		During sampling, the well was dry; therefore, no sample was collected.
		Uranium		During sampling, the well was dry; therefore, no sample was collected.
		Vanadium		During sampling, the well was dry; therefore, no sample was collected.
		Zinc		During sampling, the well was dry; therefore, no sample was collected.
		Vinyl acetate		During sampling, the well was dry; therefore, no sample was collected.
		Acetone		During sampling, the well was dry; therefore, no sample was collected.
		Acrolein		During sampling, the well was dry; therefore, no sample was collected.
		Acrylonitrile		During sampling, the well was dry; therefore, no sample was collected.
		Benzene		During sampling, the well was dry; therefore, no sample was collected.
		Chlorobenzene		During sampling, the well was dry; therefore, no sample was collected.
		Xylenes		During sampling, the well was dry; therefore, no sample was collected.
		Styrene		During sampling, the well was dry; therefore, no sample was collected.
		Toluene		During sampling, the well was dry; therefore, no sample was collected.
		Chlorobromomethane		During sampling, the well was dry; therefore, no sample was collected.
		Bromodichloromethane		During sampling, the well was dry; therefore, no sample was collected.

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Facility: US DOE - Paducah Gaseous Diffusion Plant LAB ID:None

Permit Numbers: 073-00014 and 073-00015 For Official Use Only

GROUNDWATER
WRITTEN COMMENTS

Monitoring Point	Facility Sample ID	Constituent	Flag	Description
8004-4811 MW390		Tribromomethane		During sampling, the well was dry; therefore, no sample was collected.
		Methyl bromide		During sampling, the well was dry; therefore, no sample was collected.
		Methyl Ethyl Ketone		During sampling, the well was dry; therefore, no sample was collected.
		trans-1,4-Dichloro-2-butene		During sampling, the well was dry; therefore, no sample was collected.
		Carbon disulfide		During sampling, the well was dry; therefore, no sample was collected.
		Chloroethane		During sampling, the well was dry; therefore, no sample was collected.
		Chloroform		During sampling, the well was dry; therefore, no sample was collected.
		Methyl chloride		During sampling, the well was dry; therefore, no sample was collected.
		cis-1,2-Dichloroethene		During sampling, the well was dry; therefore, no sample was collected.
		Methylene bromide		During sampling, the well was dry; therefore, no sample was collected.
		1,1-Dichloroethane		During sampling, the well was dry; therefore, no sample was collected.
		1,2-Dichloroethane		During sampling, the well was dry; therefore, no sample was collected.
		1,1-Dichloroethylene		During sampling, the well was dry; therefore, no sample was collected.
		1,2-Dibromoethane		During sampling, the well was dry; therefore, no sample was collected.
		1,1,2,2-Tetrachloroethane		During sampling, the well was dry; therefore, no sample was collected.
		1,1,1-Trichloroethane		During sampling, the well was dry; therefore, no sample was collected.
		1,1,2-Trichloroethane		During sampling, the well was dry; therefore, no sample was collected.
		1,1,1,2-Tetrachloroethane		During sampling, the well was dry; therefore, no sample was collected.
		Vinyl chloride		During sampling, the well was dry; therefore, no sample was collected.
		Tetrachloroethene		During sampling, the well was dry; therefore, no sample was collected.
		Trichloroethene		During sampling, the well was dry; therefore, no sample was collected.
		Ethylbenzene		During sampling, the well was dry; therefore, no sample was collected.
		2-Hexanone		During sampling, the well was dry; therefore, no sample was collected.
		Iodomethane		During sampling, the well was dry; therefore, no sample was collected.
		Dibromochloromethane		During sampling, the well was dry; therefore, no sample was collected.
		Carbon tetrachloride		During sampling, the well was dry; therefore, no sample was collected.

RESIDENTIAL/INERT – QUARTERLY Finds/Unit: KY8-890-008-982 / 1

Facility: US DOE - Paducah Gaseous Diffusion Plant LAB ID:None

Permit Numbers: 073-00014 and 073-00015 For Official Use Only

GROUNDWATER
WRITTEN COMMENTS

Monitoring Point	Facility Sample ID	Constituent	Flag	Description
8004-4811 MW390		Dichloromethane		During sampling, the well was dry; therefore, no sample was collected.
		Methyl Isobutyl Ketone		During sampling, the well was dry; therefore, no sample was collected.
		1,2-Dibromo-3-chloropropane		During sampling, the well was dry; therefore, no sample was collected.
		1,2-Dichloropropane		During sampling, the well was dry; therefore, no sample was collected.
		trans-1,3-Dichloropropene		During sampling, the well was dry; therefore, no sample was collected.
		cis-1,3-Dichloropropene		During sampling, the well was dry; therefore, no sample was collected.
		trans-1,2-Dichloroethene		During sampling, the well was dry; therefore, no sample was collected.
		Trichlorofluoromethane		During sampling, the well was dry; therefore, no sample was collected.
		1,2,3-Trichloropropane		During sampling, the well was dry; therefore, no sample was collected.
		1,2-Dichlorobenzene		During sampling, the well was dry; therefore, no sample was collected.
		1,4-Dichlorobenzene		During sampling, the well was dry; therefore, no sample was collected.
		PCB, Total		During sampling, the well was dry; therefore, no sample was collected.
		PCB-1016		During sampling, the well was dry; therefore, no sample was collected.
		PCB-1221		During sampling, the well was dry; therefore, no sample was collected.
		PCB-1232		During sampling, the well was dry; therefore, no sample was collected.
		PCB-1242		During sampling, the well was dry; therefore, no sample was collected.
		PCB-1248		During sampling, the well was dry; therefore, no sample was collected.
		PCB-1254		During sampling, the well was dry; therefore, no sample was collected.
		PCB-1260		During sampling, the well was dry; therefore, no sample was collected.
		PCB-1268		During sampling, the well was dry; therefore, no sample was collected.
		Gross alpha		During sampling, the well was dry; therefore, no sample was collected.
		Gross beta		During sampling, the well was dry; therefore, no sample was collected.
		Iodine-131		During sampling, the well was dry; therefore, no sample was collected.
		Radium-226		During sampling, the well was dry; therefore, no sample was collected.
		Strontium-90		During sampling, the well was dry; therefore, no sample was collected.
		Technetium-99		During sampling, the well was dry; therefore, no sample was collected.

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Facility: US DOE - Paducah Gaseous Diffusion Plant LAB ID:None

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Monitoring Point	Facility Sample ID	Constituent	Flag	Description
8004-4811 MW390		Thorium-230		During sampling, the well was dry; therefore, no sample was collected.
		Tritium		During sampling, the well was dry; therefore, no sample was collected.
		Chemical Oxygen Demand		During sampling, the well was dry; therefore, no sample was collected.
		Cyanide		During sampling, the well was dry; therefore, no sample was collected.
		Iodide		During sampling, the well was dry; therefore, no sample was collected.
		Total Organic Carbon		During sampling, the well was dry; therefore, no sample was collected.
		Total Organic Halides		During sampling, the well was dry; therefore, no sample was collected.

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Facility: US DOE - Paducah Gaseous Diffusion Plant LAB ID:None

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WRITTEN COMMENTS

Monitoring Point	Facility Sample ID	Constituent	Flag	Description
8004-4805 MW391	MW391SG2-13	Beryllium	X	Other specific flags and footnotes may be required to properly define the results.
		Silver	N	Sample spike recovery not within control limits.
		Acetone	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Acrylonitrile	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Benzene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Chlorobenzene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Styrene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Bromodichloromethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Tribromomethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Methyl bromide	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		trans-1,4-Dichloro-2-butene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Carbon disulfide	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Chloroethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Chloroform	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Methyl chloride	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		cis-1,2-Dichloroethene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Methylene bromide	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,1-Dichloroethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,2-Dichloroethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,2-Dibromoethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,1,2,2-Tetrachloroethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,1,1-Trichloroethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,1,2-Trichloroethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,1,1,2-Tetrachloroethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Vinyl chloride	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Tetrachloroethene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Trichloroethene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Ethylbenzene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		2-Hexanone	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Iodomethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Dibromochloromethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Carbon tetrachloride	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Dichloromethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Methyl Isobutyl Ketone	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,2-Dichloropropane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		trans-1,3-Dichloropropene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		cis-1,3-Dichloropropene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		trans-1,2-Dichloroethene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Trichlorofluoromethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.

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WRITTEN COMMENTS

Monitoring Point	Facility Sample ID	Constituent	Flag	Description
8004-4805 MW391	MW391SG2-13	1,2,3-Trichloropropane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,2-Dichlorobenzene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,4-Dichlorobenzene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		PCB, Total		Analysis of constituent not required and not performed.
		PCB-1016		Analysis of constituent not required and not performed.
		PCB-1221		Analysis of constituent not required and not performed.
		PCB-1232		Analysis of constituent not required and not performed.
		PCB-1242		Analysis of constituent not required and not performed.
		PCB-1248		Analysis of constituent not required and not performed.
		PCB-1254		Analysis of constituent not required and not performed.
		PCB-1260		Analysis of constituent not required and not performed.
		PCB-1268		Analysis of constituent not required and not performed.
		Gross alpha	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.292. Rad error is 0.277.
		Gross beta	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.666. Rad error is 0.575.
		Iodine-131		Analysis of constituent not required and not performed.
		Radium-226	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.391. Rad error is 0.177.
		Strontium-90	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.222. Rad error is 0.149.
		Technetium-99	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 11.9. Rad error is 11.9.
		Thorium-230	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.895. Rad error is 0.0837.
		Tritium	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 550. Rad error is 549.

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WRITTEN COMMENTS

Monitoring Point	Facility Sample ID	Constituent	Flag	Description
8004-4806 MW392	MW392SG2-13	Beryllium	X	Other specific flags and footnotes may be required to properly define the results.
		Silver	N	Sample spike recovery not within control limits.
		Acetone	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Acrylonitrile	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Benzene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Chlorobenzene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Styrene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Bromodichloromethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Tribromomethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Methyl bromide	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		trans-1,4-Dichloro-2-butene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Carbon disulfide	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Chloroethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Chloroform	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Methyl chloride	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		cis-1,2-Dichloroethene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Methylene bromide	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,1-Dichloroethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,2-Dichloroethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,2-Dibromoethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,1,2,2-Tetrachloroethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,1,1-Trichloroethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,1,2-Trichloroethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,1,1,2-Tetrachloroethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Vinyl chloride	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Tetrachloroethene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Trichloroethene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Ethylbenzene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		2-Hexanone	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Iodomethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Dibromochloromethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Carbon tetrachloride	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Dichloromethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Methyl Isobutyl Ketone	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,2-Dichloropropane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		trans-1,3-Dichloropropene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		cis-1,3-Dichloropropene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		trans-1,2-Dichloroethene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Trichlorofluoromethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.

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Facility: US DOE - Paducah Gaseous Diffusion Plant LAB ID:None

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WRITTEN COMMENTS

Monitoring Point	Facility Sample ID	Constituent	Flag	Description
8004-4806 MW392	MW392SG2-13	1,2,3-Trichloropropane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,2-Dichlorobenzene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,4-Dichlorobenzene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		PCB, Total		Analysis of constituent not required and not performed.
		PCB-1016		Analysis of constituent not required and not performed.
		PCB-1221		Analysis of constituent not required and not performed.
		PCB-1232		Analysis of constituent not required and not performed.
		PCB-1242		Analysis of constituent not required and not performed.
		PCB-1248		Analysis of constituent not required and not performed.
		PCB-1254		Analysis of constituent not required and not performed.
		PCB-1260		Analysis of constituent not required and not performed.
		PCB-1268		Analysis of constituent not required and not performed.
		Gross alpha	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.381. Rad error is 0.347.
		Gross beta	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.593. Rad error is 0.466.
		Iodine-131		Analysis of constituent not required and not performed.
		Radium-226	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.387. Rad error is 0.171.
		Strontium-90	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.00111. Rad error is 0.000784.
		Technetium-99		TPU is 12.8. Rad error is 12.8.
		Thorium-230	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.893. Rad error is 0.0705.
		Tritium	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 555. Rad error is 552.

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WRITTEN COMMENTS

Monitoring Point	Facility Sample ID	Constituent	Flag	Description
8004-4807 MW393	MW393SG2-13	Beryllium	X	Other specific flags and footnotes may be required to properly define the results.
		Silver	N	Sample spike recovery not within control limits.
		Acetone	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Acrylonitrile	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Benzene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Chlorobenzene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Styrene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Bromodichloromethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Tribromomethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Methyl bromide	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		trans-1,4-Dichloro-2-butene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Carbon disulfide	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Chloroethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Chloroform	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Methyl chloride	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		cis-1,2-Dichloroethene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Methylene bromide	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,1-Dichloroethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,2-Dichloroethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,2-Dibromoethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,1,2,2-Tetrachloroethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,1,1-Trichloroethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,1,2-Trichloroethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,1,1,2-Tetrachloroethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Vinyl chloride	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Tetrachloroethene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Trichloroethene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Ethylbenzene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		2-Hexanone	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Iodomethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Dibromochloromethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Carbon tetrachloride	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Dichloromethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Methyl Isobutyl Ketone	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,2-Dichloropropane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		trans-1,3-Dichloropropene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		cis-1,3-Dichloropropene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		trans-1,2-Dichloroethene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Trichlorofluoromethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.

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Monitoring Point	Facility Sample ID	Constituent	Flag	Description
8004-4807 MW393	MW393SG2-13	1,2,3-Trichloropropane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,2-Dichlorobenzene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,4-Dichlorobenzene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		PCB, Total		Analysis of constituent not required and not performed.
		PCB-1016		Analysis of constituent not required and not performed.
		PCB-1221		Analysis of constituent not required and not performed.
		PCB-1232		Analysis of constituent not required and not performed.
		PCB-1242		Analysis of constituent not required and not performed.
		PCB-1248		Analysis of constituent not required and not performed.
		PCB-1254		Analysis of constituent not required and not performed.
		PCB-1260		Analysis of constituent not required and not performed.
		PCB-1268		Analysis of constituent not required and not performed.
		Gross alpha	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.471. Rad error is 0.443.
		Gross beta	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.275. Rad error is 0.241.
		Iodine-131		Analysis of constituent not required and not performed.
		Radium-226	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.368. Rad error is 0.12.
		Strontium-90	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.139. Rad error is 0.0955.
		Technetium-99	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 10.2. Rad error is 10.2.
		Thorium-230	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.892. Rad error is 0.0504.
		Tritium		TPU is 559. Rad error is 556.

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WRITTEN COMMENTS

Monitoring Point	Facility Sample ID	Constituent	Flag	Description
8004-4802 MW394	MW394SG2-13	Beryllium	X	Other specific flags and footnotes may be required to properly define the results.
		Silver	N	Sample spike recovery not within control limits.
		Chloroethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Methyl chloride	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Vinyl chloride	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		PCB, Total		Analysis of constituent not required and not performed.
		PCB-1016		Analysis of constituent not required and not performed.
		PCB-1221		Analysis of constituent not required and not performed.
		PCB-1232		Analysis of constituent not required and not performed.
		PCB-1242		Analysis of constituent not required and not performed.
		PCB-1248		Analysis of constituent not required and not performed.
		PCB-1254		Analysis of constituent not required and not performed.
		PCB-1260		Analysis of constituent not required and not performed.
		PCB-1268		Analysis of constituent not required and not performed.
		Gross alpha	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.254. Rad error is 0.241.
		Gross beta	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.556. Rad error is 0.483.
		Iodine-131		Analysis of constituent not required and not performed.
		Radium-226	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.394. Rad error is 0.181.
		Strontium-90	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.0231. Rad error is 0.0162.
		Technetium-99	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 11.3. Rad error is 11.3.
		Thorium-230	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.892. Rad error is 0.0513.
		Tritium	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 544. Rad error is 544.
		Total Organic Carbon	Y	MS,MSD recovery and/or RPD failed acceptance criteria.

RESIDENTIAL/INERT – QUARTERLY Finds/Unit: KY8-890-008-982 / 1

Facility: US DOE - Paducah Gaseous Diffusion Plant LAB ID:None

Permit Numbers: 073-00014 and 073-00015 For Official Use Only

GROUNDWATER
WRITTEN COMMENTS

Monitoring Point	Facility Sample ID	Constituent	Flag	Description
8004-4801 MW395	MW395SG2-13	Beryllium	X	Other specific flags and footnotes may be required to properly define the results.
		Silver	N	Sample spike recovery not within control limits.
		Acetone	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Acrylonitrile	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Benzene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Chlorobenzene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Styrene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Bromodichloromethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Tribromomethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Methyl bromide	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		trans-1,4-Dichloro-2-butene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Carbon disulfide	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Chloroethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Chloroform	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Methyl chloride	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		cis-1,2-Dichloroethene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Methylene bromide	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,1-Dichloroethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,2-Dichloroethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,2-Dibromoethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,1,2,2-Tetrachloroethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,1,1-Trichloroethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,1,2-Trichloroethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,1,1,2-Tetrachloroethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Vinyl chloride	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Tetrachloroethene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Trichloroethene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Ethylbenzene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		2-Hexanone	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Iodomethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Dibromochloromethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Carbon tetrachloride	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Dichloromethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Methyl Isobutyl Ketone	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,2-Dichloropropane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		trans-1,3-Dichloropropene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		cis-1,3-Dichloropropene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		trans-1,2-Dichloroethene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Trichlorofluoromethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.

RESIDENTIAL/INERT – QUARTERLY Finds/Unit: KY8-890-008-982 / 1

Facility: US DOE - Paducah Gaseous Diffusion Plant LAB ID:None

Permit Numbers: 073-00014 and 073-00015 For Official Use Only

GROUNDWATER
WRITTEN COMMENTS

Monitoring Point	Facility Sample ID	Constituent	Flag	Description
8004-4801 MW395	MW395SG2-13	1,2,3-Trichloropropane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,2-Dichlorobenzene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,4-Dichlorobenzene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		PCB, Total		Analysis of constituent not required and not performed.
		PCB-1016		Analysis of constituent not required and not performed.
		PCB-1221		Analysis of constituent not required and not performed.
		PCB-1232		Analysis of constituent not required and not performed.
		PCB-1242		Analysis of constituent not required and not performed.
		PCB-1248		Analysis of constituent not required and not performed.
		PCB-1254		Analysis of constituent not required and not performed.
		PCB-1260		Analysis of constituent not required and not performed.
		PCB-1268		Analysis of constituent not required and not performed.
		Gross alpha	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.548. Rad error is 0.52.
		Gross beta		TPU is 1.37. Rad error is 1.14.
		Iodine-131		Analysis of constituent not required and not performed.
		Radium-226	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.397. Rad error is 0.187.
		Strontium-90	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.282. Rad error is 0.186.
		Technetium-99	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 10.8. Rad error is 10.8.
		Thorium-230	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.897. Rad error is 0.106.
		Tritium		TPU is 561. Rad error is 557.

RESIDENTIAL/INERT – QUARTERLY Finds/Unit: KY8-890-008-982 / 1

Facility: US DOE - Paducah Gaseous Diffusion Plant LAB ID:None

Permit Numbers: 073-00014 and 073-00015 For Official Use Only

GROUNDWATER
WRITTEN COMMENTS

Monitoring Point	Facility Sample ID	Constituent	Flag	Description
8004-4803 MW396	MW396SG2-13	Beryllium	X	Other specific flags and footnotes may be required to properly define the results.
		Silver	N	Sample spike recovery not within control limits.
		Acetone	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Acrylonitrile	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Benzene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Chlorobenzene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Styrene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Bromodichloromethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Tribromomethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Methyl bromide	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		trans-1,4-Dichloro-2-butene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Carbon disulfide	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Chloroethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Chloroform	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Methyl chloride	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		cis-1,2-Dichloroethene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Methylene bromide	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,1-Dichloroethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,2-Dichloroethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,2-Dibromoethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,1,2,2-Tetrachloroethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,1,1-Trichloroethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,1,2-Trichloroethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,1,1,2-Tetrachloroethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Vinyl chloride	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Tetrachloroethene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Trichloroethene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Ethylbenzene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		2-Hexanone	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Iodomethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Dibromochloromethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Carbon tetrachloride	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Dichloromethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Methyl Isobutyl Ketone	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,2-Dichloropropane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		trans-1,3-Dichloropropene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		cis-1,3-Dichloropropene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		trans-1,2-Dichloroethene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Trichlorofluoromethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.

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Facility: US DOE - Paducah Gaseous Diffusion Plant LAB ID:None

Permit Numbers: 073-00014 and 073-00015 For Official Use Only

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WRITTEN COMMENTS

Monitoring Point	Facility Sample ID	Constituent	Flag	Description
8004-4803 MW396	MW396SG2-13	1,2,3-Trichloropropane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,2-Dichlorobenzene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,4-Dichlorobenzene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		PCB, Total		Analysis of constituent not required and not performed.
		PCB-1016		Analysis of constituent not required and not performed.
		PCB-1221		Analysis of constituent not required and not performed.
		PCB-1232		Analysis of constituent not required and not performed.
		PCB-1242		Analysis of constituent not required and not performed.
		PCB-1248		Analysis of constituent not required and not performed.
		PCB-1254		Analysis of constituent not required and not performed.
		PCB-1260		Analysis of constituent not required and not performed.
		PCB-1268		Analysis of constituent not required and not performed.
		Gross alpha	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.742. Rad error is 0.709.
		Gross beta	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.295. Rad error is 0.259.
		Iodine-131		Analysis of constituent not required and not performed.
		Radium-226	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.385. Rad error is 0.165.
		Strontium-90	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.0981. Rad error is 0.0713.
		Technetium-99	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 11.5. Rad error is 11.5.
		Thorium-230	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.894. Rad error is 0.0333.
		Tritium	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 547. Rad error is 546.
		Total Organic Carbon	Y	MS,MSD recovery and/or RPD failed acceptance criteria.

RESIDENTIAL/INERT – QUARTERLY Finds/Unit: KY8-890-008-982 / 1

Facility: US DOE - Paducah Gaseous Diffusion Plant LAB ID:None

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WRITTEN COMMENTS

Monitoring Point	Facility Sample ID	Constituent	Flag	Description
8004-4817 MW397	MW397SG2-13	Beryllium	X	Other specific flags and footnotes may be required to properly define the results.
		Silver	N	Sample spike recovery not within control limits.
		Acetone	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Acrylonitrile	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Benzene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Chlorobenzene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Styrene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Bromodichloromethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Tribromomethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Methyl bromide	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		trans-1,4-Dichloro-2-butene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Carbon disulfide	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Chloroethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Chloroform	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Methyl chloride	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		cis-1,2-Dichloroethene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Methylene bromide	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,1-Dichloroethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,2-Dichloroethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,2-Dibromoethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,1,2,2-Tetrachloroethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,1,1-Trichloroethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,1,2-Trichloroethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,1,1,2-Tetrachloroethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Vinyl chloride	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Tetrachloroethene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Trichloroethene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Ethylbenzene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		2-Hexanone	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Iodomethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Dibromochloromethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Carbon tetrachloride	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Dichloromethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Methyl Isobutyl Ketone	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,2-Dichloropropane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		trans-1,3-Dichloropropene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		cis-1,3-Dichloropropene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		trans-1,2-Dichloroethene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Trichlorofluoromethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.

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Facility: US DOE - Paducah Gaseous Diffusion Plant LAB ID:None

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WRITTEN COMMENTS

Monitoring Point	Facility Sample ID	Constituent	Flag	Description
8004-4817 MW397	MW397SG2-13	1,2,3-Trichloropropane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,2-Dichlorobenzene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,4-Dichlorobenzene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		PCB, Total		Analysis of constituent not required and not performed.
		PCB-1016		Analysis of constituent not required and not performed.
		PCB-1221		Analysis of constituent not required and not performed.
		PCB-1232		Analysis of constituent not required and not performed.
		PCB-1242		Analysis of constituent not required and not performed.
		PCB-1248		Analysis of constituent not required and not performed.
		PCB-1254		Analysis of constituent not required and not performed.
		PCB-1260		Analysis of constituent not required and not performed.
		PCB-1268		Analysis of constituent not required and not performed.
		Gross alpha	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.0709. Rad error is 0.066.
		Gross beta		TPU is 2.51. Rad error is 2.
		Iodine-131		Analysis of constituent not required and not performed.
		Radium-226	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.384. Rad error is 0.159.
		Strontium-90	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.174. Rad error is 0.128.
		Technetium-99	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 11.8. Rad error is 11.8.
		Thorium-230	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.892. Rad error is 0.0503.
		Tritium	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 552. Rad error is 551.
		Total Organic Carbon	Y	MS,MSD recovery and/or RPD failed acceptance criteria.

RESIDENTIAL/INERT – QUARTERLY Finds/Unit: KY8-890-008-982 / 1

Facility: US DOE - Paducah Gaseous Diffusion Plant LAB ID:None

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WRITTEN COMMENTS

Monitoring Point	Facility Sample ID	Constituent	Flag	Description
0000-0000 QC	RI1SG2-13	Bromide		Analysis of constituent not required and not performed.
		Chloride		Analysis of constituent not required and not performed.
		Fluoride		Analysis of constituent not required and not performed.
		Nitrate & Nitrite		Analysis of constituent not required and not performed.
		Sulfate		Analysis of constituent not required and not performed.
		Barometric Pressure Reading		Analysis of constituent not required and not performed.
		Specific Conductance		Analysis of constituent not required and not performed.
		Static Water Level Elevation		Analysis of constituent not required and not performed.
		Dissolved Oxygen		Analysis of constituent not required and not performed.
		Total Dissolved Solids		Analysis of constituent not required and not performed.
		pH		Analysis of constituent not required and not performed.
		Eh		Analysis of constituent not required and not performed.
		Temperature		Analysis of constituent not required and not performed.
		Beryllium	X	Other specific flags and footnotes may be required to properly define the results.
		Silver	N	Sample spike recovery not within control limits.
		Acetone	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Acrylonitrile	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Benzene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Chlorobenzene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Styrene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Bromodichloromethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Tribromomethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Methyl bromide	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		trans-1,4-Dichloro-2-butene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Carbon disulfide	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Chloroethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Chloroform	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Methyl chloride	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		cis-1,2-Dichloroethene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Methylene bromide	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,1-Dichloroethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,2-Dichloroethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,2-Dibromoethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,1,2,2-Tetrachloroethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,1,1-Trichloroethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,1,2-Trichloroethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,1,1,2-Tetrachloroethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Vinyl chloride	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Tetrachloroethene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.

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Facility: US DOE - Paducah Gaseous Diffusion Plant LAB ID:None

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WRITTEN COMMENTS

Monitoring Point	Facility Sample ID	Constituent	Flag	Description
0000-0000 QC	RI1SG2-13	Trichloroethene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Ethylbenzene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		2-Hexanone	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Iodomethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Dibromochloromethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Carbon tetrachloride	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Dichloromethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Methyl Isobutyl Ketone	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,2-Dichloropropane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		trans-1,3-Dichloropropene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		cis-1,3-Dichloropropene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		trans-1,2-Dichloroethene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Trichlorofluoromethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,2,3-Trichloropropane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,2-Dichlorobenzene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,4-Dichlorobenzene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		PCB, Total		Analysis of constituent not required and not performed.
		PCB-1016		Analysis of constituent not required and not performed.
		PCB-1221		Analysis of constituent not required and not performed.
		PCB-1232		Analysis of constituent not required and not performed.
		PCB-1242		Analysis of constituent not required and not performed.
		PCB-1248		Analysis of constituent not required and not performed.
		PCB-1254		Analysis of constituent not required and not performed.
		PCB-1260		Analysis of constituent not required and not performed.
		PCB-1268		Analysis of constituent not required and not performed.
		Gross alpha	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.48. Rad error is 0.446.
		Gross beta	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.0116. Rad error is 0.0103.
		Iodine-131		Analysis of constituent not required and not performed.
		Radium-226	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.354. Rad error is 0.061.
		Strontium-90	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.123. Rad error is 0.0842.
		Technetium-99	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 10.4. Rad error is 10.4.
		Thorium-230	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.893. Rad error is 0.0608.
		Tritium	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 541. Rad error is 540.
		Chemical Oxygen Demand		Analysis of constituent not required and not performed.
		Cyanide		Analysis of constituent not required and not performed.
		Total Organic Carbon		Analysis of constituent not required and not performed.

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Facility: US DOE - Paducah Gaseous Diffusion Plant LAB ID:None

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WRITTEN COMMENTS

Monitoring Point	Facility Sample ID	Constituent	Flag	Description
0000-0000 QC	RI1SG2-13	Total Organic Halides		Analysis of constituent not required and not performed.

RESIDENTIAL/INERT – QUARTERLY Finds/Unit: KY8-890-008-982 / 1

Facility: US DOE - Paducah Gaseous Diffusion Plant LAB ID:None

Permit Numbers: 073-00014 and 073-00015 For Official Use Only

GROUNDWATER
WRITTEN COMMENTS

Monitoring Point	Facility Sample ID	Constituent	Flag	Description
0000-0000 QC	FB1SG2-13	Bromide		Analysis of constituent not required and not performed.
		Chloride		Analysis of constituent not required and not performed.
		Fluoride		Analysis of constituent not required and not performed.
		Nitrate & Nitrite		Analysis of constituent not required and not performed.
		Sulfate		Analysis of constituent not required and not performed.
		Barometric Pressure Reading		Analysis of constituent not required and not performed.
		Specific Conductance		Analysis of constituent not required and not performed.
		Static Water Level Elevation		Analysis of constituent not required and not performed.
		Dissolved Oxygen		Analysis of constituent not required and not performed.
		Total Dissolved Solids		Analysis of constituent not required and not performed.
		pH		Analysis of constituent not required and not performed.
		Eh		Analysis of constituent not required and not performed.
		Temperature		Analysis of constituent not required and not performed.
		Beryllium	X	Other specific flags and footnotes may be required to properly define the results.
		Silver	N	Sample spike recovery not within control limits.
		Acetone	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Acrylonitrile	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Benzene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Chlorobenzene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Styrene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Bromodichloromethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Tribromomethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Methyl bromide	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		trans-1,4-Dichloro-2-butene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Carbon disulfide	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Chloroethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Chloroform	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Methyl chloride	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		cis-1,2-Dichloroethene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Methylene bromide	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,1-Dichloroethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,2-Dichloroethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,2-Dibromoethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,1,2,2-Tetrachloroethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,1,1-Trichloroethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,1,2-Trichloroethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,1,1,2-Tetrachloroethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Vinyl chloride	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Tetrachloroethene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.

RESIDENTIAL/INERT – QUARTERLY Finds/Unit: KY8-890-008-982 / 1

Facility: US DOE - Paducah Gaseous Diffusion Plant LAB ID:None

Permit Numbers: 073-00014 and 073-00015 For Official Use Only

GROUNDWATER
WRITTEN COMMENTS

Monitoring Point	Facility Sample ID	Constituent	Flag	Description
0000-0000 QC	FB1SG2-13	Trichloroethene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Ethylbenzene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		2-Hexanone	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Iodomethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Dibromochloromethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Carbon tetrachloride	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Dichloromethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Methyl Isobutyl Ketone	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,2-Dichloropropane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		trans-1,3-Dichloropropene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		cis-1,3-Dichloropropene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		trans-1,2-Dichloroethene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Trichlorofluoromethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,2,3-Trichloropropane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,2-Dichlorobenzene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,4-Dichlorobenzene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		PCB, Total		Analysis of constituent not required and not performed.
		PCB-1016		Analysis of constituent not required and not performed.
		PCB-1221		Analysis of constituent not required and not performed.
		PCB-1232		Analysis of constituent not required and not performed.
		PCB-1242		Analysis of constituent not required and not performed.
		PCB-1248		Analysis of constituent not required and not performed.
		PCB-1254		Analysis of constituent not required and not performed.
		PCB-1260		Analysis of constituent not required and not performed.
		PCB-1268		Analysis of constituent not required and not performed.
		Gross alpha	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.395. Rad error is 0.38.
		Gross beta	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.0698. Rad error is 0.0617.
		Iodine-131		Analysis of constituent not required and not performed.
		Radium-226	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.363. Rad error is 0.104.
		Strontium-90	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.0136. Rad error is 0.00965.
		Technetium-99	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 12.4. Rad error is 12.4.
		Thorium-230	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.894. Rad error is 0.0249.
		Tritium	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 556. Rad error is 556.
		Chemical Oxygen Demand		Analysis of constituent not required and not performed.
		Cyanide		Analysis of constituent not required and not performed.
		Total Organic Carbon		Analysis of constituent not required and not performed.

RESIDENTIAL/INERT – QUARTERLY Finds/Unit: KY8-890-008-982 / 1

Facility: US DOE - Paducah Gaseous Diffusion Plant LAB ID:None

Permit Numbers: 073-00014 and 073-00015 For Official Use Only

GROUNDWATER
WRITTEN COMMENTS

Monitoring Point	Facility Sample ID	Constituent	Flag	Description
0000-0000 QC	FB1SG2-13	Total Organic Halides		Analysis of constituent not required and not performed.

RESIDENTIAL/INERT – QUARTERLY Finds/Unit: KY8-890-008-982 / 1

Facility: US DOE - Paducah Gaseous Diffusion Plant LAB ID:None

Permit Numbers: 073-00014 and 073-00015 For Official Use Only

GROUNDWATER
WRITTEN COMMENTS

Monitoring Point	Facility Sample ID	Constituent	Flag	Description
0000-0000 QC	TB1SG2-13	Bromide		Analysis of constituent not required and not performed.
		Chloride		Analysis of constituent not required and not performed.
		Fluoride		Analysis of constituent not required and not performed.
		Nitrate & Nitrite		Analysis of constituent not required and not performed.
		Sulfate		Analysis of constituent not required and not performed.
		Barometric Pressure Reading		Analysis of constituent not required and not performed.
		Specific Conductance		Analysis of constituent not required and not performed.
		Static Water Level Elevation		Analysis of constituent not required and not performed.
		Dissolved Oxygen		Analysis of constituent not required and not performed.
		Total Dissolved Solids		Analysis of constituent not required and not performed.
		pH		Analysis of constituent not required and not performed.
		Eh		Analysis of constituent not required and not performed.
		Temperature		Analysis of constituent not required and not performed.
		Aluminum		Analysis of constituent not required and not performed.
		Antimony		Analysis of constituent not required and not performed.
		Arsenic		Analysis of constituent not required and not performed.
		Barium		Analysis of constituent not required and not performed.
		Beryllium		Analysis of constituent not required and not performed.
		Boron		Analysis of constituent not required and not performed.
		Cadmium		Analysis of constituent not required and not performed.
		Calcium		Analysis of constituent not required and not performed.
		Chromium		Analysis of constituent not required and not performed.
		Cobalt		Analysis of constituent not required and not performed.
		Copper		Analysis of constituent not required and not performed.
		Iron		Analysis of constituent not required and not performed.
		Lead		Analysis of constituent not required and not performed.
		Magnesium		Analysis of constituent not required and not performed.
		Manganese		Analysis of constituent not required and not performed.
		Mercury		Analysis of constituent not required and not performed.
		Molybdenum		Analysis of constituent not required and not performed.
		Nickel		Analysis of constituent not required and not performed.
		Potassium		Analysis of constituent not required and not performed.
		Rhodium		Analysis of constituent not required and not performed.
		Selenium		Analysis of constituent not required and not performed.
		Silver		Analysis of constituent not required and not performed.
		Sodium		Analysis of constituent not required and not performed.
		Tantalum		Analysis of constituent not required and not performed.
		Thallium		Analysis of constituent not required and not performed.
		Uranium		Analysis of constituent not required and not performed.

RESIDENTIAL/INERT – QUARTERLY Finds/Unit: KY8-890-008-982 / 1

Facility: US DOE - Paducah Gaseous Diffusion Plant LAB ID:None

Permit Numbers: 073-00014 and 073-00015 For Official Use Only

GROUNDWATER
WRITTEN COMMENTS

Monitoring Point	Facility Sample ID	Constituent	Flag	Description
0000-0000 QC	TB1SG2-13	Vanadium		Analysis of constituent not required and not performed.
		Zinc		Analysis of constituent not required and not performed.
		Chloroethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Methyl chloride	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Vinyl chloride	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		PCB, Total		Analysis of constituent not required and not performed.
		PCB-1016		Analysis of constituent not required and not performed.
		PCB-1221		Analysis of constituent not required and not performed.
		PCB-1232		Analysis of constituent not required and not performed.
		PCB-1242		Analysis of constituent not required and not performed.
		PCB-1248		Analysis of constituent not required and not performed.
		PCB-1254		Analysis of constituent not required and not performed.
		PCB-1260		Analysis of constituent not required and not performed.
		PCB-1268		Analysis of constituent not required and not performed.
		Gross alpha		Analysis of constituent not required and not performed.
		Gross beta		Analysis of constituent not required and not performed.
		Iodine-131		Analysis of constituent not required and not performed.
		Radium-226		Analysis of constituent not required and not performed.
		Strontium-90		Analysis of constituent not required and not performed.
		Technetium-99		Analysis of constituent not required and not performed.
		Thorium-230		Analysis of constituent not required and not performed.
		Tritium		Analysis of constituent not required and not performed.
		Chemical Oxygen Demand		Analysis of constituent not required and not performed.
		Cyanide		Analysis of constituent not required and not performed.
		Iodide		Analysis of constituent not required and not performed.
		Total Organic Carbon		Analysis of constituent not required and not performed.
		Total Organic Halides		Analysis of constituent not required and not performed.

RESIDENTIAL/INERT – QUARTERLY Finds/Unit: KY8-890-008-982 / 1

Facility: US DOE - Paducah Gaseous Diffusion Plant LAB ID:None

Permit Numbers: 073-00014 and 073-00015 For Official Use Only

GROUNDWATER
WRITTEN COMMENTS

Monitoring Point	Facility Sample ID	Constituent	Flag	Description
0000-0000 QC	TB2SG2-13	Bromide		Analysis of constituent not required and not performed.
		Chloride		Analysis of constituent not required and not performed.
		Fluoride		Analysis of constituent not required and not performed.
		Nitrate & Nitrite		Analysis of constituent not required and not performed.
		Sulfate		Analysis of constituent not required and not performed.
		Barometric Pressure Reading		Analysis of constituent not required and not performed.
		Specific Conductance		Analysis of constituent not required and not performed.
		Static Water Level Elevation		Analysis of constituent not required and not performed.
		Dissolved Oxygen		Analysis of constituent not required and not performed.
		Total Dissolved Solids		Analysis of constituent not required and not performed.
		pH		Analysis of constituent not required and not performed.
		Eh		Analysis of constituent not required and not performed.
		Temperature		Analysis of constituent not required and not performed.
		Aluminum		Analysis of constituent not required and not performed.
		Antimony		Analysis of constituent not required and not performed.
		Arsenic		Analysis of constituent not required and not performed.
		Barium		Analysis of constituent not required and not performed.
		Beryllium		Analysis of constituent not required and not performed.
		Boron		Analysis of constituent not required and not performed.
		Cadmium		Analysis of constituent not required and not performed.
		Calcium		Analysis of constituent not required and not performed.
		Chromium		Analysis of constituent not required and not performed.
		Cobalt		Analysis of constituent not required and not performed.
		Copper		Analysis of constituent not required and not performed.
		Iron		Analysis of constituent not required and not performed.
		Lead		Analysis of constituent not required and not performed.
		Magnesium		Analysis of constituent not required and not performed.
		Manganese		Analysis of constituent not required and not performed.
		Mercury		Analysis of constituent not required and not performed.
		Molybdenum		Analysis of constituent not required and not performed.
		Nickel		Analysis of constituent not required and not performed.
		Potassium		Analysis of constituent not required and not performed.
		Rhodium		Analysis of constituent not required and not performed.
		Selenium		Analysis of constituent not required and not performed.
		Silver		Analysis of constituent not required and not performed.
		Sodium		Analysis of constituent not required and not performed.
		Tantalum		Analysis of constituent not required and not performed.
		Thallium		Analysis of constituent not required and not performed.
		Uranium		Analysis of constituent not required and not performed.

RESIDENTIAL/INERT – QUARTERLY Finds/Unit: KY8-890-008-982 / 1

Facility: US DOE - Paducah Gaseous Diffusion Plant LAB ID:None

Permit Numbers: 073-00014 and 073-00015 For Official Use Only

GROUNDWATER
WRITTEN COMMENTS

Monitoring Point	Facility Sample ID	Constituent	Flag	Description
0000-0000 QC	TB2SG2-13	Vanadium		Analysis of constituent not required and not performed.
		Zinc		Analysis of constituent not required and not performed.
		Acetone	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Acrylonitrile	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Benzene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Chlorobenzene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Styrene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Bromodichloromethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Tribromomethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Methyl bromide	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		trans-1,4-Dichloro-2-butene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Carbon disulfide	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Chloroethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Chloroform	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Methyl chloride	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		cis-1,2-Dichloroethene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Methylene bromide	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,1-Dichloroethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,2-Dichloroethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,2-Dibromoethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,1,2,2-Tetrachloroethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,1,1-Trichloroethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,1,2-Trichloroethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,1,1,2-Tetrachloroethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Vinyl chloride	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Tetrachloroethene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Trichloroethene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Ethylbenzene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		2-Hexanone	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Iodomethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Dibromochloromethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Carbon tetrachloride	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Dichloromethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Methyl Isobutyl Ketone	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,2-Dichloropropane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		trans-1,3-Dichloropropene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		cis-1,3-Dichloropropene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		trans-1,2-Dichloroethene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Trichlorofluoromethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.

RESIDENTIAL/INERT – QUARTERLY Finds/Unit: KY8-890-008-982 / 1

Facility: US DOE - Paducah Gaseous Diffusion Plant LAB ID:None

Permit Numbers: 073-00014 and 073-00015 For Official Use Only

GROUNDWATER
WRITTEN COMMENTS

Monitoring Point	Facility Sample ID	Constituent	Flag	Description
0000-0000 QC	TB2SG2-13	1,2,3-Trichloropropane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,2-Dichlorobenzene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,4-Dichlorobenzene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		PCB, Total		Analysis of constituent not required and not performed.
		PCB-1016		Analysis of constituent not required and not performed.
		PCB-1221		Analysis of constituent not required and not performed.
		PCB-1232		Analysis of constituent not required and not performed.
		PCB-1242		Analysis of constituent not required and not performed.
		PCB-1248		Analysis of constituent not required and not performed.
		PCB-1254		Analysis of constituent not required and not performed.
		PCB-1260		Analysis of constituent not required and not performed.
		PCB-1268		Analysis of constituent not required and not performed.
		Gross alpha		Analysis of constituent not required and not performed.
		Gross beta		Analysis of constituent not required and not performed.
		Iodine-131		Analysis of constituent not required and not performed.
		Radium-226		Analysis of constituent not required and not performed.
		Strontium-90		Analysis of constituent not required and not performed.
		Technetium-99		Analysis of constituent not required and not performed.
		Thorium-230		Analysis of constituent not required and not performed.
		Tritium		Analysis of constituent not required and not performed.
		Chemical Oxygen Demand		Analysis of constituent not required and not performed.
		Cyanide		Analysis of constituent not required and not performed.
		Iodide		Analysis of constituent not required and not performed.
		Total Organic Carbon		Analysis of constituent not required and not performed.
		Total Organic Halides		Analysis of constituent not required and not performed.

RESIDENTIAL/INERT – QUARTERLY Finds/Unit: KY8-890-008-982 / 1

Facility: US DOE - Paducah Gaseous Diffusion Plant LAB ID:None

Permit Numbers: 073-00014 and 073-00015 For Official Use Only

GROUNDWATER
WRITTEN COMMENTS

Monitoring Point	Facility Sample ID	Constituent	Flag	Description
0000-0000 QC	TB3SG2-13	Bromide		Analysis of constituent not required and not performed.
		Chloride		Analysis of constituent not required and not performed.
		Fluoride		Analysis of constituent not required and not performed.
		Nitrate & Nitrite		Analysis of constituent not required and not performed.
		Sulfate		Analysis of constituent not required and not performed.
		Barometric Pressure Reading		Analysis of constituent not required and not performed.
		Specific Conductance		Analysis of constituent not required and not performed.
		Static Water Level Elevation		Analysis of constituent not required and not performed.
		Dissolved Oxygen		Analysis of constituent not required and not performed.
		Total Dissolved Solids		Analysis of constituent not required and not performed.
		pH		Analysis of constituent not required and not performed.
		Eh		Analysis of constituent not required and not performed.
		Temperature		Analysis of constituent not required and not performed.
		Aluminum		Analysis of constituent not required and not performed.
		Antimony		Analysis of constituent not required and not performed.
		Arsenic		Analysis of constituent not required and not performed.
		Barium		Analysis of constituent not required and not performed.
		Beryllium		Analysis of constituent not required and not performed.
		Boron		Analysis of constituent not required and not performed.
		Cadmium		Analysis of constituent not required and not performed.
		Calcium		Analysis of constituent not required and not performed.
		Chromium		Analysis of constituent not required and not performed.
		Cobalt		Analysis of constituent not required and not performed.
		Copper		Analysis of constituent not required and not performed.
		Iron		Analysis of constituent not required and not performed.
		Lead		Analysis of constituent not required and not performed.
		Magnesium		Analysis of constituent not required and not performed.
		Manganese		Analysis of constituent not required and not performed.
		Mercury		Analysis of constituent not required and not performed.
		Molybdenum		Analysis of constituent not required and not performed.
		Nickel		Analysis of constituent not required and not performed.
		Potassium		Analysis of constituent not required and not performed.
		Rhodium		Analysis of constituent not required and not performed.
		Selenium		Analysis of constituent not required and not performed.
		Silver		Analysis of constituent not required and not performed.
		Sodium		Analysis of constituent not required and not performed.
		Tantalum		Analysis of constituent not required and not performed.
		Thallium		Analysis of constituent not required and not performed.
		Uranium		Analysis of constituent not required and not performed.

RESIDENTIAL/INERT – QUARTERLY Finds/Unit: KY8-890-008-982 / 1

Facility: US DOE - Paducah Gaseous Diffusion Plant LAB ID:None

Permit Numbers: 073-00014 and 073-00015 For Official Use Only

GROUNDWATER
WRITTEN COMMENTS

Monitoring Point	Facility Sample ID	Constituent	Flag	Description
0000-0000 QC	TB3SG2-13	Vanadium		Analysis of constituent not required and not performed.
		Zinc		Analysis of constituent not required and not performed.
		Acetone	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Acrylonitrile	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Benzene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Chlorobenzene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Styrene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Bromodichloromethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Tribromomethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Methyl bromide	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		trans-1,4-Dichloro-2-butene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Carbon disulfide	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Chloroethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Chloroform	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Methyl chloride	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		cis-1,2-Dichloroethene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Methylene bromide	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,1-Dichloroethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,2-Dichloroethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,2-Dibromoethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,1,2,2-Tetrachloroethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,1,1-Trichloroethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,1,2-Trichloroethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,1,1,2-Tetrachloroethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Vinyl chloride	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Tetrachloroethene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Trichloroethene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Ethylbenzene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		2-Hexanone	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Iodomethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Dibromochloromethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Carbon tetrachloride	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Dichloromethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Methyl Isobutyl Ketone	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,2-Dichloropropane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		trans-1,3-Dichloropropene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		cis-1,3-Dichloropropene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		trans-1,2-Dichloroethene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Trichlorofluoromethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.

RESIDENTIAL/INERT – QUARTERLY Finds/Unit: KY8-890-008-982 / 1

Facility: US DOE - Paducah Gaseous Diffusion Plant LAB ID:None

Permit Numbers: 073-00014 and 073-00015 For Official Use Only

GROUNDWATER
WRITTEN COMMENTS

Monitoring Point	Facility Sample ID	Constituent	Flag	Description
0000-0000 QC	TB3SG2-13	1,2,3-Trichloropropane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,2-Dichlorobenzene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,4-Dichlorobenzene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		PCB, Total		Analysis of constituent not required and not performed.
		PCB-1016		Analysis of constituent not required and not performed.
		PCB-1221		Analysis of constituent not required and not performed.
		PCB-1232		Analysis of constituent not required and not performed.
		PCB-1242		Analysis of constituent not required and not performed.
		PCB-1248		Analysis of constituent not required and not performed.
		PCB-1254		Analysis of constituent not required and not performed.
		PCB-1260		Analysis of constituent not required and not performed.
		PCB-1268		Analysis of constituent not required and not performed.
		Gross alpha		Analysis of constituent not required and not performed.
		Gross beta		Analysis of constituent not required and not performed.
		Iodine-131		Analysis of constituent not required and not performed.
		Radium-226		Analysis of constituent not required and not performed.
		Strontium-90		Analysis of constituent not required and not performed.
		Technetium-99		Analysis of constituent not required and not performed.
		Thorium-230		Analysis of constituent not required and not performed.
		Tritium		Analysis of constituent not required and not performed.
		Chemical Oxygen Demand		Analysis of constituent not required and not performed.
		Cyanide		Analysis of constituent not required and not performed.
		Iodide		Analysis of constituent not required and not performed.
		Total Organic Carbon		Analysis of constituent not required and not performed.
		Total Organic Halides		Analysis of constituent not required and not performed.

RESIDENTIAL/INERT – QUARTERLY Finds/Unit: KY8-890-008-982 / 1

Facility: US DOE - Paducah Gaseous Diffusion Plant LAB ID:None

Permit Numbers: 073-00014 and 073-00015 For Official Use Only

GROUNDWATER
WRITTEN COMMENTS

Monitoring Point	Facility Sample ID	Constituent	Flag	Description
0000-0000 QC	TB4SG2-13	Bromide		Analysis of constituent not required and not performed.
		Chloride		Analysis of constituent not required and not performed.
		Fluoride		Analysis of constituent not required and not performed.
		Nitrate & Nitrite		Analysis of constituent not required and not performed.
		Sulfate		Analysis of constituent not required and not performed.
		Barometric Pressure Reading		Analysis of constituent not required and not performed.
		Specific Conductance		Analysis of constituent not required and not performed.
		Static Water Level Elevation		Analysis of constituent not required and not performed.
		Dissolved Oxygen		Analysis of constituent not required and not performed.
		Total Dissolved Solids		Analysis of constituent not required and not performed.
		pH		Analysis of constituent not required and not performed.
		Eh		Analysis of constituent not required and not performed.
		Temperature		Analysis of constituent not required and not performed.
		Aluminum		Analysis of constituent not required and not performed.
		Antimony		Analysis of constituent not required and not performed.
		Arsenic		Analysis of constituent not required and not performed.
		Barium		Analysis of constituent not required and not performed.
		Beryllium		Analysis of constituent not required and not performed.
		Boron		Analysis of constituent not required and not performed.
		Cadmium		Analysis of constituent not required and not performed.
		Calcium		Analysis of constituent not required and not performed.
		Chromium		Analysis of constituent not required and not performed.
		Cobalt		Analysis of constituent not required and not performed.
		Copper		Analysis of constituent not required and not performed.
		Iron		Analysis of constituent not required and not performed.
		Lead		Analysis of constituent not required and not performed.
		Magnesium		Analysis of constituent not required and not performed.
		Manganese		Analysis of constituent not required and not performed.
		Mercury		Analysis of constituent not required and not performed.
		Molybdenum		Analysis of constituent not required and not performed.
		Nickel		Analysis of constituent not required and not performed.
		Potassium		Analysis of constituent not required and not performed.
		Rhodium		Analysis of constituent not required and not performed.
		Selenium		Analysis of constituent not required and not performed.
		Silver		Analysis of constituent not required and not performed.
		Sodium		Analysis of constituent not required and not performed.
		Tantalum		Analysis of constituent not required and not performed.
		Thallium		Analysis of constituent not required and not performed.
		Uranium		Analysis of constituent not required and not performed.

RESIDENTIAL/INERT – QUARTERLY Finds/Unit: KY8-890-008-982 / 1

Facility: US DOE - Paducah Gaseous Diffusion Plant LAB ID:None

Permit Numbers: 073-00014 and 073-00015 For Official Use Only

GROUNDWATER
WRITTEN COMMENTS

Monitoring Point	Facility Sample ID	Constituent	Flag	Description
0000-0000 QC	TB4SG2-13	Vanadium		Analysis of constituent not required and not performed.
		Zinc		Analysis of constituent not required and not performed.
		Acetone	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Acrylonitrile	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Benzene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Chlorobenzene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Styrene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Bromodichloromethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Tribromomethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Methyl bromide	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		trans-1,4-Dichloro-2-butene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Carbon disulfide	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Chloroethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Chloroform	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Methyl chloride	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		cis-1,2-Dichloroethene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Methylene bromide	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,1-Dichloroethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,2-Dichloroethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,2-Dibromoethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,1,2,2-Tetrachloroethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,1,1-Trichloroethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,1,2-Trichloroethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,1,1,2-Tetrachloroethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Vinyl chloride	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Tetrachloroethene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Trichloroethene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Ethylbenzene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		2-Hexanone	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Iodomethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Dibromochloromethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Carbon tetrachloride	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Dichloromethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Methyl Isobutyl Ketone	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,2-Dichloropropane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		trans-1,3-Dichloropropene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		cis-1,3-Dichloropropene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		trans-1,2-Dichloroethene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Trichlorofluoromethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.

RESIDENTIAL/INERT – QUARTERLY Finds/Unit: KY8-890-008-982 / 1

Facility: US DOE - Paducah Gaseous Diffusion Plant LAB ID:None

Permit Numbers: 073-00014 and 073-00015 For Official Use Only

GROUNDWATER
WRITTEN COMMENTS

Monitoring Point	Facility Sample ID	Constituent	Flag	Description
0000-0000 QC	TB4SG2-13	1,2,3-Trichloropropane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,2-Dichlorobenzene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,4-Dichlorobenzene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		PCB, Total		Analysis of constituent not required and not performed.
		PCB-1016		Analysis of constituent not required and not performed.
		PCB-1221		Analysis of constituent not required and not performed.
		PCB-1232		Analysis of constituent not required and not performed.
		PCB-1242		Analysis of constituent not required and not performed.
		PCB-1248		Analysis of constituent not required and not performed.
		PCB-1254		Analysis of constituent not required and not performed.
		PCB-1260		Analysis of constituent not required and not performed.
		PCB-1268		Analysis of constituent not required and not performed.
		Gross alpha		Analysis of constituent not required and not performed.
		Gross beta		Analysis of constituent not required and not performed.
		Iodine-131		Analysis of constituent not required and not performed.
		Radium-226		Analysis of constituent not required and not performed.
		Strontium-90		Analysis of constituent not required and not performed.
		Technetium-99		Analysis of constituent not required and not performed.
		Thorium-230		Analysis of constituent not required and not performed.
		Tritium		Analysis of constituent not required and not performed.
		Chemical Oxygen Demand		Analysis of constituent not required and not performed.
		Cyanide		Analysis of constituent not required and not performed.
		Iodide		Analysis of constituent not required and not performed.
		Total Organic Carbon		Analysis of constituent not required and not performed.
		Total Organic Halides		Analysis of constituent not required and not performed.

RESIDENTIAL/INERT – QUARTERLY Finds/Unit: KY8-890-008-982 / 1

Facility: US DOE - Paducah Gaseous Diffusion Plant LAB ID:None

Permit Numbers: 073-00014 and 073-00015 For Official Use Only

GROUNDWATER
WRITTEN COMMENTS

Monitoring Point	Facility Sample ID	Constituent	Flag	Description
0000-0000 QC	TB5SG2-13	Bromide		Analysis of constituent not required and not performed.
		Chloride		Analysis of constituent not required and not performed.
		Fluoride		Analysis of constituent not required and not performed.
		Nitrate & Nitrite		Analysis of constituent not required and not performed.
		Sulfate		Analysis of constituent not required and not performed.
		Barometric Pressure Reading		Analysis of constituent not required and not performed.
		Specific Conductance		Analysis of constituent not required and not performed.
		Static Water Level Elevation		Analysis of constituent not required and not performed.
		Dissolved Oxygen		Analysis of constituent not required and not performed.
		Total Dissolved Solids		Analysis of constituent not required and not performed.
		pH		Analysis of constituent not required and not performed.
		Eh		Analysis of constituent not required and not performed.
		Temperature		Analysis of constituent not required and not performed.
		Aluminum		Analysis of constituent not required and not performed.
		Antimony		Analysis of constituent not required and not performed.
		Arsenic		Analysis of constituent not required and not performed.
		Barium		Analysis of constituent not required and not performed.
		Beryllium		Analysis of constituent not required and not performed.
		Boron		Analysis of constituent not required and not performed.
		Cadmium		Analysis of constituent not required and not performed.
		Calcium		Analysis of constituent not required and not performed.
		Chromium		Analysis of constituent not required and not performed.
		Cobalt		Analysis of constituent not required and not performed.
		Copper		Analysis of constituent not required and not performed.
		Iron		Analysis of constituent not required and not performed.
		Lead		Analysis of constituent not required and not performed.
		Magnesium		Analysis of constituent not required and not performed.
		Manganese		Analysis of constituent not required and not performed.
		Mercury		Analysis of constituent not required and not performed.
		Molybdenum		Analysis of constituent not required and not performed.
		Nickel		Analysis of constituent not required and not performed.
		Potassium		Analysis of constituent not required and not performed.
		Rhodium		Analysis of constituent not required and not performed.
		Selenium		Analysis of constituent not required and not performed.
		Silver		Analysis of constituent not required and not performed.
		Sodium		Analysis of constituent not required and not performed.
		Tantalum		Analysis of constituent not required and not performed.
		Thallium		Analysis of constituent not required and not performed.
		Uranium		Analysis of constituent not required and not performed.

RESIDENTIAL/INERT – QUARTERLY Finds/Unit: KY8-890-008-982 / 1

Facility: US DOE - Paducah Gaseous Diffusion Plant LAB ID:None

Permit Numbers: 073-00014 and 073-00015 For Official Use Only

GROUNDWATER
WRITTEN COMMENTS

Monitoring Point	Facility Sample ID	Constituent	Flag	Description
0000-0000 QC	TB5SG2-13	Vanadium		Analysis of constituent not required and not performed.
		Zinc		Analysis of constituent not required and not performed.
		Acetone	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Acrylonitrile	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Benzene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Chlorobenzene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Styrene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Bromodichloromethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Tribromomethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Methyl bromide	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		trans-1,4-Dichloro-2-butene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Carbon disulfide	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Chloroethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Chloroform	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Methyl chloride	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		cis-1,2-Dichloroethene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Methylene bromide	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,1-Dichloroethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,2-Dichloroethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,2-Dibromoethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,1,2,2-Tetrachloroethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,1,1-Trichloroethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,1,2-Trichloroethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,1,1,2-Tetrachloroethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Vinyl chloride	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Tetrachloroethene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Trichloroethene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Ethylbenzene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		2-Hexanone	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Iodomethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Dibromochloromethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Carbon tetrachloride	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Dichloromethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Methyl Isobutyl Ketone	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,2-Dichloropropane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		trans-1,3-Dichloropropene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		cis-1,3-Dichloropropene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		trans-1,2-Dichloroethene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Trichlorofluoromethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.

RESIDENTIAL/INERT – QUARTERLY Finds/Unit: KY8-890-008-982 / 1

Facility: US DOE - Paducah Gaseous Diffusion Plant LAB ID:None

Permit Numbers: 073-00014 and 073-00015 For Official Use Only

GROUNDWATER
WRITTEN COMMENTS

Monitoring Point	Facility Sample ID	Constituent	Flag	Description
0000-0000 QC	TB5SG2-13	1,2,3-Trichloropropane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,2-Dichlorobenzene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,4-Dichlorobenzene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		PCB, Total		Analysis of constituent not required and not performed.
		PCB-1016		Analysis of constituent not required and not performed.
		PCB-1221		Analysis of constituent not required and not performed.
		PCB-1232		Analysis of constituent not required and not performed.
		PCB-1242		Analysis of constituent not required and not performed.
		PCB-1248		Analysis of constituent not required and not performed.
		PCB-1254		Analysis of constituent not required and not performed.
		PCB-1260		Analysis of constituent not required and not performed.
		PCB-1268		Analysis of constituent not required and not performed.
		Gross alpha		Analysis of constituent not required and not performed.
		Gross beta		Analysis of constituent not required and not performed.
		Iodine-131		Analysis of constituent not required and not performed.
		Radium-226		Analysis of constituent not required and not performed.
		Strontium-90		Analysis of constituent not required and not performed.
		Technetium-99		Analysis of constituent not required and not performed.
		Thorium-230		Analysis of constituent not required and not performed.
		Tritium		Analysis of constituent not required and not performed.
		Chemical Oxygen Demand		Analysis of constituent not required and not performed.
		Cyanide		Analysis of constituent not required and not performed.
		Iodide		Analysis of constituent not required and not performed.
		Total Organic Carbon		Analysis of constituent not required and not performed.
		Total Organic Halides		Analysis of constituent not required and not performed.

RESIDENTIAL/INERT – QUARTERLY Finds/Unit: KY8-890-008-982 / 1

Facility: US DOE - Paducah Gaseous Diffusion Plant LAB ID:None

Permit Numbers: 073-00014 and 073-00015 For Official Use Only

GROUNDWATER
WRITTEN COMMENTS

Monitoring Point	Facility Sample ID	Constituent	Flag	Description
0000-0000 QC	TB6SG2-13	Bromide		Analysis of constituent not required and not performed.
		Chloride		Analysis of constituent not required and not performed.
		Fluoride		Analysis of constituent not required and not performed.
		Nitrate & Nitrite		Analysis of constituent not required and not performed.
		Sulfate		Analysis of constituent not required and not performed.
		Barometric Pressure Reading		Analysis of constituent not required and not performed.
		Specific Conductance		Analysis of constituent not required and not performed.
		Static Water Level Elevation		Analysis of constituent not required and not performed.
		Dissolved Oxygen		Analysis of constituent not required and not performed.
		Total Dissolved Solids		Analysis of constituent not required and not performed.
		pH		Analysis of constituent not required and not performed.
		Eh		Analysis of constituent not required and not performed.
		Temperature		Analysis of constituent not required and not performed.
		Aluminum		Analysis of constituent not required and not performed.
		Antimony		Analysis of constituent not required and not performed.
		Arsenic		Analysis of constituent not required and not performed.
		Barium		Analysis of constituent not required and not performed.
		Beryllium		Analysis of constituent not required and not performed.
		Boron		Analysis of constituent not required and not performed.
		Cadmium		Analysis of constituent not required and not performed.
		Calcium		Analysis of constituent not required and not performed.
		Chromium		Analysis of constituent not required and not performed.
		Cobalt		Analysis of constituent not required and not performed.
		Copper		Analysis of constituent not required and not performed.
		Iron		Analysis of constituent not required and not performed.
		Lead		Analysis of constituent not required and not performed.
		Magnesium		Analysis of constituent not required and not performed.
		Manganese		Analysis of constituent not required and not performed.
		Mercury		Analysis of constituent not required and not performed.
		Molybdenum		Analysis of constituent not required and not performed.
		Nickel		Analysis of constituent not required and not performed.
		Potassium		Analysis of constituent not required and not performed.
		Rhodium		Analysis of constituent not required and not performed.
		Selenium		Analysis of constituent not required and not performed.
		Silver		Analysis of constituent not required and not performed.
		Sodium		Analysis of constituent not required and not performed.
		Tantalum		Analysis of constituent not required and not performed.
		Thallium		Analysis of constituent not required and not performed.
		Uranium		Analysis of constituent not required and not performed.

RESIDENTIAL/INERT – QUARTERLY Finds/Unit: KY8-890-008-982 / 1

Facility: US DOE - Paducah Gaseous Diffusion Plant LAB ID:None

Permit Numbers: 073-00014 and 073-00015 For Official Use Only

GROUNDWATER
WRITTEN COMMENTS

Monitoring Point	Facility Sample ID	Constituent	Flag	Description
0000-0000 QC	TB6SG2-13	Vanadium		Analysis of constituent not required and not performed.
		Zinc		Analysis of constituent not required and not performed.
		Acetone	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Acrylonitrile	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Benzene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Chlorobenzene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Styrene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Bromodichloromethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Tribromomethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Methyl bromide	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		trans-1,4-Dichloro-2-butene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Carbon disulfide	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Chloroethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Chloroform	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Methyl chloride	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		cis-1,2-Dichloroethene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Methylene bromide	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,1-Dichloroethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,2-Dichloroethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,2-Dibromoethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,1,2,2-Tetrachloroethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,1,1-Trichloroethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,1,2-Trichloroethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,1,1,2-Tetrachloroethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Vinyl chloride	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Tetrachloroethene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Trichloroethene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Ethylbenzene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		2-Hexanone	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Iodomethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Dibromochloromethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Carbon tetrachloride	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Dichloromethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Methyl Isobutyl Ketone	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,2-Dichloropropane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		trans-1,3-Dichloropropene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		cis-1,3-Dichloropropene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		trans-1,2-Dichloroethene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Trichlorofluoromethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.

RESIDENTIAL/INERT – QUARTERLY Finds/Unit: KY8-890-008-982 / 1

Facility: US DOE - Paducah Gaseous Diffusion Plant LAB ID:None

Permit Numbers: 073-00014 and 073-00015 For Official Use Only

GROUNDWATER
WRITTEN COMMENTS

Monitoring Point	Facility Sample ID	Constituent	Flag	Description
0000-0000 QC	TB6SG2-13	1,2,3-Trichloropropane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,2-Dichlorobenzene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,4-Dichlorobenzene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		PCB, Total		Analysis of constituent not required and not performed.
		PCB-1016		Analysis of constituent not required and not performed.
		PCB-1221		Analysis of constituent not required and not performed.
		PCB-1232		Analysis of constituent not required and not performed.
		PCB-1242		Analysis of constituent not required and not performed.
		PCB-1248		Analysis of constituent not required and not performed.
		PCB-1254		Analysis of constituent not required and not performed.
		PCB-1260		Analysis of constituent not required and not performed.
		PCB-1268		Analysis of constituent not required and not performed.
		Gross alpha		Analysis of constituent not required and not performed.
		Gross beta		Analysis of constituent not required and not performed.
		Iodine-131		Analysis of constituent not required and not performed.
		Radium-226		Analysis of constituent not required and not performed.
		Strontium-90		Analysis of constituent not required and not performed.
		Technetium-99		Analysis of constituent not required and not performed.
		Thorium-230		Analysis of constituent not required and not performed.
		Tritium		Analysis of constituent not required and not performed.
		Chemical Oxygen Demand		Analysis of constituent not required and not performed.
		Cyanide		Analysis of constituent not required and not performed.
		Iodide		Analysis of constituent not required and not performed.
		Total Organic Carbon		Analysis of constituent not required and not performed.
		Total Organic Halides		Analysis of constituent not required and not performed.

RESIDENTIAL/INERT – QUARTERLY Finds/Unit: KY8-890-008-982 / 1

Facility: US DOE - Paducah Gaseous Diffusion Plant LAB ID:None

Permit Numbers: 073-00014 and 073-00015 For Official Use Only

GROUNDWATER
WRITTEN COMMENTS

Monitoring Point	Facility Sample ID	Constituent	Flag	Description
8004-4805 MW391	MW391DSG2-13	Beryllium	X	Other specific flags and footnotes may be required to properly define the results.
		Silver	N	Sample spike recovery not within control limits.
		Acetone	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Acrylonitrile	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Benzene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Chlorobenzene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Styrene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Bromodichloromethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Tribromomethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Methyl bromide	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		trans-1,4-Dichloro-2-butene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Carbon disulfide	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Chloroethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Chloroform	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Methyl chloride	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		cis-1,2-Dichloroethene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Methylene bromide	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,1-Dichloroethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,2-Dichloroethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,2-Dibromoethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,1,2,2-Tetrachloroethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,1,1-Trichloroethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,1,2-Trichloroethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,1,1,2-Tetrachloroethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Vinyl chloride	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Tetrachloroethene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Trichloroethene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Ethylbenzene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		2-Hexanone	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Iodomethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Dibromochloromethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Carbon tetrachloride	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Dichloromethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Methyl Isobutyl Ketone	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,2-Dichloropropane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		trans-1,3-Dichloropropene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		cis-1,3-Dichloropropene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		trans-1,2-Dichloroethene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Trichlorofluoromethane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.

RESIDENTIAL/INERT – QUARTERLY Finds/Unit: KY8-890-008-982 / 1

Facility: US DOE - Paducah Gaseous Diffusion Plant LAB ID:None

Permit Numbers: 073-00014 and 073-00015 For Official Use Only

GROUNDWATER
WRITTEN COMMENTS

Monitoring Point	Facility Sample ID	Constituent	Flag	Description
8004-4805 MW391	MW391DSG2-13	1,2,3-Trichloropropane	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,2-Dichlorobenzene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		1,4-Dichlorobenzene	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		PCB, Total		Analysis of constituent not required and not performed.
		PCB-1016		Analysis of constituent not required and not performed.
		PCB-1221		Analysis of constituent not required and not performed.
		PCB-1232		Analysis of constituent not required and not performed.
		PCB-1242		Analysis of constituent not required and not performed.
		PCB-1248		Analysis of constituent not required and not performed.
		PCB-1254		Analysis of constituent not required and not performed.
		PCB-1260		Analysis of constituent not required and not performed.
		PCB-1268		Analysis of constituent not required and not performed.
		Gross alpha	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.28. Rad error is 0.262.
		Gross beta		TPU is 1.4. Rad error is 1.18.
		Iodine-131		Analysis of constituent not required and not performed.
		Radium-226	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.403. Rad error is 0.198.
		Strontium-90	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.124. Rad error is 0.0908.
		Technetium-99	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 11.7. Rad error is 11.7.
		Thorium-230	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.892. Rad error is 0.058.
		Tritium	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 546. Rad error is 545.

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APPENDIX D

STATISTICAL ANALYSES AND QUALIFICATION STATEMENT

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RESIDENTIAL/INERT – QUARTERLY, 1st Quarter 2013 Finds/Unit: _____
Facility: U.S. DOE – Paducah Gaseous Diffusion Plant Lab ID: None
Permit Numbers: 073-00014 and 073-00015 For Official Use Only

GROUNDWATER STATISTICAL COMMENTS

Introduction

The statistical analyses conducted on the first quarter 2013 groundwater data collected from the C-746-S&T Landfills monitoring wells (MWs) were performed in accordance with Permit Condition GSTR0003, Standard Requirement 3, using the U.S. Environmental Protection Agency (EPA) guidance document, *EPA Statistical Analysis of Ground-Water Monitoring Data at RCRA Facilities, Interim Final Guidance* (1989), with the exception of pH. The method for conducting the statistical analysis of pH was selected by the project statistician.

The statistical evaluation was conducted separately for the three groundwater systems: the Upper Continental Recharge System (UCRS), the Upper Regional Gravel Aquifer (URGA), and the Lower Regional Gravel Aquifer (LRGA). For each groundwater system, data included a minimum of one background well for comparison with at least three test wells (Exhibit 1). The first quarter 2013 data used to conduct the statistical analyses were collected in January 2013. The statistical analyses for this report utilize data from the first eight quarters that were collected for each parameter, beginning with the first two baseline sampling events in 2002, when available. The sampling dates associated with background data are listed next to the result in the statistical analysis sheets of this appendix.

Statistical Analysis Process

For chemicals with established maximum contaminant levels (MCLs), no statistical analysis was performed. Parameters that have MCLs can be found in 401 *KAR* 47:030, Section 6. For parameters with no established MCL, the data are divided into censored and uncensored observations. The one-sided tolerance interval statistical test is conducted only on parameters that have at least one uncensored (detected) observation. Results of the one-sided tolerance interval statistical test conclude whether the data show a statistically significant increase of concentrations with respect to upgradient (background) well data. For the statistical analysis of pH, a two-sided tolerance interval statistical test was conducted. The test well results were compared to both an upper and lower tolerance limit to determine if statistically significant deviations in concentrations exist with respect to upgradient (background) well data. The tolerance interval statistical analysis was conducted separately for each parameter in each well (no pooling of downgradient data).

Statistical analyses are performed on historical background data, not on data from the current quarter. Once a statistical result is obtained using the background data, the data from the current quarter is compared to that value. If the value is exceeded, the well has a statistically significant increase in concentration compared to the background concentration.

A stepwise list of the one-sided tolerance interval statistical procedure applied to the data is summarized below: [1]

1. The tolerance limit (TL) was calculated for the background data.

    - For each parameter, the first eight sampling events results were used to establish a baseline. On this data set, the mean (X) and the standard deviation (S) were computed.

    - The data set was checked for normality using coefficient of variation (CV). If CV ≤ 1.0, then the data are assumed to be potentially normally distributed. Data sets with CV > 1.0 are assumed to be log-normally distributed; the data are log-transformed and analyzed.

    - The factor (K) for one-sided upper tolerance limit with 95% minimum coverage was determined (Table 5, Appendix B; *EPA Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities, Interim Final Guidance*, 1989) based on the number of background data points.

    - The one-sided upper tolerance limit was calculated using the following equation:
      TL = X + (K x S)

2. Each observation from downgradient wells was compared to the calculated one-sided upper tolerance limit in Step 1. If an observation value exceeds the tolerance limit, then there is statistically significant evidence that the well has increased concentration with respect to background data.

Type of Data Used

Exhibit 1 presents the upgradient or background wells (identified as "BG"), the downgradient or test wells (identified as "TW"), and the sidegradient wells (identified as "SG") for the C-746-S&T Residential/Inert Landfills. Exhibit 2 presents the parameters from the available data set and the statistical test performed using the one-sided tolerance interval.

Excluding parameters which have an MCL, Exhibits 3, 4, and 5 list the number of analyses (observations), nondetects (censored observations), detects (uncensored observations), and missing observations by parameter in the UCRS, the URGA, and the LRGA, respectively. Those parameters displayed with bold-face type indicate the one-sided tolerance interval statistical test was performed. The data presented in Exhibits 3, 4, and 5 were collected during the current quarter, first quarter 2013. The observations that are listed are not background data. Background data are presented on pages D-17 through D-75. The sampling dates associated with background data are listed next to the result on pages D-17 through D-75. When field duplicate data are available, the higher of the two readings is retained for further evaluation.

[1] For pH, two-sided TLs (upper and lower) were calculated with an adjusted K factor using the following equations:
upper TL = X + (K x S)
lower TL = X -(K x S)

Exhibit 1. Station Identification for Monitoring Wells Analyzed

Station	Type	Aquifer
MW220	BG	URGA
MW221	SG	URGA
MW222	SG	URGA
MW223	SG	URGA
MW224	SG	URGA
MW369	TW	URGA
MW370	TW	LRGA
MW372	TW	URGA
MW373	TW	LRGA
MW384	SG	URGA
MW385	SG	LRGA
MW386	SG	UCRS
MW387	TW	URGA
MW388	TW	LRGA
MW389*	TW	UCRS
MW390*	TW	UCRS
MW391	TW	URGA
MW392	TW	LRGA
MW393	TW	UCRS
MW394	BG	URGA
MW395	BG	LRGA
MW396	BG	UCRS
MW397	BG	LRGA

BG: upgradient or background wells
TW: downgradient or test wells
SG: sidegradient wells
*Well was dry this quarter.

Exhibit 2. List of Parameters Tested Using the Tolerance Level Test

Analysis
Aluminum
Boron
Calcium
Chemical Oxygen Demand (COD)
Chloride
Cobalt
Conductivity
Dissolved Oxygen
Dissolved Solids
Iron
Magnesium
Manganese
Molybdenum
Nickel
Oxidation-Reduction Potential
pH
Potassium
Sodium
Sulfate
Technetium-99
Total Organic Carbon (TOC)
Total Organic Halides (TOX)

***** For pH, the test well results were compared to both an upper and lower TL to determine if statistically significant deviations exist in concentrations with respect to upgradient well data.

Exhibit 3. Summary of Missing, Censored, and Uncensored Data–UCRS

Parameters	Observations	Missing Observation	Censored Observation	Uncensored Observation	Statistical Analysis?
1,1,1,2-Tetrachloroethane	3	0	3	0	no
1,1,2,2-Tetrachloroethane	3	0	3	0	no
1,1,2-Trichloroethane	3	0	3	0	no
1,1-Dichloroethane	3	0	3	0	no
1,2,3-Trichloropropane	3	0	3	0	no
1,2-Dibromo-3-chloropropane	3	0	3	0	no
1,2-Dibromoethane	3	0	3	0	no
1,2-Dichlorobenzene	3	0	3	0	no
1,2-Dichloropropane	3	0	3	0	no
2-Butanone	3	0	3	0	no
2-Hexanone	3	0	3	0	no
4-Methyl-2-pentanone	3	0	3	0	no
Acetone	3	0	3	0	no
Acrolein	3	0	3	0	no
Acrylonitrile	3	0	3	0	no
Aluminum	3	0	3	0	no
Antimony	3	0	3	0	no
Beryllium	3	0	3	0	no
Boron	3	0	3	0	no
Bromide	3	0	3	0	no
Bromochloromethane	3	0	3	0	no
Bromodichloromethane	3	0	3	0	no
Bromoform	3	0	3	0	no
Bromomethane	3	0	3	0	no
Calcium	**3**	**0**	**0**	**3**	**YES**
Carbon disulfide	3	0	3	0	no
Chemical Oxygen Demand (COD)	**3**	**0**	**1**	**2**	**YES**
Chloride	**3**	**0**	**0**	**3**	**YES**
Chlorobenzene	3	0	3	0	no
Chloroethane	3	0	3	0	no
Chloroform	3	0	3	0	no
Chloromethane	3	0	3	0	no
cis-1,2-Dichloroethene	3	0	3	0	no
cis-1,3-Dichloropropene	3	0	3	0	no
Cobalt	**3**	**0**	**1**	**2**	**YES**
Conductivity	**3**	**0**	**0**	**3**	**YES**
Copper	3	0	3	0	no
Cyanide	3	0	3	0	no
Dibromochloromethane	3	0	3	0	no
Dibromomethane	3	0	3	0	no
Dimethylbenzene, Total	3	0	3	0	no

Exhibit 3. Summary of Missing, Censored, and Uncensored Data–UCRS (Continued)

Dissolved Oxygen	**3**	**0**	**0**	**3**	**YES**
Dissolved Solids	**3**	**0**	**0**	**3**	**YES**
Ethylbenzene	3	0	3	0	no
Iodide	3	0	3	0	no
Iodomethane	3	0	3	0	no
Iron	**3**	**0**	**0**	**3**	**YES**
Magnesium	**3**	**0**	**0**	**3**	**YES**
Manganese	**3**	**0**	**0**	**3**	**YES**
Methylene chloride	3	0	3	0	no
Molybdenum	3	0	3	0	no
Nickel	3	0	3	0	no
Oxidation-Reduction Potential	**3**	**0**	**0**	**3**	**YES**
PCB, Total	3	3	0	0	no
PCB-1016	3	3	0	0	no
PCB-1221	3	3	0	0	no
PCB-1232	3	3	0	0	no
PCB-1242	3	3	0	0	no
PCB-1248	3	3	0	0	no
PCB-1254	3	3	0	0	no
PCB-1260	3	3	0	0	no
PCB-1268	3	3	0	0	no
pH	**3**	**0**	**0**	**3**	**YES**
Potassium	**3**	**0**	**0**	**3**	**YES**
Radium-226	3	0	3	0	no
Rhodium	3	0	3	0	no
Sodium	**3**	**0**	**0**	**3**	**YES**
Styrene	3	0	3	0	no
Sulfate	**3**	**0**	**0**	**3**	**YES**
Tantalum	3	0	3	0	no
Technetium-99	3	0	3	0	no
Tetrachloroethene	3	0	3	0	no
Thallium	3	0	3	0	no
Thorium-230	3	0	3	0	no
Toluene	3	0	3	0	no
Total Organic Carbon (TOC)	**3**	**0**	**0**	**3**	**YES**
Total Organic Halides (TOX)	**3**	**0**	**0**	**3**	**YES**
trans-1,2-Dichloroethene	3	0	3	0	no
trans-1,3-Dichloropropene	3	0	3	0	no
Trans-1,4-Dichloro-2-butene	3	0	3	0	no
Trichlorofluoromethane	3	0	3	0	no
Uranium	3	0	3	0	no
Vanadium	3	0	3	0	no
Vinyl acetate	3	0	3	0	no
Zinc	3	0	3	0	no

Bold denotes parameters with at least one uncensored observation.

Exhibit 4. Summary of Missing, Censored, and Uncensored Data–URGA

Parameters	Observations	Missing Observation	Censored Observation	Uncensored Observation	Statistical Analysis?
1,1,1,2-Tetrachloroethane	11	0	11	0	no
1,1,2,2-Tetrachloroethane	11	0	11	0	no
1,1,2-Trichloroethane	11	0	11	0	no
1,1-Dichloroethane	11	0	11	0	no
1,2,3-Trichloropropane	11	0	11	0	no
1,2-Dibromo-3-chloropropane	11	0	11	0	no
1,2-Dibromoethane	11	0	11	0	no
1,2-Dichlorobenzene	11	0	11	0	no
1,2-Dichloropropane	11	0	11	0	no
2-Butanone	11	1	10	0	no
2-Hexanone	11	0	11	0	no
4-Methyl-2-pentanone	11	0	11	0	no
Acetone	11	0	11	0	no
Acrolein	11	0	11	0	no
Acrylonitrile	11	1	10	0	no
Aluminum	**11**	**0**	**9**	**2**	**YES**
Antimony	11	0	11	0	no
Beryllium	11	0	11	0	no
Boron	**11**	**0**	**10**	**1**	**YES**
Bromide	11	0	11	0	no
Bromochloromethane	11	1	10	0	no
Bromodichloromethane	11	1	10	0	no
Bromoform	11	0	11	0	no
Bromomethane	11	1	10	0	no
Calcium	**11**	**0**	**0**	**11**	**YES**
Carbon disulfide	11	1	10	0	no
Chemical Oxygen Demand (COD)	11	1	10	0	no
Chloride	**11**	**0**	**0**	**11**	**YES**
Chlorobenzene	11	1	10	0	no
Chloroethane	11	1	10	0	no
Chloroform	11	1	10	0	no
Chloromethane	11	1	10	0	no
cis-1,2-Dichloroethene	11	1	10	0	no
cis-1,3-Dichloropropene	11	1	10	0	no
Cobalt	**11**	**1**	**5**	**5**	**YES**
Conductivity	**11**	**0**	**0**	**11**	**YES**
Copper	11	1	10	0	no
Cyanide	11	1	10	0	no
Dibromochloromethane	11	1	10	0	no
Dibromomethane	11	0	11	0	no
Dimethylbenzene, Total	11	0	11	0	no
Dissolved Oxygen	**11**	**0**	**0**	**11**	**YES**
Dissolved Solids	**11**	**0**	**0**	**11**	**YES**
Ethylbenzene	11	0	11	0	no
Iodide	11	0	11	0	no
Iodomethane	11	0	11	0	no
Iron	**11**	**0**	**2**	**9**	**YES**
Magnesium	**11**	**0**	**0**	**11**	**YES**

Exhibit 4. Summary of Missing, Censored, and Uncensored Data–URGA (Continued)

Manganese	**11**	**0**	**0**	**11**	**YES**
Methylene chloride	11	0	11	0	no
Molybdenum	**11**	**0**	**7**	**4**	**YES**
Nickel	**11**	**0**	**5**	**6**	**YES**
Oxidation-Reduction Potential	**11**	**0**	**0**	**11**	**YES**
PCB, Total	11	9	2	0	no
PCB-1016	11	9	2	0	no
PCB-1221	11	9	2	0	no
PCB-1232	11	9	2	0	no
PCB-1242	11	9	2	0	no
PCB-1248	11	9	2	0	no
PCB-1254	11	9	2	0	no
PCB-1260	11	9	2	0	no
PCB-1268	11	9	2	0	no
pH	**11**	**0**	**0**	**11**	**YES**
Potassium	**11**	**0**	**0**	**11**	**YES**
Radium-226	11	0	11	0	no
Rhodium	11	0	11	0	no
Sodium	**11**	**0**	**0**	**11**	**YES**
Styrene	11	0	11	0	no
Sulfate	**11**	**0**	**0**	**11**	**YES**
Tantalum	11	0	11	0	no
Technetium-99	**11**	**0**	**7**	**4**	**YES**
Tetrachloroethene	11	0	11	0	no
Thallium	11	0	11	0	no
Thorium-230	11	0	11	0	no
Toluene	11	0	11	0	no
Total Organic Carbon (TOC)	**11**	**0**	**7**	**4**	**YES**
Total Organic Halides (TOX)	**11**	**0**	**0**	**11**	**YES**
trans-1,2-Dichloroethene	11	0	11	0	no
trans-1,3-Dichloropropene	11	0	11	0	no
Trans-1,4-Dichloro-2-butene	11	0	11	0	no
Trichlorofluoromethane	11	0	11	0	no
Uranium	11	0	11	0	no
Vanadium	11	0	11	0	no
Vinyl acetate	11	0	11	0	no
Zinc	11	0	11	0	no

Bold denotes parameters with at least one uncensored observation.

Exhibit 5. Summary of Missing, Censored, and Uncensored Data–LRGA

Parameters	Observations	Missing Observation	Censored Observation	Uncensored Observation	Statistical Analysis?
1,1,1,2-Tetrachloroethane	7	0	7	0	no
1,1,2,2-Tetrachloroethane	7	0	7	0	no
1,1,2-Trichloroethane	7	0	7	0	no
1,1-Dichloroethane	7	0	7	0	no
1,2,3-Trichloropropane	7	0	7	0	no
1,2-Dibromo-3-chloropropane	7	0	7	0	no
1,2-Dibromoethane	7	0	7	0	no
1,2-Dichlorobenzene	7	0	7	0	no
1,2-Dichloropropane	7	0	7	0	no
2-Butanone	7	0	7	0	no
2-Hexanone	7	0	7	0	no
4-Methyl-2-pentanone	7	0	7	0	no
Acetone	7	0	7	0	no
Acrolein	7	0	7	0	no
Acrylonitrile	7	0	7	0	no
Aluminum	**7**	**0**	**6**	**1**	**YES**
Antimony	7	0	7	0	no
Beryllium	7	0	7	0	no
Boron	**7**	**0**	**6**	**1**	**YES**
Bromide	7	0	7	0	no
Bromochloromethane	7	0	7	0	no
Bromodichloromethane	7	0	7	0	no
Bromoform	7	0	7	0	no
Bromomethane	7	0	7	0	no
Calcium	**7**	**0**	**0**	**7**	**YES**
Carbon disulfide	7	0	7	0	no
Chemical Oxygen Demand (COD)	7	0	7	0	no
Chloride	**7**	**0**	**0**	**7**	**YES**
Chlorobenzene	7	0	7	0	no
Chloroethane	7	0	7	0	no
Chloroform	7	0	7	0	no
Chloromethane	7	0	7	0	no
cis-1,2-Dichloroethene	7	0	7	0	no
cis-1,3-Dichloropropene	7	0	7	0	no
Cobalt	7	0	7	0	no
Conductivity	**7**	**0**	**0**	**7**	**YES**
Copper	7	0	7	0	no
Cyanide	7	0	7	0	no
Dibromochloromethane	7	0	7	0	no
Dibromomethane	7	0	7	0	no
Dimethylbenzene, Total	7	0	7	0	no
Dissolved Oxygen	**7**	**0**	**0**	**7**	**YES**
Dissolved Solids	**7**	**0**	**0**	**7**	**YES**
Ethylbenzene	7	0	7	0	no
Iodide	7	0	7	0	no
Iodomethane	7	0	7	0	no
Iron	**7**	**0**	**4**	**3**	**YES**
Magnesium	**7**	**0**	**0**	**7**	**YES**
Manganese	**7**	**0**	**3**	**4**	**YES**
Methylene chloride	7	0	7	0	no
Molybdenum	7	0	7	0	no

Exhibit 5. Summary of Missing, Censored, and Uncensored Data–LRGA (Continued)

Nickel	**7**	**0**	**5**	**2**	**YES**
Oxidation-Reduction Potential	**7**	**0**	**0**	**7**	**YES**
PCB, Total	7	5	2	0	no
PCB-1016	7	5	2	0	no
PCB-1221	7	5	2	0	no
PCB-1232	7	5	2	0	no
PCB-1242	7	5	2	0	no
PCB-1248	7	5	2	0	no
PCB-1254	7	5	2	0	no
PCB-1260	7	5	2	0	no
PCB-1268	7	5	2	0	no
pH	**7**	**0**	**0**	**7**	**YES**
Potassium	**7**	**0**	**0**	**7**	**YES**
Radium-226	7	0	7	0	no
Rhodium	7	0	7	0	no
Sodium	**7**	**0**	**0**	**7**	**YES**
Styrene	7	0	7	0	no
Sulfate	**7**	**0**	**0**	**7**	**YES**
Tantalum	7	0	7	0	no
Technetium-99	**7**	**0**	**2**	**5**	**YES**
Tetrachloroethene	7	0	7	0	no
Thallium	7	0	7	0	no
Thorium-230	7	0	7	0	no
Toluene	7	0	7	0	no
Total Organic Carbon (TOC)	**7**	**0**	**5**	**2**	**YES**
Total Organic Halides (TOX)	**7**	**0**	**0**	**7**	**YES**
trans-1,2-Dichloroethene	7	0	7	0	no
trans-1,3-Dichloropropene	7	0	7	0	no
Trans-1,4-Dichloro-2-butene	7	0	7	0	no
Trichlorofluoromethane	7	0	7	0	no
Uranium	7	0	7	0	no
Vanadium	7	0	7	0	no
Vinyl acetate	7	0	7	0	no
Zinc	7	0	7	0	no

Bold denotes parameters with at least one uncensored observation.

Discussion of Results

For the UCRS, URGA, and LRGA, the results of the tolerance interval tests are presented on pages D-17 through D-73 and the statistician qualification statement is presented on page D-74. For the UCRS, URGA, and LRGA, the test was applied to 17, 21, and 19 parameters, respectively, listed in Exhibits 3, 4, and 5. A summary of statistical exceedances by well number is shown in Exhibit 6.

UCRS

In this quarter, statistical test results indicated there were elevated concentrations of chemical oxygen demand and oxidation-reduction potential.

URGA

In this quarter, statistical test results indicated there were elevated concentrations of aluminum, calcium, conductivity, dissolved solids, magnesium, oxidation-reduction potential, pH, sodium, sulfate, and technetium-99.

LRGA

In this quarter, statistical test results indicated there were elevated concentrations of calcium, conductivity, dissolved solids, magnesium, oxidation-reduction potential, pH, potassium, sodium, sulfate, and technetium-99.

Conclusion

Summaries of the statistical tests conducted on data obtained from wells in the UCRS, the URGA, and the LRGA are presented in Exhibit 7, Exhibit 8, and Exhibit 9, respectively.

Exhibit 6. Summary of Statistical Increases

UCRS	URGA	LRGA
MW386: chemical oxygen demand	MW221: oxidation-reduction potential	MW370: oxidation-reduction potential, sulfate
MW393: oxidation-reduction potential	MW222: aluminum	MW373: calcium, conductivity, dissolved solids, magnesium potassium, sodium, sulfate, technetium-99
	MW223: oxidation-reduction potential	MW385: pH, sulfate, technetium-99
	MW224: oxidation-reduction potential	MW388: oxidation-reduction potential, sulfate, technetium-99
	MW369: aluminum, oxidation-reduction potential	MW392: oxidation-reduction potential
	MW372: calcium, conductivity, dissolved solids, magnesium sodium, sulfate	
	MW384: dissolved solids, pH, sodium, sulfate, technetium-99	
	MW387: oxidation-reduction potential pH, sulfate, technetium-99	
	MW391: oxidation-reduction potential	

Exhibit 7. Summary of Parameters Identified for Statistical Analysis and the Test Results—UCRS

Parameter	Performed Test	CV Normality Test	Results of Tolerance Interval Test Conducted
Calcium	Tolerance Interval	0.20	No elevated concentrations
Chemical Oxygen Demand (COD)	Tolerance Interval	0.02	Elevated concentration in MW386
Chloride	Tolerance Interval	0.05	No elevated concentrations
Cobalt	Tolerance Interval	1.34	No elevated concentrations
Conductivity	Tolerance Interval	0.12	No elevated concentrations
Dissolved Oxygen	Tolerance Interval	1.20	No elevated concentrations
Dissolved Solids	Tolerance Interval	0.19	No elevated concentrations
Iron	Tolerance Interval	0.48	No elevated concentrations
Magnesium	Tolerance Interval	0.20	No elevated concentrations
Manganese	Tolerance Interval	0.46	No elevated concentrations
Oxidation-Reduction Potential	Tolerance Interval	4.77	Elevated concentration in MW393
pH	Tolerance Interval	0.05	No deviated concentrations
Potassium	Tolerance Interval	0.28	No elevated concentrations
Sodium	Tolerance Interval	0.30	No elevated concentrations
Sulfate	Tolerance Interval	0.40	No elevated concentrations
Total Organic Carbon	Tolerance Interval	0.47	No elevated concentrations
Total Organic Halides	Tolerance Interval	0.38	No elevated concentrations

CV: coefficient of variation

Exhibit 8. Summary of Parameters Identified for Statistical Analysis and the Test Results—URGA

Parameter	Performed Test	CV Normality Test	Results of Tolerance Interval Test Conducted
Aluminum	Tolerance Interval	0.38	Elevated concentrations in MW222 and MW369
Boron	Tolerance Interval	1.45	No elevated concentrations
Calcium	Tolerance Interval	0.17	Elevated concentration in MW372
Chloride	Tolerance Interval	0.23	No elevated concentrations
Cobalt	Tolerance Interval	2.44	No elevated concentrations
Conductivity	Tolerance Interval	0.28	Elevated concentration in MW372
Dissolved Oxygen	Tolerance Interval	0.50	No elevated concentrations
Dissolved Solids	Tolerance Interval	0.12	Elevated concentrations in MW372 and MW384
Iron	Tolerance Interval	1.17	No elevated concentrations
Magnesium	Tolerance Interval	0.16	Elevated concentration in MW372
Manganese	Tolerance Interval	2.16	No elevated concentrations
Molybdenum	Tolerance Interval	1.26	No elevated concentrations
Nickel	Tolerance Interval	1.79	No elevated concentrations
Oxidation-Reduction Potential	Tolerance Interval	0.48	Elevated concentrations in MW221, MW223, MW224, MW369, MW387, and MW391
pH	Tolerance Interval	0.05	Elevated concentrations in MW384 and MW387
Potassium	Tolerance Interval	1.40	No elevated concentrations
Sodium	Tolerance Interval	0.24	Elevated concentrations in MW372 and MW384
Sulfate	Tolerance Interval	0.25	Elevated concentrations in MW372, MW384, and MW387
Technetium-99	Tolerance Interval	0.99	Elevated concentrations in MW384 and MW387
Total Organic Carbon	Tolerance Interval	0.49	No elevated concentrations
Total Organic Halides	Tolerance Interval	0.59	No elevated concentrations

CV: coefficient of variation

Exhibit 9. Summary of Parameters Identified for Statistical Analysis and the Test Results—LRGA

Parameter	Performed Test	CV Normality Test	Results of Tolerance Interval Test Conducted
Aluminum	Tolerance Interval	0.86	No elevated concentrations
Boron	Tolerance Interval	1.24	No elevated concentrations
Calcium	Tolerance Interval	0.50	Elevated concentration in MW373
Chloride	Tolerance Interval	0.23	No elevated concentrations
Conductivity	Tolerance Interval	0.14	Elevated concentration in MW373
Dissolved Oxygen	Tolerance Interval	0.52	No elevated concentrations
Dissolved Solids	Tolerance Interval	0.16	Elevated concentration in MW373
Iron	Tolerance Interval	1.29	No elevated concentrations
Magnesium	Tolerance Interval	0.52	Elevated concentration in MW373
Manganese	Tolerance Interval	1.49	No elevated concentrations
Nickel	Tolerance Interval	1.09	No elevated concentrations
Oxidation-Reduction Potential	Tolerance Interval	0.33	Elevated concentrations in MW370, MW388, and MW392
pH	Tolerance Interval	0.04	Elevated concentration in MW385
Potassium	Tolerance Interval	0.40	Elevated concentration in MW373
Sodium	Tolerance Interval	0.47	Elevated concentration in MW373
Sulfate	Tolerance Interval	0.20	Elevated concentrations in MW370, MW373, MW385, and MW388
Technetium-99	Tolerance Interval	0.81	Elevated concentrations in MW373, MW385, and MW388
Total Organic Carbon	Tolerance Interval	0.55	No elevated concentrations
Total Organic Halides	Tolerance Interval	0.59	No elevated concentrations

CV: coefficient of variation

C-746-S and C-746-T First Quarter 2013 Statistical Analysis UCRS
Calcium UNITS: mg/L

The CV is calculated to determine if background data are normally distributed. If so, the current test well results are compared to the TL. If not, a transformation is performed on the background and test well results, then each transformed test well result is compared to the transformed TL. If the test well result exceeds the TL, that is statistically significant evidence of elevated concentration in that well.

Background Data from Upgradient Wells

Well Number:	MW396
Date Collected	Result
8/13/2002	38.400
9/16/2002	42.900
10/16/2002	40.200
1/13/2003	46.700
4/8/2003	49.800
7/16/2003	43.300
10/14/2003	49.700
1/14/2004	23.600

Statistics on Background Data

X= 41.825
S= 8.445
CV= 0.202
K factor = 3.188**
TL= 68.748

Because CV is less than or equal to 1, assume normal distribution and continue with statistical anaylsis.

First Quarter 2013 Data Collected in January 2013

Well No.	Result	Gradient	Result > TL?
MW386	21.700	Sidegradient	NO
MW393	10.400	Downgradient	NO

First Quarter 2013 Dry/Partially Dry Wells

Well No.	Gradient
MW389	Downgradient

Conclusion of Statistical Analysis on Data

None of the test wells exceeded the Upper Tolerance Limit, which is statistically significant evidence that these wells have no elevated concentrations with respect to background data.

CV Coefficient of Variation, CV = S/X If CV is less than or equal to 1 assume normal distribution.
S Standard Deviation, S = [Sum ([(background result-X)^2]/[count of background results -1])]^0.5
TL Upper Tolerance Limit, TL = X + (K * S)
X Mean, X = (sum of background results)/(count of background results)
** Read from Table 5, Appendix B of *Statistical Analysis of Ground-Water Monitoring Data at RCRA Facilities,* Interim Guidance, EPA, 1989, based on total number of background results

C-746-S and C-746-T First Quarter 2013 Statistical Analysis UCRS
Chemical Oxygen Demand (COD) UNITS: mg/L

The CV is calculated to determine if background data are normally distributed. If so, the current test well results are compared to the TL. If not, a transformation is performed on the background and test well results, then each transformed test well result is compared to the transformed TL. If the test well result exceeds the TL, that is statistically significant evidence of elevated concentration in that well.

Background Data from Upgradient Wells

Well Number: MW396

Date Collected	Result
8/13/2002	36.000
9/16/2002	35.000
10/16/2002	37.000
1/13/2003	35.000
4/8/2003	35.000
7/16/2003	35.000
10/14/2003	35.000
1/14/2004	35.000

Statistics on Background Data

X= 35.375
S= 0.744
CV= 0.021
K factor = 3.188**
TL= 37.747

Because CV is less than or equal to 1, assume normal distribution and continue with statistical anaylsis.

First Quarter 2013 Data Collected in January 2013

Well No.	Result	Gradient	Result > TL?
MW386	38.000	Sidegradient	**YES**
MW393	25.000	Downgradient	NO

First Quarter 2013 Dry/Partially Dry Wells

Well No.	Gradient
MW389	Downgradient

Conclusion of Statistical Analysis on Data

The following test well(s) exceeded the Upper Tolerance Limit, which is statistically significant evidence of elevated concentration with respect to background data.

MW386

CV Coefficient of Variation, CV = S/X If CV is less than or equal to 1 assume normal distribution.
S Standard Deviation, S = [Sum ([(background result-X)^2]/[count of background results -1])]^0.5
TL Upper Tolerance Limit, TL = X + (K * S)
X Mean, X = (sum of background results)/(count of background results)
** Read from Table 5, Appendix B of *Statistical Analysis of Ground-Water Monitoring Data at RCRA Facilities,* Interim Guidance, EPA, 1989, based on total number of background results

C-746-S and C-746-T First Quarter 2013 Statistical Analysis UCRS
Chloride UNITS: mg/L

The CV is calculated to determine if background data are normally distributed. If so, the current test well results are compared to the TL. If not, a transformation is performed on the background and test well results, then each transformed test well result is compared to the transformed TL. If the test well result exceeds the TL, that is statistically significant evidence of elevated concentration in that well.

Background Data from Upgradient Wells

Well Number: MW396

Date Collected	Result
8/13/2002	91.600
9/16/2002	98.300
10/16/2002	101.400
1/13/2003	108.300
4/8/2003	100.500
7/16/2003	102.500
10/14/2003	106.800
1/14/2004	104.400

Statistics on Background Data

X= 101.725
S= 5.245
CV= 0.052
K factor = 3.188**
TL= 118.447

Because CV is less than or equal to 1, assume normal distribution and continue with statistical anaylsis.

First Quarter 2013 Data Collected in January 2013

Well No.	Result	Gradient	Result > TL?
MW386	19.000	Sidegradient	NO
MW393	17.000	Downgradient	NO

First Quarter 2013 Dry/Partially Dry Wells

Well No.	Gradient
MW389	Downgradient

Conclusion of Statistical Analysis on Data

None of the test wells exceeded the Upper Tolerance Limit, which is statistically significant evidence that these wells have no elevated concentrations with respect to background data.

CV Coefficient of Variation, CV = S/X If CV is less than or equal to 1 assume normal distribution.
S Standard Deviation, S = [Sum ([(background result-X)^2]/[count of background results -1])]^0.5
TL Upper Tolerance Limit, TL = X + (K * S)
X Mean, X = (sum of background results)/(count of background results)
** Read from Table 5, Appendix B of *Statistical Analysis of Ground-Water Monitoring Data at RCRA Facilities,* Interim Guidance, EPA, 1989, based on total number of background results

C-746-S and C-746-T First Quarter 2013 Statistical Analysis UCRS
Cobalt UNITS: mg/L

The CV is calculated to determine if background data are normally distributed. If so, the current test well results are compared to the TL. If not, a transformation is performed on the background and test well results, then each transformed test well result is compared to the transformed TL. If the test well result exceeds the TL, that is statistically significant evidence of elevated concentration in that well.

Background Data from Upgradient Wells

Well Number:	MW396
Date Collected	Result
8/13/2002	0.025
9/16/2002	0.025
10/16/2002	0.001
1/13/2003	0.003
4/8/2003	0.004
7/16/2003	0.003
10/14/2003	0.001
1/14/2004	0.001

Statistics on Background Data

X= 0.008
S= 0.011
CV= 1.340
K factor = 3.188**
TL= 0.042

Because CV greater than 1, the natural logarithm of background and test well results were calculated.

Statistics on Transformed Background Data

X= -5.645
S= 1.339
CV= -0.237
K factor = 3.188**
TL= -1.377

Transformed Background Data from Upgradient Wells

Well Number:	MW396
Date Collected	LN(Result)
8/13/2002	-3.689
9/16/2002	-3.689
10/16/2002	-6.908
1/13/2003	-5.732
4/8/2003	-5.435
7/16/2003	-5.893
10/14/2003	-6.908
1/14/2004	-6.908

First Quarter 2013 Data Collected in January 2013

Well No.	Result	Gradient	Result > TL?
MW386	0.007	Sidegradient	N/A
MW393	0.001	Downgradient	N/A

First Quarter 2013 Dry/Partially Dry Wells

Well No.	Gradient
MW389	Downgradient

Transformed First Quarter 2013 Data Collected in January 2013

Well Number	LN(Result)	Result > TL?
MW386	-4.943	NO
MW393	-6.908	NO

Conclusion of Statistical Analysis on Transformed Data

None of the test wells exceeded the Upper Tolerance Limit, which is statistically significant evidence that these wells have no elevated concentrations with respect to background data.

CV Coefficient of Variation, CV = S/X If CV is less than or equal to 1 assume normal distribution.
S Standard Deviation, S = [Sum ([(background result-X)^2]/[count of background results -1])]^0.5
TL Upper Tolerance Limit, TL = X + (K * S)
X Mean, X = (sum of background results)/(count of background results)
** Read from Table 5, Appendix B of *Statistical Analysis of Ground-Water Monitoring Data at RCRA Facilities,* Interim Guidance, EPA, 1989, based on total number of background results

C-746-S and C-746-T First Quarter 2013 Statistical Analysis UCRS
Conductivity UNITS: umho/cm

The CV is calculated to determine if background data are normally distributed. If so, the current test well results are compared to the TL. If not, a transformation is performed on the background and test well results, then each transformed test well result is compared to the transformed TL. If the test well result exceeds the TL, that is statistically significant evidence of elevated concentration in that well.

Background Data from Upgradient Wells

Well Number: MW396

Date Collected	Result
8/13/2002	784.000
9/30/2002	871.000
10/16/2002	868.000
1/13/2003	912.000
4/8/2003	942.000
7/16/2003	910.000
10/14/2003	935.000
1/14/2004	1158.00

Statistics on Background Data

X= 922.500
S= 107.616
CV= 0.117
K factor = 3.188**
TL= 1265.579

Because CV is less than or equal to 1, assume normal distribution and continue with statistical anaylsis.

First Quarter 2013 Data Collected in January 2013

Well No.	Result	Gradient	Result > TL?
MW386	624.00	Sidegradient	NO
MW393	394.00	Downgradient	NO

First Quarter 2013 Dry/Partially Dry Wells

Well No.	Gradient
MW389	Downgradient

Conclusion of Statistical Analysis on Data

None of the test wells exceeded the Upper Tolerance Limit, which is statistically significant evidence that these wells have no elevated concentrations with respect to background data.

CV Coefficient of Variation, CV = S/X If CV is less than or equal to 1 assume normal distribution.
S Standard Deviation, S = [Sum ([(background result-X)^2]/[count of background results -1])]^0.5
TL Upper Tolerance Limit, TL = X + (K * S)
X Mean, X = (sum of background results)/(count of background results)
** Read from Table 5, Appendix B of *Statistical Analysis of Ground-Water Monitoring Data at RCRA Facilities,* Interim Guidance, EPA, 1989, based on total number of background results

C-746-S and C-746-T First Quarter 2013 Statistical Analysis UCRS
Dissolved Oxygen UNITS: mg/L

The CV is calculated to determine if background data are normally distributed. If so, the current test well results are compared to the TL. If not, a transformation is performed on the background and test well results, then each transformed test well result is compared to the transformed TL. If the test well result exceeds the TL, that is statistically significant evidence of elevated concentration in that well.

Background Data from Upgradient Wells

Well Number:	MW396
Date Collected	Result
8/13/2002	5.450
9/16/2002	0.400
10/16/2002	0.540
1/13/2003	0.720
4/8/2003	0.690
7/16/2003	1.100
10/14/2003	0.710
1/14/2004	1.550

Statistics on Background Data

X= 1.395
S= 1.677
CV= 1.202
K factor = 3.188**
TL= 6.743

Because CV greater than 1, the natural logarithm of background and test well results were calculated.

Statistics on Transformed Background Data

X= -0.043
S= 0.814
CV= -18.867
K factor = 3.188**
TL= 2.553

Transformed Background Data from Upgradient Wells

Well Number:	MW396
Date Collected	LN(Result)
8/13/2002	1.696
9/16/2002	-0.916
10/16/2002	-0.616
1/13/2003	-0.329
4/8/2003	-0.371
7/16/2003	0.095
10/14/2003	-0.342
1/14/2004	0.438

First Quarter 2013 Data Collected in January 2013

Well No.	Result	Gradient	Result > TL?
MW386	1.320	Sidegradient	N/A
MW393	1.200	Downgradient	N/A

First Quarter 2013 Dry/Partially Dry Wells

Well No.	Gradient
MW389	Downgradient

Transformed First Quarter 2013 Data Collected in January 2013

Well Number	LN(Result)	Result > TL?
MW386	0.278	NO
MW393	0.182	NO

Conclusion of Statistical Analysis on Transformed Data

None of the test wells exceeded the Upper Tolerance Limit, which is statistically significant evidence that these wells have no elevated concentrations with respect to background data.

CV Coefficient of Variation, CV = S/X If CV is less than or equal to 1 assume normal distribution.
S Standard Deviation, S = [Sum ([(background result-X)^2]/[count of background results -1])]^0.5
TL Upper Tolerance Limit, TL = X + (K * S)
X Mean, X = (sum of background results)/(count of background results)
** Read from Table 5, Appendix B of *Statistical Analysis of Ground-Water Monitoring Data at RCRA Facilities,* Interim Guidance, EPA, 1989, based on total number of background results

C-746-S and C-746-T First Quarter 2013 Statistical Analysis UCRS
Dissolved Solids UNITS: mg/L

The CV is calculated to determine if background data are normally distributed. If so, the current test well results are compared to the TL. If not, a transformation is performed on the background and test well results, then each transformed test well result is compared to the transformed TL. If the test well result exceeds the TL, that is statistically significant evidence of elevated concentration in that well.

Background Data from Upgradient Wells

Well Number: MW396

Date Collected	Result
8/13/2002	502.000
9/16/2002	506.000
10/16/2002	543.000
1/13/2003	521.000
4/8/2003	504.000
7/16/2003	532.000
10/14/2003	490.000
1/14/2004	805.000

Statistics on Background Data

X= 550.375
S= 104.330
CV= 0.190
K factor = 3.188**
TL= 882.980

Because CV is less than or equal to 1, assume normal distribution and continue with statistical anaylsis.

First Quarter 2013 Data Collected in January 2013

Well No.	Result	Gradient	Result > TL?
MW386	405.00	Sidegradient	NO
MW393	246.00	Downgradient	NO

First Quarter 2013 Dry/Partially Dry Wells

Well No.	Gradient
MW389	Downgradient

Conclusion of Statistical Analysis on Data

None of the test wells exceeded the Upper Tolerance Limit, which is statistically significant evidence that these wells have no elevated concentrations with respect to background data.

CV Coefficient of Variation, CV = S/X If CV is less than or equal to 1 assume normal distribution.
S Standard Deviation, S = [Sum ([(background result-X)^2]/[count of background results -1])]^0.5
TL Upper Tolerance Limit, TL = X + (K * S)
X Mean, X = (sum of background results)/(count of background results)
** Read from Table 5, Appendix B of *Statistical Analysis of Ground-Water Monitoring Data at RCRA Facilities,* Interim Guidance, EPA, 1989, based on total number of background results

C-746-S and C-746-T First Quarter 2013 Statistical Analysis UCRS
Iron UNITS: mg/L

The CV is calculated to determine if background data are normally distributed. If so, the current test well results are compared to the TL. If not, a transformation is performed on the background and test well results, then each transformed test well result is compared to the transformed TL. If the test well result exceeds the TL, that is statistically significant evidence of elevated concentration in that well.

Background Data from Upgradient Wells

Well Number: MW396

Date Collected	Result
8/13/2002	1.800
9/16/2002	9.530
10/16/2002	7.430
1/13/2003	9.930
4/8/2003	10.200
7/16/2003	9.160
10/14/2003	11.900
1/14/2004	2.420

Statistics on Background Data

X= 7.796
S= 3.723
CV= 0.478
K factor = 3.188**
TL= 19.666

Because CV is less than or equal to 1, assume normal distribution and continue with statistical anaylsis.

First Quarter 2013 Data Collected in January 2013

Well No.	Result	Gradient	Result > TL?
MW386	3.470	Sidegradient	NO
MW393	1.920	Downgradient	NO

First Quarter 2013 Dry/Partially Dry Wells

Well No.	Gradient
MW389	Downgradient

Conclusion of Statistical Analysis on Data

None of the test wells exceeded the Upper Tolerance Limit, which is statistically significant evidence that these wells have no elevated concentrations with respect to background data.

CV Coefficient of Variation, CV = S/X If CV is less than or equal to 1 assume normal distribution.
S Standard Deviation, S = [Sum ([(background result-X)^2]/[count of background results -1])]^0.5
TL Upper Tolerance Limit, TL = X + (K * S)
X Mean, X = (sum of background results)/(count of background results)
** Read from Table 5, Appendix B of *Statistical Analysis of Ground-Water Monitoring Data at RCRA Facilities,* Interim Guidance, EPA, 1989, based on total number of background results

C-746-S and C-746-T First Quarter 2013 Statistical Analysis UCRS
Magnesium UNITS: mg/L

The CV is calculated to determine if background data are normally distributed. If so, the current test well results are compared to the TL. If not, a transformation is performed on the background and test well results, then each transformed test well result is compared to the transformed TL. If the test well result exceeds the TL, that is statistically significant evidence of elevated concentration in that well.

Background Data from Upgradient Wells

Well Number: MW396

Date Collected	Result
8/13/2002	15.500
9/16/2002	17.300
10/16/2002	17.800
1/13/2003	19.200
4/8/2003	17.800
7/16/2003	17.800
10/14/2003	20.200
1/14/2004	9.410

Statistics on Background Data

X= 16.876
S= 3.313
CV= 0.196
K factor = 3.188**
TL= 27.438

Because CV is less than or equal to 1, assume normal distribution and continue with statistical anaylsis.

First Quarter 2013 Data Collected in January 2013

Well No.	Result	Gradient	Result > TL?
MW386	8.940	Sidegradient	NO
MW393	2.960	Downgradient	NO

First Quarter 2013 Dry/Partially Dry Wells

Well No.	Gradient
MW389	Downgradient

Conclusion of Statistical Analysis on Data

None of the test wells exceeded the Upper Tolerance Limit, which is statistically significant evidence that these wells have no elevated concentrations with respect to background data.

CV Coefficient of Variation, CV = S/X If CV is less than or equal to 1 assume normal distribution.
S Standard Deviation, S = [Sum ([(background result-X)^2]/[count of background results -1])]^0.5
TL Upper Tolerance Limit, TL = X + (K * S)
X Mean, X = (sum of background results)/(count of background results)
** Read from Table 5, Appendix B of *Statistical Analysis of Ground-Water Monitoring Data at RCRA Facilities,* Interim Guidance, EPA, 1989, based on total number of background results

C-746-S and C-746-T First Quarter 2013 Statistical Analysis UCRS
Manganese UNITS: mg/L

The CV is calculated to determine if background data are normally distributed. If so, the current test well results are compared to the TL. If not, a transformation is performed on the background and test well results, then each transformed test well result is compared to the transformed TL. If the test well result exceeds the TL, that is statistically significant evidence of elevated concentration in that well.

Background Data from Upgradient Wells

Well Number:	MW396
Date Collected	Result
8/13/2002	0.570
9/16/2002	0.647
10/16/2002	0.880
1/13/2003	1.132
4/8/2003	0.965
7/16/2003	0.983
10/14/2003	0.984
1/14/2004	0.031

Statistics on Background Data

X= 0.774
S= 0.353
CV= 0.456
K factor = 3.188**
TL= 1.900

Because CV is less than or equal to 1, assume normal distribution and continue with statistical anaylsis.

First Quarter 2013 Data Collected in January 2013

Well No.	Result	Gradient	Result > TL?
MW386	0.914	Sidegradient	NO
MW393	0.031	Downgradient	NO

First Quarter 2013 Dry/Partially Dry Wells

Well No.	Gradient
MW389	Downgradient

Conclusion of Statistical Analysis on Data

None of the test wells exceeded the Upper Tolerance Limit, which is statistically significant evidence that these wells have no elevated concentrations with respect to background data.

CV Coefficient of Variation, CV = S/X If CV is less than or equal to 1 assume normal distribution.
S Standard Deviation, S = [Sum ([(background result-X)^2]/[count of background results -1])]^0.5
TL Upper Tolerance Limit, TL = X + (K * S)
X Mean, X = (sum of background results)/(count of background results)
** Read from Table 5, Appendix B of *Statistical Analysis of Ground-Water Monitoring Data at RCRA Facilities,* Interim Guidance, EPA, 1989, based on total number of background results

C-746-S and C-746-T First Quarter 2013 Statistical Analysis UCRS
Oxidation-Reduction Potential UNITS: mV

The CV is calculated to determine if background data are normally distributed. If so, the current test well results are compared to the TL. If not, a transformation is performed on the background and test well results, then each transformed test well result is compared to the transformed TL. If the test well result exceeds the TL, that is statistically significant evidence of elevated concentration in that well.

Background Data from Upgradient Wells

Well Number:	MW396
Date Collected	Result
8/13/2002	60.000
4/8/2003	71.000
7/16/2003	-56.000
10/14/2003	-54.000
1/14/2004	-22.000
4/12/2004	-6.000
7/20/2004	-3.000
10/12/2004	114.000

Statistics on Background Data

X= 13.000
S= 61.952
CV= 4.766
K factor = 3.188**
TL= 210.502

Because CV greater than 1, the natural logarithm of background and test well results were calculated.

Statistics on Transformed Background Data

X = error
S = error
CV = error
K factor = 3.188**
TL# = 4.736

Because the natural log was not possible for all background values, the TL was considered equal to the maximum background value.

Transformed Background Data from Upgradient Wells

Well Number:	MW396
Date Collected	LN(Result)
8/13/2002	4.094
4/8/2003	4.263
7/16/2003	#Func!
10/14/2003	#Func!
1/14/2004	#Func!
4/12/2004	#Func!
7/20/2004	#Func!
10/12/2004	4.736

First Quarter 2013 Data Collected in January 2013

Well No.	Result	Gradient	Result > TL?
MW386	22.000	Sidegradient	N/A
MW393	450.000	Downgradient	N/A

First Quarter 2013 Dry/Partially Dry Wells

Well No.	Gradient
MW389	Downgradient

Transformed First Quarter 2013 Data Collected in January 2013

Well Number	LN(Result)	Result >TL?
MW386	3.091	NO
MW393	6.109	**YES**

Conclusion of Statistical Analysis on Transformed Data

The following test well(s) exceeded the Upper Tolerance Limit, which is statistically significant evidence of elevated concentration with respect to background data.

MW393

CV Coefficient of Variation, CV = S/X If CV is less than or equal to 1 assume normal distribution.
S Standard Deviation, S = [Sum ([(background result-X)^2]/[count of background results -1])]^0.5
TL Upper Tolerance Limit, TL = X + (K * S)
X Mean, X = (sum of background results)/(count of background results)
** Read from Table 5, Appendix B of *Statistical Analysis of Ground-Water Monitoring Data at RCRA Facilities,* Interim Guidance, EPA, 1989, based on total number of background results

C-746-S and C-746-T First Quarter 2013 Statistical Analysis UCRS
pH UNITS: Std Unit

The CV is calculated to determine if background data are normally distributed. If so, the current test well results are compared to the TL and LL. If the test well result exceeds the TL or is less than the LL, that is statistically significant evidence of elevated or lowered concentration in that well.

Background Data from Upgradient Wells

Well Number:	MW396
Date Collected	Result
8/13/2002	6.170
9/16/2002	6.400
10/16/2002	5.900
1/13/2003	6.400
4/8/2003	6.650
7/16/2003	6.400
10/14/2003	6.710
1/14/2004	7.050

Statistics on Background Data

X= 6.460
S= 0.350
CV= 0.054
K factor = 3.736**
TL= 7.766
LL= 5.154

Because CV is less than or equal to 1, assume normal distribution and continue with statistical anaylsis.

First Quarter 2013 Data Collected in January 2013

Well No.	Result	Gradient	Result >TL?	Result <LL?
MW386	7.090	Sidegradient	NO	NO
MW393	6.300	Downgradient	NO	NO

First Quarter 2013 Dry/Partially Dry Wells

Well No.	Gradient
MW389	Downgradient

Conclusion of Statistical Analysis on Data

None of the test wells exceeded the Upper Tolerance Limit or were less than the Lower Tolerance Limit, which is statistically significant evidence that these wells have no deviated concentrations with respect to background data.

CV Coefficient-of-Variation, CV = S/X If CV is less than or equal to 1 assume normal distribution.
S Standard Deviation, S = [Sum ([(background result-X)^2]/[count of background results -1])]^0.5
TL Upper Tolerance Limit, TL = X + (K * S), LL Lower Tolerance Limit, LL = X - (K * S)
X Mean, X = (sum of background results)/(count of background results)
** The K-factor was adjusted for pH to account for a two-sided tolerance interval instead of a one-sided tolerance limit. The K- factor for pH was computed using a formula from NIST/SEMATECH e-Handbook of Statistical Methods, http://www.itl.nist.gov/div898/handbook/, 2009.

C-746-S and C-746-T First Quarter 2013 Statistical Analysis UCRS
Potassium UNITS: mg/L

The CV is calculated to determine if background data are normally distributed. If so, the current test well results are compared to the TL. If not, a transformation is performed on the background and test well results, then each transformed test well result is compared to the transformed TL. If the test well result exceeds the TL, that is statistically significant evidence of elevated concentration in that well.

Background Data from Upgradient Wells

Well Number:	MW396
Date Collected	Result
8/13/2002	2.000
9/16/2002	2.000
10/16/2002	0.978
1/13/2003	1.080
4/8/2003	1.120
7/16/2003	1.380
10/14/2003	1.240
1/14/2004	1.490

Statistics on Background Data

X= 1.411
S= 0.399
CV= 0.282
K factor = 3.188**
TL= 2.682

Because CV is less than or equal to 1, assume normal distribution and continue with statistical anaylsis.

First Quarter 2013 Data Collected in January 2013

Well No.	Result	Gradient	Result > TL?
MW386	0.324	Sidegradient	NO
MW393	0.366	Downgradient	NO

First Quarter 2013 Dry/Partially Dry Wells

Well No.	Gradient
MW389	Downgradient

Conclusion of Statistical Analysis on Data

None of the test wells exceeded the Upper Tolerance Limit, which is statistically significant evidence that these wells have no elevated concentrations with respect to background data.

CV Coefficient of Variation, CV = S/X If CV is less than or equal to 1 assume normal distribution.
S Standard Deviation, S = [Sum ([(background result-X)^2]/[count of background results -1])]^0.5
TL Upper Tolerance Limit, TL = X + (K * S)
X Mean, X = (sum of background results)/(count of background results)
** Read from Table 5, Appendix B of *Statistical Analysis of Ground-Water Monitoring Data at RCRA Facilities,* Interim Guidance, EPA, 1989, based on total number of background results

C-746-S and C-746-T First Quarter 2013 Statistical Analysis UCRS
Sodium UNITS: mg/L

The CV is calculated to determine if background data are normally distributed. If so, the current test well results are compared to the TL. If not, a transformation is performed on the background and test well results, then each transformed test well result is compared to the transformed TL. If the test well result exceeds the TL, that is statistically significant evidence of elevated concentration in that well.

Background Data from Upgradient Wells

Well Number: MW396

Date Collected	Result
8/13/2002	115.000
9/16/2002	116.000
10/16/2002	117.000
1/13/2003	122.000
4/8/2003	106.000
7/16/2003	117.000
10/14/2003	132.000
1/14/2004	29.600

Statistics on Background Data

X= 106.825
S= 32.041
CV= 0.300
K factor = 3.188**
TL= 208.973

Because CV is less than or equal to 1, assume normal distribution and continue with statistical anaylsis.

First Quarter 2013 Data Collected in January 2013

Well No.	Result	Gradient	Result > TL?
MW386	106.00	Sidegradient	NO
MW393	72.300	Downgradient	NO

First Quarter 2013 Dry/Partially Dry Wells

Well No.	Gradient
MW389	Downgradient

Conclusion of Statistical Analysis on Data

None of the test wells exceeded the Upper Tolerance Limit, which is statistically significant evidence that these wells have no elevated concentrations with respect to background data.

CV Coefficient of Variation, CV = S/X If CV is less than or equal to 1 assume normal distribution.
S Standard Deviation, S = [Sum ([(background result-X)^2]/[count of background results -1])]^0.5
TL Upper Tolerance Limit, TL = X + (K * S)
X Mean, X = (sum of background results)/(count of background results)
** Read from Table 5, Appendix B of *Statistical Analysis of Ground-Water Monitoring Data at RCRA Facilities,* Interim Guidance, EPA, 1989, based on total number of background results

C-746-S and C-746-T First Quarter 2013 Statistical Analysis UCRS
Sulfate UNITS: mg/L

The CV is calculated to determine if background data are normally distributed. If so, the current test well results are compared to the TL. If not, a transformation is performed on the background and test well results, then each transformed test well result is compared to the transformed TL. If the test well result exceeds the TL, that is statistically significant evidence of elevated concentration in that well.

Background Data from Upgradient Wells

Well Number:	MW396
Date Collected	Result
8/13/2002	41.900
9/16/2002	26.300
10/16/2002	20.600
1/13/2003	16.600
4/8/2003	23.900
7/16/2003	18.800
10/14/2003	12.900
1/14/2004	18.700

Statistics on Background Data

X= 22.463
S= 8.876
CV= 0.395
K factor = 3.188**
TL= 50.759

Because CV is less than or equal to 1, assume normal distribution and continue with statistical anaylsis.

First Quarter 2013 Data Collected in January 2013

Well No.	Result	Gradient	Result > TL?
MW386	49.000	Sidegradient	NO
MW393	11.000	Downgradient	NO

First Quarter 2013 Dry/Partially Dry Wells

Well No.	Gradient
MW389	Downgradient

Conclusion of Statistical Analysis on Data

None of the test wells exceeded the Upper Tolerance Limit, which is statistically significant evidence that these wells have no elevated concentrations with respect to background data.

CV Coefficient of Variation, CV = S/X If CV is less than or equal to 1 assume normal distribution.
S Standard Deviation, S = [Sum ([(background result-X)^2]/[count of background results -1])]^0.5
TL Upper Tolerance Limit, TL = X + (K * S)
X Mean, X = (sum of background results)/(count of background results)
** Read from Table 5, Appendix B of *Statistical Analysis of Ground-Water Monitoring Data at RCRA Facilities,* Interim Guidance, EPA, 1989, based on total number of background results

C-746-S and C-746-T First Quarter 2013 Statistical Analysis UCRS
Total Organic Carbon (TOC) UNITS: mg/L

The CV is calculated to determine if background data are normally distributed. If so, the current test well results are compared to the TL. If not, a transformation is performed on the background and test well results, then each transformed test well result is compared to the transformed TL. If the test well result exceeds the TL, that is statistically significant evidence of elevated concentration in that well.

Background Data from Upgradient Wells

Well Number: MW396

Date Collected	Result
8/13/2002	19.000
9/16/2002	14.600
10/16/2002	10.400
1/13/2003	4.400
4/8/2003	7.000
7/16/2003	7.300
10/14/2003	9.100
1/14/2004	8.100

Statistics on Background Data

X= 9.988
S= 4.696
CV= 0.470
K factor = 3.188**
TL= 24.959

Because CV is less than or equal to 1, assume normal distribution and continue with statistical anaylsis.

First Quarter 2013 Data Collected in January 2013

Well No.	Result	Gradient	Result > TL?
MW386	12.900	Sidegradient	NO
MW393	3.200	Downgradient	NO

First Quarter 2013 Dry/Partially Dry Wells

Well No.	Gradient
MW389	Downgradient

Conclusion of Statistical Analysis on Data

None of the test wells exceeded the Upper Tolerance Limit, which is statistically significant evidence that these wells have no elevated concentrations with respect to background data.

CV Coefficient of Variation, CV = S/X If CV is less than or equal to 1 assume normal distribution.
S Standard Deviation, S = [Sum ([(background result-X)^2]/[count of background results -1])]^0.5
TL Upper Tolerance Limit, TL = X + (K * S)
X Mean, X = (sum of background results)/(count of background results)
** Read from Table 5, Appendix B of *Statistical Analysis of Ground-Water Monitoring Data at RCRA Facilities,* Interim Guidance, EPA, 1989, based on total number of background results

C-746-S and C-746-T First Quarter 2013 Statistical Analysis UCRS
Total Organic Halides (TOX) UNITS: ug/L

The CV is calculated to determine if background data are normally distributed. If so, the current test well results are compared to the TL. If not, a transformation is performed on the background and test well results, then each transformed test well result is compared to the transformed TL. If the test well result exceeds the TL, that is statistically significant evidence of elevated concentration in that well.

Background Data from Upgradient Wells

Well Number: MW396

Date Collected	Result
8/13/2002	193.000
9/16/2002	190.000
10/16/2002	221.000
1/13/2003	106.000
4/8/2003	77.800
7/16/2003	122.000
10/14/2003	86.400
1/14/2004	145.000

Statistics on Background Data

X= 142.650
S= 53.533
CV= 0.375
K factor = 3.188**
TL= 313.314

Because CV is less than or equal to 1, assume normal distribution and continue with statistical anaylsis.

First Quarter 2013 Data Collected in January 2013

Well No.	Result	Gradient	Result > TL?
MW386	240.00	Sidegradient	NO
MW393	35.000	Downgradient	NO

First Quarter 2013 Dry/Partially Dry Wells

Well No.	Gradient
MW389	Downgradient

Conclusion of Statistical Analysis on Data

None of the test wells exceeded the Upper Tolerance Limit, which is statistically significant evidence that these wells have no elevated concentrations with respect to background data.

CV Coefficient of Variation, CV = S/X If CV is less than or equal to 1 assume normal distribution.
S Standard Deviation, S = [Sum ([(background result-X)^2]/[count of background results -1])]^0.5
TL Upper Tolerance Limit, TL = X + (K * S)
X Mean, X = (sum of background results)/(count of background results)
** Read from Table 5, Appendix B of *Statistical Analysis of Ground-Water Monitoring Data at RCRA Facilities,* Interim Guidance, EPA, 1989, based on total number of background results

C-746-S and C-746-T First Quarter 2013 Statistical Analysis URGA
Aluminum UNITS: mg/L

The CV is calculated to determine if background data are normally distributed. If so, the current test well results are compared to the TL. If not, a transformation is performed on the background and test well results, then each transformed test well result is compared to the transformed TL. If the test well result exceeds the TL, that is statistically significant evidence of elevated concentration in that well.

Background Data from Upgradient Wells

Well Number:	MW220
Date Collected	Result
10/14/2002	0.200
1/15/2003	0.200
4/10/2003	0.200
7/14/2003	0.200
10/13/2003	0.427
1/13/2004	0.309
4/13/2004	0.200
7/21/2004	0.202

Well Number:	MW394
Date Collected	Result
8/13/2002	0.200
9/16/2002	0.200
10/16/2002	0.200
1/13/2003	0.200
4/10/2003	0.200
7/16/2003	0.200
10/14/2003	0.200
1/13/2004	0.200

Statistics on Background Data

X= 0.221
S= 0.061
CV= 0.277
K factor = 2.523**
TL= 0.376

Because CV is less than or equal to 1, assume normal distribution and continue with statistical anaylsis.

First Quarter 2013 Data Collected in January 2013

Well No.	Result	Gradient	Result > TL?
MW221	0.200	Sidegradient	NO
MW222	1.290	Sidegradient	**YES**
MW223	0.200	Sidegradient	NO
MW224	0.200	Sidegradient	NO
MW369	0.475	Downgradient	**YES**
MW372	0.200	Downgradient	NO
MW384	0.200	Sidegradient	NO
MW387	0.200	Downgradient	NO
MW391	0.200	Downgradient	NO

Conclusion of Statistical Analysis on Data

The following test well(s) exceeded the Upper Tolerance Limit, which is statistically significant evidence of elevated concentration with respect to background data.

MW222

MW369

CV Coefficient of Variation, CV = S/X If CV is less than or equal to 1 assume normal distribution.
S Standard Deviation, S = [Sum ([(background result-X)^2]/[count of background results -1])]^0.5
TL Upper Tolerance Limit, TL = X + (K * S)
X Mean, X = (sum of background results)/(count of background results)
** Read from Table 5, Appendix B of *Statistical Analysis of Ground-Water Monitoring Data at RCRA Facilities,* Interim Guidance, EPA, 1989, based on total number of background results

C-746-S and C-746-T First Quarter 2013 Statistical Analysis URGA
Boron UNITS: mg/L

The CV is calculated to determine if background data are normally distributed. If so, the current test well results are compared to the TL. If not, a transformation is performed on the background and test well results, then each transformed test well result is compared to the transformed TL. If the test well result exceeds the TL, that is statistically significant evidence of elevated concentration in that well.

Background Data from Upgradient Wells

Well Number:	MW220
Date Collected	Result
10/14/2002	0.200
1/15/2003	0.200
4/10/2003	0.200
7/14/2003	0.200
10/13/2003	0.200
1/13/2004	0.200
4/13/2004	0.200
7/21/2004	0.200
Well Number:	MW394
Date Collected	Result
8/13/2002	2.000
9/16/2002	2.000
10/16/2002	0.200
1/13/2003	0.200
4/10/2003	0.200
7/16/2003	0.200
10/14/2003	0.200
1/13/2004	0.200

Statistics on Background Data

X= 0.425
S= 0.615
CV= 1.447
K factor = 2.523**
TL= 1.976

Because CV greater than 1, the natural logarithm of background and test well results were calculated.

Statistics on Transformed Background Data

X= -1.322
S= 0.786
CV= -0.595
K factor = 2.523**
TL= 0.663

Transformed Background Data from Upgradient Wells

Well Number:	MW220
Date Collected	LN(Result)
10/14/2002	-1.609
1/15/2003	-1.609
4/10/2003	-1.609
7/14/2003	-1.609
10/13/2003	-1.609
1/13/2004	-1.609
4/13/2004	-1.609
7/21/2004	-1.609
Well Number:	MW394
Date Collected	LN(Result)
8/13/2002	0.693
9/16/2002	0.693
10/16/2002	-1.609
1/13/2003	-1.609
4/10/2003	-1.609
7/16/2003	-1.609
10/14/2003	-1.609
1/13/2004	-1.609

First Quarter 2013 Data Collected in January 2013

Well No.	Result	Gradient	Result > TL?
MW221	0.200	Sidegradient	N/A
MW222	0.200	Sidegradient	N/A
MW223	0.200	Sidegradient	N/A
MW224	0.200	Sidegradient	N/A
MW369	0.200	Downgradient	N/A
MW372	1.390	Downgradient	N/A
MW384	0.200	Sidegradient	N/A
MW387	0.200	Downgradient	N/A
MW391	0.200	Downgradient	N/A

Transformed First Quarter 2013 Data Collected in January 2013

Well Number	LN(Result)	Result > TL?
MW221	-1.609	NO
MW222	-1.609	NO
MW223	-1.609	NO
MW224	-1.609	NO
MW369	-1.609	NO
MW372	0.329	NO
MW384	-1.609	NO
MW387	-1.609	NO
MW391	-1.609	NO

Conclusion of Statistical Analysis on Transformed Data

None of the test wells exceeded the Upper Tolerance Limit, which is statistically significant evidence that these wells have no elevated concentrations with respect to background data.

CV Coefficient of Variation, CV = S/X If CV is less than or equal to 1 assume normal distribution.
S Standard Deviation, S = [Sum ([(background result-X)^2]/[count of background results -1])]^0.5
TL Upper Tolerance Limit, TL = X + (K * S)
X Mean, X = (sum of background results)/(count of background results)
** Read from Table 5, Appendix B of *Statistical Analysis of Ground-Water Monitoring Data at RCRA Facilities,* Interim Guidance, EPA, 1989, based on total number of background results

C-746-S and C-746-T First Quarter 2013 Statistical Analysis URGA
Calcium UNITS: mg/L

The CV is calculated to determine if background data are normally distributed. If so, the current test well results are compared to the TL. If not, a transformation is performed on the background and test well results, then each transformed test well result is compared to the transformed TL. If the test well result exceeds the TL, that is statistically significant evidence of elevated concentration in that well.

Background Data from Upgradient Wells

Well Number:	MW220
Date Collected	Result
10/14/2002	23.600
1/15/2003	25.900
4/10/2003	30.400
7/14/2003	33.900
10/13/2003	21.300
1/13/2004	20.300
4/13/2004	23.800
7/21/2004	19.000
Well Number:	MW394
Date Collected	Result
8/13/2002	29.500
9/16/2002	29.900
10/16/2002	31.200
1/13/2003	30.700
4/10/2003	34.400
7/16/2003	29.600
10/14/2003	30.300
1/13/2004	28.400

Statistics on Background Data

X= 27.638
S= 4.743
CV= 0.172
K factor = 2.523**
TL= 39.604

Because CV is less than or equal to 1, assume normal distribution and continue with statistical anaylsis.

First Quarter 2013 Data Collected in January 2013

Well No.	Result	Gradient	Result > TL?
MW221	19.400	Sidegradient	NO
MW222	14.600	Sidegradient	NO
MW223	18.400	Sidegradient	NO
MW224	20.500	Sidegradient	NO
MW369	16.300	Downgradient	NO
MW372	66.900	Downgradient	**YES**
MW384	33.900	Sidegradient	NO
MW387	35.800	Downgradient	NO
MW391	25.300	Downgradient	NO

Conclusion of Statistical Analysis on Data

The following test well(s) exceeded the Upper Tolerance Limit, which is statistically significant evidence of elevated concentration with respect to background data.

MW372

CV Coefficient of Variation, CV = S/X If CV is less than or equal to 1 assume normal distribution.
S Standard Deviation, S = [Sum ([(background result-X)^2]/[count of background results -1])]^0.5
TL Upper Tolerance Limit, TL = X + (K * S)
X Mean, X = (sum of background results)/(count of background results)
** Read from Table 5, Appendix B of *Statistical Analysis of Ground-Water Monitoring Data at RCRA Facilities,* Interim Guidance, EPA, 1989, based on total number of background results

C-746-S and C-746-T First Quarter 2013 Statistical Analysis URGA
Chloride UNITS: mg/L

The CV is calculated to determine if background data are normally distributed. If so, the current test well results are compared to the TL. If not, a transformation is performed on the background and test well results, then each transformed test well result is compared to the transformed TL. If the test well result exceeds the TL, that is statistically significant evidence of elevated concentration in that well.

Background Data from Upgradient Wells

Well Number:	MW220
Date Collected	Result
10/14/2002	44.600
1/15/2003	43.200
4/10/2003	31.500
7/14/2003	30.800
10/13/2003	40.900
1/13/2004	40.800
4/13/2004	37.500
7/21/2004	40.800
Well Number:	MW394
Date Collected	Result
8/13/2002	60.400
9/16/2002	60.300
10/16/2002	58.000
1/13/2003	60.700
4/10/2003	62.900
7/16/2003	58.100
10/14/2003	58.200
1/13/2004	56.000

Statistics on Background Data

X= 49.044
S= 11.278
CV= 0.230
K factor = 2.523**
TL= 77.499

Because CV is less than or equal to 1, assume normal distribution and continue with statistical anaylsis.

First Quarter 2013 Data Collected in January 2013

Well No.	Result	Gradient	Result > TL?
MW221	39.000	Sidegradient	NO
MW222	29.000	Sidegradient	NO
MW223	32.000	Sidegradient	NO
MW224	16.000	Sidegradient	NO
MW369	33.000	Downgradient	NO
MW372	47.000	Downgradient	NO
MW384	70.000	Sidegradient	NO
MW387	40.000	Downgradient	NO
MW391	48.000	Downgradient	NO

Conclusion of Statistical Analysis on Data

None of the test wells exceeded the Upper Tolerance Limit, which is statistically significant evidence that these wells have no elevated concentrations with respect to background data.

CV Coefficient of Variation, CV = S/X If CV is less than or equal to 1 assume normal distribution.
S Standard Deviation, S = [Sum ([(background result-X)^2]/[count of background results -1])]^0.5
TL Upper Tolerance Limit, TL = X + (K * S)
X Mean, X = (sum of background results)/(count of background results)
** Read from Table 5, Appendix B of *Statistical Analysis of Ground-Water Monitoring Data at RCRA Facilities,* Interim Guidance, EPA, 1989, based on total number of background results

C-746-S and C-746-T First Quarter 2013 Statistical Analysis URGA
Cobalt UNITS: mg/L

The CV is calculated to determine if background data are normally distributed. If so, the current test well results are compared to the TL. If not, a transformation is performed on the background and test well results, then each transformed test well result is compared to the transformed TL. If the test well result exceeds the TL, that is statistically significant evidence of elevated concentration in that well.

Background Data from Upgradient Wells

Well Number:	MW220
Date Collected	Result
10/14/2002	0.004
1/15/2003	0.005
4/10/2003	0.003
7/14/2003	0.161
10/13/2003	0.023
1/13/2004	0.005
4/13/2004	0.001
7/21/2004	0.003
Well Number:	MW394
Date Collected	Result
8/13/2002	0.025
9/16/2002	0.025
10/16/2002	0.001
1/13/2003	0.001
4/10/2003	0.001
7/16/2003	0.001
10/14/2003	0.001
1/13/2004	0.001

Statistics on Background Data

X= 0.016
S= 0.040
CV= 2.440
K factor = 2.523**
TL= 0.116

Because CV greater than 1, the natural logarithm of background and test well results were calculated.

Statistics on Transformed Background Data

X= -5.582
S= 1.573
CV= -0.282
K factor = 2.523**
TL= -1.613

Transformed Background Data from Upgradient Wells

Well Number:	MW220
Date Collected	LN(Result)
10/14/2002	-5.497
1/15/2003	-5.306
4/10/2003	-5.846
7/14/2003	-1.826
10/13/2003	-3.790
1/13/2004	-5.373
4/13/2004	-6.908
7/21/2004	-5.937
Well Number:	MW394
Date Collected	LN(Result)
8/13/2002	-3.689
9/16/2002	-3.689
10/16/2002	-6.908
1/13/2003	-6.908
4/10/2003	-6.908
7/16/2003	-6.908
10/14/2003	-6.908
1/13/2004	-6.908

First Quarter 2013 Data Collected in January 2013

Well No.	Result	Gradient	Result > TL?
MW221	0.001	Sidegradient	N/A
MW222	0.004	Sidegradient	N/A
MW223	0.003	Sidegradient	N/A
MW224	0.003	Sidegradient	N/A
MW369	0.012	Downgradient	N/A
MW372	0.001	Downgradient	N/A
MW384	0.001	Sidegradient	N/A
MW387	0.001	Downgradient	N/A

Transformed First Quarter 2013 Data Collected in January 2013

Well Number	LN(Result)	Result > TL?
MW221	-6.908	NO
MW222	-5.547	NO
MW223	-5.806	NO
MW224	-5.911	NO
MW369	-4.415	NO
MW372	-6.908	NO
MW384	-6.908	NO
MW387	-6.908	NO

Conclusion of Statistical Analysis on Transformed Data

None of the test wells exceeded the Upper Tolerance Limit, which is statistically significant evidence that these wells have no elevated concentrations with respect to background data.

CV Coefficient of Variation, CV = S/X If CV is less than or equal to 1 assume normal distribution.
S Standard Deviation, S = [Sum ([(background result-X)^2]/[count of background results -1])]^0.5
TL Upper Tolerance Limit, TL = X + (K * S)
X Mean, X = (sum of background results)/(count of background results)
** Read from Table 5, Appendix B of *Statistical Analysis of Ground-Water Monitoring Data at RCRA Facilities,* Interim Guidance, EPA, 1989, based on total number of background results

C-746-S and C-746-T First Quarter 2013 Statistical Analysis URGA
Conductivity UNITS: umho/cm

The CV is calculated to determine if background data are normally distributed. If so, the current test well results are compared to the TL. If not, a transformation is performed on the background and test well results, then each transformed test well result is compared to the transformed TL. If the test well result exceeds the TL, that is statistically significant evidence of elevated concentration in that well.

Background Data from Upgradient Wells

Well Number:	MW220
Date Collected	Result
10/14/2002	368.000
1/15/2003	433.200
4/10/2003	489.000
7/14/2003	430.000
10/13/2003	346.000
1/13/2004	365.000
4/13/2004	416.000
7/21/2004	353.000
Well Number:	MW394
Date Collected	Result
8/13/2002	406.000
9/16/2002	418.000
10/16/2002	411.000
1/13/2003	422.000
4/10/2003	420.000
7/16/2003	438.000
10/14/2003	3.910
1/13/2004	395.000

Statistics on Background Data

X= 382.132
S= 107.134
CV= 0.280
K factor = 2.523**
TL= 652.432

Because CV is less than or equal to 1, assume normal distribution and continue with statistical anaylsis.

First Quarter 2013 Data Collected in January 2013

Well No.	Result	Gradient	Result > TL?
MW221	359.00	Sidegradient	NO
MW222	319.00	Sidegradient	NO
MW223	375.00	Sidegradient	NO
MW224	405.00	Sidegradient	NO
MW369	365.00	Downgradient	NO
MW372	860.00	Downgradient	**YES**
MW384	592.00	Sidegradient	NO
MW387	526.00	Downgradient	NO
MW391	390.00	Downgradient	NO

Conclusion of Statistical Analysis on Data

The following test well(s) exceeded the Upper Tolerance Limit, which is statistically significant evidence of elevated concentration with respect to background data.

MW372

CV Coefficient of Variation, CV = S/X If CV is less than or equal to 1 assume normal distribution.
S Standard Deviation, S = [Sum ([(background result-X)^2]/[count of background results -1])]^0.5
TL Upper Tolerance Limit, TL = X + (K * S)
X Mean, X = (sum of background results)/(count of background results)
** Read from Table 5, Appendix B of *Statistical Analysis of Ground-Water Monitoring Data at RCRA Facilities,* Interim Guidance, EPA, 1989, based on total number of background results

C-746-S and C-746-T First Quarter 2013 Statistical Analysis URGA
Dissolved Oxygen UNITS: mg/L

The CV is calculated to determine if background data are normally distributed. If so, the current test well results are compared to the TL. If not, a transformation is performed on the background and test well results, then each transformed test well result is compared to the transformed TL. If the test well result exceeds the TL, that is statistically significant evidence of elevated concentration in that well.

Background Data from Upgradient Wells

Well Number:	MW220
Date Collected	Result
10/14/2002	6.790
1/15/2003	7.250
4/10/2003	3.600
7/14/2003	0.940
10/13/2003	1.650
1/13/2004	3.480
4/13/2004	1.050
7/21/2004	4.460
Well Number:	MW394
Date Collected	Result
8/13/2002	6.090
9/16/2002	3.850
10/16/2002	5.110
1/13/2003	3.830
4/10/2003	4.150
7/16/2003	1.830
10/14/2003	3.330
1/13/2004	3.140

Statistics on Background Data

X= 3.784
S= 1.887
CV= 0.499
K factor = 2.523**
TL= 8.545

Because CV is less than or equal to 1, assume normal distribution and continue with statistical anaylsis.

First Quarter 2013 Data Collected in January 2013

Well No.	Result	Gradient	Result > TL?
MW221	5.110	Sidegradient	NO
MW222	4.450	Sidegradient	NO
MW223	2.740	Sidegradient	NO
MW224	1.860	Sidegradient	NO
MW369	2.430	Downgradient	NO
MW372	1.800	Downgradient	NO
MW384	3.970	Sidegradient	NO
MW387	4.580	Downgradient	NO
MW391	4.100	Downgradient	NO

Conclusion of Statistical Analysis on Data

None of the test wells exceeded the Upper Tolerance Limit, which is statistically significant evidence that these wells have no elevated concentrations with respect to background data.

CV Coefficient of Variation, CV = S/X If CV is less than or equal to 1 assume normal distribution.
S Standard Deviation, S = [Sum ([(background result-X)^2]/[count of background results -1])]^0.5
TL Upper Tolerance Limit, TL = X + (K * S)
X Mean, X = (sum of background results)/(count of background results)
** Read from Table 5, Appendix B of *Statistical Analysis of Ground-Water Monitoring Data at RCRA Facilities,* Interim Guidance, EPA, 1989, based on total number of background results

C-746-S and C-746-T First Quarter 2013 Statistical Analysis URGA
Dissolved Solids UNITS: mg/L

The CV is calculated to determine if background data are normally distributed. If so, the current test well results are compared to the TL. If not, a transformation is performed on the background and test well results, then each transformed test well result is compared to the transformed TL. If the test well result exceeds the TL, that is statistically significant evidence of elevated concentration in that well.

Background Data from Upgradient Wells

Well Number:	MW220
Date Collected	Result
10/14/2002	208.000
1/15/2003	257.000
4/10/2003	288.000
7/14/2003	262.000
10/13/2003	197.000
1/13/2004	198.000
4/13/2004	245.000
7/21/2004	204.000

Well Number:	MW394
Date Collected	Result
8/13/2002	247.000
9/16/2002	259.000
10/16/2002	201.000
1/13/2003	228.000
4/10/2003	249.000
7/16/2003	240.000
10/14/2003	230.000
1/13/2004	210.000

Statistics on Background Data

X= 232.688
S= 27.490
CV= 0.118
K factor = 2.523**
TL= 302.045

Because CV is less than or equal to 1, assume normal distribution and continue with statistical anaylsis.

First Quarter 2013 Data Collected in January 2013

Well No.	Result	Gradient	Result > TL?
MW221	216.00	Sidegradient	NO
MW222	236.00	Sidegradient	NO
MW223	218.00	Sidegradient	NO
MW224	254.00	Sidegradient	NO
MW369	213.00	Downgradient	NO
MW372	506.00	Downgradient	**YES**
MW384	313.00	Sidegradient	**YES**
MW387	294.00	Downgradient	NO
MW391	225.00	Downgradient	NO

Conclusion of Statistical Analysis on Data

The following test well(s) exceeded the Upper Tolerance Limit, which is statistically significant evidence of elevated concentration with respect to background data.

MW372

MW384

CV Coefficient of Variation, CV = S/X If CV is less than or equal to 1 assume normal distribution.
S Standard Deviation, S = [Sum ([(background result-X)^2]/[count of background results -1])]^0.5
TL Upper Tolerance Limit, TL = X + (K * S)
X Mean, X = (sum of background results)/(count of background results)
** Read from Table 5, Appendix B of *Statistical Analysis of Ground-Water Monitoring Data at RCRA Facilities,* Interim Guidance, EPA, 1989, based on total number of background results

C-746-S and C-746-T First Quarter 2013 Statistical Analysis URGA
Iron UNITS: mg/L

The CV is calculated to determine if background data are normally distributed. If so, the current test well results are compared to the TL. If not, a transformation is performed on the background and test well results, then each transformed test well result is compared to the transformed TL. If the test well result exceeds the TL, that is statistically significant evidence of elevated concentration in that well.

Background Data from Upgradient Wells

Well Number:	MW220
Date Collected	Result
10/14/2002	0.200
1/15/2003	0.200
4/10/2003	0.429
7/14/2003	4.330
10/13/2003	1.810
1/13/2004	0.793
4/13/2004	0.130
7/21/2004	0.382
Well Number:	MW394
Date Collected	Result
8/13/2002	1.340
9/16/2002	0.328
10/16/2002	1.380
1/13/2003	1.300
4/10/2003	0.494
7/16/2003	0.620
10/14/2003	0.370
1/13/2004	0.251

Statistics on Background Data

X= 0.897
S= 1.050
CV= 1.170
K factor = 2.523**
TL= 3.545

Because CV greater than 1, the natural logarithm of background and test well results were calculated.

Statistics on Transformed Background Data

X= -0.565
S= 0.951
CV= -1.683
K factor = 2.523**
TL= 1.834

Transformed Background Data from Upgradient Wells

Well Number:	MW220
Date Collected	LN(Result)
10/14/2002	-1.609
1/15/2003	-1.609
4/10/2003	-0.846
7/14/2003	1.466
10/13/2003	0.593
1/13/2004	-0.232
4/13/2004	-2.040
7/21/2004	-0.962
Well Number:	MW394
Date Collected	LN(Result)
8/13/2002	0.293
9/16/2002	-1.115
10/16/2002	0.322
1/13/2003	0.262
4/10/2003	-0.705
7/16/2003	-0.478
10/14/2003	-0.994
1/13/2004	-1.382

First Quarter 2013 Data Collected in January 2013

Well No.	Result	Gradient	Result > TL?
MW221	0.100	Sidegradient	N/A
MW222	2.540	Sidegradient	N/A
MW223	0.123	Sidegradient	N/A
MW224	0.554	Sidegradient	N/A
MW369	0.450	Downgradient	N/A
MW372	0.497	Downgradient	N/A
MW384	0.604	Sidegradient	N/A
MW387	0.190	Downgradient	N/A
MW391	0.834	Downgradient	N/A

Transformed First Quarter 2013 Data Collected in January 2013

Well Number	LN(Result)	Result > TL?
MW221	-2.303	NO
MW222	0.932	NO
MW223	-2.096	NO
MW224	-0.591	NO
MW369	-0.799	NO
MW372	-0.699	NO
MW384	-0.504	NO
MW387	-1.661	NO
MW391	-0.182	NO

Conclusion of Statistical Analysis on Transformed Data

None of the test wells exceeded the Upper Tolerance Limit, which is statistically significant evidence that these wells have no elevated concentrations with respect to background data.

CV Coefficient of Variation, CV = S/X If CV is less than or equal to 1 assume normal distribution.
S Standard Deviation, S = [Sum ([(background result-X)^2]/[count of background results -1])]^0.5
TL Upper Tolerance Limit, TL = X + (K * S)
X Mean, X = (sum of background results)/(count of background results)
** Read from Table 5, Appendix B of *Statistical Analysis of Ground-Water Monitoring Data at RCRA Facilities,* Interim Guidance, EPA, 1989, based on total number of background results

C-746-S and C-746-T First Quarter 2013 Statistical Analysis URGA
Magnesium UNITS: mg/L

The CV is calculated to determine if background data are normally distributed. If so, the current test well results are compared to the TL. If not, a transformation is performed on the background and test well results, then each transformed test well result is compared to the transformed TL. If the test well result exceeds the TL, that is statistically significant evidence of elevated concentration in that well.

Background Data from Upgradient Wells

Well Number:	MW220
Date Collected	Result
10/14/2002	9.160
1/15/2003	10.000
4/10/2003	10.800
7/14/2003	14.700
10/13/2003	9.030
1/13/2004	8.490
4/13/2004	9.700
7/21/2004	8.060
Well Number:	MW394
Date Collected	Result
8/13/2002	11.800
9/16/2002	12.100
10/16/2002	11.300
1/13/2003	10.300
4/10/2003	11.700
7/16/2003	12.000
10/14/2003	12.200
1/13/2004	11.400

Statistics on Background Data

X= 10.796
S= 1.703
CV= 0.158
K factor = 2.523**
TL= 15.092

Because CV is less than or equal to 1, assume normal distribution and continue with statistical anaylsis.

First Quarter 2013 Data Collected in January 2013

Well No.	Result	Gradient	Result > TL?
MW221	8.550	Sidegradient	NO
MW222	6.440	Sidegradient	NO
MW223	7.310	Sidegradient	NO
MW224	8.930	Sidegradient	NO
MW369	6.090	Downgradient	NO
MW372	26.000	Downgradient	**YES**
MW384	13.100	Sidegradient	NO
MW387	14.700	Downgradient	NO
MW391	10.400	Downgradient	NO

Conclusion of Statistical Analysis on Data

The following test well(s) exceeded the Upper Tolerance Limit, which is statistically significant evidence of elevated concentration with respect to background data.

MW372

CV Coefficient of Variation, CV = S/X If CV is less than or equal to 1 assume normal distribution.
S Standard Deviation, S = [Sum ([(background result-X)^2]/[count of background results -1])]^0.5
TL Upper Tolerance Limit, TL = X + (K * S)
X Mean, X = (sum of background results)/(count of background results)
** Read from Table 5, Appendix B of *Statistical Analysis of Ground-Water Monitoring Data at RCRA Facilities,* Interim Guidance, EPA, 1989, based on total number of background results

C-746-S and C-746-T First Quarter 2013 Statistical Analysis URGA
Manganese UNITS: mg/L

The CV is calculated to determine if background data are normally distributed. If so, the current test well results are compared to the TL. If not, a transformation is performed on the background and test well results, then each transformed test well result is compared to the transformed TL. If the test well result exceeds the TL, that is statistically significant evidence of elevated concentration in that well.

Background Data from Upgradient Wells

Well Number:	MW220
Date Collected	Result
10/14/2002	0.031
1/15/2003	0.029
4/10/2003	0.014
7/14/2003	2.540
10/13/2003	0.378
1/13/2004	0.159
4/13/2004	0.007
7/21/2004	0.084
Well Number:	MW394
Date Collected	Result
8/13/2002	0.542
9/16/2002	0.155
10/16/2002	0.103
1/13/2003	0.128
4/10/2003	0.005
7/16/2003	0.272
10/14/2003	0.080
1/13/2004	0.066

Statistics on Background Data

X= 0.287
S= 0.619
CV= 2.156
K factor = 2.523**
TL= 1.848

Because CV greater than 1, the natural logarithm of background and test well results were calculated.

Statistics on Transformed Background Data

X= -2.455
S= 1.619
CV= -0.659
K factor = 2.523**
TL= 1.630

Transformed Background Data from Upgradient Wells

Well Number:	MW220
Date Collected	LN(Result)
10/14/2002	-3.487
1/15/2003	-3.537
4/10/2003	-4.290
7/14/2003	0.932
10/13/2003	-0.973
1/13/2004	-1.839
4/13/2004	-4.952
7/21/2004	-2.476
Well Number:	MW394
Date Collected	LN(Result)
8/13/2002	-0.612
9/16/2002	-1.864
10/16/2002	-2.273
1/13/2003	-2.056
4/10/2003	-5.298
7/16/2003	-1.302
10/14/2003	-2.532
1/13/2004	-2.721

First Quarter 2013 Data Collected in January 2013

Well No.	Result	Gradient	Result > TL?
MW221	0.005	Sidegradient	N/A
MW222	0.055	Sidegradient	N/A
MW223	0.095	Sidegradient	N/A
MW224	0.036	Sidegradient	N/A
MW369	0.076	Downgradient	N/A
MW372	0.018	Downgradient	N/A
MW384	0.014	Sidegradient	N/A
MW387	0.022	Downgradient	N/A
MW391	0.006	Downgradient	N/A
MW391	0.010	Downgradient	N/A

Transformed First Quarter 2013 Data Collected in January 2013

Well Number	LN(Result)	Result > TL?
MW221	-5.298	NO
MW222	-2.900	NO
MW223	-2.351	NO
MW224	-3.313	NO
MW369	-2.581	NO
MW372	-4.023	NO
MW384	-4.283	NO
MW387	-3.812	NO
MW391	-5.164	NO
MW391	-4.649	NO

Conclusion of Statistical Analysis on Transformed Data

None of the test wells exceeded the Upper Tolerance Limit, which is statistically significant evidence that these wells have no elevated concentrations with respect to background data.

CV Coefficient of Variation, CV = S/X If CV is less than or equal to 1 assume normal distribution.
S Standard Deviation, S = [Sum ([(background result-X)^2]/[count of background results -1])]^0.5
TL Upper Tolerance Limit, TL = X + (K * S)
X Mean, X = (sum of background results)/(count of background results)
** Read from Table 5, Appendix B of *Statistical Analysis of Ground-Water Monitoring Data at RCRA Facilities,* Interim Guidance, EPA, 1989, based on total number of background results

C-746-S and C-746-T First Quarter 2013 Statistical Analysis URGA
Molybdenum UNITS: mg/L

The CV is calculated to determine if background data are normally distributed. If so, the current test well results are compared to the TL. If not, a transformation is performed on the background and test well results, then each transformed test well result is compared to the transformed TL. If the test well result exceeds the TL, that is statistically significant evidence of elevated concentration in that well.

Background Data from Upgradient Wells

Well Number:	MW220
Date Collected	Result
10/14/2002	0.006
1/15/2003	0.010
4/10/2003	0.011
7/14/2003	0.002
10/13/2003	0.006
1/13/2004	0.006
4/13/2004	0.001
7/21/2004	0.004
Well Number:	MW394
Date Collected	Result
8/13/2002	0.025
9/16/2002	0.025
10/16/2002	0.001
1/13/2003	0.001
4/10/2003	0.001
7/16/2003	0.001
10/14/2003	0.001
1/13/2004	0.001

Statistics on Background Data

X= 0.006
S= 0.008
CV= 1.261
K factor = 2.523**
TL= 0.026

Because CV greater than 1, the natural logarithm of background and test well results were calculated.

Statistics on Transformed Background Data

X= -5.747
S= 1.205
CV= -0.210
K factor = 2.523**
TL= -2.708

Transformed Background Data from Upgradient Wells

Well Number:	MW220
Date Collected	LN(Result)
10/14/2002	-5.189
1/15/2003	-4.622
4/10/2003	-4.519
7/14/2003	-6.012
10/13/2003	-5.174
1/13/2004	-5.164
4/13/2004	-6.908
7/21/2004	-5.542
Well Number:	MW394
Date Collected	LN(Result)
8/13/2002	-3.689
9/16/2002	-3.689
10/16/2002	-6.908
1/13/2003	-6.908
4/10/2003	-6.908
7/16/2003	-6.908
10/14/2003	-6.908
1/13/2004	-6.908

First Quarter 2013 Data Collected in January 2013

Well No.	Result	Gradient	Result > TL?
MW221	0.002	Sidegradient	N/A
MW222	0.001	Sidegradient	N/A
MW223	0.007	Sidegradient	N/A
MW224	0.002	Sidegradient	N/A
MW369	0.001	Downgradient	N/A
MW372	0.001	Downgradient	N/A
MW384	0.001	Sidegradient	N/A
MW387	0.001	Downgradient	N/A
MW391	0.001	Downgradient	N/A

Transformed First Quarter 2013 Data Collected in January 2013

Well Number	LN(Result)	Result > TL?
MW221	-6.138	NO
MW222	-6.908	NO
MW223	-4.982	NO
MW224	-6.438	NO
MW369	-6.908	NO
MW372	-6.908	NO
MW384	-6.908	NO
MW387	-6.908	NO
MW391	-6.908	NO

Conclusion of Statistical Analysis on Transformed Data

None of the test wells exceeded the Upper Tolerance Limit, which is statistically significant evidence that these wells have no elevated concentrations with respect to background data.

CV Coefficient of Variation, CV = S/X If CV is less than or equal to 1 assume normal distribution.
S Standard Deviation, S = [Sum ([(background result-X)^2]/[count of background results -1])]^0.5
TL Upper Tolerance Limit, TL = X + (K * S)
X Mean, X = (sum of background results)/(count of background results)
** Read from Table 5, Appendix B of *Statistical Analysis of Ground-Water Monitoring Data at RCRA Facilities,* Interim Guidance, EPA, 1989, based on total number of background results

C-746-S and C-746-T First Quarter 2013 Statistical Analysis URGA
Nickel UNITS: mg/L

The CV is calculated to determine if background data are normally distributed. If so, the current test well results are compared to the TL. If not, a transformation is performed on the background and test well results, then each transformed test well result is compared to the transformed TL. If the test well result exceeds the TL, that is statistically significant evidence of elevated concentration in that well.

Background Data from Upgradient Wells

Well Number:	MW220
Date Collected	Result
10/14/2002	0.418
1/15/2003	0.738
4/10/2003	0.544
7/14/2003	0.106
10/13/2003	0.053
1/13/2004	0.021
4/13/2004	0.005
7/21/2004	0.019
Well Number:	MW394
Date Collected	Result
8/13/2002	0.050
9/16/2002	0.050
10/16/2002	0.005
1/13/2003	0.005
4/10/2003	0.005
7/16/2003	0.005
10/14/2003	0.005
1/13/2004	0.005

Statistics on Background Data

X= 0.127
S= 0.228
CV= 1.790
K factor = 2.523**
TL= 0.701

Because CV greater than 1, the natural logarithm of background and test well results were calculated.

Statistics on Transformed Background Data

X= -3.617
S= 1.837
CV= -0.508
K factor = 2.523**
TL= 1.019

Transformed Background Data from Upgradient Wells

Well Number:	MW220
Date Collected	LN(Result)
10/14/2002	-0.872
1/15/2003	-0.304
4/10/2003	-0.609
7/14/2003	-2.244
10/13/2003	-2.939
1/13/2004	-3.868
4/13/2004	-5.298
7/21/2004	-3.953
Well Number:	MW394
Date Collected	LN(Result)
8/13/2002	-2.996
9/16/2002	-2.996
10/16/2002	-5.298
1/13/2003	-5.298
4/10/2003	-5.298
7/16/2003	-5.298
10/14/2003	-5.298
1/13/2004	-5.298

First Quarter 2013 Data Collected in January 2013

Well No.	Result	Gradient	Result > TL?
MW221	0.049	Sidegradient	N/A
MW222	0.076	Sidegradient	N/A
MW223	0.090	Sidegradient	N/A
MW224	0.083	Sidegradient	N/A
MW369	0.006	Downgradient	N/A
MW372	0.005	Downgradient	N/A
MW384	0.005	Sidegradient	N/A
MW387	0.005	Downgradient	N/A
MW391	0.005	Downgradient	N/A

Transformed First Quarter 2013 Data Collected in January 2013

Well Number	LN(Result)	Result > TL?
MW221	-3.018	NO
MW222	-2.576	NO
MW223	-2.405	NO
MW224	-2.494	NO
MW369	-5.069	NO
MW372	-5.298	NO
MW384	-5.298	NO
MW387	-5.298	NO
MW391	-5.298	NO

Conclusion of Statistical Analysis on Transformed Data

None of the test wells exceeded the Upper Tolerance Limit, which is statistically significant evidence that these wells have no elevated concentrations with respect to background data.

CV Coefficient of Variation, CV = S/X If CV is less than or equal to 1 assume normal distribution.
S Standard Deviation, S = [Sum ([(background result-X)^2]/[count of background results -1])]^0.5
TL Upper Tolerance Limit, TL = X + (K * S)
X Mean, X = (sum of background results)/(count of background results)
** Read from Table 5, Appendix B of *Statistical Analysis of Ground-Water Monitoring Data at RCRA Facilities,* Interim Guidance, EPA, 1989, based on total number of background results

C-746-S and C-746-T First Quarter 2013 Statistical Analysis URGA
Oxidation-Reduction Potential UNITS: mV

The CV is calculated to determine if background data are normally distributed. If so, the current test well results are compared to the TL. If not, a transformation is performed on the background and test well results, then each transformed test well result is compared to the transformed TL. If the test well result exceeds the TL, that is statistically significant evidence of elevated concentration in that well.

Background Data from Upgradient Wells

Well Number:	MW220
Date Collected	Result
10/14/2002	205.000
1/15/2003	1.950
4/10/2003	203.000
7/14/2003	30.000
10/13/2003	107.000
1/13/2004	295.000
4/13/2004	190.000
7/21/2004	319.000
Well Number:	MW394
Date Collected	Result
8/13/2002	90.000
9/16/2002	240.000
10/16/2002	185.000
1/13/2003	220.000
4/10/2003	196.000
7/16/2003	172.000
10/14/2003	175.000
1/13/2004	249.000

Statistics on Background Data

X= 179.872
S= 86.318
CV= 0.480
K factor = 2.523**
TL= 397.652

Because CV is less than or equal to 1, assume normal distribution and continue with statistical anaylsis.

First Quarter 2013 Data Collected in January 2013

Well No.	Result	Gradient	Result > TL?
MW221	806.00	Sidegradient	**YES**
MW222	364.00	Sidegradient	NO
MW223	447.00	Sidegradient	**YES**
MW224	855.00	Sidegradient	**YES**
MW369	675.00	Downgradient	**YES**
MW372	43.000	Downgradient	NO
MW384	290.00	Sidegradient	NO
MW387	486.00	Downgradient	**YES**
MW391	831.00	Downgradient	**YES**

Conclusion of Statistical Analysis on Data

The following test well(s) exceeded the Upper Tolerance Limit, which is statistically significant evidence of elevated concentration with respect to background data.

MW221

MW223

MW224

CV Coefficient of Variation, CV = S/X If CV is less than or equal to 1 assume normal distribution.

S Standard Deviation, S = [Sum ([(background result-X)^2]/[count of background results -1])]^0.5

TL Upper Tolerance Limit, TL = X + (K * S)

X Mean, X = (sum of background results)/(count of background results)

** Read from Table 5, Appendix B of *Statistical Analysis of Ground-Water Monitoring Data at RCRA Facilities,* Interim Guidance, EPA, 1989, based on total number of background results

C-746-S and C-746-T First Quarter 2013 Statistical Analysis	URGA
Oxidation-Reduction Potential (Continued)	UNITS: mV

MW369
MW387
MW391

CV Coefficient of Variation, CV = S/X If CV is less than or equal to 1 assume normal distribution.

S Standard Deviation, S = [Sum ([(background result-X)^2]/[count of background results -1])]^0.5

TL Upper Tolerance Limit, TL = X + (K * S)

X Mean, X = (sum of background results)/(count of background results)

** Read from Table 5, Appendix B of *Statistical Analysis of Ground-Water Monitoring Data at RCRA Facilities,* Interim Guidance, EPA, 1989, based on total number of background results

C-746-S and C-746-T First Quarter 2013 Statistical Analysis URGA
pH UNITS: Std Unit

The CV is calculated to determine if background data are normally distributed. If so, the current test well results are compared to the TL and LL. If the test well result exceeds the TL or is less than the LL, that is statistically significant evidence of elevated or lowered concentration in that well.

Background Data from Upgradient Wells

Well Number:	MW220
Date Collected	Result
10/14/2002	6.040
1/15/2003	6.310
4/10/2003	6.500
7/14/2003	6.300
10/13/2003	6.340
1/13/2004	6.330
4/13/2004	6.300
7/21/2004	5.900
Well Number:	MW394
Date Collected	Result
8/13/2002	5.800
9/30/2002	5.930
10/16/2002	5.420
1/13/2003	6.000
4/10/2003	6.040
7/16/2003	6.200
10/14/2003	6.400
1/13/2004	6.390

Statistics on Background Data

X= 6.138
S= 0.282
CV= 0.046
K factor = 2.904**
TL= 6.957
LL= 5.318

Because CV is less than or equal to 1, assume normal distribution and continue with statistical anaylsis.

First Quarter 2013 Data Collected in January 2013

Well No.	Result	Gradient	Result >TL?	Result <LL?
MW221	6.200	Sidegradient	NO	NO
MW222	6.830	Sidegradient	NO	NO
MW223	6.870	Sidegradient	NO	NO
MW224	6.250	Sidegradient	NO	NO
MW369	6.420	Downgradient	NO	NO
MW372	6.320	Downgradient	NO	NO
MW384	7.820	Sidegradient	**YES**	NO
MW387	7.120	Downgradient	**YES**	NO
MW391	6.170	Downgradient	NO	NO

Conclusion of Statistical Analysis on Data

The following test well(s) exceeded the Upper Tolerance Limit, which is statistically significant evidence of elevated concentration with respect to background data.

MW384

MW387

CV Coefficient-of-Variation, CV = S/X If CV is less than or equal to 1 assume normal distribution.
S Standard Deviation, S = [Sum ([(background result-X)^2]/[count of background results -1])]^0.5
TL Upper Tolerance Limit, TL = X + (K * S), LL Lower Tolerance Limit, LL = X - (K * S)
X Mean, X = (sum of background results)/(count of background results)

** The K-factor was adjusted for pH to account for a two-sided tolerance interval instead of a one-sided tolerance limit. The K- factor for pH was computed using a formula from NIST/SEMATECH e-Handbook of Statistical Methods, http://www.itl.nist.gov/div898/handbook/, 2009.

C-746-S and C-746-T First Quarter 2013 Statistical Analysis URGA
Potassium UNITS: mg/L

The CV is calculated to determine if background data are normally distributed. If so, the current test well results are compared to the TL. If not, a transformation is performed on the background and test well results, then each transformed test well result is compared to the transformed TL. If the test well result exceeds the TL, that is statistically significant evidence of elevated concentration in that well.

Background Data from Upgradient Wells

Well Number:	MW220
Date Collected	Result
10/14/2002	6.700
1/15/2003	29.700
4/10/2003	24.900
7/14/2003	1.130
10/13/2003	3.430
1/13/2004	6.710
4/13/2004	19.300
7/21/2004	3.970
Well Number:	MW394
Date Collected	Result
8/13/2002	2.000
9/16/2002	2.000
10/16/2002	1.030
1/13/2003	1.100
4/10/2003	1.240
7/16/2003	1.140
10/14/2003	1.050
1/13/2004	1.070

Statistics on Background Data

X= 6.654
S= 9.310
CV= 1.399
K factor = 2.523**
TL= 30.144

Because CV greater than 1, the natural logarithm of background and test well results were calculated.

Statistics on Transformed Background Data

X= 1.130
S= 1.208
CV= 1.069
K factor = 2.523**
TL= 4.178

Transformed Background Data from Upgradient Wells

Well Number:	MW220
Date Collected	LN(Result)
10/14/2002	1.902
1/15/2003	3.391
4/10/2003	3.215
7/14/2003	0.122
10/13/2003	1.233
1/13/2004	1.904
4/13/2004	2.960
7/21/2004	1.379
Well Number:	MW394
Date Collected	LN(Result)
8/13/2002	0.693
9/16/2002	0.693
10/16/2002	0.030
1/13/2003	0.095
4/10/2003	0.215
7/16/2003	0.131
10/14/2003	0.049
1/13/2004	0.068

First Quarter 2013 Data Collected in January 2013

Well No.	Result	Gradient	Result > TL?
MW221	1.260	Sidegradient	N/A
MW222	0.515	Sidegradient	N/A
MW223	5.320	Sidegradient	N/A
MW224	0.702	Sidegradient	N/A
MW369	0.499	Downgradient	N/A
MW372	2.470	Downgradient	N/A
MW384	1.100	Sidegradient	N/A
MW387	1.770	Downgradient	N/A
MW391	1.430	Downgradient	N/A

Transformed First Quarter 2013 Data Collected in January 2013

Well Number	LN(Result)	Result > TL?
MW221	0.231	NO
MW222	-0.664	NO
MW223	1.671	NO
MW224	-0.354	NO
MW369	-0.695	NO
MW372	0.904	NO
MW384	0.095	NO
MW387	0.571	NO
MW391	0.358	NO

Conclusion of Statistical Analysis on Transformed Data

None of the test wells exceeded the Upper Tolerance Limit, which is statistically significant evidence that these wells have no elevated concentrations with respect to background data.

CV Coefficient of Variation, CV = S/X If CV is less than or equal to 1 assume normal distribution.
S Standard Deviation, S = [Sum ([(background result-X)^2]/[count of background results -1])]^0.5
TL Upper Tolerance Limit, TL = X + (K * S)
X Mean, X = (sum of background results)/(count of background results)
** Read from Table 5, Appendix B of *Statistical Analysis of Ground-Water Monitoring Data at RCRA Facilities,* Interim Guidance, EPA, 1989, based on total number of background results

C-746-S and C-746-T First Quarter 2013 Statistical Analysis URGA
Sodium UNITS: mg/L

The CV is calculated to determine if background data are normally distributed. If so, the current test well results are compared to the TL. If not, a transformation is performed on the background and test well results, then each transformed test well result is compared to the transformed TL. If the test well result exceeds the TL, that is statistically significant evidence of elevated concentration in that well.

Background Data from Upgradient Wells

Well Number:	MW220
Date Collected	Result
10/14/2002	35.400
1/15/2003	40.600
4/10/2003	51.000
7/14/2003	58.200
10/13/2003	38.100
1/13/2004	37.000
4/13/2004	43.200
7/21/2004	33.800
Well Number:	MW394
Date Collected	Result
8/13/2002	32.900
9/16/2002	29.900
10/16/2002	29.000
1/13/2003	27.100
4/10/2003	24.800
7/16/2003	35.600
10/14/2003	33.900
1/13/2004	31.300

Statistics on Background Data

X= 36.363
S= 8.666
CV= 0.238
K factor = 2.523**
TL= 58.227

Because CV is less than or equal to 1, assume normal distribution and continue with statistical anaylsis.

First Quarter 2013 Data Collected in January 2013

Well No.	Result	Gradient	Result > TL?
MW221	41.000	Sidegradient	NO
MW222	38.400	Sidegradient	NO
MW223	40.900	Sidegradient	NO
MW224	54.500	Sidegradient	NO
MW369	54.000	Downgradient	NO
MW372	63.700	Downgradient	**YES**
MW384	59.300	Sidegradient	**YES**
MW387	50.000	Downgradient	NO
MW391	31.600	Downgradient	NO

Conclusion of Statistical Analysis on Data

The following test well(s) exceeded the Upper Tolerance Limit, which is statistically significant evidence of elevated concentration with respect to background data.

MW372

MW384

CV Coefficient of Variation, CV = S/X If CV is less than or equal to 1 assume normal distribution.

S Standard Deviation, S = [Sum ([(background result-X)^2]/[count of background results -1])]^0.5

TL Upper Tolerance Limit, TL = X + (K * S)

X Mean, X = (sum of background results)/(count of background results)

** Read from Table 5, Appendix B of *Statistical Analysis of Ground-Water Monitoring Data at RCRA Facilities,* Interim Guidance, EPA, 1989, based on total number of background results

C-746-S and C-746-T First Quarter 2013 Statistical Analysis URGA
Sulfate UNITS: mg/L

The CV is calculated to determine if background data are normally distributed. If so, the current test well results are compared to the TL. If not, a transformation is performed on the background and test well results, then each transformed test well result is compared to the transformed TL. If the test well result exceeds the TL, that is statistically significant evidence of elevated concentration in that well.

Background Data from Upgradient Wells

Well Number:	MW220
Date Collected	Result
10/14/2002	10.400
1/15/2003	9.800
4/10/2003	15.400
7/14/2003	14.900
10/13/2003	13.500
1/13/2004	10.300
4/13/2004	14.300
7/21/2004	10.500
Well Number:	MW394
Date Collected	Result
8/13/2002	11.200
9/16/2002	8.300
10/16/2002	8.000
1/13/2003	8.500
4/10/2003	7.900
7/16/2003	8.400
10/14/2003	8.200
1/13/2004	8.100

Statistics on Background Data

X= 10.481
S= 2.648
CV= 0.253
K factor = 2.523**
TL= 17.161

Because CV is less than or equal to 1, assume normal distribution and continue with statistical anaylsis.

First Quarter 2013 Data Collected in January 2013

Well No.	Result	Gradient	Result > TL?
MW221	13.000	Sidegradient	NO
MW222	9.600	Sidegradient	NO
MW223	9.700	Sidegradient	NO
MW224	9.700	Sidegradient	NO
MW369	6.500	Downgradient	NO
MW372	160.00	Downgradient	**YES**
MW384	20.000	Sidegradient	**YES**
MW387	29.000	Downgradient	**YES**
MW391	14.000	Downgradient	NO

Conclusion of Statistical Analysis on Data

The following test well(s) exceeded the Upper Tolerance Limit, which is statistically significant evidence of elevated concentration with respect to background data.

MW372

MW384

MW387

CV Coefficient of Variation, CV = S/X If CV is less than or equal to 1 assume normal distribution.

S Standard Deviation, S = [Sum ([(background result-X)^2]/[count of background results -1])]^0.5

TL Upper Tolerance Limit, TL = X + (K * S)

X Mean, X = (sum of background results)/(count of background results)

** Read from Table 5, Appendix B of *Statistical Analysis of Ground-Water Monitoring Data at RCRA Facilities,* Interim Guidance, EPA, 1989, based on total number of background results

C-746-S and C-746-T First Quarter 2013 Statistical Analysis URGA
Technetium-99 UNITS: pCi/L

The CV is calculated to determine if background data are normally distributed. If so, the current test well results are compared to the TL. If not, a transformation is performed on the background and test well results, then each transformed test well result is compared to the transformed TL. If the test well result exceeds the TL, that is statistically significant evidence of elevated concentration in that well.

Background Data from Upgradient Wells

Well Number:	MW220
Date Collected	Result
10/14/2002	19.700
1/15/2003	26.100
4/10/2003	3.560
7/14/2003	0.000
10/13/2003	21.000
1/13/2004	6.320
4/13/2004	3.000
7/21/2004	14.600
Well Number:	MW394
Date Collected	Result
8/13/2002	14.000
9/16/2002	5.450
10/16/2002	2.490
1/13/2003	18.300
4/10/2003	-1.450
7/16/2003	-1.710
10/14/2003	18.300
1/13/2004	0.000

Statistics on Background Data

X= 9.354
S= 9.280
CV= 0.992
K factor = 2.523**
TL= 32.768

Because CV is less than or equal to 1, assume normal distribution and continue with statistical anaylsis.

First Quarter 2013 Data Collected in January 2013

Well No.	Result	Gradient	Result > TL?
MW221	-2.300	Sidegradient	NO
MW222	-6.050	Sidegradient	NO
MW223	3.450	Sidegradient	NO
MW224	0.751	Sidegradient	NO
MW369	30.500	Downgradient	NO
MW372	30.600	Downgradient	NO
MW384	198.00	Sidegradient	**YES**
MW387	105.00	Downgradient	**YES**
MW391	7.560	Downgradient	NO

Conclusion of Statistical Analysis on Data

The following test well(s) exceeded the Upper Tolerance Limit, which is statistically significant evidence of elevated concentration with respect to background data.

MW384

MW387

CV Coefficient of Variation, CV = S/X If CV is less than or equal to 1 assume normal distribution.
S Standard Deviation, S = [Sum ([(background result-X)^2]/[count of background results -1])]^0.5
TL Upper Tolerance Limit, TL = X + (K * S)
X Mean, X = (sum of background results)/(count of background results)
** Read from Table 5, Appendix B of *Statistical Analysis of Ground-Water Monitoring Data at RCRA Facilities,* Interim Guidance, EPA, 1989, based on total number of background results

C-746-S and C-746-T First Quarter 2013 Statistical Analysis URGA
Total Organic Carbon (TOC) UNITS: mg/L

The CV is calculated to determine if background data are normally distributed. If so, the current test well results are compared to the TL. If not, a transformation is performed on the background and test well results, then each transformed test well result is compared to the transformed TL. If the test well result exceeds the TL, that is statistically significant evidence of elevated concentration in that well.

Background Data from Upgradient Wells

Well Number:	MW220
Date Collected	Result
10/14/2002	1.000
1/15/2003	1.100
4/10/2003	1.000
7/14/2003	3.300
10/13/2003	1.800
1/13/2004	1.000
4/13/2004	2.000
7/21/2004	3.100
Well Number:	MW394
Date Collected	Result
8/13/2002	1.300
9/16/2002	1.000
10/16/2002	1.000
1/13/2003	1.600
4/10/2003	1.000
7/16/2003	1.400
10/14/2003	1.300
1/13/2004	1.000

Statistics on Background Data

X= 1.494
S= 0.737
CV= 0.493
K factor = 2.523**
TL= 3.353

Because CV is less than or equal to 1, assume normal distribution and continue with statistical anaylsis.

First Quarter 2013 Data Collected in January 2013

Well No.	Result	Gradient	Result > TL?
MW221	1.000	Sidegradient	NO
MW222	1.000	Sidegradient	NO
MW223	1.000	Sidegradient	NO
MW224	1.000	Sidegradient	NO
MW369	1.400	Downgradient	NO
MW372	2.200	Downgradient	NO
MW384	1.400	Sidegradient	NO
MW387	1.000	Downgradient	NO
MW391	1.000	Downgradient	NO

Conclusion of Statistical Analysis on Data

None of the test wells exceeded the Upper Tolerance Limit, which is statistically significant evidence that these wells have no elevated concentrations with respect to background data.

CV Coefficient of Variation, CV = S/X If CV is less than or equal to 1 assume normal distribution.
S Standard Deviation, S = [Sum ([(background result-X)^2]/[count of background results -1])]^0.5
TL Upper Tolerance Limit, TL = X + (K * S)
X Mean, X = (sum of background results)/(count of background results)
** Read from Table 5, Appendix B of *Statistical Analysis of Ground-Water Monitoring Data at RCRA Facilities,* Interim Guidance, EPA, 1989, based on total number of background results

C-746-S and C-746-T First Quarter 2013 Statistical Analysis URGA
Total Organic Halides (TOX) UNITS: ug/L

The CV is calculated to determine if background data are normally distributed. If so, the current test well results are compared to the TL. If not, a transformation is performed on the background and test well results, then each transformed test well result is compared to the transformed TL. If the test well result exceeds the TL, that is statistically significant evidence of elevated concentration in that well.

Background Data from Upgradient Wells

Well Number:	MW220
Date Collected	Result
10/14/2002	50.000
1/15/2003	10.000
4/10/2003	10.000
7/14/2003	10.000
10/13/2003	10.000
1/13/2004	10.000
4/13/2004	10.000
7/21/2004	10.000
Well Number:	MW394
Date Collected	Result
8/13/2002	50.000
9/16/2002	672.000
10/16/2002	50.000
1/13/2003	36.100
4/10/2003	10.000
7/16/2003	42.700
10/14/2003	22.000
1/13/2004	12.800

Statistics on Background Data

X= 63.475
S= 163.135
CV= 2.570
K factor = 2.523**
TL= 475.063

Because CV greater than 1, the natural logarithm of background and test well results were calculated.

Statistics on Transformed Background Data

X= 3.103
S= 1.145
CV= 0.369
K factor = 2.523**
TL= 5.992

Transformed Background Data from Upgradient Wells

Well Number:	MW220
Date Collected	LN(Result)
10/14/2002	3.912
1/15/2003	2.303
4/10/2003	2.303
7/14/2003	2.303
10/13/2003	2.303
1/13/2004	2.303
4/13/2004	2.303
7/21/2004	2.303
Well Number:	MW394
Date Collected	LN(Result)
8/13/2002	3.912
9/16/2002	6.510
10/16/2002	3.912
1/13/2003	3.586
4/10/2003	2.303
7/16/2003	3.754
10/14/2003	3.091
1/13/2004	2.549

First Quarter 2013 Data Collected in January 2013

Well No.	Result	Gradient	Result > TL?
MW221	11.000	Sidegradient	N/A
MW222	8.900	Sidegradient	N/A
MW223	12.000	Sidegradient	N/A
MW224	16.000	Sidegradient	N/A
MW369	29.000	Downgradient	N/A
MW372	22.000	Downgradient	N/A
MW384	31.000	Sidegradient	N/A
MW387	21.000	Downgradient	N/A
MW391	32.000	Downgradient	N/A

Transformed First Quarter 2013 Data Collected in January 2013

Well Number	LN(Result)	Result > TL?
MW221	2.398	NO
MW222	2.186	NO
MW223	2.485	NO
MW224	2.773	NO
MW369	3.367	NO
MW372	3.091	NO
MW384	3.434	NO
MW387	3.045	NO
MW391	3.466	NO

Conclusion of Statistical Analysis on Transformed Data

None of the test wells exceeded the Upper Tolerance Limit, which is statistically significant evidence that these wells have no elevated concentrations with respect to background data.

CV Coefficient of Variation, CV = S/X If CV is less than or equal to 1 assume normal distribution.
S Standard Deviation, S = [Sum ([(background result-X)^2]/[count of background results -1])]^0.5
TL Upper Tolerance Limit, TL = X + (K * S)
X Mean, X = (sum of background results)/(count of background results)
** Read from Table 5, Appendix B of *Statistical Analysis of Ground-Water Monitoring Data at RCRA Facilities,* Interim Guidance, EPA, 1989, based on total number of background results

C-746-S and C-746-T First Quarter 2013 Statistical Analysis LRGA
Aluminum UNITS: mg/L

The CV is calculated to determine if background data are normally distributed. If so, the current test well results are compared to the TL. If not, a transformation is performed on the background and test well results, then each transformed test well result is compared to the transformed TL. If the test well result exceeds the TL, that is statistically significant evidence of elevated concentration in that well.

Background Data from Upgradient Wells

Well Number:	MW395
Date Collected	Result
8/13/2002	0.200
9/16/2002	0.200
10/16/2002	0.000
1/13/2003	0.737
4/10/2003	0.200
7/16/2003	0.200
10/14/2003	0.200
1/13/2004	0.200

Well Number:	MW397
Date Collected	Result
8/13/2002	0.824
9/16/2002	0.200
10/17/2002	0.000
1/13/2003	0.363
4/8/2003	0.200
7/16/2003	0.200
10/14/2003	0.200
1/13/2004	0.200

Statistics on Background Data

X= 0.258
S= 0.221
CV= 0.856
K factor = 2.523**
TL= 0.815

Because CV is less than or equal to 1, assume normal distribution and continue with statistical anaylsis.

First Quarter 2013 Data Collected in January 2013

Well No.	Result	Gradient	Result > TL?
MW370	0.200	Downgradient	NO
MW373	0.200	Downgradient	NO
MW385	0.200	Sidegradient	NO
MW388	0.200	Downgradient	NO
MW392	0.200	Downgradient	NO

Conclusion of Statistical Analysis on Data

None of the test wells exceeded the Upper Tolerance Limit, which is statistically significant evidence that these wells have no elevated concentrations with respect to background data.

CV Coefficient of Variation, CV = S/X If CV is less than or equal to 1 assume normal distribution.
S Standard Deviation, S = [Sum ([(background result-X)^2]/[count of background results -1])]^0.5
TL Upper Tolerance Limit, TL = X + (K * S)
X Mean, X = (sum of background results)/(count of background results)
** Read from Table 5, Appendix B of *Statistical Analysis of Ground-Water Monitoring Data at RCRA Facilities,* Interim Guidance, EPA, 1989, based on total number of background results

C-746-S and C-746-T First Quarter 2013 Statistical Analysis LRGA
Boron UNITS: mg/L

The CV is calculated to determine if background data are normally distributed. If so, the current test well results are compared to the TL. If not, a transformation is performed on the background and test well results, then each transformed test well result is compared to the transformed TL. If the test well result exceeds the TL, that is statistically significant evidence of elevated concentration in that well.

Background Data from Upgradient Wells

Well Number:	MW395
Date Collected	Result
8/13/2002	2.000
9/16/2002	2.000
10/16/2002	0.200
1/13/2003	0.200
4/10/2003	0.200
7/16/2003	0.200
10/14/2003	0.200
1/13/2004	0.200
Well Number:	MW397
Date Collected	Result
8/13/2002	2.000
9/16/2002	2.000
10/17/2002	0.200
1/13/2003	0.200
4/8/2003	0.200
7/16/2003	0.200
10/14/2003	0.200
1/13/2004	0.200

Statistics on Background Data

X= 0.650
S= 0.805
CV= 1.238
K factor = 2.523**
TL= 2.681

Because CV greater than 1, the natural logarithm of background and test well results were calculated.

Statistics on Transformed Background Data

X= -1.034
S= 1.030
CV= -0.996
K factor = 2.523**
TL= 1.564

Transformed Background Data from Upgradient Wells

Well Number:	MW395
Date Collected	LN(Result)
8/13/2002	0.693
9/16/2002	0.693
10/16/2002	-1.609
1/13/2003	-1.609
4/10/2003	-1.609
7/16/2003	-1.609
10/14/2003	-1.609
1/13/2004	-1.609
Well Number:	MW397
Date Collected	LN(Result)
8/13/2002	0.693
9/16/2002	0.693
10/17/2002	-1.609
1/13/2003	-1.609
4/8/2003	-1.609
7/16/2003	-1.609
10/14/2003	-1.609
1/13/2004	-1.609

First Quarter 2013 Data Collected in January 2013

Well No.	Result	Gradient	Result > TL?
MW370	0.200	Downgradient	N/A
MW373	2.020	Downgradient	N/A
MW385	0.200	Sidegradient	N/A
MW388	0.200	Downgradient	N/A
MW392	0.200	Downgradient	N/A

Transformed First Quarter 2013 Data Collected in January 2013

Well Number	LN(Result)	Result > TL?
MW370	-1.609	NO
MW373	0.703	NO
MW385	-1.609	NO
MW388	-1.609	NO
MW392	-1.609	NO

Conclusion of Statistical Analysis on Transformed Data

None of the test wells exceeded the Upper Tolerance Limit, which is statistically significant evidence that these wells have no elevated concentrations with respect to background data.

CV Coefficient of Variation, CV = S/X If CV is less than or equal to 1 assume normal distribution.
S Standard Deviation, S = [Sum ([(background result-X)^2]/[count of background results -1])]^0.5
TL Upper Tolerance Limit, TL = X + (K * S)
X Mean, X = (sum of background results)/(count of background results)
** Read from Table 5, Appendix B of *Statistical Analysis of Ground-Water Monitoring Data at RCRA Facilities,* Interim Guidance, EPA, 1989, based on total number of background results

C-746-S and C-746-T First Quarter 2013 Statistical Analysis LRGA
Calcium UNITS: mg/L

The CV is calculated to determine if background data are normally distributed. If so, the current test well results are compared to the TL. If not, a transformation is performed on the background and test well results, then each transformed test well result is compared to the transformed TL. If the test well result exceeds the TL, that is statistically significant evidence of elevated concentration in that well.

Background Data from Upgradient Wells

Well Number:	MW395
Date Collected	Result
8/13/2002	32.200
9/16/2002	33.000
10/16/2002	0.030
1/13/2003	32.100
4/10/2003	40.200
7/16/2003	32.400
10/14/2003	33.900
1/13/2004	31.200
Well Number:	MW397
Date Collected	Result
8/13/2002	19.400
9/16/2002	19.000
10/17/2002	0.018
1/13/2003	17.800
4/8/2003	20.300
7/16/2003	19.400
10/14/2003	19.900
1/13/2004	18.800

Statistics on Background Data

X= 23.103
S= 11.538
CV= 0.499
K factor = 2.523**
TL= 52.213

Because CV is less than or equal to 1, assume normal distribution and continue with statistical anaylsis.

First Quarter 2013 Data Collected in January 2013

Well No.	Result	Gradient	Result > TL?
MW370	29.500	Downgradient	NO
MW373	82.500	Downgradient	**YES**
MW385	29.600	Sidegradient	NO
MW388	31.800	Downgradient	NO
MW392	24.900	Downgradient	NO

Conclusion of Statistical Analysis on Data

The following test well(s) exceeded the Upper Tolerance Limit, which is statistically significant evidence of elevated concentration with respect to background data.

MW373

CV Coefficient of Variation, CV = S/X If CV is less than or equal to 1 assume normal distribution.
S Standard Deviation, S = [Sum ([(background result-X)^2]/[count of background results -1])]^0.5
TL Upper Tolerance Limit, TL = X + (K * S)
X Mean, X = (sum of background results)/(count of background results)
** Read from Table 5, Appendix B of *Statistical Analysis of Ground-Water Monitoring Data at RCRA Facilities,* Interim Guidance, EPA, 1989, based on total number of background results

C-746-S and C-746-T First Quarter 2013 Statistical Analysis LRGA
Chloride UNITS: mg/L

The CV is calculated to determine if background data are normally distributed. If so, the current test well results are compared to the TL. If not, a transformation is performed on the background and test well results, then each transformed test well result is compared to the transformed TL. If the test well result exceeds the TL, that is statistically significant evidence of elevated concentration in that well.

Background Data from Upgradient Wells

Well Number:	MW395
Date Collected	Result
8/13/2002	62.200
9/16/2002	64.700
10/16/2002	62.200
1/13/2003	63.500
4/10/2003	64.100
7/16/2003	64.000
10/14/2003	63.200
1/13/2004	60.600

Well Number:	MW397
Date Collected	Result
8/13/2002	38.900
9/16/2002	39.800
10/17/2002	39.300
1/13/2003	40.500
4/8/2003	42.100
7/16/2003	42.000
10/14/2003	40.800
1/13/2004	41.600

Statistics on Background Data

X= 51.844
S= 11.652
CV= 0.225
K factor = 2.523**
TL= 81.242

Because CV is less than or equal to 1, assume normal distribution and continue with statistical anaylsis.

First Quarter 2013 Data Collected in January 2013

Well No.	Result	Gradient	Result > TL?
MW370	43.000	Downgradient	NO
MW373	48.000	Downgradient	NO
MW385	22.000	Sidegradient	NO
MW388	40.000	Downgradient	NO
MW392	47.000	Downgradient	NO

Conclusion of Statistical Analysis on Data

None of the test wells exceeded the Upper Tolerance Limit, which is statistically significant evidence that these wells have no elevated concentrations with respect to background data.

CV Coefficient of Variation, CV = S/X If CV is less than or equal to 1 assume normal distribution.
S Standard Deviation, S = [Sum ([(background result-X)^2]/[count of background results -1])]^0.5
TL Upper Tolerance Limit, TL = X + (K * S)
X Mean, X = (sum of background results)/(count of background results)
** Read from Table 5, Appendix B of *Statistical Analysis of Ground-Water Monitoring Data at RCRA Facilities,* Interim Guidance, EPA, 1989, based on total number of background results

C-746-S and C-746-T First Quarter 2013 Statistical Analysis LRGA
Conductivity UNITS: umho/cm

The CV is calculated to determine if background data are normally distributed. If so, the current test well results are compared to the TL. If not, a transformation is performed on the background and test well results, then each transformed test well result is compared to the transformed TL. If the test well result exceeds the TL, that is statistically significant evidence of elevated concentration in that well.

Background Data from Upgradient Wells

Well Number:	MW395
Date Collected	Result
8/13/2002	405.000
9/16/2002	401.000
10/16/2002	392.000
1/13/2003	404.000
4/10/2003	488.000
7/16/2003	450.000
10/14/2003	410.000
1/13/2004	413.000

Well Number:	MW397
Date Collected	Result
8/13/2002	322.000
9/16/2002	315.000
10/17/2002	317.000
1/13/2003	320.000
4/8/2003	390.000
7/16/2003	354.000
10/14/2003	331.000
1/13/2004	334.000

Statistics on Background Data

X= 377.875
S= 52.101
CV= 0.138
K factor = 2.523**
TL= 509.326

Because CV is less than or equal to 1, assume normal distribution and continue with statistical anaylsis.

First Quarter 2013 Data Collected in January 2013

Well No.	Result	Gradient	Result > TL?
MW370	436.00	Downgradient	NO
MW373	935.00	Downgradient	**YES**
MW385	499.00	Sidegradient	NO
MW388	508.00	Downgradient	NO
MW392	360.00	Downgradient	NO

Conclusion of Statistical Analysis on Data

The following test well(s) exceeded the Upper Tolerance Limit, which is statistically significant evidence of elevated concentration with respect to background data.

MW373

CV Coefficient of Variation, CV = S/X If CV is less than or equal to 1 assume normal distribution.
S Standard Deviation, S = [Sum ([(background result-X)^2]/[count of background results -1])]^0.5
TL Upper Tolerance Limit, TL = X + (K * S)
X Mean, X = (sum of background results)/(count of background results)
** Read from Table 5, Appendix B of *Statistical Analysis of Ground-Water Monitoring Data at RCRA Facilities,* Interim Guidance, EPA, 1989, based on total number of background results

C-746-S and C-746-T First Quarter 2013 Statistical Analysis LRGA
Dissolved Oxygen UNITS: mg/L

The CV is calculated to determine if background data are normally distributed. If so, the current test well results are compared to the TL. If not, a transformation is performed on the background and test well results, then each transformed test well result is compared to the transformed TL. If the test well result exceeds the TL, that is statistically significant evidence of elevated concentration in that well.

Background Data from Upgradient Wells

Well Number:	MW395
Date Collected	Result
8/13/2002	7.290
9/30/2002	4.030
10/16/2002	3.850
1/13/2003	2.360
4/10/2003	1.140
7/16/2003	1.760
10/14/2003	4.050
1/13/2004	4.260
Well Number:	MW397
Date Collected	Result
8/13/2002	11.560
9/16/2002	5.860
10/17/2002	5.940
1/13/2003	4.660
4/8/2003	3.770
7/16/2003	3.470
10/14/2003	5.340
1/13/2004	5.510

Statistics on Background Data

X= 4.678
S= 2.431
CV= 0.520
K factor = 2.523**
TL= 10.812

Because CV is less than or equal to 1, assume normal distribution and continue with statistical anaylsis.

First Quarter 2013 Data Collected in January 2013

Well No.	Result	Gradient	Result > TL?
MW370	3.700	Downgradient	NO
MW373	2.210	Downgradient	NO
MW385	1.340	Sidegradient	NO
MW388	3.500	Downgradient	NO
MW392	1.450	Downgradient	NO

Conclusion of Statistical Analysis on Data

None of the test wells exceeded the Upper Tolerance Limit, which is statistically significant evidence that these wells have no elevated concentrations with respect to background data.

CV Coefficient of Variation, CV = S/X If CV is less than or equal to 1 assume normal distribution.
S Standard Deviation, S = [Sum ([(background result-X)^2]/[count of background results -1])]^0.5
TL Upper Tolerance Limit, TL = X + (K * S)
X Mean, X = (sum of background results)/(count of background results)
** Read from Table 5, Appendix B of *Statistical Analysis of Ground-Water Monitoring Data at RCRA Facilities,* Interim Guidance, EPA, 1989, based on total number of background results

C-746-S and C-746-T First Quarter 2013 Statistical Analysis LRGA
Dissolved Solids UNITS: mg/L

The CV is calculated to determine if background data are normally distributed. If so, the current test well results are compared to the TL. If not, a transformation is performed on the background and test well results, then each transformed test well result is compared to the transformed TL. If the test well result exceeds the TL, that is statistically significant evidence of elevated concentration in that well.

Background Data from Upgradient Wells

Well Number:	MW395
Date Collected	Result
8/13/2002	249.000
9/16/2002	272.000
10/16/2002	255.000
1/13/2003	211.000
4/10/2003	289.000
7/16/2003	236.000
10/14/2003	224.000
1/13/2004	235.000

Well Number:	MW397
Date Collected	Result
8/13/2002	187.000
9/16/2002	197.000
10/17/2002	183.000
1/13/2003	182.000
4/8/2003	217.000
7/16/2003	196.000
10/14/2003	198.000
1/13/2004	177.000

Statistics on Background Data

X= 219.250
S= 34.107
CV= 0.156
K factor = 2.523**
TL= 305.301

Because CV is less than or equal to 1, assume normal distribution and continue with statistical anaylsis.

First Quarter 2013 Data Collected in January 2013

Well No.	Result	Gradient	Result > TL?
MW370	230.00	Downgradient	NO
MW373	568.00	Downgradient	**YES**
MW385	242.00	Sidegradient	NO
MW388	287.00	Downgradient	NO
MW392	202.00	Downgradient	NO

Conclusion of Statistical Analysis on Data

The following test well(s) exceeded the Upper Tolerance Limit, which is statistically significant evidence of elevated concentration with respect to background data.

MW373

CV Coefficient of Variation, CV = S/X If CV is less than or equal to 1 assume normal distribution.
S Standard Deviation, S = [Sum ([(background result-X)^2]/[count of background results -1])]^0.5
TL Upper Tolerance Limit, TL = X + (K * S)
X Mean, X = (sum of background results)/(count of background results)
** Read from Table 5, Appendix B of *Statistical Analysis of Ground-Water Monitoring Data at RCRA Facilities,* Interim Guidance, EPA, 1989, based on total number of background results

C-746-S and C-746-T First Quarter 2013 Statistical Analysis LRGA
Iron UNITS: mg/L

The CV is calculated to determine if background data are normally distributed. If so, the current test well results are compared to the TL. If not, a transformation is performed on the background and test well results, then each transformed test well result is compared to the transformed TL. If the test well result exceeds the TL, that is statistically significant evidence of elevated concentration in that well.

Background Data from Upgradient Wells

Well Number:	MW395
Date Collected	Result
8/13/2002	0.294
9/16/2002	0.200
10/16/2002	0.000
1/13/2003	1.330
4/10/2003	1.310
7/16/2003	0.200
10/14/2003	0.100
1/13/2004	0.100
Well Number:	MW397
Date Collected	Result
8/13/2002	1.580
9/16/2002	0.232
10/17/2002	0.000
1/13/2003	0.453
4/8/2003	0.200
7/16/2003	0.200
10/14/2003	0.100
1/13/2004	0.100

Statistics on Background Data

X= 0.400
S= 0.514
CV= 1.286
K factor = 2.523**
TL= 1.698

Because CV greater than 1, the natural logarithm of background and test well results were calculated.

Statistics on Transformed Background Data

X= -2.197
S= 2.634
CV= -1.199
K factor = 2.523**
TL= 4.449

Transformed Background Data from Upgradient Wells

Well Number:	MW395
Date Collected	LN(Result)
8/13/2002	-1.224
9/16/2002	-1.609
10/16/2002	-8.517
1/13/2003	0.285
4/10/2003	0.270
7/16/2003	-1.609
10/14/2003	-2.303
1/13/2004	-2.303
Well Number:	MW397
Date Collected	LN(Result)
8/13/2002	0.457
9/16/2002	-1.461
10/17/2002	-8.517
1/13/2003	-0.792
4/8/2003	-1.609
7/16/2003	-1.609
10/14/2003	-2.303
1/13/2004	-2.303

First Quarter 2013 Data Collected in January 2013

Well No.	Result	Gradient	Result > TL?
MW370	0.100	Downgradient	N/A
MW373	0.100	Downgradient	N/A
MW385	0.100	Sidegradient	N/A
MW388	0.103	Downgradient	N/A
MW392	0.139	Downgradient	N/A

Transformed First Quarter 2013 Data Collected in January 2013

Well Number	LN(Result)	Result > TL?
MW370	-2.303	NO
MW373	-2.303	NO
MW385	-2.303	NO
MW388	-2.273	NO
MW392	-1.973	NO

Conclusion of Statistical Analysis on Transformed Data

None of the test wells exceeded the Upper Tolerance Limit, which is statistically significant evidence that these wells have no elevated concentrations with respect to background data.

CV Coefficient of Variation, CV = S/X If CV is less than or equal to 1 assume normal distribution.
S Standard Deviation, S = [Sum ([(background result-X)^2]/[count of background results -1])]^0.5
TL Upper Tolerance Limit, TL = X + (K * S)
X Mean, X = (sum of background results)/(count of background results)
** Read from Table 5, Appendix B of *Statistical Analysis of Ground-Water Monitoring Data at RCRA Facilities,* Interim Guidance, EPA, 1989, based on total number of background results

C-746-S and C-746-T First Quarter 2013 Statistical Analysis LRGA
Magnesium UNITS: mg/L

The CV is calculated to determine if background data are normally distributed. If so, the current test well results are compared to the TL. If not, a transformation is performed on the background and test well results, then each transformed test well result is compared to the transformed TL. If the test well result exceeds the TL, that is statistically significant evidence of elevated concentration in that well.

Background Data from Upgradient Wells

Well Number:	MW395
Date Collected	Result
8/13/2002	12.500
9/16/2002	13.000
10/16/2002	0.013
1/13/2003	11.200
4/10/2003	17.500
7/16/2003	12.900
10/14/2003	13.400
1/13/2004	12.400
Well Number:	MW397
Date Collected	Result
8/13/2002	7.830
9/16/2002	7.640
10/17/2002	0.007
1/13/2003	6.690
4/8/2003	7.280
7/16/2003	7.820
10/14/2003	7.940
1/13/2004	7.510

Statistics on Background Data

X= 9.102
S= 4.685
CV= 0.515
K factor = 2.523**
TL= 20.922

Because CV is less than or equal to 1, assume normal distribution and continue with statistical anaylsis.

First Quarter 2013 Data Collected in January 2013

Well No.	Result	Gradient	Result > TL?
MW370	11.700	Downgradient	NO
MW373	30.300	Downgradient	**YES**
MW385	10.600	Sidegradient	NO
MW388	13.500	Downgradient	NO
MW392	9.530	Downgradient	NO

Conclusion of Statistical Analysis on Data

The following test well(s) exceeded the Upper Tolerance Limit, which is statistically significant evidence of elevated concentration with respect to background data.

MW373

CV Coefficient of Variation, CV = S/X If CV is less than or equal to 1 assume normal distribution.
S Standard Deviation, S = [Sum ([(background result-X)^2]/[count of background results -1])]^0.5
TL Upper Tolerance Limit, TL = X + (K * S)
X Mean, X = (sum of background results)/(count of background results)
** Read from Table 5, Appendix B of *Statistical Analysis of Ground-Water Monitoring Data at RCRA Facilities,* Interim Guidance, EPA, 1989, based on total number of background results

C-746-S and C-746-T First Quarter 2013 Statistical Analysis LRGA
Manganese UNITS: mg/L

The CV is calculated to determine if background data are normally distributed. If so, the current test well results are compared to the TL. If not, a transformation is performed on the background and test well results, then each transformed test well result is compared to the transformed TL. If the test well result exceeds the TL, that is statistically significant evidence of elevated concentration in that well.

Background Data from Upgradient Wells

Well Number:	MW395
Date Collected	Result
8/13/2002	0.361
9/16/2002	0.028
10/16/2002	0.026
1/13/2003	0.071
4/10/2003	0.629
7/16/2003	0.297
10/14/2003	0.020
1/13/2004	0.013
Well Number:	MW397
Date Collected	Result
8/13/2002	0.466
9/16/2002	0.077
10/17/2002	0.028
1/13/2003	0.016
4/8/2003	0.041
7/16/2003	0.017
10/14/2003	0.006
1/13/2004	0.005

Statistics on Background Data

X= 0.131
S= 0.195
CV= 1.487
K factor = 2.523**
TL= 0.624

Because CV greater than 1, the natural logarithm of background and test well results were calculated.

Statistics on Transformed Background Data

X= -3.104
S= 1.529
CV= -0.493
K factor = 2.523**
TL= 0.755

Transformed Background Data from Upgradient Wells

Well Number:	MW395
Date Collected	LN(Result)
8/13/2002	-1.019
9/16/2002	-3.576
10/16/2002	-3.650
1/13/2003	-2.641
4/10/2003	-0.464
7/16/2003	-1.214
10/14/2003	-3.922
1/13/2004	-4.374
Well Number:	MW397
Date Collected	LN(Result)
8/13/2002	-0.764
9/16/2002	-2.564
10/17/2002	-3.576
1/13/2003	-4.110
4/8/2003	-3.202
7/16/2003	-4.092
10/14/2003	-5.194
1/13/2004	-5.298

First Quarter 2013 Data Collected in January 2013

Well No.	Result	Gradient	Result > TL?
MW370	0.005	Downgradient	N/A
MW373	0.019	Downgradient	N/A
MW385	0.008	Sidegradient	N/A
MW388	0.005	Downgradient	N/A
MW392	0.103	Downgradient	N/A

Transformed First Quarter 2013 Data Collected in January 2013

Well Number	LN(Result)	Result > TL?
MW370	-5.298	NO
MW373	-3.953	NO
MW385	-4.892	NO
MW388	-5.298	NO
MW392	-2.273	NO

Conclusion of Statistical Analysis on Transformed Data

None of the test wells exceeded the Upper Tolerance Limit, which is statistically significant evidence that these wells have no elevated concentrations with respect to background data.

CV Coefficient of Variation, CV = S/X If CV is less than or equal to 1 assume normal distribution.
S Standard Deviation, S = [Sum ([(background result-X)^2]/[count of background results -1])]^0.5
TL Upper Tolerance Limit, TL = X + (K * S)
X Mean, X = (sum of background results)/(count of background results)
** Read from Table 5, Appendix B of *Statistical Analysis of Ground-Water Monitoring Data at RCRA Facilities,* Interim Guidance, EPA, 1989, based on total number of background results

C-746-S and C-746-T First Quarter 2013 Statistical Analysis LRGA
Nickel UNITS: mg/L

The CV is calculated to determine if background data are normally distributed. If so, the current test well results are compared to the TL. If not, a transformation is performed on the background and test well results, then each transformed test well result is compared to the transformed TL. If the test well result exceeds the TL, that is statistically significant evidence of elevated concentration in that well.

Background Data from Upgradient Wells

Well Number:	MW395
Date Collected	Result
8/13/2002	0.050
9/16/2002	0.050
10/16/2002	0.007
1/13/2003	0.029
4/10/2003	0.009
7/16/2003	0.006
10/14/2003	0.005
1/13/2004	0.005
Well Number:	MW397
Date Collected	Result
8/13/2002	0.050
9/16/2002	0.050
10/17/2002	0.005
1/13/2003	0.005
4/8/2003	0.005
7/16/2003	0.005
10/14/2003	0.005
1/13/2004	0.005

Statistics on Background Data

X= 0.018
S= 0.020
CV= 1.089
K factor = 2.523**
TL= 0.068

Because CV greater than 1, the natural logarithm of background and test well results were calculated.

Statistics on Transformed Background Data

X= -4.540
S= 1.020
CV= -0.225
K factor = 2.523**
TL= -1.965

Transformed Background Data from Upgradient Wells

Well Number:	MW395
Date Collected	LN(Result)
8/13/2002	-2.996
9/16/2002	-2.996
10/16/2002	-4.959
1/13/2003	-3.540
4/10/2003	-4.699
7/16/2003	-5.072
10/14/2003	-5.298
1/13/2004	-5.298
Well Number:	MW397
Date Collected	LN(Result)
8/13/2002	-2.996
9/16/2002	-2.996
10/17/2002	-5.298
1/13/2003	-5.294
4/8/2003	-5.298
7/16/2003	-5.298
10/14/2003	-5.298
1/13/2004	-5.298

First Quarter 2013 Data Collected in January 2013

Well No.	Result	Gradient	Result > TL?
MW370	0.005	Downgradient	N/A
MW373	0.005	Downgradient	N/A
MW385	0.006	Sidegradient	N/A
MW388	0.008	Downgradient	N/A
MW392	0.005	Downgradient	N/A

Transformed First Quarter 2013 Data Collected in January 2013

Well Number	LN(Result)	Result > TL?
MW370	-5.298	NO
MW373	-5.298	NO
MW385	-5.203	NO
MW388	-4.823	NO
MW392	-5.298	NO

Conclusion of Statistical Analysis on Transformed Data

None of the test wells exceeded the Upper Tolerance Limit, which is statistically significant evidence that these wells have no elevated concentrations with respect to background data.

CV Coefficient of Variation, CV = S/X If CV is less than or equal to 1 assume normal distribution.
S Standard Deviation, S = [Sum ([(background result-X)^2]/[count of background results -1])]^0.5
TL Upper Tolerance Limit, TL = X + (K * S)
X Mean, X = (sum of background results)/(count of background results)
** Read from Table 5, Appendix B of *Statistical Analysis of Ground-Water Monitoring Data at RCRA Facilities,* Interim Guidance, EPA, 1989, based on total number of background results

C-746-S and C-746-T First Quarter 2013 Statistical Analysis LRGA
Oxidation-Reduction Potential UNITS: mV

The CV is calculated to determine if background data are normally distributed. If so, the current test well results are compared to the TL. If not, a transformation is performed on the background and test well results, then each transformed test well result is compared to the transformed TL. If the test well result exceeds the TL, that is statistically significant evidence of elevated concentration in that well.

Background Data from Upgradient Wells

Well Number:	MW395
Date Collected	Result
8/13/2002	80.000
9/16/2002	145.000
10/16/2002	125.000
1/13/2003	85.000
4/10/2003	159.000
7/16/2003	98.000
10/14/2003	138.000
1/13/2004	233.000

Well Number:	MW397
Date Collected	Result
8/13/2002	115.000
9/30/2002	140.000
10/17/2002	185.000
1/13/2003	230.000
4/8/2003	155.000
7/16/2003	188.000
10/14/2003	187.000
1/13/2004	253.000

Statistics on Background Data

X= 157.250
S= 52.376
CV= 0.333
K factor = 2.523**
TL= 289.395

Because CV is less than or equal to 1, assume normal distribution and continue with statistical anaylsis.

First Quarter 2013 Data Collected in January 2013

Well No.	Result	Gradient	Result > TL?
MW370	725.00	Downgradient	**YES**
MW373	83.000	Downgradient	NO
MW385	13.000	Sidegradient	NO
MW388	387.00	Downgradient	**YES**
MW392	586.00	Downgradient	**YES**

Conclusion of Statistical Analysis on Data

The following test well(s) exceeded the Upper Tolerance Limit, which is statistically significant evidence of elevated concentration with respect to background data.

MW370

MW388

MW392

CV Coefficient of Variation, CV = S/X If CV is less than or equal to 1 assume normal distribution.
S Standard Deviation, S = [Sum ([(background result-X)^2]/[count of background results -1])]^0.5
TL Upper Tolerance Limit, TL = X + (K * S)
X Mean, X = (sum of background results)/(count of background results)
** Read from Table 5, Appendix B of *Statistical Analysis of Ground-Water Monitoring Data at RCRA Facilities,* Interim Guidance, EPA, 1989, based on total number of background results

C-746-S and C-746-T First Quarter 2013 Statistical Analysis LRGA
pH UNITS: Std Unit

The CV is calculated to determine if background data are normally distributed. If so, the current test well results are compared to the TL and LL. If the test well result exceeds the TL or is less than the LL, that is statistically significant evidence of elevated or lowered concentration in that well.

Background Data from Upgradient Wells

Well Number:	MW395
Date Collected	Result
8/13/2002	5.800
9/16/2002	6.000
10/16/2002	5.470
1/13/2003	6.000
4/10/2003	6.180
7/16/2003	6.000
10/14/2003	6.310
1/13/2004	6.240
Well Number:	MW397
Date Collected	Result
8/13/2002	5.840
9/30/2002	6.000
10/17/2002	5.750
1/13/2003	6.000
4/8/2003	6.300
7/16/2003	6.200
10/14/2003	6.360
1/13/2004	6.320

Statistics on Background Data

X= 6.048
S= 0.248
CV= 0.041
K factor = 2.904**
TL= 6.767
LL= 5.329

Because CV is less than or equal to 1, assume normal distribution and continue with statistical anaylsis.

First Quarter 2013 Data Collected in January 2013

Well No.	Result	Gradient	Result >TL?	Result <LL?
MW370	6.200	Downgradient	NO	NO
MW373	6.320	Downgradient	NO	NO
MW385	7.260	Sidegradient	**YES**	NO
MW388	6.720	Downgradient	NO	NO
MW392	6.250	Downgradient	NO	NO

Conclusion of Statistical Analysis on Data

The following test well(s) exceeded the Upper Tolerance Limit, which is statistically significant evidence of elevated concentration with respect to background data.

MW385

CV Coefficient-of-Variation, CV = S/X If CV is less than or equal to 1 assume normal distribution.
S Standard Deviation, S = [Sum ([(background result-X)^2]/[count of background results -1])]^0.5
TL Upper Tolerance Limit, TL = X + (K * S), LL Lower Tolerance Limit, LL = X - (K * S)
X Mean, X = (sum of background results)/(count of background results)

** The K-factor was adjusted for pH to account for a two-sided tolerance interval instead of a one-sided tolerance limit. The K- factor for pH was computed using a formula from NIST/SEMATECH e-Handbook of Statistical Methods, http://www.itl.nist.gov/div898/handbook/, 2009.

C-746-S and C-746-T First Quarter 2013 Statistical Analysis LRGA
Potassium UNITS: mg/L

The CV is calculated to determine if background data are normally distributed. If so, the current test well results are compared to the TL. If not, a transformation is performed on the background and test well results, then each transformed test well result is compared to the transformed TL. If the test well result exceeds the TL, that is statistically significant evidence of elevated concentration in that well.

Background Data from Upgradient Wells

Well Number:	MW395
Date Collected	Result
8/13/2002	2.000
9/16/2002	2.000
10/16/2002	0.001
1/13/2003	1.510
4/10/2003	1.670
7/16/2003	1.730
10/14/2003	1.700
1/13/2004	1.580
Well Number:	MW397
Date Collected	Result
8/13/2002	2.030
9/16/2002	2.000
10/17/2002	0.001
1/13/2003	1.690
4/8/2003	1.730
7/16/2003	2.000
10/14/2003	1.920
1/13/2004	1.870

Statistics on Background Data

X= 1.590
S= 0.642
CV= 0.404
K factor = 2.523**
TL= 3.208

Because CV is less than or equal to 1, assume normal distribution and continue with statistical anaylsis.

First Quarter 2013 Data Collected in January 2013

Well No.	Result	Gradient	Result > TL?
MW370	2.440	Downgradient	NO
MW373	3.260	Downgradient	**YES**
MW385	1.600	Sidegradient	NO
MW388	1.900	Downgradient	NO
MW392	1.730	Downgradient	NO

Conclusion of Statistical Analysis on Data

The following test well(s) exceeded the Upper Tolerance Limit, which is statistically significant evidence of elevated concentration with respect to background data.

MW373

CV Coefficient of Variation, CV = S/X If CV is less than or equal to 1 assume normal distribution.
S Standard Deviation, S = [Sum ([(background result-X)^2]/[count of background results -1])]^0.5
TL Upper Tolerance Limit, TL = X + (K * S)
X Mean, X = (sum of background results)/(count of background results)
** Read from Table 5, Appendix B of *Statistical Analysis of Ground-Water Monitoring Data at RCRA Facilities,* Interim Guidance, EPA, 1989, based on total number of background results

C-746-S and C-746-T First Quarter 2013 Statistical Analysis LRGA
Sodium UNITS: mg/L

The CV is calculated to determine if background data are normally distributed. If so, the current test well results are compared to the TL. If not, a transformation is performed on the background and test well results, then each transformed test well result is compared to the transformed TL. If the test well result exceeds the TL, that is statistically significant evidence of elevated concentration in that well.

Background Data from Upgradient Wells

Well Number:	MW395
Date Collected	Result
8/13/2002	27.000
9/16/2002	27.200
10/16/2002	0.025
1/13/2003	22.600
4/10/2003	53.900
7/16/2003	30.000
10/14/2003	29.100
1/13/2004	26.400
Well Number:	MW397
Date Collected	Result
8/13/2002	35.200
9/16/2002	34.300
10/17/2002	0.034
1/13/2003	31.300
4/8/2003	46.100
7/16/2003	38.400
10/14/2003	37.100
1/13/2004	34.300

Statistics on Background Data

X= 29.560
S= 13.894
CV= 0.470
K factor = 2.523**
TL= 64.616

Because CV is less than or equal to 1, assume normal distribution and continue with statistical anaylsis.

First Quarter 2013 Data Collected in January 2013

Well No.	Result	Gradient	Result > TL?
MW370	39.200	Downgradient	NO
MW373	70.400	Downgradient	**YES**
MW385	38.200	Sidegradient	NO
MW388	48.700	Downgradient	NO
MW392	28.800	Downgradient	NO

Conclusion of Statistical Analysis on Data

The following test well(s) exceeded the Upper Tolerance Limit, which is statistically significant evidence of elevated concentration with respect to background data.

MW373

CV Coefficient of Variation, CV = S/X If CV is less than or equal to 1 assume normal distribution.
S Standard Deviation, S = [Sum ([(background result-X)^2]/[count of background results -1])]^0.5
TL Upper Tolerance Limit, TL = X + (K * S)
X Mean, X = (sum of background results)/(count of background results)
** Read from Table 5, Appendix B of *Statistical Analysis of Ground-Water Monitoring Data at RCRA Facilities,* Interim Guidance, EPA, 1989, based on total number of background results

C-746-S and C-746-T First Quarter 2013 Statistical Analysis LRGA
Sulfate UNITS: mg/L

The CV is calculated to determine if background data are normally distributed. If so, the current test well results are compared to the TL. If not, a transformation is performed on the background and test well results, then each transformed test well result is compared to the transformed TL. If the test well result exceeds the TL, that is statistically significant evidence of elevated concentration in that well.

Background Data from Upgradient Wells

Well Number:	MW395
Date Collected	Result
8/13/2002	10.300
9/16/2002	9.100
10/16/2002	8.800
1/13/2003	9.000
4/10/2003	8.300
7/16/2003	8.200
10/14/2003	8.300
1/13/2004	8.200
Well Number:	MW397
Date Collected	Result
8/13/2002	14.000
9/16/2002	12.800
10/17/2002	12.300
1/13/2003	12.700
4/8/2003	12.800
7/16/2003	13.100
10/14/2003	12.100
1/13/2004	12.100

Statistics on Background Data

X= 10.756
S= 2.147
CV= 0.200
K factor = 2.523**
TL= 16.173

Because CV is less than or equal to 1, assume normal distribution and continue with statistical anaylsis.

First Quarter 2013 Data Collected in January 2013

Well No.	Result	Gradient	Result > TL?
MW370	20.000	Downgradient	**YES**
MW373	210.00	Downgradient	**YES**
MW385	19.000	Sidegradient	**YES**
MW388	30.000	Downgradient	**YES**
MW392	7.400	Downgradient	NO

Conclusion of Statistical Analysis on Data

The following test well(s) exceeded the Upper Tolerance Limit, which is statistically significant evidence of elevated concentration with respect to background data.

MW370

MW373

MW385

MW388

CV Coefficient of Variation, CV = S/X If CV is less than or equal to 1 assume normal distribution.
S Standard Deviation, S = [Sum ([(background result-X)^2]/[count of background results -1])]^0.5
TL Upper Tolerance Limit, TL = X + (K * S)
X Mean, X = (sum of background results)/(count of background results)
** Read from Table 5, Appendix B of *Statistical Analysis of Ground-Water Monitoring Data at RCRA Facilities,* Interim Guidance, EPA, 1989, based on total number of background results

C-746-S and C-746-T First Quarter 2013 Statistical Analysis LRGA
Technetium-99 UNITS: pCi/L

The CV is calculated to determine if background data are normally distributed. If so, the current test well results are compared to the TL. If not, a transformation is performed on the background and test well results, then each transformed test well result is compared to the transformed TL. If the test well result exceeds the TL, that is statistically significant evidence of elevated concentration in that well.

Background Data from Upgradient Wells

Well Number:	MW395
Date Collected	Result
8/13/2002	20.800
9/16/2002	16.200
10/16/2002	8.280
1/13/2003	13.000
4/10/2003	-9.370
7/16/2003	0.826
10/14/2003	14.100
1/13/2004	0.000
Well Number:	MW397
Date Collected	Result
8/13/2002	6.060
9/16/2002	17.300
10/17/2002	25.700
1/13/2003	20.900
4/8/2003	20.100
7/16/2003	9.200
10/14/2003	10.100
1/13/2004	8.540

Statistics on Background Data

X= 11.359
S= 9.138
CV= 0.805
K factor = 2.523**
TL= 34.414

Because CV is less than or equal to 1, assume normal distribution and continue with statistical anaylsis.

First Quarter 2013 Data Collected in January 2013

Well No.	Result	Gradient	Result > TL?
MW370	18.300	Downgradient	NO
MW373	64.000	Downgradient	**YES**
MW385	103.00	Sidegradient	**YES**
MW388	84.900	Downgradient	**YES**
MW392	17.300	Downgradient	NO

Conclusion of Statistical Analysis on Data

The following test well(s) exceeded the Upper Tolerance Limit, which is statistically significant evidence of elevated concentration with respect to background data.

MW373

MW385

MW388

CV Coefficient of Variation, CV = S/X If CV is less than or equal to 1 assume normal distribution.
S Standard Deviation, S = [Sum ([(background result-X)^2]/[count of background results -1])]^0.5
TL Upper Tolerance Limit, TL = X + (K * S)
X Mean, X = (sum of background results)/(count of background results)
** Read from Table 5, Appendix B of *Statistical Analysis of Ground-Water Monitoring Data at RCRA Facilities,* Interim Guidance, EPA, 1989, based on total number of background results

C-746-S and C-746-T First Quarter 2013 Statistical Analysis LRGA
Total Organic Carbon (TOC) UNITS: mg/L

The CV is calculated to determine if background data are normally distributed. If so, the current test well results are compared to the TL. If not, a transformation is performed on the background and test well results, then each transformed test well result is compared to the transformed TL. If the test well result exceeds the TL, that is statistically significant evidence of elevated concentration in that well.

Background Data from Upgradient Wells

Well Number:	MW395
Date Collected	Result
8/13/2002	1.600
9/16/2002	1.100
10/16/2002	1.000
1/13/2003	2.000
4/10/2003	3.400
7/16/2003	2.000
10/14/2003	1.000
1/13/2004	1.000

Well Number:	MW397
Date Collected	Result
8/13/2002	1.000
9/16/2002	1.000
10/17/2002	1.000
1/13/2003	3.600
4/8/2003	1.900
7/16/2003	1.100
10/14/2003	1.000
1/13/2004	1.000

Statistics on Background Data

X= 1.544
S= 0.856
CV= 0.554
K factor = 2.523**
TL= 3.702

Because CV is less than or equal to 1, assume normal distribution and continue with statistical anaylsis.

First Quarter 2013 Data Collected in January 2013

Well No.	Result	Gradient	Result > TL?
MW370	1.000	Downgradient	NO
MW373	1.000	Downgradient	NO
MW385	1.000	Sidegradient	NO
MW388	1.000	Downgradient	NO
MW392	1.000	Downgradient	NO

Conclusion of Statistical Analysis on Data

None of the test wells exceeded the Upper Tolerance Limit, which is statistically significant evidence that these wells have no elevated concentrations with respect to background data.

CV Coefficient of Variation, CV = S/X If CV is less than or equal to 1 assume normal distribution.
S Standard Deviation, S = [Sum ([(background result-X)^2]/[count of background results -1])]^0.5
TL Upper Tolerance Limit, TL = X + (K * S)
X Mean, X = (sum of background results)/(count of background results)
** Read from Table 5, Appendix B of *Statistical Analysis of Ground-Water Monitoring Data at RCRA Facilities,* Interim Guidance, EPA, 1989, based on total number of background results

C-746-S and C-746-T First Quarter 2013 Statistical Analysis LRGA
Total Organic Halides (TOX) UNITS: ug/L

The CV is calculated to determine if background data are normally distributed. If so, the current test well results are compared to the TL. If not, a transformation is performed on the background and test well results, then each transformed test well result is compared to the transformed TL. If the test well result exceeds the TL, that is statistically significant evidence of elevated concentration in that well.

Background Data from Upgradient Wells

Well Number:	MW395
Date Collected	Result
8/13/2002	50.000
9/16/2002	50.000
10/16/2002	50.000
1/13/2003	18.300
4/10/2003	51.200
7/16/2003	42.600
10/14/2003	12.300
1/13/2004	10.000

Well Number:	MW397
Date Collected	Result
8/13/2002	50.000
9/16/2002	50.000
10/17/2002	50.000
1/13/2003	12.000
4/8/2003	19.900
7/16/2003	17.900
10/14/2003	10.000
1/13/2004	10.000

Statistics on Background Data

X= 31.513
S= 18.609
CV= 0.591
K factor = 2.523**
TL= 78.462

Because CV is less than or equal to 1, assume normal distribution and continue with statistical anaylsis.

First Quarter 2013 Data Collected in January 2013

Well No.	Result	Gradient	Result > TL?
MW370	20.000	Downgradient	NO
MW373	36.000	Downgradient	NO
MW385	23.000	Sidegradient	NO
MW388	18.000	Downgradient	NO
MW392	37.000	Downgradient	NO

Conclusion of Statistical Analysis on Data

None of the test wells exceeded the Upper Tolerance Limit, which is statistically significant evidence that these wells have no elevated concentrations with respect to background data.

CV Coefficient of Variation, CV = S/X If CV is less than or equal to 1 assume normal distribution.
S Standard Deviation, S = [Sum ([(background result-X)^2]/[count of background results -1])]^0.5
TL Upper Tolerance Limit, TL = X + (K * S)
X Mean, X = (sum of background results)/(count of background results)
** Read from Table 5, Appendix B of *Statistical Analysis of Ground-Water Monitoring Data at RCRA Facilities,* Interim Guidance, EPA, 1989, based on total number of background results

756 Park Meadow Road
Westerville, Ohio 43081

May 2, 2013

Mr. Craig Jones
LATA Environmental Services of Kentucky, LLC
761 Veterans Avenue
Kevil, Kentucky 42053

Dear Mr. Jones:

This statement is submitted in response to your request that it be included with the completed statistical analysis that I have performed on the groundwater data for the C-746-S&T and C-746-U Landfills at the Paducah Gaseous Diffusion Plant.

As a Geologist, with a Bachelor of Science degree, I have over eight years of experience in reviewing and assessing laboratory analytical results associated with environmental sampling and investigation activities.

For this project, the statistical analyses conducted on the first quarter 2013 monitoring well data collected from the C-746-S&T and C-746-U Landfills were performed in accordance with guidance provided in the U.S. Environmental Protection Agency guidance document, *EPA Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities, Interim Final Guidance* (1989). For pH, an additional lower tolerance interval was established. For pH only, the test well data was compared to both the upper and lower tolerance intervals to determine if statistically significant deviations in concentration with respect to upgradient well exist.

Sincerely,

C. Travis Debnam
LATA Project Geologist

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APPENDIX E

GROUNDWATER FLOW RATE AND DIRECTION

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GROUNDWATER
FLOW RATE AND DIRECTION

Whenever monitoring wells (MWs) are sampled, 401 *KAR* 48:300, Section 11, requires determination of groundwater flow rate and direction of flow in the uppermost aquifer. The uppermost aquifer below C-746-S&T is the Regional Gravel Aquifer (RGA). Water level measurements currently are recorded in several wells at the landfill on a quarterly basis. These measurements were used to plot the potentiometric surface of the RGA for the first quarter 2013 and to determine the groundwater flow rate and direction.

Water levels during this reporting period were measured on January 3, 2013. As shown on Figure E.1, MW389, screened in the Upper Continental Recharge System (UCRS), is usually dry, while other UCRS wells have recordable water levels. During this reporting period, all of the UCRS wells had sufficient water to permit water level measurements but UCRS wells MW389 and MW390 had insufficient water to permit sampling.

The UCRS has a strong vertical hydraulic gradient; therefore, the limited number of available UCRS wells, screened over different elevations, is not sufficient for mapping the potentiometric surface. Figure E.1 shows the location of UCRS MWs. The Upper Regional Gravel Aquifer (URGA) and Lower Regional Gravel Aquifer (LRGA) data were corrected for barometric pressure, if necessary, and converted to elevations to plot the potentiometric surface of the RGA, as a whole, as shown on Table E.1. Figure E.2 is a composite or average map of the URGA and LRGA elevations where well clusters exist. The contour lines are placed based on the average water level elevations of the clusters.[1] Based on the site potentiometric map (Figure E.2), the hydraulic gradient beneath the landfill is 8.64×10^{-4} ft/ft. Additional water level measurements in January (Figure E.3) document the vicinity groundwater hydraulic gradient for the RGA to be 3.12×10^{-4} ft/ft. The hydraulic gradients are shown in Table E.2.

The average linear groundwater flow velocity (v) is determined by multiplying the hydraulic gradient (i) by the hydraulic conductivity (K) [resulting in the specific discharge (q)] and dividing by the effective porosity (n_e). The RGA hydraulic conductivity values used are reported in the Administrative Application for the New Solid Waste Landfill Permit No. 073-00045NWC1 and range from 425 to 725 ft/day (0.150 to 0.256 cm/s). RGA effective porosity is assumed to be 25%. Vicinity and site flow velocities were calculated using the low and high values for hydraulic conductivity, as shown in Table E.3.

Regional groundwater flow near C-746-S&T typically trends northeastward toward the Ohio River. As demonstrated on the potentiometric map, the groundwater flow direction in the immediate area of the landfill varies slightly from regional trends; however, as groundwater flows away from the landfill, it eventually conforms to the regional flow direction.

[1] Additional water level measurements, in wells at the C-746-U Landfill and in wells of the surrounding region (MW98, MW100, MW125, MW139, MW173, MW193, MW197, and MW200) were used to contour the RGA potentiometric surface.

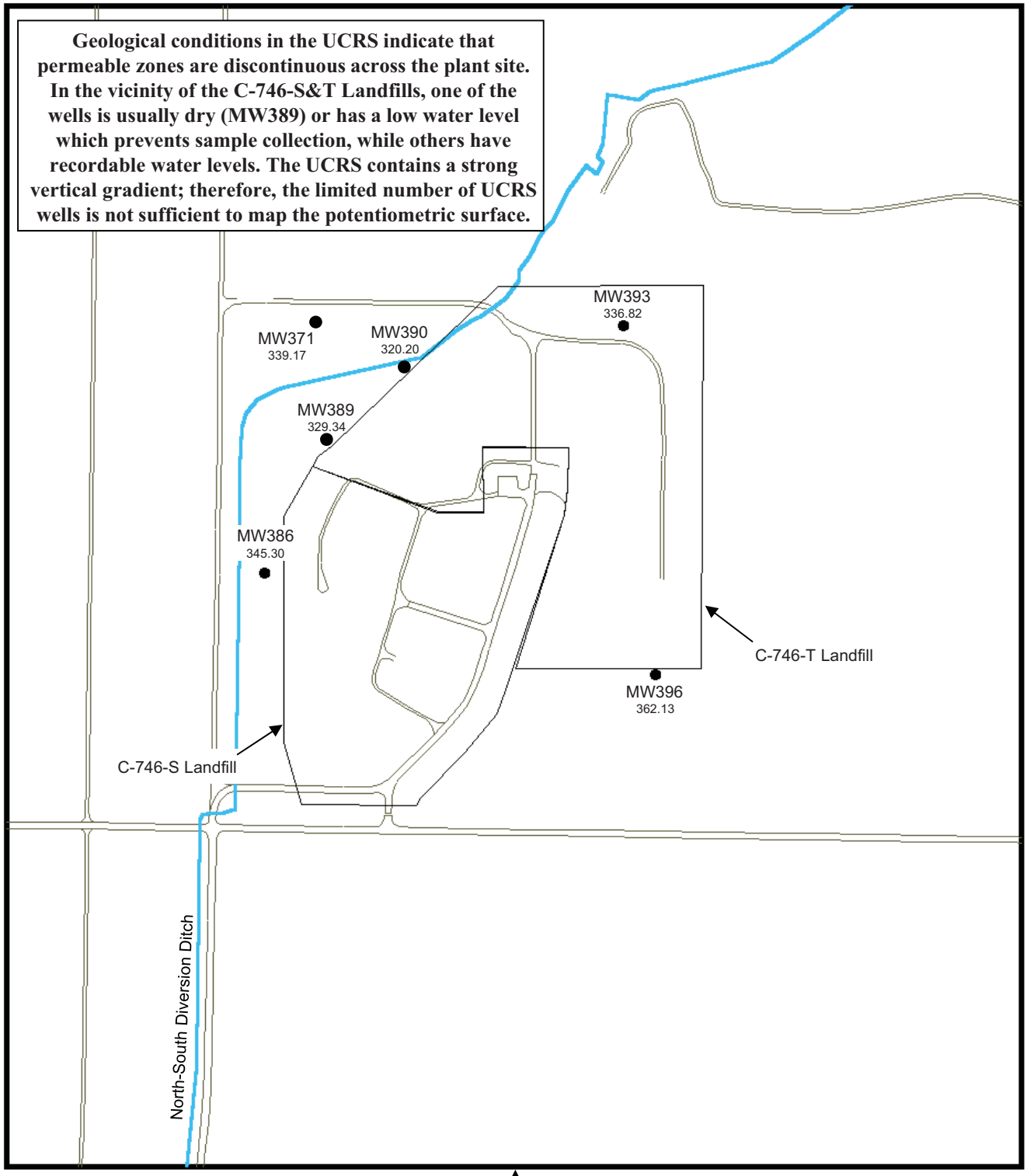

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Figure E.1. Measured Water Levels in Wells of the Upper Continental Recharge System at the C-746 S&T Landfills
Permit Numbers 073-00014 & 073-00015
January 3, 2013

LATA Environmental Services of Kentucky, LLC

Table E.1. C-746-S&T Landfills First Quarter 2013 (January) Water Levels

C-746-S&T Landfills (January 2013) Water Levels										
							Raw Data		*Corrected Data	
Date	Time	Well	Formation	Datum Elev (ft amsl)	BP (in Hg)	Delta BP (ft H_20)	DTW (ft)	Elev (ft amsl)	DTW (ft)	Elev (ft amsl)
1/3/2013	09:28	MW220	URGA	381.65	30.34	0.00	59.12	322.53	59.12	322.53
1/3/2013	09:23	MW221	URGA	391.14	30.34	0.00	70.62	320.52	70.62	320.52
1/3/2013	09:19	MW222	URGA	395.20	30.34	0.00	74.64	320.56	74.64	320.56
1/3/2013	09:21	MW223	URGA	394.34	30.34	0.00	73.23	321.11	73.23	321.11
1/3/2013	09:17	MW224	URGA	395.70	30.34	0.00	74.71	320.99	74.71	320.99
1/3/2013	09:38	MW353	LRGA	374.97	30.34	0.00	53.98	320.99	53.98	320.99
1/3/2013	09:09	MW369	URGA	364.28	30.34	0.00	44.26	320.02	44.26	320.02
1/3/2013	09:05	MW370	LRGA	365.15	30.34	0.00	45.18	319.97	45.18	319.97
1/3/2013	09:07	MW371	UCRS	364.71	30.34	0.00	25.54	339.17	25.54	339.17
1/3/2013	09:16	MW372	URGA	359.49	30.34	0.00	39.49	320.00	39.49	320.00
1/3/2013	09:14	MW373	LRGA	359.79	30.34	0.00	39.81	319.98	39.81	319.98
1/3/2013	08:55	MW384	URGA	365.00	30.34	0.00	44.85	320.15	44.85	320.15
1/3/2013	08:57	MW385	LRGA	365.42	30.34	0.00	45.33	320.09	45.33	320.09
1/3/2013	08:56	MW386	UCRS	365.17	30.34	0.00	19.87	345.30	19.87	345.30
1/3/2013	08:52	MW387	URGA	363.21	30.33	0.01	43.06	320.15	43.07	320.14
1/3/2013	08:53	MW388	LRGA	363.18	30.34	0.00	43.06	320.12	43.06	320.12
1/3/2013	08:50	MW389	UCRS	363.81	30.33	0.01	34.46	329.35	34.47	329.34
1/3/2013	08:48	MW390	UCRS	360.31	30.33	0.01	40.10	320.21	40.11	320.20
1/3/2013	09:13	MW391	URGA	366.51	30.34	0.00	46.44	320.07	46.44	320.07
1/3/2013	09:15	MW392	LRGA	365.63	30.34	0.00	45.58	320.05	45.58	320.05
1/3/2013	09:14	MW393	UCRS	366.64	30.34	0.00	29.82	336.82	29.82	336.82
1/3/2013	09:04	MW394	URGA	378.23	30.34	0.00	57.96	320.27	57.96	320.27
1/3/2013	09:06	MW395	LRGA	378.87	30.34	0.00	58.64	320.23	58.64	320.23
1/3/2013	09:05	MW396	UCRS	378.62	30.34	0.00	16.49	362.13	16.49	362.13
1/3/2013	09:00	MW397	LRGA	386.84	30.34	0.00	66.50	320.34	66.50	320.34

Initial Barometric Pressure **30.34**

Elev = elevation

amsl = above mean sea level

BP = barometric pressure

DTW = depth to water in feet below datum

URGA = Upper Regional Gravel Aquifer

LRGA = Lower Regional Gravel Aquifer

UCRS = Upper Continental Recharge System

*Assumes a barometric efficiency of 1.0

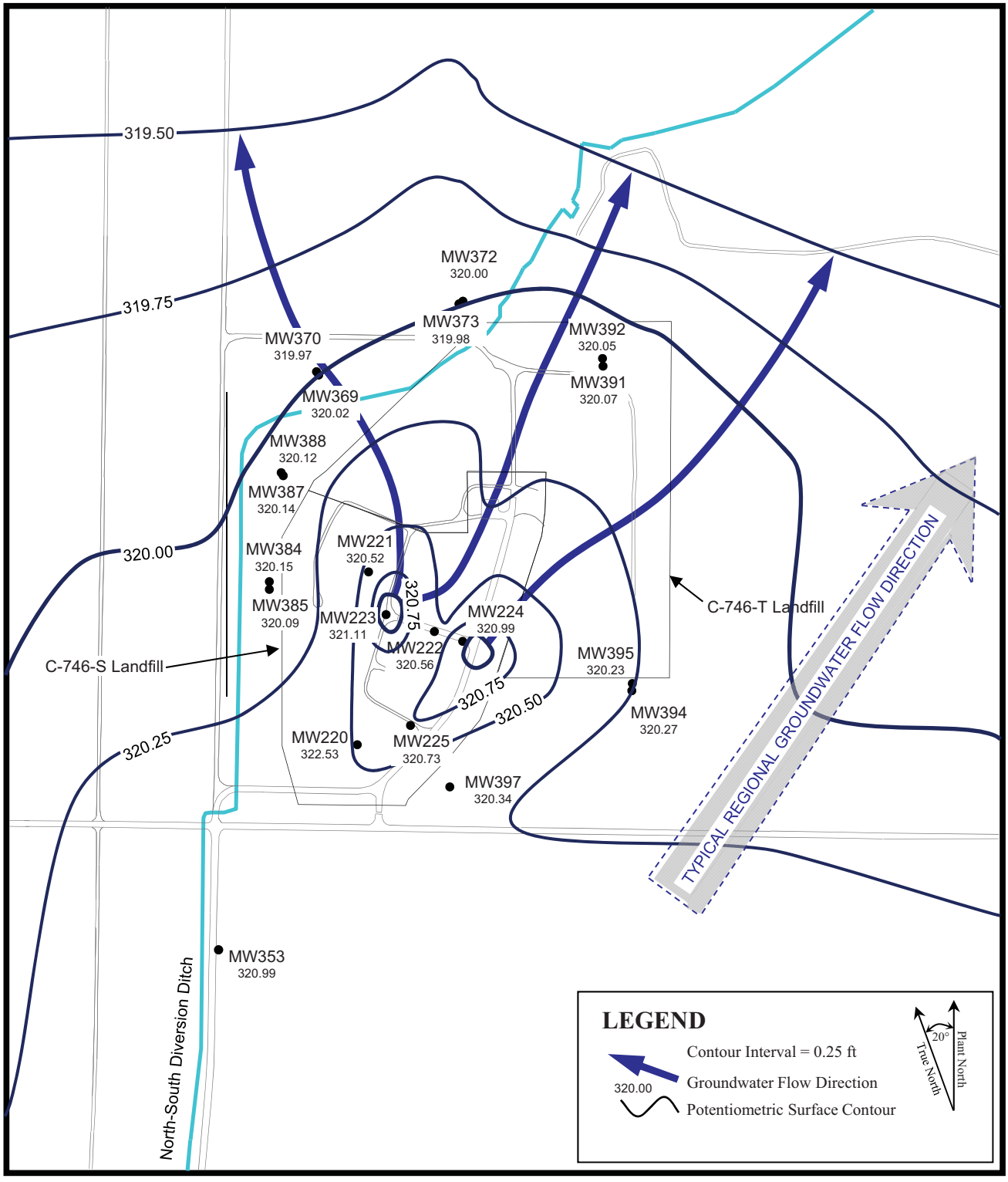

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Figure E.2. Composite Potentiometric Surface of the Regional Gravel Aquifer at the C-746-S&T Landfills Permit Numbers 073-00014 & 073-00015 January 3, 2013

LATA Environmental Services of Kentucky, LLC

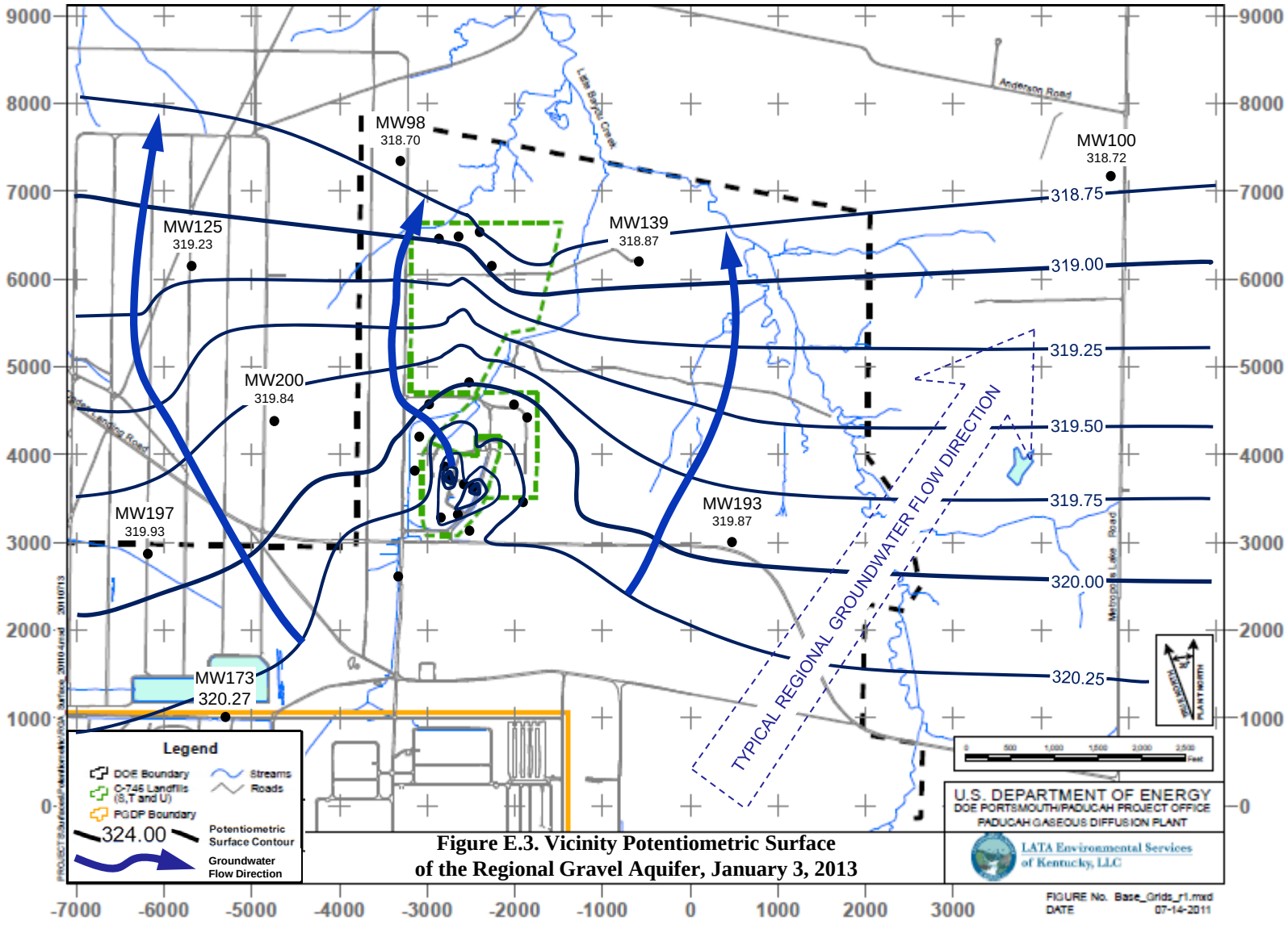

Figure E.3. Vicinity Potentiometric Surface of the Regional Gravel Aquifer, January 3, 2013

Table E.2. C-746-S&T Hydraulic Gradients

	ft/ft
Beneath Landfill Mound	8.64×10^{-4}
Vicinity	3.12×10^{-4}

Table E.3. C-746-S&T Groundwater Flow Rate

Hydraulic Conductivity (K)		Specific Discharge (q)		Average Linear Velocity (v)	
ft/day	cm/s	ft/day	cm/s	ft/day	cm/s
Beneath Landfill Mound					
725	0.256	0.63	2.21×10^{-4}	2.50	8.84×10^{-4}
425	0.150	0.37	1.30×10^{-4}	1.47	5.18×10^{-4}
Vicinity					
725	0.256	0.23	7.99×10^{-5}	0.91	3.20×10^{-4}
425	0.150	0.13	4.68×10^{-5}	0.53	1.87×10^{-4}

APPENDIX F

NOTIFICATIONS

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NOTIFICATIONS

In accordance with 401 *KAR* 48:300, Section 7, the notification for parameters that exceed the maximum contaminant level (MCL) has been submitted to the Kentucky Division of Waste Management. The notification for parameters that had statistically significant increased concentrations relative to background concentrations is provided below.

Statistical Analysis of Parameters Notification

The statistical analyses conducted on the first quarter 2013 groundwater data collected from the C-746-S&T Landfills monitoring wells (MWs) were performed in accordance with Permit Condition GSTR0003, Standard Requirement 3, using the U.S. Environmental Protection Agency guidance document, *EPA Statistical Analysis of Ground-Water Monitoring Data at RCRA Facilities, Interim Final Guidance* (1989), with the exception of pH. The method for conducting the statistical analysis of pH was selected by the project statistician.

The following are the parameters in 40 *CFR* § 302.4, Appendix A, which had statistically significant increased concentrations relative to background concentrations.

Parameter	Monitoring Well
Upper Continental Recharge System	
None	
Upper Regional Gravel Aquifer	
Technetium-99	MW384, MW387
Lower Regional Gravel Aquifer	
Technetium-99	MW373, MW385, MW388

NOTE: Although technetium-99 is not cited in 40 *CFR* § 302.4, Appendix A, these radionuclides are being reported along with the parameters of this regulation.

MCL Notification

A notification was submitted for parameters that exceeded the MCL. The parameters submitted are listed on the following page.

2/22/2013

LATA Environmental Services of Kentucky
PROJECT ENVIRONMENTAL MEASUREMENTS SYSTEM
C-746-S and -T LANDFILLS
PERMIT NUMBERS 073-00014 and 073-00015
MAXIMUM CONTAMINANT LIMIT (MCL) EXCEEDANCE REPORT
Quarterly Groundwater Sampling

AKGWA	Station	Analysis	Method		Results	Units	MCL
8004-4808	MW372	Beta activity	9310/RL7111		95.6	pCi/L	50
		Trichloroethene	8260B/OA7302E		6.1	ug/L	5
8004-4792	MW373	Beta activity	9310/RL7111		56.7	pCi/L	50
		Trichloroethene	8260B/OA7302E		6.6	ug/L	5
8004-4809	MW384	Beta activity	9310/RL7111		180	pCi/L	50
8004-4815	MW387	Beta activity	9310/RL7111		84	pCi/L	50
8004-4816	MW388	Beta activity	9310/RL7111		66.3	pCi/L	50
8004-4805	MW391	Trichloroethene	8260B/OA7302E	Y	13	ug/L	5
		Trichloroethene	8260B/OA7302E	Y	12	ug/L	5
8004-4806	MW392	Trichloroethene	8260B/OA7302E	Y	13	ug/L	5
8004-4802	MW394	Trichloroethene	8260B/OA7302E		6.8	ug/L	5

NOTE 1: These limits are defined in 401 KAR 47:030.

NOTE 2: MW370, MW372, and MW373 are down-gradient wells for the C-746-S and C-746-T Landfills and upgradient for the the C-746-U Landfill. These wells are sampled with the C-746-U Landfill monitoring well network. These wells are reported on the exceedance reports for C-746-S, C-746-T, and C-746-U.

APPENDIX G

CHART OF MCL EXCEEDANCES AND STATISTICALLY SIGNIFICANT INCREASES

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Chart of MCL Exceedances and Statistical Increases for C-746-S&T Landfills

Groundwater Flow System	UCRS					URGA											LRGA						
Gradient	S	D	D	D	U	S	S	S	S	S	D	D	D	D	U	U	S	D	D	D	D	U	U
Monitoring Well	386	389	390	393	396	221	222	223	224	384	369	372	387	391	220	394	385	370	373	388	392	395	397
1,2,3-TRICHLOROPROPANE																							
Quarter 2, 2009			✱																				
ACETONE																							
Quarter 3, 2003							✱					✱											
Quarter 4, 2003											✱								✱				
Quarter 1, 2005									✱														
ALPHA ACTIVITY																							
Quarter 4, 2002				■	■								■										
Quarter 4, 2008										■													
Quarter 4, 2010										■													
ALUMINUM																							
Quarter 1, 2003			✱				✱					✱	✱	✱									
Quarter 2, 2003			✱				✱						✱	✱									
Quarter 3, 2003			✱				✱	✱					✱	✱									
Quarter 4, 2003							✱	✱			✱			✱									
Quarter 1, 2004			✱				✱	✱			✱												
Quarter 2, 2004							✱							✱									
Quarter 3, 2004							✱							✱									
Quarter 4, 2004			✱																				
Quarter 1, 2005			✱																				
Quarter 2, 2005			✱				✱																
Quarter 3, 2005			✱				✱			✱											✱		
Quarter 4, 2005			✱				✱				✱												
Quarter 1, 2006							✱						✱										
Quarter 2, 2006			✱				✱																
Quarter 3, 2006							✱																
Quarter 4, 2006			✱				✱																
Quarter 1, 2007							✱										✱						
Quarter 2, 2007							✱										✱						
Quarter 3, 2007							✱																
Quarter 4, 2007							✱																
Quarter 1, 2008							✱							✱									
Quarter 2, 2008											✱												
Quarter 4, 2008							✱																
Quarter 1, 2009			✱				✱				✱												
Quarter 1, 2010			✱				✱				✱												
Quarter 2, 2010			✱								✱												
Quarter 3, 2010			✱								✱			✱			✱			✱			
Quarter 1, 2011							✱				✱												
Quarter 2, 2011			✱								✱												
Quarter 2, 2012			✱																				

Chart of MCL Exceedances and Statistical Increases for C-746-S&T Landfills

Groundwater Flow System	UCRS					URGA											LRGA						
Gradient	S	D	D	D	U	S	S	S	S	S	D	D	D	D	U	U	S	D	D	D	D	U	U
Monitoring Well	386	389	390	393	396	221	222	223	224	384	369	372	387	391	220	394	385	370	373	388	392	395	397
Quarter 3, 2012							✱																
Quarter 1, 2013							✱				✱												
BARIUM																							
Quarter 3, 2003							■	■															
Quarter 4, 2003							■	■															
BETA ACTIVITY																							
Quarter 4, 2002													■										
Quarter 1, 2003													■				■						
Quarter 2, 2003			■	■													■			■			
Quarter 3, 2003			■										■				■						
Quarter 4, 2003			■							■			■										
Quarter 1, 2004			■										■				■						
Quarter 2, 2004			■									■	■				■		■	■			
Quarter 3, 2004			■									■	■				■						
Quarter 4, 2004			■									■	■				■						
Quarter 1, 2005			■							■			■				■						
Quarter 2, 2005			■										■				■			■			
Quarter 3, 2005										■			■										
Quarter 4, 2005										■		■	■				■						
Quarter 1, 2006										■		■	■				■		■	■			
Quarter 2, 2006			■							■			■				■		■	■			
Quarter 3, 2006										■		■	■				■		■	■			
Quarter 4, 2006	■		■							■		■	■						■	■			
Quarter 1, 2007			■							■		■	■				■		■	■			
Quarter 2, 2007			■							■		■	■				■		■	■			
Quarter 3, 2007										■		■	■				■			■			
Quarter 4, 2007			■							■		■	■				■		■	■			
Quarter 1, 2008			■							■		■	■				■			■			
Quarter 2, 2008			■							■	■		■				■			■			
Quarter 3, 2008										■		■	■				■			■			
Quarter 4, 2008										■		■	■				■						
Quarter 1, 2009			■							■		■	■				■						
Quarter 2, 2009										■		■	■				■						
Quarter 3, 2009										■		■	■				■			■			
Quarter 4, 2009										■		■	■				■						
Quarter 1, 2010												■	■										
Quarter 2, 2010			■							■			■				■						
Quarter 3, 2010										■			■				■						
Quarter 4, 2010										■		■	■				■						
Quarter 1, 2011										■			■				■						
Quarter 2, 2011			■							■			■				■						

Chart of MCL Exceedances and Statistical Increases for C-746-S&T Landfills

Groundwater Flow System	UCRS					URGA											LRGA						
Gradient	S	D	D	D	U	S	S	S	S	S	D	D	D	D	U	U	S	D	D	D	D	U	U
Monitoring Well	386	389	390	393	396	221	222	223	224	384	369	372	387	391	220	394	385	370	373	388	392	395	397
Quarter 3, 2011										■			■				■			■			
Quarter 4, 2011										■		■	■				■						
Quarter 1, 2012			■							■			■				■			■			
Quarter 2, 2012			■							■			■				■			■			
Quarter 3, 2012										■		■	■				■						
Quarter 4, 2012										■		■	■				■		■	■			
Quarter 1, 2013										■		■	■						■	■			
BROMIDE																							
Quarter 1, 2003			✱																				
Quarter 4, 2003			✱																				
Quarter 1, 2004			✱																				
Quarter 2, 2004			✱																				
Quarter 3, 2004			✱																				
Quarter 4, 2004			✱																				
Quarter 1, 2005			✱																				
Quarter 3, 2006			✱																				
CALCIUM																							
Quarter 1, 2003			✱																				
Quarter 2, 2003			✱									✱											
Quarter 3, 2003			✱																				
Quarter 4, 2003			✱									✱							✱				
Quarter 1, 2004			✱									✱		✱					✱				
Quarter 2, 2004			✱									✱							✱				
Quarter 3, 2004			✱									✱							✱				
Quarter 4, 2004			✱									✱							✱				
Quarter 1, 2005												✱							✱				
Quarter 2, 2005												✱							✱				
Quarter 3, 2005												✱							✱				
Quarter 4, 2005												✱							✱				
Quarter 1, 2006												✱							✱				
Quarter 2, 2006												✱							✱				
Quarter 3, 2006												✱							✱				
Quarter 4, 2006												✱							✱				
Quarter 1, 2007												✱							✱				
Quarter 2, 2007												✱							✱				
Quarter 3, 2007												✱							✱				
Quarter 4, 2007												✱							✱				
Quarter 1, 2008												✱							✱				
Quarter 2, 2008												✱							✱				
Quarter 3, 2008												✱							✱				
Quarter 4, 2008												✱							✱				

Chart of MCL Exceedances and Statistical Increases for C-746-S&T Landfills

Quarter 1, 2009												*						*					
Quarter 2, 2009												*						*					
Groundwater Flow System	UCRS					URGA											LRGA						
Gradient	S	D	D	D	U	S	S	S	S	S	D	D	D	D	U	U	S	D	D	D	D	U	U
Monitoring Well	386	389	390	393	396	221	222	223	224	384	369	372	387	391	220	394	385	370	373	388	392	395	397
Quarter 3, 2009												*						*					
Quarter 4, 2009												*						*					
Quarter 1, 2010												*						*					
Quarter 2, 2010												*						*					
Quarter 3, 2010												*						*					
Quarter 4, 2010												*						*					
Quarter 1, 2011												*						*					
Quarter 2, 2011												*	*					*					
Quarter 3, 2011												*						*					
Quarter 4, 2011												*						*					
Quarter 1, 2012												*						*					
Quarter 2, 2012												*						*					
Quarter 3, 2012												*						*					
Quarter 4, 2012												*						*					
Quarter 1, 2013												*						*					
CARBON DISULFIDE																							
Quarter 4, 2010											*												
Quarter 1, 2011												*									*		
CHEMICAL OXYGEN DEMAND																							
Quarter 1, 2003				*																			
Quarter 2, 2003				*																			
Quarter 3, 2003				*			*			*													
Quarter 4, 2003				*																			
Quarter 1, 2004	*			*																			
Quarter 4, 2004	*																						
Quarter 1, 2005	*																						
Quarter 2, 2005	*																						
Quarter 3, 2005	*									*		*									*		
Quarter 4, 2005	*									*													
Quarter 1, 2006	*																						
Quarter 2, 2006	*																						
Quarter 3, 2006	*																						
Quarter 4, 2006																	*						
Quarter 1, 2007	*									*													
Quarter 2, 2007	*																						
Quarter 3, 2007	*																						
Quarter 4, 2007	*																						

Chart of MCL Exceedances and Statistical Increases for C-746-S&T Landfills

Groundwater Flow System	UCRS					URGA											LRGA						
Gradient	S	D	D	D	U	S	S	S	S	S	D	D	D	D	U	U	S	D	D	D	D	U	U
Monitoring Well	386	389	390	393	396	221	222	223	224	384	369	372	387	391	220	394	385	370	373	388	392	395	397
Quarter 1, 2008	*																						
Quarter 2, 2008	*																						
Quarter 3, 2008	*																						
Quarter 4, 2008	*																						
Quarter 1, 2009	*																						
Quarter 2, 2009	*																			*			
Quarter 3, 2009	*																						
Quarter 4, 2009	*																						
Quarter 1, 2010	*																						
Quarter 2, 2010	*																						
Quarter 3, 2010	*																						
Quarter 4, 2010	*																						
Quarter 3, 2011	*																						
Quarter 4, 2011	*																						
Quarter 1, 2012	*																						
Quarter 1, 2013	*																						
CHLORIDE																							
Quarter 1, 2003			*																				
Quarter 2, 2003			*																				
Quarter 3, 2003			*																				
Quarter 4, 2003			*																				
Quarter 1, 2004			*																				
Quarter 2, 2004			*																				
Quarter 3, 2004			*																				
Quarter 4, 2004			*																				
Quarter 1, 2005			*																				
Quarter 2, 2005			*																				
Quarter 3, 2005			*																				
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Quarter 1, 2006																		*					
Quarter 2, 2006			*																				
Quarter 3, 2006			*																				
Quarter 4, 2006			*																				
Quarter 1, 2007			*																				
Quarter 2, 2007			*																				
Quarter 3, 2007			*																				
Quarter 4, 2007			*																				
Quarter 1, 2008			*																				

Chart of MCL Exceedances and Statistical Increases for C-746-S&T Landfills

Groundwater Flow System	UCRS					URGA											LRGA						
Gradient	S	D	D	D	U	S	S	S	S	S	D	D	D	D	U	U	S	D	D	D	D	U	U
Monitoring Well	386	389	390	393	396	221	222	223	224	384	369	372	387	391	220	394	385	370	373	388	392	395	397
Quarter 2, 2008			*																				
Quarter 3, 2008			*																				
Quarter 4, 2008			*																				
Quarter 1, 2009			*																				
Quarter 2, 2009			*																				
Quarter 3, 2009			*																				
Quarter 4, 2009			*																				
Quarter 1, 2010			*																				
Quarter 2, 2010			*																				
Quarter 3, 2010			*																				
Quarter 4, 2010			*																				
Quarter 2, 2011			*																				
Quarter 3, 2011			*																				
Quarter 4, 2011			*																				
Quarter 3, 2012			*																				
CHROMIUM																							
Quarter 4, 2002								■															
Quarter 1, 2003								■														■	
Quarter 2, 2003							■	■															
Quarter 3, 2009						■																	
COBALT																							
Quarter 3, 2003							*																
CONDUCTIVITY																							
Quarter 4, 2002										*									*				
Quarter 1, 2003			*							*									*				
Quarter 2, 2003			*							*									*				
Quarter 3, 2003			*					*		*									*				
Quarter 4, 2003			*							*									*				
Quarter 1, 2004																			*				
Quarter 2, 2004										*									*				
Quarter 3, 2004										*									*				
Quarter 4, 2004			*							*									*				
Quarter 1, 2005										*		*							*				
Quarter 2, 2005												*							*				
Quarter 3, 2005																			*				
Quarter 4, 2005										*		*							*				
Quarter 1, 2006												*							*				
Quarter 2, 2006												*							*				
Quarter 3, 2006												*							*				
Quarter 4, 2006																	*		*				
Quarter 1, 2007												*							*				

Chart of MCL Exceedances and Statistical Increases for C-746-S&T Landfills

Groundwater Flow System	UCRS					URGA											LRGA						
Gradient	S	D	D	D	U	S	S	S	S	S	D	D	D	D	U	U	S	D	D	D	D	U	U
Monitoring Well	386	389	390	393	396	221	222	223	224	384	369	372	387	391	220	394	385	370	373	388	392	395	397
Quarter 2, 2007																	*		*				
Quarter 3, 2007																	*		*				
Quarter 4, 2007												*					*		*				
Quarter 1, 2008												*							*				
Quarter 2, 2008												*							*				
Quarter 3, 2008												*					*		*				
Quarter 4, 2008												*							*				
Quarter 1, 2009												*							*				
Quarter 2, 2009												*							*				
Quarter 3, 2009												*							*				
Quarter 4, 2009												*					*		*				
Quarter 1, 2010												*							*				
Quarter 2, 2010												*							*				
Quarter 3, 2010												*							*				
Quarter 4, 2010												*							*				
Quarter 1, 2011										*		*							*				
Quarter 2, 2011												*							*				
Quarter 3, 2011												*							*				
Quarter 4, 2011												*							*				
Quarter 1, 2012											*	*							*				
Quarter 2, 2012												*							*				
Quarter 3, 2012												*							*				
Quarter 4, 2012												*							*				
Quarter 1, 2013												*							*				
DISSOLVED OXYGEN																							
Quarter 3, 2006			*					*															
DISSOLVED SOLIDS																							
Quarter 4, 2002										*									*				
Quarter 1, 2003			*							*									*				
Quarter 2, 2003			*							*									*				
Quarter 3, 2003			*				*	*		*		*							*				
Quarter 4, 2003			*				*		*	*		*							*				
Quarter 1, 2004			*									*							*				
Quarter 2, 2004										*		*							*				
Quarter 3, 2004										*		*							*				
Quarter 4, 2004										*		*							*				
Quarter 1, 2005												*							*				
Quarter 2, 2005																			*				
Quarter 3, 2005																	*	*	*	*	*		
Quarter 4, 2005																	*	*	*	*	*		
Quarter 1, 2006																	*	*	*	*	*		
Quarter 2, 2006																	*	*	*	*	*		

Chart of MCL Exceedances and Statistical Increases for C-746-S&T Landfills

Groundwater Flow System	UCRS					URGA											LRGA						
Gradient	S	D	D	D	U	S	S	S	S	S	D	D	D	D	U	U	S	D	D	D	D	U	U
Monitoring Well	386	389	390	393	396	221	222	223	224	384	369	372	387	391	220	394	385	370	373	388	392	395	397
Quarter 3, 2006																	*	*	*	*	*		
Quarter 4, 2006										*		*					*		*				
Quarter 1, 2007																			*				
Quarter 2, 2007										*		*							*				
Quarter 3, 2007										*		*							*				
Quarter 4, 2007												*							*				
Quarter 1, 2008												*							*				
Quarter 2, 2008												*							*				
Quarter 3, 2008												*							*				
Quarter 4, 2008										*		*							*				
Quarter 1, 2009												*							*				
Quarter 2, 2009												*	*						*				
Quarter 3, 2009												*	*						*				
Quarter 4, 2009												*	*						*				
Quarter 1, 2010												*	*						*				
Quarter 2, 2010										*		*	*						*				
Quarter 3, 2010										*		*							*				
Quarter 4, 2010										*		*							*				
Quarter 1, 2011										*		*							*				
Quarter 2, 2011												*	*						*				
Quarter 3, 2011												*							*				
Quarter 4, 2011												*							*				
Quarter 1, 2012											*	*	*						*				
Quarter 2, 2012												*							*				
Quarter 3, 2012										*		*	*						*				
Quarter 4, 2012												*	*						*				
Quarter 1, 2013										*		*							*				
IODIDE																							
Quarter 4, 2002																					*		
Quarter 2, 2003						*																	
Quarter 3, 2003													*										
Quarter 1, 2004				*																			
Quarter 3, 2010																					*		
IRON																							
Quarter 1, 2003							*			*	*			*									
Quarter 2, 2003										*	*	*	*										
Quarter 3, 2003							*	*	*	*	*	*											
Quarter 4, 2003											*												
Quarter 1, 2004											*												

Chart of MCL Exceedances and Statistical Increases for C-746-S&T Landfills

Groundwater Flow System	UCRS					URGA											LRGA						
Gradient	S	D	D	D	U	S	S	S	S	S	D	D	D	D	U	U	S	D	D	D	D	U	U
Monitoring Well	386	389	390	393	396	221	222	223	224	384	369	372	387	391	220	394	385	370	373	388	392	395	397
Quarter 2, 2004										*	*												
Quarter 3, 2004										*													
Quarter 4, 2004										*													
Quarter 1, 2005												*											
Quarter 2, 2005											*	*											
Quarter 1, 2006							*																
Quarter 2, 2006												*											
Quarter 3, 2006											*												
Quarter 1, 2007											*	*											
Quarter 2, 2007											*												
Quarter 2, 2008												*											
Quarter 3, 2008												*											
MAGNESIUM																							
Quarter 1, 2003			*																				
Quarter 2, 2003			*									*							*				
Quarter 3, 2003			*				*					*											
Quarter 4, 2003			*									*							*				
Quarter 1, 2004			*									*		*					*				
Quarter 2, 2004			*									*							*				
Quarter 3, 2004			*									*							*				
Quarter 4, 2004			*									*							*				
Quarter 1, 2005												*							*				
Quarter 2, 2005												*							*				
Quarter 3, 2005												*							*				
Quarter 4, 2005												*							*				
Quarter 1, 2006												*							*				
Quarter 2, 2006												*							*				
Quarter 3, 2006												*							*				
Quarter 4, 2006												*							*				
Quarter 1, 2007												*							*				
Quarter 2, 2007												*							*				
Quarter 3, 2007												*							*				
Quarter 4, 2007												*							*				
Quarter 1, 2008												*							*				
Quarter 2, 2008												*							*				
Quarter 3, 2008												*							*				
Quarter 4, 2008												*							*				
Quarter 1, 2009												*							*				

Chart of MCL Exceedances and Statistical Increases for C-746-S&T Landfills

Groundwater Flow System	UCRS					URGA											LRGA						
Gradient	S	D	D	D	U	S	S	S	S	S	D	D	D	D	U	U	S	D	D	D	D	U	U
Monitoring Well	386	389	390	393	396	221	222	223	224	384	369	372	387	391	220	394	385	370	373	388	392	395	397
Quarter 2, 2009												*							*				
Quarter 3, 2009												*	*						*				
Quarter 4, 2009												*							*				
Quarter 1, 2010												*							*				
Quarter 2, 2010												*	*						*				
Quarter 3, 2010												*							*				
Quarter 4, 2010												*							*				
Quarter 1, 2011												*							*				
Quarter 2, 2011												*	*						*				
Quarter 3, 2011												*							*				
Quarter 4, 2011												*							*				
Quarter 1, 2012												*							*				
Quarter 2, 2012												*							*				
Quarter 3, 2012												*	*						*				
Quarter 4, 2012												*	*						*				
Quarter 1, 2013												*							*				
MANGANESE																							
Quarter 4, 2002																					*		
Quarter 3, 2003							*	*															
Quarter 4, 2003							*	*															
Quarter 1, 2004							*																
Quarter 2, 2004							*																
Quarter 4, 2004							*	*															
Quarter 1, 2005							*																
Quarter 3, 2005																					*		
Quarter 3, 2009	*																						
OXIDATION-REDUCTION POTENTIAL																							
Quarter 4, 2003			*																				
Quarter 2, 2004			*																				
Quarter 3, 2004			*															*					
Quarter 4, 2004			*			*																	
Quarter 1, 2005			*															*					
Quarter 2, 2005	*		*																				
Quarter 3, 2005	*		*																				
Quarter 4, 2005			*																				
Quarter 2, 2006			*																				
Quarter 3, 2006			*															*					
Quarter 4, 2006			*																				

Chart of MCL Exceedances and Statistical Increases for C-746-S&T Landfills

Groundwater Flow System	UCRS					URGA											LRGA						
Gradient	S	D	D	D	U	S	S	S	S	S	D	D	D	D	U	U	S	D	D	D	D	U	U
Monitoring Well	386	389	390	393	396	221	222	223	224	384	369	372	387	391	220	394	385	370	373	388	392	395	397
Quarter 1, 2007			*																				
Quarter 2, 2007			*				*																
Quarter 3, 2007			*				*																
Quarter 4, 2007			*																				
Quarter 1, 2008			*			*			*														
Quarter 2, 2008	*		*	*		*							*				*		*	*			
Quarter 3, 2008			*	*		*							*				*		*	*			
Quarter 4, 2008			*	*		*	*	*	*				*				*	*		*			
Quarter 1, 2009			*				*	*	*				*	*				*		*			
Quarter 3, 2009			*	*		*											*	*	*	*			
Quarter 4, 2009			*			*			*									*		*			
Quarter 1, 2010	*		*																	*			
Quarter 2, 2010	*		*	*					*				*				*	*		*			
Quarter 3, 2010	*		*	*		*											*	*	*	*			
Quarter 4, 2010			*					*			*			*			*	*	*	*			
Quarter 1, 2011	*			*		*	*	*	*		*		*	*			*	*		*	*		
Quarter 2, 2011	*		*	*			*	*	*	*	*		*	*			*	*	*	*	*		
Quarter 3, 2011	*		*	*			*		*		*		*				*	*	*	*			
Quarter 4, 2011	*		*	*			*				*						*	*		*			
Quarter 1, 2012	*		*	*		*	*	*	*	*			*	*			*	*	*	*	*		
Quarter 2, 2012	*		*				*		*		*		*	*			*	*	*	*	*		
Quarter 3, 2012	*		*			*	*	*	*	*			*	*			*	*	*	*	*		
Quarter 4, 2012				*		*		*	*	*	*		*	*			*	*	*	*	*		
Quarter 1, 2013				*		*		*	*		*		*	*				*		*	*		
PCB, 1016																							
Quarter 4, 2003							*	*	*		*							*					
Quarter 3, 2004											*												
Quarter 3, 2005							*				*												
Quarter 1, 2006											*												
Quarter 2, 2006											*												
Quarter 4, 2006											*												
Quarter 1, 2007											*	*											
Quarter 2, 2007												*											
Quarter 3, 2007											*												
Quarter 2, 2008											*	*											
Quarter 3, 2008											*												
Quarter 4, 2008											*												
Quarter 1, 2009											*												

Chart of MCL Exceedances and Statistical Increases for C-746-S&T Landfills

Groundwater Flow System	UCRS					URGA											LRGA						
Gradient	S	D	D	D	U	S	S	S	S	S	D	D	D	D	U	U	S	D	D	D	D	U	U
Monitoring Well	386	389	390	393	396	221	222	223	224	384	369	372	387	391	220	394	385	370	373	388	392	395	397
Quarter 2, 2009											*												
Quarter 3, 2009											*												
Quarter 4, 2009											*												
Quarter 1, 2010											*												
Quarter 2, 2010											*												
Quarter 3, 2010											*												
Quarter 4, 2010											*												
PCB-1232																							
Quarter 1, 2011											*												
PCB-1248																							
Quarter 2, 2008												*											
PCB-1260																							
Quarter 2, 2006																		*					
pH																							
Quarter 4, 2002																	*						
Quarter 2, 2003																	*						
Quarter 3, 2003																	*						
Quarter 4, 2003							*										*						
Quarter 1, 2004							*										*						
Quarter 2, 2004																	*						
Quarter 3, 2004																	*						
Quarter 4, 2004																	*						
Quarter 3, 2005										*							*				*		
Quarter 4, 2005										*							*						
Quarter 1, 2006																	*						
Quarter 2, 2006																	*						
Quarter 3, 2006																	*						
Quarter 3, 2007																	*						
Quarter 4, 2007																	*						
Quarter 4, 2008																	*						
Quarter 1, 2009																	*						
Quarter 1, 2011																	*						
Quarter 2, 2011											*												
Quarter 3, 2011											*												
Quarter 1, 2012														*									
Quarter 1, 2013										*			*				*						
POTASSIUM																							
Quarter 4, 2002																		*	*				

Chart of MCL Exceedances and Statistical Increases for C-746-S&T Landfills

Groundwater Flow System	UCRS					URGA											LRGA						
Gradient	S	D	D	D	U	S	S	S	S	S	D	D	D	D	U	U	S	D	D	D	D	U	U
Monitoring Well	386	389	390	393	396	221	222	223	224	384	369	372	387	391	220	394	385	370	373	388	392	395	397
Quarter 3, 2004																			*				
Quarter 2, 2005																			*				
Quarter 3, 2005																			*				
Quarter 4, 2005																			*				
Quarter 2, 2006																			*				
Quarter 3, 2006																			*				
Quarter 4, 2006																			*				
Quarter 4, 2008																			*				
Quarter 3, 2012																			*				
Quarter 1, 2013																			*				
RADIUM-226																							
Quarter 4, 2002			*										*	*							*		
Quarter 2, 2004																			*				
Quarter 2, 2005									*														
Quarter 1, 2009											*												
RADIUM-228																							
Quarter 2, 2005							■				■												
Quarter 3, 2005			■																				
Quarter 4, 2005							■		■														
Quarter 1, 2006					■																		
SELENIUM																							
Quarter 4, 2002			■		■																		
Quarter 1, 2003					■																	■	
Quarter 2, 2003			■																				
Quarter 3, 2003			■		■																		
Quarter 4, 2003			■																				
SODIUM																							
Quarter 4, 2002																			*		*		
Quarter 1, 2003				*					*	*	*												
Quarter 2, 2003				*						*	*		*										
Quarter 3, 2003							*	*		*													
Quarter 4, 2003							*		*	*													
Quarter 1, 2004									*	*				*									
Quarter 2, 2004										*													
Quarter 3, 2004										*													
Quarter 4, 2004									*	*													
Quarter 1, 2005										*									*				
Quarter 2, 2005										*									*				

Chart of MCL Exceedances and Statistical Increases for C-746-S&T Landfills

Groundwater Flow System	UCRS					URGA											LRGA						
Gradient	S	D	D	D	U	S	S	S	S	S	D	D	D	D	U	U	S	D	D	D	D	U	U
Monitoring Well	386	389	390	393	396	221	222	223	224	384	369	372	387	391	220	394	385	370	373	388	392	395	397
Quarter 3, 2005									✱	✱									✱				
Quarter 4, 2005									✱	✱													
Quarter 1, 2006									✱	✱													
Quarter 2, 2006									✱														
Quarter 3, 2006									✱	✱		✱							✱				
Quarter 4, 2006									✱	✱							✱						
Quarter 1, 2007									✱			✱											
Quarter 2, 2007									✱	✱													
Quarter 3, 2007									✱														
Quarter 4, 2007									✱														
Quarter 1, 2008									✱														
Quarter 3, 2008												✱											
Quarter 4, 2008									✱	✱													
Quarter 1, 2009									✱			✱							✱				
Quarter 3, 2009												✱											
Quarter 4, 2009									✱			✱											
Quarter 1, 2010												✱											
Quarter 2, 2010										✱		✱											
Quarter 3, 2010										✱													
Quarter 4, 2010									✱	✱													
Quarter 1, 2011										✱													
Quarter 2, 2011									✱														
Quarter 4, 2011																			✱				
Quarter 1, 2012											✱												
Quarter 3, 2012												✱							✱				
Quarter 4, 2012												✱											
Quarter 1, 2013										✱		✱							✱				
STRONTIUM-90																							
Quarter 2, 2003										■													
Quarter 1, 2004										■													
SULFATE																							
Quarter 4, 2002																			✱				
Quarter 1, 2003												✱	✱				✱		✱				
Quarter 2, 2003										✱		✱	✱					✱	✱				
Quarter 3, 2003										✱		✱	✱						✱				
Quarter 4, 2003										✱		✱	✱						✱				
Quarter 1, 2004										✱		✱	✱					✱	✱				
Quarter 2, 2004										✱		✱	✱				✱	✱	✱	✱			
Quarter 3, 2004									✱	✱		✱	✱					✱	✱				

Chart of MCL Exceedances and Statistical Increases for C-746-S&T Landfills

Groundwater Flow System	UCRS					URGA											LRGA						
Gradient	S	D	D	D	U	S	S	S	S	S	D	D	D	D	U	U	S	D	D	D	D	U	U
Monitoring Well	386	389	390	393	396	221	222	223	224	384	369	372	387	391	220	394	385	370	373	388	392	395	397
Quarter 4, 2004										*		*	*					*	*				
Quarter 1, 2005										*		*	*				*	*	*				
Quarter 2, 2005										*		*	*					*	*				
Quarter 3, 2005										*		*	*				*	*	*				
Quarter 4, 2005										*		*	*					*	*	*			
Quarter 1, 2006										*		*	*				*	*	*	*			
Quarter 2, 2006									*	*		*	*				*	*	*	*			
Quarter 3, 2006									*	*		*	*				*		*	*			
Quarter 4, 2006									*	*		*	*				*		*				
Quarter 1, 2007									*	*		*	*				*		*	*			
Quarter 2, 2007									*	*		*	*				*		*	*			
Quarter 3, 2007									*	*		*	*				*		*	*			
Quarter 4, 2007										*		*	*				*	*	*	*			
Quarter 1, 2008										*		*	*				*	*	*	*			
Quarter 2, 2008								*		*	*	*	*	*			*	*	*	*			
Quarter 3, 2008										*		*	*				*	*	*	*			
Quarter 4, 2008										*		*	*				*		*				
Quarter 1, 2009										*		*	*				*	*	*				
Quarter 2, 2009									*	*		*	*				*	*	*	*			
Quarter 3, 2009									*	*		*	*				*	*	*	*			
Quarter 4, 2009	*									*		*	*				*	*	*				
Quarter 1, 2010	*								*	*		*	*				*		*				
Quarter 2, 2010									*	*		*	*				*	*	*	*			
Quarter 3, 2010										*		*	*				*	*	*	*			
Quarter 4, 2010	*									*		*	*				*	*	*				
Quarter 1, 2011	*									*		*	*				*	*	*				
Quarter 2, 2011	*									*		*	*	*			*	*	*	*			
Quarter 3, 2011	*									*		*	*	*			*	*	*	*			
Quarter 4, 2011	*									*		*	*				*	*	*	*			
Quarter 1, 2012	*									*		*	*				*	*	*	*			
Quarter 2, 2012	*									*		*	*				*	*	*	*			
Quarter 3, 2012	*									*		*	*				*	*	*	*			
Quarter 4, 2012										*		*	*				*	*	*	*			
Quarter 1, 2013										*		*	*				*	*	*	*			
TECHNETIUM-99																							
Quarter 4, 2002																			*				
Quarter 1, 2003													*				*		*				
Quarter 2, 2003	*		*							*			*				*						
Quarter 3, 2003			*										*				*			*			
Quarter 4, 2003			*							*		*	*				*		*	*			
Quarter 1, 2004			*									*	*				*		*				
Quarter 2, 2004			*									*	*				*		*	*			

Chart of MCL Exceedances and Statistical Increases for C-746-S&T Landfills

Groundwater Flow System	UCRS					URGA											LRGA						
Gradient	S	D	D	D	U	S	S	S	S	S	D	D	D	D	U	U	S	D	D	D	D	U	U
Monitoring Well	386	389	390	393	396	221	222	223	224	384	369	372	387	391	220	394	385	370	373	388	392	395	397
Quarter 3, 2004			*									*					*		*				
Quarter 4, 2004			*							*		*	*				*	*	*				
Quarter 1, 2005			*							*		*	*				*			*			
Quarter 2, 2005			*							*			*				*	*	*	*			
Quarter 3, 2005			*							*			*				*	*	*	*			
Quarter 4, 2005			*							*		*	*				*		*	*			
Quarter 1, 2006										*		*	*						*	*			
Quarter 2, 2006			*							*			*				*	*	*	*			
Quarter 3, 2006			*							*			*				*	*	*	*			
Quarter 4, 2006	*									*		*	*						*	*			
Quarter 1, 2007			*							*			*				*		*	*			
Quarter 2, 2007			*							*		*	*				*	*		*			
Quarter 3, 2007			*							*	*	*	*				*		*	*			
Quarter 4, 2007			*							*		*	*				*		*	*			
Quarter 1, 2008			*							*		*	*				*	*	*	*			
Quarter 2, 2008			*							*	*		*				*		*	*			
Quarter 3, 2008										*		*	*				*			*			
Quarter 4, 2008			*							*		*	*				*	*	*	*			
Quarter 1, 2009			*							*		*	*				*						
Quarter 2, 2009			*							*		*	*				*	*		*			
Quarter 3, 2009			*							*	*	*	*				*			*			
Quarter 4, 2009			*							*		*	*				*						
Quarter 1, 2010			*							*		*	*				*						
Quarter 2, 2010			*							*			*				*	*		*			
Quarter 3, 2010			*							*	*	*	*				*						
Quarter 4, 2010			*							*		*	*				*						
Quarter 1, 2011										*			*				*						
Quarter 2, 2011			*							*			*				*			*			
Quarter 3, 2011			*							*			*				*			*			
Quarter 4, 2011			*							*	*	*	*				*						
Quarter 1, 2012			*							*			*				*			*			
Quarter 2, 2012			*							*			*				*		*	*			
Quarter 3, 2012			*							*		*	*				*						
Quarter 4, 2012										*		*	*				*		*	*			
Quarter 1, 2013										*			*				*		*	*			
THORIUM-230																							
Quarter 1, 2012	*								*					*									
THORIUM-234																							
Quarter 2, 2003						*			*					*									

Chart of MCL Exceedances and Statistical Increases for C-746-S&T Landfills

Groundwater Flow System	UCRS					URGA											LRGA						
Gradient	S	D	D	D	U	S	S	S	S	S	D	D	D	D	U	U	S	D	D	D	D	U	U
Monitoring Well	386	389	390	393	396	221	222	223	224	384	369	372	387	391	220	394	385	370	373	388	392	395	397
Quarter 4, 2007									*														
TOTAL ORGANIC CARBON																							
Quarter 4, 2002																					*		
Quarter 1, 2003				*						*	*							*	*		*		
Quarter 2, 2003										*	*		*								*		
Quarter 3, 2003							*	*	*	*	*	*											
Quarter 4, 2003							*		*	*													
Quarter 1, 2004										*													
Quarter 2, 2004										*	*												
Quarter 3, 2004										*													
Quarter 4, 2004										*													
Quarter 1, 2005										*													
Quarter 2, 2005										*											*		
Quarter 3, 2005										*		*									*		
Quarter 4, 2005										*											*		
Quarter 1, 2006										*													
Quarter 2, 2006										*		*											
Quarter 4, 2006																	*						
Quarter 1, 2007	*									*													
Quarter 3, 2007	*					*	*	*	*	*			*	*			*						
Quarter 2, 2011											*												
Quarter 3, 2012	*																						
TOTAL ORGANIC HALIDES																							
Quarter 4, 2002																		*	*		*		
Quarter 1, 2003				*														*			*		
Quarter 3, 2003				*																	*		
Quarter 2, 2004																					*		
Quarter 3, 2004	*																						
Quarter 1, 2005	*																						
Quarter 2, 2005	*																						
Quarter 3, 2005	*																						
Quarter 4, 2005	*																						
Quarter 1, 2006	*																						
Quarter 2, 2006	*																						
Quarter 3, 2006	*																						
Quarter 4, 2006																	*						
Quarter 1, 2007	*																						
Quarter 2, 2007	*																						
Quarter 3, 2007	*																						
Quarter 4, 2007	*																				*		

Chart of MCL Exceedances and Statistical Increases for C-746-S&T Landfills

Groundwater Flow System	UCRS					URGA											LRGA						
Gradient	S	D	D	D	U	S	S	S	S	S	D	D	D	D	U	U	S	D	D	D	D	U	U
Monitoring Well	386	389	390	393	396	221	222	223	224	384	369	372	387	391	220	394	385	370	373	388	392	395	397
Quarter 1, 2008	✱																						
Quarter 1, 2008	✱																						
Quarter 3, 2008	✱																						
Quarter 4, 2008	✱																						
Quarter 1, 2009	✱																						
Quarter 2, 2009	✱																				✱		
Quarter 3, 2009	✱																						
Quarter 4, 2009	✱																						
Quarter 1, 2010	✱																						
Quarter 2, 2010	✱																						
Quarter 3, 2010	✱																						
Quarter 4, 2010	✱																						
Quarter 1, 2011	✱																						
TRICHLOROETHENE																							
Quarter 4, 2002														■		■					■	■	
Quarter 1, 2003														■		■					■	■	
Quarter 2, 2003														■		■					■	■	
Quarter 3, 2003														■		■					■	■	
Quarter 4, 2003														■		■					■	■	
Quarter 1, 2004														■		■					■	■	
Quarter 2, 2004												■		■		■		■	■		■	■	
Quarter 3, 2004												■		■		■		■	■		■	■	
Quarter 4, 2004												■		■		■		■	■		■	■	
Quarter 1, 2005												■		■		■		■	■		■	■	
Quarter 2, 2005												■		■		■		■	■		■	■	
Quarter 3, 2005												■		■		■		■	■		■	■	
Quarter 4, 2005												■		■		■		■	■		■	■	
Quarter 1, 2006												■		■		■		■	■		■	■	
Quarter 2, 2006												■		■		■		■	■		■	■	
Quarter 2, 2007												■		■		■			■		■	■	
Quarter 3, 2007												■		■		■			■		■	■	
Quarter 4, 2007												■		■		■			■		■	■	
Quarter 1, 2008												■		■		■			■		■		
Quarter 2, 2008												■		■		■			■		■		
Quarter 3, 2008												■		■		■			■		■		
Quarter 4, 2008												■		■		■			■		■		
Quarter 1, 2009												■		■		■			■		■		
Quarter 2, 2009												■		■		■			■		■		
Quarter 3, 2009												■		■		■			■		■		
Quarter 4, 2009											■	■		■		■			■		■		
Quarter 1, 2010												■		■		■			■		■		
Quarter 2, 2010												■		■		■			■		■		

Chart of MCL Exceedances and Statistical Increases for C-746-S&T Landfills

Groundwater Flow System	UCRS					URGA											LRGA						
Gradient	S	D	D	D	U	S	S	S	S	S	D	D	D	D	U	U	S	D	D	D	D	U	U
Monitoring Well	386	389	390	393	396	221	222	223	224	384	369	372	387	391	220	394	385	370	373	388	392	395	397
Quarter 3, 2010												■		■		■			■		■	■	
Quarter 4, 2010												■		■		■			■		■	■	
Quarter 1, 2011												■		■		■			■		■	■	
Quarter 2, 2011												■		■		■			■		■		
Quarter 3, 2011												■		■		■			■		■		
Quarter 4, 2011												■		■		■			■		■	■	
Quarter 1, 2012												■		■		■			■		■	■	
Quarter 2, 2012												■		■					■		■		
Quarter 3, 2012												■		■					■		■		
Quarter 4, 2012											■	■		■		■			■		■		
Quarter 1, 2013												■		■		■			■		■		
TURBIDITY																							
Quarter 4, 2002																					✱		
Quarter 1, 2003							✱					✱		✱									
URANIUM																							
Quarter 4, 2002																		✱	✱				
Quarter 1, 2003																			✱				
Quarter 4, 2003							✱																
Quarter 1, 2004							✱	✱	✱					✱			✱						
Quarter 4, 2004																	✱						
Quarter 4, 2006																			✱		✱		
ZINC																							
Quarter 3, 2003												✱											
Quarter 4, 2003							✱		✱			✱											
Quarter 4, 2004							✱																
Quarter 4, 2007							✱	✱	✱														

✱	Statistical test results indicate an elevated concentration (i.e., a statistically significant increase)
■	MCL Exceedance
UCRS	Upper Continental Recharge System
URGA	Upper Regional Gravel Aquifer
LRGA	Lower Regional Gravel Aquifer
S	Sidegradient; D Downgradient; U Upgradient

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APPENDIX H

METHANE MONITORING DATA

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C-746-S & T LANDFILL METHANE MONITORING REPORT

Date:	3-14-13	Time:	1415	Monitor:	K STONE

Weather Conditions: WIND CALM 43°

Monitoring Equipment:: INNOVA LS

Monitoring Location		Reading (% LEL)
Ogden Landing Road Entrance	CHECKED @ GROUND LEVEL	0
North Landfill Gate	CHECKED @ GROUND LEVEL	0
West Side of Landfill: North 37° 07.652' West 88° 48.029'	CHECKED @ GROUND LEVEL	0
East Side of Landfill: North 37° 07.628' West 88° 47.798'	CHECKED @ GROUND LEVEL	0
Cell 1 Gas Vent (17)	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	
Cell 2 Gas Vent (3)	1 2 3 0 0 0	
Cell 3 Gas Vent (7)	1 2 3 4 5 6 7 0 0 0 0 0 0 0	KS. 3-14-13
Landfill Office	CHECKED @ FLOOR LEVEL	
Suspect or Problem Areas	NO AREAS NOTED	KS. 3-14-13

Remarks:

ALL VENTS CHECKED 1' FROM MOUTH OF VENT

Performed by: Kenny Stone — Signature — 3-14-13 — Date

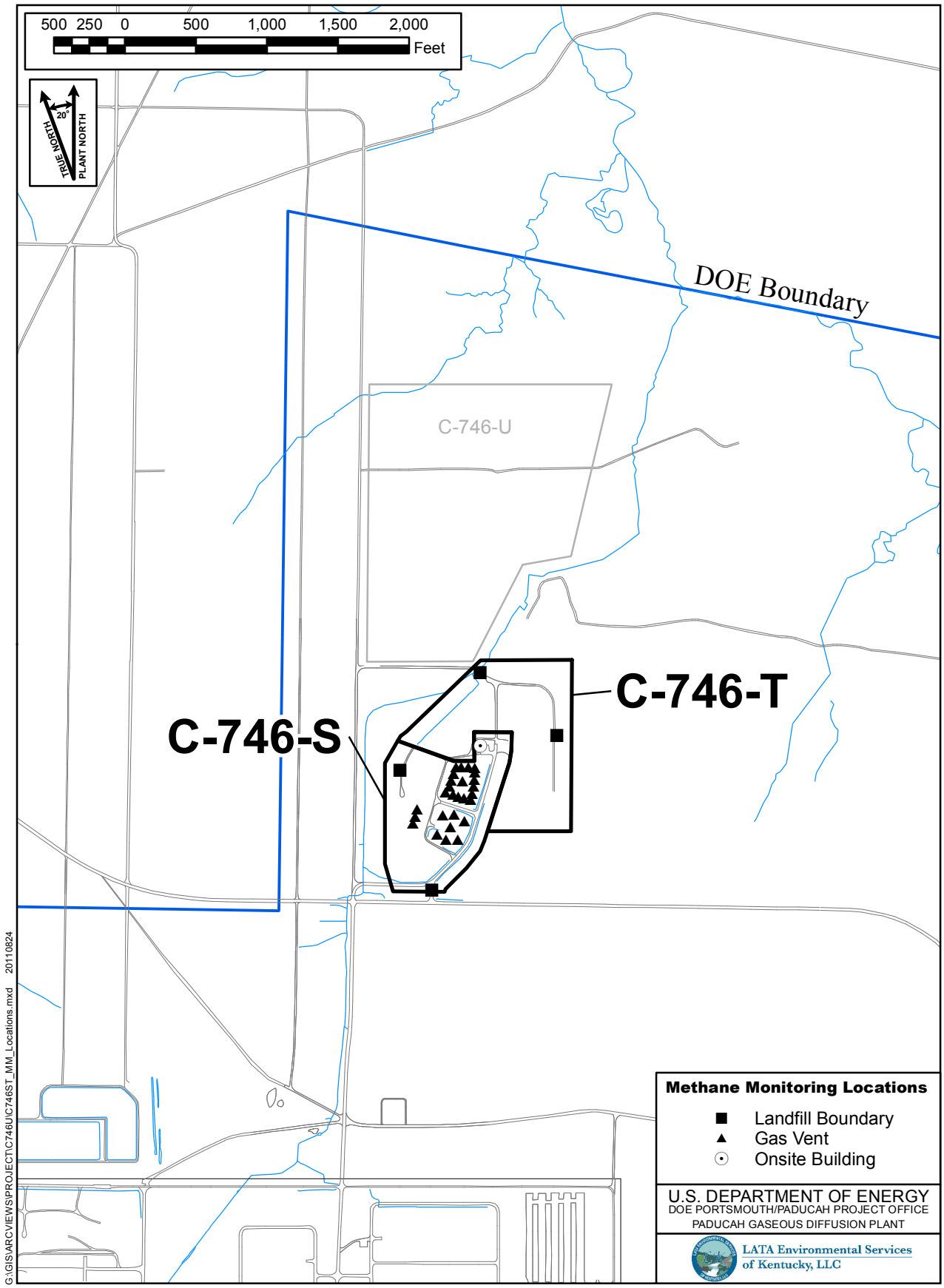

Figure H.1. C-746-S&T Methane Monitoring Locations

APPENDIX I

SURFACE WATER MONITORING DATA

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Division of Waste Management
Solid Waste Branch
14 Reilly Road
Frankfort, KY 40601 (502)564-6716

RESIDENTIAL/INERT-QUARTERLY
Facility: US DOE - Paducah Gaseous Diffusion Plant
Permit Number: 073-00014 & 073-00015

FINDS/UNIT: KY8-890-008-982 / 1
LAB ID: None
For Official Use Only

SURFACE WATER SAMPLE ANALYSIS (S)

Monitoring Point (KPDES Discharge Number, or "UPSTREAM", or "DOWNSTREAM")						L135 UPSTREAM		L136 AT SITE		L154 DOWNSTREAM			
Sample Sequence #						1		1		1			
If sample is a Blank, specify Type: (F)ield, (T)rip, (M)ethod, or (E)quipment						NA		NA		NA			
Sample Date and Time (Month/Day/Year hour: minutes)						1/10/2013 13:15		1/10/2013 13:05		1/10/2013 12:50			
Duplicate ("Y" or "N")[1]						N		N		N			
Split ('Y' or "N")[2]						N		N		N			
Facility Sample ID Number (if applicable)						L135SS2-13		L136SS2-13		L154US2-13			
Laboratory Sample ID Number (if applicable)						C13010037001		C13010037002		C13010038003			
Date of Analysis (Month/Day/Year)						1/29/2013		1/29/2013		1/29/2013			
CAS RN[3]		CONSTITUENT	TD[4]	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL[5]	FLAGS[7]	DETECTED VALUE OR PQL[5]	FLAGS[7]	DETECTED VALUE OR PQL[5]	FLAGS[7]	DETECTED VALUE OR PQL[5]	FLAGS[7]
A200-00-0	0	Flow	T	MGD	Field	0.17		0.16		0.39			
16887-00-6	2	Chloride(s)	T	MG/L	300.0	22		2.6		6.3			
14808-79-8	0	Sulfate	T	MG/L	300.0	18		38		14			
7439-89-6	0	Iron	T	MG/L	200.7 R3.3	1.38	*	0.784	*	4.65	*		
7440-23-5	0	Sodium	T	MG/L	200.7 R3.3	8.57		2.97		3.9			
S0268- -	0	Organic Carbon[6]	T	MG/L	9060	12.5	D*	11	D*	15.8	D*		
S0097- -	0	BOD[6]	T	MG/L	not applicable		*		*		*		
S0130- -	0	Chemical Oxygen Demand	T	MG/L	410.4	26		26		31			

[1]Respond "Y" if the sample was a duplicate of another sample in this report
[2]Respond "Y" if the sample was split and analyzed by separate laboratories.
[3]Chemical Abstracts Service Registry Number or unique identifier number assigned by agency.
[4]"T" = Total; "D" = Dissolved
[5]"<" indicates a non-detect; do not use "ND" or "BDL". Value then shown is Practical Quantification Limit
[6]Facility has either/or option on Organic Carbon and (BOD) Biochemical Oxygen Demand - both are not required
[7]Flags are as designated, do not use any other type. Use "*," then describe on "Written Comments" page.

STANDARD FLAGS:
* = See Comments
J = Estimated Value
B = Analyte found in blank
A = Average value
N = Presumptive ID
D = Concentration from analysis of a secondary dilution factor

SURFACE WATER - QUARTERLY

Facility: **US DOE - Paducah Gaseous Diffusion Plant**

Permit Number: **073-00014 & 073-00015**

FINDS/UNIT: KY8-890-008-982 / 1

LAB ID: None

For Official Use Only

SURFACE WATER SAMPLE ANALYSIS - (Cont.)

Monitoring Point (KPDES Discharge Number, or "UPSTREAM" or "DOWNSTREAM")						L135 UPSTREAM		L136 AT SITE		L154 DOWNSTREAM			
CAS RN[3]		CONSTITUENT	TD[4]	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL[5]	FLAGS[7]	DETECTED VALUE OR PQL[5]	FLAGS[7]	DETECTED VALUE OR PQL[5]	FLAGS[7]	DETECTED VALUE OR PQL[5]	FLAGS[7]
S0145- -	1	Specific Conductance	T	µHMS/CM	Field	292		351		174			
S0270- -	0	Total Suspended Solids	T	MG/L	160.1	32	*	<16	*	162	*		
S0266- -	0	Total Dissolved Solids	T	MG/L	160.2	195		230		130			
S0269- -	0	Total Solids	T	MG/L	160.3	180		247		311			
S0296- -	0	pH	T	Units	Field	8.02		8.23		8.04			
7440-61-1		Uranium	T	MG/L	IN7105	0.0106		0.0101		0.0045			
12587-46-1		Gross Alpha (α)	T	pCi/L	900.0	12	*	5.81	*	6.66	*		
12587-47-2		Gross Beta (β)	T	pCi/L	900.0	22.1	*	10.4	*	14.2	*		

RESIDENTIAL/INERT – QUARTERLY **Finds/Unit: KY8-890-008-982 / 1**

Facility: US DOE - Paducah Gaseous Diffusion Plant **LAB ID: None**

Permit Numbers: 073-00014 & 073-00015 **For Official Use Only**

SURFACE WATER
WRITTEN COMMENTS

Monitoring Point	Facility Sample ID	Constituent	Flag	Description
L135	L135SS2-13	Iron	N	Sample spike recovery not within control limits.
		Total Organic Carbon (TOC)	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Biochemical Oxygen Demand (BOD		Analysis of constituent not required and not performed.
		Suspended Solids	*	Duplicate analysis not within control limits.
		Alpha activity		TPU is 4.34. Rad error is 3.44.
		Beta activity		TPU is 3.64. Rad error is 2.74.
L136	L136SS2-13	Iron	N	Sample spike recovery not within control limits.
		Total Organic Carbon (TOC)	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Biochemical Oxygen Demand (BOD		Analysis of constituent not required and not performed.
		Suspended Solids	*	Duplicate analysis not within control limits.
		Alpha activity		TPU is 2.57. Rad error is 2.24.
		Beta activity		TPU is 1.96. Rad error is 1.6.
L154	L154US2-13	Iron	N	Sample spike recovery not within control limits.
		Total Organic Carbon (TOC)	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Biochemical Oxygen Demand (BOD		Analysis of constituent not required and not performed.
		Suspended Solids	*	Duplicate analysis not within control limits.
		Alpha activity		TPU is 2.71. Rad error is 2.28.
		Beta activity		TPU is 2.52. Rad error is 1.99.

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