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

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Robert Jone	<u>5-24-</u> /3			
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

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.

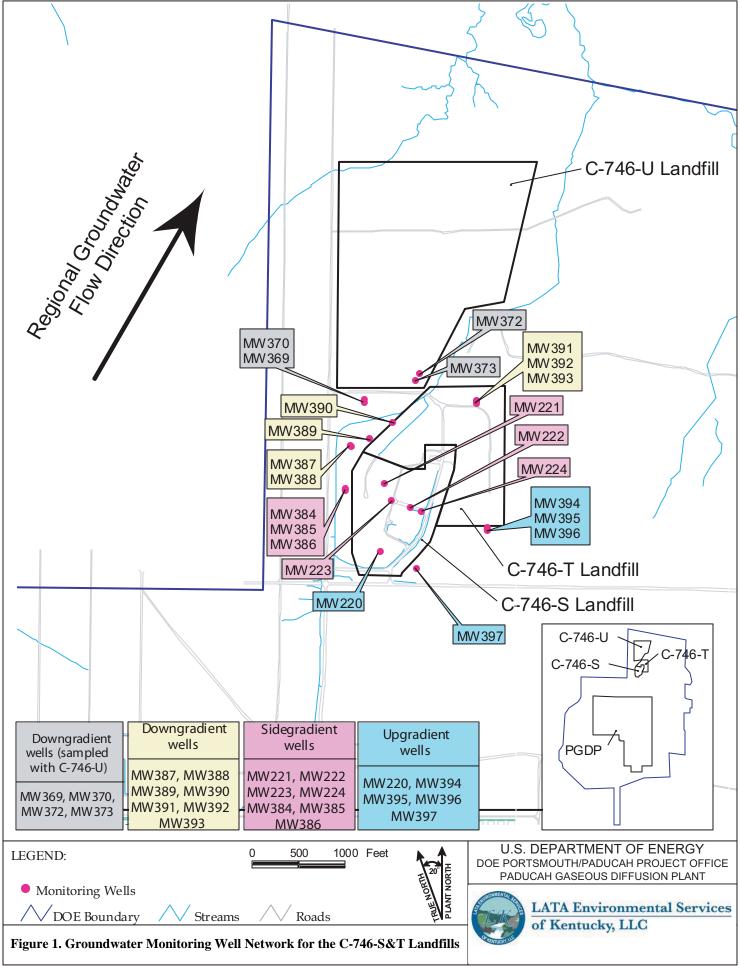
1.2.2 Methane Monitoring

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.



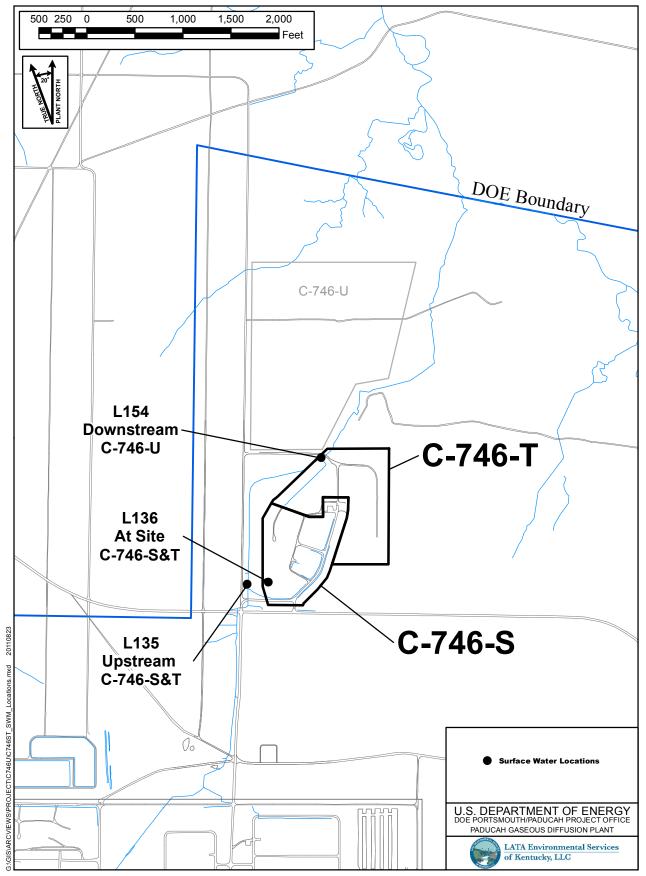


Figure 2. C-746-S&T Landfill Surface Water Monitoring Locations

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 concentrations² relative to background concentrations during the first quarter 2013.

Table 1. Summary of MCL Exceedances

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

Table 2. Summary of Statistical Increases

UCRS	URGA	LRGA
MW386: chemical oxygen demand	MW221: oxidation-reduction potential MW222: aluminum	MW370: oxidation-reduction potential, sulfate
IW386: chemical oxygen	MW223: oxidation-reduction potential MW224: oxidation-reduction potential MW369: aluminum, oxidation-reduction potential	MW373: calcium, conductivity, dissolved solids, magnesium potassium, sodium, sulfate, technetium-99
	MW372: calcium, conductivity, dissolved solids, magnesium sodium, sulfate	MW385: pH, sulfate, technetium-99 MW388: oxidation-reduction potential, sulfate, technetium-99
	MW384: dissolved solids, pH, sodium, sulfate, technetium-99 MW387: oxidation-reduction potential	MW392: oxidation-reduction potential
	pH, sulfate, technetium-99 MW391: 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 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.

UCRS	URGA	LRGA
MW386	MW220 (upgradient)**	MW370
MW389 (dry)***	MW221	MW373
MW390 (dry)	MW222	MW385
MW393	MW223	MW388
IW396 (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.

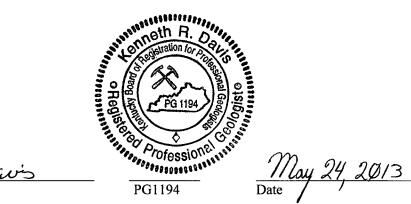
Data validation results for this data set indicated that all data were considered acceptable.

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.



P Davi

Kenneth R. Davis

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.

APPENDIX A

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

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 G	aseous Diffusion Plant	Activity:	C-746-S&T Landfills		
	(As officially shown on	DWM Permit Face)				
Permit No:	073-00014 & 073-00015	Finds/Unit No:	Quarter & Year	1st Qtr. CY 2013		
	(As officially shown on DWM Permit Face) ermit No: 073-00014 & 073-00015 Finds/Unit No: Quarter & Year ease check the following as applicable: Characterization X Quarterly Semiannual Annual Assessment ease check applicable submittal(s): X Groundwater X					
Please check a	pplicable submittal(s):	X Groundwater	<u> </u>	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 <u>NOT</u> 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.

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

lul 4 Rachel H. Blumenfeld, Acting Paducah Site Kead

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

Date

APPENDIX B

FACILITY INFORMATION SHEET

FACILITY INFORMATION SHEET

Sampling Date:	Groundwater: January 2013 Surface Water: January 2013	County: McCracken	073-00014 & Permit Nos. 073-00015
Facility Name:	U.S. DOE - Paducah Gaseous Diffusio		
	(As officially shown or	DWM Permit Face)	
Site Address:	5600 Hobbs Road	Kevil, Kentucky	42053
	Street	City/State	Zip
Phone No:	(270) 441-6800 Latitude:	N 37° 07' 38.87"	Longitude: W 88° 48' 13.42"
	OWN	NER 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 T		nmental Services of Kentucky, LLC	(270) 441-5050
Mailing Address:	761 Veterans Avenue	Kevil, Kentucky	42053
Manning Address.	Street	City/State	Zip
		PLING PERSONNEL N LANDFILL OR LABORATORY)	
Company	LATA Environmental Services of K	entuelar II.C	
Company: Contact Person:	Jeff Boulton		Phone No: (270) 441-5444
		Varil Vantualar	
Mailing Address:	761 Veterans Avenue Street	Kevil, Kentucky City/State	42053 Zip
	LABO	RATORY RECORD #1	
Laboratory:	USEC Analytical Laboratories – Pac	hucah I ah ID No: I	XY00906 (EPA ID Number)
Contact Person:	John Price		Phone No: (270) 441-5867
Mailing Address:	P.O. Box 1410	Paducah, Kentucky	42002-1410
101411111 <u>6</u> 1 1441 055.	Street	City/State	Zip
	LABO	RATORY RECORD #2	
Laboratory:	TestAmerica Laboratories, Inc.	Lab ID No:	MO00054 (EPA ID Number)
Contact Person:	Elaine Wild		Phone No: (314) 298-8566
e on meet renson.			
Mailing Address:	13715 Rider Trail North	Earth City, MO	63045
. 8	Street	City/State	Zip
	LABO	RATORY RECORD #3	
Laboratory:		Lab ID No:	
Contact Person:			Phone No:
Mailing Address:			
	Street	City/State	Zip

APPENDIX C

GROUNDWATER SAMPLE ANALYSES AND WRITTEN COMMENTS

RESIDENTIAL/INERT-QUARTERLY Division of Waste Management Facility: US DOE - Paducah Gaseous Diffusion Plant Solid Waste Branch Permit Number:073-00014 & 073-00015 FINDS/UNIT: KY8-890-008-982 / 1 14 Reilly Road Frankfort, KY 40601 (502)564-6716 LAB ID: None

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GROUNDWATER SAMPLE ANALYSIS (s)

AKGWA NUMBER ¹	, Facility Well/Spring Number	8000-520 ²	1	8000-52	202	8000-52	242	8000-524	43			
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	2:24	1/17/2013	08:03	1/16/2013	10:35	1/16/2013 0	08:27			
Duplicate ("Y	" or "N") ²				N		Ν		N		N	
Split ("Y" or	"N") ³				N		Ν		Ν		N	
Facility Samp	le ID Number (if applicable)				MW220SG2	-13	MW221S	G2-13	MW222S0	G2-13	MW223SG	2-13
Laboratory Sa	mple ID Number (if applicable)				C130150360	001	C1301700	05001	C1301602	22001	01 C13016022002	
Date of Analysis (Month/Day/Year) For Volatile Organics Analysis		ysis	1/19/2013	3	1/20/20	13	1/19/20	13	1/22/201	3		
Gradient with	respect to Monitored Unit (UP, DC	wn,	SIDE, UNKN	OWN)	UP		SIDE		SIDE		SIDE	
CAS RN ⁴	CONSTITUENT	T D 5	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL ⁶	F L A G S ⁷	DETECTED VALUE OR PQL ⁶	F L G S	DETECTED VALUE OR PQL ⁶	F L G S	DETECTED VALUE OR PQL ⁶	F L G S
24959-67-9	Bromide	т	mg/L	9056	<2		<2		<2		<2	
16887-00-6	Chloride(s)	т	mg/L	9056	23		39		29		32	
16984-48-8	Fluoride	т	mg/L	9214	0.18		0.18		0.26		0.3	
s0595	Nitrate & Nitrite	т	mg/L	9056	1.3		1.2		1.1		1.3	
14808-79-8	Sulfate	т	mg/L	9056	15		13		9.6		9.7	
NS1894	Barometric Pressure Reading	т	Inches/Hg	Field	30.22		30.1		30.16		30.12	
s0145	Specific Conductance	т	µMH0/cm	Field	335		359		319		375	

¹AKGWA # is 0000-0000 for any type of blank.

²Respond "Y" if the sample was a duplicate of another sample in this report.

³Respond "Y" if the sample was split and analyzed by separate laboratories.

⁴Chemical 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. ⁷Flags 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 FINDS/UNIT: KY8-890-008-982 / 1 Permit Number: 073-00014 & 073-00015

LAB ID: None

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GROUNDWATER SAMPLE ANALYSIS - (Cont.)

GROONDWATER SHATEE ANALISID						(conc.)							
AKGWA NUMBER ¹ , Facility Well/Spring Number Facility's Local Well or Spring Number (e.g., MW-1, MW-2, BLANK-F, etc.)					8000-5201 220		8000-5202 221		8000-5242	8000-5242		8000-5243	
									222		223		
CAS RN ⁴	CONSTITUENT	Т Д 5	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL ⁶	F L G S							
s0906	Static Water Level Elevation	т	Ft. MSL	Field	322.55		320.67		320.79			*	
N238	Dissolved Oxygen	т	mg/L	Field	5.09		5.11		4.45		2.74		
S0266	Total Dissolved Solids	т	mg/L	160.1	196		216		236		218		
s0296	рН	т	Units	Field	6.86		6.2		6.83		6.87		
NS215	Eh	т	mV	Field	353		806		364		447		
s0907	Temperature	т	°C	Field	11		14.11		10.33		12		
7429-90-5	Aluminum	т	mg/L	6020	<0.2		<0.2		1.29		<0.2		
7440-36-0	Antimony	т	mg/L	6020	<0.005		<0.005		<0.005		<0.005		
7440-38-2	Arsenic	т	mg/L	7060	<0.001		<0.001		0.00131		<0.001		
7440-39-3	Barium	т	mg/L	6020	0.189		0.202		0.282		0.298		
7440-41-7	Beryllium	т	mg/L	6020	<0.001	*	<0.001	*	<0.001	*	<0.001	*	
7440-42-8	Boron	т	mg/L	6010	<0.2	В	<0.2	В	<0.2	В	<0.2	В	
7440-43-9	Cadmium	т	mg/L	6020	<0.001		<0.001		<0.001		<0.001		
7440-70-2	Calcium	т	mg/L	6010	19.3		19.4		14.6		18.4		
7440-47-3	Chromium	т	mg/L	6020	<0.01	В	<0.01	В	<0.01	В	0.0248	В	
7440-48-4	Cobalt	т	mg/L	6020	0.00288		<0.001		0.0039		0.00301		
7440-50-8	Copper	т	mg/L	6020	<0.02		<0.02		<0.02		<0.02		
7439-89-6	Iron	т	mg/L	6010	<0.1		<0.1		2.54		0.123		
7439-92-1	Lead	т	mg/L	6020	<0.0013	В	<0.0013	В	0.00155	В	<0.0013	В	
7439-95-4	Magnesium	т	mg/L	6010	7.74		8.55		6.44		7.31		
7439-96-5	Manganese	т	mg/L	6020	0.0206		<0.005		0.055		0.0953		
7439-97-6	Mercury	т	mg/L	7470	<0.0002		<0.0002		<0.0002		<0.0002		

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

AKGWA NUMBER	¹ , Facility Well/Spring Number				8000-520	01	8000-52	02	8000-52	42	8000-52	243
Facility's L	ocal Well or Spring Number (e.g.,	MW-	1, MW-2, et	tc.)	220		221		222		223	
CAS RN ⁴	CONSTITUENT	Т Д 5	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL ⁶	F L G S	DETECTED VALUE OR PQL ⁶	F L G S	DETECTED VALUE OR PQL ⁶	F L A G S	DETECTED VALUE OR PQL ⁶	F L A G S
7439-98-7	Molybdenum	т	mg/L	6020	0.00118	В	0.00216		<0.001	В	0.00686	
7440-02-0	Nickel	т	mg/L	6020	0.2		0.0489		0.0761		0.0903	
7440-09-7	Potassium	т	mg/L	6010	2.09		1.26		0.515		5.32	
7440-16-6	Rhodium	т	mg/L	6020	<0.005	В	<0.005	В	<0.005	В	<0.005	В
7782-49-2	Selenium	т	mg/L	6020	<0.005		0.00626		<0.005		<0.005	
7440-22-4	Silver	т	mg/L	6020	<0.001	*	<0.001	*	<0.001	*	<0.001	*
7440-23-5	Sodium	т	mg/L	6010	35		41		38.4		40.9	
7440-25-7	Tantalum	т	mg/L	6020	<0.005		<0.005		<0.005		<0.005	
7440-28-0	Thallium	т	mg/L	6020	<0.002		<0.002		<0.002		<0.002	
7440-61-1	Uranium	т	mg/L	6020	<0.001		<0.001		<0.001		<0.001	
7440-62-2	Vanadium	т	mg/L	6020	<0.02	В	<0.02	В	<0.02	В	<0.02	В
7440-66-6	Zinc	т	mg/L	6020	<0.02		<0.02		<0.02		<0.02	
108-05-4	Vinyl acetate	т	mg/L	8260	<0.01		<0.01		<0.01		<0.01	
67-64-1	Acetone	т	mg/L	8260	<0.01	*	<0.01	*	<0.01	*	<0.01	
107-02-8	Acrolein	т	mg/L	8260	<0.01		<0.01		<0.01		<0.01	
107-13-1	Acrylonitrile	т	mg/L	8260	<0.01	*	<0.005	*	<0.01	*	<0.005	
71-43-2	Benzene	т	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	
108-90-7	Chlorobenzene	т	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	
1330-20-7	Xylenes	т	mg/L	8260	<0.015		<0.015		<0.015		<0.015	
100-42-5	Styrene	т	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	*
108-88-3	Toluene	т	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
74-97-5	Chlorobromomethane	т	mg/L	8260	<0.005		<0.005		<0.005		<0.005	

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

AKGWA NUMBER1	, Facility Well/Spring Number				8000-520	1	8000-520)2	8000-52	242	8000-5	243
Facility's Lo	cal Well or Spring Number (e.g.,	MW-:	1, MW-2, et	.c.)	220		221		222		223	}
CAS RN ⁴	CONSTITUENT	Т Д 5	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL ⁶	F L A G S						
75-27-4	Bromodichloromethane	т	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	*
75-25-2	Tribromomethane	т	mg/L	8260	<0.005	*J	<0.005	*J	<0.005	*J	<0.005	*J
74-83-9	Methyl bromide	т	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	J
78-93-3	Methyl ethyl ketone	т	mg/L	8260	<0.01		<0.01		<0.01		<0.01	
110-57-6	trans-1,4-Dichloro-2-butene	т	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	
75-15-0	Carbon disulfide	т	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	
75-00-3	Chloroethane	т	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	
67-66-3	Chloroform	т	mg/L	8260	<0.001	*	<0.001	*	<0.001	*	<0.001	
74-87-3	Methyl chloride	т	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	*
156-59-2	cis-1,2-Dichloroethene	т	mg/L	8260	<0.001	*	<0.001	*	<0.001	*	<0.001	
74-95-3	Methylene bromide	т	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	*
75-34-3	1,1-Dichloroethane	т	mg/L	8260	<0.001	*	<0.001	*	<0.001	*	<0.001	
107-06-2	1,2-Dichloroethane	т	mg/L	8260	<0.001	*	<0.001	*	<0.001	*	<0.001	
75-35-4	1,1-Dichloroethylene	т	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
106-93-4	Ethane, 1,2-dibromo	т	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	*
79-34-5	Ethane, 1,1,2,2-Tetrachloro	т	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	
71-55-6	Ethane, 1,1,1-Trichloro-	т	mg/L	8260	<0.001	*	<0.001	*	<0.001	*	<0.001	
79-00-5	Ethane, 1,1,2-Trichloro	т	mg/L	8260	<0.001	*	<0.001	*	<0.001	*	<0.001	
630-20-6	Ethane, 1,1,1,2-Tetrachloro	т	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	*
75-01-4	Vinyl chloride	т	mg/L	8260	<0.002	*	<0.002	*	<0.002	*	<0.002	*
127-18-4	Ethene, Tetrachloro-	т	mg/L	8260	<0.001	*	<0.001	*	<0.001	*	<0.001	
79-01-6	Ethene, Trichloro-	т	mg/L	8260	<0.001	*	<0.001	*	<0.001	*	<0.001	

Facility: US DOE - Paducah Gaseous Diffusion Plant FINDS/UNIT: <u>KY8-890-008-982</u>/1 Permit Number: 073-00014 & 073-00015

LAB ID: None For Official Use Only

GROUNDWATER SAMPLE ANALYSIS - (Cont.)

C-7

AKGWA NUMBER1	, Facility Well/Spring Number				8000-520	1	8000-520	2	8000-52	42	8000-52	:43
Facility's Lo	cal Well or Spring Number (e.g., 1	MW-1	L, MW-2, et	.c.)	220		221		222		223	
CAS RN ⁴	CONSTITUENT	T D₅	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL ⁶	F L G S	DETECTED VALUE OR PQL ⁶	F L G S	DETECTED VALUE OR PQL ⁶	F L G S	DETECTED VALUE OR PQL ⁶	F L A G S
100-41-4	Ethylbenzene	т	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	*
591-78-6	2-Hexanone	т	mg/L	8260	<0.01	*	<0.01	*	<0.01	*	<0.01	
74-88-4	Iodomethane	т	mg/L	8260	<0.01	*	<0.01	*	<0.01	*	<0.01	
124-48-1	Methane, Dibromochloro-	т	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	*
56-23-5	Carbon Tetrachloride	т	mg/L	8260	<0.001	*	<0.001	*	<0.001	*	<0.001	
75-09-2	Dichloromethane	т	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	*
108-10-1	Methyl isobutyl ketone	т	mg/L	8260	<0.01	*	<0.01	*	<0.01	*	<0.01	
96-12-8	Propane, 1,2-Dibromo-3-chloro	т	mg/L	8011	<0.0002		<0.0002		<0.0002		<0.0002	
78-87-5	Propane, 1,2-Dichloro-	т	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	
10061-02-6	trans-1,3-Dichloro-1-propene	т	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	
10061-01-5	cis-1,3-Dichloro-1-propene	т	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	*
156-60-5	trans-1,2-Dichloroethene	т	mg/L	8260	<0.001	*	<0.001	*	<0.001	*	<0.001	*
75-69-4	Trichlorofluoromethane	т	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	
96-18-4	1,2,3-Trichloropropane	т	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	
95-50-1	Benzene, 1,2-Dichloro-	т	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	
106-46-7	Benzene, 1,4-Dichloro-	т	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	*
1336-36-3	PCB,Total	т	ug/L	8082		*		*		*		*
12674-11-2	PCB-1016	т	ug/L	8082		*		*		*		*
11104-28-2	PCB-1221	т	ug/L	8082		*		*		*		*
11141-16-5	PCB-1232	т	ug/L	8082		*		*		*		*
53469-21-9	PCB-1242	т	ug/L	8082		*		*		*		*
12672-29-6	PCB-1248	т	ug/L	8082		*		*		*		*

Facility: US DOE - Paducah Gaseous Diffusion Plant FINDS/UNIT: <u>KY8-890-008-982</u>/<u>1</u> Permit Number: 073-00014 & 073-00015

LAB ID: None For Official Use Only

AKGWA NUMBER ¹ ,	Facility Well/Spring Number				8000-5201		8000-5202	2	8000-524	2	8000-524	43
Facility's Loc	al Well or Spring Number (e.g.,	MW-1	L, MW-2, et	.c.)	220		221		222		223	
CAS RN ⁴	CONSTITUENT	T D ₅	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL ⁶	F L G S						
11097-69-1	PCB-1254	т	ug/L	8082		*		*		*		*
11096-82-5	PCB-1260	т	ug/L	8082		*		*		*		*
11100-14-4	PCB-1268	т	ug/L	8082		*		*		*		*
12587-46-1	Gross Alpha	т	pCi/L	9310	2.04	*	-0.568	*	-0.271	*	2.48	*
12587-47-2	Gross Beta	т	pCi/L	9310	15.7	*	8.6	*	1.71	*	9.05	*
10043-66-0	Iodine-131	т	pCi/L	RL-7124		*		*		*		*
13982-63-3	Radium-226	т	pCi/L	RL-7129	0.342	*	0.105	*	0.22	*	-0.0571	*
10098-97-2	Strontium-90	т	pCi/L	RL-7140	0.499	В	0.86	В	-0.0773	В	0.153	В
14133-76-7	Technetium-99	т	pCi/L	RL-7100	13.6	*	-2.3	*	-6.05	*	3.45	*
14269-63-7	Thorium-230	т	pCi/L	RL-7128	-0.0346	*	0.0196	*	-0.0244	*	-0.00393	*
10028-17-8	Tritium	т	pCi/L	704R6	587	*	222	*	255	*	3.05	*
s0130	Chemical Oxygen Demand	т	mg/L	410.4	<25		<25		<25		<25	
57-12-5	Cyanide	т	mg/L	9010	<0.04		<0.04		<0.04		<0.04	
20461-54-5	Iodide	Т	mg/L	345.1	<2		<2		<2		<2	
s0268	Total Organic Carbon	т	mg/L	9060	<1	*	<1		<1		<1	
s0586	Total Organic Halides	т	mg/L	9020	0.0099		0.011		0.0089		0.012	

RESIDENTIAL/INERT-QUARTERLY Division of Waste Management Facility: US DOE - Paducah Gaseous Diffusion Plant Solid Waste Branch Permit Number:073-00014 & 073-00015 FINDS/UNIT: KY8-890-008-982 / 1 14 Reilly Road Frankfort, KY 40601 (502)564-6716 LAB ID: None

For Official Use Only

GROUNDWATER SAMPLE ANALYSIS (s)

AKGWA NUMBER ¹	, Facility Well/Spring Number				8000-5244	4	8004-48	320	8004-48	318	8004-480)8
Facility's Lo	cal Well or Spring Number (e.g., M	W-1	, MW-2, etc	.)	224		369		370		372	
Sample Sequen	ce #				1		1		1		1	
If sample is a	Blank, specify Type: (F)ield, (T)rip,	(M)e	thod, or (E)q	quipment	NA		NA		NA		NA	
Sample Date a	nd Time (Month/Day/Year hour:minu	tes)		1/17/2013 08	3:19	1/10/2013	08:27	1/14/2013	08:24	1/9/2013 12	2:46
Duplicate ("Y	" or "N") ²				Ν		Ν		N		Ν	
Split ("Y" or	"N") ³				Ν		Ν		N		N	
Facility Samp	le ID Number (if applicable)				MW224SG2	-13	MW369U	G2-13	MW370U	G2-13	MW372UG	2-13
Laboratory Sa	mple ID Number (if applicable)		C13017005	002	C130100	09001	C130140 ²	17001	C13009025	5001		
Date of Analy	te of Analysis (Month/Day/Year) For Volatile Organics Analysis						1/11/20)13	1/18/20	13	1/11/201	3
Gradient with	respect to Monitored Unit (UP, DC	WN,	SIDE, UNKN	OWN)	SIDE		DOW	N	DOW	N	DOWN	
CAS RN ⁴	CONSTITUENT	Η D ₅	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL ⁶	F L G S ⁷	DETECTED VALUE OR PQL ⁶	F L G S	DETECTED VALUE OR PQL ⁶	F L G S	DETECTED VALUE OR PQL ⁶	F L A G S
24959-67-9	Bromide	т	mg/L	9056	<2		<2		<2		<2	
16887-00-6	Chloride(s)	т	mg/L	9056	16		33		43		47	
16984-48-8	Fluoride	т	mg/L	9214	0.29		0.19		0.16		0.17	
s0595	Nitrate & Nitrite	т	mg/L	9056	<1		<1		1.2		<1	
14808-79-8	Sulfate	т	mg/L	9056	9.7		6.5		20		160	
NS1894	Barometric Pressure Reading	т	Inches/Hg	Field	30.1		30.28		30.38		30.23	
s0145	Specific Conductance	т	µMH0/cm	Field	405		365		436		860	

¹AKGWA # is 0000-0000 for any type of blank.

²Respond "Y" if the sample was a duplicate of another sample in this report.

³Respond "Y" if the sample was split and analyzed by separate laboratories.

⁴Chemical 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. ⁷Flags 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

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

			(00110									
AKGWA NUMBER ¹	, Facility Well/Spring Number				8000-524	4	8004-482	0	8004-4818	3	8004-4808	
Facility's Lo	cal Well or Spring Number (e.g., M	v-1 , 1	MW-2, BLANK-	F, etc.)	224		369		370		372	
CAS RN ⁴	CONSTITUENT	T D₅	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL ⁶	F L G S						
s0906	Static Water Level Elevation	т	Ft. MSL	Field	320.8		320.14		319.92		320.04	
N238	Dissolved Oxygen	т	mg/L	Field	1.86		2.43		3.7		1.8	
S0266	Total Dissolved Solids	т	mg/L	160.1	254		213		230		506	
S0296	рН	т	Units	Field	6.25		6.42		6.2		6.32	
NS215	Eh	т	mV	Field	855		675		725		43	
S0907	Temperature	т	°C	Field	11.5		12.83		14.06		15.78	
7429-90-5	Aluminum	т	mg/L	6020	<0.2		0.475		<0.2		<0.2	
7440-36-0	Antimony	т	mg/L	6020	<0.005		<0.005		<0.005		<0.005	
7440-38-2	Arsenic	т	mg/L	7060	<0.001		0.00109		0.00126		0.00187	
7440-39-3	Barium	т	mg/L	6020	0.232		0.363		0.197		0.0665	
7440-41-7	Beryllium	т	mg/L	6020	<0.001	*	<0.001		<0.001		<0.001	
7440-42-8	Boron	т	mg/L	6010	<0.2	В	<0.2	В	<0.2	В	1.39	В
7440-43-9	Cadmium	т	mg/L	6020	<0.001		<0.001	В	<0.001	В	<0.001	В
7440-70-2	Calcium	т	mg/L	6010	20.5		16.3		29.5		66.9	
7440-47-3	Chromium	т	mg/L	6020	0.053	В	<0.01		<0.01		<0.01	
7440-48-4	Cobalt	т	mg/L	6020	0.00271		0.0121		<0.001		<0.001	
7440-50-8	Copper	т	mg/L	6020	<0.02		<0.02		<0.02		<0.02	
7439-89-6	Iron	т	mg/L	6010	0.554		0.45		<0.1		0.497	
7439-92-1	Lead	т	mg/L	6020	<0.0013	В	0.00474	В	<0.0013	В	<0.0013	В
7439-95-4	Magnesium	т	mg/L	6010	8.93		6.09		11.7		26	
7439-96-5	Manganese	т	mg/L	6020	0.0364		0.0757		<0.005		0.0179	
7439-97-6	Mercury	т	mg/L	7470	<0.0002		<0.0002		<0.0002		<0.0002	

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

AKGWA NUMBER	¹ , Facility Well/Spring Number				8000-524	44	8004-48	320	8004-48	18	8004-48	08
Facility's L	ocal Well or Spring Number (e.g.,	MW-	1, MW-2, et	tc.)	224		369		370		372	
CAS RN ⁴	CONSTITUENT	Т Д 5	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL ⁶	F L A G S	DETECTED VALUE OR PQL ⁶	F L G S	DETECTED VALUE OR PQL ⁶	F L A G S	DETECTED VALUE OR PQL ⁶	F L A G S
7439-98-7	Molybdenum	т	mg/L	6020	0.0016	В	<0.001	В	<0.001	В	<0.001	В
7440-02-0	Nickel	т	mg/L	6020	0.0826		0.00629	В	<0.005	В	<0.005	В
7440-09-7	Potassium	т	mg/L	6010	0.702		0.499		2.44		2.47	
7440-16-6	Rhodium	т	mg/L	6020	<0.005	В	<0.005		<0.005		<0.005	
7782-49-2	Selenium	т	mg/L	6020	<0.005		<0.005		<0.005		0.0057	
7440-22-4	Silver	т	mg/L	6020	<0.001	*	<0.001		<0.001		<0.001	
7440-23-5	Sodium	т	mg/L	6010	54.5		54		39.2		63.7	
7440-25-7	Tantalum	т	mg/L	6020	<0.005		<0.005		<0.005		<0.005	
7440-28-0	Thallium	т	mg/L	6020	<0.002		<0.002		<0.002		<0.002	
7440-61-1	Uranium	т	mg/L	6020	<0.001		<0.001		<0.001		<0.001	
7440-62-2	Vanadium	т	mg/L	6020	<0.02	В	<0.02		<0.02		<0.02	
7440-66-6	Zinc	т	mg/L	6020	<0.02		<0.02		<0.02		<0.02	
108-05-4	Vinyl acetate	т	mg/L	8260	<0.01		<0.01	*J	<0.01		<0.01	*J
67-64-1	Acetone	т	mg/L	8260	<0.01	*	<0.01	*J	<0.01		<0.01	*J
107-02-8	Acrolein	т	mg/L	8260	<0.01		<0.01	J	<0.01		<0.01	J
107-13-1	Acrylonitrile	т	mg/L	8260	<0.01	*	<0.01	*J	<0.01		<0.01	*J
71-43-2	Benzene	т	mg/L	8260	<0.005	*	<0.005		<0.005		<0.005	
108-90-7	Chlorobenzene	т	mg/L	8260	<0.005	*	<0.005		<0.005		<0.005	
1330-20-7	Xylenes	т	mg/L	8260	<0.015		<0.015		<0.015		<0.015	
100-42-5	Styrene	т	mg/L	8260	<0.005	*	<0.005		<0.005		<0.005	
108-88-3	Toluene	т	mg/L	8260	<0.005		<0.005		<0.005	J	<0.005	
74-97-5	Chlorobromomethane	т	mg/L	8260	<0.005		<0.005		<0.005		<0.005	

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

AKGWA NUMBER1,	Facility Well/Spring Number				8000-524	4	8004-482	20	8004-48	318	8004-4	808
Facility's Lo	cal Well or Spring Number (e.g.,	MW-1	1, MW-2, et	.c.)	224		369		370		372	2
CAS RN ⁴	CONSTITUENT	Т Д 5	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL ⁶	F L G S	DETECTED VALUE OR PQL ⁶	F L A G S	DETECTED VALUE OR PQL ⁶	F L G S	DETECTED VALUE OR PQL ⁶	F L G S
75-27-4	Bromodichloromethane	т	mg/L	8260	<0.005	*	<0.005		<0.005	J	<0.005	
75-25-2	Tribromomethane	т	mg/L	8260	<0.005	*J	<0.005	*J	<0.005	J	<0.005	*J
74-83-9	Methyl bromide	т	mg/L	8260	<0.005	*	<0.005		<0.005	J	<0.005	
78-93-3	Methyl ethyl ketone	т	mg/L	8260	<0.01		<0.01		<0.01		<0.01	
110-57-6	trans-1,4-Dichloro-2-butene	т	mg/L	8260	<0.005	*	<0.005		<0.005		<0.005	
75-15-0	Carbon disulfide	т	mg/L	8260	<0.005	*	<0.005		<0.005	J	<0.005	
75-00-3	Chloroethane	т	mg/L	8260	<0.005	*	<0.005		<0.005	*	<0.005	
67-66-3	Chloroform	т	mg/L	8260	<0.001	*	<0.001		<0.001		<0.001	
74-87-3	Methyl chloride	т	mg/L	8260	<0.005	*	<0.005		<0.005	*	<0.005	
156-59-2	cis-1,2-Dichloroethene	т	mg/L	8260	<0.001	*	<0.001		<0.001		<0.001	
74-95-3	Methylene bromide	т	mg/L	8260	<0.005	*	<0.005		<0.005	J	<0.005	
75-34-3	1,1-Dichloroethane	т	mg/L	8260	<0.001	*	<0.001		<0.001		<0.001	
107-06-2	1,2-Dichloroethane	т	mg/L	8260	<0.001	*	<0.001		<0.001		<0.001	
75-35-4	1,1-Dichloroethylene	т	mg/L	8260	<0.001		<0.001		<0.001	J	<0.001	
106-93-4	Ethane, 1,2-dibromo	т	mg/L	8260	<0.005	*	<0.005	*	<0.005		<0.005	*
79-34-5	Ethane, 1,1,2,2-Tetrachloro	т	mg/L	8260	<0.005	*	<0.005		<0.005		<0.005	
71-55-6	Ethane, 1,1,1-Trichloro-	т	mg/L	8260	<0.001	*	<0.001		<0.001		<0.001	
79-00-5	Ethane, 1,1,2-Trichloro	т	mg/L	8260	<0.001	*	<0.001		<0.001	J	<0.001	
630-20-6	Ethane, 1,1,1,2-Tetrachloro	т	mg/L	8260	<0.005	*	<0.005		<0.005		<0.005	
75-01-4	Vinyl chloride	т	mg/L	8260	<0.002	*	<0.002	*	<0.002	*	<0.002	*
127-18-4	Ethene, Tetrachloro-	т	mg/L	8260	<0.001	*	<0.001		<0.001		<0.001	
79-01-6	Ethene, Trichloro-	т	mg/L	8260	<0.001	*	<0.001		0.0017		0.0061	

Facility: US DOE - Paducah Gaseous Diffusion Plant FINDS/UNIT: <u>KY8-890-008-982</u>/1 Permit Number: 073-00014 & 073-00015

LAB ID: None For Official Use Only

AKGWA NUMBER ¹ ,	Facility Well/Spring Number				8000-524	4	8004-482	0	8004-48	18	8004-48	808
Facility's Loo	cal Well or Spring Number (e.g., 1	4W-1	L, MW-2, et	.c.)	224		369		370		372	
CAS RN ⁴	CONSTITUENT	T D₅	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL ⁶	F L G S	DETECTED VALUE OR PQL ⁶	F L A G S	DETECTED VALUE OR PQL ⁶	F L G S	DETECTED VALUE OR PQL ⁶	F L G S
100-41-4	Ethylbenzene	т	mg/L	8260	<0.005	*	<0.005		<0.005		<0.005	
591-78-6	2-Hexanone	т	mg/L	8260	<0.01	*	<0.01		<0.01		<0.01	
74-88-4	Iodomethane	т	mg/L	8260	<0.01	*	<0.01		<0.01		<0.01	
124-48-1	Methane, Dibromochloro-	т	mg/L	8260	<0.005	*	<0.005	*	<0.005		<0.005	*
56-23-5	Carbon Tetrachloride	т	mg/L	8260	<0.001	*	<0.001		<0.001		<0.001	
75-09-2	Dichloromethane	т	mg/L	8260	<0.005	*	<0.005	*	<0.005		<0.005	*
108-10-1	Methyl isobutyl ketone	т	mg/L	8260	<0.01	*	<0.01		<0.01		<0.01	
96-12-8	Propane, 1,2-Dibromo-3-chloro	т	mg/L	8011	<0.0002		<0.0002		<0.0002	*	<0.0002	
78-87-5	Propane, 1,2-Dichloro-	т	mg/L	8260	<0.005	*	<0.005		<0.005		<0.005	
10061-02-6	trans-1,3-Dichloro-1-propene	т	mg/L	8260	<0.005	*	<0.005		<0.005		<0.005	
10061-01-5	cis-1,3-Dichloro-1-propene	т	mg/L	8260	<0.005	*	<0.005	*	<0.005	J	<0.005	*
156-60-5	trans-1,2-Dichloroethene	т	mg/L	8260	<0.001	*	<0.001	*J	<0.001		<0.001	*J
75-69-4	Trichlorofluoromethane	т	mg/L	8260	<0.005	*	<0.005		<0.005		<0.005	
96-18-4	1,2,3-Trichloropropane	т	mg/L	8260	<0.005	*	<0.005		<0.005		<0.005	
95-50-1	Benzene, 1,2-Dichloro-	т	mg/L	8260	<0.005	*	<0.005		<0.005		<0.005	
106-46-7	Benzene, 1,4-Dichloro-	т	mg/L	8260	<0.005	*	<0.005		<0.005		<0.005	
1336-36-3	PCB,Total	т	ug/L	8082		*	<0.18		<0.18		<0.18	
12674-11-2	PCB-1016	т	ug/L	8082		*	<0.17		<0.17		<0.17	
11104-28-2	PCB-1221	т	ug/L	8082		*	<0.18		<0.18		<0.18	
11141-16-5	PCB-1232	т	ug/L	8082		*	<0.14		<0.14		<0.14	
53469-21-9	PCB-1242	т	ug/L	8082		*	<0.1		<0.1		<0.1	
12672-29-6	PCB-1248	т	ug/L	8082		*	<0.12		<0.12		<0.12	

Facility: US DOE - Paducah Gaseous Diffusion Plant FINDS/UNIT: <u>KY8-890-008-982</u>/<u>1</u> Permit Number: 073-00014 & 073-00015

LAB ID: None For Official Use Only

AKGWA NUMBER ¹ ,	Facility Well/Spring Number				8000-5244		8004-4820		8004-481	8	8004-480)8
Facility's Loc	al Well or Spring Number (e.g.,	MW-1	L, MW-2, et	.c.)	224		369		370		372	
CAS RN ⁴	CONSTITUENT	T D₅	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL ⁶	F L G S	DETECTED VALUE OR PQL ⁶	F L G S	DETECTED VALUE OR PQL ⁶	F L G S	DETECTED VALUE OR PQL ⁶	F L A G S
11097-69-1	PCB-1254	т	ug/L	8082		*	<0.07		<0.07		<0.07	
11096-82-5	PCB-1260	т	ug/L	8082		*	<0.05		<0.05		<0.05	
11100-14-4	PCB-1268	т	ug/L	8082		*	<0.09		<0.09		<0.09	
12587-46-1	Gross Alpha	т	pCi/L	9310	-0.528	*	1.54	*	1.88	*	9.39	*
12587-47-2	Gross Beta	т	pCi/L	9310	3.73	*	16.8	*	12.7	*	95.6	*
10043-66-0	Iodine-131	т	pCi/L	RL-7124		*		*		*		*
13982-63-3	Radium-226	т	pCi/L	RL-7129	-0.0237	*	0.14	*	0.107	*	0.121	*
10098-97-2	Strontium-90	т	pCi/L	RL-7140	0.197	В	0.262	*	0.13	*	-0.138	*
14133-76-7	Technetium-99	т	pCi/L	RL-7100	0.751	*	30.5	*	18.3	*	30.6	*
14269-63-7	Thorium-230	т	pCi/L	RL-7128	0.0272	*	0.0937	*	0.0213	*	0.0234	*
10028-17-8	Tritium	т	pCi/L	704R6	163	*	-34.5	*	-279	*	-1.02	*
s0130	Chemical Oxygen Demand	т	mg/L	410.4	<25		<25		<25		<25	
57-12-5	Cyanide	т	mg/L	9010	<0.04		<0.04		<0.04		<0.04	
20461-54-5	Iodide	т	mg/L	345.1	<2		<2		<2		<2	
S0268	Total Organic Carbon	т	mg/L	9060	<1		1.4		<1	*	2.2	
S0586	Total Organic Halides	т	mg/L	9020	0.016		0.029		0.02		0.022	

Division of Waste Management **RESIDENTIAL/INERT-QUARTERLY** Facility: US DOE - Paducah Gaseous Diffusion Plant Solid Waste Branch Permit Number:073-00014 & 073-00015 FINDS/UNIT: KY8-890-008-982 / 1 14 Reilly Road Frankfort, KY 40601 (502)564-6716 LAB ID: None

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GROUNDWATER SAMPLE ANALYSIS (s)

AKGWA NUMBER ¹	, Facility Well/Spring Number				8004-4792	2	8004-48	309	8004-48	310	8004-480)4
Facility's Lo	cal Well or Spring Number (e.g., M	w-1	, MW-2, etc	.)	373		384		385		386	
Sample Sequen	ce #				1		1		1		1	
If sample is a	Blank, specify Type: (F)ield, (T)rip,	(M)e	thod, or (E)	quipment	NA		NA		NA		NA	
Sample Date a	nd Time (Month/Day/Year hour:minu	tes)		1/9/2013 14	:05	1/15/2013	07:48	1/15/2013	09:49	1/15/2013 0	08:47
Duplicate ("Y	" or "N") ²				N		Ν		Ν		Ν	
Split ("Y" or	"N") ³				N		N		Ν		Ν	
Facility Samp	le ID Number (if applicable)				MW373UG2	-13	MW384S	G2-13	MW385S0	G2-13	MW386SG	2-13
Laboratory Sa	mple ID Number (if applicable)		C130090250	002	C1301502	26001	C1301502	26003	C13015026	6002		
Date of Analy	te of Analysis (Month/Day/Year) For <u>Volatile Organics</u> Analysis						1/18/20)13	1/18/20	13	1/18/201	3
Gradient with	respect to Monitored Unit (UP, DC	WN,	SIDE, UNKN	OWN)	DOWN		SIDE	=	SIDE		SIDE	
CAS RN ⁴	CONSTITUENT	Т Д 5	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL ⁶	F L G S ⁷	DETECTED VALUE OR PQL ⁶	F L G S	DETECTED VALUE OR PQL ⁶	F L G S	DETECTED VALUE OR PQL ⁶	F L A G S
24959-67-9	Bromide	т	mg/L	9056	<2		<2		<2		<2	
16887-00-6	Chloride(s)	т	mg/L	9056	48		70		22		19	
16984-48-8	Fluoride	т	mg/L	9214	0.17		0.25		0.24		0.61	
s0595	Nitrate & Nitrite	т	mg/L	9056	<1		1.2		<1		<1	
14808-79-8	Sulfate	т	mg/L	9056	210		20		19		49	
NS1894	Barometric Pressure Reading	т	Inches/Hg	Field	30.23		30.3		30.28		30.29	
s0145	Specific Conductance	т	µMH0/cm	Field	935		592		499		624	

¹AKGWA # is 0000-0000 for any type of blank.

²Respond "Y" if the sample was a duplicate of another sample in this report.

³Respond "Y" if the sample was split and analyzed by separate laboratories.

⁴Chemical 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. ⁷Flags 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

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

			(00110									
AKGWA NUMBER ¹	, Facility Well/Spring Number				8004-479	2	8004-480	9	8004-4810)	8004-4804	
Facility's Lo	cal Well or Spring Number (e.g., M	W-1, 1	MW-2, BLANK-	F, etc.)	373		384		385		386	
CAS RN ⁴	CONSTITUENT	T D 5	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL ⁶	F L G S						
S0906	Static Water Level Elevation	т	Ft. MSL	Field	320.03		320.17		320.13		345.45	
N238	Dissolved Oxygen	т	mg/L	Field	2.21		3.97		1.34		1.32	
S0266	Total Dissolved Solids	т	mg/L	160.1	568		313		242		405	
S0296	рН	т	Units	Field	6.32		7.82		7.26		7.09	
NS215	Eh	т	mV	Field	83		290		13		22	
s0907	Temperature	т	°C	Field	15.83		5.72		9.89		9.17	
7429-90-5	Aluminum	т	mg/L	6020	<0.2		<0.2		<0.2		<0.2	
7440-36-0	Antimony	т	mg/L	6020	<0.005		<0.005		<0.005		<0.005	
7440-38-2	Arsenic	т	mg/L	7060	0.00119		0.00231		<0.001		0.00355	
7440-39-3	Barium	т	mg/L	6020	0.0256		0.137		0.213		0.217	
7440-41-7	Beryllium	т	mg/L	6020	<0.001		<0.001	*	<0.001	*	<0.001	*
7440-42-8	Boron	т	mg/L	6010	2.02	В	<0.2	В	<0.2	В	<0.2	В
7440-43-9	Cadmium	т	mg/L	6020	<0.001	В	<0.001		<0.001		<0.001	
7440-70-2	Calcium	т	mg/L	6010	82.5		33.9		29.6		21.7	
7440-47-3	Chromium	т	mg/L	6020	<0.01		<0.01	В	<0.01	В	<0.01	В
7440-48-4	Cobalt	т	mg/L	6020	<0.001		<0.001		<0.001		0.00713	
7440-50-8	Copper	т	mg/L	6020	<0.02		<0.02		<0.02		<0.02	
7439-89-6	Iron	т	mg/L	6010	<0.1		0.604		<0.1		3.47	
7439-92-1	Lead	т	mg/L	6020	<0.0013	В	<0.0013	В	<0.0013	В	<0.0013	В
7439-95-4	Magnesium	т	mg/L	6010	30.3		13.1		10.6		8.94	
7439-96-5	Manganese	т	mg/L	6020	0.0192		0.0138		0.00751		0.914	
7439-97-6	Mercury	т	mg/L	7470	<0.0002		<0.0002		<0.0002		<0.0002	

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

AKGWA NUMBER	¹ , Facility Well/Spring Number				8004-47	92	8004-48	809	8004-48	10	8004-48	.04
Facility's L	ocal Well or Spring Number (e.g.,	MW-	1, MW-2, et)	373		384		385		386	
CAS RN ⁴	CONSTITUENT	T D₅	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL ⁶	F L G S						
7439-98-7	Molybdenum	т	mg/L	6020	<0.001	В	<0.001	В	<0.001	В	<0.001	В
7440-02-0	Nickel	т	mg/L	6020	<0.005	В	<0.005	В	0.0055	В	<0.005	В
7440-09-7	Potassium	т	mg/L	6010	3.26		1.1		1.6		0.324	
7440-16-6	Rhodium	т	mg/L	6020	<0.005		<0.005	В	<0.005	В	<0.005	В
7782-49-2	Selenium	т	mg/L	6020	0.00565		0.00961		<0.005		<0.005	
7440-22-4	Silver	т	mg/L	6020	<0.001		<0.001	*	<0.001	*	<0.001	*
7440-23-5	Sodium	т	mg/L	6010	70.4		59.3		38.2		106	
7440-25-7	Tantalum	т	mg/L	6020	<0.005		<0.005		<0.005		<0.005	
7440-28-0	Thallium	т	mg/L	6020	<0.002		<0.002		<0.002		<0.002	
7440-61-1	Uranium	т	mg/L	6020	<0.001		<0.001		<0.001		<0.001	
7440-62-2	Vanadium	т	mg/L	6020	<0.02		<0.02	В	<0.02	В	<0.02	В
7440-66-6	Zinc	т	mg/L	6020	<0.02		<0.02		<0.02		<0.02	
108-05-4	Vinyl acetate	т	mg/L	8260	<0.01	*J	<0.01		<0.01		<0.01	
67-64-1	Acetone	т	mg/L	8260	<0.01	*J	<0.01		<0.01		<0.01	
107-02-8	Acrolein	т	mg/L	8260	<0.01	J	<0.01		<0.01		<0.01	
107-13-1	Acrylonitrile	т	mg/L	8260	<0.01	*J	<0.01		<0.01		<0.01	
71-43-2	Benzene	т	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
108-90-7	Chlorobenzene	т	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
1330-20-7	Xylenes	т	mg/L	8260	<0.015		<0.015		<0.015		<0.015	
100-42-5	Styrene	т	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
108-88-3	Toluene	т	mg/L	8260	<0.005		<0.005	J	<0.005	J	<0.005	J
74-97-5	Chlorobromomethane	т	mg/L	8260	<0.005		<0.005		<0.005		<0.005	

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

AKGWA NUMBER ¹	, Facility Well/Spring Number				8004-479	2	8004-480	09	8004-4	810	8004-4	804
Facility's Lo	ocal Well or Spring Number (e.g.,	MW-1	1, MW-2, et	.c.)	373		384		385		386	6
CAS RN ⁴	CONSTITUENT	Т Д 5	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL ⁶	F L G S	DETECTED VALUE OR PQL ⁶	F L G S	DETECTED VALUE OR PQL ⁶	F L A G S	DETECTED VALUE OR PQL ⁶	F L A G S
75-27-4	Bromodichloromethane	т	mg/L	8260	<0.005		<0.005	J	<0.005	J	<0.005	J
75-25-2	Tribromomethane	т	mg/L	8260	<0.005	*J	<0.005	J	<0.005	J	<0.005	J
74-83-9	Methyl bromide	т	mg/L	8260	<0.005		<0.005	J	<0.005	J	<0.005	J
78-93-3	Methyl ethyl ketone	т	mg/L	8260	<0.01		<0.01		<0.01		<0.01	
110-57-6	trans-1,4-Dichloro-2-butene	т	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
75-15-0	Carbon disulfide	т	mg/L	8260	<0.005		<0.005	J	<0.005	J	<0.005	J
75-00-3	Chloroethane	т	mg/L	8260	<0.005		<0.005	*	<0.005	*	<0.005	*
67-66-3	Chloroform	т	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
74-87-3	Methyl chloride	т	mg/L	8260	<0.005		<0.005	*	<0.005	*	<0.005	*
156-59-2	cis-1,2-Dichloroethene	т	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
74-95-3	Methylene bromide	т	mg/L	8260	<0.005		<0.005	J	<0.005	J	<0.005	J
75-34-3	1,1-Dichloroethane	т	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
107-06-2	1,2-Dichloroethane	т	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
75-35-4	1,1-Dichloroethylene	т	mg/L	8260	<0.001		<0.001	J	<0.001	J	<0.001	J
106-93-4	Ethane, 1,2-dibromo	т	mg/L	8260	<0.005	*	<0.005		<0.005		<0.005	
79-34-5	Ethane, 1,1,2,2-Tetrachloro	т	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
71-55-6	Ethane, 1,1,1-Trichloro-	т	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
79-00-5	Ethane, 1,1,2-Trichloro	т	mg/L	8260	<0.001		<0.001	J	<0.001	J	<0.001	J
630-20-6	Ethane, 1,1,1,2-Tetrachloro	т	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
75-01-4	Vinyl chloride	т	mg/L	8260	<0.002	*	<0.002	*	<0.002	*	<0.002	*
127-18-4	Ethene, Tetrachloro-	т	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
79-01-6	Ethene, Trichloro-	т	mg/L	8260	0.0066		<0.001		<0.001		<0.001	

Facility: US DOE - Paducah Gaseous Diffusion Plant FINDS/UNIT: <u>KY8-890-008-982</u>/1 Permit Number: 073-00014 & 073-00015

LAB ID: None For Official Use Only

AKGWA NUMBER ¹ ,	Facility Well/Spring Number				8004-479	2	8004-480	9	8004-48	10	8004-48	04
Facility's Loo	cal Well or Spring Number (e.g., M	1 W-1	L, MW-2, et	.c.)	373		384		385		386	
CAS RN ⁴	CONSTITUENT	T D₅	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL ⁶	F L G S	DETECTED VALUE OR PQL ⁶	F L G S	DETECTED VALUE OR PQL ⁶	F L A G S	DETECTED VALUE OR PQL ⁶	F L A G S
100-41-4	Ethylbenzene	т	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
591-78-6	2-Hexanone	т	mg/L	8260	<0.01		<0.01		<0.01		<0.01	
74-88-4	Iodomethane	т	mg/L	8260	<0.01		<0.01		<0.01		<0.01	
124-48-1	Methane, Dibromochloro-	т	mg/L	8260	<0.005	*	<0.005		<0.005		<0.005	
56-23-5	Carbon Tetrachloride	т	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
75-09-2	Dichloromethane	т	mg/L	8260	<0.005	*	<0.005		<0.005		<0.005	
108-10-1	Methyl isobutyl ketone	т	mg/L	8260	<0.01		<0.01		<0.01		<0.01	
96-12-8	Propane, 1,2-Dibromo-3-chloro	т	mg/L	8011	<0.0002		<0.0002		<0.0002		<0.0002	*
78-87-5	Propane, 1,2-Dichloro-	т	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
10061-02-6	trans-1,3-Dichloro-1-propene	т	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
10061-01-5	cis-1,3-Dichloro-1-propene	т	mg/L	8260	<0.005	*	<0.005	J	<0.005	J	<0.005	J
156-60-5	trans-1,2-Dichloroethene	т	mg/L	8260	<0.001	*J	<0.001		<0.001		<0.001	
75-69-4	Trichlorofluoromethane	т	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
96-18-4	1,2,3-Trichloropropane	т	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
95-50-1	Benzene, 1,2-Dichloro-	т	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
106-46-7	Benzene, 1,4-Dichloro-	т	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
1336-36-3	PCB,Total	т	ug/L	8082	<0.18			*		*		*
12674-11-2	PCB-1016	т	ug/L	8082	<0.17			*		*		*
11104-28-2	PCB-1221	т	ug/L	8082	<0.18			*		*		*
11141-16-5	PCB-1232	т	ug/L	8082	<0.14			*		*		*
53469-21-9	PCB-1242	т	ug/L	8082	<0.1			*		*		*
12672-29-6	PCB-1248	т	ug/L	8082	<0.12			*		*		*

Facility: US DOE - Paducah Gaseous Diffusion Plant FINDS/UNIT: <u>KY8-890-008-982</u>/<u>1</u> Permit Number: 073-00014 & 073-00015

LAB ID: None For Official Use Only

AKGWA NUMBER1	, Facility Well/Spring Number				8004-4792		8004-4809)	8004-481	0	8004-480)4
Facility's Lo	cal Well or Spring Number (e.g.	., MW-1	L, MW-2, et	.c.)	373		384		385		386	
CAS RN ⁴	CONSTITUENT	T D ₅	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL ⁶	F L G S						
11097-69-1	PCB-1254	т	ug/L	8082	<0.07			*		*		*
11096-82-5	PCB-1260	т	ug/L	8082	<0.05			*		*		*
11100-14-4	PCB-1268	т	ug/L	8082	<0.09			*		*		*
12587-46-1	Gross Alpha	т	pCi/L	9310	-2.38	*	2.05	*	1.61	*	2.22	*
12587-47-2	Gross Beta	т	pCi/L	9310	56.7	*	180	*	33.3	*	0.832	*
10043-66-0	Iodine-131	т	pCi/L	RL-7124		*		*		*		*
13982-63-3	Radium-226	т	pCi/L	RL-7129	0	*	0.0208	*	0.157	*	0.174	*
10098-97-2	Strontium-90	Т	pCi/L	RL-7140	-0.0299	*	0.13	В	-0.0742	В	0.327	В
14133-76-7	Technetium-99	т	pCi/L	RL-7100	64	*	198	*	103	*	-4	*
14269-63-7	Thorium-230	Т	pCi/L	RL-7128	-0.00441	*	0.0011	*	-0.0494	*	0.012	*
10028-17-8	Tritium	т	pCi/L	704R6	-192	*	707	*	-52.8	*	-77.2	*
s0130	Chemical Oxygen Demand	т	mg/L	410.4	<25		<25		<25		38	
57-12-5	Cyanide	т	mg/L	9010	<0.04		<0.04		<0.04		<0.04	
20461-54-5	Iodide	т	mg/L	345.1	<2		<2		<2		<2	
S0268	Total Organic Carbon	Т	mg/L	9060	1		1.4	*	<1	*	12.9	D*
s0586	Total Organic Halides	Т	mg/L	9020	0.036		0.031		0.023		0.24	

RESIDENTIAL/INERT-QUARTERLY Division of Waste Management Facility: US DOE - Paducah Gaseous Diffusion Plant Solid Waste Branch Permit Number:073-00014 & 073-00015 FINDS/UNIT: KY8-890-008-982 / 1 14 Reilly Road Frankfort, KY 40601 (502)564-6716 LAB ID: None

For Official Use Only

GROUNDWATER SAMPLE ANALYSIS (s)

AKGWA NUMBER ¹ ,	, Facility Well/Spring Number				8004-481	5	8004-4	816	8004-48	12	8004-481	1
Facility's Lo	cal Well or Spring Number (e.g., M	W-1	, MW-2, etc	.)	387		388	5	389		390	
Sample Sequence	ce #				1		1		1		1	
If sample is a 1	Blank, specify Type: (F)ield, (T)rip, (M)e	thod, or (E)q	nipment	NA		NA		NA		NA	
Sample Date an	nd Time (Month/Day/Year hour:minut	tes)		1/14/2013 08	3:23	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 Samp	le ID Number (if applicable)				MW387SG2	-13	MW388S	G2-13	NA		NA	
Laboratory Sar	mple ID Number (if applicable)		C130140240	001	C130140	24002	NA		NA			
Date of Analys	te of Analysis (Month/Day/Year) For <u>Volatile Organics</u> Analysis					1	1/18/20	013	NA		NA	
Gradient with	respect to Monitored Unit (UP, DO	wn,	SIDE, UNKN	OWN)	DOWN		DOW	'N	SIDE		DOWN	
CAS RN ⁴	CONSTITUENT	Т Д 5	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL ⁶	F L G S ⁷	DETECTED VALUE OR PQL ⁶	F L G S	DETECTED VALUE OR PQL ⁶	F L G S	DETECTED VALUE OR PQL ⁶	F L A G S
24959-67-9	Bromide	т	mg/L	9056	<2		<2			*		*
16887-00-6	Chloride(s)	т	mg/L	9056	40		40			*		*
16984-48-8	Fluoride	т	mg/L	9214	0.7		0.31			*		*
s0595	Nitrate & Nitrite	т	mg/L	9056	1.1		1.1			*		*
14808-79-8	Sulfate	т	mg/L	9056	29		30			*		*
NS1894	Barometric Pressure Reading	т	Inches/Hg	Field	30.37		30.41			*		*
s0145	Specific Conductance	т	µMH0/cm	Field	526		508			*		*

¹AKGWA # is 0000-0000 for any type of blank.

²Respond "Y" if the sample was a duplicate of another sample in this report.

³Respond "Y" if the sample was split and analyzed by separate laboratories.

⁴Chemical 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. ⁷Flags 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

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

					(00110							
AKGWA NUMBER ¹	, Facility Well/Spring Number				8004-481	5	8004-481	6	8004-4812	2	8004-4811	
Facility's Lo	cal Well or Spring Number (e.g., M	V-1, 1	MW-2, BLANK-	F, etc.)	387		388		389		390	
CAS RN ⁴	CONSTITUENT	Т Д 5	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL ⁶	F L A G S	DETECTED VALUE OR PQL ⁶	F L G S	DETECTED VALUE OR PQL ⁶	F L G S	DETECTED VALUE OR PQL ⁶	F L G S
s0906	Static Water Level Elevation	т	Ft. MSL	Field	320.12		320.18			*		*
N238	Dissolved Oxygen	т	mg/L	Field	4.58		3.5			*		*
S0266	Total Dissolved Solids	т	mg/L	160.1	294		287			*		*
50296	рН	т	Units	Field	7.12		6.72			*		*
NS215	Eh	т	mV	Field	486		387			*		*
S0907	Temperature	т	°C	Field	9.39		10.17			*		*
7429-90-5	Aluminum	т	mg/L	6020	<0.2		<0.2			*		*
7440-36-0	Antimony	т	mg/L	6020	<0.005		<0.005			*		*
7440-38-2	Arsenic	т	mg/L	7060	0.00231		0.00191			*		*
7440-39-3	Barium	т	mg/L	6020	0.121		0.197			*		*
7440-41-7	Beryllium	т	mg/L	6020	<0.001	*	<0.001	*		*		*
7440-42-8	Boron	т	mg/L	6010	<0.2	В	<0.2	В		*		*
7440-43-9	Cadmium	т	mg/L	6020	<0.001		<0.001			*		*
7440-70-2	Calcium	т	mg/L	6010	35.8		31.8			*		*
7440-47-3	Chromium	т	mg/L	6020	<0.01		<0.01			*		*
7440-48-4	Cobalt	т	mg/L	6020	<0.001		<0.001			*		*
7440-50-8	Copper	т	mg/L	6020	<0.02		<0.02			*		*
7439-89-6	Iron	т	mg/L	6010	0.19		0.103			*		*
7439-92-1	Lead	т	mg/L	6020	<0.0013	В	0.00186	В		*		*
7439-95-4	Magnesium	т	mg/L	6010	14.7		13.5			*		*
7439-96-5	Manganese	т	mg/L	6020	0.0221		<0.005			*		*
7439-97-6	Mercury	т	mg/L	7470	<0.0002		<0.0002			*		*

Facility: US DOE - Paducah Gaseous Diffusion Plant FINDS/UNIT: KY8-890-008-982 / 1

Permit Number: 073-00014 & 073-00015

For Official Use Only

LAB ID: None

AKGWA NUMBER	¹ , Facility Well/Spring Number				8004-48	15	8004-48	316	8004-4812	2	8004-481	1
Facility's I	ocal Well or Spring Number (e.g.,	MW-	1, MW-2, et	tc.)	387		388		389		390	
CAS RN ⁴	CONSTITUENT	Т Д 5	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL ⁶	F L G S						
7439-98-7	Molybdenum	т	mg/L	6020	<0.001	В	<0.001	В		*		*
7440-02-0	Nickel	т	mg/L	6020	<0.005	В	0.00804			*		*
7440-09-7	Potassium	т	mg/L	6010	1.77		1.9			*		*
7440-16-6	Rhodium	т	mg/L	6020	<0.005	В	<0.005	В		*		*
7782-49-2	Selenium	т	mg/L	6020	0.00571		0.00597			*		*
7440-22-4	Silver	т	mg/L	6020	<0.001	*	<0.001	*		*		*
7440-23-5	Sodium	т	mg/L	6010	50		48.7			*		*
7440-25-7	Tantalum	т	mg/L	6020	<0.005		<0.005			*		*
7440-28-0	Thallium	т	mg/L	6020	<0.002		<0.002			*		*
7440-61-1	Uranium	т	mg/L	6020	<0.001		<0.001			*		*
7440-62-2	Vanadium	т	mg/L	6020	<0.02		<0.02			*		*
7440-66-6	Zinc	т	mg/L	6020	<0.02		<0.02			*		*
108-05-4	Vinyl acetate	т	mg/L	8260	<0.01		<0.01			*		*
67-64-1	Acetone	т	mg/L	8260	<0.01		<0.01			*		*
107-02-8	Acrolein	т	mg/L	8260	<0.01		<0.01			*		*
107-13-1	Acrylonitrile	т	mg/L	8260	<0.01		<0.01			*		*
71-43-2	Benzene	т	mg/L	8260	<0.005		<0.005			*		*
108-90-7	Chlorobenzene	т	mg/L	8260	<0.005		<0.005			*		*
1330-20-7	Xylenes	т	mg/L	8260	<0.015		<0.015			*		*
100-42-5	Styrene	т	mg/L	8260	<0.005		<0.005			*		*
108-88-3	Toluene	т	mg/L	8260	<0.005	J	<0.005	J		*		*
74-97-5	Chlorobromomethane	т	mg/L	8260	<0.005		<0.005			*		*

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

AKGWA NUMBER1,	, Facility Well/Spring Number		8004-481	5	8004-48	16	8004-481	2	8004-481	1		
Facility's Lo	cal Well or Spring Number (e.g.,)	MW-1	L, MW-2, et	.c.)	387		388		389		390	
CAS RN ⁴	CONSTITUENT	T D₅	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL ⁶	F L G S						
75-27-4	Bromodichloromethane	т	mg/L	8260	<0.005	J	<0.005	J		*		*
75-25-2	Tribromomethane	т	mg/L	8260	<0.005	J	<0.005	J		*		*
74-83-9	Methyl bromide	т	mg/L	8260	<0.005	J	<0.005	J		*		*
78-93-3	Methyl ethyl ketone	т	mg/L	8260	<0.01		<0.01			*		*
110-57-6	trans-1,4-Dichloro-2-butene	т	mg/L	8260	<0.005		<0.005			*		*
75-15-0	Carbon disulfide	т	mg/L	8260	<0.005	J	<0.005	J		*		*
75-00-3	Chloroethane	т	mg/L	8260	<0.005	*	<0.005	*		*		*
67-66-3	Chloroform	т	mg/L	8260	<0.001		<0.001			*		*
74-87-3	Methyl chloride	т	mg/L	8260	<0.005	*	<0.005	*		*		*
156-59-2	cis-1,2-Dichloroethene	т	mg/L	8260	<0.001		<0.001			*		*
74-95-3	Methylene bromide	т	mg/L	8260	<0.005	J	<0.005	J		*		*
75-34-3	1,1-Dichloroethane	т	mg/L	8260	<0.001		<0.001			*		*
107-06-2	1,2-Dichloroethane	т	mg/L	8260	<0.001		<0.001			*		*
75-35-4	1,1-Dichloroethylene	т	mg/L	8260	<0.001	J	<0.001	J		*		*
106-93-4	Ethane, 1,2-dibromo	т	mg/L	8260	<0.005		<0.005			*		*
79-34-5	Ethane, 1,1,2,2-Tetrachloro	т	mg/L	8260	<0.005		<0.005			*		*
71-55-6	Ethane, 1,1,1-Trichloro-	т	mg/L	8260	<0.001		<0.001			*		*
79-00-5	Ethane, 1,1,2-Trichloro	т	mg/L	8260	<0.001	J	<0.001	J		*		*
630-20-6	Ethane, 1,1,1,2-Tetrachloro	т	mg/L	8260	<0.005		<0.005			*		*
75-01-4	Vinyl chloride	т	mg/L	8260	<0.002	*	<0.002	*		*		*
127-18-4	Ethene, Tetrachloro-	т	mg/L	8260	<0.001		<0.001			*		*
79-01-6	Ethene, Trichloro-	т	mg/L	8260	<0.001		<0.001			*		*

Facility: US DOE - Paducah Gaseous Diffusion Plant FINDS/UNIT: <u>KY8-890-008-982</u>/1 Permit Number: 073-00014 & 073-00015

LAB ID: None For Official Use Only

AKGWA NUMBER ¹ ,	Facility Well/Spring Number				8004-4815		8004-4816		8004-481	2	8004-481	1
Facility's Loc	al Well or Spring Number (e.g., M	IW -1	L, MW-2, et	.c.)	387		388		389		390	
CAS RN ⁴	CONSTITUENT	T D₅	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL ⁶	F L G S						
100-41-4	Ethylbenzene	т	mg/L	8260	<0.005		<0.005			*		*
591-78-6	2-Hexanone	т	mg/L	8260	<0.01		<0.01			*		*
74-88-4	Iodomethane	т	mg/L	8260	<0.01		<0.01			*		*
124-48-1	Methane, Dibromochloro-	т	mg/L	8260	<0.005		<0.005			*		*
56-23-5	Carbon Tetrachloride	т	mg/L	8260	<0.001		<0.001			*		*
75-09-2	Dichloromethane	т	mg/L	8260	<0.005		<0.005			*		*
108-10-1	Methyl isobutyl ketone	т	mg/L	8260	<0.01		<0.01			*		*
96-12-8	Propane, 1,2-Dibromo-3-chloro	т	mg/L	8011	<0.0002		<0.0002			*		*
78-87-5	Propane, 1,2-Dichloro-	т	mg/L	8260	<0.005		<0.005			*		*
10061-02-6	trans-1,3-Dichloro-1-propene	т	mg/L	8260	<0.005		<0.005			*		*
10061-01-5	cis-1,3-Dichloro-1-propene	т	mg/L	8260	<0.005	J	<0.005	J		*		*
156-60-5	trans-1,2-Dichloroethene	т	mg/L	8260	<0.001		<0.001			*		*
75-69-4	Trichlorofluoromethane	т	mg/L	8260	<0.005		<0.005			*		*
96-18-4	1,2,3-Trichloropropane	т	mg/L	8260	<0.005		<0.005			*		*
95-50-1	Benzene, 1,2-Dichloro-	т	mg/L	8260	<0.005		<0.005			*		*
106-46-7	Benzene, 1,4-Dichloro-	т	mg/L	8260	<0.005		<0.005			*		*
1336-36-3	PCB,Total	т	ug/L	8082		*		*		*		*
12674-11-2	PCB-1016	т	ug/L	8082		*		*		*		*
11104-28-2	PCB-1221	т	ug/L	8082		*		*		*		*
11141-16-5	PCB-1232	т	ug/L	8082		*		*		*		*
53469-21-9	PCB-1242	т	ug/L	8082		*		*		*		*
12672-29-6	PCB-1248	т	ug/L	8082		*		*		*		*

Facility: US DOE - Paducah Gaseous Diffusion Plant FINDS/UNIT: <u>KY8-890-008-982</u>/<u>1</u> Permit Number: 073-00014 & 073-00015

LAB ID: None For Official Use Only

AKGWA NUMBER ¹ ,	Facility Well/Spring Number				8004-4815		8004-4816	6	8004-481	2	8004-481	1
Facility's Loc	al Well or Spring Number (e.g.,	MW-1	L, MW-2, et)	387		388		389		390	
CAS RN ⁴	CONSTITUENT	T D ₅	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL ⁶	F L G S						
11097-69-1	PCB-1254	т	ug/L	8082		*		*		*		*
11096-82-5	PCB-1260	т	ug/L	8082		*		*		*		*
11100-14-4	PCB-1268	т	ug/L	8082		*		*		*		*
12587-46-1	Gross Alpha	т	pCi/L	9310	-1.4	*	0.642	*		*		*
12587-47-2	Gross Beta	т	pCi/L	9310	84	*	66.3	*		*		*
10043-66-0	Iodine-131	т	pCi/L	RL-7124		*		*		*		*
13982-63-3	Radium-226	т	pCi/L	RL-7129	0.124	*	0.16	*		*		*
10098-97-2	Strontium-90	т	pCi/L	RL-7140	0.243	В	0.769	В		*		*
14133-76-7	Technetium-99	т	pCi/L	RL-7100	105	*	84.9	*		*		*
14269-63-7	Thorium-230	т	pCi/L	RL-7128	0.0764	*	-0.0429	*		*		*
10028-17-8	Tritium	т	pCi/L	704R6	396	*	680	*		*		*
s0130	Chemical Oxygen Demand	т	mg/L	410.4	<25		<25			*		*
57-12-5	Cyanide	т	mg/L	9010	<0.04		<0.04			*		*
20461-54-5	Iodide	Т	mg/L	345.1	<2		<2			*		*
s0268	Total Organic Carbon	т	mg/L	9060	1	*	1	*		*		*
s0586	Total Organic Halides	т	mg/L	9020	0.021		0.018			*		*

RESIDENTIAL/INERT-QUARTERLY Division of Waste Management Facility: US DOE - Paducah Gaseous Diffusion Plant Solid Waste Branch Permit Number:073-00014 & 073-00015 FINDS/UNIT: KY8-890-008-982 / 1 14 Reilly Road Frankfort, KY 40601 (502)564-6716 LAB ID: None

For Official Use Only

GROUNDWATER SAMPLE ANALYSIS (s)

AKGWA NUMBER ¹	, Facility Well/Spring Number				8004-480	5	8004-48	306	8004-48	307	8004-480)2
Facility's Lo	ocal Well or Spring Number (e.g., M	W-1	, MW-2, etc	.)	391		392		393		394	
Sample Sequer	nce #				1		1		1		1	
If sample is a	Blank, specify Type: (F)ield, (T)rip,	(M)e	thod, or (E)	quipment	NA		NA		NA		NA	
Sample Date a	and Time (Month/Day/Year hour: minu	tes)		1/16/2013 08	3:37	1/16/2013	12:25	1/16/2013	13:07	1/15/2013 0	9:09
Duplicate ("Y	(" or "N") ²				N		Ν		N		Ν	
Split ("Y" or	° "N") ³				Ν		Ν		N		N	
Facility Samp	ole ID Number (if applicable)				MW391SG2	-13	MW392S0	G2-13	MW393S0	G2-13	MW394SG	2-13
Laboratory Sa	ample ID Number (if applicable)		C13016007	001	C1301602	23001	C1301602	23002	C13015017	7001		
Date of Analy	rsis (Month/Day/Year) For <u>Volatile</u>	ysis	1/19/2013	3	1/19/20)13	1/19/20	13	1/19/201	3		
Gradient with	n respect to Monitored Unit (UP, DC	wn,	SIDE, UNKN	OWN)	DOWN		DOW	N	DOW	N	UP	
CAS RN ⁴	CONSTITUENT	Η D ₅	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL ⁶	F L G S ⁷	DETECTED VALUE OR PQL ⁶	F L G S	DETECTED VALUE OR PQL ⁶	F L G S	DETECTED VALUE OR PQL ⁶	F L G S
24959-67-9	Bromide	т	mg/L	9056	<2		<2		<2		<2	
16887-00-6	Chloride(s)	т	mg/L	9056	47		47		17		55	
16984-48-8	Fluoride	т	mg/L	9214	0.14		0.19		0.15		0.14	
s0595	Nitrate & Nitrite	т	mg/L	9056	1		<1		<1		1.3	
14808-79-8	Sulfate	т	mg/L	9056	14		7.4		11		10	
NS1894	Barometric Pressure Reading	т	Inches/Hg	Field	30.1		30.1		30.1		30.29	
S0145	Specific Conductance	т	µMH0/cm	Field	390		360		394		398	

¹AKGWA # is 0000-0000 for any type of blank.

²Respond "Y" if the sample was a duplicate of another sample in this report.

³Respond "Y" if the sample was split and analyzed by separate laboratories.

⁴Chemical 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. ⁷Flags 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

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

					(00110							
AKGWA NUMBER ¹ ,	Facility Well/Spring Number				8004-480	5	8004-480	6	8004-4807	7	8004-4802	
Facility's Lo	cal Well or Spring Number (e.g., MV	N-1, 1	MW-2, BLANK-	F, etc.)	391		392		393		394	
CAS RN ⁴	CONSTITUENT	Т Д 5	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL ⁶	F L G S						
s0906	Static Water Level Elevation	т	Ft. MSL	Field	320.41		320.49		336.84		320.36	
N238	Dissolved Oxygen	т	mg/L	Field	4.1		1.45		1.2		3.81	
s0266	Total Dissolved Solids	т	mg/L	160.1	208		202		246		218	
s0296	рн	т	Units	Field	6.17		6.25		6.3		6.05	
NS215	Eh	т	mV	Field	831		586		450		641	
s0907	Temperature	т	°C	Field	13.06		13.28		14.44		14.39	
7429-90-5	Aluminum	т	mg/L	6020	<0.2		<0.2		<0.2		<0.2	
7440-36-0	Antimony	т	mg/L	6020	<0.005		<0.005		<0.005		<0.005	
7440-38-2	Arsenic	т	mg/L	7060	<0.001		0.00115		0.00233		0.00103	
7440-39-3	Barium	т	mg/L	6020	0.247		0.217		0.106		0.233	
7440-41-7	Beryllium	т	mg/L	6020	<0.001	*	<0.001	*	<0.001	*	<0.001	*
7440-42-8	Boron	т	mg/L	6010	<0.2	В	<0.2	В	<0.2	В	<0.2	В
7440-43-9	Cadmium	т	mg/L	6020	<0.001		<0.001		<0.001		<0.001	
7440-70-2	Calcium	т	mg/L	6010	25.3		24.9		10.4		27	
7440-47-3	Chromium	т	mg/L	6020	<0.01	В	<0.01	В	<0.01	В	<0.01	В
7440-48-4	Cobalt	т	mg/L	6020	<0.001		<0.001		<0.001		<0.001	
7440-50-8	Copper	т	mg/L	6020	<0.02		<0.02		<0.02		<0.02	
7439-89-6	Iron	т	mg/L	6010	0.469		0.139		1.92		0.154	
7439-92-1	Lead	т	mg/L	6020	<0.0013	В	<0.0013	В	<0.0013	В	<0.0013	В
7439-95-4	Magnesium	т	mg/L	6010	10.4		9.53		2.96		11.2	
7439-96-5	Manganese	т	mg/L	6020	0.00572		0.103		0.031		0.0176	
7439-97-6	Mercury	т	mg/L	7470	<0.0002		<0.0002		<0.0002		<0.0002	

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

AKGWA NUMBER	, Facility Well/Spring Number				8004-480	05	8004-48	306	8004-48	07	8004-48	802
Facility's L	ocal Well or Spring Number (e.g.,	MW-	1, MW-2, et	tc.)	391		392		393		394	
CAS RN ⁴	CONSTITUENT	Т Д 5	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL ⁶	F L A G S	DETECTED VALUE OR PQL ⁶	F L G S	DETECTED VALUE OR PQL ⁶	F L A G S	DETECTED VALUE OR PQL ⁶	F L G S
7439-98-7	Molybdenum	т	mg/L	6020	<0.001	В	<0.001	В	<0.001	В	<0.001	В
7440-02-0	Nickel	т	mg/L	6020	<0.005	В	<0.005	В	<0.005	В	<0.005	В
7440-09-7	Potassium	т	mg/L	6010	1.43		1.73		0.366		0.997	
7440-16-6	Rhodium	т	mg/L	6020	<0.005	В	<0.005	В	<0.005	В	<0.005	В
7782-49-2	Selenium	т	mg/L	6020	0.00711		0.00534		<0.005		0.00749	
7440-22-4	Silver	т	mg/L	6020	<0.001	*	<0.001	*	<0.001	*	<0.001	*
7440-23-5	Sodium	т	mg/L	6010	31.6		28.8		72.3		30.7	
7440-25-7	Tantalum	т	mg/L	6020	<0.005		<0.005		<0.005		<0.005	
7440-28-0	Thallium	т	mg/L	6020	<0.002		<0.002		<0.002		<0.002	
7440-61-1	Uranium	т	mg/L	6020	<0.001		<0.001		<0.001		<0.001	
7440-62-2	Vanadium	т	mg/L	6020	<0.02	В	<0.02	В	<0.02	В	<0.02	В
7440-66-6	Zinc	т	mg/L	6020	<0.02		<0.02		<0.02		<0.02	
108-05-4	Vinyl acetate	т	mg/L	8260	<0.01		<0.01		<0.01		<0.01	
67-64-1	Acetone	т	mg/L	8260	<0.01	*	<0.01	*	<0.01	*	<0.01	
107-02-8	Acrolein	т	mg/L	8260	<0.01		<0.01		<0.01		<0.01	
107-13-1	Acrylonitrile	т	mg/L	8260	<0.01	*	<0.01	*	<0.01	*	<0.005	
71-43-2	Benzene	т	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	
108-90-7	Chlorobenzene	т	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	
1330-20-7	Xylenes	т	mg/L	8260	<0.015		<0.015		<0.015		<0.015	
100-42-5	Styrene	т	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	
108-88-3	Toluene	т	mg/L	8260	<0.005		<0.005		<0.005		<0.005	J
74-97-5	Chlorobromomethane	т	mg/L	8260	<0.005		<0.005		<0.005		<0.005	

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

AKGWA NUMBER1	WA NUMBER ¹ , Facility Well/Spring Number						8004-480	06	8004-4	807	8004-4	802
Facility's Lo	cal Well or Spring Number (e.g.,	MW-1	1, MW-2, et	.c.)	391		392		393	5	394	ŧ
CAS RN ⁴	CONSTITUENT	T D₅	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL ⁶	F L G S	DETECTED VALUE OR PQL ⁶	F L G S	DETECTED VALUE OR PQL ⁶	F L A G S	DETECTED VALUE OR PQL ⁶	F L A G S
75-27-4	Bromodichloromethane	т	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	J
75-25-2	Tribromomethane	т	mg/L	8260	<0.005	*J	<0.005	*J	<0.005	*J	<0.005	J
74-83-9	Methyl bromide	т	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	J
78-93-3	Methyl ethyl ketone	т	mg/L	8260	<0.01		<0.01		<0.01		<0.01	
110-57-6	trans-1,4-Dichloro-2-butene	т	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	
75-15-0	Carbon disulfide	т	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	J
75-00-3	Chloroethane	т	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	*
67-66-3	Chloroform	т	mg/L	8260	<0.001	*	<0.001	*	<0.001	*	<0.001	
74-87-3	Methyl chloride	т	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	*
156-59-2	cis-1,2-Dichloroethene	т	mg/L	8260	<0.001	*	<0.001	*	<0.001	*	<0.001	
74-95-3	Methylene bromide	т	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	J
75-34-3	1,1-Dichloroethane	т	mg/L	8260	<0.001	*	<0.001	*	<0.001	*	<0.001	
107-06-2	1,2-Dichloroethane	т	mg/L	8260	<0.001	*	<0.001	*	<0.001	*	<0.001	
75-35-4	1,1-Dichloroethylene	т	mg/L	8260	<0.001		<0.001		<0.001		<0.001	J
106-93-4	Ethane, 1,2-dibromo	т	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	J
79-34-5	Ethane, 1,1,2,2-Tetrachloro	т	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	
71-55-6	Ethane, 1,1,1-Trichloro-	т	mg/L	8260	<0.001	*	<0.001	*	<0.001	*	<0.001	
79-00-5	Ethane, 1,1,2-Trichloro	т	mg/L	8260	<0.001	*	<0.001	*	<0.001	*	<0.001	J
630-20-6	Ethane, 1,1,1,2-Tetrachloro	т	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	
75-01-4	Vinyl chloride	т	mg/L	8260	<0.002	*	<0.002	*	<0.002	*	<0.002	*
127-18-4	Ethene, Tetrachloro-	т	mg/L	8260	<0.001	*	<0.001	*	<0.001	*	<0.001	
79-01-6	Ethene, Trichloro-	т	mg/L	8260	0.013	*	0.013	*	<0.001	*	0.0068	

Facility: US DOE - Paducah Gaseous Diffusion Plant FINDS/UNIT: <u>KY8-890-008-982</u>/1 Permit Number: 073-00014 & 073-00015

LAB ID: None For Official Use Only

AKGWA NUMBER ¹ ,	Facility Well/Spring Number				8004-480	5	8004-480	6	8004-48	07	8004-48	02
Facility's Lo	cal Well or Spring Number (e.g., M	4W-1	L, MW-2, et	.c.)	391		392		393		394	
CAS RN ⁴	CONSTITUENT	T D₅	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL ⁶	F L G S	DETECTED VALUE OR PQL ⁶	F L A G S	DETECTED VALUE OR PQL ⁶	F L A G S	DETECTED VALUE OR PQL ⁶	F L G S
100-41-4	Ethylbenzene	т	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	
591-78-6	2-Hexanone	т	mg/L	8260	<0.01	*	<0.01	*	<0.01	*	<0.01	
74-88-4	Iodomethane	т	mg/L	8260	<0.01	*	<0.01	*	<0.01	*	<0.01	
124-48-1	Methane, Dibromochloro-	т	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	J
56-23-5	Carbon Tetrachloride	т	mg/L	8260	<0.001	*	<0.001	*	<0.001	*	<0.001	
75-09-2	Dichloromethane	т	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	
108-10-1	Methyl isobutyl ketone	т	mg/L	8260	<0.01	*	<0.01	*	<0.01	*	<0.01	
96-12-8	Propane, 1,2-Dibromo-3-chloro	т	mg/L	8011	<0.0002		<0.0002		<0.0002		<0.0002	
78-87-5	Propane, 1,2-Dichloro-	т	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	
10061-02-6	trans-1,3-Dichloro-1-propene	т	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	
10061-01-5	cis-1,3-Dichloro-1-propene	т	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	J
156-60-5	trans-1,2-Dichloroethene	т	mg/L	8260	<0.001	*	<0.001	*	<0.001	*	<0.001	
75-69-4	Trichlorofluoromethane	т	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	
96-18-4	1,2,3-Trichloropropane	т	mg/L	8260	0.016	*	<0.005	*	<0.005	*	<0.005	
95-50-1	Benzene, 1,2-Dichloro-	т	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	
106-46-7	Benzene, 1,4-Dichloro-	т	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	
1336-36-3	PCB,Total	т	ug/L	8082		*		*		*		*
12674-11-2	PCB-1016	т	ug/L	8082		*		*		*		*
11104-28-2	PCB-1221	т	ug/L	8082		*		*		*		*
11141-16-5	PCB-1232	т	ug/L	8082		*		*		*		*
53469-21-9	PCB-1242	т	ug/L	8082		*		*		*		*
12672-29-6	PCB-1248	т	ug/L	8082		*		*		*		*

Facility: US DOE - Paducah Gaseous Diffusion Plant FINDS/UNIT: <u>KY8-890-008-982</u>/<u>1</u> Permit Number: 073-00014 & 073-00015

LAB ID: None For Official Use Only

AKGWA NUMBER ¹ ,	Facility Well/Spring Number				8004-4805		8004-4806	;	8004-480)7	8004-480	02
Facility's Loc	al Well or Spring Number (e.g.,	MW-1	L, MW-2, et	.c.)	391		392		393		394	
CAS RN ⁴	CONSTITUENT	T D ₅	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL ⁶	F L G S						
11097-69-1	PCB-1254	т	ug/L	8082		*		*		*		*
11096-82-5	PCB-1260	т	ug/L	8082		*		*		*		*
11100-14-4	PCB-1268	т	ug/L	8082		*		*		*		*
12587-46-1	Gross Alpha	т	pCi/L	9310	-0.416	*	-0.716	*	0.734	*	-0.362	*
12587-47-2	Gross Beta	т	pCi/L	9310	3.09	*	3.38	*	1.21	*	2.54	*
10043-66-0	Iodine-131	т	pCi/L	RL-7124		*		*		*		*
13982-63-3	Radium-226	т	pCi/L	RL-7129	0.173	*	0.109	*	0.156	*	0.296	*
10098-97-2	Strontium-90	т	pCi/L	RL-7140	0.728	В	-0.00346	В	0.451	В	0.0726	В
14133-76-7	Technetium-99	т	pCi/L	RL-7100	7.56	*	17.3	*	-8.51	*	-0.751	*
14269-63-7	Thorium-230	т	pCi/L	RL-7128	0.0311	*	0.0163	*	-0.00227	*	-0.015	*
10028-17-8	Tritium	т	pCi/L	704R6	382	*	460	*	572	*	237	*
s0130	Chemical Oxygen Demand	т	mg/L	410.4	<25		<25		<25		<25	
57-12-5	Cyanide	т	mg/L	9010	<0.04		<0.04		<0.04		<0.04	
20461-54-5	Iodide	т	mg/L	345.1	<2		<2		<2		<2	
s0268	Total Organic Carbon	т	mg/L	9060	<1		<1		3.2		<1	*
s0586	Total Organic Halides	т	mg/L	9020	0.032		0.037		0.035		0.02	

Division of Waste Management **RESIDENTIAL/INERT-QUARTERLY** Facility: US DOE - Paducah Gaseous Diffusion Plant Solid Waste Branch Permit Number:073-00014 & 073-00015 FINDS/UNIT: KY8-890-008-982 / 1 14 Reilly Road Frankfort, KY 40601 (502)564-6716 LAB ID: None

For Official Use Only

GROUNDWATER SAMPLE ANALYSIS (s)

AKGWA NUMBER ¹ ,	Facility Well/Spring Number				8004-4801		8004-48	803	8004-48	17	0000-000	0
Facility's Loc	cal Well or Spring Number (e.g., M	ſ₩-1	L, MW-2, etc	.)	395		396		397		E. BLAN	к
Sample Sequence	ce #				1		1		1		1	
If sample is a 1	Blank, specify Type: (F)ield, (T)rip,	(M)e	ethod, or (E)q	quipment	NA		NA		NA		E	
Sample Date an	nd Time (Month/Day/Year hour: minu	tes)		1/15/2013 13	8:05	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 Samp	acility Sample ID Number (if applicable)					MW395SG2-13			MW397S0	62-13	RI1SG2-	13
Laboratory Sar	Laboratory Sample ID Number (if applicable)					003	C1301503	86002	C1301501	7002	C13016006	001
Date of Analys	Date of Analysis (Month/Day/Year) For <u>Volatile Organics</u> Analysis						1/19/20	13	1/19/20	13	01/19/201	13
Gradient with	respect to Monitored Unit (UP, DO)WN,	, SIDE, UNKN	OWN)	UP		UP		UP		NA	
CAS RN ⁴	CONSTITUENT	Т Д 5	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL ⁶	F L A G S ⁷	DETECTED VALUE OR PQL ⁶	F L G S	DETECTED VALUE OR PQL ⁶	F L G S	DETECTED VALUE OR PQL ⁶	F L G S
24959-67-9	Bromide	т	mg/L	9056	<2		<2		<2			*
16887-00-6	Chloride(s)	т	mg/L	9056	52		87		44			*
16984-48-8	Fluoride	т	mg/L	9214	0.12		0.58		0.14			*
\$0595	Nitrate & Nitrite	т	mg/L	9056	1.7		<1		1.7			*
14808-79-8	Sulfate	т	mg/L	9056	10		20		12			*
NS1894	Barometric Pressure Reading	т	Inches/Hg	Field	30.29		30.29		30.29			*
s0145	Specific Conductance	т	µMH0/cm	Field	384		806		320			*

¹AKGWA # is 0000-0000 for any type of blank.

²Respond "Y" if the sample was a duplicate of another sample in this report.

³Respond "Y" if the sample was split and analyzed by separate laboratories.

⁴Chemical 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. ⁷Flags 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

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

							-					
AKGWA NUMBER ¹	, Facility Well/Spring Number				8004-480	1	8004-480	3	8004-4817	7	0000-0000	
Facility's Lo	cal Well or Spring Number (e.g., M	V-1, 1	MW-2, BLANK-	F, etc.)	395		396		397		E. BLANK	
CAS RN ⁴	CONSTITUENT	T D 5	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL ⁶	F L G S	DETECTED VALUE OR PQL ⁶	F L G S	DETECTED VALUE OR PQL ⁶	F L G S	DETECTED VALUE OR PQL ⁶	F L A G S
s0906	Static Water Level Elevation	т	Ft. MSL	Field	320.81		363.61		320.27			*
N238	Dissolved Oxygen	т	mg/L	Field	4.17		1.39		5.92			*
S0266	Total Dissolved Solids	т	mg/L	160.1	234		464		195			*
50296	рН	т	Units	Field	6.06		6.46		6			*
NS215	Eh	т	mV	Field	527		298		823			*
s0907	Temperature	т	°C	Field	13.44		13.83		12.33			*
7429-90-5	Aluminum	т	mg/L	6020	<0.2		<0.2		0.271		<0.2	
7440-36-0	Antimony	т	mg/L	6020	<0.005		<0.005		<0.005		<0.005	
7440-38-2	Arsenic	т	mg/L	7060	<0.001		0.00173		<0.001		<0.001	
7440-39-3	Barium	т	mg/L	6020	0.257		0.418		0.135		<0.005	
7440-41-7	Beryllium	т	mg/L	6020	<0.001	*	<0.001	*	<0.001	*	<0.001	*
7440-42-8	Boron	т	mg/L	6010	<0.2	В	<0.2	В	<0.2	В	<0.2	В
7440-43-9	Cadmium	т	mg/L	6020	<0.001		<0.001		<0.001		<0.001	
7440-70-2	Calcium	т	mg/L	6010	26.8		38.2		19.5		<1	В
7440-47-3	Chromium	т	mg/L	6020	<0.01	В	<0.01	В	<0.01	В	<0.01	В
7440-48-4	Cobalt	т	mg/L	6020	<0.001		0.00234		<0.001		<0.001	
7440-50-8	Copper	т	mg/L	6020	<0.02		<0.02		<0.02		<0.02	
7439-89-6	Iron	т	mg/L	6010	<0.1		2.17		0.404		<0.1	
7439-92-1	Lead	т	mg/L	6020	<0.0013	В	<0.0013	В	0.00132	В	<0.0013	В
7439-95-4	Magnesium	т	mg/L	6010	11.1		16.2		7.99		<0.025	В
7439-96-5	Manganese	т	mg/L	6020	<0.005		0.507		0.0122		<0.005	
7439-97-6	Mercury	т	mg/L	7470	<0.0002		<0.0002		<0.0002		<0.0002	

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

AKGWA NUMBER	¹ , Facility Well/Spring Number				8004-480	01	8004-48	803	8004-48	17	0000-00	00
Facility's L	ocal Well or Spring Number (e.g.,	MW-	1, MW-2, et	tc.)	395		396		397		E. BLAI	٩K
CAS RN ⁴	CONSTITUENT	T D 5	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL ⁶	F L G S						
7439-98-7	Molybdenum	т	mg/L	6020	<0.001	В	<0.001	В	<0.001	В	<0.001	В
7440-02-0	Nickel	т	mg/L	6020	<0.005	В	<0.005	В	<0.005	В	<0.005	В
7440-09-7	Potassium	т	mg/L	6010	1.47		0.844		1.81		<0.2	
7440-16-6	Rhodium	т	mg/L	6020	<0.005	В	<0.005	В	<0.005	В	<0.005	В
7782-49-2	Selenium	т	mg/L	6020	0.00667		0.00814		0.00636		<0.005	
7440-22-4	Silver	т	mg/L	6020	<0.001	*	<0.001	*	<0.001	*	<0.001	*
7440-23-5	Sodium	т	mg/L	6010	27.1		108		31.8		<1	
7440-25-7	Tantalum	т	mg/L	6020	<0.005		<0.005		<0.005		<0.005	
7440-28-0	Thallium	т	mg/L	6020	<0.002		<0.002		<0.002		<0.002	
7440-61-1	Uranium	т	mg/L	6020	<0.001		<0.001		<0.001		<0.001	
7440-62-2	Vanadium	т	mg/L	6020	<0.02	В	<0.02	В	<0.02	В	<0.02	В
7440-66-6	Zinc	т	mg/L	6020	<0.02		<0.02		<0.02		<0.02	
108-05-4	Vinyl acetate	т	mg/L	8260	<0.01		<0.01		<0.01		<0.01	
67-64-1	Acetone	т	mg/L	8260	<0.01	*	<0.01	*	<0.01	*	<0.01	*
107-02-8	Acrolein	т	mg/L	8260	<0.01		<0.01		<0.01		<0.01	
107-13-1	Acrylonitrile	т	mg/L	8260	<0.01	*	<0.01	*	<0.01	*	<0.01	*
71-43-2	Benzene	т	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	*
108-90-7	Chlorobenzene	т	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	*
1330-20-7	Xylenes	т	mg/L	8260	<0.015		<0.015		<0.015		<0.015	
100-42-5	Styrene	т	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	*
108-88-3	Toluene	т	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
74-97-5	Chlorobromomethane	т	mg/L	8260	<0.005		<0.005		<0.005		<0.005	

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

AKGWA NUMBER1,	WA NUMBER ¹ , Facility Well/Spring Number						8004-480	03	8004-48	817	0000-0	000
Facility's Lo	cal Well or Spring Number (e.g.,	MW-1	L, MW-2, et	.c.)	395		396		397		E. BLA	NK
CAS RN ⁴	CONSTITUENT	T D₅	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL ⁶	F L G S						
75-27-4	Bromodichloromethane	т	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	*
75-25-2	Tribromomethane	т	mg/L	8260	<0.005	*J	<0.005	*J	<0.005	*J	<0.005	*J
74-83-9	Methyl bromide	т	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	*
78-93-3	Methyl ethyl ketone	т	mg/L	8260	<0.01		<0.01		<0.01		<0.01	
110-57-6	trans-1,4-Dichloro-2-butene	т	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	*
75-15-0	Carbon disulfide	т	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	*
75-00-3	Chloroethane	т	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	*
67-66-3	Chloroform	т	mg/L	8260	<0.001	*	<0.001	*	<0.001	*	<0.001	*
74-87-3	Methyl chloride	т	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	*
156-59-2	cis-1,2-Dichloroethene	т	mg/L	8260	<0.001	*	<0.001	*	<0.001	*	<0.001	*
74-95-3	Methylene bromide	т	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	*
75-34-3	1,1-Dichloroethane	т	mg/L	8260	<0.001	*	<0.001	*	<0.001	*	<0.001	*
107-06-2	1,2-Dichloroethane	т	mg/L	8260	<0.001	*	<0.001	*	<0.001	*	<0.001	*
75-35-4	1,1-Dichloroethylene	т	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
106-93-4	Ethane, 1,2-dibromo	т	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	*
79-34-5	Ethane, 1,1,2,2-Tetrachloro	т	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	*
71-55-6	Ethane, 1,1,1-Trichloro-	т	mg/L	8260	<0.001	*	<0.001	*	<0.001	*	<0.001	*
79-00-5	Ethane, 1,1,2-Trichloro	т	mg/L	8260	<0.001	*	<0.001	*	<0.001	*	<0.001	*
630-20-6	Ethane, 1,1,1,2-Tetrachloro	т	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	*
75-01-4	Vinyl chloride	т	mg/L	8260	<0.002	*	<0.002	*	<0.002	*	<0.002	*
127-18-4	Ethene, Tetrachloro-	т	mg/L	8260	<0.001	*	<0.001	*	<0.001	*	<0.001	*
79-01-6	Ethene, Trichloro-	т	mg/L	8260	0.0036	*	<0.001	*	<0.001	*	<0.001	*

Facility: US DOE - Paducah Gaseous Diffusion Plant FINDS/UNIT: <u>KY8-890-008-982</u>/1 Permit Number: 073-00014 & 073-00015

LAB ID: None For Official Use Only

AKGWA NUMBER ¹ ,	Facility Well/Spring Number				8004-480	1	8004-480	3	8004-48	17	0000-00	00
Facility's Loo	cal Well or Spring Number (e.g., M	w-1	1, MW-2, et	.c.)	395		396		397		E. BLAI	١K
CAS RN ⁴	CONSTITUENT	T D₅	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL ⁶	F L A G S	DETECTED VALUE OR PQL ⁶	F L G S	DETECTED VALUE OR PQL ⁶	F L A G S	DETECTED VALUE OR PQL ⁶	F L G S
100-41-4	Ethylbenzene	т	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	*
591-78-6	2-Hexanone	т	mg/L	8260	<0.01	*	<0.01	*	<0.01	*	<0.01	*
74-88-4	Iodomethane	т	mg/L	8260	<0.01	*	<0.01	*	<0.01	*	<0.01	*
124-48-1	Methane, Dibromochloro-	т	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	*
56-23-5	Carbon Tetrachloride	т	mg/L	8260	<0.001	*	<0.001	*	<0.001	*	<0.001	*
75-09-2	Dichloromethane	т	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	*
108-10-1	Methyl isobutyl ketone	т	mg/L	8260	<0.01	*	<0.01	*	<0.01	*	<0.01	*
96-12-8	Propane, 1,2-Dibromo-3-chloro	т	mg/L	8011	<0.0002		<0.0002		<0.0002		<0.0002	
78-87-5	Propane, 1,2-Dichloro-	т	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	*
10061-02-6	trans-1,3-Dichloro-1-propene	т	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	*
10061-01-5	cis-1,3-Dichloro-1-propene	т	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	*
156-60-5	trans-1,2-Dichloroethene	т	mg/L	8260	<0.001	*	<0.001	*	<0.001	*	<0.001	*
75-69-4	Trichlorofluoromethane	т	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	*
96-18-4	1,2,3-Trichloropropane	т	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	*
95-50-1	Benzene, 1,2-Dichloro-	т	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	*
106-46-7	Benzene, 1,4-Dichloro-	т	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	*
1336-36-3	PCB,Total	т	ug/L	8082		*		*		*		*
12674-11-2	PCB-1016	т	ug/L	8082		*		*		*		*
11104-28-2	PCB-1221	т	ug/L	8082		*		*		*		*
11141-16-5	PCB-1232	т	ug/L	8082		*		*		*		*
53469-21-9	PCB-1242	т	ug/L	8082		*		*		*		*
12672-29-6	PCB-1248	т	ug/L	8082		*		*		*		*

Facility: US DOE - Paducah Gaseous Diffusion Plant FINDS/UNIT: <u>KY8-890-008-982</u>/<u>1</u> Permit Number: 073-00014 & 073-00015

LAB ID: None For Official Use Only

AKGWA NUMBER ¹ ,	Facility Well/Spring Number				8004-4801		8004-4803	}	8004-481	7	0000-000	00
Facility's Loc	al Well or Spring Number (e.g.,	MW-1	1, MW-2, et	.c.)	395		396		397		E. BLAN	ΙK
CAS RN ⁴	CONSTITUENT	Т Д 5	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL ⁶	F L G S						
11097-69-1	PCB-1254	т	ug/L	8082		*		*		*		*
11096-82-5	PCB-1260	т	ug/L	8082		*		*		*		*
11100-14-4	PCB-1268	т	ug/L	8082		*		*		*		*
12587-46-1	Gross Alpha	т	pCi/L	9310	-0.78	*	-1	*	0.119	*	0.805	*
12587-47-2	Gross Beta	т	pCi/L	9310	6.85	*	1.3	*	14	*	-0.0493	*
10043-66-0	Iodine-131	т	pCi/L	RL-7124		*		*		*		*
13982-63-3	Radium-226	т	pCi/L	RL-7129	0.308	*	0.144	*	0.297	*	-0.0305	*
10098-97-2	Strontium-90	т	pCi/L	RL-7140	0.937	в	-0.298	В	-0.522	В	0.395	В
14133-76-7	Technetium-99	т	pCi/L	RL-7100	-4.1	*	3.9	*	6.96	*	-7.11	*
14269-63-7	Thorium-230	т	pCi/L	RL-7128	0.0749	*	-0.0262	*	-0.0107	*	0.0152	*
10028-17-8	Tritium	т	pCi/L	704R6	638	*	251	*	404	*	157	*
s0130	Chemical Oxygen Demand	т	mg/L	410.4	<25		26		<25			*
57-12-5	Cyanide	т	mg/L	9010	<0.04		<0.04		<0.04			*
20461-54-5	Iodide	т	mg/L	345.1	<2		<2		<2		<2	
S0268	Total Organic Carbon	т	mg/L	9060	<1		8.3	*	<1	*		*
s0586	Total Organic Halides	т	mg/L	9020	0.015		0.21		0.014			*

Division of Waste Management	RESIDENTIAL/INERT-QUARTERLY
Solid Waste Branch	Facility: US DOE – Paducah Gaseous Diffusion Plant
14 Reilly Road	Permit Number:073-00014 & 073-00015 FINDS/UNIT: KY8-890-008-982 / 1
Frankfort, KY 40601 (502)564-67	T16 LAB ID: None

For Official Use Only

GROUNDWATER SAMPLE ANALYSIS (S)

AKGWA NUMBER ¹ ,	Facility Well/Spring Number				000-000	00	0000-00	00	0000-000	00	0000-000	0
Facility's Loca	al Well or Spring Number (e.g., M	W-1	., MW-2, etc	.)	F. BLAN	к	T. BLAN	K 1	T. BLANI	٢2	T. BLANK	3
Sample Sequence	e #				1		1		1		1	
If sample is a B	lank, specify Type: (F)ield, (T)rip,	(M)e	thod, or (E)	quipment	F		Т		Т		Т	
Sample Date and	d Time (Month/Day/Year hour: minu	tes)		1/16/2013 1	2:15	1/14/2013 (06:45	1/15/2013 (6:45	1/15/2013 0	7:00
Duplicate ("Y"	or "N") ²				Ν		Ν		Ν		N	
Split ("Y" or '	"N") ³				Ν		N		Ν		N	
Facility Sample	Facility Sample ID Number (if applicable)						FB1SG2-13 TB1SG2-13		TB2SG2-13		TB3SG2-	13
Laboratory Sam		C13016024001 C13014			23001 C13015039		9001	C13015039	002			
Date of Analys:	is (Month/Day/Year) For <u>Volatile</u>	e Or	ganics Anal	ysis	01/19/2013		01/18/20	13	01/19/20	13	1/19/201	3
Gradient with n	respect to Monitored Unit (UP, DC	wn,	SIDE, UNKN	OWN)	NA		NA		NA		NA	
CAS RN ⁴	CONSTITUENT	H D₅	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL ⁶	F L G S ⁷	DETECTED VALUE OR PQL ⁶	F L G S	DETECTED VALUE OR PQL ⁶	F L G S	DETECTED VALUE OR PQL ⁶	F L G S
24959-67-9	Bromide	т	mg/L	9056		*		*		*		*
16887-00-6	Chloride(s)	т	mg/L	9056		*		*		*		*
16984-48-8	Fluoride	т	mg/L	9214		*		*		*		*
s0595	Nitrate & Nitrite	т	mg/L	9056		*		*		*		*
14808-79-8	Sulfate	т	mg/L	9056		*		*		*		*
NS1894	Barometric Pressure Reading	т	Inches/Hg	Field		*		*		*		*
S0145	Specific Conductance	Т	µMH0/cm	Field		*		*		*		*

¹AKGWA # is 0000-0000 for any type of blank.

²Respond "Y" if the sample was a duplicate of another sample in this report.

³Respond "Y" if the sample was split and analyzed by separate laboratories.

⁴Chemical 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. ⁷Flags 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

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

			(00110	/									
AKGWA NUMBER ¹ , Facility Well/Spring Number Facility's Local Well or Spring Number (e.g., MW-1, MW-2, BLANK-F, etc.)					0000-0000 F. BLANK		0000-0000 T. BLANK 1		0000-0000	0000-0000		0000-0000	
									T. BLANK 2		T. BLANK 3		
CAS RN ⁴	CONSTITUENT	Т Д 5	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL ⁶	F L G S	DETECTED VALUE OR PQL ⁶	F L G S	DETECTED VALUE OR PQL ⁶	F L G S	DETECTED VALUE OR PQL ⁶	F L A G S	
s0906	Static Water Level Elevation	т	Ft. MSL	Field		*		*		*		*	
N238	Dissolved Oxygen	т	mg/L	Field		*		*		*		*	
S0266	Total Dissolved Solids	т	mg/L	160.1		*		*		*		*	
s0296	рН	т	Units	Field		*		*		*		*	
NS215	Eh	т	mV	Field		*		*		*		*	
s0907	Temperature	т	°C	Field		*		*		*		*	
7429-90-5	Aluminum	т	mg/L	6020	<0.2			*		*		*	
7440-36-0	Antimony	т	mg/L	6020	<0.005			*		*		*	
7440-38-2	Arsenic	т	mg/L	7060	<0.001			*		*		*	
7440-39-3	Barium	т	mg/L	6020	<0.005			*		*		*	
7440-41-7	Beryllium	т	mg/L	6020	<0.001	*		*		*		*	
7440-42-8	Boron	т	mg/L	6010	<0.2	В		*		*		*	
7440-43-9	Cadmium	т	mg/L	6020	<0.001			*		*		*	
7440-70-2	Calcium	т	mg/L	6010	<1	В		*		*		*	
7440-47-3	Chromium	т	mg/L	6020	<0.01	В		*		*		*	
7440-48-4	Cobalt	т	mg/L	6020	<0.001			*		*		*	
7440-50-8	Copper	т	mg/L	6020	<0.02			*		*		*	
7439-89-6	Iron	т	mg/L	6010	<0.1			*		*		*	
7439-92-1	Lead	т	mg/L	6020	<0.0013	В		*		*		*	
7439-95-4	Magnesium	т	mg/L	6010	<0.025	В		*		*		*	
7439-96-5	Manganese	т	mg/L	6020	<0.005			*		*		*	
7439-97-6	Mercury	т	mg/L	7470	<0.0002			*		*		*	

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

AKGWA NUMBER	¹ , Facility Well/Spring Number				0000-000	00	0000-00	000	0000-00	00	0000-00	00
Facility's L	ocal Well or Spring Number (e.g.,	MW-	1, MW-2, et	tc.)	F. BLAN	IK	T. BLAN	IK 1	T. BLAN	K 2	T. BLAN	К 3
CAS RN ⁴	CONSTITUENT	Т Д 5	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL ⁶	F L A G S	DETECTED VALUE OR PQL ⁶	F L A G S	DETECTED VALUE OR PQL ⁶	F L A G S	DETECTED VALUE OR PQL ⁶	F L G S
7439-98-7	Molybdenum	т	mg/L	6020	<0.001	В		*		*		*
7440-02-0	Nickel	т	mg/L	6020	<0.005	В		*		*		*
7440-09-7	Potassium	т	mg/L	6010	<0.2			*		*		*
7440-16-6	Rhodium	т	mg/L	6020	<0.005	В		*		*		*
7782-49-2	Selenium	т	mg/L	6020	<0.005			*		*		*
7440-22-4	Silver	т	mg/L	6020	<0.001	*		*		*		*
7440-23-5	Sodium	т	mg/L	6010	<1			*		*		*
7440-25-7	Tantalum	т	mg/L	6020	<0.005			*		*		*
7440-28-0	Thallium	т	mg/L	6020	<0.002			*		*		*
7440-61-1	Uranium	т	mg/L	6020	<0.001			*		*		*
7440-62-2	Vanadium	т	mg/L	6020	<0.02	В		*		*		*
7440-66-6	Zinc	т	mg/L	6020	<0.02			*		*		*
108-05-4	Vinyl acetate	т	mg/L	8260	<0.01		<0.01		<0.01		<0.01	
67-64-1	Acetone	т	mg/L	8260	<0.01	*	<0.01		<0.01	*	<0.01	*
107-02-8	Acrolein	т	mg/L	8260	<0.01		<0.01		<0.01		<0.01	
107-13-1	Acrylonitrile	т	mg/L	8260	<0.01	*	<0.01		<0.01	*	<0.01	*
71-43-2	Benzene	т	mg/L	8260	<0.005	*	<0.005		<0.005	*	<0.005	*
108-90-7	Chlorobenzene	т	mg/L	8260	<0.005	*	<0.005		<0.005	*	<0.005	*
1330-20-7	Xylenes	т	mg/L	8260	<0.015		<0.015		<0.015		<0.015	
100-42-5	Styrene	т	mg/L	8260	<0.005	*	<0.005		<0.005	*	<0.005	*
108-88-3	Toluene	т	mg/L	8260	<0.005		<0.005	J	<0.005		<0.005	
74-97-5	Chlorobromomethane	т	mg/L	8260	<0.005		<0.005		<0.005		<0.005	

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

AKGWA NUMBER1,	Facility Well/Spring Number				0000-000	0	0000-000	00	0000-00	000	0000-00	000
Facility's Lo	cal Well or Spring Number (e.g.,	MW-1	L, MW-2, et	c.)	F. BLAN	<	T. BLAN	٢1	T. BLAN	IK 2	T. BLAN	NK 3
CAS RN ⁴	CONSTITUENT	T D₅	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL ⁶	F L G S	DETECTED VALUE OR PQL ⁶	F L A G S	DETECTED VALUE OR PQL ⁶	F L A G S	DETECTED VALUE OR PQL ⁶	F L G S
75-27-4	Bromodichloromethane	т	mg/L	8260	<0.005	*	<0.005	J	<0.005	*	<0.005	*
75-25-2	Tribromomethane	т	mg/L	8260	<0.005	*J	<0.005	J	<0.005	*J	<0.005	*J
74-83-9	Methyl bromide	т	mg/L	8260	<0.005	*	<0.005	J	<0.005	*	<0.005	*
78-93-3	Methyl ethyl ketone	т	mg/L	8260	<0.01		<0.01		<0.01		<0.01	
110-57-6	trans-1,4-Dichloro-2-butene	т	mg/L	8260	<0.005	*	<0.005		<0.005	*	<0.005	*
75-15-0	Carbon disulfide	т	mg/L	8260	<0.005	*	<0.005	J	<0.005	*	<0.005	*
75-00-3	Chloroethane	т	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	*
67-66-3	Chloroform	т	mg/L	8260	<0.001	*	<0.001		<0.001	*	<0.001	*
74-87-3	Methyl chloride	т	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	*
156-59-2	cis-1,2-Dichloroethene	т	mg/L	8260	<0.001	*	<0.001		<0.001	*	<0.001	*
74-95-3	Methylene bromide	т	mg/L	8260	<0.005	*	<0.005	J	<0.005	*	<0.005	*
75-34-3	1,1-Dichloroethane	т	mg/L	8260	<0.001	*	<0.001		<0.001	*	<0.001	*
107-06-2	1,2-Dichloroethane	т	mg/L	8260	<0.001	*	<0.001		<0.001	*	<0.001	*
75-35-4	1,1-Dichloroethylene	т	mg/L	8260	<0.001		<0.001	J	<0.001		<0.001	
106-93-4	Ethane, 1,2-dibromo	т	mg/L	8260	<0.005	*	<0.005		<0.005	*	<0.005	*
79-34-5	Ethane, 1,1,2,2-Tetrachloro	т	mg/L	8260	<0.005	*	<0.005		<0.005	*	<0.005	*
71-55-6	Ethane, 1,1,1-Trichloro-	т	mg/L	8260	<0.001	*	<0.001		<0.001	*	<0.001	*
79-00-5	Ethane, 1,1,2-Trichloro	т	mg/L	8260	<0.001	*	<0.001	J	<0.001	*	<0.001	*
630-20-6	Ethane, 1,1,1,2-Tetrachloro	т	mg/L	8260	<0.005	*	<0.005		<0.005	*	<0.005	*
75-01-4	Vinyl chloride	т	mg/L	8260	<0.002	*	<0.002	*	<0.002	*	<0.002	*
127-18-4	Ethene, Tetrachloro-	т	mg/L	8260	<0.001	*	<0.001		<0.001	*	<0.001	*
79-01-6	Ethene, Trichloro-	т	mg/L	8260	<0.001	*	<0.001		<0.001	*	<0.001	*

RESIDENTIAL/CONTAINED-QUARTERLY

Facility: US DOE - Paducah Gaseous Diffusion Plant FINDS/UNIT: <u>KY8-890-008-982</u>/1 Permit Number: 073-00014 & 073-00015

LAB ID: None For Official Use Only

AKGWA NUMBER ¹ ,	Facility Well/Spring Number				0000-000	0	000-000	0	0000-00	00	0000-00	000
Facility's Loc	al Well or Spring Number (e.g., M	MW-1	L, MW-2, et	.c.)	F. BLAN	<	T. BLANK	1	T. BLAN	K 2	T. BLAN	IK 3
CAS RN ⁴	CONSTITUENT	T D₅	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL ⁶	F L G S						
100-41-4	Ethylbenzene	т	mg/L	8260	<0.005	*	<0.005		<0.005	*	<0.005	*
591-78-6	2-Hexanone	т	mg/L	8260	<0.01	*	<0.01		<0.01	*	<0.01	*
74-88-4	Iodomethane	т	mg/L	8260	<0.01	*	<0.01		<0.01	*	<0.01	*
124-48-1	Methane, Dibromochloro-	т	mg/L	8260	<0.005	*	<0.005		<0.005	*	<0.005	*
56-23-5	Carbon Tetrachloride	т	mg/L	8260	<0.001	*	<0.001		<0.001	*	<0.001	*
75-09-2	Dichloromethane	т	mg/L	8260	<0.005	*	<0.005		<0.005	*	<0.005	*
108-10-1	Methyl isobutyl ketone	т	mg/L	8260	<0.01	*	<0.01		<0.01	*	<0.01	*
96-12-8	Propane, 1,2-Dibromo-3-chloro	т	mg/L	8011	<0.0002		<0.0002		<0.0002		<0.0002	
78-87-5	Propane, 1,2-Dichloro-	т	mg/L	8260	<0.005	*	<0.005		<0.005	*	<0.005	*
10061-02-6	trans-1,3-Dichloro-1-propene	т	mg/L	8260	<0.005	*	<0.005		<0.005	*	<0.005	*
10061-01-5	cis-1,3-Dichloro-1-propene	т	mg/L	8260	<0.005	*	<0.005	J	<0.005	*	<0.005	*
156-60-5	trans-1,2-Dichloroethene	т	mg/L	8260	<0.001	*	<0.001		<0.001	*	<0.001	*
75-69-4	Trichlorofluoromethane	т	mg/L	8260	<0.005	*	<0.005		<0.005	*	<0.005	*
96-18-4	1,2,3-Trichloropropane	т	mg/L	8260	<0.005	*	<0.005		<0.005	*	<0.005	*
95-50-1	Benzene, 1,2-Dichloro-	т	mg/L	8260	<0.005	*	<0.005		<0.005	*	<0.005	*
106-46-7	Benzene, 1,4-Dichloro-	т	mg/L	8260	<0.005	*	<0.005		<0.005	*	<0.005	*
1336-36-3	PCB,Total	т	ug/L	8082		*		*		*		*
12674-11-2	PCB-1016	т	ug/L	8082		*		*		*		*
11104-28-2	PCB-1221	т	ug/L	8082		*		*		*		*
11141-16-5	PCB-1232	т	ug/L	8082		*		*		*		*
53469-21-9	PCB-1242	т	ug/L	8082		*		*		*		*
12672-29-6	PCB-1248	т	ug/L	8082		*		*		*		*

RESIDENTIAL/CONTAINED-QUARTERLY

Facility: US DOE - Paducah Gaseous Diffusion Plant FINDS/UNIT: <u>KY8-890-008-982</u>/1 Permit Number: 073-00014 & 073-00015

LAB ID: None For Official Use Only

AKGWA NUMBER ¹ ,	Facility Well/Spring Number				0000-000	D	0000-0000		0000-0000)	0000-000	0
Facility's Loc	cal Well or Spring Number (e.g.,	MW-2	1, MW-2, et	.c.)	F. BLANK	(T. BLANK 1		T. BLANK	2	T. BLANK	3
CAS RN ⁴	CONSTITUENT	T D₅	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL ⁶	F L G S						
11097-69-1	PCB-1254	т	ug/L	8082		*		*		*		*
11096-82-5	PCB-1260	т	ug/L	8082		*		*		*		*
11100-14-4	PCB-1268	т	ug/L	8082		*		*		*		*
12587-46-1	Gross Alpha	т	pCi/L	9310	-0.502	*		*		*		*
12587-47-2	Gross Beta	т	pCi/L	9310	0.301	*		*		*		*
10043-66-0	Iodine-131	т	pCi/L	RL-7124		*		*		*		*
13982-63-3	Radium-226	т	pCi/L	RL-7129	-0.0647	*		*		*		*
10098-97-2	Strontium-90	т	pCi/L	RL-7140	-0.0423	В		*		*		*
14133-76-7	Technetium-99	т	pCi/L	RL-7100	12.2	*		*		*		*
14269-63-7	Thorium-230	т	pCi/L	RL-7128	-0.0304	*		*		*		*
10028-17-8	Tritium	т	pCi/L	704R6	-22.3	*		*		*		*
s0130	Chemical Oxygen Demand	т	mg/L	410.4		*		*		*		*
57-12-5	Cyanide	т	mg/L	9010		*		*		*		*
20461-54-5	Iodide	Т	mg/L	345.1	<2			*		*		*
s0268	Total Organic Carbon	т	mg/L	9060		*		*		*		*
s0586	Total Organic Halides	т	mg/L	9020		*		*		*		*

Division of Waste Management	RESIDENTIAL/INERT-QUARTERLY
Solid Waste Branch	Facility: US DOE – Paducah Gaseous Diffusion Plant
14 Reilly Road	Permit Number:073-00014 & 073-00015 FINDS/UNIT: KY8-890-008-982 / 1
Frankfort, KY 40601 (502)564-67	T16 LAB ID: None

For Official Use Only

GROUNDWATER SAMPLE ANALYSIS (S)

AKGWA NUMBER ¹ ,	Facility Well/Spring Number				0000-000	00	0000-00	00	0000-000	00	8004-480	5
Facility's Loc	al Well or Spring Number (e.g., M	W-1	, MW-2, etc	•)	T. BLANK	ζ4	T. BLAN	K 5	T. BLANI	٢6	391	
Sample Sequence	e #				1		1		1		2	
If sample is a B	lank, specify Type: (F)ield, (T)rip,	(M)e	thod, or (E)	quipment	Т		т		Т		NA	
Sample Date and	d Time (Month/Day/Year hour: minu	tes)		1/16/2013 0	7:07	1/16/2013	06:45	1/17/2013 ()7:10	1/16/2013 08	3:37
Duplicate ("Y"	or "N") ²				Ν		N		Ν		Y	
Split ("Y" or	"N") ³				Ν		N		Ν		Ν	
Facility Sample	e ID Number (if applicable)				TB4SG2-	13	TB5SG2	-13	TB6SG2-	13	MW391DSG	2-13
Laboratory Sam	ple ID Number (if applicable)				C13016026	6001	C1301602	1001	C13017006	6001	C13016007	02
Date of Analys	is (Month/Day/Year) For <u>Volatile</u>	or	ganics Anal	ysis	1/19/201	3	1/19/20	13	1/19/201	3	1/19/2013	3
Gradient with	respect to Monitored Unit (UP, DC	wn,	SIDE, UNKN	OWN)	NA		NA		NA		DOWN	
CAS RN ⁴	CONSTITUENT	T D 5	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL ⁶	F L G S ⁷	DETECTED VALUE OR PQL ⁶	F L G S	DETECTED VALUE OR PQL ⁶	F L G S	DETECTED VALUE OR PQL ⁶	F L G S
24959-67-9	Bromide	т	mg/L	9056		*		*		*	<2	
16887-00-6	Chloride(s)	т	mg/L	9056		*		*		*	48	
16984-48-8	Fluoride	т	mg/L	9214		*		*		*	0.15	
\$0595	Nitrate & Nitrite	т	mg/L	9056		*		*		*	1	
14808-79-8	Sulfate	Т	mg/L	9056		*		*		*	13	
NS1894	Barometric Pressure Reading	т	Inches/Hg	Field		*		*		*	30.1	
S0145	Specific Conductance	Т	µMH0/cm	Field		*		*		*	390	

¹AKGWA # is 0000-0000 for any type of blank.

²Respond "Y" if the sample was a duplicate of another sample in this report.

³Respond "Y" if the sample was split and analyzed by separate laboratories.

⁴Chemical 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. ⁷Flags 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

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

						/						
AKGWA NUMBER ¹	, Facility Well/Spring Number				0000-000	0	0000-000	00	0000-0000)	8004-4805	
Facility's Lo	cal Well or Spring Number (e.g., M	v-1 , 1	MW-2, BLANK-	F, etc.)	T. BLANK	4	T. BLANK	(5	T. BLANK	6	391	
CAS RN ⁴	CONSTITUENT	Т Д 5	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL ⁶	F L G S						
S0906	Static Water Level Elevation	т	Ft. MSL	Field		*		*		*	320.41	
N238	Dissolved Oxygen	т	mg/L	Field		*		*		*	4.1	
S0266	Total Dissolved Solids	т	mg/L	160.1		*		*		*	225	
S0296	рН	т	Units	Field		*		*		*	6.17	
NS215	Eh	т	mV	Field		*		*		*	831	
S0907	Temperature	т	°C	Field		*		*		*	13.06	
7429-90-5	Aluminum	т	mg/L	6020		*		*		*	<0.2	
7440-36-0	Antimony	т	mg/L	6020		*		*		*	<0.005	
7440-38-2	Arsenic	т	mg/L	7060		*		*		*	0.00101	
7440-39-3	Barium	т	mg/L	6020		*		*		*	0.242	
7440-41-7	Beryllium	т	mg/L	6020		*		*		*	<0.001	*
7440-42-8	Boron	т	mg/L	6010		*		*		*	<0.2	В
7440-43-9	Cadmium	т	mg/L	6020		*		*		*	<0.001	
7440-70-2	Calcium	т	mg/L	6010		*		*		*	25	
7440-47-3	Chromium	т	mg/L	6020		*		*		*	<0.01	В
7440-48-4	Cobalt	т	mg/L	6020		*		*		*	<0.001	
7440-50-8	Copper	т	mg/L	6020		*		*		*	<0.02	
7439-89-6	Iron	т	mg/L	6010		*		*		*	0.834	
7439-92-1	Lead	т	mg/L	6020		*		*		*	<0.0013	В
7439-95-4	Magnesium	т	mg/L	6010		*		*		*	10.4	
7439-96-5	Manganese	т	mg/L	6020		*		*		*	0.00957	
7439-97-6	Mercury	т	mg/L	7470		*		*		*	<0.0002	

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

AKGWA NUMBER	¹ , Facility Well/Spring Number				000-000	00	0000-00	000	0000-00	00	8004-48	305
Facility's L	ocal Well or Spring Number (e.g.,	MW-	1, MW-2, et	tc.)	T. BLANI	〈 4	T. BLAN	IK 5	T. BLAN	K 6	391	
CAS RN ⁴	CONSTITUENT	Т Д 5	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL ⁶	F L A G S	DETECTED VALUE OR PQL ⁶	F L A G S	DETECTED VALUE OR PQL ⁶	F L G S	DETECTED VALUE OR PQL ⁶	F L A G S
7439-98-7	Molybdenum	т	mg/L	6020		*		*		*	<0.001	В
7440-02-0	Nickel	т	mg/L	6020		*		*		*	<0.005	В
7440-09-7	Potassium	т	mg/L	6010		*		*		*	1.42	
7440-16-6	Rhodium	т	mg/L	6020		*		*		*	<0.005	В
7782-49-2	Selenium	т	mg/L	6020		*		*		*	0.00694	
7440-22-4	Silver	т	mg/L	6020		*		*		*	<0.001	*
7440-23-5	Sodium	т	mg/L	6010		*		*		*	30.6	
7440-25-7	Tantalum	т	mg/L	6020		*		*		*	<0.005	
7440-28-0	Thallium	т	mg/L	6020		*		*		*	<0.002	
7440-61-1	Uranium	т	mg/L	6020		*		*		*	<0.001	
7440-62-2	Vanadium	т	mg/L	6020		*		*		*	<0.02	В
7440-66-6	Zinc	т	mg/L	6020		*		*		*	<0.02	
108-05-4	Vinyl acetate	т	mg/L	8260	<0.01		<0.01		<0.01		<0.01	
67-64-1	Acetone	т	mg/L	8260	<0.01	*	<0.01	*	<0.01	*	<0.01	*
107-02-8	Acrolein	т	mg/L	8260	<0.01		<0.01		<0.01		<0.01	
107-13-1	Acrylonitrile	т	mg/L	8260	<0.01	*	<0.01	*	<0.01	*	<0.01	*
71-43-2	Benzene	т	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	*
108-90-7	Chlorobenzene	т	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	*
1330-20-7	Xylenes	т	mg/L	8260	<0.015		<0.015		<0.015		<0.015	
100-42-5	Styrene	т	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	*
108-88-3	Toluene	т	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
74-97-5	Chlorobromomethane	т	mg/L	8260	<0.005		<0.005		<0.005		<0.005	

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

AKGWA NUMBER ¹ ,	Facility Well/Spring Number				0000-000	C	000-000	00	0000-00	000	8004-4	805
Facility's Lo	cal Well or Spring Number (e.g., M	4W-1	L, MW-2, et	.c.)	T. BLANK	4	T. BLANI	K 5	T. BLAN	IK 6	391	
CAS RN ⁴	CONSTITUENT	T D 5	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL ⁶	F L G S						
75-27-4	Bromodichloromethane	т	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	*
75-25-2	Tribromomethane	т	mg/L	8260	<0.005	*J	<0.005	*J	<0.005	*J	<0.005	*J
74-83-9	Methyl bromide	т	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	*
78-93-3	Methyl ethyl ketone	т	mg/L	8260	<0.01		<0.01		<0.01		<0.01	
110-57-6	trans-1,4-Dichloro-2-butene	т	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	*
75-15-0	Carbon disulfide	т	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	*
75-00-3	Chloroethane	т	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	*
67-66-3	Chloroform	т	mg/L	8260	<0.001	*	<0.001	*	<0.001	*	<0.001	*
74-87-3	Methyl chloride	т	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	*
156-59-2	cis-1,2-Dichloroethene	т	mg/L	8260	<0.001	*	<0.001	*	<0.001	*	<0.001	*
74-95-3	Methylene bromide	т	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	*
75-34-3	1,1-Dichloroethane	т	mg/L	8260	<0.001	*	<0.001	*	<0.001	*	<0.001	*
107-06-2	1,2-Dichloroethane	т	mg/L	8260	<0.001	*	<0.001	*	<0.001	*	<0.001	*
75-35-4	1,1-Dichloroethylene	т	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
106-93-4	Ethane, 1,2-dibromo	т	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	*
79-34-5	Ethane, 1,1,2,2-Tetrachloro	т	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	*
71-55-6	Ethane, 1,1,1-Trichloro-	т	mg/L	8260	<0.001	*	<0.001	*	<0.001	*	<0.001	*
79-00-5	Ethane, 1,1,2-Trichloro	т	mg/L	8260	<0.001	*	<0.001	*	<0.001	*	<0.001	*
630-20-6	Ethane, 1,1,1,2-Tetrachloro	т	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	*
75-01-4	Vinyl chloride	т	mg/L	8260	<0.002	*	<0.002	*	<0.002	*	<0.002	*
127-18-4	Ethene, Tetrachloro-	т	mg/L	8260	<0.001	*	<0.001	*	<0.001	*	<0.001	*
79-01-6	Ethene, Trichloro-	т	mg/L	8260	<0.001	*	<0.001	*	<0.001	*	0.012	*

RESIDENTIAL/CONTAINED-QUARTERLY

Facility: US DOE - Paducah Gaseous Diffusion Plant FINDS/UNIT: <u>KY8-890-008-982</u>/1 Permit Number: 073-00014 & 073-00015

LAB ID: None For Official Use Only

AKGWA NUMBER ¹ ,	Facility Well/Spring Number				0000-000	C	0000-000	0	0000-00	00	8004-48	805
Facility's Loo	cal Well or Spring Number (e.g., M	1 W-1	L, MW-2, et)	T. BLANK	4	T. BLANK	5	T. BLAN	K 6	391	
CAS RN ⁴	CONSTITUENT	Т Д 5	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL ⁶	F L G S						
100-41-4	Ethylbenzene	т	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	*
591-78-6	2-Hexanone	т	mg/L	8260	<0.01	*	<0.01	*	<0.01	*	<0.01	*
74-88-4	Iodomethane	т	mg/L	8260	<0.01	*	<0.01	*	<0.01	*	<0.01	*
124-48-1	Methane, Dibromochloro-	т	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	*
56-23-5	Carbon Tetrachloride	т	mg/L	8260	<0.001	*	<0.001	*	<0.001	*	<0.001	*
75-09-2	Dichloromethane	т	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	*
108-10-1	Methyl isobutyl ketone	т	mg/L	8260	<0.01	*	<0.01	*	<0.01	*	<0.01	*
96-12-8	Propane, 1,2-Dibromo-3-chloro	т	mg/L	8011	<0.0002		<0.0002		<0.0002		<0.0002	
78-87-5	Propane, 1,2-Dichloro-	т	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	*
10061-02-6	trans-1,3-Dichloro-1-propene	т	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	*
10061-01-5	cis-1,3-Dichloro-1-propene	т	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	*
156-60-5	trans-1,2-Dichloroethene	т	mg/L	8260	<0.001	*	<0.001	*	<0.001	*	<0.001	*
75-69-4	Trichlorofluoromethane	т	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	*
96-18-4	1,2,3-Trichloropropane	т	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	*
95-50-1	Benzene, 1,2-Dichloro-	т	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	*
106-46-7	Benzene, 1,4-Dichloro-	т	mg/L	8260	<0.005	*	<0.005	*	<0.005	*	<0.005	*
1336-36-3	PCB,Total	т	ug/L	8082		*		*		*		*
12674-11-2	PCB-1016	т	ug/L	8082		*		*		*		*
11104-28-2	PCB-1221	т	ug/L	8082		*		*		*		*
11141-16-5	PCB-1232	т	ug/L	8082		*		*		*		*
53469-21-9	PCB-1242	т	ug/L	8082		*		*		*		*
12672-29-6	PCB-1248	т	ug/L	8082		*		*		*		*

RESIDENTIAL/CONTAINED-QUARTERLY

Facility: US DOE - Paducah Gaseous Diffusion Plant FINDS/UNIT: <u>KY8-890-008-982</u>/1 Permit Number: 073-00014 & 073-00015

LAB ID: None For Official Use Only

AKGWA NUMBER1	Facility Well/Spring Number				0000-000	0	0000-0000		0000-000	0	8004-480)5
Facility's Lo	cal Well or Spring Number (e.g.,	MW-1	L, MW-2, et	.c.)	T. BLANK	4	T. BLANK 5		T. BLANK	6	391	
CAS RN ⁴	CONSTITUENT	Т Д 5	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL ⁶	F L G S						
11097-69-1	PCB-1254	т	ug/L	8082		*		*		*		*
11096-82-5	PCB-1260	т	ug/L	8082		*		*		*		*
11100-14-4	PCB-1268	т	ug/L	8082		*		*		*		*
12587-46-1	Gross Alpha	т	pCi/L	9310		*		*		*	0.454	*
12587-47-2	Gross Beta	т	pCi/L	9310		*		*		*	7.05	*
10043-66-0	Iodine-131	т	pCi/L	RL-7124		*		*		*		*
13982-63-3	Radium-226	т	pCi/L	RL-7129		*		*		*	0.351	*
10098-97-2	Strontium-90	т	pCi/L	RL-7140		*		*		*	-0.374	В
14133-76-7	Technetium-99	т	pCi/L	RL-7100		*		*		*	5.15	*
14269-63-7	Thorium-230	т	pCi/L	RL-7128		*		*		*	-0.00882	*
10028-17-8	Tritium	т	pCi/L	704R6		*		*		*	256	*
s0130	Chemical Oxygen Demand	т	mg/L	410.4		*		*		*	<25	
57-12-5	Cyanide	т	mg/L	9010		*		*		*	<0.04	
20461-54-5	Iodide	т	mg/L	345.1		*		*		*	<2	
s0268	Total Organic Carbon	т	mg/L	9060		*		*		*	<1	
s0586	Total Organic Halides	т	mg/L	9020		*		*		*	0.019	
		Π										

Finds/Unit: KY8-890-008-982 / 1

Facility: US DOE - Paducah Gaseous Diffusion Plant Permit Numbers: 073-00014 and 073-00015

LAB ID:<u>None</u> For Official Use Only

Monitoring Point	Facility Sample ID	Constituent	Flag	Description
00-5201 MW22	0 MW220SG2-13	Beryllium	х	Other specific flags and footnotes may be required to properly define the results.
		Silver	Ν	Sample spike recovery not within control limits.
		Acetone	Y	MS,MSD recovery and/or RPD failed acceptance crite
		Acrylonitrile	Y	MS,MSD recovery and/or RPD failed acceptance crite
		Benzene	Y	MS,MSD recovery and/or RPD failed acceptance crite
		Chlorobenzene	Y	MS,MSD recovery and/or RPD failed acceptance crite
		Styrene	Y	MS,MSD recovery and/or RPD failed acceptance crite
		Bromodichloromethane	Y	MS,MSD recovery and/or RPD failed acceptance crite
		Tribromomethane	Y	MS,MSD recovery and/or RPD failed acceptance crite
		Methyl bromide	Y	MS,MSD recovery and/or RPD failed acceptance crite
		trans-1,4-Dichloro-2-butene	Y	MS,MSD recovery and/or RPD failed acceptance crite
		Carbon disulfide	Y	MS,MSD recovery and/or RPD failed acceptance crite
		Chloroethane	Y	MS,MSD recovery and/or RPD failed acceptance crite
		Chloroform	Y	MS,MSD recovery and/or RPD failed acceptance crite
		Methyl chloride	Y	MS,MSD recovery and/or RPD failed acceptance crite
	cis-1,2-Dichloroethene	Y	MS,MSD recovery and/or RPD failed acceptance crite	
	Methylene bromide	Y	MS,MSD recovery and/or RPD failed acceptance crite	
		1,1-Dichloroethane	Y	MS,MSD recovery and/or RPD failed acceptance crite
		1,2-Dichloroethane	Y	MS,MSD recovery and/or RPD failed acceptance crite
		1,2-Dibromoethane	Y	MS,MSD recovery and/or RPD failed acceptance crite
		1,1,2,2-Tetrachloroethane	Y	MS,MSD recovery and/or RPD failed acceptance crite
		1,1,1-Trichloroethane	Y	MS,MSD recovery and/or RPD failed acceptance crite
		1,1,2-Trichloroethane	Y	MS,MSD recovery and/or RPD failed acceptance crite
		1,1,1,2-Tetrachloroethane	Y	MS,MSD recovery and/or RPD failed acceptance crite
		Vinyl chloride	Y	MS,MSD recovery and/or RPD failed acceptance crite
		Tetrachloroethene	Y	MS,MSD recovery and/or RPD failed acceptance crite
		Trichloroethene	Y	MS,MSD recovery and/or RPD failed acceptance crite
		Ethylbenzene	Y	MS,MSD recovery and/or RPD failed acceptance crite
		2-Hexanone	Y	MS,MSD recovery and/or RPD failed acceptance crite
		lodomethane	Y	MS,MSD recovery and/or RPD failed acceptance crite
		Dibromochloromethane	Y	MS,MSD recovery and/or RPD failed acceptance crite
		Carbon tetrachloride	Y	MS,MSD recovery and/or RPD failed acceptance crite
		Dichloromethane	Y	MS,MSD recovery and/or RPD failed acceptance crite
		Methyl Isobutyl Ketone	Y	MS,MSD recovery and/or RPD failed acceptance crite
		1,2-Dichloropropane	Y	MS,MSD recovery and/or RPD failed acceptance crite
		trans-1,3-Dichloropropene	Y	MS,MSD recovery and/or RPD failed acceptance crite
		cis-1,3-Dichloropropene	Y	MS,MSD recovery and/or RPD failed acceptance crite
		trans-1,2-Dichloroethene	Y	MS,MSD recovery and/or RPD failed acceptance crite
		Trichlorofluoromethane	Y	MS,MSD recovery and/or RPD failed acceptance crite

Finds/Unit: KY8-890-008-982 / 1

Facility: US DOE - Paducah Gaseous Diffusion Plant Permit Numbers: 073-00014 and 073-00015

LAB ID:<u>None</u> For Official Use Only

Monitoring Point	Facility Sample ID	Constituent	Flag	Description
00-5201 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.
		lodine-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

Finds/Unit: KY8-890-008-982 / 1

Facility: US DOE - Paducah Gaseous Diffusion Plant Permit Numbers: 073-00014 and 073-00015

LAB ID:<u>None</u> For Official Use Only

Monitoring Point	Facility Sample ID	Constituent	Flag	Description
000-5202 MW221	MW221SG2-13	Beryllium	х	Other specific flags and footnotes may be required to properly define the results.
		Silver	Ν	Sample spike recovery not within control limits.
		Acetone	Y	MS,MSD recovery and/or RPD failed acceptance crite
		Acrylonitrile	Y	MS,MSD recovery and/or RPD failed acceptance crite
		Benzene	Y	MS,MSD recovery and/or RPD failed acceptance crite
		Chlorobenzene	Y	MS,MSD recovery and/or RPD failed acceptance crite
		Styrene	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Bromodichloromethane	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Tribromomethane	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Methyl bromide	Y	MS,MSD recovery and/or RPD failed acceptance crit
		trans-1,4-Dichloro-2-butene	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Carbon disulfide	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Chloroethane	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Chloroform	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Methyl chloride	Y	MS,MSD recovery and/or RPD failed acceptance crit
		cis-1,2-Dichloroethene	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Methylene bromide	Y	MS,MSD recovery and/or RPD failed acceptance cri
		1,1-Dichloroethane	Y	MS,MSD recovery and/or RPD failed acceptance cri
		1,2-Dichloroethane	Y	MS,MSD recovery and/or RPD failed acceptance cri
		1,2-Dibromoethane	Y	MS,MSD recovery and/or RPD failed acceptance cri
		1,1,2,2-Tetrachloroethane	Y	MS,MSD recovery and/or RPD failed acceptance cri
		1,1,1-Trichloroethane	Y	MS,MSD recovery and/or RPD failed acceptance cri
		1,1,2-Trichloroethane	Y	MS,MSD recovery and/or RPD failed acceptance crit
		1,1,1,2-Tetrachloroethane	Y	MS,MSD recovery and/or RPD failed acceptance cri
		Vinyl chloride	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Tetrachloroethene	Y	MS,MSD recovery and/or RPD failed acceptance cri
		Trichloroethene	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Ethylbenzene	Y	MS,MSD recovery and/or RPD failed acceptance crit
		2-Hexanone	Y	MS,MSD recovery and/or RPD failed acceptance crit
		lodomethane	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Dibromochloromethane	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Carbon tetrachloride	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Dichloromethane	Y	MS,MSD recovery and/or RPD failed acceptance cri
		Methyl Isobutyl Ketone	Y	MS,MSD recovery and/or RPD failed acceptance crit
		1,2-Dichloropropane	Ý	MS,MSD recovery and/or RPD failed acceptance crit
		trans-1,3-Dichloropropene	Ý	MS,MSD recovery and/or RPD failed acceptance crit
		cis-1,3-Dichloropropene	Ŷ	MS,MSD recovery and/or RPD failed acceptance crit
		trans-1,2-Dichloroethene	Ŷ	MS,MSD recovery and/or RPD failed acceptance crit
		Trichlorofluoromethane	Ŷ	MS,MSD recovery and/or RPD failed acceptance crit

Finds/Unit: KY8-890-008-982 / 1

Facility: US DOE - Paducah Gaseous Diffusion Plant Permit Numbers: 073-00014 and 073-00015

LAB ID:<u>None</u> For Official Use Only

Monitoring Point	Facility Sample ID	Constituent	Flag	Description
000-5202 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.
		lodine-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.

Finds/Unit: KY8-890-008-982 / 1

Facility: US DOE - Paducah Gaseous Diffusion Plant Permit Numbers: 073-00014 and 073-00015

LAB ID:<u>None</u> For Official Use Only

Monitoring Point	Facility Sample ID	Constituent	Flag	Description
00-5242 MW22	22 MW222SG2-13	Beryllium	х	Other specific flags and footnotes may be required to properly define the results.
		Silver	Ν	Sample spike recovery not within control limits.
		Acetone	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Acrylonitrile	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Benzene	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Chlorobenzene	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Styrene	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Bromodichloromethane	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Tribromomethane	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Methyl bromide	Y	MS,MSD recovery and/or RPD failed acceptance crit
		trans-1,4-Dichloro-2-butene	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Carbon disulfide	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Chloroethane	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Chloroform	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Methyl chloride	Y	MS,MSD recovery and/or RPD failed acceptance crit
		cis-1,2-Dichloroethene	Y	MS,MSD recovery and/or RPD failed acceptance cri
		Methylene bromide	Y	MS,MSD recovery and/or RPD failed acceptance cri
		1,1-Dichloroethane	Y	MS,MSD recovery and/or RPD failed acceptance cri
		1,2-Dichloroethane	Y	MS,MSD recovery and/or RPD failed acceptance cri
		1,2-Dibromoethane	Y	MS,MSD recovery and/or RPD failed acceptance cri
		1,1,2,2-Tetrachloroethane	Y	MS,MSD recovery and/or RPD failed acceptance cri
		1,1,1-Trichloroethane	Y	MS,MSD recovery and/or RPD failed acceptance cri
		1,1,2-Trichloroethane	Y	MS,MSD recovery and/or RPD failed acceptance crit
		1,1,1,2-Tetrachloroethane	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Vinyl chloride	Y	MS,MSD recovery and/or RPD failed acceptance cri
		Tetrachloroethene	Y	MS,MSD recovery and/or RPD failed acceptance cri
		Trichloroethene	Y	MS,MSD recovery and/or RPD failed acceptance cri
		Ethylbenzene	Y	MS,MSD recovery and/or RPD failed acceptance crit
		2-Hexanone	Y	MS,MSD recovery and/or RPD failed acceptance crit
		lodomethane	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Dibromochloromethane	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Carbon tetrachloride	Y	MS,MSD recovery and/or RPD failed acceptance cri
		Dichloromethane	Y	MS,MSD recovery and/or RPD failed acceptance cri
		Methyl Isobutyl Ketone	Y	MS,MSD recovery and/or RPD failed acceptance cri
		1,2-Dichloropropane	Y	MS,MSD recovery and/or RPD failed acceptance crit
		trans-1,3-Dichloropropene	Ý	MS,MSD recovery and/or RPD failed acceptance crit
		cis-1,3-Dichloropropene	Ý	MS,MSD recovery and/or RPD failed acceptance crit
		trans-1,2-Dichloroethene	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Trichlorofluoromethane	Ý	MS,MSD recovery and/or RPD failed acceptance crit

Finds/Unit: KY8-890-008-982 / 1

Facility: US DOE - Paducah Gaseous Diffusion Plant Permit Numbers: 073-00014 and 073-00015

LAB ID:<u>None</u> For Official Use Only

Monitoring Point	Facility Sample ID	Constituent	Flag	Description
00-5242 MW222 MW222SG2-13		1,2,3-Trichloropropane	Y	MS,MSD recovery and/or RPD failed acceptance criter
		1,2-Dichlorobenzene	Y	MS,MSD recovery and/or RPD failed acceptance criter
		1,4-Dichlorobenzene	Y	MS,MSD recovery and/or RPD failed acceptance criter
		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.
		lodine-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.

Finds/Unit: KY8-890-008-982 / 1

Facility: US DOE - Paducah Gaseous Diffusion Plant Permit Numbers: 073-00014 and 073-00015

LAB ID:<u>None</u> For Official Use Only

Monitoring Point	Facility Sample ID	Constituent	Flag	Description
000-5243 MW223	3 MW223SG2-13	Static Water Level Elevation		Water level could not be obtained.
		Beryllium	х	Other specific flags and footnotes may be required to properly define the results.
		Silver	Ν	Sample spike recovery not within control limits.
		Styrene	Y	MS,MSD recovery and/or RPD failed acceptance crite
		Bromodichloromethane	Y	MS,MSD recovery and/or RPD failed acceptance crite
		Tribromomethane	Y	MS,MSD recovery and/or RPD failed acceptance crite
		Methyl chloride	Y	MS,MSD recovery and/or RPD failed acceptance crite
		Methylene bromide	Y	MS,MSD recovery and/or RPD failed acceptance crite
		1,2-Dibromoethane	Y	MS,MSD recovery and/or RPD failed acceptance crite
		1,1,1,2-Tetrachloroethane	Y	MS,MSD recovery and/or RPD failed acceptance crite
		Vinyl chloride	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Ethylbenzene	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Dibromochloromethane	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Dichloromethane	Y	MS,MSD recovery and/or RPD failed acceptance crit
		cis-1,3-Dichloropropene	Y	MS,MSD recovery and/or RPD failed acceptance crit
		trans-1,2-Dichloroethene	Y	MS,MSD recovery and/or RPD failed acceptance crit
		1,4-Dichlorobenzene	Y	MS,MSD recovery and/or RPD failed acceptance crit
		PCB, Total		Analysis of constituent not required and not performe
		PCB-1016		Analysis of constituent not required and not performe
		PCB-1221		Analysis of constituent not required and not performe
		PCB-1232		Analysis of constituent not required and not performe
		PCB-1242		Analysis of constituent not required and not performe
		PCB-1248		Analysis of constituent not required and not performe
		PCB-1254		Analysis of constituent not required and not performe
		PCB-1260		Analysis of constituent not required and not performe
		PCB-1268		Analysis of constituent not required and not performe
		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.
		lodine-131		Analysis of constituent not required and not performe
	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.

Finds/Unit: KY8-890-008-982 / 1

Facility: US DOE - Paducah Gaseous Diffusion Plant Permit Numbers: 073-00014 and 073-00015

LAB ID:<u>None</u> For Official Use Only

Monitoring Point	Facility Sample ID	Constituent	Flag	Description
00-5244 MW22	24 MW224SG2-13	Beryllium	х	Other specific flags and footnotes may be required to properly define the results.
		Silver	Ν	Sample spike recovery not within control limits.
		Acetone	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Acrylonitrile	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Benzene	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Chlorobenzene	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Styrene	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Bromodichloromethane	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Tribromomethane	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Methyl bromide	Y	MS,MSD recovery and/or RPD failed acceptance crit
		trans-1,4-Dichloro-2-butene	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Carbon disulfide	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Chloroethane	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Chloroform	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Methyl chloride	Y	MS,MSD recovery and/or RPD failed acceptance crit
		cis-1,2-Dichloroethene	Y	MS,MSD recovery and/or RPD failed acceptance cri
		Methylene bromide	Y	MS,MSD recovery and/or RPD failed acceptance cri
		1,1-Dichloroethane	Y	MS,MSD recovery and/or RPD failed acceptance cri
		1,2-Dichloroethane	Y	MS,MSD recovery and/or RPD failed acceptance cri
		1,2-Dibromoethane	Y	MS,MSD recovery and/or RPD failed acceptance cri
		1,1,2,2-Tetrachloroethane	Y	MS,MSD recovery and/or RPD failed acceptance cri
		1,1,1-Trichloroethane	Y	MS,MSD recovery and/or RPD failed acceptance cri
		1,1,2-Trichloroethane	Y	MS,MSD recovery and/or RPD failed acceptance cri
		1,1,1,2-Tetrachloroethane	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Vinyl chloride	Y	MS,MSD recovery and/or RPD failed acceptance cri
		Tetrachloroethene	Y	MS,MSD recovery and/or RPD failed acceptance cri
		Trichloroethene	Y	MS,MSD recovery and/or RPD failed acceptance cri
		Ethylbenzene	Y	MS,MSD recovery and/or RPD failed acceptance cri
		2-Hexanone	Y	MS,MSD recovery and/or RPD failed acceptance cri
		lodomethane	Y	MS,MSD recovery and/or RPD failed acceptance cri
		Dibromochloromethane	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Carbon tetrachloride	Y	MS,MSD recovery and/or RPD failed acceptance cri
		Dichloromethane	Y	MS,MSD recovery and/or RPD failed acceptance cri
		Methyl Isobutyl Ketone	Ŷ	MS,MSD recovery and/or RPD failed acceptance crit
		1,2-Dichloropropane	Ŷ	MS,MSD recovery and/or RPD failed acceptance crit
		trans-1,3-Dichloropropene	Ŷ	MS,MSD recovery and/or RPD failed acceptance crit
		cis-1,3-Dichloropropene	Ŷ	MS,MSD recovery and/or RPD failed acceptance crit
		trans-1,2-Dichloroethene	Ŷ	MS,MSD recovery and/or RPD failed acceptance crit
		Trichlorofluoromethane	Ŷ	MS,MSD recovery and/or RPD failed acceptance crit

Finds/Unit: KY8-890-008-982 / 1

Facility: US DOE - Paducah Gaseous Diffusion Plant Permit Numbers: 073-00014 and 073-00015

LAB ID:<u>None</u> For Official Use Only

Monitoring Point	Facility Sample ID	Constituent	Flag	Description
000-5244 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.
		lodine-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.

Finds/Unit: KY8-890-008-982 / 1

Facility: US DOE - Paducah Gaseous Diffusion Plant Permit Numbers: 073-00014 and 073-00015

LAB ID:<u>None</u> For Official Use Only

Acetone Y MS.MSD recovery and/or RPD failed acce Acrylonitrile Y MS.MSD recovery and/or RPD failed acce Tribromomethane Y MS.MSD recovery and/or RPD failed acce 1,2-Dibromoethane Y MS.MSD recovery and/or RPD failed acce Vinyl chloride Y MS.MSD recovery and/or RPD failed acce Dibromochloromethane Y MS.MSD recovery and/or RPD failed acce Dibromochloromethane Y MS.MSD recovery and/or RPD failed acce Cis-1,3-Dichloropropene Y MS.MSD recovery and/or RPD failed acce trans-1,2-Dichloroptene Y MS.MSD recovery and/or RPD failed acce Gross beta U Indicates analyte/nuclide was analyzed for detected. TPU is 0.788. Rad error is 0.154. Iodine-131 Analysis of constituent not required and no recetted. TPU is 0.48. Rad error is 0.154. Strontium-90 U Indicates analyte/nuclide was analyzed for detected. TPU is 0.88. Rad error is 0.154. 8004-4818 MW370 MW370UG2-13 Chloroethane Y Raterror is 5.55. Thorium-230 U Indicates analyte/nuclide was analyzed for detected. TPU is 0.88. Rad error is 0.564. 1,2-Dibromo-3-chloropropane Y MS.MSD recovery and/or RPD failed acce	5	acility ample ID	Constituent	Flag	Description
Acrylonitrile Y MS,MSD recovery and/or RPD failed acce Tribromomethane Y MS,MSD recovery and/or RPD failed acce 1,2-Dibromoethrane Y MS,MSD recovery and/or RPD failed acce Dibromochromethane Y MS,MSD recovery and/or RPD failed acce Dibromochromethane Y MS,MSD recovery and/or RPD failed acce Dichoromethane Y MS,MSD recovery and/or RPD failed acce Cis-1,3-Dichloropropene Y MS,MSD recovery and/or RPD failed acce Gross alpha U Indicates analyte/nuclide was analyzed for Gross beta TPU is 2.4. Red error is 2.14. Iodicates analyte/nuclide was analyzed for Radium-226 U Indicates analyte/nuclide was analyzed for Radium-226 U Indicates analyte/nuclide was analyzed for Tretune=90 Tritium U Indicates analyte/nuclide was analyzed for Tritium U Indicates analyte/nuclide was analyzed for Other detected. TPU is 0.88. Rad error is 0.05 Tretum=90 U Indicates analyte/nuclide was analyzed for Other detected. TPU is 0.898. Rad error is 0.05 Tritium U Indicates analyte/nuclide was analyzed for Other specific flags and fochnotes may bep	3004-4820 MW369 MW3	369UG2-13	Vinyl acetate	Y	MS,MSD recovery and/or RPD failed acceptance criteri
Thromomethane Y MS,MSD recovery and/or RPD failed acce 1,2-Dibromoethane Y MS,MSD recovery and/or RPD failed acce Viny chloride Y MS,MSD recovery and/or RPD failed acce Dibromochhormethane Y MS,MSD recovery and/or RPD failed acce Dichloromethane Y MS,MSD recovery and/or RPD failed acce cis-1,3-Dichloropropene Y MS,MSD recovery and/or RPD failed acce Gross alpha U Indicates analyte/nuclide was analyzed for Gross beta TPU is 2.4. Rad error is 2.14. Iodine-131 Analysis of constituent not required and not Radium-226 U Indicates analyte/nuclide was analyzed for detected. TPU is 0.38. Rad error is 0.06 Tritum U Indicates analyte/nuclide was analyzed for detected. TPU is 0.89. Rad error is 0.06 Tritum U Indicates analyte/nuclide was analyzed for detected. TPU is 0.89. Rad error is 0.06 Tritum U Indicates analyte/nuclide was analyzed for detected. TPU is 0.89. Rad error is 0.90 Tritum U Indicates analyte/nuclide was analyzed for detected. TPU is 0.89. Rad error is 0.06 Tritum 1.2-Dibromo-3-chlor			Acetone	Y	MS,MSD recovery and/or RPD failed acceptance criteri
1,2-DibromoethaneYMS,MSD recovery and/or RPD failed acceVinyl chlorideYMS,MSD recovery and/or RPD failed acceDibromochloromethaneYMS,MSD recovery and/or RPD failed acceDichloromethaneYMS,MSD recovery and/or RPD failed accecis-1,3-DichloropopeneYMS,MSD recovery and/or RPD failed acceGross alphaUIndicates analyte/nuclide was analyzed for detected. TPU is 0.788. Rad error is 0.164Gross betaTPU is 2.4. Rad error is 0.164Radium-226UIndicates analyte/nuclide was analyzed for detected. TPU is 0.88. Rad error is 0.154.Strontium-90UIndicates analyte/nuclide was analyzed for detected. TPU is 0.88. Rad error is 0.154.Troium-230UIndicates analyte/nuclide was analyzed for 			Acrylonitrile	Y	MS,MSD recovery and/or RPD failed acceptance criteri
Vinyl chlorideYMS,MSD recovery and/or RPD failed acce DibromochloromethaneDichloromethaneYMS,MSD recovery and/or RPD failed acce dis-1,3-Dichloroptopenedis-1,3-DichloroptopeneYMS,MSD recovery and/or RPD failed acce trans-1,2-DichloroetheneGross alphaUIndicates analyte/nuclide was analyzed for detected. TPU is 0,798. Rad error is 0.768 Gross betaRadium-226UIndicates analyte/nuclide was analyzed for detected. TPU is 0,38. Rad error is 0.064 Gross betaRadium-226UIndicates analyte/nuclide was analyzed for detected. TPU is 0,38. Rad error is 0.064 TPU is 0,0813. Rad error is 0.064 Technetium-99no04-4818 MW370 MW370UG2-13ChloroethaneYMS,MSD recovery and/or RPD failed acce Vinyl chlorideYMS,MSD recovery and/or RPD failed acce TrU is 0.898. Rad error is 0.064 Tretus 0.898. Rad error is 0.934 Gross alphan004-4818 MW370 MW370UG2-13ChloroethaneYMS,MSD recovery and/or RPD failed acce Vinyl chlorideYMS,MSD recovery and/or RPD failed acce Vinyl chlorideYMS,MSD recovery and/or RPD failed acce Tretus 0.893. Rad error is 0.934 Gross betaTretus 0.893. Rad error is 0.934 Rad error is 0.934 Rad error is 0.934<			Tribromomethane	Y	MS,MSD recovery and/or RPD failed acceptance criteri
DibromochloromethaneYMS,MSD recovery and/or RPD failed acceDichloromethaneYMS,MSD recovery and/or RPD failed accecis-1,3-DichloropropeneYMS,MSD recovery and/or RPD failed accetrans-1,2-DichloroetheneYMS,MSD recovery and/or RPD failed acceGross alphaUIndicates analyte/nuclide was analyzed for detected. TPU is 0.798. Rad error is 0.164.Iodine-131Analysis of constituent not required and noRadium-226UIndicates analyte/nuclide was analyzed for detected. TPU is 0.88. Rad error is 0.154.Strontium-90UIndicates analyte/nuclide was analyzed for detected. TPU is 0.89. Rad error is 0.154.Strontium-90UIndicates analyte/nuclide was analyzed for detected. TPU is 0.89. Rad error is 0.154.Thorium-230UIndicates analyte/nuclide was analyzed for detected. TPU is 0.89. Rad error is 0.559.0004-4818MW370 MW370UG2-13ChloroethaneYMS,MSD recovery and/or RPD failed acce Vinyl chlorideYMS,MSD recovery and/or RPD failed acce type is 559. Rad error is 0.9370004-4818MW370 MW370UG2-13ChloroethaneYMS,MSD recovery and/or RPD failed acce type is 1.91. Rad error is 1.72.0004-4818MW370 MW370UG2-13ChloroethaneYMS,MSD recovery and/or RPD failed acce type is 1.91. Rad error is 1.72.0104-4818MW370 MW370UG2-13ChloroethaneYMS,MSD recovery and/or RPD failed acce type is 1.91. Rad error is 1.72.0104-4818MW370 MW370UG2-13ChloroethaneYMS,MSD recovery and/or RPD failed acce type is			1,2-Dibromoethane	Y	MS,MSD recovery and/or RPD failed acceptance criteri
DichloromethaneYMS,MSD recovery and/or RPD failed accecis-1,3-DichloropropeneYMS,MSD recovery and/or RPD failed accetrans-1,2-DichloroetheneYMS,MSD recovery and/or RPD failed acceGross alphaUIndicates analyte/nuclide was analyzed for detected. TPU is 0.768. TPU is 2.4. Rad error is 0.766Gross betaTPU is 2.4. Rad error is 0.766Radium-226UIndicates analyte/nuclide was analyzed for detected. TPU is 0.38. Rad error is 0.05Radium-226UIndicates analyte/nuclide was analyzed for detected. TPU is 0.38. Rad error is 0.05Technetium-90UIndicates analyte/nuclide was analyzed for detected. TPU is 0.38. Rad error is 0.05Technetium-99TPU is 13.5. Rad error is 13.5.Thorium-230UIndicates analyte/nuclide was analyzed for detected. TPU is 5.9. Rad error is 0.06TritiumUIndicates analyte/nuclide was analyzed for detected. TPU is 5.9. Rad error is 0.06TritiumUIndicates analyte/nuclide was analyzed for detected. TPU is 5.9. Rad error is 0.06TritiumUIndicates analyte/nuclide was analyzed for detected. TPU is 5.9. Rad error is 0.06TritiumUIndicates analyte/nuclide was analyzed for detected. TPU is 0.98. Rad error is 0.931004-4818MW370 MW370UG2-13ChloroethaneYMS,MSD recovery and/or RPD failed acce Vinyl chlorideYYMS,MSD recovery and/or RPD failed acce1,2-Dibromo-3-chloropropaneXGross alphaUIndicates analyte/nuclide was analyzed for detected. TPU is 1.9			Vinyl chloride	Y	MS,MSD recovery and/or RPD failed acceptance criteri
cis-1,3-Dichloropropene trans-1,2-DichloroetheneYMS,MSD recovery and/or RPD failed acce MS,MSD recovery and/or RPD failed acce Gross alphaGross alphaUIndicates analyte/nuclide was analyzed for detected. TPU is 2.4. Rad error is 2.14. Iodine-131Iodine-131Analysis of constituent not required and no Radium-226Radium-226UIndicates analyte/nuclide was analyzed for detected. TPU is 0.38. Rad error is 0.05 Technetium-99Technetium-90UIndicates analyte/nuclide was analyzed for detected. TPU is 0.38. Rad error is 0.06 TPU is 13.5. Rad error is 0.06 TPU is 13.5. Rad error is 0.06 TPU is 0.898. Rad error is 0.06 Tritium004-4818MW370MW370UG2-13ChloroethaneYMS,MSD recovery and/or RPD failed acce Methyl chloride004-4818MW370MW370UG2-13ChloroethaneYMS,MSD recovery and/or RPD failed acce Nethyl chloride004-4818Gross alphaUIndicates analyte/nuclide was analyzed for detected. TPU is 0.947. Rad error is 0.93 Tritium004-4818Gross alphaY004-4818MW370MW370MW370UG2-13ChloroethaneYMS,MSD recovery and/or RPD failed acce Vinyl chlorideYMS,MSD recovery and/or RPD failed acce Vinyl chlorideY <td></td> <td></td> <td>Dibromochloromethane</td> <td>Y</td> <td>MS,MSD recovery and/or RPD failed acceptance criteri</td>			Dibromochloromethane	Y	MS,MSD recovery and/or RPD failed acceptance criteri
trans-1,2-DichloroetheneYMS,MSD recovery and/or RPD failed acceGross alphaUIndicates analyte/nuclide was analyzed for detected. TPU is 0.788. Rad error is 0.765Gross betaIndicates analyte/nuclide was analyzed for detected. TPU is 0.788. Rad error is 0.765Radium-226UIndicates analyte/nuclide was analyzed for detected. TPU is 0.0813. Rad error is 0.163Strontium-90UIndicates analyte/nuclide was analyzed for detected. TPU is 0.0813. Rad error is 0.103Technetium-99TPU is 13.5. Rad error is 0.135Thorium-230UIndicates analyte/nuclide was analyzed for detected. TPU is 0.0813. Rad error is 0.064004-4818 MW370 MW370UG2-13ChloroethaneYMS,MSD recovery and/or RPD failed acce Vinyl chlorideYMS,MSD recovery and/or RPD failed acceVinyl chlorideYMS,MSD recovery and/or RPD failed acce			Dichloromethane	Y	MS,MSD recovery and/or RPD failed acceptance criteri
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detected. TPU is 0.896. Rad error is 0.048TritiumUIndicates analyte/nuclide was analyzed for detected. TPU is 548. Rad error is 548.			Technetium-99		TPU is 12.4. Rad error is 12.3.
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Total Organic Carbon V MS MSD recovery and/or PPD failed acce			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 criter

Finds/Unit: KY8-890-008-982 / 1

Facility: US DOE - Paducah Gaseous Diffusion Plant Permit Numbers: 073-00014 and 073-00015

LAB ID:<u>None</u> For Official Use Only

Monitoring Point	Facility Sample ID	Constituent	Flag	Description
004-4808 MW372 MW372UG2-13		Vinyl acetate	Y	MS,MSD recovery and/or RPD failed acceptance criteri
		Acetone	Y	MS,MSD recovery and/or RPD failed acceptance criteri
		Acrylonitrile	Y	MS,MSD recovery and/or RPD failed acceptance criteri
		Tribromomethane	Y	MS,MSD recovery and/or RPD failed acceptance criteri
		1,2-Dibromoethane	Y	MS,MSD recovery and/or RPD failed acceptance criteri
		Vinyl chloride	Y	MS,MSD recovery and/or RPD failed acceptance criteri
		Dibromochloromethane	Y	MS,MSD recovery and/or RPD failed acceptance criteri
		Dichloromethane	Y	MS,MSD recovery and/or RPD failed acceptance criteri
		cis-1,3-Dichloropropene	Y	MS,MSD recovery and/or RPD failed acceptance criteri
		trans-1,2-Dichloroethene	Y	MS,MSD recovery and/or RPD failed acceptance criteri
		Gross alpha		TPU is 3.12. Rad error is 2.83.
		Gross beta		TPU is 9.24. Rad error is 6.79.
		lodine-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. Ra error is 59.3.

Finds/Unit: KY8-890-008-982 / 1

Facility: US DOE - Paducah Gaseous Diffusion Plant Permit Numbers: 073-00014 and 073-00015

LAB ID:<u>None</u> For Official Use Only

Monitoring Point	Facility Sample ID	Constituent	Flag	Description
004-4792 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.
		lodine-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.

Finds/Unit: KY8-890-008-982 / 1

Facility: US DOE - Paducah Gaseous Diffusion Plant Permit Numbers: 073-00014 and 073-00015

LAB ID:<u>None</u> For Official Use Only

Monitoring Point	Facility Sample ID	Constituent	Flag	Description
004-4809 MW384 MW384SG2-13		Beryllium	Х	Other specific flags and footnotes may be required to properly define the results.
		Silver	Ν	Sample spike recovery not within control limits.
		Chloroethane	Y	MS,MSD recovery and/or RPD failed acceptance crite
		Methyl chloride	Y	MS,MSD recovery and/or RPD failed acceptance crite
		Vinyl chloride	Y	MS,MSD recovery and/or RPD failed acceptance crit
		PCB, Total		Analysis of constituent not required and not performe
		PCB-1016		Analysis of constituent not required and not performe
		PCB-1221		Analysis of constituent not required and not performe
		PCB-1232		Analysis of constituent not required and not performe
		PCB-1242		Analysis of constituent not required and not performe
		PCB-1248		Analysis of constituent not required and not performe
		PCB-1254		Analysis of constituent not required and not performe
		PCB-1260		Analysis of constituent not required and not performe
		PCB-1268		Analysis of constituent not required and not performe
		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.
		lodine-131		Analysis of constituent not required and not performe
		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 crit

Finds/Unit: KY8-890-008-982 / 1

Facility: US DOE - Paducah Gaseous Diffusion Plant Permit Numbers: 073-00014 and 073-00015

LAB ID:<u>None</u> For Official Use Only

Monitoring Point	Facility Sample ID	Constituent	Flag	Description
004-4810 MW38	35 MW385SG2-13	Beryllium	Х	Other specific flags and footnotes may be required to properly define the results.
		Silver	Ν	Sample spike recovery not within control limits.
		Chloroethane	Y	MS,MSD recovery and/or RPD failed acceptance crite
		Methyl chloride	Y	MS,MSD recovery and/or RPD failed acceptance crite
		Vinyl chloride	Y	MS,MSD recovery and/or RPD failed acceptance crite
		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 performe
		PCB-1232		Analysis of constituent not required and not performe
		PCB-1242		Analysis of constituent not required and not performe
		PCB-1248		Analysis of constituent not required and not performe
		PCB-1254		Analysis of constituent not required and not performe
		PCB-1260		Analysis of constituent not required and not performe
		PCB-1268		Analysis of constituent not required and not performe
		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.
		lodine-131		Analysis of constituent not required and not performe
		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 crit

Finds/Unit: KY8-890-008-982 / 1

Facility: US DOE - Paducah Gaseous Diffusion Plant Permit Numbers: 073-00014 and 073-00015

LAB ID:<u>None</u> For Official Use Only

Monitoring Point	Facility Sample ID	Constituent	Flag	Description
004-4804 MW386 MW386SG2-13		Beryllium	Х	Other specific flags and footnotes may be required to properly define the results.
		Silver	Ν	Sample spike recovery not within control limits.
		Chloroethane	Y	MS,MSD recovery and/or RPD failed acceptance crite
		Methyl chloride	Y	MS,MSD recovery and/or RPD failed acceptance crite
		Vinyl chloride	Y	MS,MSD recovery and/or RPD failed acceptance crite
		1,2-Dibromo-3-chloropropane	Х	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 performe
		PCB-1221		Analysis of constituent not required and not performe
		PCB-1232		Analysis of constituent not required and not performe
		PCB-1242		Analysis of constituent not required and not performe
		PCB-1248		Analysis of constituent not required and not performe
		PCB-1254		Analysis of constituent not required and not performe
		PCB-1260		Analysis of constituent not required and not performe
		PCB-1268		Analysis of constituent not required and not performe
		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.
		lodine-131		Analysis of constituent not required and not performe
		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 crit

Finds/Unit: KY8-890-008-982 / 1

Facility: US DOE - Paducah Gaseous Diffusion Plant Permit Numbers: 073-00014 and 073-00015

LAB ID:<u>None</u> For Official Use Only

Monitoring Point	Facility Sample ID	Constituent	Flag	Description
004-4815 MW387 MW387SG2-13		Beryllium	Х	Other specific flags and footnotes may be required to properly define the results.
		Silver	Ν	Sample spike recovery not within control limits.
		Chloroethane	Y	MS,MSD recovery and/or RPD failed acceptance crite
		Methyl chloride	Y	MS,MSD recovery and/or RPD failed acceptance crite
		Vinyl chloride	Y	MS,MSD recovery and/or RPD failed acceptance crite
		PCB, Total		Analysis of constituent not required and not performed
		PCB-1016		Analysis of constituent not required and not performe
		PCB-1221		Analysis of constituent not required and not performe
		PCB-1232		Analysis of constituent not required and not performe
		PCB-1242		Analysis of constituent not required and not performe
		PCB-1248		Analysis of constituent not required and not performe
		PCB-1254		Analysis of constituent not required and not performe
		PCB-1260		Analysis of constituent not required and not performe
		PCB-1268		Analysis of constituent not required and not performe
		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.
		lodine-131		Analysis of constituent not required and not performe
		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 crite

Finds/Unit: KY8-890-008-982 / 1

Facility: US DOE - Paducah Gaseous Diffusion Plant Permit Numbers: 073-00014 and 073-00015

LAB ID:<u>None</u> For Official Use Only

Monitoring Point	Facility Sample ID	Constituent	Flag	Description
004-4816 MW388 MW388SG2-13		Beryllium	Х	Other specific flags and footnotes may be required to properly define the results.
		Silver	Ν	Sample spike recovery not within control limits.
		Chloroethane	Y	MS,MSD recovery and/or RPD failed acceptance crite
		Methyl chloride	Y	MS,MSD recovery and/or RPD failed acceptance crite
		Vinyl chloride	Y	MS,MSD recovery and/or RPD failed acceptance crite
		PCB, Total		Analysis of constituent not required and not performed
		PCB-1016		Analysis of constituent not required and not performe
		PCB-1221		Analysis of constituent not required and not performe
		PCB-1232		Analysis of constituent not required and not performe
		PCB-1242		Analysis of constituent not required and not performe
		PCB-1248		Analysis of constituent not required and not performe
		PCB-1254		Analysis of constituent not required and not performe
		PCB-1260		Analysis of constituent not required and not performe
		PCB-1268		Analysis of constituent not required and not performe
		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.
		lodine-131		Analysis of constituent not required and not performe
		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 crite

Finds/Unit: KY8-890-008-982 / 1

Facility: US DOE - Paducah Gaseous Diffusion Plant Permit Numbers: 073-00014 and 073-00015

LAB ID:<u>None</u> For Official Use Only

Monitoring Point	Facility Sample ID	Constituent	Flag	Description
004-4812 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 sampl was collected.
		Barometric Pressure Reading		During sampling, the well was dry; therefore, no sampl 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 sampl was collected.
		Dissolved Oxygen		During sampling, the well was dry; therefore, no sampl was collected.
		Total Dissolved Solids		During sampling, the well was dry; therefore, no sampl was collected.
		рН		During sampling, the well was dry; therefore, no sampl was collected.
		Eh		During sampling, the well was dry; therefore, no sampl was collected.
		Temperature		During sampling, the well was dry; therefore, no sampl was collected.
		Aluminum		During sampling, the well was dry; therefore, no sampl was collected.
		Antimony		During sampling, the well was dry; therefore, no sampl was collected.
		Arsenic		During sampling, the well was dry; therefore, no sampl was collected.
		Barium		During sampling, the well was dry; therefore, no sampl was collected.
		Beryllium		During sampling, the well was dry; therefore, no sample was collected.
		Boron		During sampling, the well was dry; therefore, no sampl was collected.
		Cadmium		During sampling, the well was dry; therefore, no sampl was collected.
		Calcium		During sampling, the well was dry; therefore, no sampl was collected.
		Chromium		During sampling, the well was dry; therefore, no sampl was collected.
		Cobalt		During sampling, the well was dry; therefore, no sampli was collected.
		Copper		During sampling, the well was dry; therefore, no sampli was collected.
		Iron		During sampling, the well was dry; therefore, no sampl was collected.
		Lead		During sampling, the well was dry; therefore, no sample was collected.

Finds/Unit: KY8-890-008-982 / 1

Facility: US DOE - Paducah Gaseous Diffusion Plant Permit Numbers: 073-00014 and 073-00015

LAB ID:<u>None</u> For Official Use Only

Monitoring Point	Facility Sample ID	Constituent	Flag	Description
004-4812 MW389		Magnesium		During sampling, the well was dry; therefore, no samplwas 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 sampl was collected.
		Nickel		During sampling, the well was dry; therefore, no sampl was collected.
		Potassium		During sampling, the well was dry; therefore, no sampl was collected.
		Rhodium		During sampling, the well was dry; therefore, no sampl was collected.
		Selenium		During sampling, the well was dry; therefore, no sampl was collected.
		Silver		During sampling, the well was dry; therefore, no sampl was collected.
		Sodium		During sampling, the well was dry; therefore, no sampl was collected.
		Tantalum		During sampling, the well was dry; therefore, no sampl was collected.
		Thallium		During sampling, the well was dry; therefore, no sampl was collected.
		Uranium		During sampling, the well was dry; therefore, no sampl was collected.
		Vanadium		During sampling, the well was dry; therefore, no sampl was collected.
		Zinc		During sampling, the well was dry; therefore, no sampl was collected.
		Vinyl acetate		During sampling, the well was dry; therefore, no samp was collected.
		Acetone		During sampling, the well was dry; therefore, no sampl was collected.
		Acrolein		During sampling, the well was dry; therefore, no sampl was collected.
		Acrylonitrile		During sampling, the well was dry; therefore, no sampl was collected.
		Benzene		During sampling, the well was dry; therefore, no sampl was collected.
		Chlorobenzene		During sampling, the well was dry; therefore, no sampl was collected.
		Xylenes		During sampling, the well was dry; therefore, no sampl was collected.
		Styrene		During sampling, the well was dry; therefore, no sampl was collected.
		Toluene		During sampling, the well was dry; therefore, no sampl was collected.
		Chlorobromomethane		During sampling, the well was dry; therefore, no sampl was collected.
		Bromodichloromethane		During sampling, the well was dry; therefore, no sampl was collected.

Finds/Unit: KY8-890-008-982 / 1

Facility: US DOE - Paducah Gaseous Diffusion Plant Permit Numbers: 073-00014 and 073-00015

LAB ID:<u>None</u> For Official Use Only

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.
		lodomethane		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.

Finds/Unit: KY8-890-008-982 / 1

Facility: US DOE - Paducah Gaseous Diffusion Plant Permit Numbers: 073-00014 and 073-00015

LAB ID:<u>None</u> For Official Use Only

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.
		lodine-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.

Finds/Unit: KY8-890-008-982 / 1

Facility: US DOE - Paducah Gaseous Diffusion Plant Permit Numbers: 073-00014 and 073-00015

LAB ID:<u>None</u> For Official Use Only

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.
		lodide		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.

Finds/Unit: KY8-890-008-982 / 1

Facility: US DOE - Paducah Gaseous Diffusion Plant Permit Numbers: 073-00014 and 073-00015

LAB ID:<u>None</u> For Official Use Only

Monitoring Point	Facility Sample ID	Constituent	Flag	Description
004-4811 MW390		Bromide		During sampling, the well was dry; therefore, no sampl was collected.
		Chloride		During sampling, the well was dry; therefore, no sampl was collected.
		Fluoride		During sampling, the well was dry; therefore, no sampl was collected.
		Nitrate & Nitrite		During sampling, the well was dry; therefore, no sampl was collected.
		Sulfate		During sampling, the well was dry; therefore, no samp was collected.
		Barometric Pressure Reading		During sampling, the well was dry; therefore, no samp was collected.
		Specific Conductance		During sampling, the well was dry; therefore, no sampl was collected.
		Static Water Level Elevation		During sampling, the well was dry; therefore, no sampl was collected.
		Dissolved Oxygen		During sampling, the well was dry; therefore, no sampl was collected.
		Total Dissolved Solids		During sampling, the well was dry; therefore, no sampl was collected.
		рН		During sampling, the well was dry; therefore, no samp was collected.
		Eh		During sampling, the well was dry; therefore, no samp was collected.
		Temperature		During sampling, the well was dry; therefore, no samp was collected.
		Aluminum		During sampling, the well was dry; therefore, no samp was collected.
		Antimony		During sampling, the well was dry; therefore, no samp was collected.
		Arsenic		During sampling, the well was dry; therefore, no samp was collected.
		Barium		During sampling, the well was dry; therefore, no samp was collected.
		Beryllium		During sampling, the well was dry; therefore, no samp was collected.
		Boron		During sampling, the well was dry; therefore, no samp was collected.
		Cadmium		During sampling, the well was dry; therefore, no samp was collected.
		Calcium		During sampling, the well was dry; therefore, no samp was collected.
		Chromium		During sampling, the well was dry; therefore, no samp was collected.
		Cobalt		During sampling, the well was dry; therefore, no samp was collected.
		Copper		During sampling, the well was dry; therefore, no samp was collected.
		Iron		During sampling, the well was dry; therefore, no samp was collected.
		Lead		During sampling, the well was dry; therefore, no samp was collected.

Finds/Unit: KY8-890-008-982 / 1

Facility: US DOE - Paducah Gaseous Diffusion Plant Permit Numbers: 073-00014 and 073-00015

LAB ID:<u>None</u> For Official Use Only

Monitoring Point	Facility Sample ID	Constituent	Flag	Description
004-4811 MW390		Magnesium		During sampling, the well was dry; therefore, no sampl was collected.
		Manganese		During sampling, the well was dry; therefore, no sampl was collected.
		Mercury		During sampling, the well was dry; therefore, no sampl was collected.
		Molybdenum		During sampling, the well was dry; therefore, no sampl was collected.
		Nickel		During sampling, the well was dry; therefore, no sampl was collected.
		Potassium		During sampling, the well was dry; therefore, no sampl was collected.
		Rhodium		During sampling, the well was dry; therefore, no sampl was collected.
		Selenium		During sampling, the well was dry; therefore, no sample was collected.
		Silver		During sampling, the well was dry; therefore, no sampl was collected.
		Sodium		During sampling, the well was dry; therefore, no sampl was collected.
		Tantalum		During sampling, the well was dry; therefore, no sampl was collected.
		Thallium		During sampling, the well was dry; therefore, no sampl was collected.
		Uranium		During sampling, the well was dry; therefore, no sampl was collected.
		Vanadium		During sampling, the well was dry; therefore, no sampl was collected.
		Zinc		During sampling, the well was dry; therefore, no sampl was collected.
		Vinyl acetate		During sampling, the well was dry; therefore, no sampl was collected.
		Acetone		During sampling, the well was dry; therefore, no sampl was collected.
		Acrolein		During sampling, the well was dry; therefore, no sampl was collected.
		Acrylonitrile		During sampling, the well was dry; therefore, no sampl was collected.
		Benzene		During sampling, the well was dry; therefore, no sampl was collected.
		Chlorobenzene		During sampling, the well was dry; therefore, no sampl was collected.
		Xylenes		During sampling, the well was dry; therefore, no sampl was collected.
		Styrene		During sampling, the well was dry; therefore, no sampl was collected.
		Toluene		During sampling, the well was dry; therefore, no sample was collected.
		Chlorobromomethane		During sampling, the well was dry; therefore, no sampl was collected.
		Bromodichloromethane		During sampling, the well was dry; therefore, no sampl was collected.

Finds/Unit: KY8-890-008-982 / 1

Facility: US DOE - Paducah Gaseous Diffusion Plant Permit Numbers: 073-00014 and 073-00015

LAB ID:<u>None</u> For Official Use Only

Monitoring Point	Facility Sample ID	Constituent	Flag	Description
3004-4811 MW390		Tribromomethane		During sampling, the well was dry; therefore, no sampl was collected.
		Methyl bromide		During sampling, the well was dry; therefore, no sampl was collected.
		Methyl Ethyl Ketone		During sampling, the well was dry; therefore, no sampl was collected.
		trans-1,4-Dichloro-2-butene		During sampling, the well was dry; therefore, no sampl was collected.
		Carbon disulfide		During sampling, the well was dry; therefore, no sampl was collected.
		Chloroethane		During sampling, the well was dry; therefore, no sampl was collected.
		Chloroform		During sampling, the well was dry; therefore, no sampl was collected.
		Methyl chloride		During sampling, the well was dry; therefore, no sampl was collected.
		cis-1,2-Dichloroethene		During sampling, the well was dry; therefore, no sampl was collected.
		Methylene bromide		During sampling, the well was dry; therefore, no sampl was collected.
		1,1-Dichloroethane		During sampling, the well was dry; therefore, no sampl was collected.
		1,2-Dichloroethane		During sampling, the well was dry; therefore, no sampl was collected.
		1,1-Dichloroethylene		During sampling, the well was dry; therefore, no sampl was collected.
		1,2-Dibromoethane		During sampling, the well was dry; therefore, no sampl was collected.
		1,1,2,2-Tetrachloroethane		During sampling, the well was dry; therefore, no sampl was collected.
		1,1,1-Trichloroethane		During sampling, the well was dry; therefore, no sampl was collected.
		1,1,2-Trichloroethane		During sampling, the well was dry; therefore, no sampl was collected.
		1,1,1,2-Tetrachloroethane		During sampling, the well was dry; therefore, no sampl was collected.
		Vinyl chloride		During sampling, the well was dry; therefore, no sampl was collected.
		Tetrachloroethene		During sampling, the well was dry; therefore, no sampl was collected.
		Trichloroethene		During sampling, the well was dry; therefore, no sampl was collected.
		Ethylbenzene		During sampling, the well was dry; therefore, no sampl was collected.
		2-Hexanone		During sampling, the well was dry; therefore, no sampl was collected.
		lodomethane		During sampling, the well was dry; therefore, no sampl was collected.
		Dibromochloromethane		During sampling, the well was dry; therefore, no sampl was collected.
		Carbon tetrachloride		During sampling, the well was dry; therefore, no sampl was collected.

Finds/Unit: KY8-890-008-982 / 1

Facility: US DOE - Paducah Gaseous Diffusion Plant Permit Numbers: 073-00014 and 073-00015

LAB ID:<u>None</u> For Official Use Only

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.
		lodine-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.

Finds/Unit: KY8-890-008-982 / 1

Facility: US DOE - Paducah Gaseous Diffusion Plant Permit Numbers: 073-00014 and 073-00015

LAB ID:<u>None</u> For Official Use Only

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.
		lodide		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.

Finds/Unit: KY8-890-008-982 / 1

Facility: US DOE - Paducah Gaseous Diffusion Plant Permit Numbers: 073-00014 and 073-00015

LAB ID:<u>None</u> For Official Use Only

Monitoring Point	Facility Sample ID	Constituent	Flag	Description
004-4805 MW391	MW391SG2-13	Beryllium	х	Other specific flags and footnotes may be required to properly define the results.
		Silver	Ν	Sample spike recovery not within control limits.
		Acetone	Y	MS,MSD recovery and/or RPD failed acceptance crite
		Acrylonitrile	Y	MS,MSD recovery and/or RPD failed acceptance crite
		Benzene	Y	MS,MSD recovery and/or RPD failed acceptance crite
		Chlorobenzene	Y	MS,MSD recovery and/or RPD failed acceptance crite
		Styrene	Y	MS,MSD recovery and/or RPD failed acceptance crite
		Bromodichloromethane	Y	MS,MSD recovery and/or RPD failed acceptance crite
		Tribromomethane	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Methyl bromide	Y	MS,MSD recovery and/or RPD failed acceptance crit
		trans-1,4-Dichloro-2-butene	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Carbon disulfide	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Chloroethane	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Chloroform	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Methyl chloride	Y	MS,MSD recovery and/or RPD failed acceptance crit
		cis-1,2-Dichloroethene	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Methylene bromide	Y	MS,MSD recovery and/or RPD failed acceptance crit
		1,1-Dichloroethane	Y	MS,MSD recovery and/or RPD failed acceptance crit
		1,2-Dichloroethane	Y	MS,MSD recovery and/or RPD failed acceptance crit
		1,2-Dibromoethane	Y	MS,MSD recovery and/or RPD failed acceptance crit
		1,1,2,2-Tetrachloroethane	Y	MS,MSD recovery and/or RPD failed acceptance crit
		1,1,1-Trichloroethane	Y	MS,MSD recovery and/or RPD failed acceptance crit
		1,1,2-Trichloroethane	Y	MS,MSD recovery and/or RPD failed acceptance crit
		1,1,1,2-Tetrachloroethane	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Vinyl chloride	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Tetrachloroethene	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Trichloroethene	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Ethylbenzene	Y	MS,MSD recovery and/or RPD failed acceptance crit
		2-Hexanone	Y	MS,MSD recovery and/or RPD failed acceptance crit
		lodomethane	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Dibromochloromethane	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Carbon tetrachloride	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Dichloromethane	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Methyl Isobutyl Ketone	Y	MS,MSD recovery and/or RPD failed acceptance crit
		1,2-Dichloropropane	Y	MS,MSD recovery and/or RPD failed acceptance crit
		trans-1,3-Dichloropropene	Y	MS,MSD recovery and/or RPD failed acceptance crit
		cis-1,3-Dichloropropene	Y	MS,MSD recovery and/or RPD failed acceptance crit
		trans-1,2-Dichloroethene	Ŷ	MS,MSD recovery and/or RPD failed acceptance crit
		Trichlorofluoromethane	Ý	MS,MSD recovery and/or RPD failed acceptance crit

Finds/Unit: KY8-890-008-982 / 1

Facility: US DOE - Paducah Gaseous Diffusion Plant Permit Numbers: 073-00014 and 073-00015

LAB ID:<u>None</u> For Official Use Only

Monitoring Point	Facility Sample ID	Constituent	Flag	Description
004-4805 MW39	91 MW391SG2-13	1,2,3-Trichloropropane	Y	MS,MSD recovery and/or RPD failed acceptance criteri
		1,2-Dichlorobenzene	Y	MS,MSD recovery and/or RPD failed acceptance criteri
		1,4-Dichlorobenzene	Y	MS,MSD recovery and/or RPD failed acceptance criteri
		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.
		lodine-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.

Finds/Unit: KY8-890-008-982 / 1

Facility: US DOE - Paducah Gaseous Diffusion Plant Permit Numbers: 073-00014 and 073-00015

LAB ID:<u>None</u> For Official Use Only

Monitoring Point	Facility Sample ID	Constituent	Flag	Description
04-4806 MW39	02 MW392SG2-13	Beryllium	х	Other specific flags and footnotes may be required to properly define the results.
		Silver	Ν	Sample spike recovery not within control limits.
		Acetone	Y	MS,MSD recovery and/or RPD failed acceptance crite
		Acrylonitrile	Y	MS,MSD recovery and/or RPD failed acceptance crite
		Benzene	Y	MS,MSD recovery and/or RPD failed acceptance crite
		Chlorobenzene	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Styrene	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Bromodichloromethane	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Tribromomethane	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Methyl bromide	Y	MS,MSD recovery and/or RPD failed acceptance crit
		trans-1,4-Dichloro-2-butene	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Carbon disulfide	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Chloroethane	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Chloroform	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Methyl chloride	Y	MS,MSD recovery and/or RPD failed acceptance crit
		cis-1,2-Dichloroethene	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Methylene bromide	Y	MS,MSD recovery and/or RPD failed acceptance crit
		1,1-Dichloroethane	Y	MS,MSD recovery and/or RPD failed acceptance crit
		1,2-Dichloroethane	Y	MS,MSD recovery and/or RPD failed acceptance crit
		1,2-Dibromoethane	Y	MS,MSD recovery and/or RPD failed acceptance cri
		1,1,2,2-Tetrachloroethane	Y	MS,MSD recovery and/or RPD failed acceptance crit
		1,1,1-Trichloroethane	Y	MS,MSD recovery and/or RPD failed acceptance crit
		1,1,2-Trichloroethane	Y	MS,MSD recovery and/or RPD failed acceptance crit
		1,1,1,2-Tetrachloroethane	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Vinyl chloride	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Tetrachloroethene	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Trichloroethene	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Ethylbenzene	Y	MS,MSD recovery and/or RPD failed acceptance crit
		2-Hexanone	Y	MS,MSD recovery and/or RPD failed acceptance crit
		lodomethane	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Dibromochloromethane	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Carbon tetrachloride	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Dichloromethane	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Methyl Isobutyl Ketone	Y	MS,MSD recovery and/or RPD failed acceptance crit
		1,2-Dichloropropane	Y	MS,MSD recovery and/or RPD failed acceptance crit
		trans-1,3-Dichloropropene	Y	MS,MSD recovery and/or RPD failed acceptance crit
		cis-1,3-Dichloropropene	Y	MS,MSD recovery and/or RPD failed acceptance crit
		trans-1,2-Dichloroethene	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Trichlorofluoromethane	Y	MS,MSD recovery and/or RPD failed acceptance crit

Finds/Unit: KY8-890-008-982 / 1

Facility: US DOE - Paducah Gaseous Diffusion Plant Permit Numbers: 073-00014 and 073-00015

LAB ID:<u>None</u> For Official Use Only

Monitoring Point	Facility Sample ID	Constituent	Flag	Description
004-4806 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.
		lodine-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.

Finds/Unit: KY8-890-008-982 / 1

Facility: US DOE - Paducah Gaseous Diffusion Plant Permit Numbers: 073-00014 and 073-00015

LAB ID:<u>None</u> For Official Use Only

Monitoring Point	Facility Sample ID	Constituent	Flag	Description
04-4807 MW39	93 MW393SG2-13	Beryllium	х	Other specific flags and footnotes may be required to properly define the results.
		Silver	Ν	Sample spike recovery not within control limits.
		Acetone	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Acrylonitrile	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Benzene	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Chlorobenzene	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Styrene	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Bromodichloromethane	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Tribromomethane	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Methyl bromide	Y	MS,MSD recovery and/or RPD failed acceptance crit
		trans-1,4-Dichloro-2-butene	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Carbon disulfide	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Chloroethane	Y	MS,MSD recovery and/or RPD failed acceptance cri
		Chloroform	Y	MS,MSD recovery and/or RPD failed acceptance cri
		Methyl chloride	Y	MS,MSD recovery and/or RPD failed acceptance cri
		cis-1,2-Dichloroethene	Y	MS,MSD recovery and/or RPD failed acceptance cri
		Methylene bromide	Y	MS,MSD recovery and/or RPD failed acceptance cri
		1,1-Dichloroethane	Y	MS,MSD recovery and/or RPD failed acceptance cri
		1,2-Dichloroethane	Y	MS,MSD recovery and/or RPD failed acceptance cri
		1,2-Dibromoethane	Y	MS,MSD recovery and/or RPD failed acceptance cri
		1,1,2,2-Tetrachloroethane	Y	MS,MSD recovery and/or RPD failed acceptance cri
		1,1,1-Trichloroethane	Y	MS,MSD recovery and/or RPD failed acceptance cri
		1,1,2-Trichloroethane	Y	MS,MSD recovery and/or RPD failed acceptance cri
		1,1,1,2-Tetrachloroethane	Y	MS,MSD recovery and/or RPD failed acceptance cri
		Vinyl chloride	Y	MS,MSD recovery and/or RPD failed acceptance cri
		Tetrachloroethene	Y	MS,MSD recovery and/or RPD failed acceptance cri
		Trichloroethene	Y	MS,MSD recovery and/or RPD failed acceptance cri
		Ethylbenzene	Y	MS,MSD recovery and/or RPD failed acceptance cri
		2-Hexanone	Y	MS,MSD recovery and/or RPD failed acceptance cri
		Iodomethane	Y	MS,MSD recovery and/or RPD failed acceptance cri
		Dibromochloromethane	Y	MS,MSD recovery and/or RPD failed acceptance cri
		Carbon tetrachloride	Y	MS,MSD recovery and/or RPD failed acceptance cri
		Dichloromethane	Y	MS,MSD recovery and/or RPD failed acceptance cri
		Methyl Isobutyl Ketone	Y	MS,MSD recovery and/or RPD failed acceptance cri
		1,2-Dichloropropane	Ý	MS,MSD recovery and/or RPD failed acceptance cri
		trans-1,3-Dichloropropene	Ý	MS,MSD recovery and/or RPD failed acceptance crit
		cis-1,3-Dichloropropene	Ý	MS,MSD recovery and/or RPD failed acceptance cri
		trans-1,2-Dichloroethene	Y	MS,MSD recovery and/or RPD failed acceptance cri
		Trichlorofluoromethane	Ŷ	MS,MSD recovery and/or RPD failed acceptance crit

Finds/Unit: KY8-890-008-982 / 1

Facility: US DOE - Paducah Gaseous Diffusion Plant Permit Numbers: 073-00014 and 073-00015

LAB ID:<u>None</u> For Official Use Only

Monitoring Point	Facility Sample ID	Constituent	Flag	Description
		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.
		lodine-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.

Finds/Unit: KY8-890-008-982 / 1

Facility: US DOE - Paducah Gaseous Diffusion Plant Permit Numbers: 073-00014 and 073-00015

LAB ID:<u>None</u> For Official Use Only

Monitoring Point	Facility Sample ID	Constituent	Flag	Description
		Beryllium	Х	Other specific flags and footnotes may be required to properly define the results.
		Silver	Ν	Sample spike recovery not within control limits.
		Chloroethane	Y	MS,MSD recovery and/or RPD failed acceptance crite
		Methyl chloride	Y	MS,MSD recovery and/or RPD failed acceptance crite
		Vinyl chloride	Y	MS,MSD recovery and/or RPD failed acceptance crite
		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 performe
		PCB-1232		Analysis of constituent not required and not performe
		PCB-1242		Analysis of constituent not required and not performe
		PCB-1248		Analysis of constituent not required and not performe
		PCB-1254		Analysis of constituent not required and not performe
		PCB-1260		Analysis of constituent not required and not performe
		PCB-1268		Analysis of constituent not required and not performe
		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.
		lodine-131		Analysis of constituent not required and not performe
		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 crit

Finds/Unit: KY8-890-008-982 / 1

Facility: US DOE - Paducah Gaseous Diffusion Plant Permit Numbers: 073-00014 and 073-00015

LAB ID:<u>None</u> For Official Use Only

Monitoring Point	Facility Sample ID	Constituent	Flag	Description
04-4801 MW39	5 MW395SG2-13	Beryllium	х	Other specific flags and footnotes may be required to properly define the results.
		Silver	Ν	Sample spike recovery not within control limits.
		Acetone	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Acrylonitrile	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Benzene	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Chlorobenzene	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Styrene	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Bromodichloromethane	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Tribromomethane	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Methyl bromide	Y	MS,MSD recovery and/or RPD failed acceptance crit
		trans-1,4-Dichloro-2-butene	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Carbon disulfide	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Chloroethane	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Chloroform	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Methyl chloride	Y	MS,MSD recovery and/or RPD failed acceptance crit
		cis-1,2-Dichloroethene	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Methylene bromide	Y	MS,MSD recovery and/or RPD failed acceptance crit
		1,1-Dichloroethane	Y	MS,MSD recovery and/or RPD failed acceptance crit
		1,2-Dichloroethane	Y	MS,MSD recovery and/or RPD failed acceptance crit
		1,2-Dibromoethane	Y	MS,MSD recovery and/or RPD failed acceptance cri
		1,1,2,2-Tetrachloroethane	Y	MS,MSD recovery and/or RPD failed acceptance cri
		1,1,1-Trichloroethane	Y	MS,MSD recovery and/or RPD failed acceptance crit
		1,1,2-Trichloroethane	Y	MS,MSD recovery and/or RPD failed acceptance crit
		1,1,1,2-Tetrachloroethane	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Vinyl chloride	Y	MS,MSD recovery and/or RPD failed acceptance cri
		Tetrachloroethene	Y	MS,MSD recovery and/or RPD failed acceptance cri
		Trichloroethene	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Ethylbenzene	Y	MS,MSD recovery and/or RPD failed acceptance crit
		2-Hexanone	Y	MS,MSD recovery and/or RPD failed acceptance crit
		lodomethane	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Dibromochloromethane	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Carbon tetrachloride	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Dichloromethane	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Methyl Isobutyl Ketone	Y	MS,MSD recovery and/or RPD failed acceptance cri
		1,2-Dichloropropane	Y	MS,MSD recovery and/or RPD failed acceptance crit
		trans-1,3-Dichloropropene	Y	MS,MSD recovery and/or RPD failed acceptance crit
		cis-1,3-Dichloropropene	Y	MS,MSD recovery and/or RPD failed acceptance crit
		trans-1,2-Dichloroethene	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Trichlorofluoromethane	Y	MS,MSD recovery and/or RPD failed acceptance crit

Finds/Unit: KY8-890-008-982 / 1

Facility: US DOE - Paducah Gaseous Diffusion Plant Permit Numbers: 073-00014 and 073-00015

LAB ID:<u>None</u> For Official Use Only

Monitoring Point	Facility Sample ID	Constituent	Flag	Description
		1,2,3-Trichloropropane	Y	MS,MSD recovery and/or RPD failed acceptance criteri
		1,2-Dichlorobenzene	Y	MS,MSD recovery and/or RPD failed acceptance criter
		1,4-Dichlorobenzene	Y	MS,MSD recovery and/or RPD failed acceptance criteri
		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.
		lodine-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.

Finds/Unit: KY8-890-008-982 / 1

Facility: US DOE - Paducah Gaseous Diffusion Plant Permit Numbers: 073-00014 and 073-00015

LAB ID:<u>None</u> For Official Use Only

Monitoring Point	Facility Sample ID	Constituent	Flag	Description
04-4803 MW39	6 MW396SG2-13	Beryllium	х	Other specific flags and footnotes may be required to properly define the results.
		Silver	Ν	Sample spike recovery not within control limits.
		Acetone	Y	MS,MSD recovery and/or RPD failed acceptance crite
		Acrylonitrile	Y	MS,MSD recovery and/or RPD failed acceptance crite
		Benzene	Y	MS,MSD recovery and/or RPD failed acceptance crite
		Chlorobenzene	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Styrene	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Bromodichloromethane	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Tribromomethane	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Methyl bromide	Y	MS,MSD recovery and/or RPD failed acceptance crit
		trans-1,4-Dichloro-2-butene	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Carbon disulfide	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Chloroethane	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Chloroform	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Methyl chloride	Y	MS,MSD recovery and/or RPD failed acceptance cri
		cis-1,2-Dichloroethene	Y	MS,MSD recovery and/or RPD failed acceptance cri
		Methylene bromide	Y	MS,MSD recovery and/or RPD failed acceptance cri
		1,1-Dichloroethane	Y	MS,MSD recovery and/or RPD failed acceptance cri
		1,2-Dichloroethane	Y	MS,MSD recovery and/or RPD failed acceptance cri
		1,2-Dibromoethane	Y	MS,MSD recovery and/or RPD failed acceptance cri
		1,1,2,2-Tetrachloroethane	Y	MS,MSD recovery and/or RPD failed acceptance cri
		1,1,1-Trichloroethane	Y	MS,MSD recovery and/or RPD failed acceptance cri
		1,1,2-Trichloroethane	Y	MS,MSD recovery and/or RPD failed acceptance crit
		1,1,1,2-Tetrachloroethane	Y	MS,MSD recovery and/or RPD failed acceptance cri
		Vinyl chloride	Y	MS,MSD recovery and/or RPD failed acceptance cri
		Tetrachloroethene	Y	MS,MSD recovery and/or RPD failed acceptance cri
		Trichloroethene	Y	MS,MSD recovery and/or RPD failed acceptance cri
		Ethylbenzene	Y	MS,MSD recovery and/or RPD failed acceptance crit
		2-Hexanone	Y	MS,MSD recovery and/or RPD failed acceptance cri
		lodomethane	Y	MS,MSD recovery and/or RPD failed acceptance cri
		Dibromochloromethane	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Carbon tetrachloride	Y	MS,MSD recovery and/or RPD failed acceptance cri
		Dichloromethane	Y	MS,MSD recovery and/or RPD failed acceptance cri
		Methyl Isobutyl Ketone	Y	MS,MSD recovery and/or RPD failed acceptance cri
		1,2-Dichloropropane	Ŷ	MS,MSD recovery and/or RPD failed acceptance crit
		trans-1,3-Dichloropropene	Ŷ	MS,MSD recovery and/or RPD failed acceptance crit
		cis-1,3-Dichloropropene	Ŷ	MS,MSD recovery and/or RPD failed acceptance crit
		trans-1,2-Dichloroethene	Ŷ	MS,MSD recovery and/or RPD failed acceptance crit
		Trichlorofluoromethane	Ŷ	MS,MSD recovery and/or RPD failed acceptance crit

Finds/Unit: KY8-890-008-982 / 1

Facility: US DOE - Paducah Gaseous Diffusion Plant Permit Numbers: 073-00014 and 073-00015

LAB ID:<u>None</u> For Official Use Only

Monitoring Point	Facility Sample ID	Constituent	Flag	Description
004-4803 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.
		lodine-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

Finds/Unit: KY8-890-008-982 / 1

Facility: US DOE - Paducah Gaseous Diffusion Plant Permit Numbers: 073-00014 and 073-00015

LAB ID:<u>None</u> For Official Use Only

Monitoring Point	Facility Sample ID	Constituent	Flag	Description
04-4817 MW39	97 MW397SG2-13	Beryllium	х	Other specific flags and footnotes may be required to properly define the results.
		Silver	Ν	Sample spike recovery not within control limits.
		Acetone	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Acrylonitrile	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Benzene	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Chlorobenzene	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Styrene	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Bromodichloromethane	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Tribromomethane	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Methyl bromide	Y	MS,MSD recovery and/or RPD failed acceptance crit
		trans-1,4-Dichloro-2-butene	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Carbon disulfide	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Chloroethane	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Chloroform	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Methyl chloride	Y	MS,MSD recovery and/or RPD failed acceptance crit
		cis-1,2-Dichloroethene	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Methylene bromide	Y	MS,MSD recovery and/or RPD failed acceptance crit
		1,1-Dichloroethane	Y	MS,MSD recovery and/or RPD failed acceptance cri
		1,2-Dichloroethane	Y	MS,MSD recovery and/or RPD failed acceptance cri
		1,2-Dibromoethane	Y	MS,MSD recovery and/or RPD failed acceptance cri
		1,1,2,2-Tetrachloroethane	Y	MS,MSD recovery and/or RPD failed acceptance cri
		1,1,1-Trichloroethane	Y	MS,MSD recovery and/or RPD failed acceptance cri
		1,1,2-Trichloroethane	Y	MS,MSD recovery and/or RPD failed acceptance cri
		1,1,1,2-Tetrachloroethane	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Vinyl chloride	Y	MS,MSD recovery and/or RPD failed acceptance cri
		Tetrachloroethene	Y	MS,MSD recovery and/or RPD failed acceptance cri
		Trichloroethene	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Ethylbenzene	Y	MS,MSD recovery and/or RPD failed acceptance crit
		2-Hexanone	Y	MS,MSD recovery and/or RPD failed acceptance crit
		lodomethane	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Dibromochloromethane	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Carbon tetrachloride	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Dichloromethane	Y	MS,MSD recovery and/or RPD failed acceptance cri
		Methyl Isobutyl Ketone	Y	MS,MSD recovery and/or RPD failed acceptance crit
		1,2-Dichloropropane	Y	MS,MSD recovery and/or RPD failed acceptance crit
		trans-1,3-Dichloropropene	Y	MS,MSD recovery and/or RPD failed acceptance crit
		cis-1,3-Dichloropropene	Y	MS,MSD recovery and/or RPD failed acceptance crit
		trans-1,2-Dichloroethene	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Trichlorofluoromethane	Y	MS,MSD recovery and/or RPD failed acceptance crit

Finds/Unit: KY8-890-008-982 / 1

Facility: US DOE - Paducah Gaseous Diffusion Plant Permit Numbers: 073-00014 and 073-00015

LAB ID:<u>None</u> For Official Use Only

Monitoring Point	Facility Sample ID	Constituent	Flag	Description
		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.
		lodine-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

Finds/Unit: KY8-890-008-982 / 1

Facility: US DOE - Paducah Gaseous Diffusion Plant Permit Numbers: 073-00014 and 073-00015

LAB ID:<u>None</u> For Official Use Only

Monitoring Point	Facility Sample ID	Constituent	Flag	Description
000-0000 QC	RI1SG2-13	Bromide		Analysis of constituent not required and not performe
		Chloride		Analysis of constituent not required and not performe
		Fluoride		Analysis of constituent not required and not performe
		Nitrate & Nitrite		Analysis of constituent not required and not performe
		Sulfate		Analysis of constituent not required and not performe
		Barometric Pressure Reading		Analysis of constituent not required and not performe
		Specific Conductance		Analysis of constituent not required and not performe
		Static Water Level Elevation		Analysis of constituent not required and not performe
		Dissolved Oxygen		Analysis of constituent not required and not performe
		Total Dissolved Solids		Analysis of constituent not required and not performe
		рН		Analysis of constituent not required and not performe
		Eh		Analysis of constituent not required and not performe
		Temperature		Analysis of constituent not required and not performe
		Beryllium	х	Other specific flags and footnotes may be required to properly define the results.
		Silver	Ν	Sample spike recovery not within control limits.
		Acetone	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Acrylonitrile	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Benzene	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Chlorobenzene	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Styrene	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Bromodichloromethane	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Tribromomethane	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Methyl bromide	Y	MS,MSD recovery and/or RPD failed acceptance crit
		trans-1,4-Dichloro-2-butene	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Carbon disulfide	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Chloroethane	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Chloroform	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Methyl chloride	Υ	MS,MSD recovery and/or RPD failed acceptance crit
		cis-1,2-Dichloroethene	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Methylene bromide	Υ	MS,MSD recovery and/or RPD failed acceptance crit
		1,1-Dichloroethane	Υ	MS,MSD recovery and/or RPD failed acceptance crit
		1,2-Dichloroethane	Y	MS,MSD recovery and/or RPD failed acceptance crit
		1,2-Dibromoethane	Y	MS,MSD recovery and/or RPD failed acceptance crit
		1,1,2,2-Tetrachloroethane	Y	MS,MSD recovery and/or RPD failed acceptance crit
		1,1,1-Trichloroethane	Y	MS,MSD recovery and/or RPD failed acceptance crit
		1,1,2-Trichloroethane	Y	MS,MSD recovery and/or RPD failed acceptance crit
		1,1,1,2-Tetrachloroethane	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Vinyl chloride	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Tetrachloroethene	Y	MS,MSD recovery and/or RPD failed acceptance crit

Finds/Unit: KY8-890-008-982 / 1

Facility: US DOE - Paducah Gaseous Diffusion Plant Permit Numbers: 073-00014 and 073-00015

LAB ID:<u>None</u> For Official Use Only

Monitoring Point	Facility Sample ID	Constituent	Flag	Description
000-0000 QC	RI1SG2-13	Trichloroethene	Y	MS,MSD recovery and/or RPD failed acceptance crite
		Ethylbenzene	Y	MS,MSD recovery and/or RPD failed acceptance crite
		2-Hexanone	Y	MS,MSD recovery and/or RPD failed acceptance crite
		lodomethane	Y	MS,MSD recovery and/or RPD failed acceptance crite
		Dibromochloromethane	Y	MS,MSD recovery and/or RPD failed acceptance crite
		Carbon tetrachloride	Y	MS,MSD recovery and/or RPD failed acceptance crite
		Dichloromethane	Y	MS,MSD recovery and/or RPD failed acceptance crite
		Methyl Isobutyl Ketone	Y	MS,MSD recovery and/or RPD failed acceptance crite
		1,2-Dichloropropane	Y	MS,MSD recovery and/or RPD failed acceptance crit
		trans-1,3-Dichloropropene	Y	MS,MSD recovery and/or RPD failed acceptance crit
		cis-1,3-Dichloropropene	Y	MS,MSD recovery and/or RPD failed acceptance crit
		trans-1,2-Dichloroethene	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Trichlorofluoromethane	Y	MS,MSD recovery and/or RPD failed acceptance crit
		1,2,3-Trichloropropane	Y	MS,MSD recovery and/or RPD failed acceptance crit
		1,2-Dichlorobenzene	Y	MS,MSD recovery and/or RPD failed acceptance crit
		1,4-Dichlorobenzene	Y	MS,MSD recovery and/or RPD failed acceptance crit
		PCB, Total		Analysis of constituent not required and not performe
		PCB-1016		Analysis of constituent not required and not performe
		PCB-1221		Analysis of constituent not required and not performe
		PCB-1232		Analysis of constituent not required and not perform
		PCB-1242		Analysis of constituent not required and not perform
		PCB-1248		Analysis of constituent not required and not performe
		PCB-1254		Analysis of constituent not required and not performe
		PCB-1260		Analysis of constituent not required and not performe
		PCB-1268		Analysis of constituent not required and not performe
		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.
		lodine-131		Analysis of constituent not required and not performe
		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 performe
		Cyanide		Analysis of constituent not required and not performe
		Total Organic Carbon		Analysis of constituent not required and not performe

RESIDENTIAL/INERT – QUARTERLY Facility: US DOE - Paducah Gaseous Diffusion Plant Permit Numbers: 073-00014 and 073-00015

Finds/Unit: KY8-890-008-982 / 1

LAB ID:<u>None</u> For Official Use Only

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

Finds/Unit: KY8-890-008-982 / 1

Facility: US DOE - Paducah Gaseous Diffusion Plant Permit Numbers: 073-00014 and 073-00015

LAB ID:<u>None</u> For Official Use Only

Monitoring Point	Facility Sample ID	Constituent	Flag	Description
000-0000 QC	FB1SG2-13	Bromide		Analysis of constituent not required and not performe
		Chloride		Analysis of constituent not required and not performe
		Fluoride		Analysis of constituent not required and not performe
		Nitrate & Nitrite		Analysis of constituent not required and not performe
		Sulfate		Analysis of constituent not required and not performe
		Barometric Pressure Reading		Analysis of constituent not required and not performe
		Specific Conductance		Analysis of constituent not required and not performe
		Static Water Level Elevation		Analysis of constituent not required and not performe
		Dissolved Oxygen		Analysis of constituent not required and not performe
		Total Dissolved Solids		Analysis of constituent not required and not performe
		рН		Analysis of constituent not required and not performe
		Eh		Analysis of constituent not required and not performe
		Temperature		Analysis of constituent not required and not performe
		Beryllium	Х	Other specific flags and footnotes may be required to properly define the results.
		Silver	Ν	Sample spike recovery not within control limits.
		Acetone	Υ	MS,MSD recovery and/or RPD failed acceptance crit
		Acrylonitrile	Υ	MS,MSD recovery and/or RPD failed acceptance crit
		Benzene	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Chlorobenzene	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Styrene	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Bromodichloromethane	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Tribromomethane	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Methyl bromide	Y	MS,MSD recovery and/or RPD failed acceptance crit
		trans-1,4-Dichloro-2-butene	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Carbon disulfide	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Chloroethane	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Chloroform	Υ	MS,MSD recovery and/or RPD failed acceptance crit
		Methyl chloride	Υ	MS,MSD recovery and/or RPD failed acceptance crit
		cis-1,2-Dichloroethene	Υ	MS,MSD recovery and/or RPD failed acceptance crit
		Methylene bromide	Y	MS,MSD recovery and/or RPD failed acceptance crit
		1,1-Dichloroethane	Υ	MS,MSD recovery and/or RPD failed acceptance crit
		1,2-Dichloroethane	Y	MS,MSD recovery and/or RPD failed acceptance crit
		1,2-Dibromoethane	Υ	MS,MSD recovery and/or RPD failed acceptance crit
		1,1,2,2-Tetrachloroethane	Υ	MS,MSD recovery and/or RPD failed acceptance crit
		1,1,1-Trichloroethane	Y	MS,MSD recovery and/or RPD failed acceptance crit
		1,1,2-Trichloroethane	Y	MS,MSD recovery and/or RPD failed acceptance crit
		1,1,1,2-Tetrachloroethane	Y	MS,MSD recovery and/or RPD failed acceptance crite
		Vinyl chloride	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Tetrachloroethene	Y	MS,MSD recovery and/or RPD failed acceptance crite

Finds/Unit: KY8-890-008-982 / 1

Facility: US DOE - Paducah Gaseous Diffusion Plant Permit Numbers: 073-00014 and 073-00015

LAB ID:<u>None</u> For Official Use Only

Monitoring Point	Facility Sample ID	Constituent	Flag	Description
000-0000 QC	FB1SG2-13	Trichloroethene	Y	MS,MSD recovery and/or RPD failed acceptance crite
		Ethylbenzene	Y	MS,MSD recovery and/or RPD failed acceptance crite
		2-Hexanone	Y	MS,MSD recovery and/or RPD failed acceptance crite
		lodomethane	Y	MS,MSD recovery and/or RPD failed acceptance crite
		Dibromochloromethane	Y	MS,MSD recovery and/or RPD failed acceptance crite
		Carbon tetrachloride	Y	MS,MSD recovery and/or RPD failed acceptance crite
		Dichloromethane	Y	MS,MSD recovery and/or RPD failed acceptance crite
		Methyl Isobutyl Ketone	Y	MS,MSD recovery and/or RPD failed acceptance crite
		1,2-Dichloropropane	Y	MS,MSD recovery and/or RPD failed acceptance crite
		trans-1,3-Dichloropropene	Y	MS,MSD recovery and/or RPD failed acceptance crite
		cis-1,3-Dichloropropene	Y	MS,MSD recovery and/or RPD failed acceptance crite
		trans-1,2-Dichloroethene	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Trichlorofluoromethane	Y	MS,MSD recovery and/or RPD failed acceptance crit
		1,2,3-Trichloropropane	Y	MS,MSD recovery and/or RPD failed acceptance crit
		1,2-Dichlorobenzene	Y	MS,MSD recovery and/or RPD failed acceptance crit
		1,4-Dichlorobenzene	Y	MS,MSD recovery and/or RPD failed acceptance crit
		PCB, Total		Analysis of constituent not required and not performe
		PCB-1016		Analysis of constituent not required and not performe
		PCB-1221		Analysis of constituent not required and not performe
		PCB-1232		Analysis of constituent not required and not performe
		PCB-1242		Analysis of constituent not required and not performe
		PCB-1248		Analysis of constituent not required and not performe
		PCB-1254		Analysis of constituent not required and not performe
		PCB-1260		Analysis of constituent not required and not performe
		PCB-1268		Analysis of constituent not required and not performe
		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.
		lodine-131		Analysis of constituent not required and not performe
		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 performe
		Cyanide		Analysis of constituent not required and not performe
		Total Organic Carbon		Analysis of constituent not required and not performe

RESIDENTIAL/INERT – QUARTERLY Facility: US DOE - Paducah Gaseous Diffusion Plant Permit Numbers: 073-00014 and 073-00015

Finds/Unit: KY8-890-008-982 / 1

LAB ID:<u>None</u> For Official Use Only

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

Finds/Unit: KY8-890-008-982 / 1

Facility: US DOE - Paducah Gaseous Diffusion Plant Permit Numbers: 073-00014 and 073-00015

LAB ID:<u>None</u> For Official Use Only

Monitoring Point	Facility Sample ID	Constituent	Flag	Description
000-0000 QC	TB1SG2-13	Bromide		Analysis of constituent not required and not performe
		Chloride		Analysis of constituent not required and not performe
		Fluoride		Analysis of constituent not required and not performe
		Nitrate & Nitrite		Analysis of constituent not required and not performe
		Sulfate		Analysis of constituent not required and not performe
		Barometric Pressure Reading		Analysis of constituent not required and not performe
		Specific Conductance		Analysis of constituent not required and not performe
		Static Water Level Elevation		Analysis of constituent not required and not performe
		Dissolved Oxygen		Analysis of constituent not required and not performe
		Total Dissolved Solids		Analysis of constituent not required and not performe
		рН		Analysis of constituent not required and not performe
		Eh		Analysis of constituent not required and not performe
		Temperature		Analysis of constituent not required and not performe
		Aluminum		Analysis of constituent not required and not performe
		Antimony		Analysis of constituent not required and not performe
		Arsenic		Analysis of constituent not required and not performe
		Barium		Analysis of constituent not required and not performe
		Beryllium		Analysis of constituent not required and not performe
		Boron		Analysis of constituent not required and not performe
		Cadmium		Analysis of constituent not required and not performe
		Calcium		Analysis of constituent not required and not performe
		Chromium		Analysis of constituent not required and not performe
		Cobalt		Analysis of constituent not required and not performe
		Copper		Analysis of constituent not required and not performe
		Iron		Analysis of constituent not required and not performe
		Lead		Analysis of constituent not required and not performe
		Magnesium		Analysis of constituent not required and not performe
		Manganese		Analysis of constituent not required and not performe
		Mercury		Analysis of constituent not required and not performe
		Molybdenum		Analysis of constituent not required and not performe
		Nickel		Analysis of constituent not required and not performe
		Potassium		Analysis of constituent not required and not performe
		Rhodium		Analysis of constituent not required and not performe
		Selenium		Analysis of constituent not required and not performe
		Silver		Analysis of constituent not required and not performe
		Sodium		Analysis of constituent not required and not performe
		Tantalum		Analysis of constituent not required and not performe
		Thallium		Analysis of constituent not required and not performe
		Uranium		Analysis of constituent not required and not performe

RESIDENTIAL/INERT – QUARTERLY Facility: US DOE - Paducah Gaseous Diffusio Finds/Unit: KY8-890-008-982 / 1

Facility: US DOE - Paducah Gaseous Diffusion Plant Permit Numbers: 073-00014 and 073-00015

LAB ID:<u>None</u> For Official Use Only

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 criter
		Methyl chloride	Y	MS,MSD recovery and/or RPD failed acceptance criter
		Vinyl chloride	Y	MS,MSD recovery and/or RPD failed acceptance criter
		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
		lodine-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.
		lodide		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.

Finds/Unit: KY8-890-008-982 / 1

Facility: US DOE - Paducah Gaseous Diffusion Plant Permit Numbers: 073-00014 and 073-00015

LAB ID:<u>None</u> For Official Use Only

Monitoring Point	Facility Sample ID	Constituent	Flag	Description
000-0000 QC	TB2SG2-13	Bromide		Analysis of constituent not required and not performe
		Chloride		Analysis of constituent not required and not performe
		Fluoride		Analysis of constituent not required and not performe
		Nitrate & Nitrite		Analysis of constituent not required and not performe
		Sulfate		Analysis of constituent not required and not performe
		Barometric Pressure Reading		Analysis of constituent not required and not performe
		Specific Conductance		Analysis of constituent not required and not performe
		Static Water Level Elevation		Analysis of constituent not required and not performe
		Dissolved Oxygen		Analysis of constituent not required and not performe
		Total Dissolved Solids		Analysis of constituent not required and not performe
		рН		Analysis of constituent not required and not performe
		Eh		Analysis of constituent not required and not performe
		Temperature		Analysis of constituent not required and not performe
		Aluminum		Analysis of constituent not required and not performe
		Antimony		Analysis of constituent not required and not performe
		Arsenic		Analysis of constituent not required and not performe
		Barium		Analysis of constituent not required and not performe
		Beryllium		Analysis of constituent not required and not performe
		Boron		Analysis of constituent not required and not perform
		Cadmium		Analysis of constituent not required and not perform
		Calcium		Analysis of constituent not required and not perform
		Chromium		Analysis of constituent not required and not performed
		Cobalt		Analysis of constituent not required and not perform
		Copper		Analysis of constituent not required and not perform
		Iron		Analysis of constituent not required and not perform
		Lead		Analysis of constituent not required and not perform
		Magnesium		Analysis of constituent not required and not performe
		Manganese		Analysis of constituent not required and not performe
		Mercury		Analysis of constituent not required and not performe
		Molybdenum		Analysis of constituent not required and not performe
		Nickel		Analysis of constituent not required and not performe
		Potassium		Analysis of constituent not required and not performe
		Rhodium		Analysis of constituent not required and not performe
		Selenium		Analysis of constituent not required and not performe
		Silver		Analysis of constituent not required and not performe
		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 performe
		Uranium		Analysis of constituent not required and not performe

Finds/Unit: KY8-890-008-982 / 1

Facility: US DOE - Paducah Gaseous Diffusion Plant Permit Numbers: 073-00014 and 073-00015

LAB ID:<u>None</u> For Official Use Only

Monitoring Point	Facility Sample ID	Constituent	Flag	Description
000-0000 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 crite
		Acrylonitrile	Y	MS,MSD recovery and/or RPD failed acceptance crite
		Benzene	Y	MS,MSD recovery and/or RPD failed acceptance crite
		Chlorobenzene	Y	MS,MSD recovery and/or RPD failed acceptance crite
		Styrene	Y	MS,MSD recovery and/or RPD failed acceptance crite
		Bromodichloromethane	Y	MS,MSD recovery and/or RPD failed acceptance crite
		Tribromomethane	Y	MS,MSD recovery and/or RPD failed acceptance crite
		Methyl bromide	Y	MS,MSD recovery and/or RPD failed acceptance crite
		trans-1,4-Dichloro-2-butene	Y	MS,MSD recovery and/or RPD failed acceptance crite
		Carbon disulfide	Y	MS,MSD recovery and/or RPD failed acceptance crite
		Chloroethane	Y	MS,MSD recovery and/or RPD failed acceptance crite
		Chloroform	Y	MS,MSD recovery and/or RPD failed acceptance crite
		Methyl chloride	Y	MS,MSD recovery and/or RPD failed acceptance crite
		cis-1,2-Dichloroethene	Y	MS,MSD recovery and/or RPD failed acceptance crite
		Methylene bromide	Y	MS,MSD recovery and/or RPD failed acceptance crite
		1,1-Dichloroethane	Y	MS,MSD recovery and/or RPD failed acceptance crite
		1,2-Dichloroethane	Y	MS,MSD recovery and/or RPD failed acceptance crite
		1,2-Dibromoethane	Y	MS,MSD recovery and/or RPD failed acceptance crite
		1,1,2,2-Tetrachloroethane	Y	MS,MSD recovery and/or RPD failed acceptance crite
		1,1,1-Trichloroethane	Y	MS,MSD recovery and/or RPD failed acceptance crite
		1,1,2-Trichloroethane	Y	MS,MSD recovery and/or RPD failed acceptance crite
		1,1,1,2-Tetrachloroethane	Y	MS,MSD recovery and/or RPD failed acceptance crite
		Vinyl chloride	Y	MS,MSD recovery and/or RPD failed acceptance crite
		Tetrachloroethene	Y	MS,MSD recovery and/or RPD failed acceptance crite
		Trichloroethene	Y	MS,MSD recovery and/or RPD failed acceptance crite
		Ethylbenzene	Y	MS,MSD recovery and/or RPD failed acceptance crite
		2-Hexanone	Y	MS,MSD recovery and/or RPD failed acceptance crite
		lodomethane	Y	MS,MSD recovery and/or RPD failed acceptance crite
		Dibromochloromethane	Y	MS,MSD recovery and/or RPD failed acceptance crite
		Carbon tetrachloride	Y	MS,MSD recovery and/or RPD failed acceptance crite
		Dichloromethane	Y	MS,MSD recovery and/or RPD failed acceptance crite
		Methyl Isobutyl Ketone	Y	MS,MSD recovery and/or RPD failed acceptance crite
		1,2-Dichloropropane	Y	MS,MSD recovery and/or RPD failed acceptance crite
		trans-1,3-Dichloropropene	Y	MS,MSD recovery and/or RPD failed acceptance crite
		cis-1,3-Dichloropropene	Y	MS,MSD recovery and/or RPD failed acceptance crite
		trans-1,2-Dichloroethene	Y	MS,MSD recovery and/or RPD failed acceptance crite
		Trichlorofluoromethane	Y	MS,MSD recovery and/or RPD failed acceptance crite

Finds/Unit: KY8-890-008-982 / 1

Facility: US DOE - Paducah Gaseous Diffusion Plant Permit Numbers: 073-00014 and 073-00015

LAB ID:<u>None</u> For Official Use Only

Monitoring Point	Facility Sample ID	Constituent	Flag	Description
000-0000 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.
		lodine-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.
		lodide		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.

Finds/Unit: KY8-890-008-982 / 1

Facility: US DOE - Paducah Gaseous Diffusion Plant Permit Numbers: 073-00014 and 073-00015

LAB ID:<u>None</u> For Official Use Only

Monitoring Point	Facility Sample ID	Constituent	Flag	Description
000-0000 QC	TB3SG2-13	Bromide		Analysis of constituent not required and not performe
		Chloride		Analysis of constituent not required and not performe
		Fluoride		Analysis of constituent not required and not performe
		Nitrate & Nitrite		Analysis of constituent not required and not performe
		Sulfate		Analysis of constituent not required and not performe
		Barometric Pressure Reading		Analysis of constituent not required and not performe
		Specific Conductance		Analysis of constituent not required and not performe
		Static Water Level Elevation		Analysis of constituent not required and not performe
		Dissolved Oxygen		Analysis of constituent not required and not performe
		Total Dissolved Solids		Analysis of constituent not required and not performe
		pH		Analysis of constituent not required and not performe
		Eh		Analysis of constituent not required and not performe
		Temperature		Analysis of constituent not required and not performed
		Aluminum		Analysis of constituent not required and not perform
		Antimony		Analysis of constituent not required and not perform
		Arsenic		Analysis of constituent not required and not perform
		Barium		Analysis of constituent not required and not perform
		Beryllium		Analysis of constituent not required and not perform
		Boron		Analysis of constituent not required and not perform
		Cadmium		Analysis of constituent not required and not perform
		Calcium		Analysis of constituent not required and not perform
		Chromium		Analysis of constituent not required and not perform
		Cobalt		Analysis of constituent not required and not perform
		Copper		Analysis of constituent not required and not perform
		Iron		Analysis of constituent not required and not perform
		Lead		Analysis of constituent not required and not perform
		Magnesium		Analysis of constituent not required and not perform
		Manganese		Analysis of constituent not required and not perform
		Mercury		Analysis of constituent not required and not perform
		Molybdenum		Analysis of constituent not required and not perform
		Nickel		Analysis of constituent not required and not perform
		Potassium		Analysis of constituent not required and not perform
		Rhodium		Analysis of constituent not required and not perform
		Selenium		Analysis of constituent not required and not perform
		Silver		Analysis of constituent not required and not perform
		Sodium		Analysis of constituent not required and not perform
		Tantalum		Analysis of constituent not required and not perform
		Thallium		Analysis of constituent not required and not perform
		Uranium		Analysis of constituent not required and not perform

Finds/Unit: KY8-890-008-982 / 1

Facility: US DOE - Paducah Gaseous Diffusion Plant Permit Numbers: 073-00014 and 073-00015

LAB ID:<u>None</u> For Official Use Only

Monitoring Point	Facility Sample ID	Constituent	Flag	Description
000-0000 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 crite
		Acrylonitrile	Y	MS,MSD recovery and/or RPD failed acceptance crite
		Benzene	Y	MS,MSD recovery and/or RPD failed acceptance crite
		Chlorobenzene	Y	MS,MSD recovery and/or RPD failed acceptance crite
		Styrene	Y	MS,MSD recovery and/or RPD failed acceptance crite
		Bromodichloromethane	Y	MS,MSD recovery and/or RPD failed acceptance crite
		Tribromomethane	Y	MS,MSD recovery and/or RPD failed acceptance crite
		Methyl bromide	Y	MS,MSD recovery and/or RPD failed acceptance crite
		trans-1,4-Dichloro-2-butene	Y	MS,MSD recovery and/or RPD failed acceptance crite
		Carbon disulfide	Y	MS,MSD recovery and/or RPD failed acceptance crite
		Chloroethane	Y	MS,MSD recovery and/or RPD failed acceptance crite
		Chloroform	Y	MS,MSD recovery and/or RPD failed acceptance crite
		Methyl chloride	Y	MS,MSD recovery and/or RPD failed acceptance crite
		cis-1,2-Dichloroethene	Y	MS,MSD recovery and/or RPD failed acceptance crite
		Methylene bromide	Y	MS,MSD recovery and/or RPD failed acceptance crite
		1,1-Dichloroethane	Y	MS,MSD recovery and/or RPD failed acceptance crite
		1,2-Dichloroethane	Y	MS,MSD recovery and/or RPD failed acceptance crite
		1,2-Dibromoethane	Y	MS,MSD recovery and/or RPD failed acceptance crite
		1,1,2,2-Tetrachloroethane	Y	MS,MSD recovery and/or RPD failed acceptance crite
		1,1,1-Trichloroethane	Y	MS,MSD recovery and/or RPD failed acceptance crite
		1,1,2-Trichloroethane	Y	MS,MSD recovery and/or RPD failed acceptance crite
		1,1,1,2-Tetrachloroethane	Y	MS,MSD recovery and/or RPD failed acceptance crite
		Vinyl chloride	Y	MS,MSD recovery and/or RPD failed acceptance crite
		Tetrachloroethene	Y	MS,MSD recovery and/or RPD failed acceptance crite
		Trichloroethene	Y	MS,MSD recovery and/or RPD failed acceptance crite
		Ethylbenzene	Y	MS,MSD recovery and/or RPD failed acceptance crite
		2-Hexanone	Y	MS,MSD recovery and/or RPD failed acceptance crite
		lodomethane	Y	MS,MSD recovery and/or RPD failed acceptance crite
		Dibromochloromethane	Y	MS,MSD recovery and/or RPD failed acceptance crite
		Carbon tetrachloride	Y	MS,MSD recovery and/or RPD failed acceptance crite
		Dichloromethane	Y	MS,MSD recovery and/or RPD failed acceptance crite
		Methyl Isobutyl Ketone	Y	MS,MSD recovery and/or RPD failed acceptance crite
		1,2-Dichloropropane	Y	MS,MSD recovery and/or RPD failed acceptance crite
		trans-1,3-Dichloropropene	Y	MS,MSD recovery and/or RPD failed acceptance crite
		cis-1,3-Dichloropropene	Y	MS,MSD recovery and/or RPD failed acceptance crite
		trans-1,2-Dichloroethene	Y	MS,MSD recovery and/or RPD failed acceptance crite
		Trichlorofluoromethane	Y	MS,MSD recovery and/or RPD failed acceptance crite

Finds/Unit: KY8-890-008-982 / 1

Facility: US DOE - Paducah Gaseous Diffusion Plant Permit Numbers: 073-00014 and 073-00015

LAB ID:<u>None</u> For Official Use Only

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.
		lodine-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.
		lodide		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.

Finds/Unit: KY8-890-008-982 / 1

Facility: US DOE - Paducah Gaseous Diffusion Plant Permit Numbers: 073-00014 and 073-00015

LAB ID:<u>None</u> For Official Use Only

Monitoring Point	Facility Sample ID	Constituent	Flag	Description
000-0000 QC	TB4SG2-13	Bromide		Analysis of constituent not required and not performe
		Chloride		Analysis of constituent not required and not performe
		Fluoride		Analysis of constituent not required and not performe
		Nitrate & Nitrite		Analysis of constituent not required and not performe
		Sulfate		Analysis of constituent not required and not performe
		Barometric Pressure Reading		Analysis of constituent not required and not performe
		Specific Conductance		Analysis of constituent not required and not performe
		Static Water Level Elevation		Analysis of constituent not required and not performe
		Dissolved Oxygen		Analysis of constituent not required and not performe
		Total Dissolved Solids		Analysis of constituent not required and not performe
		рН		Analysis of constituent not required and not performe
		Eh		Analysis of constituent not required and not performe
		Temperature		Analysis of constituent not required and not performe
		Aluminum		Analysis of constituent not required and not performe
		Antimony		Analysis of constituent not required and not performe
		Arsenic		Analysis of constituent not required and not performe
		Barium		Analysis of constituent not required and not performe
		Beryllium		Analysis of constituent not required and not performe
		Boron		Analysis of constituent not required and not performe
		Cadmium		Analysis of constituent not required and not performe
		Calcium		Analysis of constituent not required and not performe
		Chromium		Analysis of constituent not required and not performe
		Cobalt		Analysis of constituent not required and not performe
		Copper		Analysis of constituent not required and not performe
		Iron		Analysis of constituent not required and not performe
		Lead		Analysis of constituent not required and not performe
		Magnesium		Analysis of constituent not required and not performe
		Manganese		Analysis of constituent not required and not performe
		Mercury		Analysis of constituent not required and not performe
		Molybdenum		Analysis of constituent not required and not performe
		Nickel		Analysis of constituent not required and not performe
		Potassium		Analysis of constituent not required and not performe
		Rhodium		Analysis of constituent not required and not performe
		Selenium		Analysis of constituent not required and not performe
		Silver		Analysis of constituent not required and not performe
		Sodium		Analysis of constituent not required and not performe
		Tantalum		Analysis of constituent not required and not performe
		Thallium		Analysis of constituent not required and not performe
		Uranium		Analysis of constituent not required and not performe

Finds/Unit: KY8-890-008-982 / 1

Facility: US DOE - Paducah Gaseous Diffusion Plant Permit Numbers: 073-00014 and 073-00015

LAB ID:<u>None</u> For Official Use Only

Monitoring Point	Facility Sample ID	Constituent	Flag	Description
000-0000 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 crite
		Acrylonitrile	Y	MS,MSD recovery and/or RPD failed acceptance crite
		Benzene	Y	MS,MSD recovery and/or RPD failed acceptance crite
		Chlorobenzene	Y	MS,MSD recovery and/or RPD failed acceptance crite
		Styrene	Y	MS,MSD recovery and/or RPD failed acceptance crite
		Bromodichloromethane	Y	MS,MSD recovery and/or RPD failed acceptance crite
		Tribromomethane	Y	MS,MSD recovery and/or RPD failed acceptance crite
		Methyl bromide	Y	MS,MSD recovery and/or RPD failed acceptance crite
		trans-1,4-Dichloro-2-butene	Y	MS,MSD recovery and/or RPD failed acceptance crite
		Carbon disulfide	Y	MS,MSD recovery and/or RPD failed acceptance crite
		Chloroethane	Y	MS,MSD recovery and/or RPD failed acceptance crite
		Chloroform	Y	MS,MSD recovery and/or RPD failed acceptance crite
		Methyl chloride	Y	MS,MSD recovery and/or RPD failed acceptance crite
		cis-1,2-Dichloroethene	Y	MS,MSD recovery and/or RPD failed acceptance crite
		Methylene bromide	Y	MS,MSD recovery and/or RPD failed acceptance crite
		1,1-Dichloroethane	Y	MS,MSD recovery and/or RPD failed acceptance crite
		1,2-Dichloroethane	Y	MS,MSD recovery and/or RPD failed acceptance crit
		1,2-Dibromoethane	Y	MS,MSD recovery and/or RPD failed acceptance crite
		1,1,2,2-Tetrachloroethane	Y	MS,MSD recovery and/or RPD failed acceptance crit
		1,1,1-Trichloroethane	Y	MS,MSD recovery and/or RPD failed acceptance crite
		1,1,2-Trichloroethane	Y	MS,MSD recovery and/or RPD failed acceptance crite
		1,1,1,2-Tetrachloroethane	Y	MS,MSD recovery and/or RPD failed acceptance crite
		Vinyl chloride	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Tetrachloroethene	Y	MS,MSD recovery and/or RPD failed acceptance crite
		Trichloroethene	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Ethylbenzene	Y	MS,MSD recovery and/or RPD failed acceptance crit
		2-Hexanone	Y	MS,MSD recovery and/or RPD failed acceptance crite
		lodomethane	Y	MS,MSD recovery and/or RPD failed acceptance crite
		Dibromochloromethane	Y	MS,MSD recovery and/or RPD failed acceptance crite
		Carbon tetrachloride	Y	MS,MSD recovery and/or RPD failed acceptance crite
		Dichloromethane	Y	MS,MSD recovery and/or RPD failed acceptance crite
		Methyl Isobutyl Ketone	Y	MS,MSD recovery and/or RPD failed acceptance crite
		1,2-Dichloropropane	Y	MS,MSD recovery and/or RPD failed acceptance crite
		trans-1,3-Dichloropropene	Y	MS,MSD recovery and/or RPD failed acceptance crite
		cis-1,3-Dichloropropene	Y	MS,MSD recovery and/or RPD failed acceptance crite
		trans-1,2-Dichloroethene	Y	MS,MSD recovery and/or RPD failed acceptance crite
		Trichlorofluoromethane	Y	MS,MSD recovery and/or RPD failed acceptance crite

Finds/Unit: KY8-890-008-982 / 1

Facility: US DOE - Paducah Gaseous Diffusion Plant Permit Numbers: 073-00014 and 073-00015

LAB ID:<u>None</u> For Official Use Only

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.
		lodine-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.
		lodide		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.

Finds/Unit: KY8-890-008-982 / 1

Facility: US DOE - Paducah Gaseous Diffusion Plant Permit Numbers: 073-00014 and 073-00015

LAB ID:<u>None</u> For Official Use Only

Monitoring Point	Facility Sample ID	Constituent	Flag	Description
000-0000 QC	TB5SG2-13	Bromide		Analysis of constituent not required and not performe
		Chloride		Analysis of constituent not required and not performe
		Fluoride		Analysis of constituent not required and not performe
		Nitrate & Nitrite		Analysis of constituent not required and not performe
		Sulfate		Analysis of constituent not required and not performe
		Barometric Pressure Reading		Analysis of constituent not required and not performe
		Specific Conductance		Analysis of constituent not required and not performe
		Static Water Level Elevation		Analysis of constituent not required and not performe
		Dissolved Oxygen		Analysis of constituent not required and not performe
		Total Dissolved Solids		Analysis of constituent not required and not performe
		рН		Analysis of constituent not required and not performe
		Eh		Analysis of constituent not required and not performe
		Temperature		Analysis of constituent not required and not performe
		Aluminum		Analysis of constituent not required and not performe
		Antimony		Analysis of constituent not required and not performe
		Arsenic		Analysis of constituent not required and not performe
		Barium		Analysis of constituent not required and not performe
		Beryllium		Analysis of constituent not required and not performe
		Boron		Analysis of constituent not required and not performe
		Cadmium		Analysis of constituent not required and not performe
		Calcium		Analysis of constituent not required and not performe
		Chromium		Analysis of constituent not required and not performe
		Cobalt		Analysis of constituent not required and not performe
		Copper		Analysis of constituent not required and not performe
		Iron		Analysis of constituent not required and not performe
		Lead		Analysis of constituent not required and not performe
		Magnesium		Analysis of constituent not required and not performe
		Manganese		Analysis of constituent not required and not performe
		Mercury		Analysis of constituent not required and not performe
		Molybdenum		Analysis of constituent not required and not performe
		Nickel		Analysis of constituent not required and not performe
		Potassium		Analysis of constituent not required and not performe
		Rhodium		Analysis of constituent not required and not performe
		Selenium		Analysis of constituent not required and not performe
		Silver		Analysis of constituent not required and not performe
		Sodium		Analysis of constituent not required and not performe
		Tantalum		Analysis of constituent not required and not performe
		Thallium		Analysis of constituent not required and not performe
		Uranium		Analysis of constituent not required and not performe

Finds/Unit: KY8-890-008-982 / 1

Facility: US DOE - Paducah Gaseous Diffusion Plant Permit Numbers: 073-00014 and 073-00015

LAB ID:<u>None</u> For Official Use Only

Monitoring Point	Facility Sample ID	Constituent	Flag	Description
000-0000 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 crite
		Acrylonitrile	Y	MS,MSD recovery and/or RPD failed acceptance crite
		Benzene	Y	MS,MSD recovery and/or RPD failed acceptance crite
		Chlorobenzene	Y	MS,MSD recovery and/or RPD failed acceptance crite
		Styrene	Y	MS,MSD recovery and/or RPD failed acceptance crite
		Bromodichloromethane	Y	MS,MSD recovery and/or RPD failed acceptance crite
		Tribromomethane	Y	MS,MSD recovery and/or RPD failed acceptance crite
		Methyl bromide	Y	MS,MSD recovery and/or RPD failed acceptance crite
		trans-1,4-Dichloro-2-butene	Y	MS,MSD recovery and/or RPD failed acceptance crite
		Carbon disulfide	Y	MS,MSD recovery and/or RPD failed acceptance crite
		Chloroethane	Y	MS,MSD recovery and/or RPD failed acceptance crite
		Chloroform	Y	MS,MSD recovery and/or RPD failed acceptance crite
		Methyl chloride	Y	MS,MSD recovery and/or RPD failed acceptance crite
		cis-1,2-Dichloroethene	Y	MS,MSD recovery and/or RPD failed acceptance crite
		Methylene bromide	Y	MS,MSD recovery and/or RPD failed acceptance crite
		1,1-Dichloroethane	Y	MS,MSD recovery and/or RPD failed acceptance crite
		1,2-Dichloroethane	Y	MS,MSD recovery and/or RPD failed acceptance crite
		1,2-Dibromoethane	Y	MS,MSD recovery and/or RPD failed acceptance crite
		1,1,2,2-Tetrachloroethane	Y	MS,MSD recovery and/or RPD failed acceptance crite
		1,1,1-Trichloroethane	Y	MS,MSD recovery and/or RPD failed acceptance crite
		1,1,2-Trichloroethane	Y	MS,MSD recovery and/or RPD failed acceptance crite
		1,1,1,2-Tetrachloroethane	Y	MS,MSD recovery and/or RPD failed acceptance crite
		Vinyl chloride	Y	MS,MSD recovery and/or RPD failed acceptance crite
		Tetrachloroethene	Y	MS,MSD recovery and/or RPD failed acceptance crite
		Trichloroethene	Y	MS,MSD recovery and/or RPD failed acceptance crite
		Ethylbenzene	Y	MS,MSD recovery and/or RPD failed acceptance crite
		2-Hexanone	Y	MS,MSD recovery and/or RPD failed acceptance crite
		lodomethane	Y	MS,MSD recovery and/or RPD failed acceptance crite
		Dibromochloromethane	Y	MS,MSD recovery and/or RPD failed acceptance crite
		Carbon tetrachloride	Y	MS,MSD recovery and/or RPD failed acceptance crite
		Dichloromethane	Y	MS,MSD recovery and/or RPD failed acceptance crite
		Methyl Isobutyl Ketone	Y	MS,MSD recovery and/or RPD failed acceptance crite
		1,2-Dichloropropane	Y	MS,MSD recovery and/or RPD failed acceptance crite
		trans-1,3-Dichloropropene	Y	MS,MSD recovery and/or RPD failed acceptance crite
		cis-1,3-Dichloropropene	Y	MS,MSD recovery and/or RPD failed acceptance crite
		trans-1,2-Dichloroethene	Y	MS,MSD recovery and/or RPD failed acceptance crite
		Trichlorofluoromethane	Y	MS,MSD recovery and/or RPD failed acceptance crite

Finds/Unit: KY8-890-008-982 / 1

Facility: US DOE - Paducah Gaseous Diffusion Plant Permit Numbers: 073-00014 and 073-00015

LAB ID:<u>None</u> For Official Use Only

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.
		lodine-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.
		lodide		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.

Finds/Unit: KY8-890-008-982 / 1

Facility: US DOE - Paducah Gaseous Diffusion Plant Permit Numbers: 073-00014 and 073-00015

LAB ID:<u>None</u> For Official Use Only

Monitoring Point	Facility Sample ID	Constituent	Flag	Description
000-0000 QC	TB6SG2-13	Bromide		Analysis of constituent not required and not performe
		Chloride		Analysis of constituent not required and not performe
		Fluoride		Analysis of constituent not required and not performe
		Nitrate & Nitrite		Analysis of constituent not required and not performe
		Sulfate		Analysis of constituent not required and not performe
		Barometric Pressure Reading		Analysis of constituent not required and not performe
		Specific Conductance		Analysis of constituent not required and not performe
		Static Water Level Elevation		Analysis of constituent not required and not performe
		Dissolved Oxygen		Analysis of constituent not required and not performe
		Total Dissolved Solids		Analysis of constituent not required and not performe
		pН		Analysis of constituent not required and not performe
		Eh		Analysis of constituent not required and not perform
		Temperature		Analysis of constituent not required and not perform
		Aluminum		Analysis of constituent not required and not perform
		Antimony		Analysis of constituent not required and not perform
		Arsenic		Analysis of constituent not required and not perform
		Barium		Analysis of constituent not required and not perform
		Beryllium		Analysis of constituent not required and not perform
		Boron		Analysis of constituent not required and not perform
		Cadmium		Analysis of constituent not required and not perform
		Calcium		Analysis of constituent not required and not perform
		Chromium		Analysis of constituent not required and not perform
		Cobalt		Analysis of constituent not required and not perform
		Copper		Analysis of constituent not required and not perform
		Iron		Analysis of constituent not required and not perform
		Lead		Analysis of constituent not required and not perform
		Magnesium		Analysis of constituent not required and not perform
		Manganese		Analysis of constituent not required and not perform
		Mercury		Analysis of constituent not required and not perform
		Molybdenum		Analysis of constituent not required and not perform
		Nickel		Analysis of constituent not required and not perform
		Potassium		Analysis of constituent not required and not perform
		Rhodium		Analysis of constituent not required and not perform
		Selenium		Analysis of constituent not required and not perform
		Silver		Analysis of constituent not required and not perform
		Sodium		Analysis of constituent not required and not perform
		Tantalum		Analysis of constituent not required and not perform
		Thallium		Analysis of constituent not required and not perform
		Uranium		Analysis of constituent not required and not perform

Finds/Unit: KY8-890-008-982 / 1

Facility: US DOE - Paducah Gaseous Diffusion Plant Permit Numbers: 073-00014 and 073-00015

LAB ID:<u>None</u> For Official Use Only

Monitoring Point	Facility Sample ID	Constituent	Flag	Description
000-0000 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 crite
		Acrylonitrile	Y	MS,MSD recovery and/or RPD failed acceptance crite
		Benzene	Y	MS,MSD recovery and/or RPD failed acceptance crite
		Chlorobenzene	Y	MS,MSD recovery and/or RPD failed acceptance crite
		Styrene	Y	MS,MSD recovery and/or RPD failed acceptance crite
		Bromodichloromethane	Y	MS,MSD recovery and/or RPD failed acceptance crite
		Tribromomethane	Y	MS,MSD recovery and/or RPD failed acceptance crite
		Methyl bromide	Y	MS,MSD recovery and/or RPD failed acceptance crite
		trans-1,4-Dichloro-2-butene	Y	MS,MSD recovery and/or RPD failed acceptance crite
		Carbon disulfide	Y	MS,MSD recovery and/or RPD failed acceptance crite
		Chloroethane	Y	MS,MSD recovery and/or RPD failed acceptance crite
		Chloroform	Y	MS,MSD recovery and/or RPD failed acceptance crite
		Methyl chloride	Y	MS,MSD recovery and/or RPD failed acceptance crite
		cis-1,2-Dichloroethene	Y	MS,MSD recovery and/or RPD failed acceptance crite
		Methylene bromide	Y	MS,MSD recovery and/or RPD failed acceptance crite
		1,1-Dichloroethane	Y	MS,MSD recovery and/or RPD failed acceptance crite
		1,2-Dichloroethane	Y	MS,MSD recovery and/or RPD failed acceptance crite
		1,2-Dibromoethane	Y	MS,MSD recovery and/or RPD failed acceptance crite
		1,1,2,2-Tetrachloroethane	Y	MS,MSD recovery and/or RPD failed acceptance crite
		1,1,1-Trichloroethane	Y	MS,MSD recovery and/or RPD failed acceptance crite
		1,1,2-Trichloroethane	Y	MS,MSD recovery and/or RPD failed acceptance crite
		1,1,1,2-Tetrachloroethane	Y	MS,MSD recovery and/or RPD failed acceptance crite
		Vinyl chloride	Y	MS,MSD recovery and/or RPD failed acceptance crite
		Tetrachloroethene	Y	MS,MSD recovery and/or RPD failed acceptance crite
		Trichloroethene	Y	MS,MSD recovery and/or RPD failed acceptance crite
		Ethylbenzene	Y	MS,MSD recovery and/or RPD failed acceptance crite
		2-Hexanone	Y	MS,MSD recovery and/or RPD failed acceptance crite
		lodomethane	Y	MS,MSD recovery and/or RPD failed acceptance crite
		Dibromochloromethane	Y	MS,MSD recovery and/or RPD failed acceptance crite
		Carbon tetrachloride	Y	MS,MSD recovery and/or RPD failed acceptance crite
		Dichloromethane	Y	MS,MSD recovery and/or RPD failed acceptance crite
		Methyl Isobutyl Ketone	Y	MS,MSD recovery and/or RPD failed acceptance crite
		1,2-Dichloropropane	Y	MS,MSD recovery and/or RPD failed acceptance crite
		trans-1,3-Dichloropropene	Y	MS,MSD recovery and/or RPD failed acceptance crite
		cis-1,3-Dichloropropene	Y	MS,MSD recovery and/or RPD failed acceptance crite
		trans-1,2-Dichloroethene	Y	MS,MSD recovery and/or RPD failed acceptance crite
		Trichlorofluoromethane	Y	MS,MSD recovery and/or RPD failed acceptance crite

RESIDENTIAL/INERT – QUARTERLY

Finds/Unit: KY8-890-008-982 / 1

Facility: US DOE - Paducah Gaseous Diffusion Plant Permit Numbers: 073-00014 and 073-00015

LAB ID:<u>None</u> For Official Use Only

GROUNDWATER WRITTEN COMMENTS

Monitoring Point	Facility Sample ID	Constituent	Flag	Description
000-0000 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.
		lodine-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.
		lodide		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 Permit Numbers: 073-00014 and 073-00015

LAB ID:<u>None</u> For Official Use Only

GROUNDWATER WRITTEN COMMENTS

Monitoring Point	Facility Sample ID	Constituent	Flag	Description
04-4805 MW391	MW391DSG2-13	Beryllium	х	Other specific flags and footnotes may be required to properly define the results.
		Silver	Ν	Sample spike recovery not within control limits.
		Acetone	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Acrylonitrile	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Benzene	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Chlorobenzene	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Styrene	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Bromodichloromethane	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Tribromomethane	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Methyl bromide	Y	MS,MSD recovery and/or RPD failed acceptance crit
		trans-1,4-Dichloro-2-butene	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Carbon disulfide	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Chloroethane	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Chloroform	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Methyl chloride	Y	MS,MSD recovery and/or RPD failed acceptance crit
		cis-1,2-Dichloroethene	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Methylene bromide	Y	MS,MSD recovery and/or RPD failed acceptance cri
		1,1-Dichloroethane	Y	MS,MSD recovery and/or RPD failed acceptance cri
		1,2-Dichloroethane	Y	MS,MSD recovery and/or RPD failed acceptance cri
		1,2-Dibromoethane	Y	MS,MSD recovery and/or RPD failed acceptance cri
		1,1,2,2-Tetrachloroethane	Y	MS,MSD recovery and/or RPD failed acceptance cri
		1,1,1-Trichloroethane	Y	MS,MSD recovery and/or RPD failed acceptance cri
		1,1,2-Trichloroethane	Y	MS,MSD recovery and/or RPD failed acceptance cri
		1,1,1,2-Tetrachloroethane	Y	MS,MSD recovery and/or RPD failed acceptance cri
		Vinyl chloride	Y	MS,MSD recovery and/or RPD failed acceptance cri
		Tetrachloroethene	Y	MS,MSD recovery and/or RPD failed acceptance cri
		Trichloroethene	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Ethylbenzene	Y	MS,MSD recovery and/or RPD failed acceptance cri
		2-Hexanone	Y	MS,MSD recovery and/or RPD failed acceptance cri
		lodomethane	Y	MS,MSD recovery and/or RPD failed acceptance cri
		Dibromochloromethane	Y	MS,MSD recovery and/or RPD failed acceptance cri
		Carbon tetrachloride	Y	MS,MSD recovery and/or RPD failed acceptance cri
		Dichloromethane	Y	MS,MSD recovery and/or RPD failed acceptance cri
		Methyl Isobutyl Ketone	Y	MS,MSD recovery and/or RPD failed acceptance cri
		1,2-Dichloropropane	Y	MS,MSD recovery and/or RPD failed acceptance crit
		trans-1,3-Dichloropropene	Y	MS,MSD recovery and/or RPD failed acceptance crit
		cis-1,3-Dichloropropene	Y	MS,MSD recovery and/or RPD failed acceptance crit
		trans-1,2-Dichloroethene	Y	MS,MSD recovery and/or RPD failed acceptance crit
		Trichlorofluoromethane	Y	MS,MSD recovery and/or RPD failed acceptance crit

RESIDENTIAL/INERT – QUARTERLY

Finds/Unit: KY8-890-008-982 / 1

Facility: US DOE - Paducah Gaseous Diffusion Plant Permit Numbers: 073-00014 and 073-00015

LAB ID:<u>None</u> For Official Use Only

GROUNDWATER WRITTEN COMMENTS

Monitoring Point	Facility Sample ID	Constituent	Flag	Description
004-4805 MW39	1 MW391DSG2-13	1,2,3-Trichloropropane	Y	MS,MSD recovery and/or RPD failed acceptance criter
		1,2-Dichlorobenzene	Y	MS,MSD recovery and/or RPD failed acceptance criter
		1,4-Dichlorobenzene	Y	MS,MSD recovery and/or RPD failed acceptance criter
		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.
		lodine-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 Facility: U.S. DOE – Paducah Gaseous Diffusion Plant Permit Numbers: 073-00014 and 073-00015 Finds/Unit: ______ Lab ID: _____ 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 $CV \le 1.0$, 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: $TL = X + (K \times S)$
- 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)

Station	Туре	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

Exhibit 1. Station Identification for Monitoring Wells Analyzed

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

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)	

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

* 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.

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

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

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

Bold denotes parameters with at least one uncensored observation.

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	10	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	
Iron	11	0	2	9	no YES
Magnesium	<u> </u>	0	0	<u> </u>	YES

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

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
рН	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

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

Bold denotes parameters with at least one uncensored observation.

1,1,1,2-Terachloroschane 7 0 7 0 no 1,1,2-Terachloroschane 7 0 7 0 no 1,1,2-Terichloroschane 7 0 7 0 no 1,1-Dichloroschane 7 0 7 0 no 1,2-Dichoroschane 7 0 7 0 no 2-Hexanone 7 0 7 0 no no 2-Hexanone 7 0 7 0 no no Acrolarin 7 0 7 0 no no Actrolarin 7 0 7 0 no	Parameters	Observations	Missing Observation	Censored Observation	Uncensored Observation	Statistical Analysis?
1.1.2-Trichlorochane 7 0 7 0 no 1.1-Dichlorochane 7 0 7 0 no 1.2-Dichlorochane 7 0 7 0 no 1.2-Dichorochane 7 0 7 0 no 1.2-Dichlorochane 7 0 7 0 no 1.2-Dichloropopane 7 0 7 0 no 2-Bichloropopane 7 0 7 0 no 2-Bichloropopane 7 0 7 0 no 2-Hexanone 7 0 7 0 no 2-Hexanone 7 0 7 0 no Acetone 7 0 7 0 no Acetone 7 0 7 0 no Animony 7 0 7 0 no Bromich 7 0 7 0 no Bromich 7 0 7 0 no Bromiche	1,1,1,2-Tetrachloroethane	7	0	7	0	no
1.1-Dichloronethane 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-Dibromo-5-chloropropane 7 0 7 0 no 1.2-Dichlorobeznen 7 0 7 0 no 1.2-Dichlorobeznen 7 0 7 0 no 2-Butanone 7 0 7 0 no 4-Methyl-2-pentanone 7 0 7 0 no Acetone 7 0 7 0 no Acetone 7 0 7 0 no Acetone 7 0 7 0 no Bromidicheronethane 7 0 7 0 no Bromochioromethane 7 0 7 0 no Bromochioronethane 1 Bromochioromethane 7 0 7 0 no Bromochioronethane 1 V	1,1,2,2-Tetrachloroethane	7	0	7	0	no
1.2.3-Dibromo-3-chloropropane 7 0 7 0 no 1.2-Dibromo-3-chloropropane 7 0 7 0 no 1.2-Dibromo-3-chloropropane 7 0 7 0 no 1.2-Dibromo-3-chloropropane 7 0 7 0 no 1.2-Dibropropane 7 0 7 0 no 2-Hexanone 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 Acetone 7 0 7 0 no Actinony 7 0 7 0 no Bromide 7 0 7 0 no	1,1,2-Trichloroethane	7	0	7	0	no
1.2-Dibromo-3-chloropropane 7 0 7 0 no 1.2-Dibromo-schene 7 0 7 0 no 1.2-Dichloroptopane 7 0 7 0 no 1.2-Dichloroptopane 7 0 7 0 no 2-Butanone 7 0 7 0 no 2-Hexanone 7 0 7 0 no Actoine 7 0 7 0 no Actoine 7 0 7 0 no Actrolaritifie 7 0 7 0 no Antimony 7 0 6 1 YES Antimony 7 0 7 0 no Bromide 7 0 7 0 no Bromodichloromethane 7 0 7 0 no Bromodichloromethane 7 0 7 0 no Bromodichloromethane 7 0 7 0 no	1,1-Dichloroethane	7	0	7	0	no
1.2-Dibromo-3-chloropropane 7 0 7 0 no 1.2-Dibromo-schene 7 0 7 0 no 1.2-Dichloroptopane 7 0 7 0 no 1.2-Dichloroptopane 7 0 7 0 no 2-Butanone 7 0 7 0 no 2-Hexanone 7 0 7 0 no Actoine 7 0 7 0 no Actoine 7 0 7 0 no Actrolaritifie 7 0 7 0 no Antimony 7 0 6 1 YES Antimony 7 0 7 0 no Bromide 7 0 7 0 no Bromodichloromethane 7 0 7 0 no Bromodichloromethane 7 0 7 0 no Bromodichloromethane 7 0 7 0 no		7	0	7	0	no
1.2-Dichlorobenzene 7 0 7 0 no 1.2-Dichlorobenzene 7 0 7 0 no 2-Butanone 7 0 7 0 no 2-Butanone 7 0 7 0 no 2-Hexanone 7 0 7 0 no 2-Hexanone 7 0 7 0 no Actolein 7 0 7 0 no Actolein 7 0 7 0 no Actolein 7 0 7 0 no Autiminum 7 0 7 0 no Bromide 7 0 7 0 no Bromochicoromethane 7 0<		7	0	7	0	no
1,2-Dichloropropane 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 Acctone 7 0 7 0 no Acroleinine 7 0 7 0 no Acroleinine 7 0 7 0 no Aluminum 7 0 7 0 no Bromodichloromethane 7 0 7 0 no		7	0		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 Acctolein 7 0 7 0 no Acroleinin 7 0 7 0 no Acroleinin 7 0 7 0 no Anuminony 7 0 6 1 YES Antimony 7 0 7 0 no Bromide 7 0 7 0 no Bromodichoromethane 7 0 7 0 no	,		0		0	
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Molybdenum 7 0 7 0 no			-		-	no
	Molybdenum	7	0	7	0	no

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

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

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

 \boldsymbol{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.

<u>UCRS</u>

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.

<u>LRGA</u>

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.

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

Exhibit 6. Summary of Statistical Increases

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

Exhibit 7. Summary of Parameters Identified for Statistical Analysis and the Tes	st Results—UCRS
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CV: coefficient of variation

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
pН	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

Exhibit 8. Summary of Par	rameters Identified for S	Statistical Analysis and th	e Test Results—URGA
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Parameter	r Performed Test (Norma		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
рН	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

Exhibit 9. Summary of Parameters Identified for Statist	ical Analysis and the Test Results_I RCA
Exhibit 9. Summary of Farameters Identified for Statistic	ical Allalysis and the Test Results—LNGA

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 I Upgradient W		Statist Backg		on ınd Data	
Well Number:	MW396	X= 41	.82	5	
Date Collected	Result	S= 8.	••••		
8/13/2002	38.400	CV= 0 K fact		2	
9/16/2002	42.900	TL = 0			>
10/16/2002	40.200	IL-	00.7	0	
1/13/2003	46.700			han or equal to 1,	
4/8/2003	49.800	assunt		bution and continu	
7/16/2003	43.300	with sta	usu	cal anayl	515.
10/14/2003	49.700				
1/14/2004	23.600				
First Quarter January 2013	2013 Data Co	ollected in		*	arter 2013 tially Dry Wells
Well No. Res	ult Gradient	Result > TL?	1	Well No.	Gradient
MW386 21.7	00 Sidegradi	ent NO	1	MW389	Downgradient
	00 Downgrad	dient NO			

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 mg/L **Chemical Oxygen Demand (COD) UNITS:**

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.

Backgrou Upgradier				Statist Backg	ics on round Data	
Well Numb	er: N	4W396		X= 35	.375	
Date Collec	cted	Result		S=0.7		
8/13/200	2	36.000		CV=0	0.021 0r** = 3.18	0
9/16/200	2	35.000		TL= 3		0
10/16/20	02	37.000		1L- 3	/./**/	
1/13/200	3	35.000			han or equal to 1,	
4/8/2003		35.000		abb anne 1	ibution and contin	
7/16/200	3	35.000		with stat	istical anay	1818.
10/14/20	03	35.000				
1/14/200	4	35.000				
First Qua January 2		13 Data Co	ollected	in	-	arter 2013 tially Dry Wells
Well No.	Result	Gradient	Resu	lt > TL?	Well No.	Gradient
MW386	38.000	Sidegradi	ent	YES	MW389	Downgradient
MW393	25 000	Downgrad	diant	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. **MW386**

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

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

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

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

^{**} 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 mg/L Chloride **UNITS:**

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				Statistics on Background Data			
Well Numbe	er: N	1W396		X= 101.725			
Date Collect	ed	Result		S= 5.2			
8/13/2002		91.600		CV=0	••	52 ** = 3.188	5
9/16/2002		98.300		TL= 1			b
10/16/200	2	101.400		ļ	_		
1/13/2003		108.300		Because CV is less than or equ assume normal distribution and with statistical anaylsis.			
4/8/2003		100.500					
7/16/2003		102.500					515.
10/14/200	3	106.800					
1/14/2004		104.400					
First Quart January 20		13 Data Co	ollected	in		~	arter 2013 tially Dry Wells
Well No. F	Result	Gradient	Resu	lt > TL?		Well No.	Gradient
MW386 1	9.000	Sidegradi	ent	NO		MW389	Downgradient
MW393 1	7.000	Downgra	dient	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.

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

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

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

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

^{**} 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 D-19

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		Statistics on Background Data	Transformed Background Data from Upgradient Wel
Well Number:	MW396	X= 0.008	Well Number: MW396
Date Collected	Result	S = 0.011	Date Collected LN(Result)
8/13/2002	0.025	CV= 1.340	8/13/2002 -3.689
9/16/2002	0.025	K factor** = 3.188 TL= 0.042	9/16/2002 -3.689
10/16/2002	0.001	1L- 0.042	10/16/2002 -6.908
1/13/2003	0.003	Because CV greater than 1, the n	1/13/2003 -3.732
4/8/2003	0.004	logarithm of background and test were calculated.	4/8/2003 -5.435
7/16/2003	0.003	were calculated.	7/16/2003 -5.893
10/14/2003	0.001	Statistics on	10/14/2003 -6.908
1/14/2004	0.001	Transformed Background Data	1/14/2004 -6.908
		X= -5.645	
		S= 1.339	
		CV= -0.237	
		K factor** = 3.188	
		TL= -1.377	

First Quarter 2013 Data Collected in January 2013					arter 2013 tially Dry Wells	Transformed First Quarter 2013 Data Collected in January 2013		
Well No.	Result	Gradient Resu	ılt > TL?	Well No.	Gradient	Well Number	I N(Result)	Result > TL?
MW386 MW393	0.007 0.001	Sidegradient Downgradient	N/A N/A	MW389	Downgradient	MW386 MW393	-4.943 -6.908	NO 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 **UNITS: umho/cm** Conductivity

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.

Upgradient W	Data from Tells	Statistics on Background Data
Well Number:	MW396	X = 922.500
Date Collected	Result	S= 107.616 CV= 0.117
8/13/2002	784.000	$C_{V} = 0.117$ K factor** = 3.188
9/30/2002	871.000	TL = 1265.579
10/16/2002	868.000	
1/13/2003	912.000	Because CV is less than or equal to 1,
4/8/2003	942.000	assume normal distribution and continu with statistical anaylsis.
7/16/2003	910.000	with statistical analysis.
10/14/2003	935.000	
1/14/2004	1158.00	
1/14/2004	1130.00	
	2013 Data Collec	cted in First Quarter 2013 Dry/Partially Dry Wells
First Quarter January 2013	2013 Data Collec	-
First Quarter January 2013 Well No. Rest	2013 Data Collec	Dry/Partially Dry Wells

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.

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

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

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

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

^{**} 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 D-21

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

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 E Upgradient W		Statistics on Background Data	Transformed Data from Up	0
Well Number:	MW396	X= 1.395	Well Number:	MW396
Date Collected	Result	S = 1.677	Date Collected	LN(Result)
8/13/2002	5.450	CV= 1.202 K factor** = 3.188	8/13/2002	1.696
9/16/2002	0.400	TL = 6.743	9/16/2002	-0.916
10/16/2002	0.540	1L- 0./43	10/16/2002	-0.616
1/13/2003	0.720	Because CV greater than 1, the natural	1/13/2003	-0.329
4/8/2003	0.690	logarithm of background and test well resul were calculated.	ts 4/8/2003	-0.371
7/16/2003	1.100	were calculated.	7/16/2003	0.095
10/14/2003	0.710	Statistics on	10/14/2003	-0.342
1/14/2004	1.550	Transformed Background Data	1/14/2004	0.438
		X= -0.043		
		S= 0.814		
		CV= -18.867		
		K factor** = 3.188		
		TL= 2.553		

First Qua January		3 Data Collected in	l		arter 2013 tially Dry Wells	Transformed Collected in J	•	
Well No.	Result	Gradient Resu	lt > TL?	Well No.	Gradient	Well Number	LN(Result)	Result > TL?
MW386 MW393	1.320 1.200	Sidegradient Downgradient	N/A N/A	MW389	Downgradient	MW386 MW393	0.278 0.182	NO 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.

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

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

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

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

** 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 D-22

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

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 Upgradient	d Data from Wells		Statist Backg		s on ound Data	
Well Number	r: MW396		X= 55	0.:	375	
Date Collecte	ed Result	_	S= 10			
8/13/2002	502.00)	CV = 0			
9/16/2002	506.00)	TL= 8		** = 3.188 2 980	
10/16/2002	2 543.00)	$\mathbf{IL} = 0$	04	2.700	
1/13/2003	521.00)				an or equal to 1,
4/8/2003	504.00)	assume normal distribution and with statistical analysis.			
7/16/2003	532.00)	with stat	15	ucai anayis	515.
10/14/2003	3 490.00)				
1/14/2004	805.00)				
First Quart January 20	er 2013 Data 13	Collecte	ed in		-	arter 2013 ially Dry Wells
Well No. R	esult Gradie	ent Re	esult > TL?		Well No.	Gradient
MW386 4	05.00 Sidegi	adient	NO		MW389	Downgradient
MW393 2	46.00 Down	gradient	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.

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

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

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

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

^{**} 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 D-23

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.

$ \begin{array}{l} X = 7.796 \\ S = 3.723 \\ CV = 0.478 \\ K \ factor ** = 3.188 \\ TL = 19.666 \\ \end{array} $ Because CV is less than or equal to 1, assume normal distribution and contin with statistical analysis.
CV= 0.478 K factor** = 3.188 TL= 19.666 Because CV is less than or equal to 1, assume normal distribution and contin
K factor** = 3.188 TL= 19.666 Because CV is less than or equal to 1, assume normal distribution and contin
TL= 19.666 Because CV is less than or equal to 1, assume normal distribution and contin
Because CV is less than or equal to 1, assume normal distribution and contin
assume normal distribution and contin
witti statisticai aliayisis.
n First Quarter 2013 Dry/Partially Dry Wells
t > TL? Well No. Gradient
NO MW389 Downgradient
t

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 mg/L Magnesium **UNITS:**

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.

Upgradient W	oata from Tells	Statistics on Background Data		
Well Number:	MW396	X= 16.876		
Date Collected	Result	S= 3.313		
8/13/2002	15.500	CV = 0.196		
9/16/2002	17.300	K factor** = 3.188 TL= 27.438		
10/16/2002	17.800	1L- 27.430		
1/13/2003 19.200		Because CV is less than or equal to 1,		
4/8/2003	17.800	assume normal distribution and continu		
7/16/2003	17.800	with statistical anaylsis.		
1110/2005	17.000			
10/14/2003	20.200			
10/14/2003	20.200 9.410	llected in First Quarter 2013 Dry/Partially Dry Wells		
10/14/2003 1/14/2004 First Quarter January 2013	20.200 9.410	Dry/Partially Dry Wells		
10/14/2003 1/14/2004 First Quarter January 2013	20.200 9.410 2013 Data Col	Dry/Partially Dry Wells Result > TL? Well No. Gradient		

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.

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

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

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

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

^{**} 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 D-25

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 Upgradient			Statist Backg	ics on round Data	
Well Number:	MW396	-	X= 0.7	74	
Date Collected	l Result		S=0.3		
8/13/2002	0.570		CV = 0	.456 or** = 3.18	0
9/16/2002	0.647		TL = 1	01 0110	0
10/16/2002	0.880				
1/13/2003	1.132				han or equal to 1,
4/8/2003	0.965		assume normal distribution an		
7/16/2003	0.983		with statistical anaylsis.		
10/14/2003	0.984				
1/14/2004	0.031				
First Quarte January 201	r 2013 Data C 3	ollected	in	-	arter 2013 tially Dry Wells
Well No. Re	sult Gradient	Resu	lt > TL?	Well No.	Gradient
MW386 0.9	14 Sidegrad	ient	NO	MW389	Downgradient
MW393 0.0	31 Downgra	dient	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 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

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! #Func! 1/14/2004 4/12/2004 #Func! 7/20/2004 #Func! 10/12/2004 4.736

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

First Qua January		Data Collected	in	First Qu Dry/Par	arter 2013 tially Dry Wells		ed First Quai n January 20	rter 2013 Data 13
Well No.	Result	Gradient Re	esult > TL?	Well No.	Gradient	- Well Numbe	er LN(Result)	Result >TL?
MW386 MW393	22.000 450.000	Sidegradient Downgradient	N/A N/A	MW389	Downgradient	MW386 MW393	3.091 6.109	NO 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 **UNITS: Std Unit** pН

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 D Upgradient W			
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		
	Quarter 20 ary 2013	13 Data Colle	cted in
Well No. Result	Gradient	Result >TL?	Result <li< td=""></li<>

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
Dry/Partially Dry Wells

Well No. Gradient

MW389 Downgradient

Conclusion of Statistical Analysis on Data

Sidegradient

Downgradient

MW386 7.090

MW393 6.300

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.

NO

NO

NO

NO

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

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

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

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

^{**} 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 mg/L **UNITS: Potassium**

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.

Backgrou Upgradier				Statist Backg		s on ound Data			
Well Numb	er: N	AW396		X= 1.4	41	1			
Date Collec	cted	Result		S=0.3					
8/13/200	2	2.000		CV = 0		82 *** = 3.18			
9/16/200	2	2.000		TL = 2			•		
10/16/20	02	0.978		112- 2		04			
1/13/200	3	1.080						or equal to	
4/8/2003		1.120		assanne				ion and cont	inu
7/16/200	3	1.380		with stat	15	tical anayl	\$15.		
10/14/20	03	1.240							
1/14/200	4	1.490							
First Quar January 2		13 Data Co	ollected	in		First Qu Dry/Par		er 2013 ly Dry Wells	8
Well No.	Result	Gradient	Resu	lt > TL?		Well No.	Gr	adient	
MW386	0.324	Sidegradi	ent	NO		MW389	Do	wngradient	
MW393	0.366	Downgrad	dient	NO				-	
					_				

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.

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

Conclusion of Statistical Analysis on Data

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

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

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

^{**} 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 D-29

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 I Upgradient W	Statis Back		s on ound Data					
Well Number:	X= 1	06.8	825					
Date Collected	Result	S= 3						
8/13/2002	115.000	CV= 0.300 K factor** = 3.188			5			
9/16/2002	116.000	K lac TL=		01200	>			
10/16/2002 117.000		11	400	0.713				
1/13/2003	122.000		han or equal to 1,					
4/8/2003	106.000	assume normal distribution and c with statistical anaylsis.						
7/16/2003	117.000	with sta	uisi	ucai allayi	515.			
10/14/2003	132.000							
1/14/2004	29.600							
First Quarter January 2013	2013 Data Co	ollected in		~	arter 2013 tially Dry Wells			
Well No. Res	ult Gradient	Result > TL?		Well No.	Gradient			
MW386 106.	00 Sidegradi	ent NO		MW389	Downgradient			
		1° (NO						
MW393 72.3	00 Downgrad	dient NO						

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 mg/L **UNITS:** Sulfate

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.

Backgrou Upgradie				Statist Backg		s on und Data		
Well Number: MW396				X= 22	.40	63		
Date Colle	cted	Result		S= 8.8				
8/13/200)2	41.900		CV = 0		95 ** = 3.18	0	
9/16/200	26.300		TL= 5	·-	0120			
10/16/2002		20.600		1L- 3	. .	137		
1/13/2003		16.600		Because CV is less than or equal to				
4/8/2003		23.900	assume normal distribution and conti with statistical anaylsis.					
7/16/2003		18.800		with stat	151	iicai allayi	515.	
10/14/20	003	12.900						
1/14/200)4	18.700						
First Qua January 2		13 Data Co	ollected	in		-	arter 2013 tially Dry Wells	
Well No.	Result	Gradient	Resu	lt > TL?		Well No.	Gradient	
MW386	49.000	Sidegradi	ent	NO		MW389	Downgradient	
MW393	11.000	Downgra	dient	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.

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

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

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

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

^{**} 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 D-31

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

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 Upgradient				Statist Backg		s on ound Data	
Well Number	lumber: MW396			X= 9.9	98	8	
Date Collecte	ed	Result		S=4.6		-	
8/13/2002		19.000		CV=0			
9/16/2002		14.600		K factor** = 3 TL= 24.959			
10/16/2002	2	10.400		$\mathbf{IL} = 2$	/ * .	707	
1/13/2003 4.400		4.400					an or equal to 1,
4/8/2003		7.000	assume normal distribution and conti with statistical anaylsis.				
7/16/2003		7.300		with stat	151	ucai anayis	518.
10/14/2003	3	9.100					
1/14/2004		8.100					
First Quart January 201		3 Data Co	ollected i	in		-	arter 2013 ially Dry Wells
Well No. R	esult	Gradient	Resu	lt > TL?		Well No.	Gradient
MW386 12	2.900	Sidegradi	ent	NO		MW389	Downgradient
MW393 3.	.200	Downgrad	dient	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.

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

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

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

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

^{**} 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 D-32

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 Upgradient			tics on ground Data
Well Number	:: MW396	X= 14	
Date Collecte 8/13/2002 9/16/2002	193.000 190.000		
10/16/2002 1/13/2003 4/8/2003 7/16/2003 10/14/2003 1/14/2004	106.000 77.800 122.000	assume	e CV is less than or equal to 1, normal distribution and continue tistical anaylsis.
First Quart January 202	er 2013 Data C 13	ollected in	First Quarter 2013 Dry/Partially Dry Wells
Well No. R	esult Gradient	Result > TL?	Well No. Gradient
	40.00 Sidegradi 5.000 Downgra		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.

statistically signific			non in that well.
Background Data Upgradient Wells		Statistics on Background Data	a
Well Number: M	W220	X= 0.221	
10/14/2002	Result).200	S= 0.061 CV= 0.277 K factor** = 2.52	23
1/15/2003 0	0.200	TL = 0.376	
4/10/2003 0	0.200		
7/14/2003	0.200	Because CV is less	than or equal to 1, ribution and continue
10/13/2003	0.427	with statistical anay	
	0.309	, in the statistical analy	
4/13/2004 0	0.200		
7/21/2004 0	0.202		
Well Number: M	W394		
Date Collected H	Result		
8/13/2002	0.200		
9/16/2002 0	0.200		
10/16/2002 0	0.200		
1/13/2003 0	0.200		
4/10/2003 0	0.200		
7/16/2003 0	0.200		
10/14/2003	0.200		
1/13/2004	0.200		
First Quarter 201	3 Data Collected i	in	
January 2013			
Well No. Result	Gradient Resul	t > TL?	
MW221 0.200	Sidegradient	NO	
MW222 1.290	Sidegradient	YES	
MW223 0.200	Sidegradient	NO	
MW224 0.200	Sidegradient	NO	
	Downgradient	YES	
MW372 0.200	Downgradient	NO	
MW384 0.200	Sidegradient	NO	
	Downgradient	NO	
	Downgradient	NO	
Conclusion of Star	-	on Data	
			T · · / I · I

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** mg/L Boron **UNITS:**

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.

				gradient Wells
S=	0.425		Well Number:	MW220
Date Collected Result	0.615		Date Collected	LN(Result)
10/14/2002 0.200	= 1.447 actor** = 2.523		10/14/2002	-1.609
1/15/2002 0.200	= 1.976		1/15/2003	-1.609
4/10/2003 0.200			4/10/2003	-1.609
	use CV greater than 1, the natural	1.	7/14/2003	-1.609
	ithm of background and test well r calculated.	esults	10/13/2003	-1.609
1/13/2004 0.200			1/13/2004	-1.609
4/13/2004 0.200 Stat	tistics on		4/13/2004	-1.609
1/21/2001 0.200	nsformed		7/21/2004	-1.609
Well Number: MW394 Bac	kground Data		Well Number:	MW394
Date Collected Result X=	-1.322		Date Collected	LN(Result)
8/13/2002 2.000 S =	0.786		8/13/2002	0.693
9/16/2002 2.000 CV =	= -0.595		9/16/2002	0.693
10/16/2002 0.200 K fa	actor** = 2.523		10/16/2002	-1.609
1/13/2003 0.200 TI -	= 0.663		1/13/2003	-1.609
4/10/2003 0.200	_ 0.005		4/10/2003	-1.609
7/16/2003 0.200			7/16/2003	-1.609
10/14/2003 0.200			10/14/2003	-1.609
1/13/2004 0.200			1/13/2004	-1.609
First Quarter 2013 Data Collected in January 2013			ormed First Qua ed in January 20	arter 2013 Data 013
Well No. Result Gradient Result > 7	IL?	Well Nu	mber LN(Resu	It) Result > TL?
MW221 0.200 Sidegradient N/		MW221	-1.609	NO
MW222 0.200 Sidegradient N/		MW222	-1.609	NO
MW223 0.200 Sidegradient N/		MW223	-1.609	NO
MW224 0.200 Sidegradient N/		MW224	-1.609	NO
MW369 0.200 Downgradient N/		MW369	-1.609	NO
MW372 1.390 Downgradient N/		MW372	0.329	NO
MW384 0.200 Sidegradient N/		MW384	-1.609	NO
MW/287 (1700) Downgradiant N/	'A	1011207	-1.609	NO
MW387 0.200 Downgradient N/. MW391 0.200 Downgradient N/.		MW387	-1.009	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, $S = [Sum ([(background result-X)^2]/[count of background results -1])]^{0.5}$

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

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

^{**} 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 D-35

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.

~·····	0			
Backgrou Upgradie				Statistic Backgro
Well Num	ber: N	1W220		X= 27.6
Date Colle	ected	Result		S= 4.74
10/14/2	002	23.600	CV= 0.1 K factor	
1/15/20	03	25.900		TL = 39
4/10/20	03	30.400		TL= 37
7/14/20	03	33.900		Because (
10/13/2	003	21.300		assume no with statis
1/13/20	04	20.300		with statis
4/13/20	04	23.800		
7/21/20	04	19.000		
Well Num	ber: N	IW394		
Date Colle	ected	Result		
8/13/20	02	29.500		
9/16/20	02	29.900		
10/16/2	002	31.200		
1/13/20	03	30.700		
4/10/20	03	34.400		
7/16/20	03	29.600		
10/14/2	003	30.300		
1/13/20	04	28.400		
First Qua January		13 Data Co	ollected ir	1
Well No.	Result	Gradient	Result	> TL?
MW221	19.400	Sidegradie	ent	NO
MW222	14.600	Sidegradie	ent	NO
MW223	18.400	Sidegradie	ent	NO
MW224	20.500	Sidegradie	ent	NO
MW369	16.300	Downgrad	lient	NO
MW372	66.900	Downgrad	lient	YES
MW384	33.900	Sidegradie	ent	NO
MW387	35.800	Downgrad	lient	NO
MW391	25.300	Downgrad		NO
Conclusio	n of Sta	atistical A	nalysis	on Data

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 analysis.

CV Coefficient of	f Variation. $CV = S/X$	If CV is less than or e	equal to 1 assume normal distribution.
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The following test well(s) exceeded the Upper Tolerance Limit, which is statistically significant

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

MW372

evidence of elevated concentration with respect to background data.

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	Statistics on	
Upgradient Wells	Background Data	
Well Number: MW220	X= 49.044	
Date Collected Result	S= 11.278 CV= 0.230	
10/14/2002 44.600	K factor** = 2.523	
1/15/2003 43.200	TL= 77.499	
4/10/2003 31.500		1
7/14/2003 30.800	Because CV is less than or equal t assume normal distribution and co	
10/13/2003 40.900	with statistical anaylsis.	minue
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		
First Quarter 2013 Data C	Collected in	
January 2013		
Well No. Result Gradient	t Result $>$ TL?	
MW221 39.000 Sidegradi	lient NO	
MW222 29.000 Sidegradi	lient NO	
MW223 32.000 Sidegradi	lient NO	
MW224 16.000 Sidegrad	lient NO	
MW369 33.000 Downgra	adient NO	
MW372 47.000 Downgra	adient NO	
MW384 70.000 Sidegradi	lient NO	
MW387 40.000 Downgra	adient NO	
MW391 48.000 Downgra	adient NO	
Conclusion of Statistical A	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, $S = [Sum ([(background result-X)^2]/[count of background results -1])]^{0.5}$

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

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

^{**} 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** mg/L **UNITS:** Cobalt

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	Statistics on Background Data]			ormed Bac om Upgra	kground dient Wells
Well Number: MW220	X= 0.016			Well Nu	mber: M	W220
Date Collected Result	S= 0.040 CV= 2.440		-	Date Col	llected Ll	N(Result)
10/14/2002 0.004	C V = 2.440 K factor** = 2.523			10/14/2	002 -5	.497
1/15/2003 0.005	TL= 0.116			1/15/20	03 -5	.306
4/10/2003 0.003		1		4/10/20	03 -5	.846
7/14/2003 0.161	Because CV greater tha logarithm of backgroun		160	7/14/20	03 -1	.826
10/13/2003 0.023	were calculated.	id and test well resu	lits	10/13/2	003 -3	.790
1/13/2004 0.005		7		1/13/20	04 -5	.373
4/13/2004 0.001	Statistics on			4/13/20	-6	.908
7/21/2004 0.003	Transformed			7/21/20	04 -5	.937
Well Number: MW394	Background Data	-		Well Nu	mber: M	W394
Date Collected Result	X= -5.582			Date Col	llected Ll	N(Result)
8/13/2002 0.025	S= 1.573			8/13/20	02 -3	.689
9/16/2002 0.025	CV= -0.282			9/16/20	-3	.689
10/16/2002 0.001	K factor** = 2.523			10/16/2	-6002	.908
1/13/2003 0.001	TL= -1.613			1/13/20	-603	.908
4/10/2003 0.001	TL= 1.015]		4/10/20	-6	.908
7/16/2003 0.001				7/16/20	-603	.908
10/14/2003 0.001				10/14/2	-6003	.908
1/13/2004 0.001				1/13/20	-6	5.908
First Quarter 2013 Data Collected January 2013	in				irst Quarte nuary 2013	er 2013 Data
Well No. Result Gradient Re	esult > TL?	L V	Vell Nur	nber I	N(Result)	Result > TL?
MW221 0.001 Sidegradient	N/A	-	AW221		6.908	NO
MW222 0.004 Sidegradient	N/A		AW222		5.547	NO
MW223 0.003 Sidegradient	N/A		AW223		5.806	NO
MW224 0.003 Sidegradient	N/A		AW224		5.911	NO
MW369 0.012 Downgradient	N/A		AW369		4.415	NO
MW372 0.001 Downgradient	N/A		AW372		6.908	NO
MW384 0.001 Sidegradient	N/A		AW384		6.908	NO
MW387 0.001 Downgradient	N/A		AW387		6.908	NO
Conclusion of Statistical Analysis	on Transformed Da					

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.

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

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

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

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

^{**} 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 D-38

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 D Upgradient V			stics on ground Data	
Well Number:	MW220	X= 3	82.132	
Date Collected 10/14/2002 1/15/2003 4/10/2003	Result 368.000 433.200 489.000	CV= K fac	07.134 0.280 ttor** = 2.523 652.432	
7/14/2003 7/14/2003 10/13/2003 1/13/2004 4/13/2004 7/21/2004 Well Number:	430.000 430.000 346.000 365.000 416.000 353.000 MW394	assume	e CV is less than normal distribut atistical anaylsis.	tion and continue
Date Collected 8/13/2002 9/16/2002 10/16/2002 1/13/2003 4/10/2003 7/16/2003 10/14/2003 1/13/2004	Result 406.000 418.000 411.000 422.000 420.000 438.000 3.910 395.000			
First Quarter January 2013	2013 Data Co	ollected in		
Well No. Res	sult Gradient	Result > TL?	J	
MW222 319	2.00 Sidegradie	ent NO	_	
MW224 405	5.00 Sidegradie 5.00 Sidegradie 5.00 Downgrad	ent NO		
MW384 592	0.00 Downgrad 2.00 Sidegradie 5.00 Downgrad	ent NO		
MW391 390	0.00 Downgrad	lient NO		
Conclusion of				
The following	test well(s) e	exceeded the U	pper Toleran	ce Limit, which is a

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

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

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

^{**} 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 D-39

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.

Backgrou Upgradie					tics on round Data	
Well Num	iber: 1	MW220		X= 3.	-	
Date Colle 10/14/2 1/15/20	002	Result 6.790 7.250).499 cor** = 2.523	
4/10/20		3.600		TL= 8	8.545	
7/14/20	03	0.940			CV is less than	
10/13/2	003	1.650				ion and continue
1/13/20	04	3.480	,	with sta	tistical anaylsis.	
4/13/20	04	1.050				
7/21/20	04	4.460				
Well Num	ber: 1	MW394				
Date Colle	ected	Result				
8/13/20	02	6.090				
9/16/20	02	3.850				
10/16/2	002	5.110				
1/13/20	03	3.830				
4/10/20	03	4.150				
7/16/20	03	1.830				
10/14/2	003	3.330				
1/13/20	04	3.140				
First Qu January		13 Data Co	ollected in	1		
Well No.	Result	Gradient	Result	> TL?		
MW221	5.110	Sidegradi	ent	NO		
MW222	4.450	Sidegradi	ent	NO		
MW223	2.740	Sidegradi	ent	NO		
MW224	1.860	Sidegradi	ent	NO		
MW369	2.430	Downgrae		NO		
MW372	1.800	Downgrae		NO		
MW384	3.970	Sidegradi		NO		
MW387	4.580	Downgrae	dient	NO		
MW391	4.100	Downgra		NO		
Conclusio	on of St	atistical A	nalysis o	on Dat	a	

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.

subtrouty significant evide	
Background Data from Upgradient Wells	Statistics on Background Data
Well Number: MW220	X= 232.688
Date CollectedResult10/14/2002208.0001/15/2003257.0004/10/2003288.0007/14/2003262.00010/13/2003197.0001/13/2004198.000	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.
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	ollected in Result > TL?
MW221 216.00 Sidegradi	ent NO
MW222 236.00 Sidegradi	
MW223 218.00 Sidegradi	
MW224 254.00 Sidegradi	
MW369 213.00 Downgrad	
MW372 506.00 Downgrad	
MW384 313.00 Sidegradi	
MW387 294.00 Downgrad MW391 225.00 Downgrad	
Conclusion of Statistical A	
	exceeded the Unner Tolerance Limit which

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 UNITS:** mg/L Iron

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 I Upgradient W		Statistics Backgrou	s on und Data				formed Bac from Upgra	ckground dient Wells
Well Number:	MW220	X= 0.897				Well N	lumber: N	IW220
Date Collected	Result	S= 1.050 CV= 1.1	-			Date C	ollected L	N(Result)
10/14/2002	0.200		/0 ** = 2.523			10/14/	/2002 -1	.609
1/15/2003	0.200	TL= 3.54				1/15/2	-1	.609
4/10/2003	0.429			1		4/10/2	.003 -0	0.846
7/14/2003	4.330			n 1, the natural d and test well res		7/14/2	2003 1.	466
10/13/2003	1.810	were calcu		a and test well res	uits	10/13/	/2003 0.	593
1/13/2004	0.793	were calca	luteu.	1		1/13/2	-004 -0	0.232
4/13/2004	0.130	Statistics				4/13/2	-2	2.040
7/21/2004	0.382	Transfor				7/21/2	-004 -0).962
Well Number:	MW394		und Data			Well N	lumber: M	IW394
Date Collected	Result	X= -0.56	5			Date C	ollected L	N(Result)
8/13/2002	1.340	S= 0.951	l			8/13/2	2002 0.	293
9/16/2002	0.328	CV= -1.6	683			9/16/2	-1	.115
10/16/2002	1.380	K factor	** = 2.523			10/16/	/2002 0.	322
1/13/2003	1.300	TL= 1.8	834			1/13/2	.003 0.	262
4/10/2003	0.494			J		4/10/2	-003 -0	0.705
7/16/2003	0.620					7/16/2	-003 -0	0.478
10/14/2003	0.370).994		
1/13/2004	0.251				1/13/2004 -1.382		.382	
First Quarter January 2013	3						First Quart Anuary 2013	er 2013 Data
Well No. Res	sult Gradier	nt Result $>$ TL?			Well Nu	mber	LN(Result)	Result > TL?
MW221 0.1	00 Sidegra	dient N/A			MW221		-2.303	NO
MW222 2.5	40 Sidegra	dient N/A			MW222		0.932	NO
MW223 0.1	U				MW223		-2.096	NO
MW224 0.5	U				MW224		-0.591	NO
MW369 0.4	U				MW369		-0.799	NO
MW372 0.4	U				MW372		-0.699	NO
MW384 0.6	0				MW384		-0.504	NO
MW387 0.1	U				MW387		-1.661	NO
MW391 0.8	34 Downg	radient N/A			MW391		-0.182	NO
Conclusion of	Ctation 1 A	nalysis on Trans	formed Dec				5.102	110

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

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

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

^{**} 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 D-42

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 Upgradient				Statist Backg	ics on round Data	
Well Number	r: M	W220		X= 10		
Date Collecte 10/14/2002 1/15/2003	2	Result 9.160 10.000).158 or** = 2.523	
4/10/2003		10.800		TL= 1	15.092	
7/14/2003		14.700			CV is less than	•
10/13/2003		9.030				ion and continue
1/13/2004		8.490		with stat	tistical anaylsis.	
4/13/2004		9.700				
7/21/2004		8.060				
Well Number	r: M	IW394				
Date Collecte	ed	Result				
8/13/2002		11.800				
9/16/2002		12.100				
10/16/2002	2	11.300				
1/13/2003		10.300				
4/10/2003		11.700				
7/16/2003		12.000				
10/14/2003	3	12.200				
1/13/2004		11.400				
First Quart January 20		13 Data Co	ollected ir	1		
Well No. R	esult	Gradient	Result	> TL?		
MW221 8	.550	Sidegradi	ent	NO		
MW222 6	.440	Sidegradi		NO		
MW223 7.	.310	Sidegradi	ent	NO		
MW224 8	.930	Sidegradi	ent	NO		
MW369 6	.090	Downgrad	lient	NO		
MW372 2	6.000	Downgrad	lient	YES		
MW384 1	3.100	Sidegradi	ent	NO		
MW387 14	4.700	Downgrad	lient	NO		
MW391 1	0 400	Downgrad	lient	NO		
MW 391 1	0.400	Downgrad	nont	110		

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	Statistics on Background Data		Transformed Data from Upg	Background gradient Wells
Well Number: MW220	X= 0.287		Well Number:	MW220
Date Collected Result	S = 0.619		Date Collected	LN(Result)
10/14/2002 0.031	CV= 2.156 K factor** = 2.523		10/14/2002	-3.487
1/15/2003 0.029	TL= 1.848		1/15/2003	-3.537
4/10/2003 0.014		1	4/10/2003	-4.290
7/14/2003 2.540	Because CV greater tha		7/14/2003	0.932
10/13/2003 0.378	logarithm of backgroun were calculated.	a and test well results	10/13/2003	-0.973
1/13/2004 0.159	were calculated.	1	1/13/2004	-1.839
4/13/2004 0.007	Statistics on		4/13/2004	-4.952
7/21/2004 0.084	Transformed		7/21/2004	-2.476
Well Number: MW394	Background Data		Well Number:	MW394
Date Collected Result	X= -2.455		Date Collected	LN(Result)
8/13/2002 0.542	S= 1.619		8/13/2002	-0.612
9/16/2002 0.155	CV= -0.659		9/16/2002	-1.864
10/16/2002 0.103	K factor** = 2.523		10/16/2002	-2.273
1/13/2003 0.128	TL= 1.630		1/13/2003	-2.056
4/10/2003 0.005		J	4/10/2003	-5.298
7/16/2003 0.272			7/16/2003	-1.302
10/14/2003 0.080			10/14/2003	-2.532
1/13/2004 0.066			1/13/2004	-2.721
First Quarter 2013 Data Colle January 2013 Well No. Result Gradient	ected in Result > TL?		cormed First Qua ted in January 24	
		Well Nu	umber LN(Resu	alt) Result $>$ TL?
MW221 0.005 Sidegradie		MW221	-5.298	NO
MW222 0.055 Sidegradie		MW222	-2.900	NO
MW223 0.095 Sidegradie		MW223	-2.351	NO
MW224 0.036 Sidegradie		MW224	-3.313	NO
MW369 0.076 Downgrad		MW369	-2.581	NO
MW372 0.018 Downgrad		MW372	-4.023	NO
MW384 0.014 Sidegradie		MW384	-4.283	NO
MW387 0.022 Downgrad MW391 0.006 Downgrad		MW387	-3.812	NO
IVIN YAL UUUN DOWNGRAD	lient N/A	MW391	-5.164	NO
MW391 0.010 Downgrad	lient N/A	101 (0 5) 1		

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** mg/L Molybdenum **UNITS:**

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 I Upgradient W		Statistics on Background Data			sformed Bac from Upgra	
Well Number:	MW220	X= 0.006		Well 1	Number: M	W220
Date Collected	Result	S = 0.008		Date 0	Collected LI	N(Result)
10/14/2002	0.006	CV= 1.261 K factor** = 2.523		10/14	-5	.189
1/15/2003	0.010	TL= 0.026		1/15/	2003 -4	.622
4/10/2003	0.011			4/10/	2003 -4	.519
7/14/2003	0.002	Because CV greater th		7/14/	2003 -6	.012
10/13/2003	0.006	were calculated.	and and test well results	10/13	3/2003 -5	.174
1/13/2004	0.006	were calculated.	-	1/13/	2004 -5	.164
4/13/2004	0.001	Statistics on		4/13/	2004 -6	.908
7/21/2004	0.004	Transformed		7/21/	2004 -5	.542
Well Number:	MW394	Background Data	_	Well I	Number: M	W394
Date Collected	Result	X= -5.747		Date (Collected Ll	N(Result)
8/13/2002	0.025	S= 1.205		8/13/	2002 -3	.689
9/16/2002	0.025	CV= -0.210		9/16/	2002 -3	.689
10/16/2002	0.001	K factor** = 2.523		10/16	5/2002 -6	.908
1/13/2003	0.001	TL= -2.708		1/13/	2003 -6	.908
4/10/2003	0.001	11- 2.700		4/10/	2003 -6	.908
7/16/2003	0.001			7/16/	2003 -6	.908
10/14/2003	0.001			10/14	-6	.908
1/13/2004	0.001			1/13/	2004 -6	.908
First Quarter January 2013	5				First Quarte anuary 2013	
Well No. Res			Wel	l Number	LN(Result)	Result > TL?
MW221 0.00	U		MW	/221	-6.138	NO
MW222 0.00	U		MW		-6.908	NO
MW223 0.00	0		MW		-4.982	NO
MW224 0.00	U		MW		-6.438	NO
MW369 0.0	U		MW	369	-6.908	NO
MW372 0.00	U		MW		-6.908	NO
MW384 0.00	U		MW		-6.908	NO
MW387 0.00	U		MW		-6.908	NO
MW391 0.00	01 Downgr	radient N/A	MW		-6.908	NO
Conclusion of	Statistical A	nalysis on Transformed D	oto			

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

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

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

^{**} 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 D-45

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 I Upgradient W		Statistics on Background Data			sformed Bac from Upgra	
Well Number:	MW220	X= 0.127		Well N	Number: M	W220
Date Collected	Result	S = 0.228		Date C	Collected L	N(Result)
10/14/2002	0.418	CV= 1.790 K factor** = 2.523		10/14	/2002 -0	.872
1/15/2003	0.738	TL= 0.701		1/15/2	2003 -0	.304
4/10/2003	0.544		1	4/10/2	2003 -0	.609
7/14/2003	0.106	Because CV greater tha		7/14/2	2003 -2	
10/13/2003	0.053	logarithm of backgroun were calculated.	a and test well results	10/13	3/2003 -2	.939
1/13/2004	0.021	were calculated.	1	1/13/2	2004 -3	.868
4/13/2004	0.005	Statistics on		4/13/2	2004 -5	.298
7/21/2004	0.019	Transformed		7/21/2	2004 -3	.953
Well Number:	MW394	Background Data		Well N	Number: M	W394
Date Collected	Result	X= -3.617		Date C	Collected L	N(Result)
8/13/2002	0.050	S= 1.837		8/13/2	2002 -2	.996
9/16/2002	0.050	CV= -0.508		9/16/2	2002 -2	.996
10/16/2002	0.005	K factor** = 2.523		10/16	5/2002 -5	.298
1/13/2003	0.005	TL= 1.019		1/13/2	2003 -5	.298
4/10/2003	0.005		J	4/10/2	2003 -5	.298
7/16/2003	0.005			7/16/2	2003 -5	.298
10/14/2003	0.005			10/14	/2003 -5	.298
1/13/2004	0.005			1/13/2	2004 -5	.298
January 2013					First Quarte anuary 2013	er 2013 Data
Well No. Res		Result > TL?	Well	Number	LN(Result)	Result > TL?
MW221 0.0	C		MW2	221	-3.018	NO
MW222 0.0	υ		MW2	222	-2.576	NO
MW223 0.0	0		MW2	223	-2.405	NO
MW224 0.0	0		MW2	224	-2.494	NO
MW369 0.0	0		MW	369	-5.069	NO
MW372 0.0	•		MW	372	-5.298	NO
MW384 0.0	U		MW	384	-5.298	NO
MW387 0.0	U		MW	387	-5.298	NO
MW391 0.0	05 Downgradier	nt N/A	MW	391	-5.298	NO
Conclusion of	Statistical Analy	sis on Transformed Da	ta			

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 D Upgradient W			stics on ground Data	
Well Number:	MW220		79.872	
Date Collected 10/14/2002 1/15/2003 4/10/2003	Result 205.000 1.950 203.000	K fac TL=	0.480 tor** = 2.523 397.652	
7/14/2003 10/13/2003 1/13/2004 4/13/2004 7/21/2004 Well Number:	30.000 107.000 295.000 190.000 319.000 MW394	assume	e CV is less than normal distribut atistical anaylsis.	ion and continue
Date Collected 8/13/2002 9/16/2002 10/16/2002 1/13/2003 4/10/2003 7/16/2003 10/14/2003 1/13/2004	Result 90.000 240.000 185.000 220.000 196.000 172.000 175.000 249.000			
First Quarter 2 January 2013 Well No. Resu	2013 Data Co	ollected in Result > TL?]	
	00 Sidegradi 00 Sidegradi	ent YES	-	
	00 Sidegradi 00 Sidegradi			
MW372 43.0	00 Downgrad 00 Downgrad	dient NO		
MW387 486.0	00 Sidegradi 00 Downgrad 00 Downgrad	dient YES		
Conclusion of S	Statistical A	Analysis on Dat		o Timit which

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					
Oxidation-Reduction Potential'*Eqpvlpwgf +	UNITS :	mV			
MW360					

MW 365

MW387 MW391

CVCoefficient 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)

Х 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 D-48

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 D Upgradient W		
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	
	Quarter 2013 ary 2013	3 Data Collected in

	January 2013						
Well No.	Result	Gradient	Result	>TL?	Result <ll?< th=""></ll?<>		
MW221	6.200	Sidegrad	lient	NO	NO		
MW222	6.830	Sidegrad	lient	NO	NO		
MW223	6.870	Sidegrad	lient	NO	NO		
MW224	6.250	Sidegrad	lient	NO	NO		
MW369	6.420	Downgra	dient	NO	NO		
MW372	6.320	Downgra	dient	NO	NO		
MW384	7.820	Sidegrad	lient	YES	NO		
MW387	7.120	Downgra	dient	YES	NO		
MW391	6.170	Downgra	dient	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)

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 analysis.

^{**} 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 Upgradient		from	Statistics on Background Data]			ormed Bac om Upgrae	kground lient Wells
Well Number	: MV	W220	X= 6.654			Well Nu	mber: M	W220
Date Collecte	ed R	esult	S = 9.310			Date Co	llected LN	N(Result)
10/14/2002	2 6.	.700	CV= 1.399 K factor** = 2.523			10/14/2	2002 1.9	902
1/15/2003	29	9.700	K = 2.525 TL= 30.144			1/15/20	03 3.3	391
4/10/2003	24	4.900		1		4/10/20	03 3.2	215
7/14/2003	1.	.130	Because CV greater that		1.	7/14/20	003 0.1	122
10/13/2003	3 3.	.430	logarithm of backgroun were calculated.	id and test well res	sults	10/13/2	2003 1.2	233
1/13/2004	6.	.710	were calculated.	7		1/13/20	04 1.9	904
4/13/2004	19	9.300	Statistics on			4/13/20	04 2.9	960
7/21/2004	3.	.970	Transformed			7/21/20	04 1.3	379
Well Number	: MV	W394	Background Data	4		Well Nu	mber: M	W394
Date Collecte	ed R	esult	X= 1.130			Date Co	llected LN	N(Result)
8/13/2002	2.	.000	S= 1.208			8/13/20	0.002 0.0	593
9/16/2002	2.	.000	CV= 1.069			9/16/20	0.002 0.0	593
10/16/2002	2 1.	.030	K factor** = 2.523			10/16/2	.002 0.0)30
1/13/2003	1.	.100	TL= 4.178			1/13/20	0.0 0.0)95
4/10/2003	1.	.240	1L- 4.170			4/10/20	003 0.2	215
7/16/2003	1.	.140				7/16/20	003 0.1	131
10/14/2003	31.	.050				10/14/2	.003 0.0)49
1/13/2004	1.	.070				1/13/20	004 0.0)68
January 20	13	3 Data Collected					irst Quarte 1uary 2013	r 2013 Data
	Result		$\operatorname{sult} > \operatorname{TL}?$		Well Nu	mber I	LN(Result)	Result > TL?
	.260	Sidegradient	N/A		MW221	0).231	NO
	.515	Sidegradient	N/A		MW222	_	0.664	NO
	.320	Sidegradient	N/A		MW223	1	.671	NO
	0.702	Sidegradient	N/A		MW224		0.354	NO
	.499	Downgradient	N/A		MW369	_	0.695	NO
	.470	Downgradient	N/A		MW372	0).904	NO
	.100	Sidegradient	N/A		MW384).095	NO
	.770	Downgradient	N/A		MW387	0).571	NO
MW391 1	.430	Downgradient	N/A		MW391	C).358	NO
Conclusion of	of Stat	istical Analysis	on Transformed Da	ta				

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.

Backgrou	nd Data	from	1	
Upgradie	nt Wells			Stat Bac
Well Num	ber: M	IW220	_	X =
Date Colle 10/14/20		Result 35.400		S= CV
1/15/200 4/10/200		40.600 51.000		K fa TL:
7/14/200 10/13/20)3	58.200 38.100		Becau assun with s
1/13/200 4/13/200 7/21/200)4	37.000 43.200 33.800		with 1
Well Num		IW394		
Date Colle	cted	Result		
8/13/200		32.900		
9/16/200		29.900		
10/16/20 1/13/200		29.000		
4/10/200		27.100 24.800		
7/16/200		24.800 35.600		
10/14/20		33.900		
1/13/200		31.300		
First Qua January 2		13 Data C	ollected i	n
Well No.	Result	Gradient	Resul	t > TI
MW221	41.000	Sidegradi	ent	NO
MW222	38.400	Sidegradi	ent	NO
MW223	40.900	Sidegradi	ent	NO
MW224	54.500	Sidegradi		NO
MW369	54.000	Downgra		NO
MW372	63.700	Downgra		YES
MW384	59.300	Sidegradi		YES
MW387	50.000	Downgra		NO
MW391	31.600	Downgra	dient	NO

Statistics on Background Data	
X= 36.363 S= 8.666	
S = 8.000 CV = 0.238	
K factor** = 2.523 TL= 58.227	

use CV is less than or equal to 1, me normal distribution and continue 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	Downgradien	t NO							
MW372	63.700	Downgradien	t YES							
MW384	59.300	Sidegradient	YES							
MW387	50.000	Downgradien	t NO							
MW391	31.600	Downgradien	t 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, $S = [Sum ([(background result-X)^2]/[count of background results -1])]^{0.5}$

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

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

^{**} 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 D-51

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

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.

Backgroun Upgradient					tics on ground Data	
Well Numbe	er: M	IW220	-	X= 10		
Date Collect 10/14/200 1/15/2003	2	Result 10.400 9.800		S= 2.0 CV= 0 K fact TL= 1	0.253 tor** = 2.523	
4/10/2003		15.400		Because	CV is less than	or equal to 1
7/14/2003		14.900				ion and continue
10/13/200		13.500			tistical anaylsis.	
1/13/2004		10.300				
4/13/2004		14.300				
7/21/2004		10.500				
Well Numbe	er: M	IW394				
Date Collect	ed	Result				
8/13/2002	2	11.200				
9/16/2002	2	8.300				
10/16/200	02	8.000				
1/13/2003	5	8.500				
4/10/2003		7.900				
7/16/2003	5	8.400				
10/14/200	13	8.200				
1/13/2004	Ļ	8.100				
First Quar January 20		13 Data Co	ollected in	n		
Well No. F	Result	Gradient	Resul	t > TL?		
MW221 1	3.000	Sidegradi	ent	NO		
MW222 9	9.600	Sidegradi	ent	NO		
MW223 9	9.700	Sidegradi	ent	NO		
MW224 9	9.700	Sidegradi	ent	NO		
MW369 6	5.500	Downgra	dient	NO		
MW372 1	60.00	Downgra	dient	YES		
MW384 2	20.000	Sidegradi	ent	YES		
MW387 2	29.000	Downgra	dient	YES		
MW391 1	4.000	Downgra	dient	NO		
Conclusion	of Sta	tistical A	nalysis	on Dat	a	

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

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

MW387

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

** 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 D-52

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

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.

statistically signi			, alou (concentration	in that won.
Background Da Upgradient Wel			Statisti Backgı	ics on round Data	
Well Number:	MW220		X= 9.3		
Date Collected 10/14/2002 1/15/2003	Result 19.700 26.100]	S= 9.2 CV= 0 K facto TL= 3	.992 or** = 2.523	
4/10/2003	3.560	l			1.4 1
7/14/2003	0.000			CV is less than	or equal to 1, ion and continue
10/13/2003	21.000			istical anaylsis.	
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				
First Quarter 2	013 Data Co	ollected in			
January 2013					
Well No. Result	t Gradient	Result >	> TL?		
MW221 -2.300) Sidegradi	ent N	NO		
MW222 -6.050	-		NO		
MW223 3.450	Sidegradi	ent N	NO		
MW224 0.751	Sidegradi	ent N	NO		
MW369 30.50	0 Downgrad	dient N	NO		
MW372 30.60	0 Downgrad	dient N	NO		
MW384 198.0) Sidegradi	ent Y	ES		
MW387 105.0	0 Downgrad	dient Y	ES		
MW391 7.560	Downgrad	lient N	NO		
Conclusion of S	tatistical A	nalysis or	n Data	1	

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

CVCoefficient 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)

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

^{**} 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 D-53

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.

statistically significa		evaled concentration	in that well.
Background Data Upgradient Wells	from	Statistics on Background Data	
Well Number: MV	W220	X= 1.494	
10/14/2002 1 1/15/2003 1	esult .000 .100	S= 0.737 CV= 0.493 K factor** = 2.523 TL= 3.353	
4/10/2003 1	.000		1. 1
7/14/2003 3		Because CV is less than assume normal distribut	
10/13/2003 1		with statistical analysis.	
1/13/2004 1	.000	in substear and isis.	
4/13/2004 2	.000		
7/21/2004 3	.100		
Well Number: MV	W394		
Date Collected R	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		
First Quarter 2013 January 2013	3 Data Collected in	L	
Well No. Result	Gradient Result	> TL?	
MW221 1.000 S	Sidegradient	NO	
MW222 1.000 S	Sidegradient	NO	
MW223 1.000 S	Sidegradient	NO	
MW224 1.000 S	Sidegradient	NO	
MW369 1.400 I	Downgradient	NO	
MW372 2.200 I	Downgradient	NO	
MW384 1.400 S	Sidegradient	NO	
MW387 1.000 I	Downgradient	NO	
MW391 1.000 I	Downgradient	NO	
Conclusion of Stat	istical Analysis o	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 UNITS: Total Organic Halides (TOX)** 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 L Upgradient V			atistics on ckground Data				d Background pgradient Wells
Well Number:	MW220		63.475		I	Well Number:	: MW220
Date Collected	Result		163.135			Date Collecte	d LN(Result)
10/14/2002	50.000		/= 2.570 factor** = 2.523			10/14/2002	3.912
1/15/2003	10.000		z = 475.063			1/15/2003	2.303
4/10/2003	10.000					4/10/2003	2.303
7/14/2003	10.000		use CV greater that		14	7/14/2003	2.303
10/13/2003	10.000	•	rithm of background calculated.	a and test well res	sults	10/13/2003	2.303
1/13/2004	10.000	were	calculated.			1/13/2004	2.303
4/13/2004	10.000		atistics on			4/13/2004	2.303
7/21/2004	10.000		ansformed			7/21/2004	2.303
Well Number:	MW394	Ba	ckground Data			Well Number	: MW394
Date Collected	Result	X=	= 3.103			Date Collecte	d LN(Result)
8/13/2002	50.000	S=	1.145			8/13/2002	3.912
9/16/2002	672.000	CV	/= 0.369			9/16/2002	6.510
10/16/2002	50.000	Kf	factor** = 2.523			10/16/2002	3.912
1/13/2003 36.100		т	_= 5.992			1/13/2003	3.586
4/10/2003	10.000	11				4/10/2003	2.303
7/16/2003	42.700					7/16/2003	3.754
10/14/2003	22.000					10/14/2003	3.091
1/13/2004	12.800					1/13/2004	2.549
First Quarte January 201	3		TLO			ormed First Q ed in January	uarter 2013 Data 2013
					Well Nu	mber LN(Re	esult) Result > TL?
	-		V/A		MW221	2.398	NO
	-		V/A		MW222	2.186	NO
	-		V/A		MW223	2.485	NO
	e		V/A		MW224	2.773	NO
		8	V/A		MW369	3.367	NO
		8	I/A		MW372	3.091	NO
	-		I/A		MW384	3.434	NO
		8	I/A		MW387	3.045	NO
MW391 32	.000 Down	gradient N	I/A		MW391	3.466	NO
Conclusion of	Statistical	Analysis on T	Fransformed Dat	ta			

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

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

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

^{**} 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 D-55

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 Upgradient				Statist Backg	ics on round Data]						
Well Number	r: M	IW395		X= 0.2								
Date Collecte 8/13/2002		Result 0.200		S= 0.2 CV= 0								
9/16/2002		0.200			or** = 2.523							
10/16/2002		0.200		TL=0	.815							
1/13/2003		0.737	I	Because	CV is less than	ı or e	qual to 1	1,				
4/10/2003		0.200			ormal distribu		and cont	inue				
7/16/2003		0.200	١	vith stat	istical anaylsis	•						
10/14/2003		0.200										
1/13/2004		0.200										
Well Number	r: M	IW397										
Date Collecte	ed	Result										
8/13/2002		0.824										
9/16/2002		0.200										
10/17/2002	2	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										
First Quart January 202		13 Data Co	ollected in	L								
Well No. R	lesult	Gradient	Result	> TL?								
	.200	Downgrad		NO								
	.200	Downgrad		NO								
	.200	Sidegradie		NO								
	.200	Downgrad		NO								
	.200	Downgrad		NO								
Conclusion			•									
					Tolerance L ations with 1					ficant e	vidence	

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 mg/L **UNITS:** Boron

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 D Upgradient W			Statistics on Background Data				sformed Ba from Upgr	ackground adient Wells
Well Number:	MW395		X= 0.650			Well N	Number:	MW395
Date Collected	Result		S= 0.805 CV= 1.238			Date C	Collected 1	LN(Result)
8/13/2002	2.000		Cv = 1.258 K factor** = 2.523			8/13/2	2002	0.693
9/16/2002	2.000		TL= 2.681			9/16/2	2002	0.693
10/16/2002	0.200			1		10/16	/2002 -	-1.609
1/13/2003	0.200		Because CV greater tha		1.	1/13/2	2003 -	-1.609
4/10/2003	0.200		logarithm of backgroun were calculated.	id and test well res	ults	4/10/2	2003 -	-1.609
7/16/2003	0.200		were calculated.	-		7/16/2	2003 -	-1.609
10/14/2003	0.200		Statistics on			10/14	/2003 -	-1.609
1/13/2004	0.200		Transformed			1/13/2	2004 -	-1.609
Well Number:	MW397		Background Data	-		Well N	Number:	MW397
Date Collected	Result		X= -1.034		i	Date C	Collected 1	LN(Result)
8/13/2002	2.000		S= 1.030			8/13/2	2002	0.693
9/16/2002	2.000		CV= -0.996			9/16/2	2002	0.693
10/17/2002	0.200		K factor** = 2.523			10/17	/2002 -	-1.609
1/13/2003	0.200		TL= 1.564			1/13/2	2003 -	-1.609
4/8/2003	0.200		112- 1.504]		4/8/20		-1.609
7/16/2003	0.200					7/16/2	2003 -	-1.609
10/14/2003	0.200					10/14	/2003 -	-1.609
1/13/2004	0.200					1/13/2	2004 -	-1.609
First Quarter January 2013							First Quar anuary 201	ter 2013 Data 3
Well No. Res	sult Gradie	ent Res	ult > TL?	L	Well Nu	nber	LN(Result) Result > TL?
MW370 0.20		gradient	N/A	-	MW370		-1.609	NO
MW373 2.02		gradient	N/A		MW373		0.703	NO
MW385 0.20	U		N/A		MW385		-1.609	NO
MW388 0.20		gradient	N/A		MW388		-1.609	NO
MW392 0.20	00 Downg	gradient	N/A		MW392		-1.609	NO
Conclusion of	Statistical A	Analysis (on Transformed Da	ta				
None of the tes	st wells exc	eeded the	e Upper Tolerance L	limit, which is s	tatistica	lly sig	gnificant e	vidence

that these wells have no elevated concentrations with respect to background data.

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

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

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

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

^{**} 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 D-57

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 D Upgradient W	oata from Tells	Statistics on Background	Data				
Well Number:	MW395	X= 23.103					
Date Collected 8/13/2002	Result 32.200	S= 11.538 CV= 0.499 K factor** =	2.523				
9/16/2002	33.000	TL= 52.213					
10/16/2002	0.030	Because CV is	ess than o	r equal to 1			
1/13/2003	32.100	assume normal					
4/10/2003	40.200	with statistical a	ınaylsis.				
7/16/2003	32.400						
10/14/2003 1/13/2004	33.900 31.200						
Well Number:							
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						
First Quarter January 2013	2013 Data Co	ollected in					
Well No. Resu	ılt Gradient	Result > TL?					
	00 Downgrad						
MW373 82.5	00 Downgrad	lient YES					
	00 Sidegradie						
	00 Downgrad						
	00 Downgrad						
Conclusion of	Statistical A	nalysis on Data					
		exceeded the Upper T ntration with respect			h is statistically	y significant	
MW373							

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

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

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

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

** 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 D-58

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 D Upgradient W		Statist Backg	ics on round Data		
Well Number:	MW395	X= 51			
Date Collected 8/13/2002 9/16/2002 10/16/2002 1/13/2003 4/10/2003 7/16/2003 10/14/2003 1/13/2004 Well Number: Date Collected 8/13/2002	Result 62.200 64.700 62.200 63.500 64.100 64.000 63.200 60.600 MW397 Result 38.900	S= 11 CV= 0 K fact TL= 8 Because assume	.652 0.225 or** = 2.523 81.242 CV is less than	or equal to 1, ion and continue	
9/16/2002 10/17/2002 1/13/2003 4/8/2003 7/16/2003 10/14/2003 1/13/2004	39.800 39.300 40.500 42.100 42.000 40.800 41.600				
First Quarter 2 January 2013	2013 Data Co	ollected in			
Well No. Resu	ılt Gradient	Result > TL?			
MW373 48.00 MW385 22.00 MW388 40.00	00 Downgrad 00 Downgrad 00 Sidegradi 00 Downgrad 00 Downgrad	lient NO ent NO lient NO			
	t wells exce	eded the Upper	· Tolerance L	imit, which is st espect to backg	ficant evidence

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

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

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

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

** 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 D-59

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

Background D		Statistic				
Upgradient W	ells	Backgro	und Data			
Well Number:	MW395	X= 377.	875			
Date Collected	Result	S= 52.1				
8/13/2002	405.000	CV= 0.1				
9/16/2002	401.000		** = 2.523			
10/16/2002	392.000	TL= 509	9.326			
1/13/2003	404.000			or equal to 1,		
4/10/2003	488.000			ion and continue		
7/16/2003	450.000	with statis	tical anaylsis.			
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					
First Quarter January 2013		ollected in				
Well No. Rest	ult Gradient	Result > TL?				
MW370 436.	.00 Downgrad	lient NO				
MW373 935.	.00 Downgrad	lient YES				
	00 Sidegradie					
	.00 Downgrad					
MW392 360.	.00 Downgrad	lient NO				
Conclusion of	Statistical A	nalysis 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

Background I Upgradient W		Statist Backg	ics on round Data			
Well Number:	MW395	X= 4.0	678			
Date Collected 8/13/2002 9/30/2002 10/16/2002 1/13/2003 4/10/2003 7/16/2003 10/14/2003	Result 7.290 4.030 3.850 2.360 1.140 1.760 4.050	TL= 1 Because assume	0.520 or** = 2.523 10.812 CV is less than	tion and continue	9	
1/13/2004 Well Number:	4.260 MW397					
Date Collected 8/13/2002 9/16/2002 10/17/2002 1/13/2003 4/8/2003 7/16/2003 10/14/2003 1/13/2004 First Quarter January 2013	11.560 5.860 5.940 4.660 3.770 3.470 5.340 5.510 2013 Data Co	ollected in				
Well No. Res	ult Gradient	Result > TL?				
MW370 3.70 MW373 2.21 MW385 1.34 MW388 3.50 MW392 1.45	10 Downgrad 40 Sidegradi 00 Downgrad	dient NO ent NO dient NO				
		analysis on Data	a			
None of the te	st wells exce	•	Tolerance L			ignificant evidence

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

Background Data from Upgradient Wells	Statistics on Background Data						
Well Number: MW395	X= 219.250						
Date Collected Result 8/13/2002 249.000 9/16/2002 272.000	S= 34.107 CV= 0.156 K factor** = 2.523 TL= 305.301						
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	Because CV is less than or equal to 1, assume normal distribution and continue with statistical anaylsis.						
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	ollected in						
Well No. Result Gradient	Result > TL?						
MW370 230.00 Downgrad							
MW373 568.00 Downgrad							
MW385 242.00 Sidegradi							
MW388 287.00 Downgrad							
MW392 202.00 Downgrad							
	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 D Upgradient W			tistics on kground Data				sformed Ba from Upgra	ckground adient Wells
Well Number:	MW395		0.400			Well N	Number: N	4W395
Date Collected	Result		0.514 = 1.286			Date C	Collected L	N(Result)
8/13/2002	0.294		= 1.200 actor** = 2.523			8/13/2	2002 -	1.224
9/16/2002	0.200		= 1.698			9/16/2	2002 -	1.609
10/16/2002	0.000					10/16	/2002 -	8.517
1/13/2003	1.330		use CV greater that		1.	1/13/2	2003 0	.285
4/10/2003	1.310		ithm of background calculated.	d and test well res	sults	4/10/2	2003 0	.270
7/16/2003	0.200	weie	calculated.			7/16/2	2003 -	1.609
10/14/2003	0.100	Stat	tistics on			10/14	/2003 -2	2.303
1/13/2004	0.100		nsformed			1/13/2	2004 -2	2.303
Well Number:	MW397	Bac	kground Data			Well N	Number: N	4W397
Date Collected	Result	X=	-2.197			Date C	Collected L	N(Result)
8/13/2002	1.580	S=	2.634			8/13/2	2002 0	.457
9/16/2002	0.232	CV	= -1.199			9/16/2	2002 -	1.461
10/17/2002	0.000	K fa	actor** = 2.523			10/17	/2002 -	8.517
1/13/2003	0.453	т	= 4.449			1/13/2	2003 -	0.792
4/8/2003	0.200					4/8/20	- 003	1.609
7/16/2003	0.200					7/16/2	2003 -	1.609
10/14/2003	0.100					10/14	/2003 -2	2.303
1/13/2004	0.100					1/13/2	2004 -2	2.303
First Quarter January 2013							First Quart anuary 2013	er 2013 Data 3
Well No. Res	sult Gradie	nt Result >	TL?		Well Nu	nber	LN(Result)	Result > TL?
MW370 0.10	C	gradient N/			MW370		-2.303	NO
MW373 0.10		gradient N/			MW373		-2.303	NO
MW385 0.10	U				MW385		-2.303	NO
MW388 0.10		gradient N/			MW388		-2.273	NO
MW392 0.13	39 Downg	gradient N/	'A		MW392		-1.973	NO
Conclusion of	Statistical A	Analysis on T	ransformed Dat					110
		-	per Tolerance L		tatistica	lly sig	nificant ev	vidence

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

Background D Upgradient W		Statistics on Background Da	Data				
Well Number:	MW395	X= 9.102					
Date Collected 8/13/2002 9/16/2002 10/16/2002	Result 12.500 13.000 0.013	S= 4.685 CV= 0.515 K factor** = 2. TL= 20.922	2.523				
10/10/2002 1/13/2003 4/10/2003 7/16/2003 10/14/2003 1/13/2004 Well Number:	11.200 17.500 12.900 13.400 12.400 MW397		less than or equal to 1, distribution and continue anaylsis.				
Date Collected 8/13/2002 9/16/2002 10/17/2002 1/13/2003 4/8/2003 7/16/2003 10/14/2003 1/13/2004 First Quarter 2 January 2013	Result 7.830 7.640 0.007 6.690 7.280 7.820 7.940 7.510 2013 Data Co	llected in					
Well No. Resu	lt Gradient	Result > TL?					
MW373 30.3	00 Downgrad 00 Downgrad 00 Sidegradie	lient YES					
MW388 13.5 MW392 9.53	00 Downgrad 0 Downgrad	lient NO lient NO					
	Conclusion of Statistical Analysis on Data						
		xceeded the Upper Tol ntration with respect to	olerance Limit, which is statistically significant 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 I Upgradient W			atistics on ackground Data				formed Bac rom Upgra	ckground dient Wells
Well Number:	MW395		= 0.131			Well N	umber: M	IW395
Date Collected	Result		= 0.195 V= 1.487			Date Co	ollected L	N(Result)
8/13/2002	0.361		v = 1.467 factor** = 2.523			8/13/20	-1	.019
9/16/2002	0.028		L = 0.624			9/16/20	002 -3	3.576
10/16/2002	0.026					10/16/2	2002 -3	3.650
1/13/2003	0.071		cause CV greater that		1.	1/13/20	003 -2	2.641
4/10/2003	0.629		arithm of background e calculated.	a and test well res	uits	4/10/20	003 -0).464
7/16/2003	0.297	were	e calculated.			7/16/20	-1	.214
10/14/2003	0.020	St	tatistics on			10/14/2	2003 -3	3.922
1/13/2004	0.013		ransformed			1/13/20	-4	1.374
Well Number:	MW397	Ba	ackground Data			Well N	umber: M	IW397
Date Collected	Result	X=	= -3.104			Date Co	ollected L	N(Result)
8/13/2002	0.466	S=	= 1.529			8/13/20	002 -0).764
9/16/2002	0.077	C	V= -0.493			9/16/20	002 -2	2.564
10/17/2002	0.028	к	factor** = 2.523			10/17/2	2002 -3	3.576
1/13/2003	0.016		L = 0.755			1/13/20	-4	4.110
4/8/2003	0.041	11	L= 0.755			4/8/200	03 -3	3.202
7/16/2003	0.017					7/16/20	-4	1.092
10/14/2003	0.006					10/14/2	2003 -5	5.194
1/13/2004	0.005					1/13/20	004 -5	5.298
First Quarter January 2013							First Quart nuary 2013	er 2013 Data
Well No. Res			> 1L?	L	Well Nu	nber	LN(Result)	Result > TL?
MW370 0.00	•		N/A	-	MW370		-5.298	NO
MW373 0.0			N/A		MW373		-3.953	NO
MW385 0.00	U		N/A		MW385		-4.892	NO
MW388 0.0			N/A		MW388		-5.298	NO
MW392 0.10	03 Downg	gradient N	N/A		MW392		-2.273	NO
Conclusion of	Statistical A	Analysis on 7	Transformed Dat					
		•	pper Tolerance L		tatistica	lly sig	nificant ev	vidence

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 D Upgradient W			Statistics on Background Data					Background gradient Wells
Well Number:	MW395		X= 0.018			Well I	Number:	MW395
Date Collected 8/13/2002 9/16/2002	Result 0.050 0.050		S= 0.020 CV= 1.089 K factor** = 2.523			8/13/		LN(Result) -2.996
10/16/2002 1/13/2003 4/10/2003	0.007 0.029 0.009]	TL= 0.068 Because CV greater th logarithm of backgroun were calculated.		sults	9/16/2002 10/16/2002 1/13/2003 4/10/2003		-2.996 -4.959 -3.540 -4.699
7/16/2003 10/14/2003 1/13/2004 Well Number:	0.006 0.005 0.005 MW397		Statistics on Transformed Background Data			1/13/	/2003	-5.072 -5.298 -5.298 MW397
Date Collected 8/13/2002	Result 0.050		X= -4.540 S= 1.020			Date (Collected 2002	LN(Result) -2.996
9/16/2002 10/17/2002 1/13/2003	0.050 0.005 0.005		CV= -0.225 K factor** = 2.523 TL= -1.965			9/16/ 10/17 1/13/	/2002	-2.996 -5.298 -5.294
4/8/2003 7/16/2003 10/14/2003 1/13/2004	0.005 0.005 0.005 0.005		1L- 1.705	1		4/8/2 7/16/ 10/14 1/13/	2003 1/2003	-5.298 -5.298 -5.298 -5.298
First Quarter January 2013		ollected i	n				First Qua anuary 20	urter 2013 Dat)13
Well No. Res	ult Gradier	nt Res	ult > TL?		Well Nu	mber	LN(Resu	lt) Result > 7
MW370 0.00 MW373 0.00 MW385 0.00 MW388 0.00 MW392 0.00)5 Downg)6 Sidegra)8 Downg	radient dient radient	N/A N/A N/A N/A		MW370 MW373 MW385 MW388 MW392		-5.298 -5.298 -5.203 -4.823 -5.298	NO NO NO NO NO
Conclusion of Statistical Analysis on Transformed Data None of the test wells exceeded the Upper Tolerance Limit, which is statistically significant evidence hat 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.

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

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

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

Background Data from Upgradient Wells	Statistics on Background Data	
Well Number: MW395	X= 157.250	
Weil Humbel: MW 975 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	$S = 52.376$ $CV = 0.333$ $K \text{ factor}^{**} = 2.523$ $TL = 289.395$ Because CV is less than assume normal distribut with statistical analysis.	
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	ollected in	
Well No. Result Gradient	Result > TL?	
MW370725.00DowngraMW37383.000DowngraMW38513.000SidegradiMW388387.00DowngraMW392586.00Downgra	dient NO ent NO dient YES dient YES	
Conclusion of Statistical A	•	e Limit, which is statistically significant
	ntration with respect to bac	
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 D Upgradient W				Statistics on Background Data
Well Number:	MW395			X= 6.048
Date Collected	Result			S= 0.248
8/13/2002	5.800			CV= 0.041
9/16/2002	6.000			K factor** = 2.904
10/16/2002	5.470			TL = 6.767
1/13/2003	6.000			LL= 5.329
4/10/2003	6.180			Because CV is less than or equal to 1,
7/16/2003	6.000			assume normal distribution and continue
10/14/2003	6.310			with statistical analysis.
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			
	Quarter 2013 Dat ary 2013	ta Collected	in	
Well No. Resul	t Gradient Resu	lt >TL? Res	ult <ll?< th=""><th>_</th></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 Anal	ysis on Dat	ta	
				plerance Limit, which is statistically significant to background data.

MW385

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

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)

^{**} 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 E Upgradient W		Statistics on Background Data
Well Number:	MW395	X= 1.590
Date Collected 8/13/2002	Result 2.000	S= 0.642 CV= 0.404 K factor** = 2.523
9/16/2002 10/16/2002	2.000 0.001	TL= 3.208
1/13/2003	1.510	Because CV is less than or equal to 1,
4/10/2003	1.670	assume normal distribution and continue
7/16/2003	1.730	with statistical anaylsis.
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	
First Quarter January 2013	2013 Data Co	ollected in
Well No. Res	ult Gradient	Result > TL?
MW370 2.44	U	
MW373 3.26	U	
MW385 1.60	Ũ	
MW388 1.90	Ũ	
MW392 1.73		
Conclusion of	Statistical A	nalysis on Data
		exceeded the Upper Tolerance Limit, which is statistically significant ntration 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 D Upgradient W		Statistics on Background Data	
Well Number:	MW395	X= 29.560	
Date Collected 8/13/2002 9/16/2002 10/16/2002	Result 27.000 27.200 0.025	S= 13.894 CV= 0.470 K factor** = 2.523 TL= 64.616 Because CV is less than	or equal to 1
1/13/2003 4/10/2003 7/16/2003 10/14/2003	22.600 53.900 30.000 29.100	assume normal distribut with statistical anaylsis.	ion and continue
1/13/2004 Well Number:	26.400 MW397		
Date Collected 8/13/2002 9/16/2002 10/17/2002 1/13/2003 4/8/2003 7/16/2003 10/14/2003 1/13/2004 First Quarter 2 January 2013	Result 35.200 34.300 0.034 31.300 46.100 38.400 37.100 34.300 2013 Data Co	llected in	
Well No. Resu	lt Gradient	Result > TL?	
	00 Downgrad 00 Downgrad		
	00 Sidegradie		
	00 Downgrad		
	00 Downgrad	ient NO nalysis on Data	
The following t	est well(s) e	•	ce Limit, which is statistically significant kground 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 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 fro Upgradient Wells	m Statistics on Background Data
Well Number: MW3	95 X= 10.756
Date Collected Res 8/13/2002 10.3 9/16/2002 9.10 10/16/2002 8.80 1/13/2003 9.00 4/10/2003 8.30 7/16/2003 8.30 1/13/2003 8.30 1/13/2003 8.30 1/13/2004 8.20 Well Number: MW3 Date Collected Res	Ilt 00 0 $S= 2.147$ $CV= 0.200$ $K factor** = 2.523$ $TL= 16.173$ 0Because CV is less than or equal to 1, assume normal distribution and continue with statistical anaylsis.009797
bate Conected Res 8/13/2002 14.0 9/16/2002 12.3 10/17/2002 12.3 1/13/2003 12.3 7/16/2003 13.3 10/14/2003 12.3 1/13/2004 12.3	00 00 00 00 00 00 00
First Quarter 2013 I January 2013	ata Collected in
Well No. Result Gr	dient Result > TL?
	wngradient YES egradient YES wngradient YES wngradient NO
	ical Analysis on Data
	ell(s) exceeded the Upper Tolerance Limit, which is statistically significant concentration with respect to background data.
MW370	
MW373	
MW385	

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

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

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

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

^{**} 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 D-71

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

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.

Upgradient W	ells	Statistics on Background Data	
Well Number:	MW395	X= 11.359	
Date Collected 8/13/2002 9/16/2002 10/16/2002 1/13/2003 4/10/2003 7/16/2003 10/14/2003 1/13/2004	Result 20.800 16.200 8.280 13.000 -9.370 0.826 14.100 0.000	S= 9.138 $CV= 0.805$ $K factor** = 2.523$ $TL= 34.414$ Because CV is less th assume normal distribution with statistical analysis.	nan or equal to 1, bution and continue
Well Number:	MW397		
Date Collected 8/13/2002 9/16/2002 10/17/2002 1/13/2003 4/8/2003 7/16/2003 10/14/2003 1/13/2004 First Quarter 2 January 2013	Result 6.060 17.300 25.700 20.900 20.100 9.200 10.100 8.540 2013 Data Co	ollected in	
•	ilt Gradient	Result $>$ TL?	
Well No. Resu MW370 18.3 MW373 64.0 MW385 103. MW388 84.9 MW392 17.3	00 Downgrae 00 Downgrae 00 Sidegradi 00 Downgrae 00 Downgrae	dient NO dient YES ent YES dient YES	
Well No. Resu MW370 18.30 MW373 64.00 MW385 103.0 MW388 84.90 MW392 17.30 Conclusion of S 5 Fhe following to the second	00 Downgrad 00 Downgrad 00 Sidegradi 00 Downgrad 00 Downgrad Statistical A test well(s) o	dient NO dient YES ent YES dient YES dient NO Analysis on Data exceeded the Upper Tolera	ance Limit, which is statistically significant
Well No. Resu MW370 18.3 MW373 64.0 MW385 103.1 MW388 84.9 MW392 17.3 Conclusion of S 5 Fhe following text 6	00 Downgrad 00 Downgrad 00 Sidegradi 00 Downgrad 00 Downgrad Statistical A test well(s) o	dientNOdientYESentYESdientYESdientNOAnalysis on Data	
Well No. Resu MW370 18.30 MW373 64.00 MW385 103.0 MW388 84.90 MW392 17.30 Conclusion of S 5 Fhe following to the second	00 Downgrad 00 Downgrad 00 Sidegradi 00 Downgrad 00 Downgrad Statistical A test well(s) o	dient NO dient YES ent YES dient YES dient NO Analysis on Data exceeded the Upper Tolera	

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

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

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

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

^{**} 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 D-72

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 I Upgradient W		Statist Backg	ics on round Data		
Well Number:	MW395	X= 1.			
Date Collected	Result	S= 0.8 CV= 0			
8/13/2002	1.600		or** = 2.523		
9/16/2002	1.100	TL= 3			
10/16/2002	1.000	L			
1/13/2003	2.000		CV is less than		
4/10/2003	3.400		tistical anaylsis.	ion and continue	
7/16/2003	2.000	with sta	listical anayisis.		
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				
First Quarter January 2013					
Well No. Res	ult Gradient	Result > TL?			
MW370 1.00	U				
MW373 1.00	U				
MW385 1.00	U				
MW388 1.00	U				
MW392 1.00					
		analysis on Dat			
		eded the Upper evated concent			nificant evidence

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

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

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

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

^{**} 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 D-73

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

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 D Upgradient We		Statist Backg	ics on round Data		
Well Number:	MW395	X= 31			
Well Number: Date Collected 8/13/2002 9/16/2002 10/16/2002 1/13/2003 4/10/2003 7/16/2003 10/14/2003 1/13/2004 Well Number: Date Collected 8/13/2002	MW 395 Result 50.000 50.000 18.300 51.200 42.600 12.300 10.000 MW 397 Result 50.000	S= 18 CV= 0 K fact TL= 7 Because assume	.609 0.591 or** = 2.523 /8.462 CV is less than	or equal to 1, ion and continue	
9/16/2002 10/17/2002 1/13/2003 4/8/2003 7/16/2003 10/14/2003 1/13/2004	50.000 50.000 12.000 19.900 17.900 10.000 10.000				
First Quarter 2 January 2013	2013 Data Co	llected in			
Well No. Resu	lt Gradient	Result > TL?			
MW373 36.00 MW385 23.00 MW388 18.00	 Downgrad Downgrad Downgrad Sidegradid Downgrad Downgrad Downgrad 	lient NO ent NO lient NO			
Conclusion of S			a		
				imit, which is st espect to backg	ificant evidence

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

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

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

** 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 D-74

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



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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RESIDENTIAL/INERT - QUARTERLY, 1st CY 2013 Facility: U.S. DOE - Paducah Gaseous Diffusion Plant Permit Numbers: 073-00014 and 073-00015 Finds/Unit: <u>KY8-890-008-982/1</u> LAB ID: <u>None</u>

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.

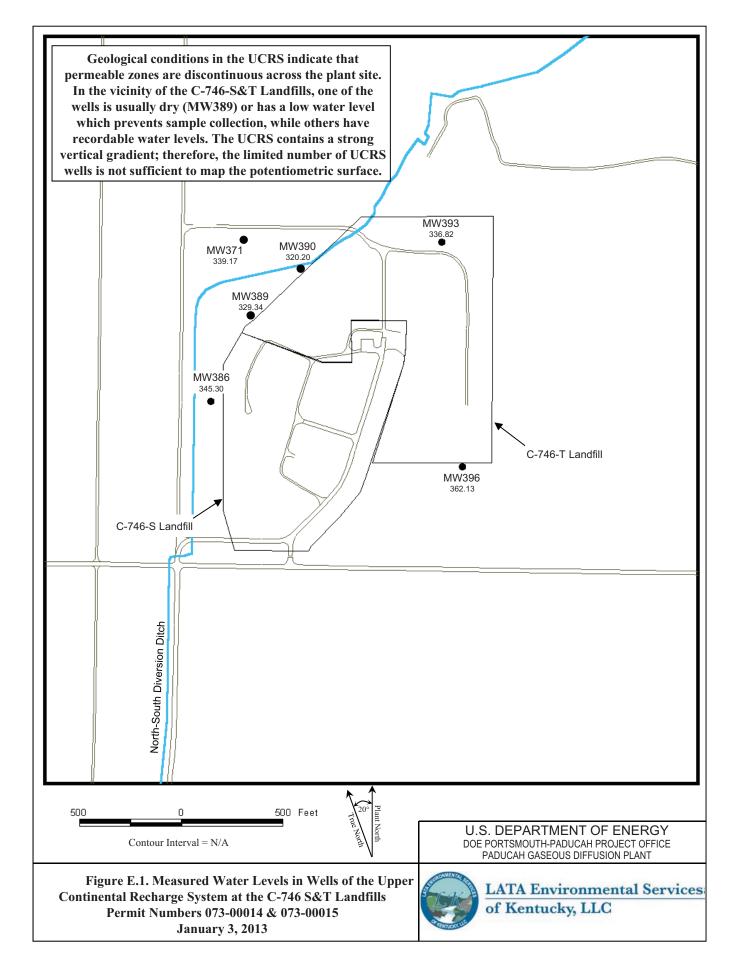
Water levels during this reporting period were measured on January 3, 2013. As shown on Figure E.1, MW389, screened in the Upper Continental Recharge System (UCRS), is usually dry, while other UCRS wells have recordable water levels. During this reporting period, all of the UCRS wells had sufficient 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.

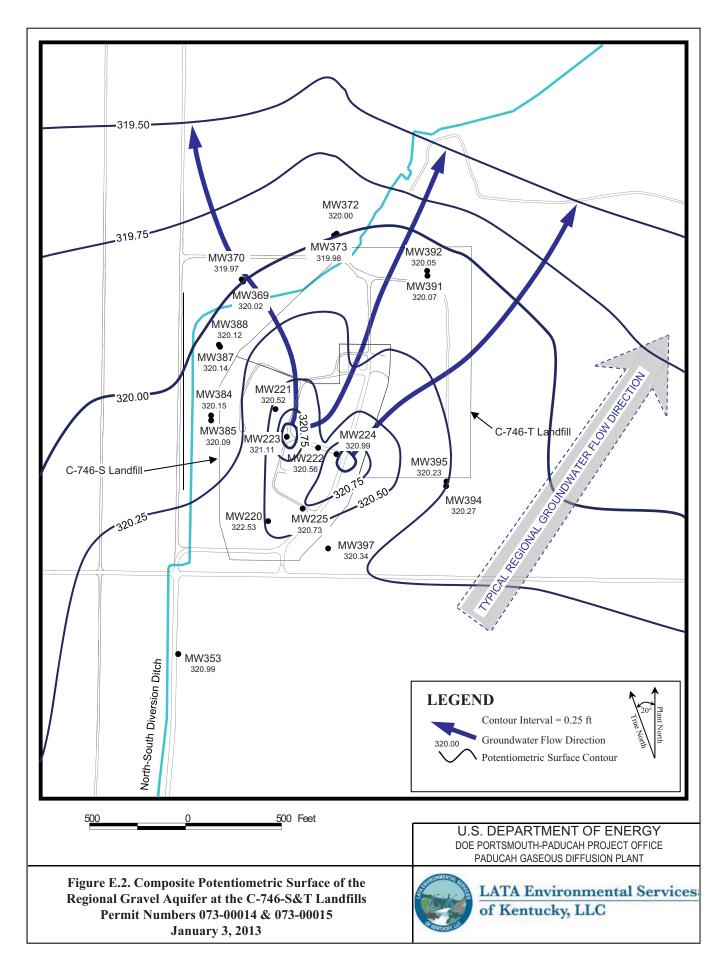
Regional groundwater flow near C-746-S&T typically trends northeastward toward the Ohio River. As demonstrated on the potentiometric map, the groundwater flow direction in the immediate area of the landfill varies slightly from regional trends; however, as groundwater flows away from the landfill, it 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.



			C-746-S&T	Landfills (Jan	uary 2013)	Water Leve	ls		C-746-S&T Landfills (January 2013) Water Levels									
								w Data		rrected Data								
Date	Time	Well	Formation	Datum Elev	BP	Delta BP	DTW	Elev	DTW	Elev								
				(ft amsl)	(in Hg)	(ft H ₂ 0)	(ft)	(ft amsl)	(ft)	(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 Baroi	metric Pre	ssure	30.34															
Elev = eleva	ation																	
amsl = abov	e mean se	a level																
BP = barom	etric press	sure																
DTW = dep	th to wate	r in feet belo	w datum															
-		onal Gravel A																
		onal Gravel A	1															
	-	nental Recha	-															
-	-	ic efficiency																

Table E.1. C-746-S&T Landfills First Quarter 2013 (January)	Water Levels



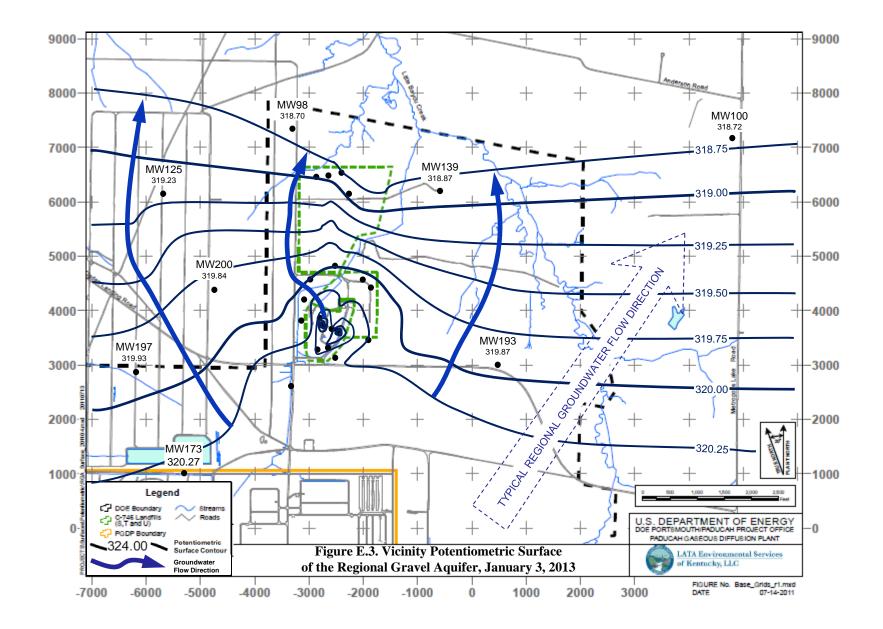


Table E.2. C-746-S&T Hydraulic Gradients

	ft/ft
Beneath Landfill Mound	8.64 x 10 ⁻⁴
Vicinity	3.12 x 10 ⁻⁴

Table E.3. C-746-S&T Groundwater Flow Rate

Hydraulic Conductivity (K)		Specific l	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 x 10 ⁻⁴	2.50	8.84 x 10 ⁻⁴	
425	0.150	0.37	1.30 x 10 ⁻⁴	1.47	5.18 x 10 ⁻⁴	
Vicinity						
725	0.256	0.23	7.99 x 10 ⁻⁵	0.91	3.20 x 10 ⁻⁴	
425	0.150	0.13	4.68 x 10 ⁻⁵	0.53	1.87 x 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
TE : Although technetium-99 is not cite	d in $40 \ CFR \$ 302.4 Appendix A these radionuclid

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 Trichloroethene	9310/RL7111 8260B/OA7302E		95.6 6.1	pCi/L ug/L	50 5
8004-4792	MW373	Beta activity Trichloroethene	9310/RL7111 8260B/OA7302E		56.7 6.6	pCi/L ug/L	50 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 Trichloroethene	8260B/OA7302E 8260B/OA7302E	Y Y	13 12	ug/L ug/L	5 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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Groundwater Flow System	I	I	UCR	S						U	RG	4							I	RG	4		
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	5389	390	393	396	221	222	223	224	384	369	372	387	391	220	394	385	370	373	388	392	395	397
1,2,3-TRICHLOROPROPAN																							<u></u>
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			*				*				*												<u> </u>
Quarter 2, 2010			*								*												<u> </u>
Quarter 3, 2010			*								*			*			*			*			
Quarter 1, 2011							*				*												
Quarter 2, 2011			*								*												
Quarter 2, 2012			*																				

Groundwater Flow System		τ	JCR	S						U	RGA	4							L	RGA	ł		
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																							
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Quarter 3, 2010						L																	
Quarter 4, 2010						L																	
Quarter 1, 2011						L																	
Quarter 2, 2011																							

Groundwater Flow System		τ	JCR	S						U	RGA	4							I	RG	4		
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																							
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Groundwater Flow System	1	τ	JCR	S						U	RG	4							L	RG	4		
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												*							*				
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CARBON DISULFIDE																							
Quarter 4, 2010											*												
Quarter 1, 2011												*									*		
CHEMICAL OXYGEN DEMA	AND	1	1	1							1	1			1	1 1		1	1	1			
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Groundwater Flow System		τ	JCR	S						U	RG	A							L	RG	4		
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	*																						
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Groundwater Flow System		ι	JCR	S						U	RGA	4							Ι	RG	Ą		
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
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Quarter 4, 2002																							
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Quarter 2, 2003																							
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Groundwater Flow System		τ	JCR	S						U	RG	4							Ι	RG	4		
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																	*		*				
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Quarter 3, 2011												*							*				
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Quarter 4, 2012												*							*				
Quarter 1, 2013												*							*				
DISSOLVED OXYGEN																							
Quarter 3, 2006			*					*															
DISSOLVED SOLIDS																							
Quarter 4, 2002										*									*				
Quarter 1, 2003			*							*									*				
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Quarter 3, 2003			*				*	*		*		*							*				
Quarter 4, 2003			*				*		*	*		*							*				
Quarter 1, 2004			*									*							*				
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Quarter 1, 2006	1	<u> </u>															*	*	*	*	*		
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Groundwater Flow System		τ	JCR	S						U	RGA	١							Ι	RG	ł		
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																	*	*	*	*	*		
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Quarter 4, 2003											*												
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Groundwater Flow System		τ	JCR	S						U	RG	4							L	RG	4		
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										*	*												
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MAGNESIUM																							
Quarter 1, 2003			*																				
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Quarter 3, 2003			*				*					*											
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Groundwater Flow System		τ	JCR	S						U	RGA	4							Ι	.RGA	4		
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												*							*				
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Quarter 4, 2002																					*		
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Groundwater Flow System	T	τ	JCR	S						U	RG	4							L	RG	A		
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	T		*																				
Quarter 2, 2007			*				*																
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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	*		*																	*			
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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				*		*		*	*		*		*	*				*		*	*		
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Groundwater Flow System		τ	JCR	S						U	RG	A							L	RG	4		
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											*												
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PCB-1232							-	-		-	-	-		-					-				
Quarter 1, 2011											*												
PCB-1248	-						-	-		-	-	-		-					-				
Quarter 2, 2008												*											
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Quarter 4, 2002																	*						
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POTASSIUM																							
Quarter 4, 2002																		*	*				

Groundwater Flow System		UCRS					URGA												LRGA							
Gradient	S						S	S	S	S					D D U U			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																			*							
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RADIUM-226																										
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Quarter 2, 2004																			*							
Quarter 2, 2005									*																	
Quarter 1, 2009											*															
RADIUM-228																										
Quarter 2, 2005																										
Quarter 3, 2005																										
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SELENIUM																										
Quarter 4, 2002																										
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SODIUM																										
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Quarter 1, 2003				*					*	*	*															
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Quarter 1, 2005										*									*							
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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										*		*	*				<u> </u>	*	*					
Quarter 1, 2004 Quarter 2, 2004										*		*	*	-			*	*	*	*			$\left - \right $	
Quarter 3, 2004	-								*	*		* *	*					*	*	-14				

Groundwater Flow System	JCR	.S						U	RG	A							Ι	LRG	A				
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	5389	390	393	396	221	222	223	224	384	369	372	387	391	220	394	385	370	373	388	392	395	397
Quarter 4, 2004	T									*		*	*					*	*				
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	-	<u> </u>	*				<u> </u>					*	*				*	\mid	*			<u> </u>	\square
Quarter 2, 2004		Ļ	*				L			L		*	*				*		*	*			

Groundwater Flow System		ι	JCR	S						U	RG	4							Ι	RG	Ą		
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			*							*		*	*				*	ماد	*	*			
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	l –		*							*			*				*			*			
Quarter 3, 2011	t		*	<u> </u>						*			*				*			*			
Quarter 4, 2011	t –		*							*	*	*	*				*						
Quarter 1, 2012	ł		*							*		-	*				*			*			
Quarter 1, 2012 Quarter 2, 2012	┢──		*							*			*				*		*	*			
Quarter 2, 2012 Quarter 3, 2012			* *							*		*	*				*						
Quarter 3, 2012 Quarter 4, 2012	-		ጥ							*		*	*				*		*	*			
-										*		ጥ	*				*		*	*			
Quarter 1, 2013	1			[I			Τ			Τ				不		Ŧ	Τ			
THORIUM-230	*14						1							مان									
Quarter 1, 2012	*								*					*					<u> </u>				
THORIUM-234					1	-	1	1	-	1	1		1	-						1			
Quarter 2, 2003						*			*					*									L

Groundwater Flow System		I	UCR	S						U	IRG	A							Ι	RG	4		
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	5389	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 CARBO	N																						
Quarter 4, 2002																					*		
Quarter 1, 2003				*						*	*							*	*		*		
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Quarter 3, 2007	*					*	*	*	*	*			*	*			*						
Quarter 2, 2011											*												
Quarter 3, 2012	*																						
TOTAL ORGANIC HALIDI	ES	I							1			1						1					
Quarter 4, 2002																		*	*		*		
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Quarter 2, 2006 Quarter 3, 2006	*																						
Quarter 4, 2006	-																*						
Quarter 1, 2007	*																						
Quarter 2, 2007	*																						
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Quarter 4, 2007	*																				*		

Groundwater Flow System		τ	JCR	S						U	RG	A							Ι	.RG.	A		
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	*																						
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Quarter 2, 2009	*																				*		
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TRICHLOROETHENE																							
Quarter 4, 2002																							
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Quarter 1, 2009																							
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Quarter 3, 2009																							
Quarter 4, 2009																							
Quarter 1, 2010																							
Quarter 2, 2010																							

Groundwater Flow System		τ	UCR	S						U	RG	A					I		Ι	RG	4		
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																							
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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 tes	t result	s inc	dicat	e an	elev	ated	cond	centr	atio	n (i.e	e., a s	statis	stica	lly s	igni	ficar	nt inc	reas	e)				
MCL Exceed	ance																						
UCRS Upper Contin	ental H	Rech	arge	Sys	tem																		
URGA Upper Region	nal Gra	vel.	Aqui	ifer																			
LRGA Lower Region	nal Gra	avel	Aqu	ifer																			
S Sidegradient;			D)	D	own	grad	ient;	. –		Ī	J		Upg	radi	ent	_			_		_	_

APPENDIX H

METHANE MONITORING DATA

C-746-S & T LANDFILL METHANE MONITORING REPORT

Weather Conditions: WIND CALM 43 Monitoring Equipment:: FNNOJA LS Monitoring Location Readin	Date:	3-14-13 Time: 1415 Monitor: K <	STONE
Monitoring Equipment:: \overline{FNNOVA} LS Readin (% LELOgden Landing Road EntranceCHECKED (*) GROWND LEVELONorth Landfill GateCHECKED (*) GROWND LEVELOWest Side of Landfill: North 37° 07.652' West 88° 48.029'CHECKED (*) GROWND LEVELONorth 37° 07.652' West 88° 48.029'CHECKED (*) GROWND LEVELOCell 1 Gas Vent (17)1234567891011121314151617Cell 2 Gas Vent (3)000 <td></td> <td>nditions:</td> <td>2,000</td>		nditions:	2,000
Monitoring LocationReadin (% LELOgden Landing Road Entrance $CHECKED$ \bigcirc \bigcirc \bigcirc North Landfill Gate $CHECKED$ \bigcirc \bigcirc \bigcirc \bigcirc North 137° 07.652' West 88° 48.029' \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc North 37° 07.652' West 88° 48.029' \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc North 37° 07.628' West 88° 47.798' \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc Cell 1 Gas Vent (17) \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc Cell 2 Gas Vent (3) \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc Cell 3 Gas Vent (7) \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc Landfill Office \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc Landfill Office \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc Cell 3 Gas Vent (7) \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc Landfill Office \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc Landfill Office \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc Areas \land \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc Remarks: \land \bigcirc \bigcirc \bigcirc \bigcirc \bigcirc	Monitoring	Equipment::	
Road EntranceCHECKED (*)CROWND LEVELONorth Landfill GateCHECKED (*)CROWND LEVELOWest Side of Landfill: North 37° 07.652' West 88° 48.029'CHECKED (*)CROWND LEVELOEast Side of Landfill: North 37° 07.628' West 88° 47.798'CHECKED (*)CROWND LEVELOCell 1 Gas Vent (17)1234567891011121314151617Cell 2 Gas Vent (3)1234567891011121314151617Cell 3 Gas Vent (7)12345677714151617Landfill OfficeCHECKED (*)FlooreCHEUELV///14151617Landfill OfficeCHECKED (*)FlooreCHEUELV//14151617Landfill OfficeCHECKED (*)FlooreCHEUELV//14151617Remarks:XXXXXXX14151617Remarks:XXXXXXX14151617Remarks:XXXXXXX14151617Remarks:XXXXXXX14151617X </td <td></td> <td></td> <td>Reading (% LEL)</td>			Reading (% LEL)
West Side of Landfill: North 37° 07.652' West 88° 48.029' CHECKED CROWND LEVEL O East Side of Landfill: North 37° 07.628' West 88° 47.798' CHECKED CHECKED CROWND LEVEL O Cell 1 Gas Vent (17) 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 Cell 1 Gas Vent (17) 0		19 20 CHECKED (GROUND LEVEL	Ő
Landfill: North 37° 07.652' CHECKED O GROWND LEVEL O East Side of Landfill: North 37° 07.628' CHECKED O GROWND LEVEL O West 88° 47.798' CHECKED O GROWND LEVEL O Cell 1 Gas Vent (17) 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 Cell 1 Gas Vent (17) 0		Gate CHECKED & GROUND LEVEL	0
Landfill: North 37° 07.628' CHECKED O GROUND LEVEL O Cell 1 Gas Vent (17) 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 Cell 1 Gas Vent (17) 0 <td>Landfill: North 37° 0 West 88° 4</td> <td>17.652' 18.029' CHECKED & GROUND LEVEL</td> <td>0</td>	Landfill: North 37° 0 West 88° 4	17.652' 18.029' CHECKED & GROUND LEVEL	0
Cell 1 Gas Vent (17) \bigcirc	Landfill: North 37° 0	7.798' CHECKED a GROUND LEVEL	0
Cell 2 Gas Vent (3) 0	Cell 1 Gas Ver	nt (17) 000000000000000000000000000000000000	3/
Cell 3 Gas Vent (7) 0		nt(3) 0 0 0	3-14-1
Suspect or Problem Areas NO AREAS NOTED Remarks:	Cell 3 Gas Ve	nt (7) 0000000	
Remarks:	Suspect or Pro	blem s	5. 3.14-13
ALL VENTS CHECKED I' FROM MOUTH OF VENT	• • • • • • • • • • • • • • • • • • • •		
	ALL	JENTS CHECKED I' FROM MOUTH OF VEN	Τ
			-
			*
Performed by: Kun Aton 3-14-13	Performed by:	Kun Aton 3-1	413
Signature Date	/	Signature	Date

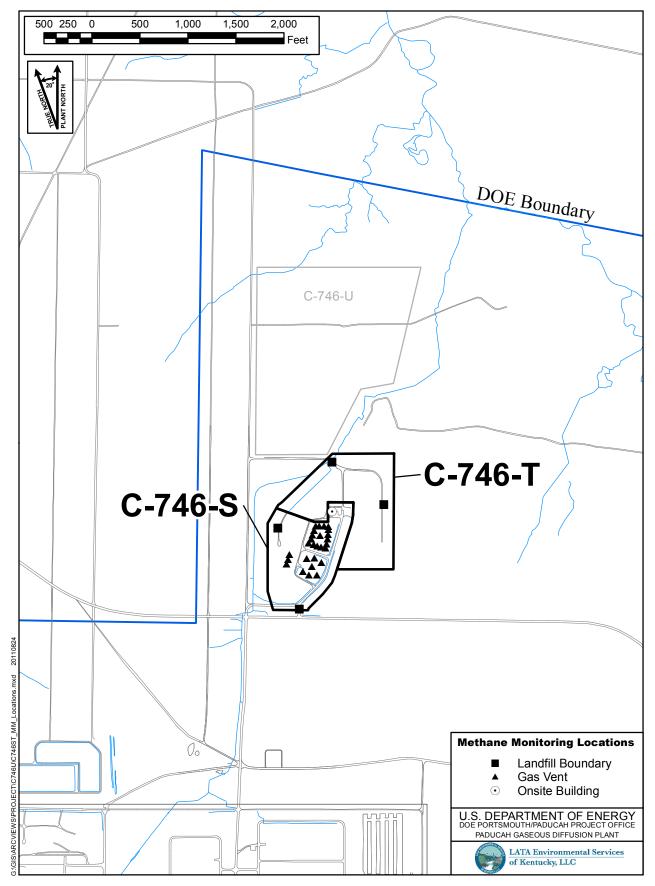


Figure H.1. C-746-S&T Methane Monitoring Locations

APPENDIX I

SURFACE WATER MONITORING DATA

Division of Waste Management **RESIDENTIAL/INERT-OUARTERLY** Facility: US DOE - Paducah Gaseous Diffusion Plant Solid Waste Branch Permit Number:073-00014 & 073-00015 FINDS/UNIT: KY8-890-008-982 / 1 14 Reilly Road LAB ID: None

Frankfort, KY 40601 (502)564-6716

For Official Use Only

SURFACE WATER SAMPLE ANALYSIS (s)

Monitoring Po	int	(KPDES Discharge Number, or "U	JPST	REAM", or "D	OWNSTREAM")	L135 UPSTRE	AM	L136 AT SI	ΓE	L154 DOWNST	REAM		
Sample Sequer	ıce	#				1		1		1		\backslash	/
If sample is a	a Bl	ank, specify Type: (F)ield, (T)r:	ip, (M)ethod	, or (E)quipment	NA		NA		NA			
Sample Date a	and	Time (Month/Day/Year hour: m	inu	tes)		1/10/2013 13	:15	1/10/2013 13	:05	1/10/2013 12	2:50		
Duplicate ("Y	۲" c	or "N") ¹				N		N		N			
Split ('Y' or	r "N	T") ²				N		N		N			7
Facility Sam	ple	ID Number (if applicable)				L135SS2-1	3	L136SS2-1	3	L154US2-	13		/
Laboratory Sa	ampl	e ID Number (if applicable)				C130100370	01	C130100370	02	C13010038	003		i
Date of Analy	ysis	g (Month/Day/Year)				1/29/2013		1/29/2013		1/29/2013	3		
CAS RN ³		CONSTITUENT	Т Д 4	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL ⁵	F L G S ⁷	DETECTED VALUE OR PQL ⁵	F L G S ⁷	DETECTED VALUE OR PQL ⁵	F L G S ⁷	DETECTED VALUE OR PQL	F L G S ⁷
A200-00-0	0	Flow	т	MGD	Field	0.17		0.16		0.39			
16887-00-6	2	Chloride(s)	т	MG/L	300.0	22		2.6		6.3			
14808-79-8	0	Sulfate	т	MG/L	300.0	18		38		14			X
7439-89-6	0	Iron	т	MG/L	200.7 R3.3	1.38	*	0.784	*	4.65	*		
7440-23-5	0	Sodium	т	MG/L	200.7 R3.3	8.57		2.97		3.9			
S0268	0	Organic Carbon ⁶	т	MG/L	9060	12.5	D*	11	D*	15.8	D*		
S0097	0	BOD ⁶	т	MG/L	not applicable		*		*		*		
S0130	0	Chemical Oxygen Demand	т	MG/L	410.4	26		26		31			

¹Respond "Y" if the sample was a duplicate of another sample in this report

²Respond "Y" if the sample was split and analyzed by separate laboratories.

³Chemical 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 ⁶Facility has either/or option on Organic Carbon and (BOD) Biochemical Oxygen Demand - both are not required ⁷Flags 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

Page 2 of 2

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 Po	oint	: (KPDES Discharge Number, or	<u>r "T</u>	JPSTREAM" or	"DOWNSTREAM")	L135 UPSTR	EAM	L136 AT SI	ITE	L154 DOWNST	REAM		
CAS RN ³		CONSTITUENT	T D 4	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL ⁵	F L A G S ⁷	DETECTED VALUE OR PQL ⁵	F L G S ⁷	DETECTED VALUE OR PQL ⁵	F L A G S ⁷	DETECTED VALUE OR PQL ⁵	FLAG57
s0145	1	Specific Conductance	т	µнмs/см	Field	292		351		174			
s0270	0	Total Suspended Solids	т	MG/L	160.1	32	*	<16	*	162	*		
S0266	0	Total Dissolved Solids	т	MG/L	160.2	195		230		130			
s0269	0	Total Solids	т	MG/L	160.3	180		247		311			
S0296	0	рН	т	Units	Field	8.02		8.23		8.04			
7440-61-1		Uranium	т	MG/L	IN7105	0.0106		0.0101		0.0045			
12587-46-1		Gross Alpha (α)	т	pCi/L	900.0	12	*	5.81	*	6.66	*		
12587-47-2		Gross Beta (β)	т	pCi/L	900.0	22.1	*	10.4	*	14.2	*	X	
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RESIDENTIAL/INERT – QUARTERLY Facility: US DOE - Paducah Gaseous Diffusion Plant Permit Numbers: 073-00014 & 073-00015

Finds/Unit: <u>KY8-890-008-982 / 1</u>

LAB ID: _____ None

For Official Use Only

SURFACE WATER WRITTEN COMMENTS

Monitorino Point	g Facility Sample ID	Constituent	Flag	Description
L135	L135SS2-13	Iron	Ν	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	Ν	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	Ν	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.