PAD-ENM-0090/V2

C-746-S&T Landfills
Second Quarter Calendar Year 2014
(April–June)
Compliance Monitoring Report,
Paducah Gaseous Diffusion Plant,
Paducah, Kentucky

This document is approved for public release per review by:

Robert Downs — 8-26-14

LATA Kentucky Classification Support — Date

PAD-ENM-0090/V2

C-746-S&T Landfills
Second Quarter Calendar Year 2014
(April-June)
Compliance Monitoring Report,
Paducah Gaseous Diffusion Plant,
Paducah, Kentucky

Date Issued—August 2014

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

CLEARED FOR PUBLIC RELEASE

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ACRONYMS

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

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1. INTRODUCTION

This report, *C-746-S&T Landfills Second Quarter Calendar Year 2014 (April-June) 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 § 4. Surface water was monitored as specified in 401 *KAR* 48:300 § 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. Surface water results are provided in Appendix I.

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 second quarter 2014 during April using LATA Environmental Services of Kentucky, LLC, (LATA Kentucky) procedure PAD-ENM-2101, *Groundwater Sampling*. Appropriate sample containers and preservatives were utilized. Due to United States Enrichment Corporation ceasing operations at PGDP, laboratory analyses were contracted

to an off-site laboratory. The laboratory used lower reporting limits than the previously used laboratory. The laboratory also 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 MW389 (screened in the UCRS), which had an insufficient amount of water to obtain samples; therefore, there are no analytical results for this location. 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 April 29, 2014, 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.3). Water level measurements in 38 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 April was 2.86×10^{-4} ft/ft, while the gradient beneath the C-746-S&T Landfills was 4.71×10^{-3} ft/ft. Calculated groundwater flow rates (average linear velocities) for the RGA at the C-746-S&T Landfills range from 0.80 to 1.37 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.

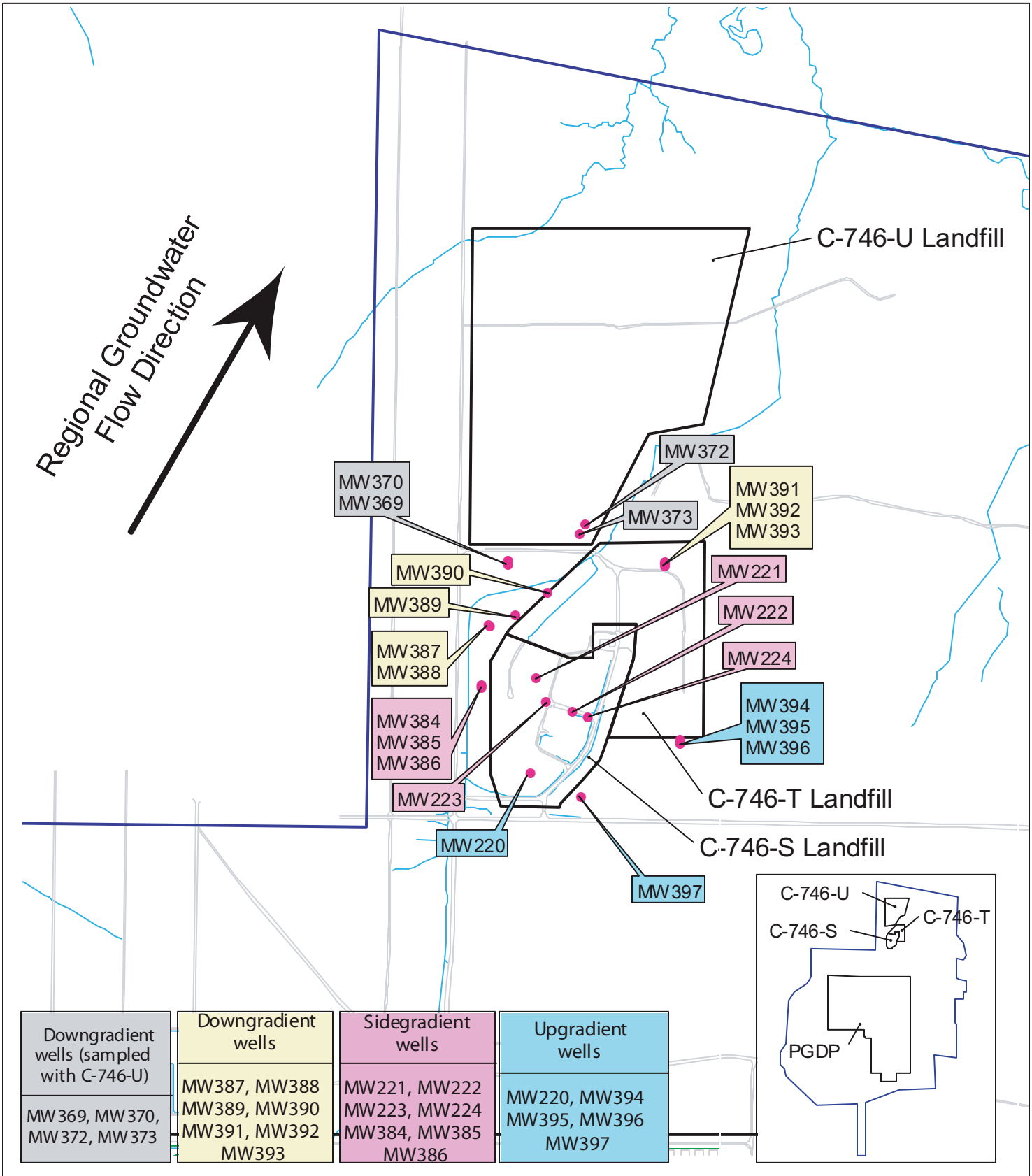
1.2.2 Methane Monitoring

Landfill operations staff monitored for the occurrence of methane on June 6, 2014, 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. 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 C-746-U Landfill Methane Log provided in Appendix H.

1.2.3 Surface Water Monitoring

Surface water was sampled in accordance with 401 *KAR* 48:300 § 2 and the approved surface water monitoring plan. Sampling was performed in three locations within the C-746-S&T Landfills. The landfills have an upstream location, L135; a downstream 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. The parameters identified in the Solid Waste Landfill Permit were analyzed for the three locations sampled for report only format, pursuant to Permit Condition GMNP0003, Standard Requirement 1. Surface water results are provided in Appendix I.

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



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

LATA Environmental Services of Kentucky, LLC

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

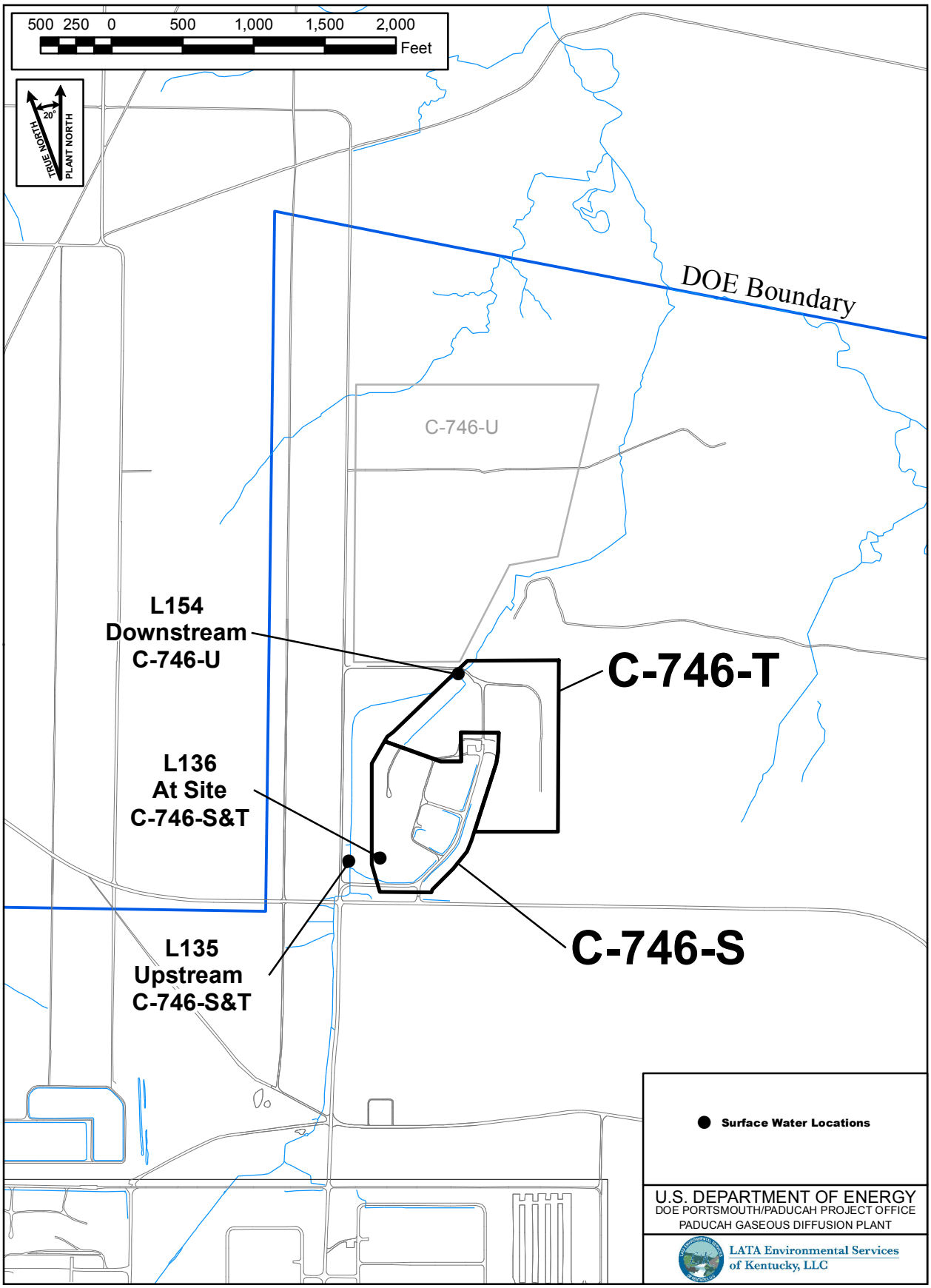


Figure 2. C-746-S&T Landfill Surface Water Monitoring Locations

1.3 KEY RESULTS

The following parameters had concentrations that either exceeded the MCL (Table 1) or were shown to have statistically significant increases (Table 2) in concentrations[2] relative to background concentrations during the second quarter 2014.

Table 1. Summary of MCL Exceedances

UCRS	URGA	LRGA
None	MW372: Trichloroethene MW384: Beta Activity MW387: Beta Activity MW391: Trichloroethene	MW385: Beta Activity MW388: Beta Activity MW392: Trichloroethene

Table 2. Summary of Statistically Significant Increases

UCRS	URGA	LRGA
MW386: Oxidation-reduction potential	**MW221:** Oxidation-reduction potential	**MW370:** Oxidation-reduction potential, sulfate
MW390: Oxidation-reduction potential, technetium-99	**MW222:** Oxidation-reduction potential	**MW373:** Calcium, conductivity dissolved solids, magnesium, oxidation-reduction potential, sodium, sulfate, technetium-99
MW393: Oxidation-reduction potential	**MW224:** Oxidation-reduction potential, sodium	**MW385:** Oxidation-reduction potential, sulfate, technetium-99
	MW369: Aluminum, oxidation-reduction potential, sodium, technetium-99, toluene	**MW388:** Oxidation-reduction potential, sulfate, technetium-99
	MW372: Calcium, conductivity, dissolved solids, magnesium, sodium, sulfate	**MW392:** Oxidation-reduction potential
	MW384: Sulfate, technetium-99, toluene	
	MW387: Magnesium, oxidation-reduction potential, sulfate, technetium-99, toluene	
	MW391: Sulfate	

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 wells MW384, MW385, MW387, and MW388 are related to sources of contamination that are upgradient of the C-746-S&T Landfills. The trichloroethene detected in MW372, MW391, and MW392 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 § 7 prior to the submittal of this report.

[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.

There was one new statistically significant increase this quarter, toluene. Toluene was detected in MW369, MW384, and MW387. Please note that toluene also was detected in the trip blanks and some data qualified as "U" (nondetect). The source is believed to be the sealing process that was used on the samples in preparation for shipment.

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 § 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 § 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 § 12.

2. DATA EVALUATION/STATISTICAL SYNOPSIS

The statistical analyses conducted on the second quarter 2014 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 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 (D-23–D-100).

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

Table 3. Monitoring Wells Included Historically in Statistical Analysis*

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

*A map showing the monitoring well locations is shown in Figure 1.
**Included as background only.
***MW389 had insufficient water to permit a water level measurement or 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 26 parameters in the UCRS. The statistical analysis was conducted separately for each parameter in each well. During the second quarter, oxidation-reduction potential, and technetium-99 displayed elevated concentrations that were determined to qualify as statistically significant increases.

Upper Regional Gravel Aquifer

In this quarter, statistical analysis was performed on 26 parameters in the URGA. The statistical analysis was conducted separately for each parameter in each well. During the second quarter, aluminum, calcium, conductivity, dissolved solids, magnesium, oxidation-reduction potential, sodium, sulfate, technetium-99, and toluene displayed elevated concentrations that were determined to qualify as statistically significant increases.

Lower Regional Gravel Aquifer

In this quarter, statistical analysis was performed on 24 parameters in the LRGA. The statistical analysis was conducted separately for each parameter in each well. During the second quarter, calcium, conductivity, dissolved solids, magnesium, oxidation-reduction potential, sodium, sulfate, 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. Validation qualifiers are used in the statistical analysis. Validation qualifiers are added by the third-party validator and not the laboratory.

Field quality control samples are collected quarterly during each sampling event. Field blanks, rinseate blanks, and trip blanks are obtained to ensure quality of field and laboratory practices and data 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.

The following summary from the data validation report is included to provide more information regarding the presence of toluene and radium-226 in the second quarter 2014 sampling event.

All laboratory and field blanks were analyzed at the proper frequency. Toluene was detected in the trip blanks, and the following samples were qualified "U" (nondetect) based on trip blank results by the third-party data validator: MW222, MW224, MW384, MW385, MW386, MW387, MW388, MW390, MW391, MW392, MW393, MW394, MW395, MW396, MW397, FB1, and RI1.

All laboratory and field blanks were analyzed at the proper frequency. Radium-226 was detected in the rinseate blank. Based on the rinseate blank results, the following samples have been qualified "U" (nondetect) by the third-party data validator: MW222, MW384, MW387, MW388, MW390, MW391, MW392, MW394, and MW397.

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4. PROFESSIONAL GEOLOGIST AUTHORIZATION

DOCUMENT IDENTIFICATION: *C-746-S&T Landfills*
Second Quarter Calendar Year 2014 (April–June)
Compliance Monitoring Report,
Paducah Gaseous Diffusion Plant,
Paducah, Kentucky (PAD-ENM-0090/V2)

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

Kenneth R. Davis
Kenneth R. Davis

PG1194

August 26, 2014
Date

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5. REFERENCE

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

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APPENDIX A

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

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

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

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

Permit No: 073-00014 & 073-00015 Finds/Unit No: _____ Quarter & Year 2nd Qtr. CY 2014

Please check the following as applicable:

_____ Characterization X Quarterly _____ Semiannual _____ Annual _____ Assessment

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

_____ Leachate X Methane Monitoring

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

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

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

8-29-14
Date

Jennifer Woodard, Paducah Site Lead
U.S. Department of Energy

8/29/14
Date

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APPENDIX B

FACILITY INFORMATION SHEET

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FACILITY INFORMATION SHEET

Sampling Date: Groundwater: April 2014; Surface Water: April 2014; Methane: June 2014 | County: McCracken | Permit Nos. 073-00014 & 073-00015

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

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

Phone No: (270) 441-6800 | Latitude: N 37° 07' 37.70" | Longitude: W 88° 47' 55.41"

OWNER INFORMATION

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

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

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

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

SAMPLING PERSONNEL
(IF OTHER THAN LANDFILL OR LABORATORY)

Company: LATA Environmental Services of Kentucky, LLC

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

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

LABORATORY RECORD #1

Laboratory: GEL Laboratories, LLC | Lab ID No: SC00012(EPA ID Number)

Contact Person: Joanne Harley | Phone No: (843) 769-7387

Mailing Address: 2040 Savage Road (Street) | Charleston, South Carolina (City/State) | 29407 (Zip)

LABORATORY RECORD #2

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

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

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

LABORATORY RECORD #3

Laboratory: | Lab ID No:

Contact Person: | Phone No:

Mailing Address: Street | City/State | Zip

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APPENDIX C

GROUNDWATER SAMPLE ANALYSES AND WRITTEN COMMENTS

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

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

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

GROUNDWATER SAMPLE ANALYSIS(S)

AKGWA NUMBER[1], Facility Well/Spring Number	8000-5201	8000-5202	8000-5242	8000-5243
Facility's Local Well or Spring Number (e.g., MW-1, MW-2, etc.)	220	221	222	223
Sample Sequence #	1	1	1	1
If sample is a Blank, specify Type: (F)ield, (T)rip, (M)ethod, or (E)quipment	NA	NA	NA	NA
Sample Date and Time (Month/Day/Year hour: minutes)	4/7/2014 12:22	4/7/2014 09:05	4/7/2014 09:23	4/7/2014 09:47
Duplicate ("Y" or "N")[2]	N	N	N	N
Split ("Y" or "N")[3]	N	N	N	N
Facility Sample ID Number (if applicable)	MW220SG3-14	MW221SG3-14	MW222SG3-14	MW223SG3-14
Laboratory Sample ID Number (if applicable)	346176001	346176002	346176003	346176005
Date of Analysis (Month/Day/Year) For Volatile Organics Analysis	4/14/2014	4/14/2014	4/14/2014	4/14/2014
Gradient with respect to Monitored Unit (UP, DOWN, SIDE, UNKNOWN)	UP	SIDE	SIDE	SIDE

CAS RN[4]		CONSTITUENT	TD[5]	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL[6]	FLAGS[7]	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS
24959-67-9		**Bromide**	**T**	**mg/L**	**9056**	0.208		0.51		0.505		0.544	
16887-00-6		**Chloride(s)**	**T**	**mg/L**	**9056**	21.3		34.3		32.4		33.3	
16984-48-8		**Fluoride**	**T**	**mg/L**	**9056**	0.204		0.181		0.239		0.17	
S0595- -		**Nitrate & Nitrite**	**T**	**mg/L**	**9056**	1.36		1.19		0.994		0.908	
14808-79-8		**Sulfate**	**T**	**mg/L**	**9056**	18.9		13.2		11.3		15	
NS1894		**Barometric Pressure Reading**	**T**	**Inches/Hg**	**Field**	29.54		29.55		29.55		29.51	
S0145- -		**Specific Conductance**	**T**	**μMH0/cm**	**Field**	403		378		344		379	

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

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

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

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

GROUNDWATER SAMPLE ANALYSIS - (Cont.)

AKGWA NUMBER[1], Facility Well/Spring Number						8000-5201		8000-5202		8000-5242		8000-5243	
Facility's Local Well or Spring Number (e.g., MW-1, MW-2, BLANK-F, etc.)						220		221		222		223	
CAS RN[4]		CONSTITUENT	TD[5]	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS
S0906 - -		Static Water Level Elevation	T	Ft. MSL	Field	326.74		326.82		326.72		326.79	
N238		Dissolved Oxygen	T	mg/L	Field	4.9		5.07		3.02		3.47	
S0266- -		Total Dissolved Solids	T	mg/L	160.1	226		217		186		191	
S0296- -		pH	T	Units	Field	6.2		6.12		6.23		6.12	
NS215		Eh	T	mV	Field	400		497		510		356	
S0907 - -		Temperature	T	°C	Field	14.72		13.78		14.78		14.72	
7429-90-5		Aluminum	T	mg/L	6020	<0.05		<0.05		0.114		0.0186	J
7440-36-0		Antimony	T	mg/L	6020	<0.003		<0.003		<0.003		<0.003	
7440-38-2		Arsenic	T	mg/L	6020	<0.005		<0.005		<0.005		<0.005	
7440-39-3		Barium	T	mg/L	6020	0.23	*	0.206	*	0.289	*	0.229	*
7440-41-7		Beryllium	T	mg/L	6020	<0.0005		<0.0005		<0.0005		<0.0005	
7440-42-8		Boron	T	mg/L	6020	0.00604	J	0.0131	J	0.0094	J	0.00781	J
7440-43-9		Cadmium	T	mg/L	6020	<0.001		<0.001		<0.001		<0.001	
7440-70-2		Calcium	T	mg/L	6020	25.6		20.8		19		21.1	
7440-47-3		Chromium	T	mg/L	6020	0.00969	J	0.0749		0.00647	J	0.0147	
7440-48-4		Cobalt	T	mg/L	6020	0.00023	J	0.00172		0.0017		0.00426	
7440-50-8		Copper	T	mg/L	6020	0.00098	J	0.00275		0.00113		0.00058	J
7439-89-6		Iron	T	mg/L	6020	0.0553	J	0.643		0.307		0.0906	J
7439-92-1		Lead	T	mg/L	6020	<0.002		<0.002		<0.002		<0.002	
7439-95-4		Magnesium	T	mg/L	6020	10.5		9.34		8.95		9.44	
7439-96-5		Manganese	T	mg/L	6020	<0.005		0.0169		0.0243		0.0873	
7439-97-6		Mercury	T	mg/L	7470	<0.0002		<0.0002		<0.0002		<0.0002	

GROUNDWATER SAMPLE ANALYSIS - (Cont.)

AKGWA NUMBER[1], Facility Well/Spring Number						8000-5201		8000-5202		8000-5242		8000-5243	
Facility's Local Well or Spring Number (e.g., MW-1, MW-2, etc.)						220		221		222		223	
CAS RN[4]		CONSTITUENT	TD[5]	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS
7439-98-7		Molybdenum	T	mg/L	6020	0.00184		0.0073		0.00017	J	0.00265	
7440-02-0		Nickel	T	mg/L	6020	0.06		0.129		0.11		0.608	
7440-09-7		Potassium	T	mg/L	6020	7.45		1.21		0.462		1.48	
7440-16-6		Rhodium	T	mg/L	6020	<0.005		<0.005		<0.005		<0.005	
7782-49-2		Selenium	T	mg/L	6020	<0.005		<0.005		<0.005		<0.005	
7440-22-4		Silver	T	mg/L	6020	<0.001		<0.001		<0.001		<0.001	
7440-23-5		Sodium	T	mg/L	6020	43.9		45.2		44.4		44.4	
7440-25-7		Tantalum	T	mg/L	6020	<0.005		<0.005		<0.005		<0.005	
7440-28-0		Thallium	T	mg/L	6020	<0.002		<0.002		<0.002		<0.002	
7440-61-1		Uranium	T	mg/L	6020	<0.0002		<0.0002		<0.0002		<0.0002	
7440-62-2		Vanadium	T	mg/L	6010	<0.005		<0.005		<0.005		<0.005	
7440-66-6		Zinc	T	mg/L	6020	<0.01		<0.01		<0.01		<0.01	
108-05-4		Vinyl acetate	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
67-64-1		Acetone	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
107-02-8		Acrolein	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
107-13-1		Acrylonitrile	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
71-43-2		Benzene	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
108-90-7		Chlorobenzene	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
1330-20-7		Xylenes	T	mg/L	8260	<0.003		<0.003		<0.003		<0.003	
100-42-5		Styrene	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
108-88-3		Toluene	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
74-97-5		Chlorobromomethane	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	

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

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

GROUNDWATER SAMPLE ANALYSIS - (Cont.)

AKGWA NUMBER[1], Facility Well/Spring Number						8000-5201		8000-5202		8000-5242		8000-5243	
Facility's Local Well or Spring Number (e.g., MW-1, MW-2, etc.)						220		221		222		223	
CAS RN[4]		CONSTITUENT	TD[5]	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS
75-27-4		Bromodichloromethane	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
75-25-2		Tribromomethane	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
74-83-9		Methyl bromide	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
78-93-3		Methyl ethyl ketone	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
110-57-6		trans-1,4-Dichloro-2-butene	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
75-15-0		Carbon disulfide	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
75-00-3		Chloroethane	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
67-66-3		Chloroform	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
74-87-3		Methyl chloride	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
156-59-2		cis-1,2-Dichloroethene	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
74-95-3		Methylene bromide	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
75-34-3		1,1-Dichloroethane	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
107-06-2		1,2-Dichloroethane	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
75-35-4		1,1-Dichloroethylene	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
106-93-4		Ethane, 1,2-dibromo	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
79-34-5		Ethane, 1,1,2,2-Tetrachloro	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
71-55-6		Ethane, 1,1,1-Trichloro-	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
79-00-5		Ethane, 1,1,2-Trichloro	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
630-20-6		Ethane, 1,1,1,2-Tetrachloro	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
75-01-4		Vinyl chloride	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
127-18-4		Ethene, Tetrachloro-	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
79-01-6		Ethene, Trichloro-	T	mg/L	8260	<0.001		<0.001		<0.001		0.00039	J

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

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

GROUNDWATER SAMPLE ANALYSIS - (Cont.)

AKGWA NUMBER[1], Facility Well/Spring Number						8000-5201		8000-5202		8000-5242		8000-5243	
Facility's Local Well or Spring Number (e.g., MW-1, MW-2, etc.)						220		221		222		223	
CAS RN[4]		CONSTITUENT	TD[5]	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS
100-41-4		Ethylbenzene	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
591-78-6		2-Hexanone	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
74-88-4		Iodomethane	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
124-48-1		Methane, Dibromochloro-	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
56-23-5		Carbon Tetrachloride	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
75-09-2		Dichloromethane	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
108-10-1		Methyl isobutyl ketone	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
96-12-8		Propane, 1,2-Dibromo-3-chloro	T	mg/L	8011	<0.00002		<0.00002		<0.0000202		<0.0000201	
78-87-5		Propane, 1,2-Dichloro-	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
10061-02-6		trans-1,3-Dichloro-1-propene	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
10061-01-5		cis-1,3-Dichloro-1-propene	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
156-60-5		trans-1,2-Dichloroethene	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
75-69-4		Trichlorofluoromethane	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
96-18-4		1,2,3-Trichloropropane	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
95-50-1		Benzene, 1,2-Dichloro-	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
106-46-7		Benzene, 1,4-Dichloro-	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
1336-36-3		PCB,Total	T	ug/L	8082		*		*		*		*
12674-11-2		PCB-1016	T	ug/L	8082		*		*		*		*
11104-28-2		PCB-1221	T	ug/L	8082		*		*		*		*
11141-16-5		PCB-1232	T	ug/L	8082		*		*		*		*
53469-21-9		PCB-1242	T	ug/L	8082		*		*		*		*
12672-29-6		PCB-1248	T	ug/L	8082		*		*		*		*

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

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

GROUNDWATER SAMPLE ANALYSIS - (Cont.)

AKGWA NUMBER[1], Facility Well/Spring Number						8000-5201		8000-5202		8000-5242		8000-5243	
Facility's Local Well or Spring Number (e.g., MW-1, MW-2, etc.)						220		221		222		223	
CAS RN[4]		CONSTITUENT	TD[5]	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS
11097-69-1		PCB-1254	T	ug/L	8082		*		*		*		*
11096-82-5		PCB-1260	T	ug/L	8082		*		*		*		*
11100-14-4		PCB-1268	T	ug/L	8082		*		*		*		*
12587-46-1		Gross Alpha	T	pCi/L	9310	-4.22	*	-5.26	*	-2.37	*	-6.69	*
12587-47-2		Gross Beta	T	pCi/L	9310	7.94	*	5.94	*	2.26	*	-3.81	*
10043-66-0		Iodine-131	T	pCi/L			*		*		*		*
13982-63-3		Radium-226	T	pCi/L	903.1	1.3	*	2.28	*	4	*	1.54	*
10098-97-2		Strontium-90	T	pCi/L	905.0	-0.585	*	0.332	*	1.78	*	-1.21	*
14133-76-7		Technetium-99	T	pCi/L	Tc-02-RC	24.8	*	12.1	*	18.5	*	19.9	*
14269-63-7		Thorium-230	T	pCi/L	Th-01-RC	-1.05	*	1.81	*	1.32	*	-0.489	*
10028-17-8		Tritium	T	pCi/L	906.0	-43	*	22.1	*	-61.2	*	-43.4	*
S0130- -		Chemical Oxygen Demand	T	mg/L	410.4	<20		<20		31.4		7	J
57-12-5		Cyanide	T	mg/L	9012	<0.005		<0.005		<0.005		<0.005	
20461-54-5		Iodide	T	mg/L	300.0	<0.1		<0.1		<0.1		<0.1	
S0268- -		Total Organic Carbon	T	mg/L	9060	1.09	J	0.96	J	0.907	J	0.971	J
S0586- -		Total Organic Halides	T	mg/L	9020	0.00648	J	0.00772	J	0.00558	J	0.0052	J

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

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

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

GROUNDWATER SAMPLE ANALYSIS(S)

AKGWA NUMBER[1], Facility Well/Spring Number	8000-5244	8004-4820	8004-4818	8004-4808
Facility's Local Well or Spring Number (e.g., MW-1, MW-2, etc.)	224	369	370	372
Sample Sequence #	1	1	1	1
If sample is a Blank, specify Type: (F)ield, (T)rip, (M)ethod, or (E)quipment	NA	NA	NA	NA
Sample Date and Time (Month/Day/Year hour: minutes)	4/7/2014 13:01	4/14/2014 09:49	4/15/2014 08:27	4/16/2014 08:02
Duplicate ("Y" or "N")[2]	N	N	N	N
Split ("Y" or "N")[3]	N	N	N	N
Facility Sample ID Number (if applicable)	MW224SG3-14	MW369UG3-14	MW370UG3-14	MW372UG3-14
Laboratory Sample ID Number (if applicable)	346176006	346700005	346770001	346873003
Date of Analysis (Month/Day/Year) For Volatile Organics Analysis	4/14/2014	4/18/2014	4/21/2014	4/23/2014
Gradient with respect to Monitored Unit (UP, DOWN, SIDE, UNKNOWN)	SIDE	DOWN	DOWN	DOWN

CAS RN[4]		CONSTITUENT	TD[5]	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL[6]	FLAGS[7]	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS
24959-67-9		Bromide	T	mg/L	9056	0.434		0.337		0.513		0.624	
16887-00-6		Chloride(s)	T	mg/L	9056	33.3		31		42.6		56.3	
16984-48-8		Fluoride	T	mg/L	9056	0.234		0.189		0.17		0.205	
S0595- -		Nitrate & Nitrite	T	mg/L	9056	0.91		0.192		1.23		<0.1	
14808-79-8		Sulfate	T	mg/L	9056	16.4		8.09		18.9		176	
NS1894		Barometric Pressure Reading	T	Inches/Hg	Field	29.53		29.78		30.15		30.3	
S0145- -		Specific Conductance	T	μMH0/cm	Field	428		380		432		837	

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

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

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

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

GROUNDWATER SAMPLE ANALYSIS - (Cont.)

AKGWA NUMBER[1], Facility Well/Spring Number						8000-5244		8004-4820		8004-4818		8004-4808	
Facility's Local Well or Spring Number (e.g., MW-1, MW-2, BLANK-F, etc.)						224		369		370		372	
CAS RN[4]		CONSTITUENT	TD[5]	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS
S0906 - -		Static Water Level Elevation	T	Ft. MSL	Field	326.73		326.52		322.22		326.03	
N238		Dissolved Oxygen	T	mg/L	Field	3.42		1.33		4.15		3	
S0266- -		Total Dissolved Solids	T	mg/L	160.1	221		213		223		546	
S0296- -		pH	T	Units	Field	6.25		6.21		6.08		6.14	
NS215		Eh	T	mV	Field	547		514		535		236	
S0907 - -		Temperature	T	°C	Field	15.11		15.67		13.17		13.11	
7429-90-5		Aluminum	T	mg/L	6020	<0.05		0.62		<0.05		0.0492	J
7440-36-0		Antimony	T	mg/L	6020	<0.003		<0.003		<0.003		<0.003	
7440-38-2		Arsenic	T	mg/L	6020	<0.005		<0.005		<0.005		<0.005	
7440-39-3		Barium	T	mg/L	6020	0.233	*	0.37		0.197		0.0665	
7440-41-7		Beryllium	T	mg/L	6020	<0.0005		<0.0005		<0.0005		<0.0005	
7440-42-8		Boron	T	mg/L	6020	0.0211		0.0108	J	0.0309		1.7	
7440-43-9		Cadmium	T	mg/L	6020	<0.001		<0.001		<0.001		<0.001	
7440-70-2		Calcium	T	mg/L	6020	25.2		16.4		28		70.5	
7440-47-3		Chromium	T	mg/L	6020	0.0021	J	0.00416	J	<0.01		<0.01	
7440-48-4		Cobalt	T	mg/L	6020	0.00041	J	0.0119		0.00049	J	0.00027	J
7440-50-8		Copper	T	mg/L	6020	0.00065	J	0.002		0.00085	J	0.00301	
7439-89-6		Iron	T	mg/L	6020	0.0692	J	1.42		0.163		1.99	
7439-92-1		Lead	T	mg/L	6020	<0.002		<0.002		<0.002		<0.002	
7439-95-4		Magnesium	T	mg/L	6020	10.3		6.7		11.8		26.1	
7439-96-5		Manganese	T	mg/L	6020	0.00897		0.138		0.00577		0.0372	
7439-97-6		Mercury	T	mg/L	7470	<0.0002		<0.0002		<0.0002		<0.0002	

GROUNDWATER SAMPLE ANALYSIS - (Cont.)

AKGWA NUMBER[1], Facility Well/Spring Number						8000-5244		8004-4820		8004-4818		8004-4808	
Facility's Local Well or Spring Number (e.g., MW-1, MW-2, etc.)						224		369		370		372	
CAS RN[4]		CONSTITUENT	TD[5]	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS
7439-98-7		Molybdenum	T	mg/L	6020	0.00047	J	0.00056		0.00018	J	0.0004	J
7440-02-0		Nickel	T	mg/L	6020	0.00592		0.00806		0.00172	J	0.0009	J
7440-09-7		Potassium	T	mg/L	6020	0.897		0.601		2.38		2.66	
7440-16-6		Rhodium	T	mg/L	6020	<0.005		<0.005		<0.005		<0.005	
7782-49-2		Selenium	T	mg/L	6020	<0.005		<0.005		<0.005		<0.005	
7440-22-4		Silver	T	mg/L	6020	<0.001		<0.001		<0.001		<0.001	
7440-23-5		Sodium	T	mg/L	6020	62.4		58.7		39.6		65.5	
7440-25-7		Tantalum	T	mg/L	6020	<0.005		<0.005	*	<0.005	*	<0.005	
7440-28-0		Thallium	T	mg/L	6020	<0.002		<0.002		<0.002		<0.002	
7440-61-1		Uranium	T	mg/L	6020	<0.0002		<0.0002		<0.0002		<0.0002	
7440-62-2		Vanadium	T	mg/L	6010	<0.005		<0.005		<0.005		<0.005	
7440-66-6		Zinc	T	mg/L	6020	<0.01		0.00421	J	<0.01		<0.01	
108-05-4		Vinyl acetate	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
67-64-1		Acetone	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
107-02-8		Acrolein	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
107-13-1		Acrylonitrile	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
71-43-2		Benzene	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
108-90-7		Chlorobenzene	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
1330-20-7		Xylenes	T	mg/L	8260	<0.003		<0.003		<0.003		<0.003	
100-42-5		Styrene	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
108-88-3		Toluene	T	mg/L	8260	0.0006	J	0.00716		0.0122		<0.001	
74-97-5		Chlorobromomethane	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	

GROUNDWATER SAMPLE ANALYSIS - (Cont.)

AKGWA NUMBER[1], Facility Well/Spring Number						8000-5244		8004-4820		8004-4818		8004-4808	
Facility's Local Well or Spring Number (e.g., MW-1, MW-2, etc.)						224		369		370		372	
CAS RN[4]		CONSTITUENT	TD[5]	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS
75-27-4		Bromodichloromethane	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
75-25-2		Tribromomethane	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
74-83-9		Methyl bromide	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
78-93-3		Methyl ethyl ketone	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
110-57-6		trans-1,4-Dichloro-2-butene	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
75-15-0		Carbon disulfide	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
75-00-3		Chloroethane	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
67-66-3		Chloroform	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
74-87-3		Methyl chloride	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
156-59-2		cis-1,2-Dichloroethene	T	mg/L	8260	<0.001		<0.001		<0.001		0.00031	J
74-95-3		Methylene bromide	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
75-34-3		1,1-Dichloroethane	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
107-06-2		1,2-Dichloroethane	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
75-35-4		1,1-Dichloroethylene	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
106-93-4		Ethane, 1,2-dibromo	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
79-34-5		Ethane, 1,1,2,2-Tetrachloro	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
71-55-6		Ethane, 1,1,1-Trichloro-	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
79-00-5		Ethane, 1,1,2-Trichloro	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
630-20-6		Ethane, 1,1,1,2-Tetrachloro	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
75-01-4		Vinyl chloride	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
127-18-4		Ethene, Tetrachloro-	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
79-01-6		Ethene, Trichloro-	T	mg/L	8260	<0.001		0.00076	J	0.0014		0.00759	

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

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

GROUNDWATER SAMPLE ANALYSIS - (Cont.)

AKGWA NUMBER[1], Facility Well/Spring Number						8000-5244		8004-4820		8004-4818		8004-4808	
Facility's Local Well or Spring Number (e.g., MW-1, MW-2, etc.)						224		369		370		372	
CAS RN[4]		CONSTITUENT	TD[5]	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS
100-41-4		Ethylbenzene	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
591-78-6		2-Hexanone	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
74-88-4		Iodomethane	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
124-48-1		Methane, Dibromochloro-	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
56-23-5		Carbon Tetrachloride	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
75-09-2		Dichloromethane	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
108-10-1		Methyl isobutyl ketone	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
96-12-8		Propane, 1,2-Dibromo-3-chloro	T	mg/L	8011	<0.0000203		<0.00002		<0.0000202		<0.0000201	
78-87-5		Propane, 1,2-Dichloro-	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
10061-02-6		trans-1,3-Dichloro-1-propene	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
10061-01-5		cis-1,3-Dichloro-1-propene	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
156-60-5		trans-1,2-Dichloroethene	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
75-69-4		Trichlorofluoromethane	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
96-18-4		1,2,3-Trichloropropane	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
95-50-1		Benzene, 1,2-Dichloro-	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
106-46-7		Benzene, 1,4-Dichloro-	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
1336-36-3		PCB,Total	T	ug/L	8082		*	0.0806	J	<0.102		<0.0971	
12674-11-2		PCB-1016	T	ug/L	8082		*	<0.098		<0.102		<0.0971	
11104-28-2		PCB-1221	T	ug/L	8082		*	<0.098		<0.102		<0.0971	
11141-16-5		PCB-1232	T	ug/L	8082		*	<0.098		<0.102		<0.0971	
53469-21-9		PCB-1242	T	ug/L	8082		*	0.0806	J	<0.102		<0.0971	
12672-29-6		PCB-1248	T	ug/L	8082		*	<0.098		<0.102		<0.0971	

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

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

GROUNDWATER SAMPLE ANALYSIS - (Cont.)

AKGWA NUMBER[1], Facility Well/Spring Number						8000-5244		8004-4820		8004-4818		8004-4808	
Facility's Local Well or Spring Number (e.g., MW-1, MW-2, etc.)						224		369		370		372	
CAS RN[4]		CONSTITUENT	TD[5]	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS
11097-69-1		PCB-1254	T	ug/L	8082		*	<0.098		<0.102		<0.0971	
11096-82-5		PCB-1260	T	ug/L	8082		*	<0.098		<0.102		<0.0971	
11100-14-4		PCB-1268	T	ug/L	8082		*	<0.098		<0.102		<0.0971	
12587-46-1		Gross Alpha	T	pCi/L	9310	-5.17	*	4.44	*	0.000434	*	-1.2	*
12587-47-2		Gross Beta	T	pCi/L	9310	-2.38	*	15.7	*	27.2	*	7.56	*
10043-66-0		Iodine-131	T	pCi/L			*		*		*		*
13982-63-3		Radium-226	T	pCi/L	903.1	1.67	*	2.67	*	1.86	*	0.375	*
10098-97-2		Strontium-90	T	pCi/L	905.0	0.538	*	-1.12	*	4.37	*	-1.75	*
14133-76-7		Technetium-99	T	pCi/L	Tc-02-RC	17.6	*	35.4	*	27.9	*	13.4	*
14269-63-7		Thorium-230	T	pCi/L	Th-01-RC	0.563	*	0.751	*	0.782	*	0.85	*
10028-17-8		Tritium	T	pCi/L	906.0	69.3	*	-61.7	*	23.8	*	81.2	*
S0130- -		Chemical Oxygen Demand	T	mg/L	410.4	<20		<20		7.49	J	<20	
57-12-5		Cyanide	T	mg/L	9012	<0.005		<0.2		<0.2		<0.2	
20461-54-5		Iodide	T	mg/L	300.0	<0.1		<0.1		<0.1		<0.1	
S0268- -		Total Organic Carbon	T	mg/L	9060	1.13	J	1.38	J	0.993	J	1.68	J
S0586- -		Total Organic Halides	T	mg/L	9020	0.00762	J	0.0256		0.00612	J	0.0139	

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

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

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

GROUNDWATER SAMPLE ANALYSIS(S)

AKGWA NUMBER[1], Facility Well/Spring Number	8004-4792	8004-4809	8004-4810	8004-4804
Facility's Local Well or Spring Number (e.g., MW-1, MW-2, etc.)	373	384	385	386
Sample Sequence #	1	1	1	1
If sample is a Blank, specify Type: (F)ield, (T)rip, (M)ethod, or (E)quipment	NA	NA	NA	NA
Sample Date and Time (Month/Day/Year hour: minutes)	4/16/2014 08:50	4/8/2014 08:20	4/8/2014 09:29	4/8/2014 08:53
Duplicate ("Y" or "N")[2]	N	N	N	N
Split ("Y" or "N")[3]	N	N	N	N
Facility Sample ID Number (if applicable)	MW373UG3-14	MW384SG3-14	MW385SG3-14	MW386SG3-14
Laboratory Sample ID Number (if applicable)	346873001	346275001	346275002	346275003
Date of Analysis (Month/Day/Year) For Volatile Organics Analysis	4/23/2014	4/15/2014	4/14/2014	4/14/2014
Gradient with respect to Monitored Unit (UP, DOWN, SIDE, UNKNOWN)	DOWN	SIDE	SIDE	SIDE

CAS RN[4]		CONSTITUENT	TD[5]	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL[6]	FLAGS[7]	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS
24959-67-9		Bromide	T	mg/L	9056	0.606		0.55		0.316		0.172	J
16887-00-6		Chloride(s)	T	mg/L	9056	44		46.4		30.9		16	
16984-48-8		Fluoride	T	mg/L	9056	0.222		0.189		0.145		0.653	
S0595- -		Nitrate & Nitrite	T	mg/L	9056	0.895		1.24		0.932		<0.1	
14808-79-8		Sulfate	T	mg/L	9056	209		22.9		20.5		43.8	
NS1894		Barometric Pressure Reading	T	Inches/Hg	Field	30.32		29.8		29.81		29.8	
S0145- -		Specific Conductance	T	μMH0/cm	Field	914		479		409		623	

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

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

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

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

GROUNDWATER SAMPLE ANALYSIS - (Cont.)

AKGWA NUMBER[1], Facility Well/Spring Number						8004-4792		8004-4809		8004-4810		8004-4804	
Facility's Local Well or Spring Number (e.g., MW-1, MW-2, BLANK-F, etc.)						373		384		385		386	
CAS RN[4]		CONSTITUENT	TD[5]	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS
S0906 - -		Static Water Level Elevation	T	Ft. MSL	Field	326.02		326.29		326.23		347.4	
N238		Dissolved Oxygen	T	mg/L	Field	3.01		4.15		3.39		0.78	
S0266- -		Total Dissolved Solids	T	mg/L	160.1	573		246		194		409	
S0296- -		pH	T	Units	Field	6.08		6.16		6.12		6.87	
NS215		Eh	T	mV	Field	398		344		363		334	
S0907 - -		Temperature	T	°C	Field	15.17		13.83		14.72		14.33	
7429-90-5		Aluminum	T	mg/L	6020	<0.05		<0.05		<0.05		<0.05	
7440-36-0		Antimony	T	mg/L	6020	<0.003		<0.003		<0.003		<0.003	
7440-38-2		Arsenic	T	mg/L	6020	<0.005		<0.005		<0.005		<0.005	
7440-39-3		Barium	T	mg/L	6020	0.0237		0.192	*	0.194	*	0.132	*
7440-41-7		Beryllium	T	mg/L	6020	<0.0005		<0.0005		<0.0005		<0.0005	
7440-42-8		Boron	T	mg/L	6020	2.18		0.0154		0.0124	J	0.00486	J
7440-43-9		Cadmium	T	mg/L	6020	<0.001		<0.001		<0.001		<0.001	
7440-70-2		Calcium	T	mg/L	6020	78.4		27.6		25.1		22.9	
7440-47-3		Chromium	T	mg/L	6020	<0.01		0.00304	J	<0.01		0.00284	J
7440-48-4		Cobalt	T	mg/L	6020	0.00013	J	0.00011	J	0.00013	J	0.00056	J
7440-50-8		Copper	T	mg/L	6020	0.00098	J	0.00133		0.00067	J	0.0025	
7439-89-6		Iron	T	mg/L	6020	0.116		0.171		0.0547	J	0.437	
7439-92-1		Lead	T	mg/L	6020	<0.002		<0.002		<0.002		<0.002	
7439-95-4		Magnesium	T	mg/L	6020	27		11.1		9.53		10.1	
7439-96-5		Manganese	T	mg/L	6020	0.00319	J	0.00485	J	<0.005		0.059	
7439-97-6		Mercury	T	mg/L	7470	<0.0002		<0.0002		<0.0002		<0.0002	

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

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

GROUNDWATER SAMPLE ANALYSIS - (Cont.)

AKGWA NUMBER[1], Facility Well/Spring Number						8004-4792		8004-4809		8004-4810		8004-4804	
Facility's Local Well or Spring Number (e.g., MW-1, MW-2, etc.)						373		384		385		386	
CAS RN[4]		CONSTITUENT	TD[5]	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS
7439-98-7		Molybdenum	T	mg/L	6020	<0.0005		0.00017	J	<0.0005		0.00061	
7440-02-0		Nickel	T	mg/L	6020	0.00115	J	0.00373		0.0017	J	0.00336	
7440-09-7		Potassium	T	mg/L	6020	2.69		1.43		1.44		0.289	J
7440-16-6		Rhodium	T	mg/L	6020	<0.005		<0.005		<0.005		<0.005	
7782-49-2		Selenium	T	mg/L	6020	<0.005		0.00232	J	<0.005		<0.005	
7440-22-4		Silver	T	mg/L	6020	<0.001		<0.001		<0.001		<0.001	
7440-23-5		Sodium	T	mg/L	6020	68		53.1		44.2		113	
7440-25-7		Tantalum	T	mg/L	6020	<0.005		<0.005		<0.005		<0.005	
7440-28-0		Thallium	T	mg/L	6020	<0.002		<0.002		<0.002		<0.002	
7440-61-1		Uranium	T	mg/L	6020	<0.0002		<0.0002		<0.0002		<0.0002	
7440-62-2		Vanadium	T	mg/L	6010	<0.005		<0.005		<0.005		<0.005	
7440-66-6		Zinc	T	mg/L	6020	<0.01		<0.01		<0.01		<0.01	
108-05-4		Vinyl acetate	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
67-64-1		Acetone	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
107-02-8		Acrolein	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
107-13-1		Acrylonitrile	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
71-43-2		Benzene	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
108-90-7		Chlorobenzene	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
1330-20-7		Xylenes	T	mg/L	8260	<0.003		<0.003		<0.003		<0.003	
100-42-5		Styrene	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
108-88-3		Toluene	T	mg/L	8260	<0.001		0.0165		0.00423		0.0373	
74-97-5		Chlorobromomethane	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	

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

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

GROUNDWATER SAMPLE ANALYSIS - (Cont.)

AKGWA NUMBER[1], Facility Well/Spring Number						8004-4792		8004-4809		8004-4810		8004-4804	
Facility's Local Well or Spring Number (e.g., MW-1, MW-2, etc.)						373		384		385		386	
CAS RN[4]		CONSTITUENT	TD[5]	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS
75-27-4		Bromodichloromethane	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
75-25-2		Tribromomethane	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
74-83-9		Methyl bromide	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
78-93-3		Methyl ethyl ketone	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
110-57-6		trans-1,4-Dichloro-2-butene	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
75-15-0		Carbon disulfide	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
75-00-3		Chloroethane	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
67-66-3		Chloroform	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
74-87-3		Methyl chloride	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
156-59-2		cis-1,2-Dichloroethene	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
74-95-3		Methylene bromide	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
75-34-3		1,1-Dichloroethane	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
107-06-2		1,2-Dichloroethane	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
75-35-4		1,1-Dichloroethylene	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
106-93-4		Ethane, 1,2-dibromo	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
79-34-5		Ethane, 1,1,2,2-Tetrachloro	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
71-55-6		Ethane, 1,1,1-Trichloro-	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
79-00-5		Ethane, 1,1,2-Trichloro	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
630-20-6		Ethane, 1,1,1,2-Tetrachloro	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
75-01-4		Vinyl chloride	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
127-18-4		Ethene, Tetrachloro-	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
79-01-6		Ethene, Trichloro-	T	mg/L	8260	0.00432		0.00088	J	0.0014		<0.001	

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

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

GROUNDWATER SAMPLE ANALYSIS - (Cont.)

AKGWA NUMBER[1], Facility Well/Spring Number						8004-4792		8004-4809		8004-4810		8004-4804	
Facility's Local Well or Spring Number (e.g., MW-1, MW-2, etc.)						373		384		385		386	
CAS RN[4]		CONSTITUENT	TD[5]	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS
100-41-4		Ethylbenzene	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
591-78-6		2-Hexanone	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
74-88-4		Iodomethane	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
124-48-1		Methane, Dibromochloro-	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
56-23-5		Carbon Tetrachloride	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
75-09-2		Dichloromethane	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
108-10-1		Methyl isobutyl ketone	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
96-12-8		Propane, 1,2-Dibromo-3-chloro	T	mg/L	8011	<0.0000198		<0.0000198		<0.00002		<0.0000199	
78-87-5		Propane, 1,2-Dichloro-	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
10061-02-6		trans-1,3-Dichloro-1-propene	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
10061-01-5		cis-1,3-Dichloro-1-propene	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
156-60-5		trans-1,2-Dichloroethene	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
75-69-4		Trichlorofluoromethane	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
96-18-4		1,2,3-Trichloropropane	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
95-50-1		Benzene, 1,2-Dichloro-	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
106-46-7		Benzene, 1,4-Dichloro-	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
1336-36-3		PCB,Total	T	ug/L	8082	<0.0952			*		*		*
12674-11-2		PCB-1016	T	ug/L	8082	<0.0952			*		*		*
11104-28-2		PCB-1221	T	ug/L	8082	<0.0952			*		*		*
11141-16-5		PCB-1232	T	ug/L	8082	<0.0952			*		*		*
53469-21-9		PCB-1242	T	ug/L	8082	<0.0952			*		*		*
12672-29-6		PCB-1248	T	ug/L	8082	<0.0952			*		*		*

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

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

GROUNDWATER SAMPLE ANALYSIS - (Cont.)

AKGWA NUMBER[1], Facility Well/Spring Number						8004-4792		8004-4809		8004-4810		8004-4804	
Facility's Local Well or Spring Number (e.g., MW-1, MW-2, etc.)						373		384		385		386	
CAS RN[4]		CONSTITUENT	TD[5]	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS
11097-69-1		PCB-1254	T	ug/L	8082	<0.0952			*		*		*
11096-82-5		PCB-1260	T	ug/L	8082	<0.0952			*		*		*
11100-14-4		PCB-1268	T	ug/L	8082	<0.0952			*		*		*
12587-46-1		Gross Alpha	T	pCi/L	9310	-2.35	*	-0.817	*	0.818	*	-2.92	*
12587-47-2		Gross Beta	T	pCi/L	9310	19.1	*	110	*	106	*	-2.47	*
10043-66-0		Iodine-131	T	pCi/L			*		*		*		*
13982-63-3		Radium-226	T	pCi/L	903.1	2.13	*	2.88	*	-0.164	*	0.871	*
10098-97-2		Strontium-90	T	pCi/L	905.0	0.6	*	-0.101	*	0.291	*	-0.0688	*
14133-76-7		Technetium-99	T	pCi/L	Tc-02-RC	43.6	*	229	*	156	*	13.4	*
14269-63-7		Thorium-230	T	pCi/L	Th-01-RC	3.23	*	-0.106	*	1.93	*	-0.287	*
10028-17-8		Tritium	T	pCi/L	906.0	1.59	*	13.4	*	-25.5	*	50.1	*
S0130- -		Chemical Oxygen Demand	T	mg/L	410.4	<20		<20		<20		17.2	J
57-12-5		Cyanide	T	mg/L	9012	<0.2		<0.005		<0.005		<0.005	
20461-54-5		Iodide	T	mg/L	300.0	<0.1		<0.1		<0.1		<0.1	
S0268- -		Total Organic Carbon	T	mg/L	9060	1.29	J	1.25	J	1.19	J	7.21	
S0586- -		Total Organic Halides	T	mg/L	9020	0.00904	J	0.0109		0.0106		0.214	

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

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

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

GROUNDWATER SAMPLE ANALYSIS(S)

AKGWA NUMBER[1], Facility Well/Spring Number	8004-4815	8004-4816	8004-4812	8004-4811
Facility's Local Well or Spring Number (e.g., MW-1, MW-2, etc.)	387	388	389	390
Sample Sequence #	1	1	1	1
If sample is a Blank, specify Type: (F)ield, (T)rip, (M)ethod, or (E)quipment	NA	NA	NA	NA
Sample Date and Time (Month/Day/Year hour: minutes)	4/8/2014 08:46	4/8/2014 09:32	NA	4/8/2014 12:17
Duplicate ("Y" or "N")[2]	N	N	N	N
Split ("Y" or "N")[3]	N	N	N	N
Facility Sample ID Number (if applicable)	MW387SG3-14	MW388SG3-14	NA	MW390SG3-14
Laboratory Sample ID Number (if applicable)	346275004	346275005	NA	346275007
Date of Analysis (Month/Day/Year) For Volatile Organics Analysis	4/14/2014	4/14/2014	NA	4/14/2014
Gradient with respect to Monitored Unit (UP, DOWN, SIDE, UNKNOWN)	DOWN	DOWN	SIDE	DOWN

CAS RN[4]		CONSTITUENT	TD[5]	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL[6]	FLAGS[7]	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS
24959-67-9		Bromide	T	mg/L	9056	0.493		0.326			*	0.771	
16887-00-6		Chloride(s)	T	mg/L	9056	37.9		31.5			*	86.8	
16984-48-8		Fluoride	T	mg/L	9056	0.711		0.292			*	0.328	
S0595- -		Nitrate & Nitrite	T	mg/L	9056	1.01		1			*	3.37	
14808-79-8		Sulfate	T	mg/L	9056	28.7		22.6			*	27.6	
NS1894		Barometric Pressure Reading	T	Inches/Hg	Field	29.8		29.8			*	29.82	
S0145- -		Specific Conductance	T	μMH0/cm	Field	544		458			*	708	

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

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

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

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

GROUNDWATER SAMPLE ANALYSIS - (Cont.)

AKGWA NUMBER[1], Facility Well/Spring Number						8004-4815		8004-4816		8004-4812		8004-4811	
Facility's Local Well or Spring Number (e.g., MW-1, MW-2, BLANK-F, etc.)						387		388		389		390	
CAS RN[4]		CONSTITUENT	TD[5]	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS
S0906 - -		Static Water Level Elevation	T	Ft. MSL	Field	322.35		322.3			*	326.34	
N238		Dissolved Oxygen	T	mg/L	Field	3.79		4.14			*	5.1	
S0266- -		Total Dissolved Solids	T	mg/L	160.1	279		247			*	393	
S0296- -		pH	T	Units	Field	6.19		6.09			*	6.42	
NS215		Eh	T	mV	Field	561		556			*	357	
S0907 - -		Temperature	T	°C	Field	14.44		15.17			*	14.28	
7429-90-5		Aluminum	T	mg/L	6020	<0.05		<0.05			*	0.295	
7440-36-0		Antimony	T	mg/L	6020	<0.003		<0.003			*	<0.003	
7440-38-2		Arsenic	T	mg/L	6020	<0.005		<0.005			*	<0.005	
7440-39-3		Barium	T	mg/L	6020	0.125	*	0.187	*		*	0.262	*
7440-41-7		Beryllium	T	mg/L	6020	<0.0005		<0.0005			*	<0.0005	
7440-42-8		Boron	T	mg/L	6020	0.0297		0.0209			*	0.00667	J
7440-43-9		Cadmium	T	mg/L	6020	<0.001		<0.001			*	<0.001	
7440-70-2		Calcium	T	mg/L	6020	34.9		29.3			*	33.6	
7440-47-3		Chromium	T	mg/L	6020	0.00356	J	0.00201	J		*	0.00293	J
7440-48-4		Cobalt	T	mg/L	6020	0.00013	J	0.00011	J		*	0.00051	J
7440-50-8		Copper	T	mg/L	6020	0.00068	J	0.00069	J		*	0.00093	J
7439-89-6		Iron	T	mg/L	6020	0.0688	J	0.0651	J		*	0.359	
7439-92-1		Lead	T	mg/L	6020	<0.002		<0.002			*	<0.002	
7439-95-4		Magnesium	T	mg/L	6020	15.8		12.7			*	15.3	
7439-96-5		Manganese	T	mg/L	6020	0.00192	J	<0.005			*	0.00201	J
7439-97-6		Mercury	T	mg/L	7470	<0.0002		<0.0002			*	<0.0002	

GROUNDWATER SAMPLE ANALYSIS - (Cont.)

AKGWA NUMBER[1], Facility Well/Spring Number						8004-4815		8004-4816		8004-4812		8004-4811	
Facility's Local Well or Spring Number (e.g., MW-1, MW-2, etc.)						387		388		389		390	
CAS RN[4]		CONSTITUENT	TD[5]	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS
7439-98-7		Molybdenum	T	mg/L	6020	<0.0005		<0.0005			*	0.00059	
7440-02-0		Nickel	T	mg/L	6020	0.00119	J	0.00139	J		*	0.00271	
7440-09-7		Potassium	T	mg/L	6020	1.89		1.9			*	0.341	
7440-16-6		Rhodium	T	mg/L	6020	<0.005		<0.005			*	<0.005	
7782-49-2		Selenium	T	mg/L	6020	0.00157	J	<0.005			*	<0.005	
7440-22-4		Silver	T	mg/L	6020	<0.001		<0.001			*	<0.001	
7440-23-5		Sodium	T	mg/L	6020	52.4		46.1			*	93.1	
7440-25-7		Tantalum	T	mg/L	6020	<0.005		<0.005			*	<0.005	
7440-28-0		Thallium	T	mg/L	6020	<0.002		<0.002			*	<0.002	
7440-61-1		Uranium	T	mg/L	6020	<0.0002		<0.0002			*	0.00011	J
7440-62-2		Vanadium	T	mg/L	6010	<0.005		<0.005			*	0.00134	J
7440-66-6		Zinc	T	mg/L	6020	<0.01		0.004	J		*	<0.01	
108-05-4		Vinyl acetate	T	mg/L	8260	<0.005		<0.005			*	<0.005	
67-64-1		Acetone	T	mg/L	8260	<0.005		<0.005			*	<0.005	
107-02-8		Acrolein	T	mg/L	8260	<0.005		<0.005			*	<0.005	
107-13-1		Acrylonitrile	T	mg/L	8260	<0.005		<0.005			*	<0.005	
71-43-2		Benzene	T	mg/L	8260	<0.001		<0.001			*	<0.001	
108-90-7		Chlorobenzene	T	mg/L	8260	<0.001		<0.001			*	<0.001	
1330-20-7		Xylenes	T	mg/L	8260	<0.003		<0.003			*	<0.003	
100-42-5		Styrene	T	mg/L	8260	<0.001		<0.001			*	<0.001	
108-88-3		Toluene	T	mg/L	8260	0.0284		0.032			*	0.00463	
74-97-5		Chlorobromomethane	T	mg/L	8260	<0.001		<0.001			*	<0.001	

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

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

GROUNDWATER SAMPLE ANALYSIS - (Cont.)

AKGWA NUMBER[1], Facility Well/Spring Number						8004-4815		8004-4816		8004-4812		8004-4811	
Facility's Local Well or Spring Number (e.g., MW-1, MW-2, etc.)						387		388		389		390	
CAS RN[4]		CONSTITUENT	TD[5]	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS
75-27-4		Bromodichloromethane	T	mg/L	8260	<0.001		<0.001			*	<0.001	
75-25-2		Tribromomethane	T	mg/L	8260	<0.001		<0.001			*	<0.001	
74-83-9		Methyl bromide	T	mg/L	8260	<0.001		<0.001			*	<0.001	
78-93-3		Methyl ethyl ketone	T	mg/L	8260	<0.005		<0.005			*	<0.005	
110-57-6		trans-1,4-Dichloro-2-butene	T	mg/L	8260	<0.005		<0.005			*	<0.005	
75-15-0		Carbon disulfide	T	mg/L	8260	<0.005		<0.005			*	<0.005	
75-00-3		Chloroethane	T	mg/L	8260	<0.001		<0.001			*	<0.001	
67-66-3		Chloroform	T	mg/L	8260	<0.001		<0.001			*	<0.001	
74-87-3		Methyl chloride	T	mg/L	8260	<0.001		<0.001			*	<0.001	
156-59-2		cis-1,2-Dichloroethene	T	mg/L	8260	<0.001		<0.001			*	<0.001	
74-95-3		Methylene bromide	T	mg/L	8260	<0.001		<0.001			*	<0.001	
75-34-3		1,1-Dichloroethane	T	mg/L	8260	<0.001		<0.001			*	<0.001	
107-06-2		1,2-Dichloroethane	T	mg/L	8260	<0.001		<0.001			*	<0.001	
75-35-4		1,1-Dichloroethylene	T	mg/L	8260	<0.001		<0.001			*	<0.001	
106-93-4		Ethane, 1,2-dibromo	T	mg/L	8260	<0.001		<0.001			*	<0.001	
79-34-5		Ethane, 1,1,2,2-Tetrachloro	T	mg/L	8260	<0.001		<0.001			*	<0.001	
71-55-6		Ethane, 1,1,1-Trichloro-	T	mg/L	8260	<0.001		<0.001			*	<0.001	
79-00-5		Ethane, 1,1,2-Trichloro	T	mg/L	8260	<0.001		<0.001			*	<0.001	
630-20-6		Ethane, 1,1,1,2-Tetrachloro	T	mg/L	8260	<0.001		<0.001			*	<0.001	
75-01-4		Vinyl chloride	T	mg/L	8260	<0.001		<0.001			*	<0.001	
127-18-4		Ethene, Tetrachloro-	T	mg/L	8260	<0.001		<0.001			*	<0.001	
79-01-6		Ethene, Trichloro-	T	mg/L	8260	0.00091	J	0.00077	J		*	<0.001	

RESIDENTIAL/CONTAINED-QUARTERLY
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FINDS/UNIT: KY8-890-008-982 / 1
LAB ID: None
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GROUNDWATER SAMPLE ANALYSIS - (Cont.)

AKGWA NUMBER[1], Facility Well/Spring Number						8004-4815		8004-4816		8004-4812		8004-4811	
Facility's Local Well or Spring Number (e.g., MW-1, MW-2, etc.)						387		388		389		390	
CAS RN[4]		CONSTITUENT	TD[5]	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS
100-41-4		Ethylbenzene	T	mg/L	8260	<0.001		<0.001			*	<0.001	
591-78-6		2-Hexanone	T	mg/L	8260	<0.005		<0.005			*	<0.005	
74-88-4		Iodomethane	T	mg/L	8260	<0.005		<0.005			*	<0.005	
124-48-1		Methane, Dibromochloro-	T	mg/L	8260	<0.001		<0.001			*	<0.001	
56-23-5		Carbon Tetrachloride	T	mg/L	8260	<0.001		<0.001			*	<0.001	
75-09-2		Dichloromethane	T	mg/L	8260	<0.005		<0.005			*	<0.005	
108-10-1		Methyl isobutyl ketone	T	mg/L	8260	<0.005		<0.005			*	<0.005	
96-12-8		Propane, 1,2-Dibromo-3-chloro	T	mg/L	8011	<0.0000198		<0.0000199			*	<0.0000198	
78-87-5		Propane, 1,2-Dichloro-	T	mg/L	8260	<0.001		<0.001			*	<0.001	
10061-02-6		trans-1,3-Dichloro-1-propene	T	mg/L	8260	<0.001		<0.001			*	<0.001	
10061-01-5		cis-1,3-Dichloro-1-propene	T	mg/L	8260	<0.001		<0.001			*	<0.001	
156-60-5		trans-1,2-Dichloroethene	T	mg/L	8260	<0.001		<0.001			*	<0.001	
75-69-4		Trichlorofluoromethane	T	mg/L	8260	<0.001		<0.001			*	<0.001	
96-18-4		1,2,3-Trichloropropane	T	mg/L	8260	<0.001		<0.001			*	<0.001	
95-50-1		Benzene, 1,2-Dichloro-	T	mg/L	8260	<0.001		<0.001			*	<0.001	
106-46-7		Benzene, 1,4-Dichloro-	T	mg/L	8260	<0.001		<0.001			*	<0.001	
1336-36-3		PCB,Total	T	ug/L	8082		*		*		*		*
12674-11-2		PCB-1016	T	ug/L	8082		*		*		*		*
11104-28-2		PCB-1221	T	ug/L	8082		*		*		*		*
11141-16-5		PCB-1232	T	ug/L	8082		*		*		*		*
53469-21-9		PCB-1242	T	ug/L	8082		*		*		*		*
12672-29-6		PCB-1248	T	ug/L	8082		*		*		*		*

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

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

GROUNDWATER SAMPLE ANALYSIS - (Cont.)

AKGWA NUMBER[1], Facility Well/Spring Number						8004-4815		8004-4816		8004-4812		8004-4811	
Facility's Local Well or Spring Number (e.g., MW-1, MW-2, etc.)						387		388		389		390	
CAS RN[4]		CONSTITUENT	TD[5]	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS
11097-69-1		PCB-1254	T	ug/L	8082		*		*		*		*
11096-82-5		PCB-1260	T	ug/L	8082		*		*		*		*
11100-14-4		PCB-1268	T	ug/L	8082		*		*		*		*
12587-46-1		Gross Alpha	T	pCi/L	9310	-0.334	*	3.64	*		*	0.453	*
12587-47-2		Gross Beta	T	pCi/L	9310	120	*	53.9	*		*	40.7	*
10043-66-0		Iodine-131	T	pCi/L			*		*		*		*
13982-63-3		Radium-226	T	pCi/L	903.1	2.65	*	2.49	*		*	2.58	*
10098-97-2		Strontium-90	T	pCi/L	905.0	1.94	*	-2.25	*		*	-0.143	*
14133-76-7		Technetium-99	T	pCi/L	Tc-02-RC	200	*	116	*		*	74.3	*
14269-63-7		Thorium-230	T	pCi/L	Th-01-RC	-0.219	*	0.0189	*		*	2.38	*
10028-17-8		Tritium	T	pCi/L	906.0	32.5	*	-117	*		*	-2.07	*
S0130- -		Chemical Oxygen Demand	T	mg/L	410.4	9.93	J	<20			*	12.4	J
57-12-5		Cyanide	T	mg/L	9012	<0.005		<0.005			*	<0.005	
20461-54-5		Iodide	T	mg/L	300.0		*		*		*	<0.1	
S0268- -		Total Organic Carbon	T	mg/L	9060	1.29	J	1.21	J		*	2.01	
S0586- -		Total Organic Halides	T	mg/L	9020	0.0146		0.00986	J		*	0.0148	

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

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

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

GROUNDWATER SAMPLE ANALYSIS(S)

AKGWA NUMBER[1], Facility Well/Spring Number	8004-4805	8004-4806	8004-4807	8004-4802
Facility's Local Well or Spring Number (e.g., MW-1, MW-2, etc.)	391	392	393	394
Sample Sequence #	1	1	1	1
If sample is a Blank, specify Type: (F)ield, (T)rip, (M)ethod, or (E)quipment	NA	NA	NA	NA
Sample Date and Time (Month/Day/Year hour: minutes)	4/9/2014 09:17	4/9/2014 08:07	4/9/2014 08:41	4/9/2014 12:48
Duplicate ("Y" or "N")[2]	N	N	N	N
Split ("Y" or "N")[3]	N	N	N	N
Facility Sample ID Number (if applicable)	MW391SG3-14	MW392SG3-14	MW393SG3-14	MW394SG3-14
Laboratory Sample ID Number (if applicable)	346407005	346407003	346407004	346407001
Date of Analysis (Month/Day/Year) For Volatile Organics Analysis	4/15/2014	4/14/2014	4/14/2014	4/14/2014
Gradient with respect to Monitored Unit (UP, DOWN, SIDE, UNKNOWN)	DOWN	DOWN	DOWN	UP

CAS RN[4]		CONSTITUENT	TD[5]	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL[6]	FLAGS[7]	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS
24959-67-9		Bromide	T	mg/L	9056	0.506		0.602		0.193	J	0.536	
16887-00-6		Chloride(s)	T	mg/L	9056	36.4		47		15.7		48.1	
16984-48-8		Fluoride	T	mg/L	9056	0.163		0.205		0.24		0.122	
S0595- -		Nitrate & Nitrite	T	mg/L	9056	0.824		0.201		0.134		1.7	
14808-79-8		Sulfate	T	mg/L	9056	20.6		6.79		16.4		10	
NS1894		Barometric Pressure Reading	T	Inches/Hg	Field	30.11		30.08		30.11		30.14	
S0145- -		Specific Conductance	T	μMH0/cm	Field	393		389		413		404	

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

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

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

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

GROUNDWATER SAMPLE ANALYSIS - (Cont.)

AKGWA NUMBER[1], Facility Well/Spring Number						8004-4805		8004-4806		8004-4807		8004-4802	
Facility's Local Well or Spring Number (e.g., MW-1, MW-2, BLANK-F, etc.)						391		392		393		394	
CAS RN[4]		CONSTITUENT	TD[5]	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS
S0906 - -		Static Water Level Elevation	T	Ft. MSL	Field	325.97		325.84		339.87		325.76	
N238		Dissolved Oxygen	T	mg/L	Field	2.42		2.97		0.72		4.29	
S0266- -		Total Dissolved Solids	T	mg/L	160.1	263		211		244		214	
S0296- -		pH	T	Units	Field	6.27		6.28		6.33		6.07	
NS215		Eh	T	mV	Field	373		384		360		516	
S0907 - -		Temperature	T	°C	Field	14.78		12.06		14.33		15.94	
7429-90-5		Aluminum	T	mg/L	6020	<0.05		<0.05		0.0182	J	<0.05	
7440-36-0		Antimony	T	mg/L	6020	<0.003		<0.003		<0.003		<0.003	
7440-38-2		Arsenic	T	mg/L	6020	<0.005		<0.005		0.0043	J	<0.005	
7440-39-3		Barium	T	mg/L	6020	0.22		0.205		0.081		0.251	
7440-41-7		Beryllium	T	mg/L	6020	<0.0005		<0.0005		<0.0005		<0.0005	
7440-42-8		Boron	T	mg/L	6020	0.0419		0.0265		0.019		0.0209	
7440-43-9		Cadmium	T	mg/L	6020	<0.001		<0.001		<0.001		<0.001	
7440-70-2		Calcium	T	mg/L	6020	23.7		26.5		11.7		27.3	
7440-47-3		Chromium	T	mg/L	6020	<0.01		<0.01		<0.01		<0.01	
7440-48-4		Cobalt	T	mg/L	6020	<0.001		0.00043	J	0.00116		<0.001	
7440-50-8		Copper	T	mg/L	6020	0.00037	J	0.00046	J	0.00236		0.00087	J
7439-89-6		Iron	T	mg/L	6020	0.153		0.412		1.18		0.211	
7439-92-1		Lead	T	mg/L	6020	<0.002		<0.002		<0.002		<0.002	
7439-95-4		Magnesium	T	mg/L	6020	10.4		10.2		3.56		11	
7439-96-5		Manganese	T	mg/L	6020	<0.005		0.136		0.0186		0.00241	J
7439-97-6		Mercury	T	mg/L	7470	<0.0002		<0.0002		<0.0002		<0.0002	

GROUNDWATER SAMPLE ANALYSIS - (Cont.)

AKGWA NUMBER[1], Facility Well/Spring Number						8004-4805		8004-4806		8004-4807		8004-4802	
Facility's Local Well or Spring Number (e.g., MW-1, MW-2, etc.)						391		392		393		394	
CAS RN[4]		CONSTITUENT	TD[5]	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS
7439-98-7		Molybdenum	T	mg/L	6020	<0.0005		0.00049	J	0.00082		0.00018	J
7440-02-0		Nickel	T	mg/L	6020	0.001	J	0.00158	J	0.00634		0.00296	
7440-09-7		Potassium	T	mg/L	6020	1.52		1.94		0.47		1.39	
7440-16-6		Rhodium	T	mg/L	6020	<0.005		<0.005		<0.005		<0.005	
7782-49-2		Selenium	T	mg/L	6020	0.0015	J	<0.005		0.00208	J	<0.005	
7440-22-4		Silver	T	mg/L	6020	<0.001		<0.001		<0.001		<0.001	
7440-23-5		Sodium	T	mg/L	6020	40		36.8		86.5		29.9	
7440-25-7		Tantalum	T	mg/L	6020	<0.005		<0.005		<0.005		<0.005	
7440-28-0		Thallium	T	mg/L	6020	<0.002		<0.002		<0.002		<0.002	
7440-61-1		Uranium	T	mg/L	6020	<0.0002		<0.0002		0.00149		<0.0002	
7440-62-2		Vanadium	T	mg/L	6010	<0.005		<0.005		0.00132	J	<0.005	
7440-66-6		Zinc	T	mg/L	6020	<0.01		<0.01		0.0138		<0.01	
108-05-4		Vinyl acetate	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
67-64-1		Acetone	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
107-02-8		Acrolein	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
107-13-1		Acrylonitrile	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
71-43-2		Benzene	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
108-90-7		Chlorobenzene	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
1330-20-7		Xylenes	T	mg/L	8260	<0.003		<0.003		<0.003		<0.003	
100-42-5		Styrene	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
108-88-3		Toluene	T	mg/L	8260	0.00361		0.0247		0.00121		0.0328	
74-97-5		Chlorobromomethane	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	

GROUNDWATER SAMPLE ANALYSIS - (Cont.)

AKGWA NUMBER[1], Facility Well/Spring Number						8004-4805		8004-4806		8004-4807		8004-4802	
Facility's Local Well or Spring Number (e.g., MW-1, MW-2, etc.)						391		392		393		394	
CAS RN[4]		CONSTITUENT	TD[5]	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS
75-27-4		Bromodichloromethane	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
75-25-2		Tribromomethane	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
74-83-9		Methyl bromide	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
78-93-3		Methyl ethyl ketone	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
110-57-6		trans-1,4-Dichloro-2-butene	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
75-15-0		Carbon disulfide	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
75-00-3		Chloroethane	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
67-66-3		Chloroform	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
74-87-3		Methyl chloride	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
156-59-2		cis-1,2-Dichloroethene	T	mg/L	8260	0.00041	J	<0.001		<0.001		<0.001	
74-95-3		Methylene bromide	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
75-34-3		1,1-Dichloroethane	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
107-06-2		1,2-Dichloroethane	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
75-35-4		1,1-Dichloroethylene	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
106-93-4		Ethane, 1,2-dibromo	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
79-34-5		Ethane, 1,1,2,2-Tetrachloro	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
71-55-6		Ethane, 1,1,1-Trichloro-	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
79-00-5		Ethane, 1,1,2-Trichloro	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
630-20-6		Ethane, 1,1,1,2-Tetrachloro	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
75-01-4		Vinyl chloride	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
127-18-4		Ethene, Tetrachloro-	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
79-01-6		Ethene, Trichloro-	T	mg/L	8260	0.0108		0.0187		0.00039	J	0.00461	

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

GROUNDWATER SAMPLE ANALYSIS - (Cont.)

AKGWA NUMBER[1], Facility Well/Spring Number						8004-4805		8004-4806		8004-4807		8004-4802	
Facility's Local Well or Spring Number (e.g., MW-1, MW-2, etc.)						391		392		393		394	
CAS RN[4]		CONSTITUENT	TD[5]	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS
100-41-4		Ethylbenzene	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
591-78-6		2-Hexanone	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
74-88-4		Iodomethane	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
124-48-1		Methane, Dibromochloro-	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
56-23-5		Carbon Tetrachloride	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
75-09-2		Dichloromethane	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
108-10-1		Methyl isobutyl ketone	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
96-12-8		Propane, 1,2-Dibromo-3-chloro	T	mg/L	8011	<0.0000201		<0.0000198		<0.00002		<0.0000202	
78-87-5		Propane, 1,2-Dichloro-	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
10061-02-6		trans-1,3-Dichloro-1-propene	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
10061-01-5		cis-1,3-Dichloro-1-propene	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
156-60-5		trans-1,2-Dichloroethene	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
75-69-4		Trichlorofluoromethane	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
96-18-4		1,2,3-Trichloropropane	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
95-50-1		Benzene, 1,2-Dichloro-	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
106-46-7		Benzene, 1,4-Dichloro-	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
1336-36-3		PCB,Total	T	ug/L	8082		*		*		*		*
12674-11-2		PCB-1016	T	ug/L	8082		*		*		*		*
11104-28-2		PCB-1221	T	ug/L	8082		*		*		*		*
11141-16-5		PCB-1232	T	ug/L	8082		*		*		*		*
53469-21-9		PCB-1242	T	ug/L	8082		*		*		*		*
12672-29-6		PCB-1248	T	ug/L	8082		*		*		*		*

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

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

GROUNDWATER SAMPLE ANALYSIS - (Cont.)

AKGWA NUMBER[1], Facility Well/Spring Number						8004-4805		8004-4806		8004-4807		8004-4802	
Facility's Local Well or Spring Number (e.g., MW-1, MW-2, etc.)						391		392		393		394	
CAS RN[4]		CONSTITUENT	TD[5]	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS
11097-69-1		PCB-1254	T	ug/L	8082		*		*		*		*
11096-82-5		PCB-1260	T	ug/L	8082		*		*		*		*
11100-14-4		PCB-1268	T	ug/L	8082		*		*		*		*
12587-46-1		Gross Alpha	T	pCi/L	9310	-2.37	*	1.47	*	-2.66	*	7.61	*
12587-47-2		Gross Beta	T	pCi/L	9310	0.264	*	-0.827	*	1.13	*	6.27	*
10043-66-0		Iodine-131	T	pCi/L			*		*		*		*
13982-63-3		Radium-226	T	pCi/L	903.1	2.88	*	2.57	*	0.763	*	4.26	*
10098-97-2		Strontium-90	T	pCi/L	905.0	-0.196	*	0.304	*	-0.842	*	-0.697	*
14133-76-7		Technetium-99	T	pCi/L	Tc-02-RC	5.15	*	11.5	*	-8.36	*	4.32	*
14269-63-7		Thorium-230	T	pCi/L	Th-01-RC	-1.87	*	-1.39	*	-0.454	*	-1.65	*
10028-17-8		Tritium	T	pCi/L	906.0	99	*	45.9	*	1.62	*	0.723	*
S0130- -		Chemical Oxygen Demand	T	mg/L	410.4	<20		18.3	J	20.5		16.1	J
57-12-5		Cyanide	T	mg/L	9012	<0.2		<0.2		<0.2		<0.2	
20461-54-5		Iodide	T	mg/L	300.0	<0.1		<0.1		<0.1		<0.1	
S0268- -		Total Organic Carbon	T	mg/L	9060	0.869	J	1.07	J	2.45		0.877	J
S0586- -		Total Organic Halides	T	mg/L	9020	0.0115		0.0282		0.0181		0.00864	J

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

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

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

GROUNDWATER SAMPLE ANALYSIS(S)

AKGWA NUMBER[1], Facility Well/Spring Number						8004-4801		8004-4803		8004-4817		0000-0000	
Facility's Local Well or Spring Number (e.g., MW-1, MW-2, etc.)						395		396		397		E. BLANK	
Sample Sequence #						1		1		1		1	
If sample is a Blank, specify Type: (F)ield, (T)rip, (M)ethod, or (E)quipment						NA		NA		NA		E	
Sample Date and Time (Month/Day/Year hour: minutes)						4/9/2014 09:13		4/9/2014 09:56		4/8/2014 13:01		4/9/2014 07:15	
Duplicate ("Y" or "N")[2]						N		N		N		N	
Split ("Y" or "N")[3]						N		N		N		N	
Facility Sample ID Number (if applicable)						MW395SG3-14		MW396SG3-14		MW397SG3-14		RI1SG3-14	
Laboratory Sample ID Number (if applicable)						346407006		346407002		346275006		346423007	
Date of Analysis (Month/Day/Year) For Volatile Organics Analysis						4/15/2014		4/14/2014		4/14/2014		4/15/2014	
Gradient with respect to Monitored Unit (UP, DOWN, SIDE, UNKNOWN)						UP		UP		UP		NA	
CAS RN[4]		**CONSTITUENT**	**TD[5]**	**Unit OF MEASURE**	**METHOD**	**DETECTED VALUE OR PQL[6]**	**FLAGS[7]**	**DETECTED VALUE OR PQL[6]**	**FLAGS**	**DETECTED VALUE OR PQL[6]**	**FLAGS**	**DETECTED VALUE OR PQL[6]**	**FLAGS**
24959-67-9		**Bromide**	**T**	**mg/L**	**9056**	0.624		1.23		0.444			*
16887-00-6		**Chloride(s)**	**T**	**mg/L**	**9056**	48.7		80.5		37.5			*
16984-48-8		**Fluoride**	**T**	**mg/L**	**9056**	0.113		0.644		0.12			*
S0595- -		**Nitrate & Nitrite**	**T**	**mg/L**	**9056**	1.79		0.0637	J	1.2			*
14808-79-8		**Sulfate**	**T**	**mg/L**	**9056**	9.77		24		11.7			*
NS1894		**Barometric Pressure Reading**	**T**	**Inches/Hg**	**Field**	30.11		30.11		29.82			*
S0145- -		**Specific Conductance**	**T**	**μMH0/cm**	**Field**	402		793		328			*

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

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

RESIDENTIAL/INERT-QUARTERLY
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GROUNDWATER SAMPLE ANALYSIS - (Cont.)

AKGWA NUMBER[1], Facility Well/Spring Number						8004-4801		8004-4803		8004-4817		0000-0000	
Facility's Local Well or Spring Number (e.g., MW-1, MW-2, BLANK-F, etc.)						395		396		397		E. BLANK	
CAS RN[4]		CONSTITUENT	TD[5]	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS
S0906 - -		Static Water Level Elevation	T	Ft. MSL	Field	326.17		373.12		325.95			*
N238		Dissolved Oxygen	T	mg/L	Field	4.57		1.62		5.01			*
S0266- -		Total Dissolved Solids	T	mg/L	160.1	217		456		171			*
S0296- -		pH	T	Units	Field	6.07		6.55		6.08			*
NS215		Eh	T	mV	Field	537		427		363			*
S0907 - -		Temperature	T	°C	Field	14.22		14.39		14.33			*
7429-90-5		Aluminum	T	mg/L	6020	<0.05		0.0978		<0.05		<0.05	
7440-36-0		Antimony	T	mg/L	6020	<0.003		<0.003		<0.003		<0.003	
7440-38-2		Arsenic	T	mg/L	6020	<0.005		<0.005		<0.005		<0.005	
7440-39-3		Barium	T	mg/L	6020	0.257		0.376		0.152	*	<0.002	
7440-41-7		Beryllium	T	mg/L	6020	<0.0005		<0.0005		<0.0005		<0.0005	
7440-42-8		Boron	T	mg/L	6020	0.0225		0.0062	J	0.00806	J	<0.015	
7440-43-9		Cadmium	T	mg/L	6020	<0.001		<0.001		<0.001		<0.001	
7440-70-2		Calcium	T	mg/L	6020	27.7		36.4		19.4		<0.2	
7440-47-3		Chromium	T	mg/L	6020	<0.01		<0.01		<0.01		<0.01	
7440-48-4		Cobalt	T	mg/L	6020	<0.001		0.00061	J	<0.001		<0.001	
7440-50-8		Copper	T	mg/L	6020	0.00073	J	0.00162		0.00035	J	<0.001	
7439-89-6		Iron	T	mg/L	6020	0.0709	J	1.15		0.0492	J	0.0475	J
7439-92-1		Lead	T	mg/L	6020	<0.002		<0.002		<0.002		<0.002	
7439-95-4		Magnesium	T	mg/L	6020	12.2		15.4		8.36		<0.03	
7439-96-5		Manganese	T	mg/L	6020	<0.005		0.147		<0.005		<0.005	
7439-97-6		Mercury	T	mg/L	7470	<0.0002		<0.0002		<0.0002		<0.0002	

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GROUNDWATER SAMPLE ANALYSIS - (Cont.)

AKGWA NUMBER[1], Facility Well/Spring Number						8004-4801		8004-4803		8004-4817		0000-0000	
Facility's Local Well or Spring Number (e.g., MW-1, MW-2, etc.)						395		396		397		E. BLANK	
CAS RN[4]		CONSTITUENT	TD[5]	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS
7439-98-7		Molybdenum	T	mg/L	6020	0.00018	J	0.00048	J	<0.0005		<0.0005	
7440-02-0		Nickel	T	mg/L	6020	0.00125	J	0.00154	J	0.0014	J	<0.002	
7440-09-7		Potassium	T	mg/L	6020	1.62		0.793		1.81		<0.3	
7440-16-6		Rhodium	T	mg/L	6020	<0.005		<0.005		<0.005		<0.005	
7782-49-2		Selenium	T	mg/L	6020	<0.005		<0.005		0.00172	J	<0.005	
7440-22-4		Silver	T	mg/L	6020	<0.001		<0.001		<0.001		<0.001	
7440-23-5		Sodium	T	mg/L	6020	28.9		121		35.5		<0.25	
7440-25-7		Tantalum	T	mg/L	6020	<0.005		<0.005		<0.005		<0.005	
7440-28-0		Thallium	T	mg/L	6020	<0.002		<0.002		<0.002		<0.002	
7440-61-1		Uranium	T	mg/L	6020	<0.0002		0.000092	J	<0.0002		<0.0002	
7440-62-2		Vanadium	T	mg/L	6010	<0.005		<0.005		<0.005		<0.005	
7440-66-6		Zinc	T	mg/L	6020	0.0042	J	0.00398	J	<0.01		<0.01	
108-05-4		Vinyl acetate	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
67-64-1		Acetone	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
107-02-8		Acrolein	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
107-13-1		Acrylonitrile	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
71-43-2		Benzene	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
108-90-7		Chlorobenzene	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
1330-20-7		Xylenes	T	mg/L	8260	<0.003		<0.003		<0.003		<0.003	
100-42-5		Styrene	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
108-88-3		Toluene	T	mg/L	8260	0.00483		0.02		0.00335		0.00064	J
74-97-5		Chlorobromomethane	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	

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GROUNDWATER SAMPLE ANALYSIS - (Cont.)

AKGWA NUMBER[1], Facility Well/Spring Number						8004-4801		8004-4803		8004-4817		0000-0000	
Facility's Local Well or Spring Number (e.g., MW-1, MW-2, etc.)						395		396		397		E. BLANK	
CAS RN[4]		CONSTITUENT	TD[5]	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS
75-27-4		Bromodichloromethane	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
75-25-2		Tribromomethane	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
74-83-9		Methyl bromide	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
78-93-3		Methyl ethyl ketone	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
110-57-6		trans-1,4-Dichloro-2-butene	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
75-15-0		Carbon disulfide	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
75-00-3		Chloroethane	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
67-66-3		Chloroform	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
74-87-3		Methyl chloride	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
156-59-2		cis-1,2-Dichloroethene	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
74-95-3		Methylene bromide	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
75-34-3		1,1-Dichloroethane	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
107-06-2		1,2-Dichloroethane	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
75-35-4		1,1-Dichloroethylene	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
106-93-4		Ethane, 1,2-dibromo	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
79-34-5		Ethane, 1,1,2,2-Tetrachloro	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
71-55-6		Ethane, 1,1,1-Trichloro-	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
79-00-5		Ethane, 1,1,2-Trichloro	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
630-20-6		Ethane, 1,1,1,2-Tetrachloro	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
75-01-4		Vinyl chloride	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
127-18-4		Ethene, Tetrachloro-	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
79-01-6		Ethene, Trichloro-	T	mg/L	8260	0.00457		<0.001		0.00043	J	<0.001	

RESIDENTIAL/CONTAINED-QUARTERLY
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LAB ID: None
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GROUNDWATER SAMPLE ANALYSIS - (Cont.)

AKGWA NUMBER[1], Facility Well/Spring Number						8004-4801		8004-4803		8004-4817		0000-0000	
Facility's Local Well or Spring Number (e.g., MW-1, MW-2, etc.)						395		396		397		E. BLANK	
CAS RN[4]		CONSTITUENT	TD[5]	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS
100-41-4		Ethylbenzene	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
591-78-6		2-Hexanone	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
74-88-4		Iodomethane	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
124-48-1		Methane, Dibromochloro-	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
56-23-5		Carbon Tetrachloride	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
75-09-2		Dichloromethane	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
108-10-1		Methyl isobutyl ketone	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
96-12-8		Propane, 1,2-Dibromo-3-chloro	T	mg/L	8011	<0.0000203		<0.0000199		<0.0000194		<0.0000198	
78-87-5		Propane, 1,2-Dichloro-	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
10061-02-6		trans-1,3-Dichloro-1-propene	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
10061-01-5		cis-1,3-Dichloro-1-propene	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
156-60-5		trans-1,2-Dichloroethene	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
75-69-4		Trichlorofluoromethane	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
96-18-4		1,2,3-Trichloropropane	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
95-50-1		Benzene, 1,2-Dichloro-	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
106-46-7		Benzene, 1,4-Dichloro-	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
1336-36-3		PCB,Total	T	ug/L	8082		*		*		*		*
12674-11-2		PCB-1016	T	ug/L	8082		*		*		*		*
11104-28-2		PCB-1221	T	ug/L	8082		*		*		*		*
11141-16-5		PCB-1232	T	ug/L	8082		*		*		*		*
53469-21-9		PCB-1242	T	ug/L	8082		*		*		*		*
12672-29-6		PCB-1248	T	ug/L	8082		*		*		*		*

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GROUNDWATER SAMPLE ANALYSIS - (Cont.)

AKGWA NUMBER[1], Facility Well/Spring Number						8004-4801		8004-4803		8004-4817		0000-0000	
Facility's Local Well or Spring Number (e.g., MW-1, MW-2, etc.)						395		396		397		E. BLANK	
CAS RN[4]		CONSTITUENT	TD[5]	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS
11097-69-1		PCB-1254	T	ug/L	8082		*		*		*		*
11096-82-5		PCB-1260	T	ug/L	8082		*		*		*		*
11100-14-4		PCB-1268	T	ug/L	8082		*		*		*		*
12587-46-1		Gross Alpha	T	pCi/L	9310	-2.01	*	-1.38	*	1.95	*	-3.52	*
12587-47-2		Gross Beta	T	pCi/L	9310	2.09	*	-0.524	*	4.03	*	5.52	*
10043-66-0		Iodine-131	T	pCi/L			*		*		*		*
13982-63-3		Radium-226	T	pCi/L	903.1	2.13	*	2.28	*	3.11	*	2.38	*
10098-97-2		Strontium-90	T	pCi/L	905.0	-0.188	*	2.81	*	-1.71	*	0.601	*
14133-76-7		Technetium-99	T	pCi/L	Tc-02-RC	11.2	*	-5.67	*	16.5	*	5.29	*
14269-63-7		Thorium-230	T	pCi/L	Th-01-RC	3.53	*	0.768	*	-0.126	*	-1.83	*
10028-17-8		Tritium	T	pCi/L	906.0	127	*	1.22	*	29.4	*	160	*
S0130- -		Chemical Oxygen Demand	T	mg/L	410.4	7.43	J	33.5		<20			*
57-12-5		Cyanide	T	mg/L	9012	<0.2		<0.2		<0.005			*
20461-54-5		Iodide	T	mg/L	300.0	<0.1		0.16	J	<0.1		<0.1	
S0268- -		Total Organic Carbon	T	mg/L	9060	0.819	J	5.26		0.835	J		*
S0586- -		Total Organic Halides	T	mg/L	9020	0.00738	J	0.113		0.00464	J		*

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LAB ID: None
For Official Use Only

GROUNDWATER SAMPLE ANALYSIS(S)

AKGWA NUMBER[1], Facility Well/Spring Number						0000-0000		0000-0000		0000-0000		0000-0000	
Facility's Local Well or Spring Number (e.g., MW-1, MW-2, etc.)						F. BLANK		T. BLANK 1		T. BLANK 2		T. BLANK 3	
Sample Sequence #						1		1		1		1	
If sample is a Blank, specify Type: (F)ield, (T)rip, (M)ethod, or (E)quipment						F		T		T		T	
Sample Date and Time (Month/Day/Year hour: minutes)						4/9/2014 09:15		4/7/2014 08:05		4/7/2014 08:00		4/8/2014 07:30	
Duplicate ("Y" or "N")[2]						N		N		N		N	
Split ("Y" or "N")[3]						N		N		N		N	
Facility Sample ID Number (if applicable)						FB1SG3-14		TB1SG3-14		TB2SG3-14		TB3SG3-14	
Laboratory Sample ID Number (if applicable)						346423008		346176007		346176008		346275008	
Date of Analysis (Month/Day/Year) For Volatile Organics Analysis						4/15/2014		4/14/2014		4/14/2014		4/14/2014	
Gradient with respect to Monitored Unit (UP, DOWN, SIDE, UNKNOWN)						NA		NA		NA		NA	
CAS RN[4]		**CONSTITUENT**	**TD[5]**	**Unit OF MEASURE**	**METHOD**	**DETECTED VALUE OR PQL[6]**	**FLAGS[7]**	**DETECTED VALUE OR PQL[6]**	**FLAGS**	**DETECTED VALUE OR PQL[6]**	**FLAGS**	**DETECTED VALUE OR PQL[6]**	**FLAGS**
24959-67-9		**Bromide**	**T**	**mg/L**	**9056**		*		*		*		*
16887-00-6		**Chloride(s)**	**T**	**mg/L**	**9056**		*		*		*		*
16984-48-8		**Fluoride**	**T**	**mg/L**	**9056**		*		*		*		*
S0595- -		**Nitrate & Nitrite**	**T**	**mg/L**	**9056**		*		*		*		*
14808-79-8		**Sulfate**	**T**	**mg/L**	**9056**		*		*		*		*
NS1894		**Barometric Pressure Reading**	**T**	**Inches/Hg**	**Field**		*		*		*		*
S0145- -		**Specific Conductance**	**T**	**μMH0/cm**	**Field**		*		*		*		*

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

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

GROUNDWATER SAMPLE ANALYSIS - (Cont.)

AKGWA NUMBER[1], Facility Well/Spring Number						0000-0000		0000-0000		0000-0000		0000-0000	
Facility's Local Well or Spring Number (e.g., MW-1, MW-2, BLANK-F, etc.)						F. BLANK		T. BLANK 1		T. BLANK 2		T. BLANK 3	
CAS RN[4]		CONSTITUENT	TD[5]	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS
S0906 - -		Static Water Level Elevation	T	Ft. MSL	Field		*		*		*		*
N238		Dissolved Oxygen	T	mg/L	Field		*		*		*		*
S0266- -		Total Dissolved Solids	T	mg/L	160.1		*		*		*		*
S0296- -		pH	T	Units	Field		*		*		*		*
NS215		Eh	T	mV	Field		*		*		*		*
S0907 - -		Temperature	T	°C	Field		*		*		*		*
7429-90-5		Aluminum	T	mg/L	6020	<0.05			*		*		*
7440-36-0		Antimony	T	mg/L	6020	<0.003			*		*		*
7440-38-2		Arsenic	T	mg/L	6020	<0.005			*		*		*
7440-39-3		Barium	T	mg/L	6020	<0.002			*		*		*
7440-41-7		Beryllium	T	mg/L	6020	<0.0005			*		*		*
7440-42-8		Boron	T	mg/L	6020	<0.015			*		*		*
7440-43-9		Cadmium	T	mg/L	6020	<0.001			*		*		*
7440-70-2		Calcium	T	mg/L	6020	<0.2			*		*		*
7440-47-3		Chromium	T	mg/L	6020	<0.01			*		*		*
7440-48-4		Cobalt	T	mg/L	6020	<0.001			*		*		*
7440-50-8		Copper	T	mg/L	6020	0.00189			*		*		*
7439-89-6		Iron	T	mg/L	6020	<0.1			*		*		*
7439-92-1		Lead	T	mg/L	6020	<0.002			*		*		*
7439-95-4		Magnesium	T	mg/L	6020	<0.03			*		*		*
7439-96-5		Manganese	T	mg/L	6020	<0.005			*		*		*
7439-97-6		Mercury	T	mg/L	7470	<0.0002			*		*		*

GROUNDWATER SAMPLE ANALYSIS - (Cont.)

AKGWA NUMBER[1], Facility Well/Spring Number						0000-0000		0000-0000		0000-0000		0000-0000	
Facility's Local Well or Spring Number (e.g., MW-1, MW-2, etc.)						F. BLANK		T. BLANK 1		T. BLANK 2		T. BLANK 3	
CAS RN[4]		CONSTITUENT	TD[5]	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS
7439-98-7		Molybdenum	T	mg/L	6020	<0.0005			*		*		*
7440-02-0		Nickel	T	mg/L	6020	<0.002			*		*		*
7440-09-7		Potassium	T	mg/L	6020	<0.3			*		*		*
7440-16-6		Rhodium	T	mg/L	6020	<0.005			*		*		*
7782-49-2		Selenium	T	mg/L	6020	<0.005			*		*		*
7440-22-4		Silver	T	mg/L	6020	<0.001			*		*		*
7440-23-5		Sodium	T	mg/L	6020	<0.25			*		*		*
7440-25-7		Tantalum	T	mg/L	6020	<0.005			*		*		*
7440-28-0		Thallium	T	mg/L	6020	<0.002			*		*		*
7440-61-1		Uranium	T	mg/L	6020	<0.0002			*		*		*
7440-62-2		Vanadium	T	mg/L	6010	<0.005			*		*		*
7440-66-6		Zinc	T	mg/L	6020	0.0178			*		*		*
108-05-4		Vinyl acetate	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
67-64-1		Acetone	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
107-02-8		Acrolein	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
107-13-1		Acrylonitrile	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
71-43-2		Benzene	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
108-90-7		Chlorobenzene	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
1330-20-7		Xylenes	T	mg/L	8260	<0.003		<0.003		<0.003		<0.003	
100-42-5		Styrene	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
108-88-3		Toluene	T	mg/L	8260	0.0036		<0.001		0.00071	J	0.0345	
74-97-5		Chlorobromomethane	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	

GROUNDWATER SAMPLE ANALYSIS - (Cont.)

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

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

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

GROUNDWATER SAMPLE ANALYSIS - (Cont.)

AKGWA NUMBER[1], Facility Well/Spring Number						0000-0000		0000-0000		0000-0000		0000-0000	
Facility's Local Well or Spring Number (e.g., MW-1, MW-2, etc.)						F. BLANK		T. BLANK 1		T. BLANK 2		T. BLANK 3	
CAS RN[4]		CONSTITUENT	TD[5]	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS
100-41-4		Ethylbenzene	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
591-78-6		2-Hexanone	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
74-88-4		Iodomethane	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
124-48-1		Methane, Dibromochloro-	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
56-23-5		Carbon Tetrachloride	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
75-09-2		Dichloromethane	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
108-10-1		Methyl isobutyl ketone	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
96-12-8		Propane, 1,2-Dibromo-3-chloro	T	mg/L	8011	<0.0000201		<0.00002		<0.0000204		<0.0000199	
78-87-5		Propane, 1,2-Dichloro-	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
10061-02-6		trans-1,3-Dichloro-1-propene	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
10061-01-5		cis-1,3-Dichloro-1-propene	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
156-60-5		trans-1,2-Dichloroethene	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
75-69-4		Trichlorofluoromethane	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
96-18-4		1,2,3-Trichloropropane	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
95-50-1		Benzene, 1,2-Dichloro-	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
106-46-7		Benzene, 1,4-Dichloro-	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
1336-36-3		PCB,Total	T	ug/L	8082		*		*		*		*
12674-11-2		PCB-1016	T	ug/L	8082		*		*		*		*
11104-28-2		PCB-1221	T	ug/L	8082		*		*		*		*
11141-16-5		PCB-1232	T	ug/L	8082		*		*		*		*
53469-21-9		PCB-1242	T	ug/L	8082		*		*		*		*
12672-29-6		PCB-1248	T	ug/L	8082		*		*		*		*

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

GROUNDWATER SAMPLE ANALYSIS - (Cont.)

AKGWA NUMBER[1], Facility Well/Spring Number						0000-0000		0000-0000		0000-0000		0000-0000	
Facility's Local Well or Spring Number (e.g., MW-1, MW-2, etc.)						F. BLANK		T. BLANK 1		T. BLANK 2		T. BLANK 3	
CAS RN[4]		CONSTITUENT	TD[5]	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS
11097-69-1		PCB-1254	T	ug/L	8082		*		*		*		*
11096-82-5		PCB-1260	T	ug/L	8082		*		*		*		*
11100-14-4		PCB-1268	T	ug/L	8082		*		*		*		*
12587-46-1		Gross Alpha	T	pCi/L	9310	-3.74	*		*		*		*
12587-47-2		Gross Beta	T	pCi/L	9310	-1.68	*		*		*		*
10043-66-0		Iodine-131	T	pCi/L			*		*		*		*
13982-63-3		Radium-226	T	pCi/L	903.1	3.09	*		*		*		*
10098-97-2		Strontium-90	T	pCi/L	905.0	2.73	*		*		*		*
14133-76-7		Technetium-99	T	pCi/L	Tc-02-RC	-0.282	*		*		*		*
14269-63-7		Thorium-230	T	pCi/L	Th-01-RC	3.53	*		*		*		*
10028-17-8		Tritium	T	pCi/L	906.0	0.0596	*		*		*		*
S0130- -		Chemical Oxygen Demand	T	mg/L	410.4		*		*		*		*
57-12-5		Cyanide	T	mg/L	9012		*		*		*		*
20461-54-5		Iodide	T	mg/L	300.0	<0.1			*		*		*
S0268- -		Total Organic Carbon	T	mg/L	9060		*		*		*		*
S0586- -		Total Organic Halides	T	mg/L	9020		*		*		*		*

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

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

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

GROUNDWATER SAMPLE ANALYSIS(S)

AKGWA NUMBER[1], Facility Well/Spring Number	0000-0000	0000-0000	0000-0000	8000-5242
Facility's Local Well or Spring Number (e.g., MW-1, MW-2, etc.)	T. BLANK 4	T. BLANK 5	T. BLANK 6	222
Sample Sequence #	1	1	1	2
If sample is a Blank, specify Type: (F)ield, (T)rip, (M)ethod, or (E)quipment	T	T	T	NA
Sample Date and Time (Month/Day/Year hour: minutes)	4/8/2014 07:30	4/9/2014 07:00	4/9/2014 07:10	4/7/2014 09:23
Duplicate ("Y" or "N")[2]	N	N	N	Y
Split ("Y" or "N")[3]	N	N	N	N
Facility Sample ID Number (if applicable)	TB4SG3-14	TB5SG3-14	TB6SG3-14	MW222DSG3-14
Laboratory Sample ID Number (if applicable)	346275009	346407009	346407010	346204004
Date of Analysis (Month/Day/Year) For Volatile Organics Analysis	4/14/2014	4/15/2014	4/15/2014	4/14/2014
Gradient with respect to Monitored Unit (UP, DOWN, SIDE, UNKNOWN)	NA	NA	NA	SIDE

CAS RN[4]		CONSTITUENT	TD[5]	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL[6]	FLAGS[7]	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS
24959-67-9		Bromide	T	mg/L	9056		*		*		*	0.456	
16887-00-6		Chloride(s)	T	mg/L	9056		*		*		*	33	
16984-48-8		Fluoride	T	mg/L	9056		*		*		*	0.277	
S0595- -		Nitrate & Nitrite	T	mg/L	9056		*		*		*	1.01	
14808-79-8		Sulfate	T	mg/L	9056		*		*		*	11.3	
NS1894		Barometric Pressure Reading	T	Inches/Hg	Field		*		*		*	29.55	
S0145- -		Specific Conductance	T	μMH0/cm	Field		*		*		*	344	

[1]AKGWA # is 0000-0000 for any type of blank.
[2]Respond "Y" if the sample was a duplicate of another sample in this report.
[3]Respond "Y" if the sample was split and analyzed by separate laboratories.
[4]Chemical Abstracts Service Registry Number or unique identifier number assigned by agency.
[5]"T" = Total; "D" = Dissolved
[6]"<" indicates a non-detect; do not use "ND" or "BDL". Value shown is Practical Quantification Limit.
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STANDARD FLAGS:
* = See Comments
J = Estimated Value
B = Analyte found in blank
A = Average value
N = Presumptive ID
D = Concentration from analysis of a secondary dilution

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

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

GROUNDWATER SAMPLE ANALYSIS - (Cont.)

AKGWA NUMBER[1], Facility Well/Spring Number						0000-0000		0000-0000		0000-0000		8000-5242	
Facility's Local Well or Spring Number (e.g., MW-1, MW-2, BLANK-F, etc.)						T. BLANK 4		T. BLANK 5		T. BLANK 6		222	
CAS RN[4]		CONSTITUENT	TD[5]	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS
S0906 - -		Static Water Level Elevation	T	Ft. MSL	Field		*		*		*	326.72	
N238		Dissolved Oxygen	T	mg/L	Field		*		*		*	3.02	
S0266- -		Total Dissolved Solids	T	mg/L	160.1		*		*		*	217	
S0296- -		pH	T	Units	Field		*		*		*	6.23	
NS215		Eh	T	mV	Field		*		*		*	510	
S0907 - -		Temperature	T	°C	Field		*		*		*	14.78	
7429-90-5		Aluminum	T	mg/L	6020		*		*		*	0.113	
7440-36-0		Antimony	T	mg/L	6020		*		*		*	<0.003	
7440-38-2		Arsenic	T	mg/L	6020		*		*		*	<0.005	
7440-39-3		Barium	T	mg/L	6020		*		*		*	0.281	*
7440-41-7		Beryllium	T	mg/L	6020		*		*		*	<0.0005	
7440-42-8		Boron	T	mg/L	6020		*		*		*	0.00928	J
7440-43-9		Cadmium	T	mg/L	6020		*		*		*	<0.001	
7440-70-2		Calcium	T	mg/L	6020		*		*		*	18.1	
7440-47-3		Chromium	T	mg/L	6020		*		*		*	0.00519	J
7440-48-4		Cobalt	T	mg/L	6020		*		*		*	0.00149	
7440-50-8		Copper	T	mg/L	6020		*		*		*	0.00103	
7439-89-6		Iron	T	mg/L	6020		*		*		*	0.276	
7439-92-1		Lead	T	mg/L	6020		*		*		*	<0.002	
7439-95-4		Magnesium	T	mg/L	6020		*		*		*	8.28	
7439-96-5		Manganese	T	mg/L	6020		*		*		*	0.0194	
7439-97-6		Mercury	T	mg/L	7470		*		*		*	<0.0002	

GROUNDWATER SAMPLE ANALYSIS - (Cont.)

AKGWA NUMBER[1], Facility Well/Spring Number						0000-0000		0000-0000		0000-0000		8000-5242	
Facility's Local Well or Spring Number (e.g., MW-1, MW-2, etc.)						T. BLANK 4		T. BLANK 5		T. BLANK 6		222	
CAS RN[4]		CONSTITUENT	TD[5]	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS
7439-98-7		Molybdenum	T	mg/L	6020		*		*		*	<0.0005	
7440-02-0		Nickel	T	mg/L	6020		*		*		*	0.0941	
7440-09-7		Potassium	T	mg/L	6020		*		*		*	0.425	
7440-16-6		Rhodium	T	mg/L	6020		*		*		*	<0.005	
7782-49-2		Selenium	T	mg/L	6020		*		*		*	<0.005	
7440-22-4		Silver	T	mg/L	6020		*		*		*	<0.001	
7440-23-5		Sodium	T	mg/L	6020		*		*		*	42.7	
7440-25-7		Tantalum	T	mg/L	6020		*		*		*	<0.005	
7440-28-0		Thallium	T	mg/L	6020		*		*		*	<0.002	
7440-61-1		Uranium	T	mg/L	6020		*		*		*	<0.0002	
7440-62-2		Vanadium	T	mg/L	6010		*		*		*	<0.005	
7440-66-6		Zinc	T	mg/L	6020		*		*		*	<0.01	
108-05-4		Vinyl acetate	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
67-64-1		Acetone	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
107-02-8		Acrolein	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
107-13-1		Acrylonitrile	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
71-43-2		Benzene	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
108-90-7		Chlorobenzene	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
1330-20-7		Xylenes	T	mg/L	8260	<0.003		<0.003		<0.003		<0.003	
100-42-5		Styrene	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
108-88-3		Toluene	T	mg/L	8260	0.014		0.0126		0.0341		0.00288	
74-97-5		Chlorobromomethane	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	

GROUNDWATER SAMPLE ANALYSIS - (Cont.)

AKGWA NUMBER[1], Facility Well/Spring Number						0000-0000		0000-0000		0000-0000		8000-5242	
Facility's Local Well or Spring Number (e.g., MW-1, MW-2, etc.)						T. BLANK 4		T. BLANK 5		T. BLANK 6		222	
CAS RN[4]		CONSTITUENT	TD[5]	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS
75-27-4		Bromodichloromethane	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
75-25-2		Tribromomethane	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
74-83-9		Methyl bromide	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
78-93-3		Methyl ethyl ketone	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
110-57-6		trans-1,4-Dichloro-2-butene	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
75-15-0		Carbon disulfide	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
75-00-3		Chloroethane	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
67-66-3		Chloroform	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
74-87-3		Methyl chloride	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
156-59-2		cis-1,2-Dichloroethene	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
74-95-3		Methylene bromide	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
75-34-3		1,1-Dichloroethane	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
107-06-2		1,2-Dichloroethane	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
75-35-4		1,1-Dichloroethylene	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
106-93-4		Ethane, 1,2-dibromo	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
79-34-5		Ethane, 1,1,2,2-Tetrachloro	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
71-55-6		Ethane, 1,1,1-Trichloro-	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
79-00-5		Ethane, 1,1,2-Trichloro	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
630-20-6		Ethane, 1,1,1,2-Tetrachloro	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
75-01-4		Vinyl chloride	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
127-18-4		Ethene, Tetrachloro-	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
79-01-6		Ethene, Trichloro-	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	

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

GROUNDWATER SAMPLE ANALYSIS - (Cont.)

AKGWA NUMBER[1], Facility Well/Spring Number						0000-0000		0000-0000		0000-0000		8000-5242	
Facility's Local Well or Spring Number (e.g., MW-1, MW-2, etc.)						T. BLANK 4		T. BLANK 5		T. BLANK 6		222	
CAS RN[4]		CONSTITUENT	TD[5]	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS
100-41-4		Ethylbenzene	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
591-78-6		2-Hexanone	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
74-88-4		Iodomethane	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
124-48-1		Methane, Dibromochloro-	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
56-23-5		Carbon Tetrachloride	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
75-09-2		Dichloromethane	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
108-10-1		Methyl isobutyl ketone	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
96-12-8		Propane, 1,2-Dibromo-3-chloro	T	mg/L	8011	<0.00002		<0.0000201		<0.0000201		<0.00002	
78-87-5		Propane, 1,2-Dichloro-	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
10061-02-6		trans-1,3-Dichloro-1-propene	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
10061-01-5		cis-1,3-Dichloro-1-propene	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
156-60-5		trans-1,2-Dichloroethene	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
75-69-4		Trichlorofluoromethane	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
96-18-4		1,2,3-Trichloropropane	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
95-50-1		Benzene, 1,2-Dichloro-	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
106-46-7		Benzene, 1,4-Dichloro-	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
1336-36-3		PCB,Total	T	ug/L	8082		*		*		*		*
12674-11-2		PCB-1016	T	ug/L	8082		*		*		*		*
11104-28-2		PCB-1221	T	ug/L	8082		*		*		*		*
11141-16-5		PCB-1232	T	ug/L	8082		*		*		*		*
53469-21-9		PCB-1242	T	ug/L	8082		*		*		*		*
12672-29-6		PCB-1248	T	ug/L	8082		*		*		*		*

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

GROUNDWATER SAMPLE ANALYSIS - (Cont.)

AKGWA NUMBER[1], Facility Well/Spring Number						0000-0000		0000-0000		0000-0000		8000-5242	
Facility's Local Well or Spring Number (e.g., MW-1, MW-2, etc.)						T. BLANK 4		T. BLANK 5		T. BLANK 6		222	
CAS RN[4]		CONSTITUENT	TD[5]	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS
11097-69-1		PCB-1254	T	ug/L	8082		*		*		*		*
11096-82-5		PCB-1260	T	ug/L	8082		*		*		*		*
11100-14-4		PCB-1268	T	ug/L	8082		*		*		*		*
12587-46-1		Gross Alpha	T	pCi/L	9310		*		*		*	-2.92	*
12587-47-2		Gross Beta	T	pCi/L	9310		*		*		*	-0.24	*
10043-66-0		Iodine-131	T	pCi/L			*		*		*		*
13982-63-3		Radium-226	T	pCi/L	903.1		*		*		*	0.789	*
10098-97-2		Strontium-90	T	pCi/L	905.0		*		*		*	0.19	*
14133-76-7		Technetium-99	T	pCi/L	Tc-02-RC		*		*		*	17.1	*
14269-63-7		Thorium-230	T	pCi/L	Th-01-RC		*		*		*	-1.58	*
10028-17-8		Tritium	T	pCi/L	906.0		*		*		*	-79.1	*
S0130- -		Chemical Oxygen Demand	T	mg/L	410.4		*		*		*	16.8	J
57-12-5		Cyanide	T	mg/L	9012		*		*		*	<0.005	
20461-54-5		Iodide	T	mg/L	300.0		*		*		*	<0.1	
S0268- -		Total Organic Carbon	T	mg/L	9060		*		*		*	0.911	J
S0586- -		Total Organic Halides	T	mg/L	9020		*		*		*	0.00484	J

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

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

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

GROUNDWATER SAMPLE ANALYSIS(S)

AKGWA NUMBER[1], Facility Well/Spring Number						8004-4815		8004-4816						
Facility's Local Well or Spring Number (e.g., MW-1, MW-2, etc.)						387		388						
Sample Sequence #						2		2						
If sample is a Blank, specify Type: (F)ield, (T)rip, (M)ethod, or (E)quipment						NA		NA						
Sample Date and Time (Month/Day/Year hour: minutes)						4/23/2014 08:21		4/23/2014 08:45						
Duplicate ("Y" or "N")[2]						N		N						
Split ("Y" or "N")[3]						N		N						
Facility Sample ID Number (if applicable)						MW387SG3-14-2		MW388SG3-14-2						
Laboratory Sample ID Number (if applicable)						160-6376-4		160-6376-5						
Date of Analysis (Month/Day/Year) For Volatile Organics Analysis						NA		NA						
Gradient with respect to Monitored Unit (UP, DOWN, SIDE, UNKNOWN)						DOWN		DOWN						
CAS RN[4]		CONSTITUENT	TD[5]	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL[6]	FLAGS[7]	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS
24959-67-9		Bromide	T	mg/L	9056		*		*		*		*
16887-00-6		Chloride(s)	T	mg/L	9056		*		*		*		*
16984-48-8		Fluoride	T	mg/L	9056		*		*		*		*
S0595- -		Nitrate & Nitrite	T	mg/L	9056		*		*		*		*
14808-79-8		Sulfate	T	mg/L	9056		*		*		*		*
NS1894		Barometric Pressure Reading	T	Inches/Hg	Field	30.08		30.08			*		*
S0145- -		Specific Conductance	T	μMH0/cm	Field	529		434			*		*

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

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

GROUNDWATER SAMPLE ANALYSIS - (Cont.)

AKGWA NUMBER[1], Facility Well/Spring Number						8004-4815		**8004-4816**					
Facility's Local Well or Spring Number (e.g., MW-1, MW-2, BLANK-F, etc.)						387		388					
CAS RN[4]		CONSTITUENT	TD[5]	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS
S0906 - -		Static Water Level Elevation	T	Ft. MSL	Field	327.05		326.99			*		*
N238		Dissolved Oxygen	T	mg/L	Field	4.05		4.22			*		*
S0266- -		Total Dissolved Solids	T	mg/L	160.1		*		*		*		*
S0296- -		pH	T	Units	Field	6.27		6.18			*		*
NS215		Eh	T	mV	Field	446		447			*		*
S0907 - -		Temperature	T	°C	Field	14.39		14.67			*		*
7429-90-5		Aluminum	T	mg/L	6020		*		*		*		*
7440-36-0		Antimony	T	mg/L	6020		*		*		*		*
7440-38-2		Arsenic	T	mg/L	6020		*		*		*		*
7440-39-3		Barium	T	mg/L	6020		*		*		*		*
7440-41-7		Beryllium	T	mg/L	6020		*		*		*		*
7440-42-8		Boron	T	mg/L	6020		*		*		*		*
7440-43-9		Cadmium	T	mg/L	6020		*		*		*		*
7440-70-2		Calcium	T	mg/L	6020		*		*		*		*
7440-47-3		Chromium	T	mg/L	6020		*		*		*		*
7440-48-4		Cobalt	T	mg/L	6020		*		*		*		*
7440-50-8		Copper	T	mg/L	6020		*		*		*		*
7439-89-6		Iron	T	mg/L	6020		*		*		*		*
7439-92-1		Lead	T	mg/L	6020		*		*		*		*
7439-95-4		Magnesium	T	mg/L	6020		*		*		*		*
7439-96-5		Manganese	T	mg/L	6020		*		*		*		*
7439-97-6		Mercury	T	mg/L	7470		*		*		*		*

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

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

GROUNDWATER SAMPLE ANALYSIS - (Cont.)

AKGWA NUMBER[1], Facility Well/Spring Number						8004-4815		8004-4816					
Facility's Local Well or Spring Number (e.g., MW-1, MW-2, etc.)						387		388					
CAS RN[4]		CONSTITUENT	TD[5]	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS
11097-69-1		PCB-1254	T	ug/L	8082		*		*		*		*
11096-82-5		PCB-1260	T	ug/L	8082		*		*		*		*
11100-14-4		PCB-1268	T	ug/L	8082		*		*		*		*
12587-46-1		Gross Alpha	T	pCi/L	9310		*		*		*		*
12587-47-2		Gross Beta	T	pCi/L	9310		*		*		*		*
10043-66-0		Iodine-131	T	pCi/L			*		*		*		*
13982-63-3		Radium-226	T	pCi/L	903.1		*		*		*		*
10098-97-2		Strontium-90	T	pCi/L	905.0		*		*		*		*
14133-76-7		Technetium-99	T	pCi/L	Tc-02-RC		*		*		*		*
14269-63-7		Thorium-230	T	pCi/L	Th-01-RC		*		*		*		*
10028-17-8		Tritium	T	pCi/L	906.0		*		*		*		*
S0130- -		Chemical Oxygen Demand	T	mg/L	410.4		*		*		*		*
57-12-5		Cyanide	T	mg/L	9012		*		*		*		*
20461-54-5		Iodide	T	mg/L	300.0	<0.1		<0.1			*		*
S0268- -		Total Organic Carbon	T	mg/L	9060		*		*		*		*
S0586- -		Total Organic Halides	T	mg/L	9020		*		*		*		*

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

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

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

GROUNDWATER
WRITTEN COMMENTS

Monitoring Point	Facility Sample ID	Constituent	Flag	Description
8000-5201 MW220	MW220SG3-14	Barium	E	Result estimated due to interferences.
		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 4.35. Rad error is 4.35.
		Gross beta		TPU is 5.28. Rad error is 5.09.
		Iodine-131		Analysis of constituent not required and not performed.
		Radium-226	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 1.43. Rad error is 1.41.
		Strontium-90	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 1.23. Rad error is 1.23.
		Technetium-99		TPU is 12.8. Rad error is 12.5.
		Thorium-230	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 1.38. Rad error is 1.38.
		Tritium	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 130. Rad error is 130.

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

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

GROUNDWATER
WRITTEN COMMENTS

Monitoring Point	Facility Sample ID	Constituent	Flag	Description
8000-5202 MW221	MW221SG3-14	Barium	E	Result estimated due to interferences.
		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 3.56. Rad error is 3.56.
		Gross beta	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 4.12. Rad error is 3.97.
		Iodine-131		Analysis of constituent not required and not performed.
		Radium-226	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 1.79. Rad error is 1.75.
		Strontium-90	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 2.47. Rad error is 2.47.
		Technetium-99	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 12.7. Rad error is 12.6.
		Thorium-230	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 2.46. Rad error is 2.43.
		Tritium	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 136. Rad error is 136.

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

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

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WRITTEN COMMENTS

Monitoring Point	Facility Sample ID	Constituent	Flag	Description
8000-5242 MW222	MW222SG3-14	Barium	E	Result estimated due to interferences.
		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 4.02. Rad error is 4.02.
		Gross beta	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 4.55. Rad error is 4.54.
		Iodine-131		Analysis of constituent not required and not performed.
		Radium-226		TPU is 2.13. Rad error is 2.02.
		Strontium-90	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 2.53. Rad error is 2.52.
		Technetium-99	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 12.7. Rad error is 12.6.
		Thorium-230	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 2.45. Rad error is 2.42.
		Tritium	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 127. Rad error is 127.

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

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GROUNDWATER
WRITTEN COMMENTS

Monitoring Point	Facility Sample ID	Constituent	Flag	Description
8000-5243 MW223	MW223SG3-14	Barium	E	Result estimated due to interferences.
		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 3. Rad error is 3.
		Gross beta	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 5.08. Rad error is 5.08.
		Iodine-131		Analysis of constituent not required and not performed.
		Radium-226	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 1.37. Rad error is 1.33.
		Strontium-90	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 1.38. Rad error is 1.38.
		Technetium-99	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 12.9. Rad error is 12.7.
		Thorium-230	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 2.49. Rad error is 2.49.
		Tritium	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 128. Rad error is 128.

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

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WRITTEN COMMENTS

Monitoring Point	Facility Sample ID	Constituent	Flag	Description
8000-5244 MW224	MW224SG3-14	Barium	E	Result estimated due to interferences.
		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 2.08. Rad error is 2.07.
		Gross beta	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 3.78. Rad error is 3.78.
		Iodine-131		Analysis of constituent not required and not performed.
		Radium-226	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 1.47. Rad error is 1.44.
		Strontium-90	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 1.63. Rad error is 1.62.
		Technetium-99	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 12.6. Rad error is 12.5.
		Thorium-230	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 2.23. Rad error is 2.22.
		Tritium	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 136. Rad error is 136.
8004-4820 MW369	MW369UG3-14	Tantalum	N	Sample spike recovery not within control limits.
		Gross alpha	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 6.95. Rad error is 6.91.
		Gross beta		TPU is 8.28. Rad error is 7.88.
		Iodine-131		Analysis of constituent not required and not performed.
		Radium-226		TPU is 1.86. Rad error is 1.81.
		Strontium-90	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 2.22. Rad error is 2.22.
		Technetium-99		TPU is 15.3. Rad error is 14.8.
		Thorium-230	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 3.54. Rad error is 3.52.
		Tritium	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 136. Rad error is 136.

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

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Monitoring Point	Facility Sample ID	Constituent	Flag	Description
8004-4818 MW370	MW370UG3-14	Tantalum	N	Sample spike recovery not within control limits.
		Gross alpha	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 4.08. Rad error is 4.08.
		Gross beta		TPU is 10.9. Rad error is 9.99.
		Iodine-131		Analysis of constituent not required and not performed.
		Radium-226		TPU is 1.32. Rad error is 1.28.
		Strontium-90	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 3.16. Rad error is 3.09.
		Technetium-99		TPU is 14.4. Rad error is 14.1.
		Thorium-230	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 4.21. Rad error is 4.19.
		Tritium	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 140. Rad error is 140.
8004-4808 MW372	MW372UG3-14	Gross alpha	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 4.07. Rad error is 4.07.
		Gross beta	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 5.88. Rad error is 5.75.
		Iodine-131		Analysis of constituent not required and not performed.
		Radium-226	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 1.56. Rad error is 1.56.
		Strontium-90	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 2.01. Rad error is 2.01.
		Technetium-99	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 12.5. Rad error is 12.4.
		Thorium-230	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 3.03. Rad error is 3.
		Tritium	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 107. Rad error is 106.
8004-4792 MW373	MW373UG3-14	Gross alpha	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 4.84. Rad error is 4.84.
		Gross beta		TPU is 8.11. Rad error is 7.49.
		Iodine-131		Analysis of constituent not required and not performed.
		Radium-226	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 1.66. Rad error is 1.61.
		Strontium-90	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 2.71. Rad error is 2.71.
		Technetium-99		TPU is 14.9. Rad error is 14.1.
		Thorium-230	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 4.34. Rad error is 4.26.
		Tritium	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 88.7. Rad error is 88.7.

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Monitoring Point	Facility Sample ID	Constituent	Flag	Description
8004-4809 MW384	MW384SG3-14	Barium	E	Result estimated due to interferences.
		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 3.73. Rad error is 3.72.
		Gross beta		TPU is 21.9. Rad error is 12.9.
		Iodine-131		Analysis of constituent not required and not performed.
		Radium-226		TPU is 1.75. Rad error is 1.7.
		Strontium-90	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 1.44. Rad error is 1.44.
		Technetium-99		TPU is 32.2. Rad error is 19.8.
		Thorium-230	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 1.83. Rad error is 1.83.
		Tritium	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 133. Rad error is 133.

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

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

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WRITTEN COMMENTS

Monitoring Point	Facility Sample ID	Constituent	Flag	Description
8004-4810 MW385	MW385SG3-14	Barium	E	Result estimated due to interferences.
		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 4.44. Rad error is 4.44.
		Gross beta		TPU is 21.6. Rad error is 13.1.
		Iodine-131		Analysis of constituent not required and not performed.
		Radium-226	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 1.07. Rad error is 1.07.
		Strontium-90	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 1.61. Rad error is 1.61.
		Technetium-99		TPU is 24.8. Rad error is 17.8.
		Thorium-230	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 2.64. Rad error is 2.6.
		Tritium	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 131. Rad error is 131.

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

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Monitoring Point	Facility Sample ID	Constituent	Flag	Description
8004-4804 MW386	MW386SG3-14	Barium	E	Result estimated due to interferences.
		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 3.36. Rad error is 3.36.
		Gross beta	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 3.11. Rad error is 3.11.
		Iodine-131		Analysis of constituent not required and not performed.
		Radium-226	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 1.18. Rad error is 1.17.
		Strontium-90	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 1.7. Rad error is 1.7.
		Technetium-99	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 12.2. Rad error is 12.1.
		Thorium-230	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 1.63. Rad error is 1.62.
		Tritium	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 135. Rad error is 135.

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Monitoring Point	Facility Sample ID	Constituent	Flag	Description
8004-4815 MW387	MW387SG3-14	Barium	E	Result estimated due to interferences.
		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 3.68. Rad error is 3.68.
		Gross beta		TPU is 23.5. Rad error is 13.2.
		Iodine-131		Analysis of constituent not required and not performed.
		Radium-226		TPU is 1.57. Rad error is 1.51.
		Strontium-90	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 1.66. Rad error is 1.63.
		Technetium-99		TPU is 29.2. Rad error is 19.
		Thorium-230	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 1.79. Rad error is 1.79.
		Tritium	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 136. Rad error is 136.
		Iodide		Collected during a second sampling event.

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

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WRITTEN COMMENTS

Monitoring Point	Facility Sample ID	Constituent	Flag	Description
8004-4816 MW388	MW388SG3-14	Barium	E	Result estimated due to interferences.
		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 4.16. Rad error is 4.11.
		Gross beta		TPU is 13.3. Rad error is 9.77.
		Iodine-131		Analysis of constituent not required and not performed.
		Radium-226		TPU is 1.6. Rad error is 1.55.
		Strontium-90	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 1.79. Rad error is 1.79.
		Technetium-99		TPU is 21. Rad error is 16.6.
		Thorium-230	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 3.84. Rad error is 3.84.
		Tritium	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 126. Rad error is 126.
		Iodide		Collected during a second sampling event.

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

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

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

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

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

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

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

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Monitoring Point	Facility Sample ID	Constituent	Flag	Description
8004-4812 MW389		Thorium-230		During sampling, the well was dry; therefore, no sample was collected.
		Tritium		During sampling, the well was dry; therefore, no sample was collected.
		Chemical Oxygen Demand		During sampling, the well was dry; therefore, no sample was collected.
		Cyanide		During sampling, the well was dry; therefore, no sample was collected.
		Iodide		During sampling, the well was dry; therefore, no sample was collected.
		Total Organic Carbon		During sampling, the well was dry; therefore, no sample was collected.
		Total Organic Halides		During sampling, the well was dry; therefore, no sample was collected.
8004-4811 MW390	MW390SG3-14	Barium	E	Result estimated due to interferences.
		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 5.15. Rad error is 5.15.
		Gross beta		TPU is 10.8. Rad error is 8.59.
		Iodine-131		Analysis of constituent not required and not performed.
		Radium-226		TPU is 1.69. Rad error is 1.64.
		Strontium-90	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 1.59. Rad error is 1.59.
		Technetium-99		TPU is 17.4. Rad error is 15.3.
		Thorium-230	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 2.57. Rad error is 2.52.
		Tritium	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 131. Rad error is 131.

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Monitoring Point	Facility Sample ID	Constituent	Flag	Description
8004-4805 MW391	MW391SG3-14	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 3.73. Rad error is 3.73.
		Gross beta	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 5.57. Rad error is 5.57.
		Iodine-131		Analysis of constituent not required and not performed.
		Radium-226		TPU is 1.69. Rad error is 1.64.
		Strontium-90	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 1.79. Rad error is 1.79.
		Technetium-99	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 11.2. Rad error is 11.2.
		Thorium-230	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 1.92. Rad error is 1.91.
		Tritium	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 110. Rad error is 109.

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Monitoring Point	Facility Sample ID	Constituent	Flag	Description
8004-4806 MW392	MW392SG3-14	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 3.58. Rad error is 3.57.
		Gross beta	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 3.66. Rad error is 3.66.
		Iodine-131		Analysis of constituent not required and not performed.
		Radium-226		TPU is 1.75. Rad error is 1.7.
		Strontium-90	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 1.9. Rad error is 1.9.
		Technetium-99	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 11.5. Rad error is 11.4.
		Thorium-230	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 5.23. Rad error is 5.22.
		Tritium	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 101. Rad error is 100.

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Monitoring Point	Facility Sample ID	Constituent	Flag	Description
8004-4807 MW393	MW393SG3-14	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 5.07. Rad error is 5.07.
		Gross beta	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 5. Rad error is 4.99.
		Iodine-131		Analysis of constituent not required and not performed.
		Radium-226	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.943. Rad error is 0.932.
		Strontium-90	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 1.5. Rad error is 1.5.
		Technetium-99	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 10.3. Rad error is 10.3.
		Thorium-230	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 3.27. Rad error is 3.26.
		Tritium	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 88.7. Rad error is 88.7.

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Monitoring Point	Facility Sample ID	Constituent	Flag	Description
8004-4802 MW394	MW394SG3-14	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 6.4. Rad error is 6.27.
		Gross beta	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 6.48. Rad error is 6.39.
		Iodine-131		Analysis of constituent not required and not performed.
		Radium-226		TPU is 2.22. Rad error is 2.08.
		Strontium-90	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 1.12. Rad error is 1.12.
		Technetium-99	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 11.2. Rad error is 11.2.
		Thorium-230	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 2.77. Rad error is 2.76.
		Tritium	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 90.5. Rad error is 90.5.

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Monitoring Point	Facility Sample ID	Constituent	Flag	Description
8004-4801 MW395	MW395SG3-14	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 4.28. Rad error is 4.28.
		Gross beta	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 4.26. Rad error is 4.24.
		Iodine-131		Analysis of constituent not required and not performed.
		Radium-226	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 1.58. Rad error is 1.55.
		Strontium-90	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 1.57. Rad error is 1.57.
		Technetium-99	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 11.5. Rad error is 11.4.
		Thorium-230	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 5.02. Rad error is 4.92.
		Tritium	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 115. Rad error is 113.

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Monitoring Point	Facility Sample ID	Constituent	Flag	Description
8004-4803 MW396	MW396SG3-14	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 3.71. Rad error is 3.7.
		Gross beta	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 4.25. Rad error is 4.24.
		Iodine-131		Analysis of constituent not required and not performed.
		Radium-226	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 1.78. Rad error is 1.75.
		Strontium-90	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 2.95. Rad error is 2.92.
		Technetium-99	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 11.4. Rad error is 11.4.
		Thorium-230	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 3.12. Rad error is 3.1.
		Tritium	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 89.5. Rad error is 89.5.

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WRITTEN COMMENTS

Monitoring Point	Facility Sample ID	Constituent	Flag	Description
8004-4817 MW397	MW397SG3-14	Barium	E	Result estimated due to interferences.
		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 3.89. Rad error is 3.88.
		Gross beta	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 4.47. Rad error is 4.4.
		Iodine-131		Analysis of constituent not required and not performed.
		Radium-226		TPU is 1.91. Rad error is 1.84.
		Strontium-90	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 1.93. Rad error is 1.93.
		Technetium-99	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 12.5. Rad error is 12.4.
		Thorium-230	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 1.97. Rad error is 1.97.
		Tritium	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 133. Rad error is 133.

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Monitoring Point	Facility Sample ID	Constituent	Flag	Description
0000-0000 QC	RI1SG3-14	Bromide		Analysis of constituent not required and not performed.
		Chloride		Analysis of constituent not required and not performed.
		Fluoride		Analysis of constituent not required and not performed.
		Nitrate & Nitrite		Analysis of constituent not required and not performed.
		Sulfate		Analysis of constituent not required and not performed.
		Barometric Pressure Reading		Analysis of constituent not required and not performed.
		Specific Conductance		Analysis of constituent not required and not performed.
		Static Water Level Elevation		Analysis of constituent not required and not performed.
		Dissolved Oxygen		Analysis of constituent not required and not performed.
		Total Dissolved Solids		Analysis of constituent not required and not performed.
		pH		Analysis of constituent not required and not performed.
		Eh		Analysis of constituent not required and not performed.
		Temperature		Analysis of constituent not required and not performed.
		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 2.41. Rad error is 2.41.
		Gross beta	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 4.9. Rad error is 4.82.
		Iodine-131		Analysis of constituent not required and not performed.
		Radium-226	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 1.81. Rad error is 1.73.
		Strontium-90	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 1.55. Rad error is 1.55.
		Technetium-99	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 11. Rad error is 10.9.
		Thorium-230	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 2.4. Rad error is 2.38.
		Tritium	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 119. Rad error is 115.
		Chemical Oxygen Demand		Analysis of constituent not required and not performed.
		Cyanide		Analysis of constituent not required and not performed.
		Total Organic Carbon		Analysis of constituent not required and not performed.
		Total Organic Halides		Analysis of constituent not required and not performed.

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

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WRITTEN COMMENTS

Monitoring Point	Facility Sample ID	Constituent	Flag	Description
0000-0000 QC	FB1SG3-14	Bromide		Analysis of constituent not required and not performed.
		Chloride		Analysis of constituent not required and not performed.
		Fluoride		Analysis of constituent not required and not performed.
		Nitrate & Nitrite		Analysis of constituent not required and not performed.
		Sulfate		Analysis of constituent not required and not performed.
		Barometric Pressure Reading		Analysis of constituent not required and not performed.
		Specific Conductance		Analysis of constituent not required and not performed.
		Static Water Level Elevation		Analysis of constituent not required and not performed.
		Dissolved Oxygen		Analysis of constituent not required and not performed.
		Total Dissolved Solids		Analysis of constituent not required and not performed.
		pH		Analysis of constituent not required and not performed.
		Eh		Analysis of constituent not required and not performed.
		Temperature		Analysis of constituent not required and not performed.
		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 2.99. Rad error is 2.99.
		Gross beta	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 3.1. Rad error is 3.1.
		Iodine-131		Analysis of constituent not required and not performed.
		Radium-226		TPU is 1.82. Rad error is 1.75.
		Strontium-90	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 3.16. Rad error is 3.13.
		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 5.16. Rad error is 5.04.
		Tritium	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 92.2. Rad error is 92.1.
		Chemical Oxygen Demand		Analysis of constituent not required and not performed.
		Cyanide		Analysis of constituent not required and not performed.
		Total Organic Carbon		Analysis of constituent not required and not performed.
		Total Organic Halides		Analysis of constituent not required and not performed.

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

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

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

GROUNDWATER
WRITTEN COMMENTS

Monitoring Point	Facility Sample ID	Constituent	Flag	Description
0000-0000 QC	TB1SG3-14	Bromide		Analysis of constituent not required and not performed.
		Chloride		Analysis of constituent not required and not performed.
		Fluoride		Analysis of constituent not required and not performed.
		Nitrate & Nitrite		Analysis of constituent not required and not performed.
		Sulfate		Analysis of constituent not required and not performed.
		Barometric Pressure Reading		Analysis of constituent not required and not performed.
		Specific Conductance		Analysis of constituent not required and not performed.
		Static Water Level Elevation		Analysis of constituent not required and not performed.
		Dissolved Oxygen		Analysis of constituent not required and not performed.
		Total Dissolved Solids		Analysis of constituent not required and not performed.
		pH		Analysis of constituent not required and not performed.
		Eh		Analysis of constituent not required and not performed.
		Temperature		Analysis of constituent not required and not performed.
		Aluminum		Analysis of constituent not required and not performed.
		Antimony		Analysis of constituent not required and not performed.
		Arsenic		Analysis of constituent not required and not performed.
		Barium		Analysis of constituent not required and not performed.
		Beryllium		Analysis of constituent not required and not performed.
		Boron		Analysis of constituent not required and not performed.
		Cadmium		Analysis of constituent not required and not performed.
		Calcium		Analysis of constituent not required and not performed.
		Chromium		Analysis of constituent not required and not performed.
		Cobalt		Analysis of constituent not required and not performed.
		Copper		Analysis of constituent not required and not performed.
		Iron		Analysis of constituent not required and not performed.
		Lead		Analysis of constituent not required and not performed.
		Magnesium		Analysis of constituent not required and not performed.
		Manganese		Analysis of constituent not required and not performed.
		Mercury		Analysis of constituent not required and not performed.
		Molybdenum		Analysis of constituent not required and not performed.
		Nickel		Analysis of constituent not required and not performed.
		Potassium		Analysis of constituent not required and not performed.
		Rhodium		Analysis of constituent not required and not performed.
		Selenium		Analysis of constituent not required and not performed.
		Silver		Analysis of constituent not required and not performed.
		Sodium		Analysis of constituent not required and not performed.
		Tantalum		Analysis of constituent not required and not performed.
		Thallium		Analysis of constituent not required and not performed.
		Uranium		Analysis of constituent not required and not performed.

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

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

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

GROUNDWATER
WRITTEN COMMENTS

Monitoring Point	Facility Sample ID	Constituent	Flag	Description
0000-0000 QC	TB1SG3-14	Vanadium		Analysis of constituent not required and not performed.
		Zinc		Analysis of constituent not required and not performed.
		PCB, Total		Analysis of constituent not required and not performed.
		PCB-1016		Analysis of constituent not required and not performed.
		PCB-1221		Analysis of constituent not required and not performed.
		PCB-1232		Analysis of constituent not required and not performed.
		PCB-1242		Analysis of constituent not required and not performed.
		PCB-1248		Analysis of constituent not required and not performed.
		PCB-1254		Analysis of constituent not required and not performed.
		PCB-1260		Analysis of constituent not required and not performed.
		PCB-1268		Analysis of constituent not required and not performed.
		Gross alpha		Analysis of constituent not required and not performed.
		Gross beta		Analysis of constituent not required and not performed.
		Iodine-131		Analysis of constituent not required and not performed.
		Radium-226		Analysis of constituent not required and not performed.
		Strontium-90		Analysis of constituent not required and not performed.
		Technetium-99		Analysis of constituent not required and not performed.
		Thorium-230		Analysis of constituent not required and not performed.
		Tritium		Analysis of constituent not required and not performed.
		Chemical Oxygen Demand		Analysis of constituent not required and not performed.
		Cyanide		Analysis of constituent not required and not performed.
		Iodide		Analysis of constituent not required and not performed.
		Total Organic Carbon		Analysis of constituent not required and not performed.
		Total Organic Halides		Analysis of constituent not required and not performed.

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

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

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

GROUNDWATER
WRITTEN COMMENTS

Monitoring Point	Facility Sample ID	Constituent	Flag	Description
0000-0000 QC	TB2SG3-14	Bromide		Analysis of constituent not required and not performed.
		Chloride		Analysis of constituent not required and not performed.
		Fluoride		Analysis of constituent not required and not performed.
		Nitrate & Nitrite		Analysis of constituent not required and not performed.
		Sulfate		Analysis of constituent not required and not performed.
		Barometric Pressure Reading		Analysis of constituent not required and not performed.
		Specific Conductance		Analysis of constituent not required and not performed.
		Static Water Level Elevation		Analysis of constituent not required and not performed.
		Dissolved Oxygen		Analysis of constituent not required and not performed.
		Total Dissolved Solids		Analysis of constituent not required and not performed.
		pH		Analysis of constituent not required and not performed.
		Eh		Analysis of constituent not required and not performed.
		Temperature		Analysis of constituent not required and not performed.
		Aluminum		Analysis of constituent not required and not performed.
		Antimony		Analysis of constituent not required and not performed.
		Arsenic		Analysis of constituent not required and not performed.
		Barium		Analysis of constituent not required and not performed.
		Beryllium		Analysis of constituent not required and not performed.
		Boron		Analysis of constituent not required and not performed.
		Cadmium		Analysis of constituent not required and not performed.
		Calcium		Analysis of constituent not required and not performed.
		Chromium		Analysis of constituent not required and not performed.
		Cobalt		Analysis of constituent not required and not performed.
		Copper		Analysis of constituent not required and not performed.
		Iron		Analysis of constituent not required and not performed.
		Lead		Analysis of constituent not required and not performed.
		Magnesium		Analysis of constituent not required and not performed.
		Manganese		Analysis of constituent not required and not performed.
		Mercury		Analysis of constituent not required and not performed.
		Molybdenum		Analysis of constituent not required and not performed.
		Nickel		Analysis of constituent not required and not performed.
		Potassium		Analysis of constituent not required and not performed.
		Rhodium		Analysis of constituent not required and not performed.
		Selenium		Analysis of constituent not required and not performed.
		Silver		Analysis of constituent not required and not performed.
		Sodium		Analysis of constituent not required and not performed.
		Tantalum		Analysis of constituent not required and not performed.
		Thallium		Analysis of constituent not required and not performed.
		Uranium		Analysis of constituent not required and not performed.

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

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

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

GROUNDWATER
WRITTEN COMMENTS

Monitoring Point	Facility Sample ID	Constituent	Flag	Description
0000-0000 QC	TB2SG3-14	Vanadium		Analysis of constituent not required and not performed.
		Zinc		Analysis of constituent not required and not performed.
		PCB, Total		Analysis of constituent not required and not performed.
		PCB-1016		Analysis of constituent not required and not performed.
		PCB-1221		Analysis of constituent not required and not performed.
		PCB-1232		Analysis of constituent not required and not performed.
		PCB-1242		Analysis of constituent not required and not performed.
		PCB-1248		Analysis of constituent not required and not performed.
		PCB-1254		Analysis of constituent not required and not performed.
		PCB-1260		Analysis of constituent not required and not performed.
		PCB-1268		Analysis of constituent not required and not performed.
		Gross alpha		Analysis of constituent not required and not performed.
		Gross beta		Analysis of constituent not required and not performed.
		Iodine-131		Analysis of constituent not required and not performed.
		Radium-226		Analysis of constituent not required and not performed.
		Strontium-90		Analysis of constituent not required and not performed.
		Technetium-99		Analysis of constituent not required and not performed.
		Thorium-230		Analysis of constituent not required and not performed.
		Tritium		Analysis of constituent not required and not performed.
		Chemical Oxygen Demand		Analysis of constituent not required and not performed.
		Cyanide		Analysis of constituent not required and not performed.
		Iodide		Analysis of constituent not required and not performed.
		Total Organic Carbon		Analysis of constituent not required and not performed.
		Total Organic Halides		Analysis of constituent not required and not performed.

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

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

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

GROUNDWATER
WRITTEN COMMENTS

Monitoring Point	Facility Sample ID	Constituent	Flag	Description
0000-0000 QC	TB3SG3-14	Bromide		Analysis of constituent not required and not performed.
		Chloride		Analysis of constituent not required and not performed.
		Fluoride		Analysis of constituent not required and not performed.
		Nitrate & Nitrite		Analysis of constituent not required and not performed.
		Sulfate		Analysis of constituent not required and not performed.
		Barometric Pressure Reading		Analysis of constituent not required and not performed.
		Specific Conductance		Analysis of constituent not required and not performed.
		Static Water Level Elevation		Analysis of constituent not required and not performed.
		Dissolved Oxygen		Analysis of constituent not required and not performed.
		Total Dissolved Solids		Analysis of constituent not required and not performed.
		pH		Analysis of constituent not required and not performed.
		Eh		Analysis of constituent not required and not performed.
		Temperature		Analysis of constituent not required and not performed.
		Aluminum		Analysis of constituent not required and not performed.
		Antimony		Analysis of constituent not required and not performed.
		Arsenic		Analysis of constituent not required and not performed.
		Barium		Analysis of constituent not required and not performed.
		Beryllium		Analysis of constituent not required and not performed.
		Boron		Analysis of constituent not required and not performed.
		Cadmium		Analysis of constituent not required and not performed.
		Calcium		Analysis of constituent not required and not performed.
		Chromium		Analysis of constituent not required and not performed.
		Cobalt		Analysis of constituent not required and not performed.
		Copper		Analysis of constituent not required and not performed.
		Iron		Analysis of constituent not required and not performed.
		Lead		Analysis of constituent not required and not performed.
		Magnesium		Analysis of constituent not required and not performed.
		Manganese		Analysis of constituent not required and not performed.
		Mercury		Analysis of constituent not required and not performed.
		Molybdenum		Analysis of constituent not required and not performed.
		Nickel		Analysis of constituent not required and not performed.
		Potassium		Analysis of constituent not required and not performed.
		Rhodium		Analysis of constituent not required and not performed.
		Selenium		Analysis of constituent not required and not performed.
		Silver		Analysis of constituent not required and not performed.
		Sodium		Analysis of constituent not required and not performed.
		Tantalum		Analysis of constituent not required and not performed.
		Thallium		Analysis of constituent not required and not performed.
		Uranium		Analysis of constituent not required and not performed.

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

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

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

GROUNDWATER
WRITTEN COMMENTS

Monitoring Point	Facility Sample ID	Constituent	Flag	Description
0000-0000 QC	TB3SG3-14	Vanadium		Analysis of constituent not required and not performed.
		Zinc		Analysis of constituent not required and not performed.
		PCB, Total		Analysis of constituent not required and not performed.
		PCB-1016		Analysis of constituent not required and not performed.
		PCB-1221		Analysis of constituent not required and not performed.
		PCB-1232		Analysis of constituent not required and not performed.
		PCB-1242		Analysis of constituent not required and not performed.
		PCB-1248		Analysis of constituent not required and not performed.
		PCB-1254		Analysis of constituent not required and not performed.
		PCB-1260		Analysis of constituent not required and not performed.
		PCB-1268		Analysis of constituent not required and not performed.
		Gross alpha		Analysis of constituent not required and not performed.
		Gross beta		Analysis of constituent not required and not performed.
		Iodine-131		Analysis of constituent not required and not performed.
		Radium-226		Analysis of constituent not required and not performed.
		Strontium-90		Analysis of constituent not required and not performed.
		Technetium-99		Analysis of constituent not required and not performed.
		Thorium-230		Analysis of constituent not required and not performed.
		Tritium		Analysis of constituent not required and not performed.
		Chemical Oxygen Demand		Analysis of constituent not required and not performed.
		Cyanide		Analysis of constituent not required and not performed.
		Iodide		Analysis of constituent not required and not performed.
		Total Organic Carbon		Analysis of constituent not required and not performed.
		Total Organic Halides		Analysis of constituent not required and not performed.

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

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

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

GROUNDWATER
WRITTEN COMMENTS

Monitoring Point	Facility Sample ID	Constituent	Flag	Description
0000-0000 QC	TB4SG3-14	Bromide		Analysis of constituent not required and not performed.
		Chloride		Analysis of constituent not required and not performed.
		Fluoride		Analysis of constituent not required and not performed.
		Nitrate & Nitrite		Analysis of constituent not required and not performed.
		Sulfate		Analysis of constituent not required and not performed.
		Barometric Pressure Reading		Analysis of constituent not required and not performed.
		Specific Conductance		Analysis of constituent not required and not performed.
		Static Water Level Elevation		Analysis of constituent not required and not performed.
		Dissolved Oxygen		Analysis of constituent not required and not performed.
		Total Dissolved Solids		Analysis of constituent not required and not performed.
		pH		Analysis of constituent not required and not performed.
		Eh		Analysis of constituent not required and not performed.
		Temperature		Analysis of constituent not required and not performed.
		Aluminum		Analysis of constituent not required and not performed.
		Antimony		Analysis of constituent not required and not performed.
		Arsenic		Analysis of constituent not required and not performed.
		Barium		Analysis of constituent not required and not performed.
		Beryllium		Analysis of constituent not required and not performed.
		Boron		Analysis of constituent not required and not performed.
		Cadmium		Analysis of constituent not required and not performed.
		Calcium		Analysis of constituent not required and not performed.
		Chromium		Analysis of constituent not required and not performed.
		Cobalt		Analysis of constituent not required and not performed.
		Copper		Analysis of constituent not required and not performed.
		Iron		Analysis of constituent not required and not performed.
		Lead		Analysis of constituent not required and not performed.
		Magnesium		Analysis of constituent not required and not performed.
		Manganese		Analysis of constituent not required and not performed.
		Mercury		Analysis of constituent not required and not performed.
		Molybdenum		Analysis of constituent not required and not performed.
		Nickel		Analysis of constituent not required and not performed.
		Potassium		Analysis of constituent not required and not performed.
		Rhodium		Analysis of constituent not required and not performed.
		Selenium		Analysis of constituent not required and not performed.
		Silver		Analysis of constituent not required and not performed.
		Sodium		Analysis of constituent not required and not performed.
		Tantalum		Analysis of constituent not required and not performed.
		Thallium		Analysis of constituent not required and not performed.
		Uranium		Analysis of constituent not required and not performed.

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

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

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

GROUNDWATER
WRITTEN COMMENTS

Monitoring Point	Facility Sample ID	Constituent	Flag	Description
0000-0000 QC	TB4SG3-14	Vanadium		Analysis of constituent not required and not performed.
		Zinc		Analysis of constituent not required and not performed.
		PCB, Total		Analysis of constituent not required and not performed.
		PCB-1016		Analysis of constituent not required and not performed.
		PCB-1221		Analysis of constituent not required and not performed.
		PCB-1232		Analysis of constituent not required and not performed.
		PCB-1242		Analysis of constituent not required and not performed.
		PCB-1248		Analysis of constituent not required and not performed.
		PCB-1254		Analysis of constituent not required and not performed.
		PCB-1260		Analysis of constituent not required and not performed.
		PCB-1268		Analysis of constituent not required and not performed.
		Gross alpha		Analysis of constituent not required and not performed.
		Gross beta		Analysis of constituent not required and not performed.
		Iodine-131		Analysis of constituent not required and not performed.
		Radium-226		Analysis of constituent not required and not performed.
		Strontium-90		Analysis of constituent not required and not performed.
		Technetium-99		Analysis of constituent not required and not performed.
		Thorium-230		Analysis of constituent not required and not performed.
		Tritium		Analysis of constituent not required and not performed.
		Chemical Oxygen Demand		Analysis of constituent not required and not performed.
		Cyanide		Analysis of constituent not required and not performed.
		Iodide		Analysis of constituent not required and not performed.
		Total Organic Carbon		Analysis of constituent not required and not performed.
		Total Organic Halides		Analysis of constituent not required and not performed.

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

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

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

GROUNDWATER
WRITTEN COMMENTS

Monitoring Point	Facility Sample ID	Constituent	Flag	Description
0000-0000 QC	TB5SG3-14	Bromide		Analysis of constituent not required and not performed.
		Chloride		Analysis of constituent not required and not performed.
		Fluoride		Analysis of constituent not required and not performed.
		Nitrate & Nitrite		Analysis of constituent not required and not performed.
		Sulfate		Analysis of constituent not required and not performed.
		Barometric Pressure Reading		Analysis of constituent not required and not performed.
		Specific Conductance		Analysis of constituent not required and not performed.
		Static Water Level Elevation		Analysis of constituent not required and not performed.
		Dissolved Oxygen		Analysis of constituent not required and not performed.
		Total Dissolved Solids		Analysis of constituent not required and not performed.
		pH		Analysis of constituent not required and not performed.
		Eh		Analysis of constituent not required and not performed.
		Temperature		Analysis of constituent not required and not performed.
		Aluminum		Analysis of constituent not required and not performed.
		Antimony		Analysis of constituent not required and not performed.
		Arsenic		Analysis of constituent not required and not performed.
		Barium		Analysis of constituent not required and not performed.
		Beryllium		Analysis of constituent not required and not performed.
		Boron		Analysis of constituent not required and not performed.
		Cadmium		Analysis of constituent not required and not performed.
		Calcium		Analysis of constituent not required and not performed.
		Chromium		Analysis of constituent not required and not performed.
		Cobalt		Analysis of constituent not required and not performed.
		Copper		Analysis of constituent not required and not performed.
		Iron		Analysis of constituent not required and not performed.
		Lead		Analysis of constituent not required and not performed.
		Magnesium		Analysis of constituent not required and not performed.
		Manganese		Analysis of constituent not required and not performed.
		Mercury		Analysis of constituent not required and not performed.
		Molybdenum		Analysis of constituent not required and not performed.
		Nickel		Analysis of constituent not required and not performed.
		Potassium		Analysis of constituent not required and not performed.
		Rhodium		Analysis of constituent not required and not performed.
		Selenium		Analysis of constituent not required and not performed.
		Silver		Analysis of constituent not required and not performed.
		Sodium		Analysis of constituent not required and not performed.
		Tantalum		Analysis of constituent not required and not performed.
		Thallium		Analysis of constituent not required and not performed.
		Uranium		Analysis of constituent not required and not performed.

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

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

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

GROUNDWATER
WRITTEN COMMENTS

Monitoring Point	Facility Sample ID	Constituent	Flag	Description
0000-0000 QC	TB5SG3-14	Vanadium		Analysis of constituent not required and not performed.
		Zinc		Analysis of constituent not required and not performed.
		PCB, Total		Analysis of constituent not required and not performed.
		PCB-1016		Analysis of constituent not required and not performed.
		PCB-1221		Analysis of constituent not required and not performed.
		PCB-1232		Analysis of constituent not required and not performed.
		PCB-1242		Analysis of constituent not required and not performed.
		PCB-1248		Analysis of constituent not required and not performed.
		PCB-1254		Analysis of constituent not required and not performed.
		PCB-1260		Analysis of constituent not required and not performed.
		PCB-1268		Analysis of constituent not required and not performed.
		Gross alpha		Analysis of constituent not required and not performed.
		Gross beta		Analysis of constituent not required and not performed.
		Iodine-131		Analysis of constituent not required and not performed.
		Radium-226		Analysis of constituent not required and not performed.
		Strontium-90		Analysis of constituent not required and not performed.
		Technetium-99		Analysis of constituent not required and not performed.
		Thorium-230		Analysis of constituent not required and not performed.
		Tritium		Analysis of constituent not required and not performed.
		Chemical Oxygen Demand		Analysis of constituent not required and not performed.
		Cyanide		Analysis of constituent not required and not performed.
		Iodide		Analysis of constituent not required and not performed.
		Total Organic Carbon		Analysis of constituent not required and not performed.
		Total Organic Halides		Analysis of constituent not required and not performed.

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

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

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

GROUNDWATER
WRITTEN COMMENTS

Monitoring Point	Facility Sample ID	Constituent	Flag	Description
0000-0000 QC	TB6SG3-14	Bromide		Analysis of constituent not required and not performed.
		Chloride		Analysis of constituent not required and not performed.
		Fluoride		Analysis of constituent not required and not performed.
		Nitrate & Nitrite		Analysis of constituent not required and not performed.
		Sulfate		Analysis of constituent not required and not performed.
		Barometric Pressure Reading		Analysis of constituent not required and not performed.
		Specific Conductance		Analysis of constituent not required and not performed.
		Static Water Level Elevation		Analysis of constituent not required and not performed.
		Dissolved Oxygen		Analysis of constituent not required and not performed.
		Total Dissolved Solids		Analysis of constituent not required and not performed.
		pH		Analysis of constituent not required and not performed.
		Eh		Analysis of constituent not required and not performed.
		Temperature		Analysis of constituent not required and not performed.
		Aluminum		Analysis of constituent not required and not performed.
		Antimony		Analysis of constituent not required and not performed.
		Arsenic		Analysis of constituent not required and not performed.
		Barium		Analysis of constituent not required and not performed.
		Beryllium		Analysis of constituent not required and not performed.
		Boron		Analysis of constituent not required and not performed.
		Cadmium		Analysis of constituent not required and not performed.
		Calcium		Analysis of constituent not required and not performed.
		Chromium		Analysis of constituent not required and not performed.
		Cobalt		Analysis of constituent not required and not performed.
		Copper		Analysis of constituent not required and not performed.
		Iron		Analysis of constituent not required and not performed.
		Lead		Analysis of constituent not required and not performed.
		Magnesium		Analysis of constituent not required and not performed.
		Manganese		Analysis of constituent not required and not performed.
		Mercury		Analysis of constituent not required and not performed.
		Molybdenum		Analysis of constituent not required and not performed.
		Nickel		Analysis of constituent not required and not performed.
		Potassium		Analysis of constituent not required and not performed.
		Rhodium		Analysis of constituent not required and not performed.
		Selenium		Analysis of constituent not required and not performed.
		Silver		Analysis of constituent not required and not performed.
		Sodium		Analysis of constituent not required and not performed.
		Tantalum		Analysis of constituent not required and not performed.
		Thallium		Analysis of constituent not required and not performed.
		Uranium		Analysis of constituent not required and not performed.

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

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

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

GROUNDWATER
WRITTEN COMMENTS

Monitoring Point	Facility Sample ID	Constituent	Flag	Description
0000-0000 QC	TB6SG3-14	Vanadium		Analysis of constituent not required and not performed.
		Zinc		Analysis of constituent not required and not performed.
		PCB, Total		Analysis of constituent not required and not performed.
		PCB-1016		Analysis of constituent not required and not performed.
		PCB-1221		Analysis of constituent not required and not performed.
		PCB-1232		Analysis of constituent not required and not performed.
		PCB-1242		Analysis of constituent not required and not performed.
		PCB-1248		Analysis of constituent not required and not performed.
		PCB-1254		Analysis of constituent not required and not performed.
		PCB-1260		Analysis of constituent not required and not performed.
		PCB-1268		Analysis of constituent not required and not performed.
		Gross alpha		Analysis of constituent not required and not performed.
		Gross beta		Analysis of constituent not required and not performed.
		Iodine-131		Analysis of constituent not required and not performed.
		Radium-226		Analysis of constituent not required and not performed.
		Strontium-90		Analysis of constituent not required and not performed.
		Technetium-99		Analysis of constituent not required and not performed.
		Thorium-230		Analysis of constituent not required and not performed.
		Tritium		Analysis of constituent not required and not performed.
		Chemical Oxygen Demand		Analysis of constituent not required and not performed.
		Cyanide		Analysis of constituent not required and not performed.
		Iodide		Analysis of constituent not required and not performed.
		Total Organic Carbon		Analysis of constituent not required and not performed.
		Total Organic Halides		Analysis of constituent not required and not performed.

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

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

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

GROUNDWATER
WRITTEN COMMENTS

Monitoring Point	Facility Sample ID	Constituent	Flag	Description
8000-5242 MW222	MW222DSG3-14	Barium	E	Result estimated due to interferences.
		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 4.85. Rad error is 4.84.
		Gross beta	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 4.96. Rad error is 4.96.
		Iodine-131		Analysis of constituent not required and not performed.
		Radium-226	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 1.42. Rad error is 1.42.
		Strontium-90	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 1.36. Rad error is 1.36.
		Technetium-99	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 12.6. Rad error is 12.5.
		Thorium-230	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 1.74. Rad error is 1.74.
		Tritium	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 129. Rad error is 129.

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

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

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

GROUNDWATER
WRITTEN COMMENTS

Monitoring Point	Facility Sample ID	Constituent	Flag	Description
8004-4815 MW387	MW387SG3-14-2	Bromide		Analysis of constituent not required and not performed.
		Chloride		Analysis of constituent not required and not performed.
		Fluoride		Analysis of constituent not required and not performed.
		Nitrate & Nitrite		Analysis of constituent not required and not performed.
		Sulfate		Analysis of constituent not required and not performed.
		Total Dissolved Solids		Analysis of constituent not required and not performed.
		Aluminum		Analysis of constituent not required and not performed.
		Antimony		Analysis of constituent not required and not performed.
		Arsenic		Analysis of constituent not required and not performed.
		Barium		Analysis of constituent not required and not performed.
		Beryllium		Analysis of constituent not required and not performed.
		Boron		Analysis of constituent not required and not performed.
		Cadmium		Analysis of constituent not required and not performed.
		Calcium		Analysis of constituent not required and not performed.
		Chromium		Analysis of constituent not required and not performed.
		Cobalt		Analysis of constituent not required and not performed.
		Copper		Analysis of constituent not required and not performed.
		Iron		Analysis of constituent not required and not performed.
		Lead		Analysis of constituent not required and not performed.
		Magnesium		Analysis of constituent not required and not performed.
		Manganese		Analysis of constituent not required and not performed.
		Mercury		Analysis of constituent not required and not performed.
		Molybdenum		Analysis of constituent not required and not performed.
		Nickel		Analysis of constituent not required and not performed.
		Potassium		Analysis of constituent not required and not performed.
		Rhodium		Analysis of constituent not required and not performed.
		Selenium		Analysis of constituent not required and not performed.
		Silver		Analysis of constituent not required and not performed.
		Sodium		Analysis of constituent not required and not performed.
		Tantalum		Analysis of constituent not required and not performed.
		Thallium		Analysis of constituent not required and not performed.
		Uranium		Analysis of constituent not required and not performed.
		Vanadium		Analysis of constituent not required and not performed.
		Zinc		Analysis of constituent not required and not performed.
		Vinyl acetate		Analysis of constituent not required and not performed.
		Acetone		Analysis of constituent not required and not performed.
		Acrolein		Analysis of constituent not required and not performed.
		Acrylonitrile		Analysis of constituent not required and not performed.
		Benzene		Analysis of constituent not required and not performed.

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

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

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

GROUNDWATER
WRITTEN COMMENTS

Monitoring Point	Facility Sample ID	Constituent	Flag	Description
8004-4815 MW387	MW387SG3-14-2	Chlorobenzene		Analysis of constituent not required and not performed.
		Xylenes		Analysis of constituent not required and not performed.
		Styrene		Analysis of constituent not required and not performed.
		Toluene		Analysis of constituent not required and not performed.
		Chlorobromomethane		Analysis of constituent not required and not performed.
		Bromodichloromethane		Analysis of constituent not required and not performed.
		Tribromomethane		Analysis of constituent not required and not performed.
		Methyl bromide		Analysis of constituent not required and not performed.
		Methyl Ethyl Ketone		Analysis of constituent not required and not performed.
		trans-1,4-Dichloro-2-butene		Analysis of constituent not required and not performed.
		Carbon disulfide		Analysis of constituent not required and not performed.
		Chloroethane		Analysis of constituent not required and not performed.
		Chloroform		Analysis of constituent not required and not performed.
		Methyl chloride		Analysis of constituent not required and not performed.
		cis-1,2-Dichloroethene		Analysis of constituent not required and not performed.
		Methylene bromide		Analysis of constituent not required and not performed.
		1,1-Dichloroethane		Analysis of constituent not required and not performed.
		1,2-Dichloroethane		Analysis of constituent not required and not performed.
		1,1-Dichloroethylene		Analysis of constituent not required and not performed.
		1,2-Dibromoethane		Analysis of constituent not required and not performed.
		1,1,2,2-Tetrachloroethane		Analysis of constituent not required and not performed.
		1,1,1-Trichloroethane		Analysis of constituent not required and not performed.
		1,1,2-Trichloroethane		Analysis of constituent not required and not performed.
		1,1,1,2-Tetrachloroethane		Analysis of constituent not required and not performed.
		Vinyl chloride		Analysis of constituent not required and not performed.
		Tetrachloroethene		Analysis of constituent not required and not performed.
		Trichloroethene		Analysis of constituent not required and not performed.
		Ethylbenzene		Analysis of constituent not required and not performed.
		2-Hexanone		Analysis of constituent not required and not performed.
		Iodomethane		Analysis of constituent not required and not performed.
		Dibromochloromethane		Analysis of constituent not required and not performed.
		Carbon tetrachloride		Analysis of constituent not required and not performed.
		Dichloromethane		Analysis of constituent not required and not performed.
		Methyl Isobutyl Ketone		Analysis of constituent not required and not performed.
		1,2-Dibromo-3-chloropropane		Analysis of constituent not required and not performed.
		1,2-Dichloropropane		Analysis of constituent not required and not performed.
		trans-1,3-Dichloropropene		Analysis of constituent not required and not performed.
		cis-1,3-Dichloropropene		Analysis of constituent not required and not performed.
		trans-1,2-Dichloroethene		Analysis of constituent not required and not performed.

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

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

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

GROUNDWATER
WRITTEN COMMENTS

Monitoring Point	Facility Sample ID	Constituent	Flag	Description
8004-4815 MW387	MW387SG3-14-2	Trichlorofluoromethane		Analysis of constituent not required and not performed.
		1,2,3-Trichloropropane		Analysis of constituent not required and not performed.
		1,2-Dichlorobenzene		Analysis of constituent not required and not performed.
		1,4-Dichlorobenzene		Analysis of constituent not required and not performed.
		PCB, Total		Analysis of constituent not required and not performed.
		PCB-1016		Analysis of constituent not required and not performed.
		PCB-1221		Analysis of constituent not required and not performed.
		PCB-1232		Analysis of constituent not required and not performed.
		PCB-1242		Analysis of constituent not required and not performed.
		PCB-1248		Analysis of constituent not required and not performed.
		PCB-1254		Analysis of constituent not required and not performed.
		PCB-1260		Analysis of constituent not required and not performed.
		PCB-1268		Analysis of constituent not required and not performed.
		Gross alpha		Analysis of constituent not required and not performed.
		Gross beta		Analysis of constituent not required and not performed.
		Iodine-131		Analysis of constituent not required and not performed.
		Radium-226		Analysis of constituent not required and not performed.
		Strontium-90		Analysis of constituent not required and not performed.
		Technetium-99		Analysis of constituent not required and not performed.
		Thorium-230		Analysis of constituent not required and not performed.
		Tritium		Analysis of constituent not required and not performed.
		Chemical Oxygen Demand		Analysis of constituent not required and not performed.
		Cyanide		Analysis of constituent not required and not performed.
		Total Organic Carbon		Analysis of constituent not required and not performed.
		Total Organic Halides		Analysis of constituent not required and not performed.

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

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

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

GROUNDWATER
WRITTEN COMMENTS

Monitoring Point	Facility Sample ID	Constituent	Flag	Description
8004-4816 MW388	MW388SG3-14-2	Bromide		Analysis of constituent not required and not performed.
		Chloride		Analysis of constituent not required and not performed.
		Fluoride		Analysis of constituent not required and not performed.
		Nitrate & Nitrite		Analysis of constituent not required and not performed.
		Sulfate		Analysis of constituent not required and not performed.
		Total Dissolved Solids		Analysis of constituent not required and not performed.
		Aluminum		Analysis of constituent not required and not performed.
		Antimony		Analysis of constituent not required and not performed.
		Arsenic		Analysis of constituent not required and not performed.
		Barium		Analysis of constituent not required and not performed.
		Beryllium		Analysis of constituent not required and not performed.
		Boron		Analysis of constituent not required and not performed.
		Cadmium		Analysis of constituent not required and not performed.
		Calcium		Analysis of constituent not required and not performed.
		Chromium		Analysis of constituent not required and not performed.
		Cobalt		Analysis of constituent not required and not performed.
		Copper		Analysis of constituent not required and not performed.
		Iron		Analysis of constituent not required and not performed.
		Lead		Analysis of constituent not required and not performed.
		Magnesium		Analysis of constituent not required and not performed.
		Manganese		Analysis of constituent not required and not performed.
		Mercury		Analysis of constituent not required and not performed.
		Molybdenum		Analysis of constituent not required and not performed.
		Nickel		Analysis of constituent not required and not performed.
		Potassium		Analysis of constituent not required and not performed.
		Rhodium		Analysis of constituent not required and not performed.
		Selenium		Analysis of constituent not required and not performed.
		Silver		Analysis of constituent not required and not performed.
		Sodium		Analysis of constituent not required and not performed.
		Tantalum		Analysis of constituent not required and not performed.
		Thallium		Analysis of constituent not required and not performed.
		Uranium		Analysis of constituent not required and not performed.
		Vanadium		Analysis of constituent not required and not performed.
		Zinc		Analysis of constituent not required and not performed.
		Vinyl acetate		Analysis of constituent not required and not performed.
		Acetone		Analysis of constituent not required and not performed.
		Acrolein		Analysis of constituent not required and not performed.
		Acrylonitrile		Analysis of constituent not required and not performed.
		Benzene		Analysis of constituent not required and not performed.

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

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GROUNDWATER
WRITTEN COMMENTS

Monitoring Point	Facility Sample ID	Constituent	Flag	Description
8004-4816 MW388	MW388SG3-14-2	Chlorobenzene		Analysis of constituent not required and not performed.
		Xylenes		Analysis of constituent not required and not performed.
		Styrene		Analysis of constituent not required and not performed.
		Toluene		Analysis of constituent not required and not performed.
		Chlorobromomethane		Analysis of constituent not required and not performed.
		Bromodichloromethane		Analysis of constituent not required and not performed.
		Tribromomethane		Analysis of constituent not required and not performed.
		Methyl bromide		Analysis of constituent not required and not performed.
		Methyl Ethyl Ketone		Analysis of constituent not required and not performed.
		trans-1,4-Dichloro-2-butene		Analysis of constituent not required and not performed.
		Carbon disulfide		Analysis of constituent not required and not performed.
		Chloroethane		Analysis of constituent not required and not performed.
		Chloroform		Analysis of constituent not required and not performed.
		Methyl chloride		Analysis of constituent not required and not performed.
		cis-1,2-Dichloroethene		Analysis of constituent not required and not performed.
		Methylene bromide		Analysis of constituent not required and not performed.
		1,1-Dichloroethane		Analysis of constituent not required and not performed.
		1,2-Dichloroethane		Analysis of constituent not required and not performed.
		1,1-Dichloroethylene		Analysis of constituent not required and not performed.
		1,2-Dibromoethane		Analysis of constituent not required and not performed.
		1,1,2,2-Tetrachloroethane		Analysis of constituent not required and not performed.
		1,1,1-Trichloroethane		Analysis of constituent not required and not performed.
		1,1,2-Trichloroethane		Analysis of constituent not required and not performed.
		1,1,1,2-Tetrachloroethane		Analysis of constituent not required and not performed.
		Vinyl chloride		Analysis of constituent not required and not performed.
		Tetrachloroethene		Analysis of constituent not required and not performed.
		Trichloroethene		Analysis of constituent not required and not performed.
		Ethylbenzene		Analysis of constituent not required and not performed.
		2-Hexanone		Analysis of constituent not required and not performed.
		Iodomethane		Analysis of constituent not required and not performed.
		Dibromochloromethane		Analysis of constituent not required and not performed.
		Carbon tetrachloride		Analysis of constituent not required and not performed.
		Dichloromethane		Analysis of constituent not required and not performed.
		Methyl Isobutyl Ketone		Analysis of constituent not required and not performed.
		1,2-Dibromo-3-chloropropane		Analysis of constituent not required and not performed.
		1,2-Dichloropropane		Analysis of constituent not required and not performed.
		trans-1,3-Dichloropropene		Analysis of constituent not required and not performed.
		cis-1,3-Dichloropropene		Analysis of constituent not required and not performed.
		trans-1,2-Dichloroethene		Analysis of constituent not required and not performed.

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

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

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GROUNDWATER
WRITTEN COMMENTS

Monitoring Point	Facility Sample ID	Constituent	Flag	Description
8004-4816 MW388	MW388SG3-14-2	Trichlorofluoromethane		Analysis of constituent not required and not performed.
		1,2,3-Trichloropropane		Analysis of constituent not required and not performed.
		1,2-Dichlorobenzene		Analysis of constituent not required and not performed.
		1,4-Dichlorobenzene		Analysis of constituent not required and not performed.
		PCB, Total		Analysis of constituent not required and not performed.
		PCB-1016		Analysis of constituent not required and not performed.
		PCB-1221		Analysis of constituent not required and not performed.
		PCB-1232		Analysis of constituent not required and not performed.
		PCB-1242		Analysis of constituent not required and not performed.
		PCB-1248		Analysis of constituent not required and not performed.
		PCB-1254		Analysis of constituent not required and not performed.
		PCB-1260		Analysis of constituent not required and not performed.
		PCB-1268		Analysis of constituent not required and not performed.
		Gross alpha		Analysis of constituent not required and not performed.
		Gross beta		Analysis of constituent not required and not performed.
		Iodine-131		Analysis of constituent not required and not performed.
		Radium-226		Analysis of constituent not required and not performed.
		Strontium-90		Analysis of constituent not required and not performed.
		Technetium-99		Analysis of constituent not required and not performed.
		Thorium-230		Analysis of constituent not required and not performed.
		Tritium		Analysis of constituent not required and not performed.
		Chemical Oxygen Demand		Analysis of constituent not required and not performed.
		Cyanide		Analysis of constituent not required and not performed.
		Total Organic Carbon		Analysis of constituent not required and not performed.
		Total Organic Halides		Analysis of constituent not required and not performed.

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APPENDIX D

STATISTICAL ANALYSES AND QUALIFICATION STATEMENT

GROUNDWATER STATISTICAL COMMENTS

Introduction

The statistical analyses conducted on the second quarter 2014 groundwater data collected from the C-746-S&T Landfills monitoring wells (MWs) were performed in accordance with Permit 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 second quarter 2014 data used to conduct the statistical analyses were sampled in April 2014. 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 of this appendix.

Statistical Analysis Process

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

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

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

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

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

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

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

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

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

Type of Data Used

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

Excluding parameters which have an MCL, Exhibits 3, 4, and 5 list the number of analyses (observations), nondetects (censored observations), detects (uncensored observations), and missing observations by parameter in the UCRS, the URGA, and the LRGA, respectively. Those parameters displayed with bold-face type indicate the one-sided tolerance interval statistical test was performed. The data presented in Exhibits 3, 4, and 5 were collected during the current quarter, second quarter 2014. The observations that are listed are not background data. Background data are presented on pages D-23 through D-100. The sampling dates associated with background data are listed next to the result on pages D-23 through D-100. When field duplicate data are available, the higher of the two readings is retained for further evaluation.

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

Exhibit 1. Station Identification for Monitoring Wells Analyzed

Station	Type	Aquifer
MW220	BG	URGA
MW221	SG	URGA
MW222	SG	URGA
MW223	SG	URGA
MW224	SG	URGA
MW357	TW	URGA
MW358	TW	LRGA
MW359	TW	UCRS
MW360	TW	URGA
MW361	TW	LRGA
MW362	TW	UCRS
MW363	TW	URGA
MW364	TW	LRGA
MW365	TW	UCRS
MW366	SG	URGA
MW367	SG	LRGA
MW368	SG	UCRS
MW369	TW	URGA
MW370	TW	LRGA
MW371	BG	UCRS
MW372	TW	URGA
MW373	TW	LRGA
MW374	BG	UCRS
MW375	SG	URGA
MW376	SG	LRGA
MW377	SG	UCRS
MW384	SG	URGA
MW385	SG	LRGA
MW386	SG	UCRS
MW387	TW	URGA
MW388	TW	LRGA
MW389*	TW	UCRS
MW390	TW	UCRS
MW391	TW	URGA
MW392	TW	LRGA
MW393	TW	UCRS
MW394	BG	URGA
MW395	BG	LRGA
MW396	BG	UCRS
MW397	BG	LRGA

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

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

Aluminum
Boron
Bromide
Calcium
Chemical Oxygen Demand (COD)
Chloride
cis-1,2-Dichloroethene
Cobalt
Conductivity
Copper
Dissolved Oxygen
Dissolved Solids
Iron
Magnesium
Manganese
Molybdenum
Nickel
Oxidation-Reduction Potential
PCB, Total
PCB-1242
pH*
Potassium
Sodium
Sulfate
Technetium-99
Toluene
Total Organic Carbon (TOC)
Total Organic Halides (TOX)
Uranium
Vanadium
Zinc

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

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

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

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

Parameters	Observations	Missing Observation	Censored Observation	Uncensored Observation	Statistical Analysis?
Dimethylbenzene, Total	4	0	4	0	No
Dissolved Oxygen	**4**	**0**	**0**	**4**	**YES**
Dissolved Solids	**4**	**0**	**0**	**4**	**YES**
Ethylbenzene	4	0	4	0	No
Iodide	4	0	4	0	No
Iodomethane	4	0	4	0	No
Iron	**4**	**0**	**0**	**4**	**YES**
Magnesium	**4**	**0**	**0**	**4**	**YES**
Manganese	**4**	**0**	**0**	**4**	**YES**
Methylene chloride	4	0	4	0	No
Molybdenum	**4**	**0**	**2**	**2**	**YES**
Nickel	**4**	**0**	**0**	**4**	**YES**
Oxidation-Reduction Potential	**4**	**0**	**0**	**4**	**YES**
PCB, Total	4	4	0	0	No
PCB-1016	4	4	0	0	No
PCB-1221	4	4	0	0	No
PCB-1232	4	4	0	0	No
PCB-1242	4	4	0	0	No
PCB-1248	4	4	0	0	No
PCB-1254	4	4	0	0	No
PCB-1260	4	4	0	0	No
PCB-1268	4	4	0	0	No
pH	**4**	**0**	**0**	**4**	**YES**
Potassium	**4**	**0**	**0**	**4**	**YES**
Radium-226	4	0	4	0	No
Rhodium	4	0	4	0	No
Sodium	**4**	**0**	**0**	**4**	**YES**
Styrene	4	0	4	0	No
Sulfate	**4**	**0**	**0**	**4**	**YES**
Tantalum	4	0	4	0	No
Technetium-99	**4**	**0**	**3**	**1**	**YES**
Tetrachloroethene	4	0	4	0	No
Thallium	4	0	4	0	No
Thorium-230	4	0	4	0	No
Toluene	4	0	4	0	No
Total Organic Carbon (TOC)	**4**	**0**	**0**	**4**	**YES**
Total Organic Halides (TOX)	**4**	**0**	**0**	**4**	**YES**
trans-1,2-Dichloroethene	4	0	4	0	No
trans-1,3-Dichloropropene	4	0	4	0	No
Trans-1,4-Dichloro-2-butene	4	0	4	0	No
Trichlorofluoromethane	4	0	4	0	No

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

Parameters	Observations	Missing Observation	Censored Observation	Uncensored Observation	Statistical Analysis?
Uranium	**4**	**0**	**1**	**3**	**YES**
Vanadium	**4**	**0**	**2**	**2**	**YES**
Vinyl acetate	4	0	4	0	No
Zinc	4	0	4	0	No

Bold denotes parameters with at least one uncensored observation.

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

Parameters	Observations	Missing Observation	Censored Observation	Uncensored Observation	Statistical Analysis?
1,1,1,2-Tetrachloroethane	11	0	11	0	No
1,1,2,2-Tetrachloroethane	11	0	11	0	No
1,1,2-Trichloroethane	11	0	11	0	No
1,1-Dichloroethane	11	0	11	0	No
1,2,3-Trichloropropane	11	0	11	0	No
1,2-Dibromo-3-chloropropane	11	0	11	0	No
1,2-Dibromoethane	11	0	11	0	No
1,2-Dichlorobenzene	11	0	11	0	No
1,2-Dichloropropane	11	0	11	0	No
2-Butanone	11	0	11	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	0	11	0	No
Aluminum	**11**	**0**	**7**	**4**	**YES**
Antimony	11	0	11	0	No
Beryllium	11	0	11	0	No
Boron	**11**	**0**	**0**	**11**	**YES**
Bromide	**11**	**0**	**0**	**11**	**YES**
Bromochloromethane	11	0	11	0	No
Bromodichloromethane	11	0	11	0	No
Bromoform	11	0	11	0	No
Bromomethane	11	0	11	0	No
Calcium	**11**	**0**	**0**	**11**	**YES**
Carbon disulfide	11	0	11	0	No
Chemical Oxygen Demand (COD)	**11**	**0**	**7**	**4**	**YES**
Chloride	**11**	**0**	**0**	**11**	**YES**
Chlorobenzene	11	0	11	0	No
Chloroethane	11	0	11	0	No
Chloroform	11	0	11	0	No
Chloromethane	11	0	11	0	No
***cis*-1,2-Dichloroethene**	**11**	**0**	**9**	**2**	**YES**
cis-1,3-Dichloropropene	11	0	11	0	No
Cobalt	**11**	**0**	**2**	**9**	**YES**
Conductivity	**11**	**0**	**0**	**11**	**YES**
Copper	**11**	**0**	**4**	**7**	**YES**
Cyanide	11	0	11	0	No
Dibromochloromethane	11	0	11	0	No
Dibromomethane	11	0	11	0	No

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

Parameters	Observations	Missing Observation	Censored Observation	Uncensored Observation	Statistical Analysis?
Dimethylbenzene, Total	11	0	11	0	No
Dissolved Oxygen	**11**	**0**	**0**	**11**	**YES**
Dissolved Solids	**11**	**0**	**0**	**11**	**YES**
Ethylbenzene	11	0	11	0	No
Iodide	11	0	11	0	No
Iodomethane	11	0	11	0	No
Iron	**11**	**0**	**2**	**9**	**YES**
Magnesium	**11**	**0**	**0**	**11**	**YES**
Manganese	**11**	**0**	**3**	**8**	**YES**
Methylene chloride	11	0	11	0	No
Molybdenum	**11**	**0**	**6**	**5**	**YES**
Nickel	**11**	**0**	**0**	**11**	**YES**
Oxidation-Reduction Potential	**11**	**0**	**0**	**11**	**YES**
PCB, Total	11	9	2	0	No
PCB-1016	11	9	2	0	No
PCB-1221	11	9	2	0	No
PCB-1232	11	9	2	0	No
PCB-1242	11	9	2	0	No
PCB-1248	11	9	2	0	No
PCB-1254	11	9	2	0	No
PCB-1260	11	9	2	0	No
PCB-1268	11	9	2	0	No
pH	**11**	**0**	**0**	**11**	**YES**
Potassium	**11**	**0**	**2**	**9**	**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**	**10**	**1**	**YES**
Total Organic Carbon (TOC)	**11**	**0**	**0**	**11**	**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

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

Parameters	Observations	Missing Observation	Censored Observation	Uncensored Observation	Statistical Analysis?
Uranium	11	0	11	0	No
Vanadium	11	0	11	0	No
Vinyl acetate	11	0	11	0	No
Zinc	11	0	11	0	No

Bold denotes parameters with at least one uncensored observation.

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

Parameters	Observations	Missing Observation	Censored Observation	Uncensored Observation	Statistical Analysis?
1,1,1,2-Tetrachloroethane	7	0	7	0	No
1,1,2,2-Tetrachloroethane	7	0	7	0	No
1,1,2-Trichloroethane	7	0	7	0	No
1,1-Dichloroethane	7	0	7	0	No
1,2,3-Trichloropropane	7	0	7	0	No
1,2-Dibromo-3-chloropropane	7	0	7	0	No
1,2-Dibromoethane	7	0	7	0	No
1,2-Dichlorobenzene	7	0	7	0	No
1,2-Dichloropropane	7	0	7	0	No
2-Butanone	7	0	7	0	No
2-Hexanone	7	0	7	0	No
4-Methyl-2-pentanone	7	0	7	0	No
Acetone	7	0	7	0	No
Acrolein	7	0	7	0	No
Acrylonitrile	7	0	7	0	No
Aluminum	7	0	7	0	No
Antimony	7	0	7	0	No
Beryllium	7	0	7	0	No
Boron	**7**	**0**	**0**	**7**	**YES**
Bromide	**7**	**0**	**0**	**7**	**YES**
Bromochloromethane	7	0	7	0	No
Bromodichloromethane	7	0	7	0	No
Bromoform	7	0	7	0	No
Bromomethane	7	0	7	0	No
Calcium	**7**	**0**	**0**	**7**	**YES**
Carbon disulfide	7	0	7	0	No
Chemical Oxygen Demand (COD)	**7**	**0**	**4**	**3**	**YES**
Chloride	**7**	**0**	**0**	**7**	**YES**
Chlorobenzene	7	0	7	0	No
Chloroethane	7	0	7	0	No
Chloroform	7	0	7	0	No
Chloromethane	7	0	7	0	No
cis-1,2-Dichloroethene	7	0	7	0	No
cis-1,3-Dichloropropene	7	0	7	0	No
Cobalt	**7**	**0**	**2**	**5**	**YES**
Conductivity	**7**	**0**	**0**	**7**	**YES**
Copper	**7**	**0**	**4**	**3**	**YES**
Cyanide	7	0	7	0	No
Dibromochloromethane	7	0	7	0	No
Dibromomethane	7	0	7	0	No

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

Parameters	Observations	Missing Observation	Censored Observation	Uncensored Observation	Statistical Analysis?
Dimethylbenzene, Total	7	0	7	0	No
Dissolved Oxygen	**7**	**0**	**0**	**7**	**YES**
Dissolved Solids	**7**	**0**	**0**	**7**	**YES**
Ethylbenzene	7	0	7	0	No
Iodide	7	0	7	0	No
Iodomethane	7	0	7	0	No
Iron	**7**	**0**	**1**	**6**	**YES**
Magnesium	**7**	**0**	**0**	**7**	**YES**
Manganese	**7**	**0**	**4**	**3**	**YES**
Methylene chloride	7	0	7	0	No
Molybdenum	**7**	**0**	**4**	**3**	**YES**
Nickel	**7**	**0**	**0**	**7**	**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**	**2**	**5**	**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**	**3**	**4**	**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**	**0**	**7**	**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

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

Parameters	Observations	Missing Observation	Censored Observation	Uncensored Observation	Statistical Analysis?
Uranium	7	0	7	0	No
Vanadium	7	0	7	0	No
Vinyl acetate	7	0	7	0	No
Zinc	**7**	**0**	**6**	**1**	**YES**

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-23 through D-100 and the statistician qualification statement is presented on page D-101. For the UCRS, URGA, and LRGA, the test was applied to 26, 26, and 24 parameters, respectively, listed in Exhibits 3, 4, and 5. A summary of statistical exceedances by well number is shown in Exhibit 6.

UCRS

In this quarter, statistical test results indicated there were statistically significant increases for oxidation-reduction potential and technetium-99.

URGA

In this quarter, statistical test results indicated there were statistically significant increases for aluminum, calcium, conductivity, dissolved solids, magnesium, oxidation-reduction potential, sodium, sulfate, technetium-99, and toluene.

LRGA

In this quarter, statistical test results indicated there were statistically significant increases for calcium, conductivity, dissolved solids, magnesium, oxidation-reduction potential, sodium, sulfate, and technetium-99.

Conclusion

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

Exhibit 6. Summary of Statistically Significant Increases

UCRS	URGA	LRGA
MW386: Oxidation-reduction potential	MW221: Oxidation-reduction potential	MW370: Oxidation-reduction potential, sulfate
MW390: Oxidation-reduction potential, technetium-99	MW222: Oxidation-reduction potential	MW373: Calcium, conductivity, dissolved solids, magnesium, oxidation-reduction potential, sodium, sulfate, technetium-99
MW393: Oxidation-reduction potential	MW224: Oxidation-reduction potential, sodium	MW385: Oxidation-reduction potential, sulfate, technetium-99
	MW369: Aluminum, oxidation-reduction potential, sodium, technetium-99, toluene	MW388: Oxidation-reduction potential, sulfate, technetium-99
	MW372: Calcium, conductivity, dissolved solids, magnesium, sodium, sulfate	MW392: Oxidation-reduction potential
	MW384: Sulfate, technetium-99, toluene	
	MW387: Magnesium, oxidation-reduction potential, technetium-99, sulfate, toluene	
	MW391: Sulfate	

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

Parameter	Performed Test	CV Normality Test	Results of Tolerance Interval Test Conducted
Aluminum	Tolerance Interval	0.57	No statistically significant increases relative to background data
Boron	Tolerance Interval	1.28	No statistically significant increases relative to background data
Bromide	Tolerance Interval	0.24	No statistically significant increases relative to background data
Calcium	Tolerance Interval	0.20	No statistically significant increases relative to background data
Chemical Oxygen Demand (COD)	Tolerance Interval	0.02	No statistically significant increases relative to background data
Chloride	Tolerance Interval	0.05	No statistically significant increases relative to background data
Cobalt	Tolerance Interval	1.34	No statistically significant increases relative to background data
Conductivity	Tolerance Interval	0.12	No statistically significant increases relative to background data
Copper	Tolerance Interval	0.48	No statistically significant increases relative to background data
Dissolved Oxygen	Tolerance Interval	1.20	No statistically significant increases relative to background data
Dissolved Solids	Tolerance Interval	0.19	No statistically significant increases relative to background data
Iron	Tolerance Interval	0.48	No statistically significant increases relative to background data
Magnesium	Tolerance Interval	0.20	No statistically significant increases relative to background data
Manganese	Tolerance Interval	0.46	No statistically significant increases relative to background data
Molybdenum	Tolerance Interval	1.51	No statistically significant increases relative to background data

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

Parameter	Performed Test	CV Normality Test	Results of Tolerance Interval Test Conducted
Nickel	Tolerance Interval	1.27	No statistically significant increases relative to background data
Oxidation-Reduction Potential	Tolerance Interval	4.77	Statistically significant increases relative to background data in MW386, MW390, and MW393
pH	Tolerance Interval	0.05	No statistically significant deviations relative to background data
Potassium	Tolerance Interval	0.28	No statistically significant increases relative to background data
Sodium	Tolerance Interval	0.30	No statistically significant increases relative to background data
Sulfate	Tolerance Interval	0.40	No statistically significant increases relative to background data
Technetium-99	Tolerance Interval	0.86	Statistically significant increase relative to background data in MW390
Total Organic Carbon	Tolerance Interval	0.47	No statistically significant increases relative to background data
Total Organic Halides	Tolerance Interval	0.38	No statistically significant increases relative to background data
Uranium	Tolerance Interval	0.31	No statistically significant increases relative to background data
Vanadium	Tolerance Interval	0.11	No statistically significant increases relative to background data

CV: coefficient of variation

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

Parameter	Performed Test	CV Normality Test	Results of Tolerance Interval Test Conducted
Aluminum	Tolerance Interval	0.28	Statistically significant increase relative to background data in MW369
Boron	Tolerance Interval	1.45	No statistically significant increases relative to background data
Bromide	Tolerance Interval	0.00	No statistically significant increases relative to background data
Calcium	Tolerance Interval	0.17	Statistically significant increase relative to background data in MW372
Chemical Oxygen Demand (COD)	Tolerance Interval	0.00	No statistically significant increases relative to background data
Chloride	Tolerance Interval	0.23	No statistically significant increases relative to background data
cis-1,2-Dichloroethene	Tolerance Interval	0.00	No statistically significant increases relative to background data
Cobalt	Tolerance Interval	2.44	No statistically significant increases relative to background data
Conductivity	Tolerance Interval	0.28	Statistically significant increase relative to background data in MW372
Copper	Tolerance Interval	0.43	No statistically significant increases relative to background data
Dissolved Oxygen	Tolerance Interval	0.50	No statistically significant increases relative to background data
Dissolved Solids	Tolerance Interval	0.12	Statistically significant increase relative to background data in MW372
Iron	Tolerance Interval	1.17	No statistically significant increases relative to background data
Magnesium	Tolerance Interval	0.16	Statistically significant increase relative to background data in MW372 and MW387
Manganese	Tolerance Interval	2.16	No statistically significant increases relative to background data
Molybdenum	Tolerance Interval	1.26	No statistically significant increases relative to background data
Nickel	Tolerance Interval	1.79	No statistically significant increases relative to background data

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

Parameter	Performed Test	CV Normality Test	Results of Tolerance Interval Test Conducted
Oxidation-Reduction Potential	Tolerance Interval	0.48	Statistically significant increases relative to background data in MW221, MW222, MW224, MW369, and MW387
pH	Tolerance Interval	0.05	No statistically significant deviations relative to background data
Potassium	Tolerance Interval	1.40	No statistically significant increases relative to background data
Sodium	Tolerance Interval	0.24	Statistically significant increase relative to background data in MW224, MW369, and MW372
Sulfate	Tolerance Interval	0.25	Statistically significant increases relative to background data in MW372, MW384, MW387, and MW391
Technetium-99	Tolerance Interval	0.99	Statistically significant increases relative to background data in MW369, MW384, and MW387
Toluene	Tolerance Interval	0.00	Statistically significant increases relative to background data in MW369, MW384, and MW387
Total Organic Carbon	Tolerance Interval	0.49	No statistically significant increases relative to background data
Total Organic Halides	Tolerance Interval	2.57	No statistically significant increases relative to background data

CV: coefficient of variation

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

Parameter	Performed Test	CV Normality Test	Results of Tolerance Interval Test Conducted
Boron	Tolerance Interval	1.24	No statistically significant increases relative to background data
Bromide	Tolerance Interval	0.00	No statistically significant increases relative to background data
Calcium	Tolerance Interval	0.50	Statistically significant increase relative to background data in MW373
Chemical Oxygen Demand (COD)	Tolerance Interval	0.04	No statistically significant increases relative to background data
Chloride	Tolerance Interval	0.23	No statistically significant increases relative to background data
Cobalt	Tolerance Interval	1.52	No statistically significant increases relative to background data
Conductivity	Tolerance Interval	0.14	Statistically significant increase relative to background data in MW373
Copper	Tolerance Interval	0.47	No statistically significant increases relative to background data
Dissolved Oxygen	Tolerance Interval	0.52	No statistically significant increases relative to background data
Dissolved Solids	Tolerance Interval	0.16	Statistically significant increase relative to background data in MW373
Iron	Tolerance Interval	1.29	No statistically significant increases relative to background data
Magnesium	Tolerance Interval	0.52	Statistically significant increase relative to background data in MW373
Manganese	Tolerance Interval	1.49	No statistically significant increases relative to background data
Molybdenum	Tolerance Interval	1.45	No statistically significant increases relative to background data
Nickel	Tolerance Interval	1.09	No statistically significant increases relative to background data
Oxidation-Reduction Potential	Tolerance Interval	0.33	Statistically significant increase relative to background data in MW370, MW373, MW385, MW388, and MW392
pH	Tolerance Interval	0.04	No statistically significant deviations relative to background data

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

Parameter	Performed Test	CV Normality Test	Results of Tolerance Interval Test Conducted
Potassium	Tolerance Interval	0.40	No statistically significant increases relative to background data
Sodium	Tolerance Interval	0.47	Statistically significant increase relative to background data in MW373
Sulfate	Tolerance Interval	0.20	Statistically significant increases relative to background data in MW370, MW373, MW385, and MW388
Technetium-99	Tolerance Interval	0.81	Statistically significant increases relative to background data in MW373, MW385, and MW388
Total Organic Carbon	Tolerance Interval	0.55	No statistically significant increases relative to background data
Total Organic Halides	Tolerance Interval	0.59	No statistically significant increases relative to background data
Zinc	Tolerance Interval	0.76	No statistically significant increases relative to background data

CV: coefficient of variation

C-746-S and C-746-T Second Quarter 2014 Statistical Analysis UCRS
Aluminum UNITS: mg/L

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

Background Data from Upgradient Wells

Well Number: MW396

Date Collected	Result
8/13/2002	0.393
9/16/2002	0.200
10/16/2002	0.200
1/13/2003	0.501
4/8/2003	0.200
7/16/2003	0.200
10/14/2003	0.200
1/14/2004	0.668

Statistics on Background Data

X= 0.320
S= 0.182
CV= 0.567
K factor = 3.188**
TL= 0.900

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

Second Quarter 2014 Data Collected in April 2014

Well No.	Result	Gradient	Result > TL?
MW386	0.050	Sidegradient	NO
MW390	0.295	Downgradient	NO
MW393	0.018	Downgradient	NO

Second Quarter 2014 Dry/Partially Dry Wells

Well No.	Gradient
MW389	Downgradient

Conclusion of Statistical Analysis on Data

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

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

C-746-S and C-746-T Second Quarter 2014 Statistical Analysis UCRS
Boron UNITS: mg/L

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

Background Data from Upgradient Wells

Well Number:	MW396
Date Collected	Result
8/13/2002	2.000
9/16/2002	2.000
10/16/2002	0.200
1/13/2003	0.200
4/8/2003	0.200
7/16/2003	0.200
10/14/2003	0.200
1/14/2004	0.200

Statistics on Background Data

X= 0.650
S= 0.833
CV= 1.282
K factor = 3.188**
TL= 3.306

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

Statistics on Transformed Background Data

X= -1.034
S= 1.066
CV= -1.031
K factor = 3.188**
TL= 2.364

Transformed Background Data from Upgradient Wells

Well Number:	MW396
Date Collected	LN(Result)
8/13/2002	0.693
9/16/2002	0.693
10/16/2002	-1.609
1/13/2003	-1.609
4/8/2003	-1.609
7/16/2003	-1.609
10/14/2003	-1.609
1/14/2004	-1.609

Second Quarter 2014 Data Collected in April 2014

Well No.	Result	Gradient	Result > TL?
MW386	0.005	Sidegradient	N/A
MW390	0.007	Downgradient	N/A
MW393	0.019	Downgradient	N/A

Second Quarter 2014 Dry/Partially Dry Wells

Well No.	Gradient
MW389	Downgradient

Transformed Second Quarter 2014 Data Collected in April 2014

Well Number	LN(Result)	Result > TL?
MW386	-5.327	NO
MW390	-5.010	NO
MW393	-3.963	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 Second Quarter 2014 Statistical Analysis UCRS
Bromide UNITS: mg/L

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

Background Data from Upgradient Wells

Well Number: MW396

Date Collected	Result
8/13/2002	1.500
9/16/2002	1.600
10/16/2002	1.600
1/13/2003	1.000
4/8/2003	1.000
7/16/2003	1.000
10/14/2003	1.700
1/14/2004	1.700

Statistics on Background Data

X= 1.388
S= 0.327
CV= 0.236
K factor = 3.188**
TL= 2.430

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

Second Quarter 2014 Data Collected in April 2014

Well No.	Result	Gradient	Result > TL?
MW386	0.172	Sidegradient	NO
MW390	0.771	Downgradient	NO
MW393	0.193	Downgradient	NO

Second Quarter 2014 Dry/Partially Dry Wells

Well No.	Gradient
MW389	Downgradient

Conclusion of Statistical Analysis on Data

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

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

C-746-S and C-746-T Second Quarter 2014 Statistical Analysis UCRS
Calcium UNITS: mg/L

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

Background Data from Upgradient Wells

Well Number: MW396

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

Statistics on Background Data

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

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

Second Quarter 2014 Data Collected in April 2014

Well No.	Result	Gradient	Result > TL?
MW386	22.900	Sidegradient	NO
MW390	33.600	Downgradient	NO
MW393	11.700	Downgradient	NO

Second Quarter 2014 Dry/Partially Dry Wells

Well No.	Gradient
MW389	Downgradient

Conclusion of Statistical Analysis on Data

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

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

C-746-S and C-746-T Second Quarter 2014 Statistical Analysis UCRS
Chemical Oxygen Demand (COD) UNITS: mg/L

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

Background Data from Upgradient Wells

Well Number: MW396

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

Statistics on Background Data

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

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

Second Quarter 2014 Data Collected in April 2014

Well No.	Result	Gradient	Result > TL?
MW386	17.200	Sidegradient	NO
MW390	12.400	Downgradient	NO
MW393	20.500	Downgradient	NO

Second Quarter 2014 Dry/Partially Dry Wells

Well No.	Gradient
MW389	Downgradient

Conclusion of Statistical Analysis on Data

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

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

C-746-S and C-746-T Second Quarter 2014 Statistical Analysis UCRS
Chloride UNITS: mg/L

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

Background Data from Upgradient Wells

Well Number: MW396

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

Statistics on Background Data

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

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

Second Quarter 2014 Data Collected in April 2014

Well No.	Result	Gradient	Result > TL?
MW386	16.000	Sidegradient	NO
MW390	86.800	Downgradient	NO
MW393	15.700	Downgradient	NO

Second Quarter 2014 Dry/Partially Dry Wells

Well No.	Gradient
MW389	Downgradient

Conclusion of Statistical Analysis on Data

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

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

C-746-S and C-746-T Second Quarter 2014 Statistical Analysis UCRS
Cobalt UNITS: mg/L

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

Background Data from Upgradient Wells

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

Statistics on Background Data

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

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

Statistics on Transformed Background Data

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

Transformed Background Data from Upgradient Wells

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

Second Quarter 2014 Data Collected in April 2014

Well No.	Result	Gradient	Result > TL?
MW386	0.001	Sidegradient	N/A
MW390	0.001	Downgradient	N/A
MW393	0.001	Downgradient	N/A

Second Quarter 2014 Dry/Partially Dry Wells

Well No.	Gradient
MW389	Downgradient

Transformed Second Quarter 2014 Data Collected in April 2014

Well Number	LN(Result)	Result > TL?
MW386	-7.488	NO
MW390	-7.581	NO
MW393	-6.759	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 Second Quarter 2014 Statistical Analysis UCRS
Conductivity UNITS: umho/cm

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

Background Data from Upgradient Wells

Well Number: MW396

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

Statistics on Background Data

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

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

Second Quarter 2014 Data Collected in April 2014

Well No.	Result	Gradient	Result > TL?
MW386	623.00	Sidegradient	NO
MW390	708.00	Downgradient	NO
MW393	413.00	Downgradient	NO

Second Quarter 2014 Dry/Partially Dry Wells

Well No.	Gradient
MW389	Downgradient

Conclusion of Statistical Analysis on Data

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

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

C-746-S and C-746-T Second Quarter 2014 Statistical Analysis UCRS
Copper UNITS: mg/L

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

Background Data from Upgradient Wells

Well Number: MW396

Date Collected	Result
8/13/2002	0.050
9/16/2002	0.050
10/16/2002	0.026
1/13/2003	0.020
4/8/2003	0.020
7/16/2003	0.020
10/14/2003	0.020
1/14/2004	0.020

Statistics on Background Data

X= 0.028
S= 0.014
CV= 0.481
K factor = 3.188**
TL= 0.072

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

Second Quarter 2014 Data Collected in April 2014

Well No.	Result	Gradient	Result > TL?
MW386	0.003	Sidegradient	NO
MW390	0.001	Downgradient	NO
MW393	0.002	Downgradient	NO

Second Quarter 2014 Dry/Partially Dry Wells

Well No.	Gradient
MW389	Downgradient

Conclusion of Statistical Analysis on Data

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

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

C-746-S and C-746-T Second Quarter 2014 Statistical Analysis UCRS
Dissolved Oxygen UNITS: mg/L

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

Background Data from Upgradient Wells

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

Statistics on Background Data

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

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

Statistics on Transformed Background Data

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

Transformed Background Data from Upgradient Wells

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

Second Quarter 2014 Data Collected in April 2014

Well No.	Result	Gradient	Result > TL?
MW386	0.780	Sidegradient	N/A
MW390	5.100	Downgradient	N/A
MW393	0.720	Downgradient	N/A

Second Quarter 2014 Dry/Partially Dry Wells

Well No.	Gradient
MW389	Downgradient

Transformed Second Quarter 2014 Data Collected in April 2014

Well Number	LN(Result)	Result > TL?
MW386	-0.248	NO
MW390	1.629	NO
MW393	-0.329	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 Second Quarter 2014 Statistical Analysis UCRS
Dissolved Solids UNITS: mg/L

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

Background Data from Upgradient Wells

Well Number: MW396

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

Statistics on Background Data

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

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

Second Quarter 2014 Data Collected in April 2014

Well No.	Result	Gradient	Result > TL?
MW386	409.00	Sidegradient	NO
MW390	393.00	Downgradient	NO
MW393	244.00	Downgradient	NO

Second Quarter 2014 Dry/Partially Dry Wells

Well No.	Gradient
MW389	Downgradient

Conclusion of Statistical Analysis on Data

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

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

C-746-S and C-746-T Second Quarter 2014 Statistical Analysis UCRS
Iron UNITS: mg/L

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

Background Data from Upgradient Wells

Well Number: MW396

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

Statistics on Background Data

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

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

Second Quarter 2014 Data Collected in April 2014

Well No.	Result	Gradient	Result > TL?
MW386	0.437	Sidegradient	NO
MW390	0.359	Downgradient	NO
MW393	1.180	Downgradient	NO

Second Quarter 2014 Dry/Partially Dry Wells

Well No.	Gradient
MW389	Downgradient

Conclusion of Statistical Analysis on Data

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

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

C-746-S and C-746-T Second Quarter 2014 Statistical Analysis UCRS
Magnesium UNITS: mg/L

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

Background Data from Upgradient Wells

Well Number: MW396

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

Statistics on Background Data

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

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

Second Quarter 2014 Data Collected in April 2014

Well No.	Result	Gradient	Result > TL?
MW386	10.100	Sidegradient	NO
MW390	15.300	Downgradient	NO
MW393	3.560	Downgradient	NO

Second Quarter 2014 Dry/Partially Dry Wells

Well No.	Gradient
MW389	Downgradient

Conclusion of Statistical Analysis on Data

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

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

C-746-S and C-746-T Second Quarter 2014 Statistical Analysis UCRS
Manganese UNITS: mg/L

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

Background Data from Upgradient Wells

Well Number: MW396

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

Statistics on Background Data

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

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

Second Quarter 2014 Data Collected in April 2014

Well No.	Result	Gradient	Result > TL?
MW386	0.059	Sidegradient	NO
MW390	0.002	Downgradient	NO
MW393	0.019	Downgradient	NO

Second Quarter 2014 Dry/Partially Dry Wells

Well No.	Gradient
MW389	Downgradient

Conclusion of Statistical Analysis on Data

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

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

C-746-S and C-746-T Second Quarter 2014 Statistical Analysis UCRS
Molybdenum UNITS: mg/L

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

Background Data from Upgradient Wells

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

Statistics on Background Data

X= 0.007
S= 0.011
CV= 1.507
K factor = 3.188**
TL= 0.042

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

Statistics on Transformed Background Data

X= -5.928
S= 1.420
CV= -0.240
K factor = 3.188**
TL= -1.400

Transformed Background Data from Upgradient Wells

Well Number:	MW396
Date Collected	LN(Result)
8/13/2002	-3.689
9/16/2002	-3.689
10/16/2002	-6.908
1/13/2003	-6.661
4/8/2003	-5.911
7/16/2003	-6.751
10/14/2003	-6.908
1/14/2004	-6.908

Second Quarter 2014 Data Collected in April 2014

Well No.	Result	Gradient	Result > TL?
MW386	0.001	Sidegradient	N/A
MW390	0.001	Downgradient	N/A
MW393	0.001	Downgradient	N/A

Second Quarter 2014 Dry/Partially Dry Wells

Well No.	Gradient
MW389	Downgradient

Transformed Second Quarter 2014 Data Collected in April 2014

Well Number	LN(Result)	Result > TL?
MW386	-7.402	NO
MW390	-7.435	NO
MW393	-7.106	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 Second Quarter 2014 Statistical Analysis UCRS
Nickel UNITS: mg/L

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

Background Data from Upgradient Wells

Well Number:	MW396
Date Collected	Result
8/13/2002	0.050
9/16/2002	0.050
10/16/2002	0.005
1/13/2003	0.005
4/8/2003	0.006
7/16/2003	0.005
10/14/2003	0.005
1/14/2004	0.005

Statistics on Background Data

X= 0.016
S= 0.021
CV= 1.272
K factor = 3.188**
TL= 0.083

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

Statistics on Transformed Background Data

X= -4.706
S= 1.057
CV= -0.225
K factor = 3.188**
TL= -1.338

Transformed Background Data from Upgradient Wells

Well Number:	MW396
Date Collected	LN(Result)
8/13/2002	-2.996
9/16/2002	-2.996
10/16/2002	-5.298
1/13/2003	-5.298
4/8/2003	-5.166
7/16/2003	-5.298
10/14/2003	-5.298
1/14/2004	-5.298

Second Quarter 2014 Data Collected in April 2014

Well No.	Result	Gradient	Result > TL?
MW386	0.003	Sidegradient	N/A
MW390	0.003	Downgradient	N/A
MW393	0.006	Downgradient	N/A

Second Quarter 2014 Dry/Partially Dry Wells

Well No.	Gradient
MW389	Downgradient

Transformed Second Quarter 2014 Data Collected in April 2014

Well Number	LN(Result)	Result > TL?
MW386	-5.696	NO
MW390	-5.911	NO
MW393	-5.061	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 Second Quarter 2014 Statistical Analysis UCRS
Oxidation-Reduction Potential UNITS: mV

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

Background Data from Upgradient Wells

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

Statistics on Background Data

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

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

Statistics on Transformed Background Data

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

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

Transformed Background Data from Upgradient Wells

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

Second Quarter 2014 Data Collected in April 2014

Well No.	Result	Gradient	Result > TL?
MW386	334.000	Sidegradient	N/A
MW390	357.000	Downgradient	N/A
MW393	360.000	Downgradient	N/A

Second Quarter 2014 Dry/Partially Dry Wells

Well No.	Gradient
MW389	Downgradient

Transformed Second Quarter 2014 Data Collected in April 2014

Well Number	LN(Result)	Result >TL?
MW386	5.811	**YES**
MW390	5.878	**YES**
MW393	5.886	**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.

MW386

MW390

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 Second Quarter 2014 Statistical Analysis UCRS
pH UNITS: Std Unit

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

Background Data from Upgradient Wells

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

Statistics on Background Data

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

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

Second Quarter 2014 Data Collected in April 2014

Well No.	Result	Gradient	Result >TL?	Result <LL?
MW386	6.870	Sidegradient	NO	NO
MW390	6.420	Downgradient	NO	NO
MW393	6.330	Downgradient	NO	NO

Second Quarter 2014 Dry/Partially Dry Wells

Well No.	Gradient
MW389	Downgradient

Conclusion of Statistical Analysis on Data

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

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

C-746-S and C-746-T Second Quarter 2014 Statistical Analysis UCRS
Potassium UNITS: mg/L

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

Background Data from Upgradient Wells

Well Number: MW396

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

Statistics on Background Data

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

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

Second Quarter 2014 Data Collected in April 2014

Well No.	Result	Gradient	Result > TL?
MW386	0.289	Sidegradient	NO
MW390	0.341	Downgradient	NO
MW393	0.470	Downgradient	NO

Second Quarter 2014 Dry/Partially Dry Wells

Well No.	Gradient
MW389	Downgradient

Conclusion of Statistical Analysis on Data

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

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

C-746-S and C-746-T Second Quarter 2014 Statistical Analysis UCRS
Sodium UNITS: mg/L

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

Background Data from Upgradient Wells

Well Number: MW396

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

Statistics on Background Data

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

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

Second Quarter 2014 Data Collected in April 2014

Well No.	Result	Gradient	Result > TL?
MW386	113.00	Sidegradient	NO
MW390	93.100	Downgradient	NO
MW393	86.500	Downgradient	NO

Second Quarter 2014 Dry/Partially Dry Wells

Well No.	Gradient
MW389	Downgradient

Conclusion of Statistical Analysis on Data

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

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

C-746-S and C-746-T Second Quarter 2014 Statistical Analysis UCRS
Sulfate UNITS: mg/L

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

Background Data from Upgradient Wells

Well Number: MW396

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

Statistics on Background Data

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

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

Second Quarter 2014 Data Collected in April 2014

Well No.	Result	Gradient	Result > TL?
MW386	43.800	Sidegradient	NO
MW390	27.600	Downgradient	NO
MW393	16.400	Downgradient	NO

Second Quarter 2014 Dry/Partially Dry Wells

Well No.	Gradient
MW389	Downgradient

Conclusion of Statistical Analysis on Data

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

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

C-746-S and C-746-T Second Quarter 2014 Statistical Analysis UCRS
Technetium-99 UNITS: pCi/L

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

Background Data from Upgradient Wells

Well Number:	MW396
Date Collected	Result
8/13/2002	16.700
9/16/2002	6.390
10/16/2002	4.550
1/13/2003	16.500
4/8/2003	3.040
7/16/2003	0.354
10/14/2003	11.900
1/14/2004	1.560

Statistics on Background Data

X= 7.624
S= 6.558
CV= 0.860
K factor = 3.188**
TL= 28.531

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

Second Quarter 2014 Data Collected in April 2014

Well No.	Result	Gradient	Result > TL?
MW386	13.400	Sidegradient	NO
MW390	74.300	Downgradient	**YES**
MW393	-8.360	Downgradient	NO

Second Quarter 2014 Dry/Partially Dry Wells

Well No.	Gradient
MW389	Downgradient

Conclusion of Statistical Analysis on Data

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

MW390

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 Second Quarter 2014 Statistical Analysis UCRS
Total Organic Carbon (TOC) UNITS: mg/L

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

Background Data from Upgradient Wells

Well Number: MW396

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

Statistics on Background Data

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

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

Second Quarter 2014 Data Collected in April 2014

Well No.	Result	Gradient	Result > TL?
MW386	7.210	Sidegradient	NO
MW390	2.010	Downgradient	NO
MW393	2.450	Downgradient	NO

Second Quarter 2014 Dry/Partially Dry Wells

Well No.	Gradient
MW389	Downgradient

Conclusion of Statistical Analysis on Data

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

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

C-746-S and C-746-T Second Quarter 2014 Statistical Analysis UCRS
Total Organic Halides (TOX) UNITS: ug/L

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

Background Data from Upgradient Wells

Well Number: MW396

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

Statistics on Background Data

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

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

Second Quarter 2014 Data Collected in April 2014

Well No.	Result	Gradient	Result > TL?
MW386	214.00	Sidegradient	NO
MW390	14.800	Downgradient	NO
MW393	18.100	Downgradient	NO

Second Quarter 2014 Dry/Partially Dry Wells

Well No.	Gradient
MW389	Downgradient

Conclusion of Statistical Analysis on Data

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

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

C-746-S and C-746-T Second Quarter 2014 Statistical Analysis UCRS
Uranium UNITS: mg/L

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

Background Data from Upgradient Wells

Well Number: MW396

Date Collected	Result
8/13/2002	0.002
9/16/2002	0.001
10/16/2002	0.001
1/13/2003	0.001
4/8/2003	0.001
7/16/2003	0.001
10/14/2003	0.001
1/14/2004	0.001

Statistics on Background Data

X= 0.001
S= 0.000
CV= 0.314
K factor = 3.188**
TL= 0.002

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

Second Quarter 2014 Data Collected in April 2014

Well No.	Result	Gradient	Result > TL?
MW386	0.000	Sidegradient	NO
MW390	0.000	Downgradient	NO
MW393	0.001	Downgradient	NO

Second Quarter 2014 Dry/Partially Dry Wells

Well No.	Gradient
MW389	Downgradient

Conclusion of Statistical Analysis on Data

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

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

C-746-S and C-746-T Second Quarter 2014 Statistical Analysis UCRS
Vanadium UNITS: mg/L

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

Background Data from Upgradient Wells

Well Number: MW396

Date Collected	Result
8/13/2002	0.025
9/16/2002	0.025
10/16/2002	0.020
1/13/2003	0.020
4/8/2003	0.020
7/16/2003	0.020
10/14/2003	0.020
1/14/2004	0.020

Statistics on Background Data

X= 0.021
S= 0.002
CV= 0.109
K factor = 3.188**
TL= 0.029

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

Second Quarter 2014 Data Collected in April 2014

Well No.	Result	Gradient	Result > TL?
MW386	0.005	Sidegradient	NO
MW390	0.001	Downgradient	NO
MW393	0.001	Downgradient	NO

Second Quarter 2014 Dry/Partially Dry Wells

Well No.	Gradient
MW389	Downgradient

Conclusion of Statistical Analysis on Data

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

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

C-746-S and C-746-T Second Quarter 2014 Statistical Analysis URGA
Aluminum UNITS: mg/L

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

Background Data from Upgradient Wells

Well Number:	MW220
Date Collected	Result
10/14/2002	0.200
1/15/2003	0.200
4/10/2003	0.200
7/14/2003	0.200
10/13/2003	0.427
1/13/2004	0.309
4/13/2004	0.200
7/21/2004	0.202
Well Number:	MW394
Date Collected	Result
8/13/2002	0.200
9/16/2002	0.200
10/16/2002	0.200
1/13/2003	0.200
4/10/2003	0.200
7/16/2003	0.200
10/14/2003	0.200
1/13/2004	0.200

Statistics on Background Data

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

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

Second Quarter 2014 Data Collected in April 2014

Well No.	Result	Gradient	Result > TL?
MW221	0.050	Sidegradient	NO
MW222	0.114	Sidegradient	NO
MW223	0.019	Sidegradient	NO
MW224	0.050	Sidegradient	NO
MW369	0.620	Downgradient	**YES**
MW372	0.049	Downgradient	NO
MW384	0.050	Sidegradient	NO
MW387	0.050	Downgradient	NO
MW391	0.050	Downgradient	NO

Conclusion of Statistical Analysis on Data

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

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 Second Quarter 2014 Statistical Analysis URGA
Boron UNITS: mg/L

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

Background Data from Upgradient Wells

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

Statistics on Background Data

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

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

Statistics on Transformed Background Data

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

Transformed Background Data from Upgradient Wells

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

Second Quarter 2014 Data Collected in April 2014

Well No.	Result	Gradient	Result > TL?
MW221	0.013	Sidegradient	N/A
MW222	0.009	Sidegradient	N/A
MW223	0.008	Sidegradient	N/A
MW224	0.021	Sidegradient	N/A
MW369	0.011	Downgradient	N/A
MW372	1.700	Downgradient	N/A
MW384	0.015	Sidegradient	N/A
MW387	0.030	Downgradient	N/A
MW391	0.042	Downgradient	N/A

Transformed Second Quarter 2014 Data Collected in April 2014

Well Number	LN(Result)	Result > TL?
MW221	-4.335	NO
MW222	-4.667	NO
MW223	-4.852	NO
MW224	-3.858	NO
MW369	-4.528	NO
MW372	0.531	NO
MW384	-4.173	NO
MW387	-3.517	NO
MW391	-3.172	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 Second Quarter 2014 Statistical Analysis URGA
Bromide UNITS: mg/L

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

Background Data from Upgradient Wells

Well Number:	MW220
Date Collected	Result
10/14/2002	1.000
1/15/2003	1.000
4/10/2003	1.000
7/14/2003	1.000
10/13/2003	1.000
1/13/2004	1.000
4/13/2004	1.000
7/21/2004	1.000
Well Number:	MW394
Date Collected	Result
8/13/2002	1.000
9/16/2002	1.000
10/16/2002	1.000
1/13/2003	1.000
4/10/2003	1.000
7/16/2003	1.000
10/14/2003	1.000
1/13/2004	1.000

Statistics on Background Data

X= 1.000
S= 0.000
CV= 0.000
K factor = 2.523**
TL= 1.000

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

Second Quarter 2014 Data Collected in April 2014

Well No.	Result	Gradient	Result > TL?
MW221	0.510	Sidegradient	NO
MW222	0.505	Sidegradient	NO
MW223	0.544	Sidegradient	NO
MW224	0.434	Sidegradient	NO
MW369	0.337	Downgradient	NO
MW372	0.624	Downgradient	NO
MW384	0.550	Sidegradient	NO
MW387	0.493	Downgradient	NO
MW391	0.506	Downgradient	NO

Conclusion of Statistical Analysis on Data

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

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

C-746-S and C-746-T Second Quarter 2014 Statistical Analysis URGA
Calcium UNITS: mg/L

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

Background Data from Upgradient Wells

Well Number:	MW220
Date Collected	Result
10/14/2002	23.600
1/15/2003	25.900
4/10/2003	30.400
7/14/2003	33.900
10/13/2003	21.300
1/13/2004	20.300
4/13/2004	23.800
7/21/2004	19.000

Well Number:	MW394
Date Collected	Result
8/13/2002	29.500
9/16/2002	29.900
10/16/2002	31.200
1/13/2003	30.700
4/10/2003	34.400
7/16/2003	29.600
10/14/2003	30.300
1/13/2004	28.400

Statistics on Background Data

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

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

Second Quarter 2014 Data Collected in April 2014

Well No.	Result	Gradient	Result > TL?
MW221	20.800	Sidegradient	NO
MW222	19.000	Sidegradient	NO
MW223	21.100	Sidegradient	NO
MW224	25.200	Sidegradient	NO
MW369	16.400	Downgradient	NO
MW372	70.500	Downgradient	**YES**
MW384	27.600	Sidegradient	NO
MW387	34.900	Downgradient	NO
MW391	23.700	Downgradient	NO

Conclusion of Statistical Analysis on Data

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

MW372

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

C-746-S and C-746-T Second Quarter 2014 Statistical Analysis URGA
Chemical Oxygen Demand (COD) UNITS: mg/L

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

Background Data from Upgradient Wells

Well Number:	MW220
Date Collected	Result
10/14/2002	35.000
1/15/2003	35.000
4/10/2003	35.000
7/14/2003	35.000
10/13/2003	35.000
1/13/2004	35.000
4/13/2004	35.000
7/21/2004	35.000
Well Number:	MW394
Date Collected	Result
8/13/2002	35.000
9/16/2002	35.000
10/16/2002	35.000
1/13/2003	35.000
4/10/2003	35.000
7/16/2003	35.000
10/14/2003	35.000
1/13/2004	35.000

Statistics on Background Data

X= 35.000
S= 0.000
CV= 0.000
K factor = 2.523**
TL= 35.000

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

Second Quarter 2014 Data Collected in April 2014

Well No.	Result	Gradient	Result > TL?
MW221	20.000	Sidegradient	NO
MW222	31.400	Sidegradient	NO
MW223	7.000	Sidegradient	NO
MW224	20.000	Sidegradient	NO
MW369	20.000	Downgradient	NO
MW372	20.000	Downgradient	NO
MW384	20.000	Sidegradient	NO
MW387	9.930	Downgradient	NO
MW391	20.000	Downgradient	NO

Conclusion of Statistical Analysis on Data

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

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

C-746-S and C-746-T Second Quarter 2014 Statistical Analysis URGA
Chloride UNITS: mg/L

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

Background Data from Upgradient Wells

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

Statistics on Background Data

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

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

Second Quarter 2014 Data Collected in April 2014

Well No.	Result	Gradient	Result > TL?
MW221	34.300	Sidegradient	NO
MW222	33.000	Sidegradient	NO
MW223	33.300	Sidegradient	NO
MW224	33.300	Sidegradient	NO
MW369	31.000	Downgradient	NO
MW372	56.300	Downgradient	NO
MW384	46.400	Sidegradient	NO
MW387	37.900	Downgradient	NO
MW391	36.400	Downgradient	NO

Conclusion of Statistical Analysis on Data

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

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

C-746-S and C-746-T Second Quarter 2014 Statistical Analysis URGA
cis-1,2-Dichloroethene UNITS: ug/L

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

Background Data from Upgradient Wells

Well Number:	MW220
Date Collected	Result
10/14/2002	5.000
1/15/2003	5.000
4/10/2003	5.000
7/14/2003	5.000
10/13/2003	5.000
1/13/2004	5.000
4/13/2004	5.000
7/21/2004	5.000

Well Number:	MW394
Date Collected	Result
8/13/2002	5.000
9/30/2002	5.000
10/16/2002	5.000
1/13/2003	5.000
4/10/2003	5.000
7/16/2003	5.000
10/14/2003	5.000
1/13/2004	5.000

Statistics on Background Data

X= 5.000
S= 0.000
CV= 0.000
K factor = 2.523**
TL= 5.000

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

Second Quarter 2014 Data Collected in April 2014

Well No.	Result	Gradient	Result > TL?
MW221	1.000	Sidegradient	NO
MW222	1.000	Sidegradient	NO
MW223	1.000	Sidegradient	NO
MW224	1.000	Sidegradient	NO
MW369	1.000	Downgradient	NO
MW372	0.310	Downgradient	NO
MW384	1.000	Sidegradient	NO
MW387	1.000	Downgradient	NO
MW391	0.410	Downgradient	NO

Conclusion of Statistical Analysis on Data

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

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

C-746-S and C-746-T Second Quarter 2014 Statistical Analysis URGA
Cobalt UNITS: mg/L

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

Background Data from Upgradient Wells

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

Statistics on Background Data

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

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

Statistics on Transformed Background Data

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

Transformed Background Data from Upgradient Wells

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

Second Quarter 2014 Data Collected in April 2014

Well No.	Result	Gradient	Result > TL?
MW221	0.002	Sidegradient	N/A
MW222	0.002	Sidegradient	N/A
MW223	0.004	Sidegradient	N/A
MW224	0.000	Sidegradient	N/A
MW369	0.012	Downgradient	N/A
MW372	0.000	Downgradient	N/A
MW384	0.000	Sidegradient	N/A
MW387	0.000	Downgradient	N/A
MW391	0.001	Downgradient	N/A

Transformed Second Quarter 2014 Data Collected in April 2014

Well Number	LN(Result)	Result > TL?
MW221	-6.365	NO
MW222	-6.377	NO
MW223	-5.458	NO
MW224	-7.799	NO
MW369	-4.431	NO
MW372	-8.217	NO
MW384	-9.115	NO
MW387	-8.948	NO
MW391	-6.908	NO

Conclusion of Statistical Analysis on Transformed Data

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

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

C-746-S and C-746-T Second Quarter 2014 Statistical Analysis URGA
Conductivity UNITS: umho/cm

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

Background Data from Upgradient Wells

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

Statistics on Background Data

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

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

Second Quarter 2014 Data Collected in April 2014

Well No.	Result	Gradient	Result > TL?
MW221	378.00	Sidegradient	NO
MW222	344.00	Sidegradient	NO
MW223	379.00	Sidegradient	NO
MW224	428.00	Sidegradient	NO
MW369	380.00	Downgradient	NO
MW372	837.00	Downgradient	**YES**
MW384	479.00	Sidegradient	NO
MW387	544.00	Downgradient	NO
MW391	393.00	Downgradient	NO

Conclusion of Statistical Analysis on Data

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

MW372

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

C-746-S and C-746-T Second Quarter 2014 Statistical Analysis URGA
Copper UNITS: mg/L

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

Background Data from Upgradient Wells

Well Number:	MW220
Date Collected	Result
10/14/2002	0.021
1/15/2003	0.020
4/10/2003	0.020
7/14/2003	0.020
10/13/2003	0.020
1/13/2004	0.020
4/13/2004	0.020
7/21/2004	0.020
Well Number:	MW394
Date Collected	Result
8/13/2002	0.050
9/16/2002	0.050
10/16/2002	0.020
1/13/2003	0.020
4/10/2003	0.020
7/16/2003	0.020
10/14/2003	0.020
1/13/2004	0.020

Statistics on Background Data

X= 0.024
S= 0.010
CV= 0.429
K factor = 2.523**
TL= 0.050

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

Second Quarter 2014 Data Collected in April 2014

Well No.	Result	Gradient	Result > TL?
MW221	0.003	Sidegradient	NO
MW222	0.001	Sidegradient	NO
MW223	0.001	Sidegradient	NO
MW224	0.001	Sidegradient	NO
MW369	0.002	Downgradient	NO
MW372	0.003	Downgradient	NO
MW384	0.001	Sidegradient	NO
MW387	0.001	Downgradient	NO
MW391	0.000	Downgradient	NO

Conclusion of Statistical Analysis on Data

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

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

C-746-S and C-746-T Second Quarter 2014 Statistical Analysis URGA
Dissolved Oxygen UNITS: mg/L

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

Background Data from Upgradient Wells

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

Statistics on Background Data

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

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

Second Quarter 2014 Data Collected in April 2014

Well No.	Result	Gradient	Result > TL?
MW221	5.070	Sidegradient	NO
MW222	3.020	Sidegradient	NO
MW223	3.470	Sidegradient	NO
MW224	3.420	Sidegradient	NO
MW369	1.330	Downgradient	NO
MW372	3.000	Downgradient	NO
MW384	4.150	Sidegradient	NO
MW387	3.790	Downgradient	NO
MW391	2.420	Downgradient	NO

Conclusion of Statistical Analysis on Data

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

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

C-746-S and C-746-T Second Quarter 2014 Statistical Analysis URGA
Dissolved Solids UNITS: mg/L

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

Background Data from Upgradient Wells

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

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

Statistics on Background Data

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

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

Second Quarter 2014 Data Collected in April 2014

Well No.	Result	Gradient	Result > TL?
MW221	217.00	Sidegradient	NO
MW222	217.00	Sidegradient	NO
MW223	191.00	Sidegradient	NO
MW224	221.00	Sidegradient	NO
MW369	213.00	Downgradient	NO
MW372	546.00	Downgradient	**YES**
MW384	246.00	Sidegradient	NO
MW387	279.00	Downgradient	NO
MW391	263.00	Downgradient	NO

Conclusion of Statistical Analysis on Data

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

MW372

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

C-746-S and C-746-T Second Quarter 2014 Statistical Analysis URGA
Iron UNITS: mg/L

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

Background Data from Upgradient Wells

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

Statistics on Background Data

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

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

Statistics on Transformed Background Data

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

Transformed Background Data from Upgradient Wells

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

Second Quarter 2014 Data Collected in April 2014

Well No.	Result	Gradient	Result > TL?
MW221	0.643	Sidegradient	N/A
MW222	0.307	Sidegradient	N/A
MW223	0.091	Sidegradient	N/A
MW224	0.069	Sidegradient	N/A
MW369	1.420	Downgradient	N/A
MW372	1.990	Downgradient	N/A
MW384	0.171	Sidegradient	N/A
MW387	0.069	Downgradient	N/A
MW391	0.153	Downgradient	N/A

Transformed Second Quarter 2014 Data Collected in April 2014

Well Number	LN(Result)	Result > TL?
MW221	-0.442	NO
MW222	-1.181	NO
MW223	-2.401	NO
MW224	-2.671	NO
MW369	0.351	NO
MW372	0.688	NO
MW384	-1.766	NO
MW387	-2.677	NO
MW391	-1.877	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 Second Quarter 2014 Statistical Analysis URGA
Magnesium UNITS: mg/L

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

Background Data from Upgradient Wells

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

Statistics on Background Data

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

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

Second Quarter 2014 Data Collected in April 2014

Well No.	Result	Gradient	Result > TL?
MW221	9.340	Sidegradient	NO
MW222	8.950	Sidegradient	NO
MW223	9.440	Sidegradient	NO
MW224	10.300	Sidegradient	NO
MW369	6.700	Downgradient	NO
MW372	26.100	Downgradient	**YES**
MW384	11.100	Sidegradient	NO
MW387	15.800	Downgradient	**YES**
MW391	10.400	Downgradient	NO

Conclusion of Statistical Analysis on Data

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

MW372

MW387

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

C-746-S and C-746-T Second Quarter 2014 Statistical Analysis URGA
Manganese UNITS: mg/L

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

Background Data from Upgradient Wells

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

Statistics on Background Data

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

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

Statistics on Transformed Background Data

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

Transformed Background Data from Upgradient Wells

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

Second Quarter 2014 Data Collected in April 2014

Well No.	Result	Gradient	Result > TL?
MW221	0.017	Sidegradient	N/A
MW222	0.024	Sidegradient	N/A
MW223	0.087	Sidegradient	N/A
MW224	0.009	Sidegradient	N/A
MW369	0.138	Downgradient	N/A
MW372	0.037	Downgradient	N/A
MW384	0.005	Sidegradient	N/A
MW387	0.002	Downgradient	N/A
MW391	0.005	Downgradient	N/A

Transformed Second Quarter 2014 Data Collected in April 2014

Well Number	LN(Result)	Result > TL?
MW221	-4.080	NO
MW222	-3.717	NO
MW223	-2.438	NO
MW224	-4.714	NO
MW369	-1.981	NO
MW372	-3.291	NO
MW384	-5.329	NO
MW387	-6.255	NO
MW391	-5.298	NO

Conclusion of Statistical Analysis on Transformed Data

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

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

C-746-S and C-746-T Second Quarter 2014 Statistical Analysis URGA
Molybdenum UNITS: mg/L

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

Background Data from Upgradient Wells

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

Statistics on Background Data

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

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

Statistics on Transformed Background Data

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

Transformed Background Data from Upgradient Wells

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

Second Quarter 2014 Data Collected in April 2014

Well No.	Result	Gradient	Result > TL?
MW221	0.007	Sidegradient	N/A
MW222	0.001	Sidegradient	N/A
MW223	0.003	Sidegradient	N/A
MW224	0.000	Sidegradient	N/A
MW369	0.001	Downgradient	N/A
MW372	0.000	Downgradient	N/A
MW384	0.000	Sidegradient	N/A
MW387	0.001	Downgradient	N/A
MW391	0.001	Downgradient	N/A

Transformed Second Quarter 2014 Data Collected in April 2014

Well Number	LN(Result)	Result > TL?
MW221	-4.920	NO
MW222	-7.601	NO
MW223	-5.933	NO
MW224	-7.663	NO
MW369	-7.488	NO
MW372	-7.824	NO
MW384	-8.680	NO
MW387	-7.601	NO
MW391	-7.601	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 Second Quarter 2014 Statistical Analysis URGA
Nickel UNITS: mg/L

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

Background Data from Upgradient Wells

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

Statistics on Background Data

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

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

Statistics on Transformed Background Data

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

Transformed Background Data from Upgradient Wells

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

Second Quarter 2014 Data Collected in April 2014

Well No.	Result	Gradient	Result > TL?
MW221	0.129	Sidegradient	N/A
MW222	0.110	Sidegradient	N/A
MW223	0.608	Sidegradient	N/A
MW224	0.006	Sidegradient	N/A
MW369	0.008	Downgradient	N/A
MW372	0.001	Downgradient	N/A
MW384	0.004	Sidegradient	N/A
MW387	0.001	Downgradient	N/A
MW391	0.001	Downgradient	N/A

Transformed Second Quarter 2014 Data Collected in April 2014

Well Number	LN(Result)	Result > TL?
MW221	-2.048	NO
MW222	-2.207	NO
MW223	-0.498	NO
MW224	-5.129	NO
MW369	-4.821	NO
MW372	-7.013	NO
MW384	-5.591	NO
MW387	-6.734	NO
MW391	-6.908	NO

Conclusion of Statistical Analysis on Transformed Data

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

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

C-746-S and C-746-T Second Quarter 2014 Statistical Analysis URGA
Oxidation-Reduction Potential UNITS: mV

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

Background Data from Upgradient Wells

Well Number:	MW220
Date Collected	Result
10/14/2002	205.000
1/15/2003	1.950
4/10/2003	203.000
7/14/2003	30.000
10/13/2003	107.000
1/13/2004	295.000
4/13/2004	190.000
7/21/2004	319.000

Well Number:	MW394
Date Collected	Result
8/13/2002	90.000
9/16/2002	240.000
10/16/2002	185.000
1/13/2003	220.000
4/10/2003	196.000
7/16/2003	172.000
10/14/2003	175.000
1/13/2004	249.000

Statistics on Background Data

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

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

Second Quarter 2014 Data Collected in April 2014

Well No.	Result	Gradient	Result > TL?
MW221	497.00	Sidegradient	**YES**
MW222	510.00	Sidegradient	**YES**
MW223	356.00	Sidegradient	NO
MW224	547.00	Sidegradient	**YES**
MW369	514.00	Downgradient	**YES**
MW372	236.00	Downgradient	NO
MW384	344.00	Sidegradient	NO
MW387	561.00	Downgradient	**YES**
MW391	373.00	Downgradient	NO

Conclusion of Statistical Analysis on Data

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

MW221

MW222

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 Second Quarter 2014 Statistical Analysis	URGA
Oxidation-Reduction Potential (Continued)	UNITS: mV

MW369
MW387

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

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

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

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

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

C-746-S and C-746-T Second Quarter 2014 Statistical Analysis URGA
pH UNITS: Std Unit

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

Background Data from Upgradient Wells

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

Statistics on Background Data

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

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

Second Quarter 2014 Data Collected in April 2014

Well No.	Result	Gradient	Result >TL?	Result <LL?
MW221	6.120	Sidegradient	NO	NO
MW222	6.230	Sidegradient	NO	NO
MW223	6.120	Sidegradient	NO	NO
MW224	6.250	Sidegradient	NO	NO
MW369	6.210	Downgradient	NO	NO
MW372	6.140	Downgradient	NO	NO
MW384	6.160	Sidegradient	NO	NO
MW387	6.190	Downgradient	NO	NO
MW391	6.270	Downgradient	NO	NO

Conclusion of Statistical Analysis on Data

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

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

C-746-S and C-746-T Second Quarter 2014 Statistical Analysis URGA
Potassium UNITS: mg/L

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

Background Data from Upgradient Wells

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

Statistics on Background Data

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

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

Statistics on Transformed Background Data

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

Transformed Background Data from Upgradient Wells

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

Second Quarter 2014 Data Collected in April 2014

Well No.	Result	Gradient	Result > TL?
MW221	1.210	Sidegradient	N/A
MW222	0.462	Sidegradient	N/A
MW223	1.480	Sidegradient	N/A
MW224	0.897	Sidegradient	N/A
MW369	0.601	Downgradient	N/A
MW372	2.660	Downgradient	N/A
MW384	1.430	Sidegradient	N/A
MW387	1.890	Downgradient	N/A
MW391	1.520	Downgradient	N/A

Transformed Second Quarter 2014 Data Collected in April 2014

Well Number	LN(Result)	Result > TL?
MW221	0.191	NO
MW222	-0.772	NO
MW223	0.392	NO
MW224	-0.109	NO
MW369	-0.509	NO
MW372	0.978	NO
MW384	0.358	NO
MW387	0.637	NO
MW391	0.419	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 Second Quarter 2014 Statistical Analysis URGA
Sodium UNITS: mg/L

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

Background Data from Upgradient Wells

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

Statistics on Background Data

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

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

Second Quarter 2014 Data Collected in April 2014

Well No.	Result	Gradient	Result > TL?
MW221	45.200	Sidegradient	NO
MW222	44.400	Sidegradient	NO
MW223	44.400	Sidegradient	NO
MW224	62.400	Sidegradient	**YES**
MW369	58.700	Downgradient	**YES**
MW372	65.500	Downgradient	**YES**
MW384	53.100	Sidegradient	NO
MW387	52.400	Downgradient	NO
MW391	40.000	Downgradient	NO

Conclusion of Statistical Analysis on Data

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

MW224

MW369

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 Second Quarter 2014 Statistical Analysis URGA
Sulfate UNITS: mg/L

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

Background Data from Upgradient Wells

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

Statistics on Background Data

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

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

Second Quarter 2014 Data Collected in April 2014

Well No.	Result	Gradient	Result > TL?
MW221	13.200	Sidegradient	NO
MW222	11.300	Sidegradient	NO
MW223	15.000	Sidegradient	NO
MW224	16.400	Sidegradient	NO
MW369	8.090	Downgradient	NO
MW372	176.00	Downgradient	**YES**
MW384	22.900	Sidegradient	**YES**
MW387	28.700	Downgradient	**YES**
MW391	20.600	Downgradient	**YES**

Conclusion of Statistical Analysis on Data

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

MW372

MW384

MW387

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

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

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

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

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

C-746-S and C-746-T Second Quarter 2014 Statistical Analysis	URGA
Sulfate (Continued)	UNITS: mg/L

MW391

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

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

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

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

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

C-746-S and C-746-T Second Quarter 2014 Statistical Analysis URGA
Technetium-99 UNITS: pCi/L

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

Background Data from Upgradient Wells

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

Statistics on Background Data

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

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

Second Quarter 2014 Data Collected in April 2014

Well No.	Result	Gradient	Result > TL?
MW221	12.100	Sidegradient	NO
MW222	18.500	Sidegradient	NO
MW223	19.900	Sidegradient	NO
MW224	17.600	Sidegradient	NO
MW369	35.400	Downgradient	**YES**
MW372	13.400	Downgradient	NO
MW384	229.00	Sidegradient	**YES**
MW387	200.00	Downgradient	**YES**
MW391	5.150	Downgradient	NO

Conclusion of Statistical Analysis on Data

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

MW369

MW384

MW387

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

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

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

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

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

C-746-S and C-746-T Second Quarter 2014 Statistical Analysis URGA
Toluene UNITS: ug/L

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

Background Data from Upgradient Wells

Well Number:	MW220
Date Collected	Result
10/14/2002	5.000
1/15/2003	5.000
4/10/2003	5.000
7/14/2003	5.000
10/13/2003	5.000
1/13/2004	5.000
4/13/2004	5.000
7/21/2004	5.000

Well Number:	MW394
Date Collected	Result
8/13/2002	5.000
9/30/2002	5.000
10/16/2002	5.000
1/13/2003	5.000
4/10/2003	5.000
7/16/2003	5.000
10/14/2003	5.000
1/13/2004	5.000

Statistics on Background Data

X= 5.000
S= 0.000
CV= 0.000
K factor = 2.523**
TL= 5.000

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

Second Quarter 2014 Data Collected in April 2014

Well No.	Result	Gradient	Result > TL?
MW221	1.000	Sidegradient	NO
MW222	2.880	Sidegradient	NO
MW223	1.000	Sidegradient	NO
MW224	0.600	Sidegradient	NO
MW369	7.160	Downgradient	**YES**
MW372	1.000	Downgradient	NO
MW384	16.500	Sidegradient	**YES**
MW387	28.400	Downgradient	**YES**
MW391	3.610	Downgradient	NO

Conclusion of Statistical Analysis on Data

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

MW369

MW384

MW387

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

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

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

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

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

C-746-S and C-746-T Second Quarter 2014 Statistical Analysis URGA
Total Organic Carbon (TOC) UNITS: mg/L

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

Background Data from Upgradient Wells

Well Number:	MW220
Date Collected	Result
10/14/2002	1.000
1/15/2003	1.100
4/10/2003	1.000
7/14/2003	3.300
10/13/2003	1.800
1/13/2004	1.000
4/13/2004	2.000
7/21/2004	3.100

Well Number:	MW394
Date Collected	Result
8/13/2002	1.300
9/16/2002	1.000
10/16/2002	1.000
1/13/2003	1.600
4/10/2003	1.000
7/16/2003	1.400
10/14/2003	1.300
1/13/2004	1.000

Statistics on Background Data

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

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

Second Quarter 2014 Data Collected in April 2014

Well No.	Result	Gradient	Result > TL?
MW221	0.960	Sidegradient	NO
MW222	0.911	Sidegradient	NO
MW223	0.971	Sidegradient	NO
MW224	1.130	Sidegradient	NO
MW369	1.380	Downgradient	NO
MW372	1.680	Downgradient	NO
MW384	1.250	Sidegradient	NO
MW387	1.290	Downgradient	NO
MW391	0.869	Downgradient	NO

Conclusion of Statistical Analysis on Data

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

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

C-746-S and C-746-T Second Quarter 2014 Statistical Analysis URGA
Total Organic Halides (TOX) UNITS: ug/L

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

Background Data from Upgradient Wells

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

Statistics on Background Data

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

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

Statistics on Transformed Background Data

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

Transformed Background Data from Upgradient Wells

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

Second Quarter 2014 Data Collected in April 2014

Well No.	Result	Gradient	Result > TL?
MW221	7.720	Sidegradient	N/A
MW222	5.580	Sidegradient	N/A
MW223	5.200	Sidegradient	N/A
MW224	7.620	Sidegradient	N/A
MW369	25.600	Downgradient	N/A
MW372	13.900	Downgradient	N/A
MW384	10.900	Sidegradient	N/A
MW387	14.600	Downgradient	N/A
MW391	11.500	Downgradient	N/A

Transformed Second Quarter 2014 Data Collected in April 2014

Well Number	LN(Result)	Result > TL?
MW221	2.044	NO
MW222	1.719	NO
MW223	1.649	NO
MW224	2.031	NO
MW369	3.243	NO
MW372	2.632	NO
MW384	2.389	NO
MW387	2.681	NO
MW391	2.442	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 Second Quarter 2014 Statistical Analysis LRGA
Boron UNITS: mg/L

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

Background Data from Upgradient Wells

Well Number:	MW395
Date Collected	Result
8/13/2002	2.000
9/16/2002	2.000
10/16/2002	0.200
1/13/2003	0.200
4/10/2003	0.200
7/16/2003	0.200
10/14/2003	0.200
1/13/2004	0.200
Well Number:	MW397
Date Collected	Result
8/13/2002	2.000
9/16/2002	2.000
10/17/2002	0.200
1/13/2003	0.200
4/8/2003	0.200
7/16/2003	0.200
10/14/2003	0.200
1/13/2004	0.200

Statistics on Background Data

X= 0.650
S= 0.805
CV= 1.238
K factor = 2.523**
TL= 2.681

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

Statistics on Transformed Background Data

X= -1.034
S= 1.030
CV= -0.996
K factor = 2.523**
TL= 1.564

Transformed Background Data from Upgradient Wells

Well Number:	MW395
Date Collected	LN(Result)
8/13/2002	0.693
9/16/2002	0.693
10/16/2002	-1.609
1/13/2003	-1.609
4/10/2003	-1.609
7/16/2003	-1.609
10/14/2003	-1.609
1/13/2004	-1.609
Well Number:	MW397
Date Collected	LN(Result)
8/13/2002	0.693
9/16/2002	0.693
10/17/2002	-1.609
1/13/2003	-1.609
4/8/2003	-1.609
7/16/2003	-1.609
10/14/2003	-1.609
1/13/2004	-1.609

Second Quarter 2014 Data Collected in April 2014

Well No.	Result	Gradient	Result > TL?
MW370	0.031	Downgradient	N/A
MW373	2.180	Downgradient	N/A
MW385	0.012	Sidegradient	N/A
MW388	0.021	Downgradient	N/A
MW392	0.027	Downgradient	N/A

Transformed Second Quarter 2014 Data Collected in April 2014

Well Number	LN(Result)	Result > TL?
MW370	-3.477	NO
MW373	0.779	NO
MW385	-4.390	NO
MW388	-3.868	NO
MW392	-3.631	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 Second Quarter 2014 Statistical Analysis LRGA
Bromide UNITS: mg/L

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

Background Data from Upgradient Wells

Well Number:	MW395
Date Collected	Result
8/13/2002	1.000
9/16/2002	1.000
10/16/2002	1.000
1/13/2003	1.000
4/10/2003	1.000
7/16/2003	1.000
10/14/2003	1.000
1/13/2004	1.000
Well Number:	MW397
Date Collected	Result
8/13/2002	1.000
9/16/2002	1.000
10/17/2002	1.000
1/13/2003	1.000
4/8/2003	1.000
7/16/2003	1.000
10/14/2003	1.000
1/13/2004	1.000

Statistics on Background Data

X= 1.000
S= 0.000
CV= 0.000
K factor = 2.523**
TL= 1.000

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

Second Quarter 2014 Data Collected in April 2014

Well No.	Result	Gradient	Result > TL?
MW370	0.513	Downgradient	NO
MW373	0.606	Downgradient	NO
MW385	0.316	Sidegradient	NO
MW388	0.326	Downgradient	NO
MW392	0.602	Downgradient	NO

Conclusion of Statistical Analysis on Data

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

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

C-746-S and C-746-T Second Quarter 2014 Statistical Analysis LRGA
Calcium UNITS: mg/L

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

Background Data from Upgradient Wells

Well Number:	MW395
Date Collected	Result
8/13/2002	32.200
9/16/2002	33.000
10/16/2002	0.030
1/13/2003	32.100
4/10/2003	40.200
7/16/2003	32.400
10/14/2003	33.900
1/13/2004	31.200
Well Number:	MW397
Date Collected	Result
8/13/2002	19.400
9/16/2002	19.000
10/17/2002	0.018
1/13/2003	17.800
4/8/2003	20.300
7/16/2003	19.400
10/14/2003	19.900
1/13/2004	18.800

Statistics on Background Data

X= 23.103
S= 11.538
CV= 0.499
K factor = 2.523**
TL= 52.213

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

Second Quarter 2014 Data Collected in April 2014

Well No.	Result	Gradient	Result > TL?
MW370	28.000	Downgradient	NO
MW373	78.400	Downgradient	**YES**
MW385	25.100	Sidegradient	NO
MW388	29.300	Downgradient	NO
MW392	26.500	Downgradient	NO

Conclusion of Statistical Analysis on Data

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

MW373

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

C-746-S and C-746-T Second Quarter 2014 Statistical Analysis LRGA
Chemical Oxygen Demand (COD) UNITS: mg/L

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

Background Data from Upgradient Wells

Well Number:	MW395
Date Collected	Result
8/13/2002	35.000
9/16/2002	35.000
10/16/2002	35.000
1/13/2003	35.000
4/10/2003	35.000
7/16/2003	35.000
10/14/2003	35.000
1/13/2004	35.000

Well Number:	MW397
Date Collected	Result
8/13/2002	40.000
9/16/2002	35.000
10/17/2002	35.000
1/13/2003	35.000
4/8/2003	35.000
7/16/2003	35.000
10/14/2003	35.000
1/13/2004	35.000

Statistics on Background Data

X= 35.313
S= 1.250
CV= 0.035
K factor = 2.523**
TL= 38.466

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

Second Quarter 2014 Data Collected in April 2014

Well No.	Result	Gradient	Result > TL?
MW370	7.490	Downgradient	NO
MW373	20.000	Downgradient	NO
MW385	20.000	Sidegradient	NO
MW388	20.000	Downgradient	NO
MW392	18.300	Downgradient	NO

Conclusion of Statistical Analysis on Data

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

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

C-746-S and C-746-T Second Quarter 2014 Statistical Analysis LRGA
Chloride UNITS: mg/L

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

Background Data from Upgradient Wells

Well Number:	MW395
Date Collected	Result
8/13/2002	62.200
9/16/2002	64.700
10/16/2002	62.200
1/13/2003	63.500
4/10/2003	64.100
7/16/2003	64.000
10/14/2003	63.200
1/13/2004	60.600

Well Number:	MW397
Date Collected	Result
8/13/2002	38.900
9/16/2002	39.800
10/17/2002	39.300
1/13/2003	40.500
4/8/2003	42.100
7/16/2003	42.000
10/14/2003	40.800
1/13/2004	41.600

Statistics on Background Data

X= 51.844
S= 11.652
CV= 0.225
K factor = 2.523**
TL= 81.242

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

Second Quarter 2014 Data Collected in April 2014

Well No.	Result	Gradient	Result > TL?
MW370	42.600	Downgradient	NO
MW373	44.000	Downgradient	NO
MW385	30.900	Sidegradient	NO
MW388	31.500	Downgradient	NO
MW392	47.000	Downgradient	NO

Conclusion of Statistical Analysis on Data

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

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

C-746-S and C-746-T Second Quarter 2014 Statistical Analysis LRGA
Cobalt UNITS: mg/L

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

Background Data from Upgradient Wells

Well Number:	MW395
Date Collected	Result
8/13/2002	0.025
9/16/2002	0.025
10/16/2002	0.001
1/13/2003	0.001
4/10/2003	0.002
7/16/2003	0.001
10/14/2003	0.001
1/13/2004	0.001
Well Number:	MW397
Date Collected	Result
8/13/2002	0.025
9/16/2002	0.025
10/17/2002	0.001
1/13/2003	0.001
4/8/2003	0.001
7/16/2003	0.001
10/14/2003	0.001
1/13/2004	0.001

Statistics on Background Data

X= 0.007
S= 0.011
CV= 1.515
K factor = 2.523**
TL= 0.034

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

Statistics on Transformed Background Data

X= -6.053
S= 1.416
CV= -0.234
K factor = 2.523**
TL= -2.480

Transformed Background Data from Upgradient Wells

Well Number:	MW395
Date Collected	LN(Result)
8/13/2002	-3.689
9/16/2002	-3.689
10/16/2002	-6.908
1/13/2003	-6.516
4/10/2003	-6.496
7/16/2003	-6.908
10/14/2003	-6.908
1/13/2004	-6.908
Well Number:	MW397
Date Collected	LN(Result)
8/13/2002	-3.689
9/16/2002	-3.689
10/17/2002	-6.908
1/13/2003	-6.908
4/8/2003	-6.908
7/16/2003	-6.908
10/14/2003	-6.908
1/13/2004	-6.908

Second Quarter 2014 Data Collected in April 2014

Well No.	Result	Gradient	Result > TL?
MW370	0.000	Downgradient	N/A
MW373	0.000	Downgradient	N/A
MW385	0.000	Sidegradient	N/A
MW388	0.000	Downgradient	N/A
MW392	0.000	Downgradient	N/A

Transformed Second Quarter 2014 Data Collected in April 2014

Well Number	LN(Result)	Result > TL?
MW370	-7.621	NO
MW373	-8.948	NO
MW385	-8.948	NO
MW388	-9.115	NO
MW392	-7.752	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 Second Quarter 2014 Statistical Analysis LRGA
Conductivity UNITS: umho/cm

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

Background Data from Upgradient Wells

Well Number:	MW395
Date Collected	Result
8/13/2002	405.000
9/16/2002	401.000
10/16/2002	392.000
1/13/2003	404.000
4/10/2003	488.000
7/16/2003	450.000
10/14/2003	410.000
1/13/2004	413.000

Well Number:	MW397
Date Collected	Result
8/13/2002	322.000
9/16/2002	315.000
10/17/2002	317.000
1/13/2003	320.000
4/8/2003	390.000
7/16/2003	354.000
10/14/2003	331.000
1/13/2004	334.000

Statistics on Background Data

X= 377.875
S= 52.101
CV= 0.138
K factor = 2.523**
TL= 509.326

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

Second Quarter 2014 Data Collected in April 2014

Well No.	Result	Gradient	Result > TL?
MW370	432.00	Downgradient	NO
MW373	914.00	Downgradient	**YES**
MW385	409.00	Sidegradient	NO
MW388	458.00	Downgradient	NO
MW392	389.00	Downgradient	NO

Conclusion of Statistical Analysis on Data

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

MW373

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

C-746-S and C-746-T Second Quarter 2014 Statistical Analysis LRGA
Copper UNITS: mg/L

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

Background Data from Upgradient Wells

Well Number:	MW395
Date Collected	Result
8/13/2002	0.050
9/16/2002	0.050
10/16/2002	0.028
1/13/2003	0.020
4/10/2003	0.020
7/16/2003	0.020
10/14/2003	0.020
1/13/2004	0.020

Well Number:	MW397
Date Collected	Result
8/13/2002	0.050
9/16/2002	0.050
10/17/2002	0.020
1/13/2003	0.020
4/8/2003	0.020
7/16/2003	0.020
10/14/2003	0.020
1/13/2004	0.020

Statistics on Background Data

X= 0.028
S= 0.013
CV= 0.474
K factor = 2.523**
TL= 0.061

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

Second Quarter 2014 Data Collected in April 2014

Well No.	Result	Gradient	Result > TL?
MW370	0.001	Downgradient	NO
MW373	0.001	Downgradient	NO
MW385	0.001	Sidegradient	NO
MW388	0.001	Downgradient	NO
MW392	0.000	Downgradient	NO

Conclusion of Statistical Analysis on Data

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

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

C-746-S and C-746-T Second Quarter 2014 Statistical Analysis LRGA
Dissolved Oxygen UNITS: mg/L

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

Background Data from Upgradient Wells

Well Number:	MW395
Date Collected	Result
8/13/2002	7.290
9/30/2002	4.030
10/16/2002	3.850
1/13/2003	2.360
4/10/2003	1.140
7/16/2003	1.760
10/14/2003	4.050
1/13/2004	4.260
Well Number:	MW397
Date Collected	Result
8/13/2002	11.560
9/16/2002	5.860
10/17/2002	5.940
1/13/2003	4.660
4/8/2003	3.770
7/16/2003	3.470
10/14/2003	5.340
1/13/2004	5.510

Statistics on Background Data

X= 4.678
S= 2.431
CV= 0.520
K factor = 2.523**
TL= 10.812

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

Second Quarter 2014 Data Collected in April 2014

Well No.	Result	Gradient	Result > TL?
MW370	4.150	Downgradient	NO
MW373	3.010	Downgradient	NO
MW385	3.390	Sidegradient	NO
MW388	4.140	Downgradient	NO
MW392	2.970	Downgradient	NO

Conclusion of Statistical Analysis on Data

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

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

C-746-S and C-746-T Second Quarter 2014 Statistical Analysis LRGA
Dissolved Solids UNITS: mg/L

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

Background Data from Upgradient Wells

Well Number:	MW395
Date Collected	Result
8/13/2002	249.000
9/16/2002	272.000
10/16/2002	255.000
1/13/2003	211.000
4/10/2003	289.000
7/16/2003	236.000
10/14/2003	224.000
1/13/2004	235.000

Well Number:	MW397
Date Collected	Result
8/13/2002	187.000
9/16/2002	197.000
10/17/2002	183.000
1/13/2003	182.000
4/8/2003	217.000
7/16/2003	196.000
10/14/2003	198.000
1/13/2004	177.000

Statistics on Background Data

X= 219.250
S= 34.107
CV= 0.156
K factor = 2.523**
TL= 305.301

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

Second Quarter 2014 Data Collected in April 2014

Well No.	Result	Gradient	Result > TL?
MW370	223.00	Downgradient	NO
MW373	573.00	Downgradient	**YES**
MW385	194.00	Sidegradient	NO
MW388	247.00	Downgradient	NO
MW392	211.00	Downgradient	NO

Conclusion of Statistical Analysis on Data

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

MW373

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

C-746-S and C-746-T Second Quarter 2014 Statistical Analysis LRGA
Iron UNITS: mg/L

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

Background Data from Upgradient Wells

Well Number:	MW395
Date Collected	Result
8/13/2002	0.294
9/16/2002	0.200
10/16/2002	0.000
1/13/2003	1.330
4/10/2003	1.310
7/16/2003	0.200
10/14/2003	0.100
1/13/2004	0.100
Well Number:	MW397
Date Collected	Result
8/13/2002	1.580
9/16/2002	0.232
10/17/2002	0.000
1/13/2003	0.453
4/8/2003	0.200
7/16/2003	0.200
10/14/2003	0.100
1/13/2004	0.100

Statistics on Background Data

X= 0.400
S= 0.514
CV= 1.286
K factor = 2.523**
TL= 1.698

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

Statistics on Transformed Background Data

X= -2.197
S= 2.634
CV= -1.199
K factor = 2.523**
TL= 4.449

Transformed Background Data from Upgradient Wells

Well Number:	MW395
Date Collected	LN(Result)
8/13/2002	-1.224
9/16/2002	-1.609
10/16/2002	-8.517
1/13/2003	0.285
4/10/2003	0.270
7/16/2003	-1.609
10/14/2003	-2.303
1/13/2004	-2.303
Well Number:	MW397
Date Collected	LN(Result)
8/13/2002	0.457
9/16/2002	-1.461
10/17/2002	-8.517
1/13/2003	-0.792
4/8/2003	-1.609
7/16/2003	-1.609
10/14/2003	-2.303
1/13/2004	-2.303

Second Quarter 2014 Data Collected in April 2014

Well No.	Result	Gradient	Result > TL?
MW370	0.163	Downgradient	N/A
MW373	0.116	Downgradient	N/A
MW385	0.055	Sidegradient	N/A
MW388	0.065	Downgradient	N/A
MW392	0.412	Downgradient	N/A

Transformed Second Quarter 2014 Data Collected in April 2014

Well Number	LN(Result)	Result > TL?
MW370	-1.814	NO
MW373	-2.154	NO
MW385	-2.906	NO
MW388	-2.732	NO
MW392	-0.887	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 Second Quarter 2014 Statistical Analysis LRGA
Magnesium UNITS: mg/L

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

Background Data from Upgradient Wells

Well Number:	MW395
Date Collected	Result
8/13/2002	12.500
9/16/2002	13.000
10/16/2002	0.013
1/13/2003	11.200
4/10/2003	17.500
7/16/2003	12.900
10/14/2003	13.400
1/13/2004	12.400
Well Number:	MW397
Date Collected	Result
8/13/2002	7.830
9/16/2002	7.640
10/17/2002	0.007
1/13/2003	6.690
4/8/2003	7.280
7/16/2003	7.820
10/14/2003	7.940
1/13/2004	7.510

Statistics on Background Data

X= 9.102
S= 4.685
CV= 0.515
K factor = 2.523**
TL= 20.922

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

Second Quarter 2014 Data Collected in April 2014

Well No.	Result	Gradient	Result > TL?
MW370	11.800	Downgradient	NO
MW373	27.000	Downgradient	**YES**
MW385	9.530	Sidegradient	NO
MW388	12.700	Downgradient	NO
MW392	10.200	Downgradient	NO

Conclusion of Statistical Analysis on Data

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

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 Second Quarter 2014 Statistical Analysis LRGA
Manganese UNITS: mg/L

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

Background Data from Upgradient Wells

Well Number:	MW395
Date Collected	Result
8/13/2002	0.361
9/16/2002	0.028
10/16/2002	0.026
1/13/2003	0.071
4/10/2003	0.629
7/16/2003	0.297
10/14/2003	0.020
1/13/2004	0.013
Well Number:	MW397
Date Collected	Result
8/13/2002	0.466
9/16/2002	0.077
10/17/2002	0.028
1/13/2003	0.016
4/8/2003	0.041
7/16/2003	0.017
10/14/2003	0.006
1/13/2004	0.005

Statistics on Background Data

X= 0.131
S= 0.195
CV= 1.487
K factor = 2.523**
TL= 0.624

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

Statistics on Transformed Background Data

X= -3.104
S= 1.529
CV= -0.493
K factor = 2.523**
TL= 0.755

Transformed Background Data from Upgradient Wells

Well Number:	MW395
Date Collected	LN(Result)
8/13/2002	-1.019
9/16/2002	-3.576
10/16/2002	-3.650
1/13/2003	-2.641
4/10/2003	-0.464
7/16/2003	-1.214
10/14/2003	-3.922
1/13/2004	-4.374
Well Number:	MW397
Date Collected	LN(Result)
8/13/2002	-0.764
9/16/2002	-2.564
10/17/2002	-3.576
1/13/2003	-4.110
4/8/2003	-3.202
7/16/2003	-4.092
10/14/2003	-5.194
1/13/2004	-5.298

Second Quarter 2014 Data Collected in April 2014

Well No.	Result	Gradient	Result > TL?
MW370	0.006	Downgradient	N/A
MW373	0.003	Downgradient	N/A
MW385	0.005	Sidegradient	N/A
MW388	0.005	Downgradient	N/A
MW392	0.136	Downgradient	N/A

Transformed Second Quarter 2014 Data Collected in April 2014

Well Number	LN(Result)	Result > TL?
MW370	-5.155	NO
MW373	-5.748	NO
MW385	-5.298	NO
MW388	-5.298	NO
MW392	-1.995	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 Second Quarter 2014 Statistical Analysis LRGA
Molybdenum UNITS: mg/L

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

Background Data from Upgradient Wells

Well Number:	MW395
Date Collected	Result
8/13/2002	0.025
9/16/2002	0.025
10/16/2002	0.001
1/13/2003	0.006
4/10/2003	0.001
7/16/2003	0.001
10/14/2003	0.001
1/13/2004	0.001
Well Number:	MW397
Date Collected	Result
8/13/2002	0.025
9/16/2002	0.025
10/17/2002	0.001
1/13/2003	0.001
4/8/2003	0.001
7/16/2003	0.001
10/14/2003	0.001
1/13/2004	0.001

Statistics on Background Data

X= 0.007
S= 0.011
CV= 1.451
K factor = 2.523**
TL= 0.034

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

Statistics on Transformed Background Data

X= -5.990
S= 1.443
CV= -0.241
K factor = 2.523**
TL= -2.349

Transformed Background Data from Upgradient Wells

Well Number:	MW395
Date Collected	LN(Result)
8/13/2002	-3.689
9/16/2002	-3.689
10/16/2002	-6.908
1/13/2003	-5.101
4/10/2003	-6.908
7/16/2003	-6.908
10/14/2003	-6.908
1/13/2004	-6.908
Well Number:	MW397
Date Collected	LN(Result)
8/13/2002	-3.689
9/16/2002	-3.689
10/17/2002	-6.908
1/13/2003	-6.908
4/8/2003	-6.908
7/16/2003	-6.908
10/14/2003	-6.908
1/13/2004	-6.908

Second Quarter 2014 Data Collected in April 2014

Well No.	Result	Gradient	Result > TL?
MW370	0.000	Downgradient	N/A
MW373	0.001	Downgradient	N/A
MW385	0.001	Sidegradient	N/A
MW388	0.001	Downgradient	N/A
MW392	0.000	Downgradient	N/A

Transformed Second Quarter 2014 Data Collected in April 2014

Well Number	LN(Result)	Result > TL?
MW370	-8.623	NO
MW373	-7.601	NO
MW385	-7.601	NO
MW388	-7.601	NO
MW392	-7.621	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 Second Quarter 2014 Statistical Analysis LRGA
Nickel UNITS: mg/L

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

Background Data from Upgradient Wells

Well Number:	MW395
Date Collected	Result
8/13/2002	0.050
9/16/2002	0.050
10/16/2002	0.007
1/13/2003	0.029
4/10/2003	0.009
7/16/2003	0.006
10/14/2003	0.005
1/13/2004	0.005
Well Number:	MW397
Date Collected	Result
8/13/2002	0.050
9/16/2002	0.050
10/17/2002	0.005
1/13/2003	0.005
4/8/2003	0.005
7/16/2003	0.005
10/14/2003	0.005
1/13/2004	0.005

Statistics on Background Data

X= 0.018
S= 0.020
CV= 1.089
K factor = 2.523**
TL= 0.068

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

Statistics on Transformed Background Data

X= -4.540
S= 1.020
CV= -0.225
K factor = 2.523**
TL= -1.965

Transformed Background Data from Upgradient Wells

Well Number:	MW395
Date Collected	LN(Result)
8/13/2002	-2.996
9/16/2002	-2.996
10/16/2002	-4.959
1/13/2003	-3.540
4/10/2003	-4.699
7/16/2003	-5.072
10/14/2003	-5.298
1/13/2004	-5.298
Well Number:	MW397
Date Collected	LN(Result)
8/13/2002	-2.996
9/16/2002	-2.996
10/17/2002	-5.298
1/13/2003	-5.294
4/8/2003	-5.298
7/16/2003	-5.298
10/14/2003	-5.298
1/13/2004	-5.298

Second Quarter 2014 Data Collected in April 2014

Well No.	Result	Gradient	Result > TL?
MW370	0.002	Downgradient	N/A
MW373	0.001	Downgradient	N/A
MW385	0.002	Sidegradient	N/A
MW388	0.001	Downgradient	N/A
MW392	0.002	Downgradient	N/A

Transformed Second Quarter 2014 Data Collected in April 2014

Well Number	LN(Result)	Result > TL?
MW370	-6.365	NO
MW373	-6.768	NO
MW385	-6.377	NO
MW388	-6.578	NO
MW392	-6.450	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 Second Quarter 2014 Statistical Analysis LRGA
Oxidation-Reduction Potential UNITS: mV

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

Background Data from Upgradient Wells

Well Number:	MW395
Date Collected	Result
8/13/2002	80.000
9/16/2002	145.000
10/16/2002	125.000
1/13/2003	85.000
4/10/2003	159.000
7/16/2003	98.000
10/14/2003	138.000
1/13/2004	233.000

Well Number:	MW397
Date Collected	Result
8/13/2002	115.000
9/30/2002	140.000
10/17/2002	185.000
1/13/2003	230.000
4/8/2003	155.000
7/16/2003	188.000
10/14/2003	187.000
1/13/2004	253.000

Statistics on Background Data

X= 157.250
S= 52.376
CV= 0.333
K factor = 2.523**
TL= 289.395

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

Second Quarter 2014 Data Collected in April 2014

Well No.	Result	Gradient	Result > TL?
MW370	535.00	Downgradient	**YES**
MW373	398.00	Downgradient	**YES**
MW385	363.00	Sidegradient	**YES**
MW388	556.00	Downgradient	**YES**
MW392	384.00	Downgradient	**YES**

Conclusion of Statistical Analysis on Data
The following test well(s) exceeded the Upper Tolerance Limit, which is statistically significant evidence of elevated concentration with respect to background data.
MW370
MW373
MW385
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 Second Quarter 2014 Statistical Analysis LRGA
pH UNITS: Std Unit

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

Background Data from Upgradient Wells

Well Number:	MW395
Date Collected	Result
8/13/2002	5.800
9/16/2002	6.000
10/16/2002	5.470
1/13/2003	6.000
4/10/2003	6.180
7/16/2003	6.000
10/14/2003	6.310
1/13/2004	6.240
Well Number:	MW397
Date Collected	Result
8/13/2002	5.840
9/30/2002	6.000
10/17/2002	5.750
1/13/2003	6.000
4/8/2003	6.300
7/16/2003	6.200
10/14/2003	6.360
1/13/2004	6.320

Statistics on Background Data

X= 6.048
S= 0.248
CV= 0.041
K factor = 2.904**
TL= 6.767
LL= 5.329

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

Second Quarter 2014 Data Collected in April 2014

Well No.	Result	Gradient	Result >TL?	Result <LL?
MW370	6.080	Downgradient	NO	NO
MW373	6.080	Downgradient	NO	NO
MW385	6.120	Sidegradient	NO	NO
MW388	6.090	Downgradient	NO	NO
MW392	6.280	Downgradient	NO	NO

Conclusion of Statistical Analysis on Data

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

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

C-746-S and C-746-T Second Quarter 2014 Statistical Analysis LRGA
Potassium UNITS: mg/L

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

Background Data from Upgradient Wells

Well Number:	MW395
Date Collected	Result
8/13/2002	2.000
9/16/2002	2.000
10/16/2002	0.001
1/13/2003	1.510
4/10/2003	1.670
7/16/2003	1.730
10/14/2003	1.700
1/13/2004	1.580

Well Number:	MW397
Date Collected	Result
8/13/2002	2.030
9/16/2002	2.000
10/17/2002	0.001
1/13/2003	1.690
4/8/2003	1.730
7/16/2003	2.000
10/14/2003	1.920
1/13/2004	1.870

Statistics on Background Data

X= 1.590
S= 0.642
CV= 0.404
K factor = 2.523**
TL= 3.208

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

Second Quarter 2014 Data Collected in April 2014

Well No.	Result	Gradient	Result > TL?
MW370	2.380	Downgradient	NO
MW373	2.690	Downgradient	NO
MW385	1.440	Sidegradient	NO
MW388	1.900	Downgradient	NO
MW392	1.940	Downgradient	NO

Conclusion of Statistical Analysis on Data

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

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

C-746-S and C-746-T Second Quarter 2014 Statistical Analysis LRGA
Sodium UNITS: mg/L

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

Background Data from Upgradient Wells

Well Number:	MW395
Date Collected	Result
8/13/2002	27.000
9/16/2002	27.200
10/16/2002	0.025
1/13/2003	22.600
4/10/2003	53.900
7/16/2003	30.000
10/14/2003	29.100
1/13/2004	26.400
Well Number:	MW397
Date Collected	Result
8/13/2002	35.200
9/16/2002	34.300
10/17/2002	0.034
1/13/2003	31.300
4/8/2003	46.100
7/16/2003	38.400
10/14/2003	37.100
1/13/2004	34.300

Statistics on Background Data

X= 29.560
S= 13.894
CV= 0.470
K factor = 2.523**
TL= 64.616

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

Second Quarter 2014 Data Collected in April 2014

Well No.	Result	Gradient	Result > TL?
MW370	39.600	Downgradient	NO
MW373	68.000	Downgradient	**YES**
MW385	44.200	Sidegradient	NO
MW388	46.100	Downgradient	NO
MW392	36.800	Downgradient	NO

Conclusion of Statistical Analysis on Data

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

MW373

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

C-746-S and C-746-T Second Quarter 2014 Statistical Analysis LRGA
Sulfate UNITS: mg/L

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

Background Data from Upgradient Wells

Well Number:	MW395
Date Collected	Result
8/13/2002	10.300
9/16/2002	9.100
10/16/2002	8.800
1/13/2003	9.000
4/10/2003	8.300
7/16/2003	8.200
10/14/2003	8.300
1/13/2004	8.200
Well Number:	MW397
Date Collected	Result
8/13/2002	14.000
9/16/2002	12.800
10/17/2002	12.300
1/13/2003	12.700
4/8/2003	12.800
7/16/2003	13.100
10/14/2003	12.100
1/13/2004	12.100

Statistics on Background Data

X= 10.756
S= 2.147
CV= 0.200
K factor = 2.523**
TL= 16.173

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

Second Quarter 2014 Data Collected in April 2014

Well No.	Result	Gradient	Result > TL?
MW370	18.900	Downgradient	**YES**
MW373	209.00	Downgradient	**YES**
MW385	20.500	Sidegradient	**YES**
MW388	22.600	Downgradient	**YES**
MW392	6.790	Downgradient	NO

Conclusion of Statistical Analysis on Data

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

MW370

MW373

MW385

MW388

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

C-746-S and C-746-T Second Quarter 2014 Statistical Analysis LRGA
Technetium-99 UNITS: pCi/L

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

Background Data from Upgradient Wells

Well Number:	MW395
Date Collected	Result
8/13/2002	20.800
9/16/2002	16.200
10/16/2002	8.280
1/13/2003	13.000
4/10/2003	-9.370
7/16/2003	0.826
10/14/2003	14.100
1/13/2004	0.000
Well Number:	MW397
Date Collected	Result
8/13/2002	6.060
9/16/2002	17.300
10/17/2002	25.700
1/13/2003	20.900
4/8/2003	20.100
7/16/2003	9.200
10/14/2003	10.100
1/13/2004	8.540

Statistics on Background Data

X= 11.359
S= 9.138
CV= 0.805
K factor = 2.523**
TL= 34.414

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

Second Quarter 2014 Data Collected in April 2014

Well No.	Result	Gradient	Result > TL?
MW370	27.900	Downgradient	NO
MW373	43.600	Downgradient	**YES**
MW385	156.00	Sidegradient	**YES**
MW388	116.00	Downgradient	**YES**
MW392	11.500	Downgradient	NO

Conclusion of Statistical Analysis on Data

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

MW373

MW385

MW388

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

C-746-S and C-746-T Second Quarter 2014 Statistical Analysis LRGA
Total Organic Carbon (TOC) UNITS: mg/L

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

Background Data from Upgradient Wells

Well Number:	MW395
Date Collected	Result
8/13/2002	1.600
9/16/2002	1.100
10/16/2002	1.000
1/13/2003	2.000
4/10/2003	3.400
7/16/2003	2.000
10/14/2003	1.000
1/13/2004	1.000

Well Number:	MW397
Date Collected	Result
8/13/2002	1.000
9/16/2002	1.000
10/17/2002	1.000
1/13/2003	3.600
4/8/2003	1.900
7/16/2003	1.100
10/14/2003	1.000
1/13/2004	1.000

Statistics on Background Data

X= 1.544
S= 0.856
CV= 0.554
K factor = 2.523**
TL= 3.702

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

Second Quarter 2014 Data Collected in April 2014

Well No.	Result	Gradient	Result > TL?
MW370	0.993	Downgradient	NO
MW373	1.290	Downgradient	NO
MW385	1.190	Sidegradient	NO
MW388	1.210	Downgradient	NO
MW392	1.070	Downgradient	NO

Conclusion of Statistical Analysis on Data

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

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

C-746-S and C-746-T Second Quarter 2014 Statistical Analysis LRGA
Total Organic Halides (TOX) UNITS: ug/L

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

Background Data from Upgradient Wells

Well Number:	MW395
Date Collected	Result
8/13/2002	50.000
9/16/2002	50.000
10/16/2002	50.000
1/13/2003	18.300
4/10/2003	51.200
7/16/2003	42.600
10/14/2003	12.300
1/13/2004	10.000

Well Number:	MW397
Date Collected	Result
8/13/2002	50.000
9/16/2002	50.000
10/17/2002	50.000
1/13/2003	12.000
4/8/2003	19.900
7/16/2003	17.900
10/14/2003	10.000
1/13/2004	10.000

Statistics on Background Data

X= 31.513
S= 18.609
CV= 0.591
K factor = 2.523**
TL= 78.462

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

Second Quarter 2014 Data Collected in April 2014

Well No.	Result	Gradient	Result > TL?
MW370	6.120	Downgradient	NO
MW373	9.040	Downgradient	NO
MW385	10.600	Sidegradient	NO
MW388	9.860	Downgradient	NO
MW392	28.200	Downgradient	NO

Conclusion of Statistical Analysis on Data

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

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

C-746-S and C-746-T Second Quarter 2014 Statistical Analysis LRGA
Zinc UNITS: mg/L

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

Background Data from Upgradient Wells

Well Number:	MW395
Date Collected	Result
8/13/2002	0.100
9/16/2002	0.100
10/16/2002	0.025
1/13/2003	0.035
4/10/2003	0.035
7/16/2003	0.020
10/14/2003	0.020
1/13/2004	0.020

Well Number:	MW397
Date Collected	Result
8/13/2002	0.100
9/16/2002	0.100
10/17/2002	0.025
1/13/2003	0.035
4/8/2003	0.035
7/16/2003	0.020
10/14/2003	0.020
1/13/2004	0.020

Statistics on Background Data

X= 0.044
S= 0.034
CV= 0.760
K factor = 2.523**
TL= 0.129

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

Second Quarter 2014 Data Collected in April 2014

Well No.	Result	Gradient	Result > TL?
MW370	0.010	Downgradient	NO
MW373	0.010	Downgradient	NO
MW385	0.010	Sidegradient	NO
MW388	0.004	Downgradient	NO
MW392	0.010	Downgradient	NO

Conclusion of Statistical Analysis on Data

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

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

756 Park Meadow Road
Westerville, Ohio 43081

August 18th, 2014

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 Chemist, with a Bachelor of Science degree in chemistry and a minor in mathematics, I have over two years of experience in reviewing and assessing laboratory analytical results associated with environmental sampling and investigation activities. For the generation of these statistical analyses, my work was observed and reviewed by a senior chemist and geologist with LATA.

For this project, the statistical analyses conducted on the second quarter 2014 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,

Cory Tackett
LATA Project Chemist

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APPENDIX E

GROUNDWATER FLOW RATE AND DIRECTION

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GROUNDWATER FLOW RATE AND DIRECTION

Whenever monitoring wells (MWs) are sampled, 401 *KAR* 48:300, Section 11, requires determination of groundwater flow rate and direction of flow in the uppermost aquifer. The uppermost aquifer below the C-746-S&T Landfills 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 second quarter 2014 and to determine the groundwater flow rate and direction.

Water levels during this reporting period were measured on April 29, 2014. 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, MW389 had insufficient water for both measurement of the water level and for 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 4.71×10^{-4} ft/ft. Additional water level measurements in April (Figure E.3) document the vicinity groundwater hydraulic gradient for the RGA to be 2.86×10^{-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 the C-746-S&T Landfills typically trends northeastward toward the Ohio River. During April 2014, groundwater flow in the vicinity of the landfills was directed eastward, in response to changes in the Ohio River stage. As demonstrated on the potentiometric map for April 2014, the groundwater flow direction in the immediate area of the landfill commonly varies slightly from regional trends; however, as groundwater flows away from the landfill, it eventually conforms to the regional flow direction.

[1] Additional water level measurements, in wells at the C-746-U Landfill and in wells of the surrounding region (MW98, MW100, MW125, MW139, MW173, MW193, MW197, and MW200), were used to contour the RGA potentiometric surface.

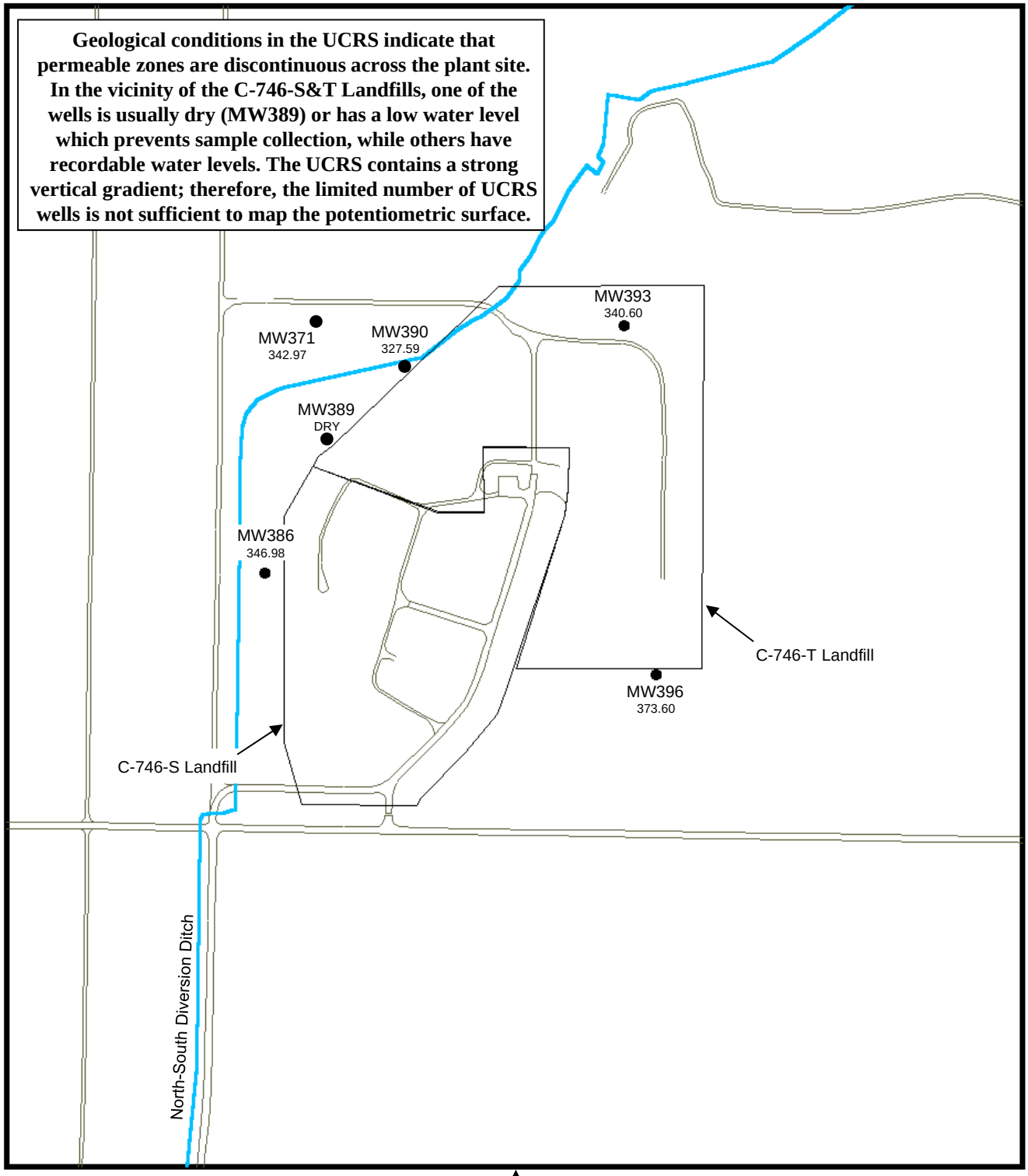

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Figure E.1. Potentiometric Surface of the Upper Continental Recharge System at the C-746 S&T Landfills Permit Numbers 073-00014 & 073-00015 April 29, 2014

LATA Environmental Services of Kentucky, LLC

Table E.1. C-746-S&T Landfills Second Quarter 2014 (April) Water Levels

C-746-S&T Landfills (April 2014) Water Levels										
							Raw Data		*Corrected Data	
Date	Time	Well	Formation	Datum Elev (ft amsl)	BP (in Hg)	Delta BP (ft H20)	DTW (ft)	Elev (ft amsl)	DTW (ft)	Elev (ft amsl)
4/29/2014	8:30	MW220	URGA	381.44	29.63	0.00	53.92	327.52	53.92	327.52
4/29/2014	8:42	MW221	URGA	390.83	29.63	0.00	63.27	327.56	63.27	327.56
4/29/2014	8:38	MW222	URGA	394.87	29.63	0.00	67.39	327.48	67.39	327.48
4/29/2014	8:40	MW223	URGA	394.03	29.63	0.00	66.49	327.54	66.49	327.54
4/29/2014	8:36	MW224	URGA	395.41	29.63	0.00	67.91	327.5	67.91	327.50
4/29/2014	8:33	MW225	URGA	385.55	29.63	0.00	58.12	327.43	58.12	327.43
4/29/2014	7:18	MW353	LRGA	374.86	29.61	0.02	47.71	327.15	47.73	327.13
4/29/2014	7:57	MW369	URGA	364.48	29.63	0.00	36.81	327.67	36.81	327.67
4/29/2014	8:00	MW370	LRGA	365.35	29.63	0.00	37.70	327.65	37.70	327.65
4/29/2014	7:58	MW371	UCRS	364.88	29.63	0.00	21.91	342.97	21.91	342.97
4/29/2014	7:52	MW372	URGA	359.66	29.61	0.02	32.05	327.61	32.07	327.59
4/29/2014	7:56	MW373	LRGA	359.95	29.63	0.00	32.38	327.57	32.38	327.57
4/29/2014	8:19	MW384	URGA	365.06	29.63	0.00	37.46	327.6	37.46	327.60
4/29/2014	8:21	MW385	LRGA	365.54	29.63	0.00	37.95	327.59	37.95	327.59
4/29/2014	8:20	MW386	UCRS	365.21	29.63	0.00	18.23	346.98	18.23	346.98
4/29/2014	8:23	MW387	URGA	363.27	29.63	0.00	35.62	327.65	35.62	327.65
4/29/2014	8:24	MW388	LRGA	363.25	29.63	0.00	35.62	327.63	35.62	327.63
4/29/2014	8:28	MW389	UCRS	363.82	29.63	0.00	DRY	NA	DRY	NA
4/29/2014	8:26	MW390	UCRS	360.36	29.63	0.00	32.77	327.59	32.77	327.59
4/29/2014	8:05	MW391	URGA	366.54	29.63	0.00	39.03	327.51	39.03	327.51
4/29/2014	8:03	MW392	LRGA	365.67	29.63	0.00	38.18	327.49	38.18	327.49
4/29/2014	8:04	MW393	UCRS	366.59	29.63	0.00	25.99	340.6	25.99	340.60
4/29/2014	8:11	MW394	URGA	378.32	29.63	0.00	50.91	327.41	50.91	327.41
4/29/2014	8:13	MW395	LRGA	379.01	29.63	0.00	51.55	327.46	51.55	327.46
4/29/2014	8:12	MW396	UCRS	378.64	29.63	0.00	5.04	373.6	5.04	373.60
4/29/2014	8:14	MW397	LRGA	386.90	29.63	0.00	59.58	327.32	59.58	327.32
4/29/2014	8:06	MW418	URGA	366.78	29.63	0.00	39.26	327.52	39.26	327.52
4/29/2014	8:07	MW419	LRGA	366.68	29.63	0.00	39.20	327.48	39.20	327.48

Initial Barometric Pressure **29.63**

Elev = elevation

amsl = above mean sea level

BP = barometric pressure

DTW = depth to water in feet below datum

URGA = Upper Regional Gravel Aquifer

LRGA = Lower Regional Gravel Aquifer

UCRS = Upper Continental Recharge System

*Assumes a barometric efficiency of 1.0

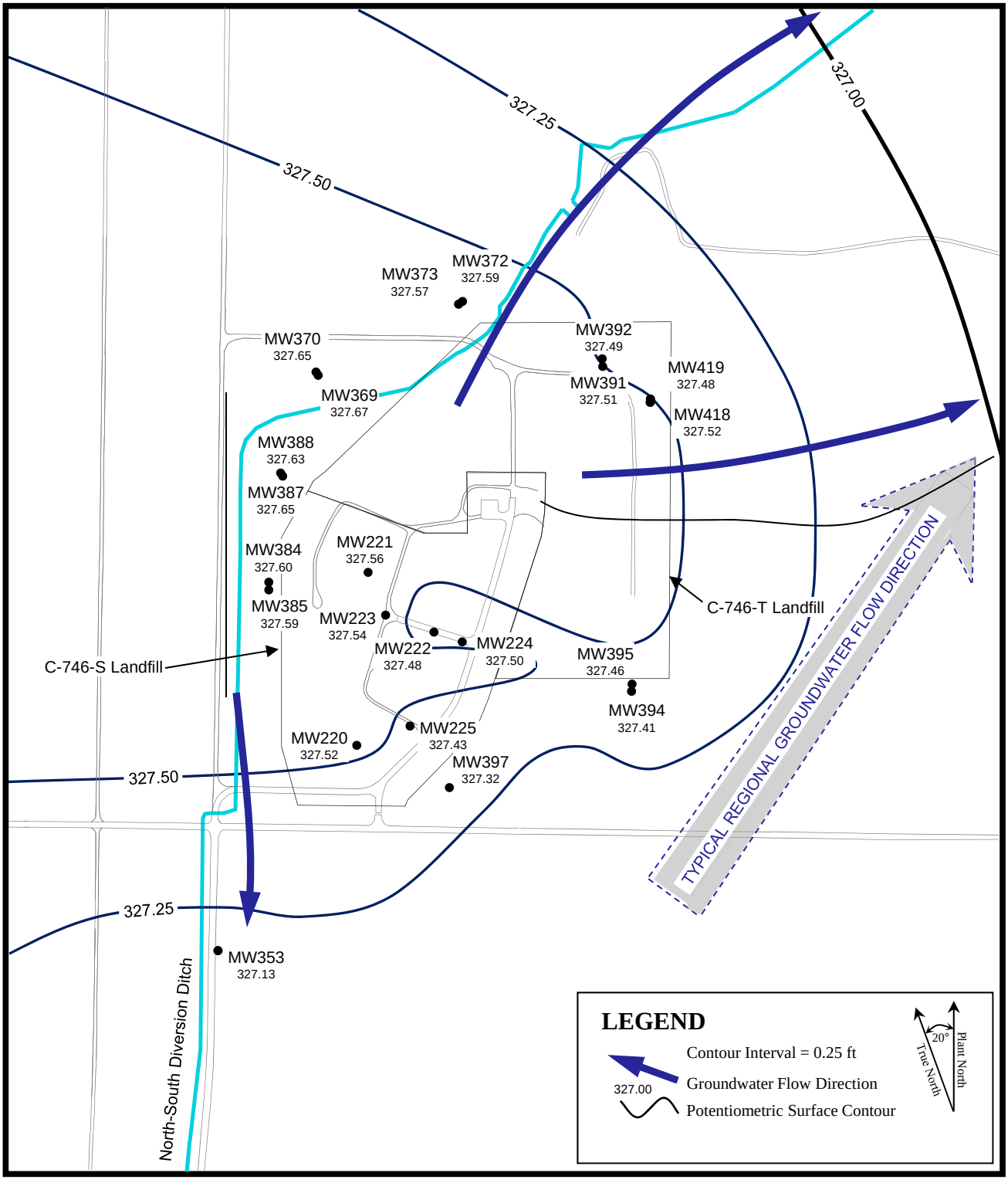

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Figure E.2. Composite Potentiometric Surface of the Regional Gravel Aquifer at the C-746-S&T Landfills Permit Numbers 073-00014 & 073-00015 April 29, 2014

LATA Environmental Services of Kentucky, LLC

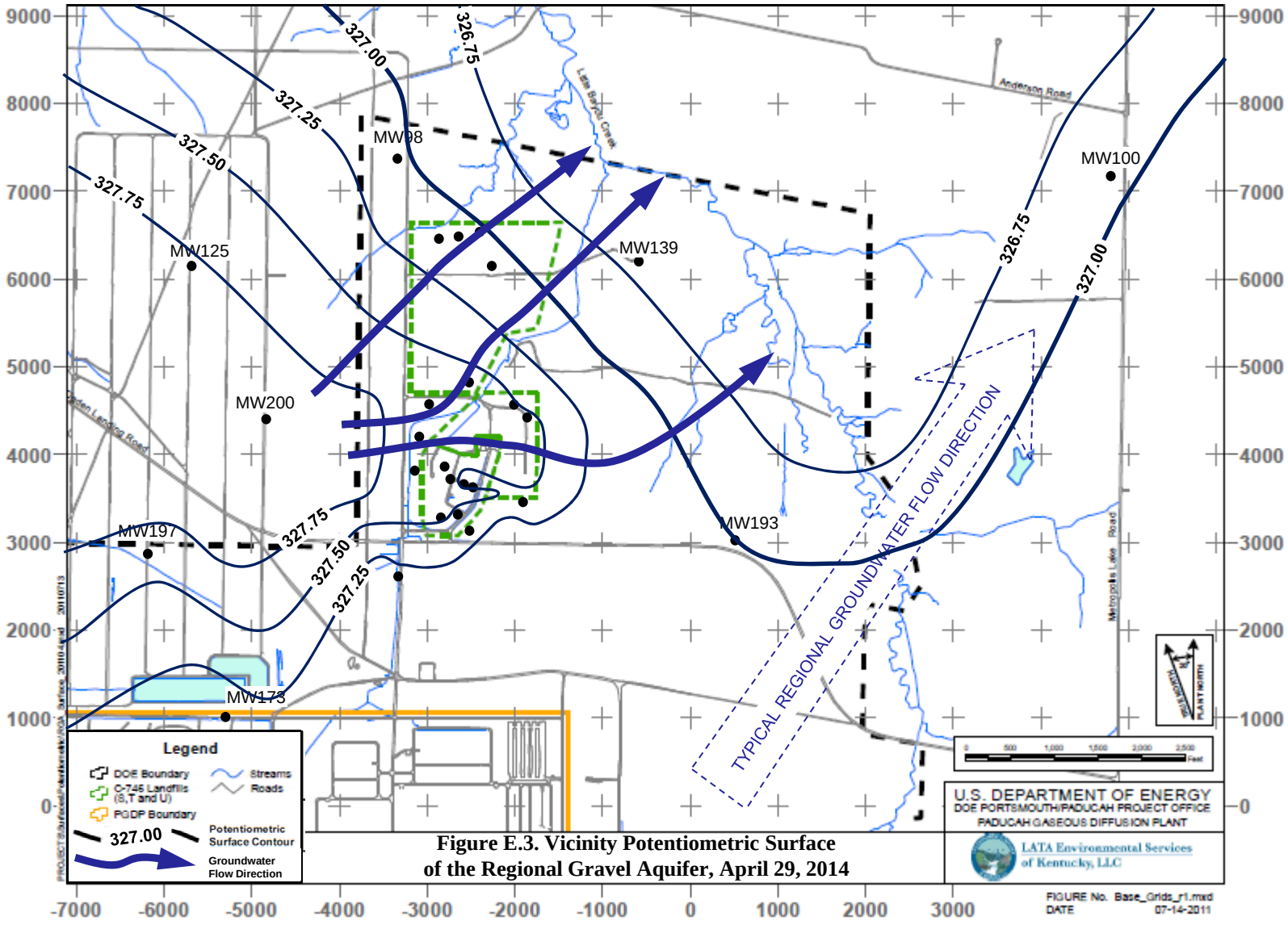

Figure E.3. Vicinity Potentiometric Surface of the Regional Gravel Aquifer, April 29, 2014

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

	ft/ft
Beneath Landfill Mound	4.71×10^{-4}
Vicinity	2.86×10^{-4}

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

Hydraulic Conductivity (K)		Specific Discharge (q)		Average Linear Velocity (v)	
ft/day	cm/s	ft/day	cm/s	ft/day	cm/s
Beneath Landfill Mound					
725	0.256	0.34	1.21×10^{-4}	1.37	4.82×10^{-4}
425	0.150	0.21	7.06×10^{-5}	0.80	2.83×10^{-4}
Vicinity					
725	0.256	0.21	7.32×10^{-5}	0.83	2.93×10^{-4}
425	0.150	0.12	4.29×10^{-5}	0.49	1.72×10^{-4}

APPENDIX F

NOTIFICATIONS

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NOTIFICATIONS

In accordance with 401 *KAR* 48:300 § 7, the notification for parameters that exceed the maximum contaminant level (MCL) has been submitted to the Kentucky Division of Waste Management. The parameters are listed on the page F-4. 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 second quarter 2014 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 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	
Technetium-99	MW390
Upper Regional Gravel Aquifer	
Sodium	MW224, MW369, MW372
Technetium-99	MW369, MW372, MW384, MW387
Toluene	MW369, MW384, MW387
Lower Regional Gravel Aquifer	
Sodium	MW373
Technetium-99	MW373, MW385, MW388

NOTE: Although technetium-99 is not cited in 40 *CFR* § 302.4, Appendix A, these radionuclides are being reported along with the parameters of this regulation.

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APPENDIX G

CHART OF MCL EXCEEDANCES AND STATISTICALLY SIGNIFICANT INCREASES

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Chart of MCL Exceedances and Statistical Increases for C-746-S&T Landfills

Groundwater Flow System	UCRS					URGA											LRGA						
Gradient	S	D	D	D	U	S	S	S	S	S	D	D	D	D	U	U	S	D	D	D	D	U	U
Monitoring Well	386	389	390	393	396	221	222	223	224	384	369	372	387	391	220	394	385	370	373	388	392	395	397
1,2,3-TRICHLOROPROPANE																							
Quarter 2, 2009			✱																				
ACETONE																							
Quarter 3, 2003							✱					✱											
Quarter 4, 2003											✱								✱				
Quarter 1, 2005									✱														
ALPHA ACTIVITY																							
Quarter 4, 2002				■	■								■										
Quarter 4, 2008										■													
Quarter 4, 2010										■													
ALUMINUM																							
Quarter 1, 2003			✱				✱					✱	✱	✱									
Quarter 2, 2003			✱				✱						✱	✱									
Quarter 3, 2003			✱				✱	✱					✱	✱									
Quarter 4, 2003							✱	✱			✱			✱									
Quarter 1, 2004			✱				✱	✱			✱												
Quarter 2, 2004							✱							✱									
Quarter 3, 2004							✱							✱									
Quarter 4, 2004			✱																				
Quarter 1, 2005			✱																				
Quarter 2, 2005			✱				✱																
Quarter 3, 2005			✱				✱			✱											✱		
Quarter 4, 2005			✱				✱				✱												
Quarter 1, 2006							✱						✱										
Quarter 2, 2006			✱				✱																
Quarter 3, 2006							✱																
Quarter 4, 2006			✱				✱																
Quarter 1, 2007							✱										✱						
Quarter 2, 2007							✱										✱						
Quarter 3, 2007							✱																
Quarter 4, 2007							✱																
Quarter 1, 2008							✱							✱									
Quarter 2, 2008											✱												
Quarter 4, 2008							✱																
Quarter 1, 2009			✱				✱				✱												
Quarter 1, 2010			✱				✱				✱												
Quarter 2, 2010			✱								✱												
Quarter 3, 2010			✱								✱			✱			✱			✱			
Quarter 1, 2011							✱				✱												
Quarter 2, 2011			✱								✱												
Quarter 2, 2012			✱																				

Chart of MCL Exceedances and Statistical Increases for C-746-S&T Landfills

Groundwater Flow System	UCRS					URGA										LRGA						
Gradient	S	D	D	D	U	S	S	S	S	S	D	D	D	D	U	U	S	D	D	D	D	U	U
Monitoring Well	386	389	390	393	396	221	222	223	224	384	369	372	387	391	220	394	385	370	373	388	392	395	397
Quarter 3, 2012							✱																
Quarter 1, 2013							✱				✱												
Quarter 3, 2013			✱																				
Quarter 1, 2014							✱																
Quarter 2, 2014											✱												
BARIUM																							
Quarter 3, 2003							■	■															
Quarter 4, 2003							■	■															
BETA ACTIVITY																							
Quarter 4, 2002													■										
Quarter 1, 2003													■				■						
Quarter 2, 2003			■	■													■			■			
Quarter 3, 2003			■										■				■						
Quarter 4, 2003			■							■			■										
Quarter 1, 2004			■										■				■						
Quarter 2, 2004			■									■	■				■		■	■			
Quarter 3, 2004			■									■	■				■						
Quarter 4, 2004			■									■	■				■						
Quarter 1, 2005			■							■			■				■						
Quarter 2, 2005			■										■				■			■			
Quarter 3, 2005										■			■										
Quarter 4, 2005										■		■	■				■						
Quarter 1, 2006										■		■	■				■		■	■			
Quarter 2, 2006			■							■			■				■		■	■			
Quarter 3, 2006										■		■	■				■		■	■			
Quarter 4, 2006	■		■							■		■	■						■	■			
Quarter 1, 2007			■							■		■	■				■		■	■			
Quarter 2, 2007			■							■		■	■				■		■	■			
Quarter 3, 2007										■		■	■				■			■			
Quarter 4, 2007			■							■		■	■				■		■	■			
Quarter 1, 2008			■							■		■	■				■			■			
Quarter 2, 2008			■							■	■		■				■			■			
Quarter 3, 2008										■		■	■				■			■			
Quarter 4, 2008										■		■	■				■						
Quarter 1, 2009			■							■		■	■				■						
Quarter 2, 2009										■		■	■				■						
Quarter 3, 2009										■		■	■				■			■			
Quarter 4, 2009										■		■	■				■						
Quarter 1, 2010												■	■										
Quarter 2, 2010			■							■			■				■						
Quarter 3, 2010										■			■				■						

Chart of MCL Exceedances and Statistical Increases for C-746-S&T Landfills

Groundwater Flow System	UCRS					URGA											LRGA						
Gradient	S	D	D	D	U	S	S	S	S	S	D	D	D	D	U	U	S	D	D	D	D	U	U
Monitoring Well	386	389	390	393	396	221	222	223	224	384	369	372	387	391	220	394	385	370	373	388	392	395	397
Quarter 4, 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										■		■	■						■	■			
Quarter 2, 2013										■			■				■			■			
Quarter 3, 2013										■		■	■				■		■	■			
Quarter 4, 2013										■		■	■				■			■			
Quarter 1, 2014			■							■		■	■				■						
Quarter 2, 2014										■			■				■			■			
BROMIDE																							
Quarter 1, 2003			✱																				
Quarter 4, 2003			✱																				
Quarter 1, 2004			✱																				
Quarter 2, 2004			✱																				
Quarter 3, 2004			✱																				
Quarter 4, 2004			✱																				
Quarter 1, 2005			✱																				
Quarter 3, 2006			✱																				
CALCIUM																							
Quarter 1, 2003			✱																				
Quarter 2, 2003			✱									✱											
Quarter 3, 2003			✱																				
Quarter 4, 2003			✱									✱							✱				
Quarter 1, 2004			✱									✱		✱					✱				
Quarter 2, 2004			✱									✱							✱				
Quarter 3, 2004			✱									✱							✱				
Quarter 4, 2004			✱									✱							✱				
Quarter 1, 2005												✱							✱				
Quarter 2, 2005												✱							✱				
Quarter 3, 2005												✱							✱				
Quarter 4, 2005												✱							✱				
Quarter 1, 2006												✱							✱				
Quarter 2, 2006												✱							✱				
Quarter 3, 2006												✱							✱				
Quarter 4, 2006												✱							✱				

Chart of MCL Exceedances and Statistical Increases for C-746-S&T Landfills

Quarter 1, 2007												*						*					
Quarter 2, 2007												*						*					
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, 2007												*							*				
Quarter 4, 2007												*							*				
Quarter 1, 2008												*							*				
Quarter 2, 2008												*							*				
Quarter 3, 2008												*							*				
Quarter 4, 2008												*							*				
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Quarter 1, 2014																		*	*				
Quarter 2, 2014												*							*				
CARBON DISULFIDE																							
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Quarter 1, 2011												*									*		
CHEMICAL OXYGEN DEMAND																							
Quarter 1, 2003				*																			
Quarter 2, 2003				*																			
Quarter 3, 2003				*			*			*													
Quarter 4, 2003				*																			
Quarter 1, 2004	*			*																			

Chart of MCL Exceedances and Statistical Increases for C-746-S&T Landfills

Groundwater Flow System	UCRS					URGA											LRGA						
Gradient	S	D	D	D	U	S	S	S	S	S	D	D	D	D	U	U	S	D	D	D	D	U	U
Monitoring Well	386	389	390	393	396	221	222	223	224	384	369	372	387	391	220	394	385	370	373	388	392	395	397
Quarter 4, 2004	*																						
Quarter 1, 2005	*																						
Quarter 2, 2005	*																						
Quarter 3, 2005	*									*		*									*		
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CHLORIDE																							
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Quarter 3, 2003			*																				
Quarter 4, 2003			*																				
Quarter 1, 2004			*																				
Quarter 2, 2004			*																				
Quarter 3, 2004			*																				

Chart of MCL Exceedances and Statistical Increases for C-746-S&T Landfills

Groundwater Flow System	UCRS					URGA										LRGA						
Gradient	S	D	D	D	U	S	S	S	S	S	D	D	D	D	U	U	S	D	D	D	D	U	U
Monitoring Well	386	389	390	393	396	221	222	223	224	384	369	372	387	391	220	394	385	370	373	388	392	395	397
Quarter 4, 2004			*																				
Quarter 1, 2005			*																				
Quarter 2, 2005			*																				
Quarter 3, 2005			*																				
Quarter 4, 2005			*																				
Quarter 1, 2006																		*					
Quarter 2, 2006			*																				
Quarter 3, 2006			*																				
Quarter 4, 2006			*																				
Quarter 1, 2007			*																				
Quarter 2, 2007			*																				
Quarter 3, 2007			*																				
Quarter 4, 2007			*																				
Quarter 1, 2008			*																				
Quarter 2, 2008			*																				
Quarter 3, 2008			*																				
Quarter 4, 2008			*																				
Quarter 1, 2009			*																				
Quarter 2, 2009			*																				
Quarter 3, 2009			*																				
Quarter 4, 2009			*																				
Quarter 1, 2010			*																				
Quarter 2, 2010			*																				
Quarter 3, 2010			*																				
Quarter 4, 2010			*																				
Quarter 2, 2011			*																				
Quarter 3, 2011			*																				
Quarter 4, 2011			*																				
Quarter 3, 2012			*																				
Quarter 3, 2013			*																				
Quarter 4, 2013			*																				
CHROMIUM																							
Quarter 4, 2002								■															
Quarter 1, 2003								■														■	
Quarter 2, 2003							■	■															
Quarter 3, 2009						■																	
COBALT																							
Quarter 3, 2003							*																
CONDUCTIVITY																							

Chart of MCL Exceedances and Statistical Increases for C-746-S&T Landfills

Groundwater Flow System	UCRS					URGA											LRGA						
Gradient	S	D	D	D	U	S	S	S	S	S	D	D	D	D	U	U	S	D	D	D	D	U	U
Monitoring Well	386	389	390	393	396	221	222	223	224	384	369	372	387	391	220	394	385	370	373	388	392	395	397
Quarter 4, 2002										*									*				
Quarter 1, 2003			*							*									*				
Quarter 2, 2003			*							*									*				
Quarter 3, 2003			*					*		*									*				
Quarter 4, 2003			*							*									*				
Quarter 1, 2004																			*				
Quarter 2, 2004										*									*				
Quarter 3, 2004										*									*				
Quarter 4, 2004			*							*									*				
Quarter 1, 2005										*		*							*				
Quarter 2, 2005												*							*				
Quarter 3, 2005																			*				
Quarter 4, 2005										*		*							*				
Quarter 1, 2006												*							*				
Quarter 2, 2006												*							*				
Quarter 3, 2006												*							*				
Quarter 4, 2006																	*		*				
Quarter 1, 2007												*							*				
Quarter 2, 2007																	*		*				
Quarter 3, 2007																	*		*				
Quarter 4, 2007												*					*		*				
Quarter 1, 2008												*							*				
Quarter 2, 2008												*							*				
Quarter 3, 2008												*					*		*				
Quarter 4, 2008												*							*				
Quarter 1, 2009												*							*				
Quarter 2, 2009												*							*				
Quarter 3, 2009												*							*				
Quarter 4, 2009												*					*		*				
Quarter 1, 2010												*							*				
Quarter 2, 2010												*							*				
Quarter 3, 2010												*							*				
Quarter 4, 2010												*							*				
Quarter 1, 2011										*		*							*				
Quarter 2, 2011												*							*				
Quarter 3, 2011												*							*				
Quarter 4, 2011												*							*				
Quarter 1, 2012											*	*							*				
Quarter 2, 2012												*							*				
Quarter 3, 2012												*							*				
Quarter 4, 2012												*							*				
Quarter 1, 2013												*							*				
Quarter 2, 2013												*							*				
Quarter 3, 2013												*							*				
Quarter 4, 2013												*							*				

Chart of MCL Exceedances and Statistical Increases for C-746-S&T Landfills

Groundwater Flow System	UCRS					URGA											LRGA						
Gradient	S	D	D	D	U	S	S	S	S	S	D	D	D	D	U	U	S	D	D	D	D	U	U
Monitoring Well	386	389	390	393	396	221	222	223	224	384	369	372	387	391	220	394	385	370	373	388	392	395	397
Quarter 1, 2014												*							*				
Quarter 2, 2014												*							*				
DISSOLVED OXYGEN																							
Quarter 3, 2006			*					*															
DISSOLVED SOLIDS																							
Quarter 4, 2002										*									*				
Quarter 1, 2003			*							*									*				
Quarter 2, 2003			*							*									*				
Quarter 3, 2003			*				*	*		*		*							*				
Quarter 4, 2003			*				*		*	*		*							*				
Quarter 1, 2004			*									*							*				
Quarter 2, 2004										*		*							*				
Quarter 3, 2004										*		*							*				
Quarter 4, 2004										*		*							*				
Quarter 1, 2005												*							*				
Quarter 2, 2005																			*				
Quarter 3, 2005																	*	*	*	*	*		
Quarter 4, 2005																	*	*	*	*	*		
Quarter 1, 2006																	*	*	*	*	*		
Quarter 2, 2006																	*	*	*	*	*		
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										*		*							*				

Chart of MCL Exceedances and Statistical Increases for C-746-S&T Landfills

Groundwater Flow System	UCRS					URGA											LRGA						
Gradient	S	D	D	D	U	S	S	S	S	S	D	D	D	D	U	U	S	D	D	D	D	U	U
Monitoring Well	386	389	390	393	396	221	222	223	224	384	369	372	387	391	220	394	385	370	373	388	392	395	397
Quarter 2, 2011												*	*						*				
Quarter 3, 2011												*							*				
Quarter 4, 2011												*							*				
Quarter 1, 2012											*	*	*						*				
Quarter 2, 2012												*							*				
Quarter 3, 2012										*		*	*						*				
Quarter 4, 2012												*	*						*				
Quarter 1, 2013										*		*							*				
Quarter 2, 2013												*							*				
Quarter 3, 2013												*							*				
Quarter 4, 2013												*							*				
Quarter 1, 2014												*	*						*				
Quarter 2, 2014												*							*				
IODIDE																							
Quarter 4, 2002																					*		
Quarter 2, 2003						*																	
Quarter 3, 2003													*										
Quarter 1, 2004				*																			
Quarter 3, 2010																					*		
Quarter 2, 2013										*													
IRON																							
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 1, 2006							*																
Quarter 2, 2006												*											
Quarter 3, 2006											*												
Quarter 1, 2007											*	*											
Quarter 2, 2007											*												
Quarter 2, 2008												*											
Quarter 3, 2008												*											

Chart of MCL Exceedances and Statistical Increases for C-746-S&T Landfills

Groundwater Flow System	UCRS					URGA											LRGA						
Gradient	S	D	D	D	U	S	S	S	S	S	D	D	D	D	U	U	S	D	D	D	D	U	U
Monitoring Well	386	389	390	393	396	221	222	223	224	384	369	372	387	391	220	394	385	370	373	388	392	395	397
MAGNESIUM																							
Quarter 1, 2003			*																				
Quarter 2, 2003			*									*							*				
Quarter 3, 2003			*				*					*											
Quarter 4, 2003			*									*							*				
Quarter 1, 2004			*									*		*					*				
Quarter 2, 2004			*									*							*				
Quarter 3, 2004			*									*							*				
Quarter 4, 2004			*									*							*				
Quarter 1, 2005												*							*				
Quarter 2, 2005												*							*				
Quarter 3, 2005												*							*				
Quarter 4, 2005												*							*				
Quarter 1, 2006												*							*				
Quarter 2, 2006												*							*				
Quarter 3, 2006												*							*				
Quarter 4, 2006												*							*				
Quarter 1, 2007												*							*				
Quarter 2, 2007												*							*				
Quarter 3, 2007												*							*				
Quarter 4, 2007												*							*				
Quarter 1, 2008												*							*				
Quarter 2, 2008												*							*				
Quarter 3, 2008												*							*				
Quarter 4, 2008												*							*				
Quarter 1, 2009												*							*				
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												*							*				

Chart of MCL Exceedances and Statistical Increases for C-746-S&T Landfills

Groundwater Flow System	UCRS					URGA											LRGA						
Gradient	S	D	D	D	U	S	S	S	S	S	D	D	D	D	U	U	S	D	D	D	D	U	U
Monitoring Well	386	389	390	393	396	221	222	223	224	384	369	372	387	391	220	394	385	370	373	388	392	395	397
Quarter 2, 2012												*							*				
Quarter 3, 2012												*	*						*				
Quarter 4, 2012												*	*						*				
Quarter 1, 2013												*							*				
Quarter 2, 2013												*							*				
Quarter 3, 2013												*							*				
Quarter 4, 2013												*							*				
Quarter 1, 2014																		*	*				
Quarter 2, 2014												*	*						*				
MANGANESE																							
Quarter 4, 2002																					*		
Quarter 3, 2003							*	*															
Quarter 4, 2003							*	*															
Quarter 1, 2004							*																
Quarter 2, 2004							*																
Quarter 4, 2004							*	*															
Quarter 1, 2005							*																
Quarter 3, 2005																					*		
Quarter 3, 2009	*																						
OXIDATION-REDUCTION POTENTIAL																							
Quarter 4, 2003			*																				
Quarter 2, 2004			*																				
Quarter 3, 2004			*															*					
Quarter 4, 2004			*			*																	
Quarter 1, 2005			*															*					
Quarter 2, 2005	*		*																				
Quarter 3, 2005	*		*																				
Quarter 4, 2005			*																				
Quarter 2, 2006			*																				
Quarter 3, 2006			*															*					
Quarter 4, 2006			*																				
Quarter 1, 2007			*																				
Quarter 2, 2007			*				*																
Quarter 3, 2007			*				*																
Quarter 4, 2007			*																				
Quarter 1, 2008			*			*			*														
Quarter 2, 2008	*		*	*		*							*				*		*	*			
Quarter 3, 2008			*	*		*							*				*		*	*			

Chart of MCL Exceedances and Statistical Increases for C-746-S&T Landfills

Groundwater Flow System	UCRS					URGA											LRGA						
Gradient	S	D	D	D	U	S	S	S	S	S	D	D	D	D	U	U	S	D	D	D	D	U	U
Monitoring Well	386	389	390	393	396	221	222	223	224	384	369	372	387	391	220	394	385	370	373	388	392	395	397
Quarter 4, 2008			*	*		*	*	*	*				*				*	*		*			
Quarter 1, 2009			*				*	*	*				*	*				*		*			
Quarter 3, 2009			*	*		*											*	*	*	*			
Quarter 4, 2009			*			*			*									*		*			
Quarter 1, 2010	*		*																	*			
Quarter 2, 2010	*		*	*					*				*				*	*		*			
Quarter 3, 2010	*		*	*		*											*	*	*	*			
Quarter 4, 2010			*					*			*			*			*	*	*	*			
Quarter 1, 2011	*			*		*	*	*	*		*		*	*			*	*		*	*		
Quarter 2, 2011	*		*	*			*	*	*	*	*		*	*			*	*	*	*	*		
Quarter 3, 2011	*		*	*			*		*		*		*				*	*	*	*			
Quarter 4, 2011	*		*	*			*				*						*	*		*			
Quarter 1, 2012	*		*	*		*	*	*	*	*			*	*			*	*	*	*	*		
Quarter 2, 2012	*		*				*		*		*		*	*			*	*	*	*	*		
Quarter 3, 2012	*		*			*	*	*	*	*			*	*			*	*	*	*	*		
Quarter 4, 2012				*		*		*	*	*	*		*	*			*	*	*	*	*		
Quarter 1, 2013				*		*		*	*		*		*	*				*		*	*		
Quarter 2, 2013	*			*			*		*		*		*				*	*	*	*	*		
Quarter 3, 2013	*		*	*		*	*	*	*	*			*				*	*	*	*			
Quarter 4, 2013			*	*		*	*	*	*	*	*	*	*	*			*	*	*	*	*		
Quarter 1, 2014	*		*	*		*	*		*		*	*	*	*			*	*	*	*	*		
Quarter 2, 2014	*		*	*		*	*		*		*		*				*	*	*	*	*		
PCB, 1016																							
Quarter 4, 2003							*	*	*		*							*					
Quarter 3, 2004											*												
Quarter 3, 2005							*				*												
Quarter 1, 2006											*												
Quarter 2, 2006											*												
Quarter 4, 2006											*												
Quarter 1, 2007											*	*											
Quarter 2, 2007												*											
Quarter 3, 2007											*												
Quarter 2, 2008											*	*											
Quarter 3, 2008											*												
Quarter 4, 2008											*												
Quarter 1, 2009											*												
Quarter 2, 2009											*												
Quarter 3, 2009											*												

Chart of MCL Exceedances and Statistical Increases for C-746-S&T Landfills

Groundwater Flow System	UCRS					URGA											LRGA						
Gradient	S	D	D	D	U	S	S	S	S	S	D	D	D	D	U	U	S	D	D	D	D	U	U
Monitoring Well	386	389	390	393	396	221	222	223	224	384	369	372	387	391	220	394	385	370	373	388	392	395	397
Quarter 4, 2009											*												
Quarter 1, 2010											*												
Quarter 2, 2010											*												
Quarter 3, 2010											*												
Quarter 4, 2010											*												
PCB-1232																							
Quarter 1, 2011											*												
PCB-1248																							
Quarter 2, 2008												*											
PCB-1260																							
Quarter 2, 2006																		*					
pH																							
Quarter 4, 2002																	*						
Quarter 2, 2003																	*						
Quarter 3, 2003																	*						
Quarter 4, 2003							*										*						
Quarter 1, 2004							*										*						
Quarter 2, 2004																	*						
Quarter 3, 2004																	*						
Quarter 4, 2004																	*						
Quarter 3, 2005										*							*				*		
Quarter 4, 2005										*							*						
Quarter 1, 2006																	*						
Quarter 2, 2006																	*						
Quarter 3, 2006																	*						
Quarter 3, 2007																	*						
Quarter 4, 2007																	*						
Quarter 4, 2008																	*						
Quarter 1, 2009																	*						
Quarter 1, 2011																	*						
Quarter 2, 2011											*												
Quarter 3, 2011											*												
Quarter 1, 2012														*									
Quarter 1, 2013										*			*				*						
POTASSIUM																							
Quarter 4, 2002																		*	*				
Quarter 3, 2004																			*				
Quarter 2, 2005																			*				

Chart of MCL Exceedances and Statistical Increases for C-746-S&T Landfills

Groundwater Flow System	UCRS					URGA											LRGA						
Gradient	S	D	D	D	U	S	S	S	S	S	D	D	D	D	U	U	S	D	D	D	D	U	U
Monitoring Well	386	389	390	393	396	221	222	223	224	384	369	372	387	391	220	394	385	370	373	388	392	395	397
Quarter 3, 2005																			*				
Quarter 4, 2005																			*				
Quarter 2, 2006																			*				
Quarter 3, 2006																			*				
Quarter 4, 2006																			*				
Quarter 4, 2008																			*				
Quarter 3, 2012																			*				
Quarter 1, 2013																			*				
Quarter 2, 2013																			*				
Quarter 3, 2013																			*				
RADIUM-226																							
Quarter 4, 2002			*										*	*							*		
Quarter 2, 2004																			*				
Quarter 2, 2005									*														
Quarter 1, 2009											*												
RADIUM-228																							
Quarter 2, 2005							■				■												
Quarter 3, 2005			■																				
Quarter 4, 2005							■		■														
Quarter 1, 2006					■																		
SELENIUM																							
Quarter 4, 2002			■		■																		
Quarter 1, 2003					■																	■	
Quarter 2, 2003			■																				
Quarter 3, 2003			■		■																		
Quarter 4, 2003			■																				
SODIUM																							
Quarter 4, 2002																			*		*		
Quarter 1, 2003				*					*	*	*												
Quarter 2, 2003				*						*	*		*										
Quarter 3, 2003							*	*		*													
Quarter 4, 2003							*		*	*													
Quarter 1, 2004									*	*				*									
Quarter 2, 2004										*													
Quarter 3, 2004										*													
Quarter 4, 2004									*	*													
Quarter 1, 2005										*									*				

Chart of MCL Exceedances and Statistical Increases for C-746-S&T Landfills

Groundwater Flow System	UCRS					URGA											LRGA						
Gradient	S	D	D	D	U	S	S	S	S	S	D	D	D	D	U	U	S	D	D	D	D	U	U
Monitoring Well	386	389	390	393	396	221	222	223	224	384	369	372	387	391	220	394	385	370	373	388	392	395	397
Quarter 2, 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 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										✱		✱							✱				
Quarter 2, 2013												✱											
Quarter 3, 2013												✱							✱				
Quarter 4, 2013												✱							✱				
Quarter 1, 2014												✱											
Quarter 2, 2014									✱		✱	✱							✱				
STRONTIUM-90																							
Quarter 2, 2003										■													
Quarter 1, 2004										■													
SULFATE																							
Quarter 4, 2002																			✱				

Chart of MCL Exceedances and Statistical Increases for C-746-S&T Landfills

Groundwater Flow System	UCRS					URGA											LRGA						
Gradient	S	D	D	D	U	S	S	S	S	S	D	D	D	D	U	U	S	D	D	D	D	U	U
Monitoring Well	386	389	390	393	396	221	222	223	224	384	369	372	387	391	220	394	385	370	373	388	392	395	397
Quarter 1, 2003												*	*				*		*				
Quarter 2, 2003										*		*	*					*	*				
Quarter 3, 2003										*		*	*						*				
Quarter 4, 2003										*		*	*						*				
Quarter 1, 2004										*		*	*					*	*				
Quarter 2, 2004										*		*	*				*	*	*	*			
Quarter 3, 2004									*	*		*	*					*	*				
Quarter 4, 2004										*		*	*					*	*				
Quarter 1, 2005										*		*	*				*	*	*				
Quarter 2, 2005										*		*	*					*	*				
Quarter 3, 2005										*		*	*				*	*	*				
Quarter 4, 2005										*		*	*					*	*	*			
Quarter 1, 2006										*		*	*				*	*	*	*			
Quarter 2, 2006									*	*		*	*				*	*	*	*			
Quarter 3, 2006									*	*		*	*				*		*	*			
Quarter 4, 2006									*	*		*	*				*		*				
Quarter 1, 2007									*	*		*	*				*		*	*			
Quarter 2, 2007									*	*		*	*				*		*	*			
Quarter 3, 2007									*	*		*	*				*		*	*			
Quarter 4, 2007										*		*	*				*	*	*	*			
Quarter 1, 2008										*		*	*				*	*	*	*			
Quarter 2, 2008								*		*	*	*	*	*			*	*	*	*			
Quarter 3, 2008										*		*	*				*	*	*	*			
Quarter 4, 2008										*		*	*				*		*				
Quarter 1, 2009										*		*	*				*	*	*				
Quarter 2, 2009									*	*		*	*				*	*	*	*			
Quarter 3, 2009									*	*		*	*				*	*	*	*			
Quarter 4, 2009	*									*		*	*				*	*	*				
Quarter 1, 2010	*								*	*		*	*				*		*				
Quarter 2, 2010									*	*		*	*				*	*	*	*			
Quarter 3, 2010										*		*	*				*	*	*	*			
Quarter 4, 2010	*									*		*	*				*	*	*				
Quarter 1, 2011	*									*		*	*				*	*	*				
Quarter 2, 2011	*									*		*	*	*			*	*	*	*			
Quarter 3, 2011	*									*		*	*	*			*	*	*	*			
Quarter 4, 2011	*									*		*	*				*	*	*	*			
Quarter 1, 2012	*									*		*	*				*	*	*	*			
Quarter 2, 2012	*									*		*	*				*	*	*	*			
Quarter 3, 2012	*									*		*	*				*	*	*	*			
Quarter 4, 2012										*		*	*				*	*	*	*			
Quarter 1, 2013										*		*	*				*	*	*	*			
Quarter 2, 2013										*		*	*	*			*	*	*	*			

Chart of MCL Exceedances and Statistical Increases for C-746-S&T Landfills

Groundwater Flow System	UCRS					URGA											LRGA						
Gradient	S	D	D	D	U	S	S	S	S	S	D	D	D	D	U	U	S	D	D	D	D	U	U
Monitoring Well	386	389	390	393	396	221	222	223	224	384	369	372	387	391	220	394	385	370	373	388	392	395	397
Quarter 3, 2013										*		*	*	*			*	*	*	*			
Quarter 4, 2013										*		*	*				*	*	*	*			
Quarter 1, 2014								*		*		*	*				*	*	*	*			
Quarter 2, 2014										*		*	*	*			*	*	*	*			
TECHNETIUM-99																							
Quarter 4, 2002																			*				
Quarter 1, 2003													*				*		*				
Quarter 2, 2003	*		*							*			*				*						
Quarter 3, 2003			*										*				*			*			
Quarter 4, 2003			*							*		*	*				*		*	*			
Quarter 1, 2004			*									*	*				*		*				
Quarter 2, 2004			*									*	*				*		*	*			
Quarter 3, 2004			*									*					*		*				
Quarter 4, 2004			*							*		*	*				*	*	*				
Quarter 1, 2005			*							*		*	*				*			*			
Quarter 2, 2005			*							*			*				*	*	*	*			
Quarter 3, 2005			*							*			*				*	*	*	*			
Quarter 4, 2005			*							*		*	*				*		*	*			
Quarter 1, 2006										*		*	*						*	*			
Quarter 2, 2006			*							*			*				*	*	*	*			
Quarter 3, 2006			*							*			*				*	*	*	*			
Quarter 4, 2006	*									*		*	*						*	*			
Quarter 1, 2007			*							*			*				*		*	*			
Quarter 2, 2007			*							*		*	*				*	*		*			
Quarter 3, 2007			*							*	*	*	*				*		*	*			
Quarter 4, 2007			*							*		*	*				*		*	*			
Quarter 1, 2008			*							*		*	*				*	*	*	*			
Quarter 2, 2008			*							*	*		*				*		*	*			
Quarter 3, 2008										*		*	*				*			*			
Quarter 4, 2008			*							*		*	*				*	*	*	*			
Quarter 1, 2009			*							*		*	*				*						
Quarter 2, 2009			*							*		*	*				*	*		*			
Quarter 3, 2009			*							*	*	*	*				*			*			
Quarter 4, 2009			*							*		*	*				*						
Quarter 1, 2010			*							*		*	*				*						
Quarter 2, 2010			*							*			*				*	*		*			
Quarter 3, 2010			*							*	*	*	*				*						
Quarter 4, 2010			*							*		*	*				*						
Quarter 1, 2011										*			*				*						
Quarter 2, 2011			*							*			*				*			*			
Quarter 3, 2011			*							*			*				*			*			

Chart of MCL Exceedances and Statistical Increases for C-746-S&T Landfills

Groundwater Flow System	UCRS					URGA										LRGA						
Gradient	S	D	D	D	U	S	S	S	S	S	D	D	D	D	U	U	S	D	D	D	D	U	U
Monitoring Well	386	389	390	393	396	221	222	223	224	384	369	372	387	391	220	394	385	370	373	388	392	395	397
Quarter 4, 2011			*							*	*	*	*				*						
Quarter 1, 2012			*							*			*				*			*			
Quarter 2, 2012			*							*			*				*		*	*			
Quarter 3, 2012			*							*		*	*				*						
Quarter 4, 2012										*		*	*				*		*	*			
Quarter 1, 2013										*			*				*		*	*			
Quarter 2, 2013										*		*	*				*		*	*			
Quarter 3, 2013			*							*		*	*				*		*	*			
Quarter 4, 2013			*							*		*	*				*		*	*			
Quarter 1, 2014			*							*	*		*				*		*	*			
Quarter 2, 2014			*							*	*		*	*			*		*	*			
THORIUM-230																							
Quarter 1, 2012	*								*					*									
THORIUM-234																							
Quarter 2, 2003						*			*					*									
Quarter 4, 2007									*														
TOLUENE																							
Quarter 2, 2014										*	*		*										
TOTAL ORGANIC CARBON																							
Quarter 4, 2002																					*		
Quarter 1, 2003				*						*	*							*	*		*		
Quarter 2, 2003										*	*		*								*		
Quarter 3, 2003							*	*	*	*	*	*											
Quarter 4, 2003							*		*	*													
Quarter 1, 2004										*													
Quarter 2, 2004										*	*												
Quarter 3, 2004										*													
Quarter 4, 2004										*													
Quarter 1, 2005										*													
Quarter 2, 2005										*											*		
Quarter 3, 2005										*		*									*		
Quarter 4, 2005										*											*		
Quarter 1, 2006										*													
Quarter 2, 2006										*		*											
Quarter 4, 2006																	*						
Quarter 1, 2007	*									*													
Quarter 3, 2007	*					*	*	*	*	*			*	*			*						
Quarter 2, 2011											*												

Chart of MCL Exceedances and Statistical Increases for C-746-S&T Landfills

Groundwater Flow System	UCRS					URGA											LRGA						
Gradient	S	D	D	D	U	S	S	S	S	S	D	D	D	D	U	U	S	D	D	D	D	U	U
Monitoring Well	386	389	390	393	396	221	222	223	224	384	369	372	387	391	220	394	385	370	373	388	392	395	397
Quarter 3, 2012	✱																						
TOTAL ORGANIC HALIDES																							
Quarter 4, 2002																		✱	✱		✱		
Quarter 1, 2003				✱														✱			✱		
Quarter 3, 2003				✱																	✱		
Quarter 2, 2004																					✱		
Quarter 3, 2004	✱																						
Quarter 1, 2005	✱																						
Quarter 2, 2005	✱																						
Quarter 3, 2005	✱																						
Quarter 4, 2005	✱																						
Quarter 1, 2006	✱																						
Quarter 2, 2006	✱																						
Quarter 3, 2006	✱																						
Quarter 4, 2006																	✱						
Quarter 1, 2007	✱																						
Quarter 2, 2007	✱																						
Quarter 3, 2007	✱																						
Quarter 4, 2007	✱																				✱		
Quarter 1, 2008	✱																						
Quarter 1, 2008	✱																						
Quarter 3, 2008	✱																						
Quarter 4, 2008	✱																						
Quarter 1, 2009	✱																						
Quarter 2, 2009	✱																				✱		
Quarter 3, 2009	✱																						
Quarter 4, 2009	✱																						
Quarter 1, 2010	✱																						
Quarter 2, 2010	✱																						
Quarter 3, 2010	✱																						
Quarter 4, 2010	✱																						
Quarter 1, 2011	✱																						
Quarter 3, 2013																					✱		
TRICHLOROETHENE																							
Quarter 4, 2002														■		■					■	■	
Quarter 1, 2003														■		■					■	■	
Quarter 2, 2003														■		■					■	■	
Quarter 3, 2003														■		■					■	■	
Quarter 4, 2003														■		■					■	■	
Quarter 1, 2004														■		■					■	■	
Quarter 2, 2004												■		■		■		■	■		■	■	
Quarter 3, 2004												■		■		■		■	■		■	■	

Chart of MCL Exceedances and Statistical Increases for C-746-S&T Landfills

Groundwater Flow System	UCRS					URGA											LRGA						
Gradient	S	D	D	D	U	S	S	S	S	S	D	D	D	D	U	U	S	D	D	D	D	U	U
Monitoring Well	386	389	390	393	396	221	222	223	224	384	369	372	387	391	220	394	385	370	373	388	392	395	397
Quarter 4, 2004												■		■		■		■	■		■	■	
Quarter 1, 2005												■		■		■		■	■		■	■	
Quarter 2, 2005												■		■		■		■	■		■	■	
Quarter 3, 2005												■		■		■		■	■		■	■	
Quarter 4, 2005												■		■		■		■	■		■	■	
Quarter 1, 2006												■		■		■		■	■		■	■	
Quarter 2, 2006												■		■		■		■	■		■	■	
Quarter 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												■		■		■			■		■		
Quarter 2, 2013												■		■					■		■		
Quarter 3, 2013												■		■					■		■		
Quarter 4, 2013												■		■		■			■		■		
Quarter 1, 2014												■		■		■			■		■		
Quarter 2, 2014												■		■							■		
TURBIDITY																							
Quarter 4, 2002																					✱		
Quarter 1, 2003							✱					✱		✱									
URANIUM																							
Quarter 4, 2002																		✱	✱				
Quarter 1, 2003																			✱				

Chart of MCL Exceedances and Statistical Increases for C-746-S&T Landfills

Groundwater Flow System	UCRS					URGA											LRGA						
Gradient	S	D	D	D	U	S	S	S	S	S	D	D	D	D	U	U	S	D	D	D	D	U	U
Monitoring Well	386	389	390	393	396	221	222	223	224	384	369	372	387	391	220	394	385	370	373	388	392	395	397
Quarter 4, 2003							✱																
Quarter 1, 2004							✱	✱	✱					✱			✱						
Quarter 4, 2004																	✱						
Quarter 4, 2006																			✱		✱		
ZINC																							
Quarter 3, 2003												✱											
Quarter 4, 2003							✱		✱			✱											
Quarter 4, 2004							✱																
Quarter 4, 2007							✱	✱	✱														

✱	Statistical test results indicate an elevated concentration (i.e., a statistically significant increase)
■	MCL Exceedance
UCRS	Upper Continental Recharge System
URGA	Upper Regional Gravel Aquifer
LRGA	Lower Regional Gravel Aquifer
S	Sidegradient; D Downgradient; U Upgradient

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APPENDIX H

METHANE MONITORING DATA

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C-746-S & T LANDFILL METHANE MONITORING REPORT

Date:	6/06/2014	Time:	15:10	Monitor:	Tammy Smith

Weather Conditions:
Sunny at 89.8 degrees with winds out of the north east

Monitoring Equipment:
MSA Sirius A3-12981

Monitoring Location		Reading (% LEL)
Ogden Landing Road Entrance	Checked at ground level	0
North Landfill Gate	Checked at ground level	0
West Side of Landfill: North 37° 07.652' West 88° 48.029'	Checked at ground level	0
East Side of Landfill: North 37° 07.628' West 88° 47.798'	Checked at ground level	0
Cell 1 Gas Vent (17)	10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170	0
Cell 2 Gas Vent (3)	10 20 30	0
Cell 3 Gas Vent (7)	10 20 30 40 50 60 70	0
Landfill Office	Checked at floor level	0
Suspect or Problem Areas	No areas noted	JS 6-6-14

Remarks:

ALL VENTS CHECKED 1" FROM MOUTH OF VENT

Performed by:

Tammy Smith — Signature

6-06-14 — Date

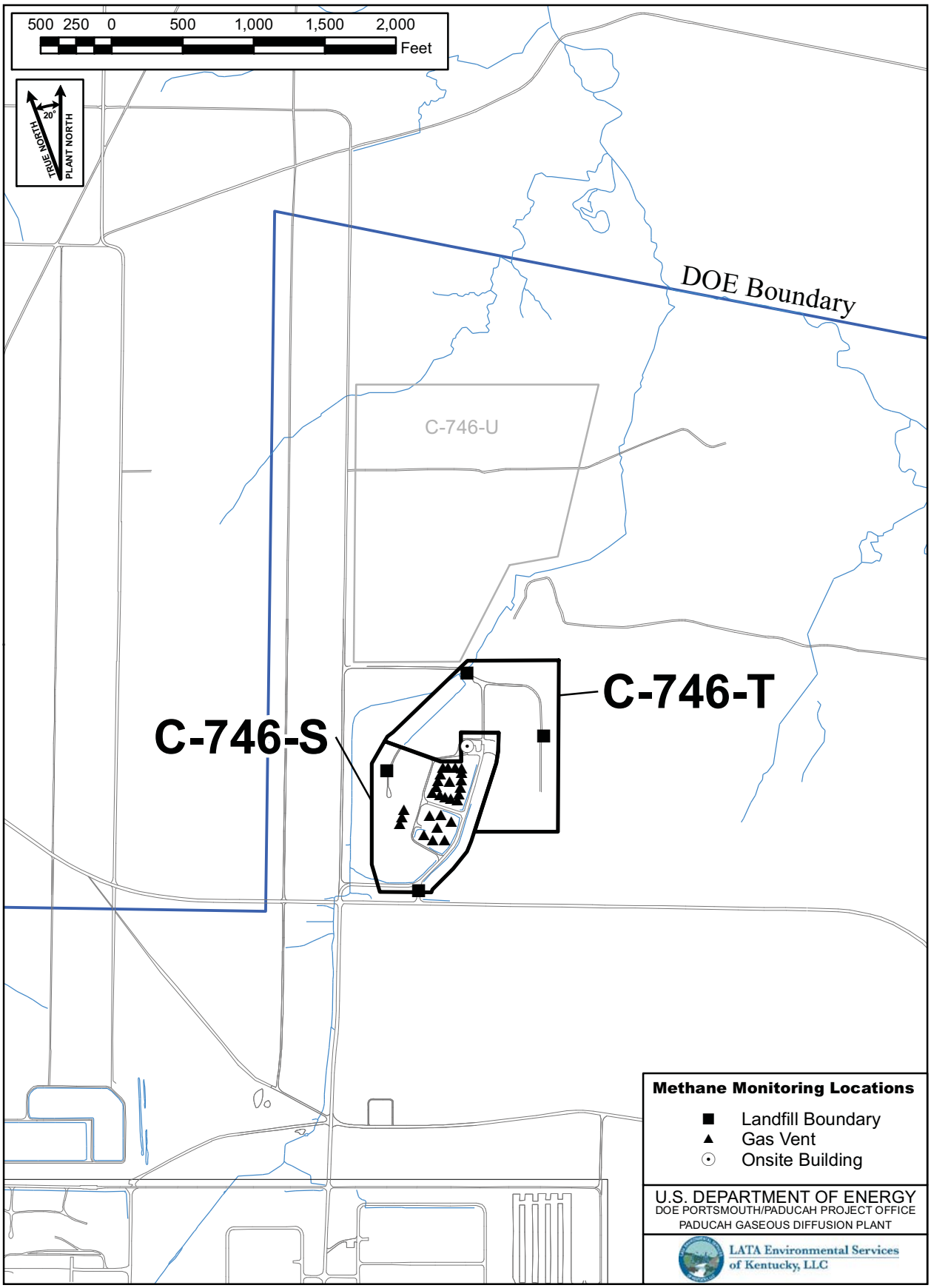

Figure H.1. C-746-S&T Methane Monitoring Locations

APPENDIX I

SURFACE WATER SAMPLE ANALYSIS AND WRITTEN COMMENTS

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

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

SURFACE WATER SAMPLE ANALYSIS (S)

Monitoring Point (KPDES Discharge Number, or "UPSTREAM", or "DOWNSTREAM")						L135 UPSTREAM		L136 AT SITE		L154 DOWNSTREAM		F. BLANK	
Sample Sequence #						1		1		1		1	
If sample is a Blank, specify Type: (F)ield, (T)rip, (M)ethod, or (E)quipment						NA		NA		NA		F	
Sample Date and Time (Month/Day/Year hour:minutes)						4/28/2014 08:28		4/28/2014 08:38		4/28/2014 08:13		4/28/2014 08:30	
Duplicate ("Y" or "N")[1]						N		N		N		N	
Split ('Y' or "N")[2]						N		N		N		N	
Facility Sample ID Number (if applicable)						L135SS3-14		L136SS3-14		L154US3-14		FB1SS3-14	
Laboratory Sample ID Number (if applicable)						347653001		347653003		347655003		347653004	
Date of Analysis (Month/Day/Year)						5/6/2014		5/6/2014		5/7/2014		5/20/2014	
CAS RN[3]		CONSTITUENT	TD[4]	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL[5]	FLAGS[7]	DETECTED VALUE OR PQL[5]	FLAGS[7]	DETECTED VALUE OR PQL[5]	FLAGS[7]	DETECTED VALUE OR PQL[5]	FLAGS[7]
A200-00-0	0	Flow	T	MGD	Field	34.58		1.21		12.86			*
16887-00-6	2	Chloride(s)	T	MG/L	300.0	1.25		0.63		1.13		1.38	
14808-79-8	0	Sulfate	T	MG/L	300.0	3.19		16.8		3.35		<0.4	
7439-89-6	0	Iron	T	MG/L	200.8	1.19		0.549		1.46		<0.1	
7440-23-5	0	Sodium	T	MG/L	200.8	2.4		2.34		2.51		0.688	
S0268- -	0	Organic Carbon[6]	T	MG/L	9060	16.7		15.2		14.6			*
S0097- -	0	BOD[6]	T	MG/L	not applicable		*		*		*		*
S0130- -	0	Chemical Oxygen Demand	T	MG/L	410.4	39.4		39.4		47.2			*

[1]Respond "Y" if the sample was a duplicate of another sample in this report
[2]Respond "Y" if the sample was split and analyzed by separate laboratories.
[3]Chemical Abstracts Service Registry Number or unique identifier number assigned by agency.
[4]"T" = Total; "D" = Dissolved
[5]"<" indicates a non-detect; do not use "ND" or "BDL". Value then shown is Practical Quantification Limit
[6]Facility has either/or option on Organic Carbon and (BOD) Biochemical Oxygen Demand - both are not required
[7]Flags are as designated, do not use any other type. Use "*," then describe on "Written Comments" page.

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

SURFACE WATER - QUARTERLY

Facility: **US DOE - Paducah Gaseous Diffusion Plant**

Permit Number: **073-00014 & 073-00015**

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

SURFACE WATER SAMPLE ANALYSIS - (Cont.)

Monitoring Point (KPDES Discharge Number, or "UPSTREAM" or "DOWNSTREAM")						L135 UPSTREAM		L136 AT SITE		L154 DOWNSTREAM		F. BLANK	
CAS RN[3]		CONSTITUENT	TD[4]	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL[5]	FLAGS[7]	DETECTED VALUE OR PQL[5]	FLAGS[7]	DETECTED VALUE OR PQL[5]	FLAGS[7]	DETECTED VALUE OR PQL[5]	FLAGS[7]
S0145- -	1	Specific Conductance	T	µMHO/CM	Field	88		296		80			*
S0270- -	0	Total Suspended Solids	T	MG/L	160.2	18.7		6.86		20			*
S0266- -	0	Total Dissolved Solids	T	MG/L	160.1	92.9		170		98.6			*
S0269- -	0	Total Solids	T	MG/L	2540B	119		236		117			*
S0296- -	0	pH	T	Units	Field	7.31		7.73		7.32			*
7440-61-1		Uranium	T	MG/L	200.8	0.00166		0.0036		0.00197		<0.0002	
12587-46-1		Gross Alpha (α)	T	pCi/L	900.0	-2.02	*	3.8	*	2.26	*	-1.39	*
12587-47-2		Gross Beta (β)	T	pCi/L	900.0	5.42	*	-0.0875	*	8.47	*	6.98	*

Division of Waste Management
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Permit Number:073-00014 & 073-00015

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

SURFACE WATER SAMPLE ANALYSIS (S)

Monitoring Point (KPDES Discharge Number, or "UPSTREAM", or "DOWNSTREAM")						L135 UPSTREAM		L154 DOWNSTREAM						
Sample Sequence #						2		2						
If sample is a Blank, specify Type: (F)ield, (T)rip, (M)ethod, or (E)quipment						NA		NA						
Sample Date and Time (Month/Day/Year hour:minutes)						4/28/2014 08:28		4/28/2014 08:13						
Duplicate ("Y" or "N")[1]						Y		Y						
Split ('Y' or "N")[2]						N		N						
Facility Sample ID Number (if applicable)						L135DSS3-14		L154DUS3-14						
Laboratory Sample ID Number (if applicable)						347653002		347655002						
Date of Analysis (Month/Day/Year)						5/6/2014		5/7/2014						
CAS RN[3]		CONSTITUENT	TD[4]	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL[5]	FLAGS[7]	DETECTED VALUE OR PQL[5]	FLAGS[7]	DETECTED VALUE OR PQL[5]	FLAGS[7]	DETECTED VALUE OR PQL[5]	FLAGS[7]	
A200-00-0	0	Flow	T	MGD	Field	34.58		12.86						
16887-00-6	2	Chloride(s)	T	MG/L	300.0	1.29		1.13						
14808-79-8	0	Sulfate	T	MG/L	300.0	3.25		3.35						
7439-89-6	0	Iron	T	MG/L	200.8	1.17		1.44						
7440-23-5	0	Sodium	T	MG/L	200.8	2.37		2.23						
S0268- -	0	Organic Carbon[6]	T	MG/L	9060	15		14						
S0097- -	0	BOD[6]	T	MG/L	not applicable		*		*					
S0130- -	0	Chemical Oxygen Demand	T	MG/L	410.4	39.4		24.7						

I-5

[1]Respond "Y" if the sample was a duplicate of another sample in this report
[2]Respond "Y" if the sample was split and analyzed by separate laboratories.
[3]Chemical Abstracts Service Registry Number or unique identifier number assigned by agency.
[4]"T" = Total; "D" = Dissolved
[5]"<" indicates a non-detect; do not use "ND" or "BDL". Value then shown is Practical Quantification Limit
[6]Facility has either/or option on Organic Carbon and (BOD) Biochemical Oxygen Demand - both are not required
[7]Flags are as designated, do not use any other type. Use "*," then describe on "Written Comments" page.

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

SURFACE WATER - QUARTERLY

Facility: **US DOE - Paducah Gaseous Diffusion Plant**

Permit Number: **073-00014 & 073-00015**

FINDS/UNIT: KY8-890-C08-982 / 1

LAB ID: None

For Official Use Only

SURFACE WATER SAMPLE ANALYSIS - (Cont.)

Monitoring Point (KPDES Discharge Number, or "UPSTREAM" or "DOWNSTREAM")						L135 UPSTREAM		L154 DOWNSTREAM					
CAS RN[3]		CONSTITUENT	TD[4]	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL[5]	FLAGS[7]	DETECTED VALUE OR PQL[5]	FLAGS[7]	DETECTED VALUE OR PQL[5]	FLAGS[7]	DETECTED VALUE OR PQL[5]	FLAGS[7]
S0145- -	1	Specific Conductance	T	µMHO/CM	Field	88		80					
S0270- -	0	Total Suspended Solids	T	MG/L	160.2	19.9		19.9					
S0266- -	0	Total Dissolved Solids	T	MG/L	160.1	84.3		78.6					
S0269- -	0	Total Solids	T	MG/L	2540B	119		113					
S0296- -	0	pH	T	Units	Field	7.31		7.32					
7440-61-1		Uranium	T	MG/L	200.8	0.00167		0.00192					
12587-46-1		Gross Alpha (α)	T	pCi/L	900.0	2.97	*	1.84	*				
12587-47-2		Gross Beta (β)	T	pCi/L	900.0	14.4	*	3.41	*				

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

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

Permit Numbers: 073-00014 & 073-00015 **For Official Use Only**

SURFACE WATER
WRITTEN COMMENTS

Monitoring Point	Facility Sample ID	Constituent	Flag	Description
L135	L135SS3-14			
		Biochemical Oxygen Demand (BOD		Analysis of constituent not required and not performed.
		Alpha activity	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 2.74. Rad error is 2.74.
		Beta activity	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 4.75. Rad error is 4.67.
L136	L136SS3-14			
		Biochemical Oxygen Demand (BOD		Analysis of constituent not required and not performed.
		Alpha activity	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 4.72. Rad error is 4.68.
		Beta activity	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 7.47. Rad error is 7.47.
L154	L154US3-14	Biochemical Oxygen Demand (BOD		Analysis of constituent not required and not performed.
		Alpha activity		TPU is 1.15. Rad error is 1.07.
		Beta activity		TPU is 2.56. Rad error is 2.15.
QC	FB1SS3-14	Flow Rate		Analysis of constituent not required and not performed.
		Total Organic Carbon (TOC)		Analysis of constituent not required and not performed.
		Biochemical Oxygen Demand (BOD		Analysis of constituent not required and not performed.
		Chemical Oxygen Demand (COD)		Analysis of constituent not required and not performed.
		Conductivity		Analysis of constituent not required and not performed.
		Suspended Solids		Analysis of constituent not required and not performed.
		Dissolved Solids		Analysis of constituent not required and not performed.
		Total Solids		Analysis of constituent not required and not performed.
		pH		Analysis of constituent not required and not performed.
		Alpha activity	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 3.65. Rad error is 3.64.
		Beta activity	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 7.38. Rad error is 7.29.
L135	L135DSS3-14			
		Biochemical Oxygen Demand (BOD		Analysis of constituent not required and not performed.
		Alpha activity	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 4.88. Rad error is 4.85.
		Beta activity		TPU is 7.45. Rad error is 7.06.
L154	L154DUS3-14	Biochemical Oxygen Demand (BOD		Analysis of constituent not required and not performed.
		Alpha activity	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 1.43. Rad error is 1.35.
		Beta activity	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 2.31. Rad error is 2.24.

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