PAD-ENM-0086/V4

C-746-U Contained Landfill
Fourth Quarter Calendar Year 2013
(October-December)
Compliance Monitoring Report
Paducah Gaseous Diffusion Plant,
Paducah, Kentucky

This document is approved for public release per review by:

Robert Jones DMC, PGDP 2-18-14

LATA Kentucky Classification Support Date

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C-746-U Contained Landfill
Fourth Quarter Calendar Year 2013
(October-December)
Compliance Monitoring Report
Paducah Gaseous Diffusion Plant,
Paducah, Kentucky

Date Issued—February 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

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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
LEL	lower explosive limit
LRGA	Lower Regional Gravel Aquifer
MCL	maximum contaminant level
MW	monitoring well
RGA	Regional Gravel Aquifer
UCRS	Upper Continental Recharge System
URGA	Upper Regional Gravel Aquifer

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1. INTRODUCTION

This report, *C-746-U Contained Landfill Fourth Quarter Calendar Year 2013 (October-December) Compliance Monitoring Report, Paducah Gaseous Diffusion Plant, Paducah, Kentucky*, is being submitted in accordance with Solid Waste Landfill Permit Number 073-00045.

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 GSTR0001, 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-U Landfill Methane Monitoring Report form provided in Appendix H. The form includes pertinent remarks/observations as required by 401 *KAR* 48:090, Section 4.

1.1 BACKGROUND

The C-746-U Landfill is an operating solid waste landfill located north of the Paducah Gaseous Diffusion Plant and north of the C-746-S&T Landfills. Construction and operation of the C-746-U Landfill was permitted in November 1996 under Solid Waste Landfill Permit Number 073-00045. The permitted C-746-U Landfill area covers about 60 acres and includes a liner and leachate collection system. C-746-U Landfill currently is operating in Phases 3, 4, and 5. Phases 1, 2, and most of Phase 3 have long-term cover. Phases 6 through 23 have not been constructed.

1.2 MONITORING PERIOD ACTIVITIES

1.2.1 Groundwater Monitoring

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

Three zones are monitored at the site: the Upper Continental Recharge System (UCRS), Upper Regional Gravel Aquifer (URGA), and the Lower Regional Gravel Aquifer (LRGA). There are 21 monitoring wells (MWs) under permit for the C-746-U Landfill; 9 UCRS wells, 6 URGA wells, and 6 LRGA wells. A map of the MW locations is presented in Figure 1. All MWs were sampled this quarter except MW359, MW365, MW368, MW376, and MW377 (all screened in the UCRS), which had an insufficient amount of water to obtain samples; therefore, there are no analytical results for these locations.

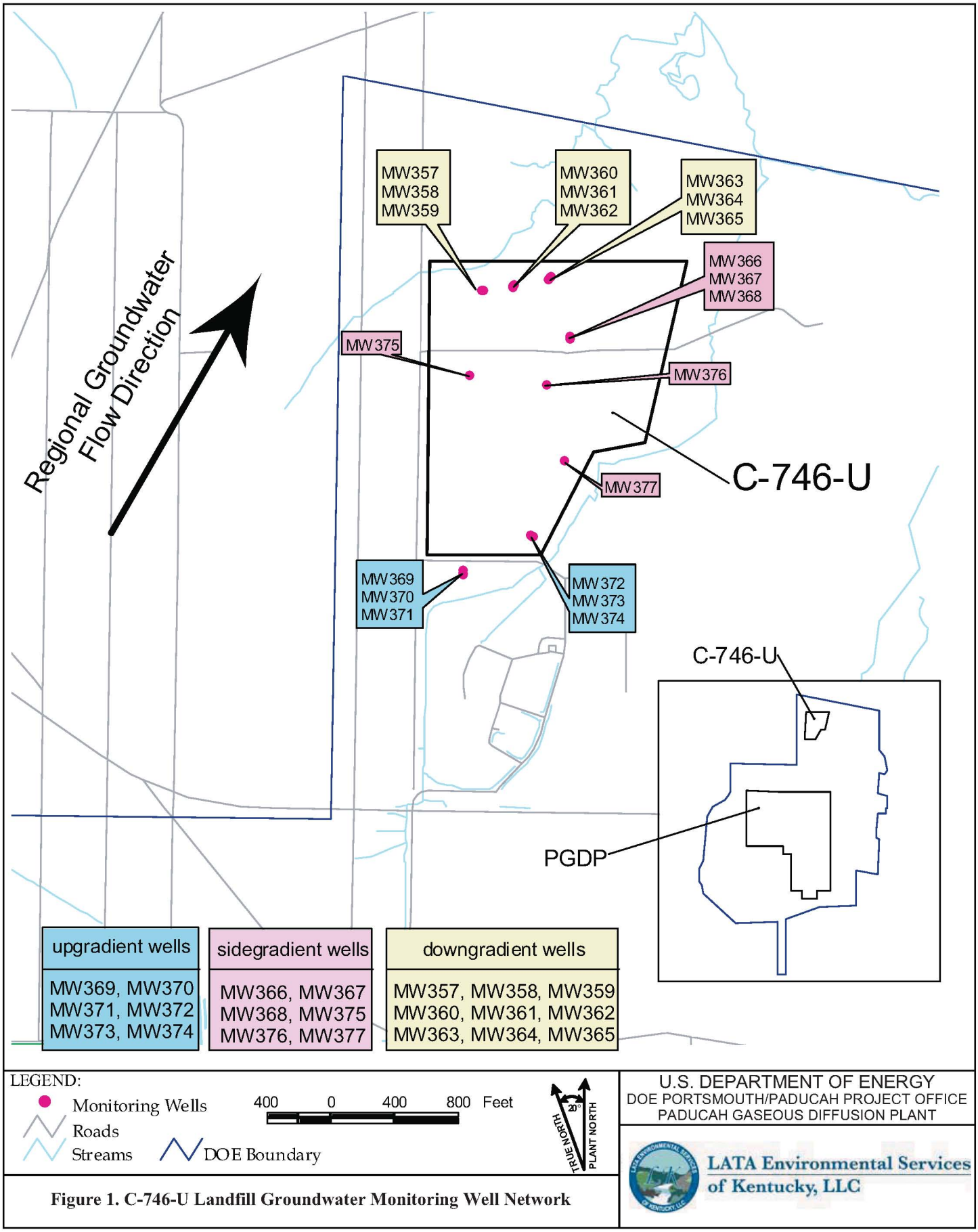

Figure 1. C-746-U Landfill Groundwater Monitoring Well Network

The parameters specified in Permit Condition GSTR0001, Special Condition 1, were analyzed for all locations sampled.

The groundwater flow rate and direction determination are provided in Appendix E. Depth-to-water was measured on October 23, 2013, in MWs of the C-746-U Landfill (see Table E.1), in MWs of the C-746-S&T Landfills, and in MWs of the surrounding region (shown on Figure E.4). Water level measurements in 38 vicinity wells define the potentiometric surface for the Regional Gravel Aquifer (RGA).[1] Normal regional flow in the RGA is northeastward, toward the Ohio River. The hydraulic gradient in the vicinity of the C-746-U Landfill in August was 5.03×10^{-4} ft/ft, while the hydraulic gradient for both the URGA and LRGA at the C-746-U Landfill was 7.20×10^{-4} ft/ft. Calculated groundwater flow rates (average linear velocity) at the C-746-U Landfill range from 1.22 to 2.09 ft/day for the URGA and LRGA (see Table E.3).

1.2.2 Methane Monitoring

Landfill operations staff monitored for the occurrence of methane on December 18, 2013, in four on-site building locations and four locations along the landfill boundary. 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

There was no surface water sampling conducted during the fourth quarter 2013 due to insufficient rainfall during normal landfill operating hours.

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 fourth quarter 2013.

Table 1. Summary of MCL Exceedances

UCRS	URGA	LRGA
(none)	MW357: trichloroethene	MW358: trichloroethene
	MW372: beta activity, trichloroethene	MW373: trichloroethene

[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.

[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 (PCBs).

Table 2. Summary of Statistically Significant Increases

UCRS	URGA	LRGA
MW362: oxidation-reduction potential	MW357: oxidation-reduction potential	MW358: oxidation-reduction potential
MW371: (upgradient): oxidation-reduction potential	MW360: oxidation-reduction potential	MW361: oxidation-reduction potential, technetium-99
MW374: (upgradient): dissolved oxygen, oxidation-reduction potential	MW363: oxidation-reduction potential	MW364: oxidation-reduction potential, technetium-99
MW375: oxidation-reduction potential, sulfate	MW366: oxidation-reduction potential	MW367: oxidation-reduction potential
	MW369: (upgradient): oxidation-reduction potential	MW370: (upgradient):dissolved oxygen, oxidation-reduction potential
	MW372: (upgradient): calcium, conductivity, dissolved solids, magnesium, oxidation-reduction potential, sulfate, technetium-99	MW373: (upgradient): oxidation-reduction potential, technetium-99

Sidegradient wells: MW366, MW367, MW368, MW375, MW376, MW377
Downgradient wells: MW357, MW358, MW359, MW360, MW361, MW362, MW363, MW364, MW365
Upgradient wells: MW369, MW370, MW371, MW372, MW373, MW374

There were no new MCL exceedances for this quarter. The MCL exceedances—beta activity in MW372 and trichloroethene in MW357, MW358 MW372, and MW373—are related to sources of contamination that are upgradient of the C-746-U Landfill. The notification of parameters that exceeded the MCL has been submitted electronically to the KDWM in accordance with 401 *KAR* 48:300, Section 7, prior to the submittal of this report.

There were no new statistically significant increases in this quarter. All 28 statistically significant increases have occurred previously at least once since fourth quarter calendar year 2002.

This report serves as the notification of parameters that had statistically significant increased concentrations relative to background concentrations, as required by Permit Number 073-00045, Condition GSTR0001, Standard Requirement 8, and 401 *KAR* 48:300, Section 7.

2. DATA EVALUATION/STATISTICAL SYNOPSIS

The statistical analyses conducted on the fourth quarter 2013 groundwater data collected from the C-746-U Contained Landfill MWs were performed in accordance with Permit Condition GSTR0001, Standard Requirement 3, using the 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 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-22–D-78).

For chemicals with an established MCL, no statistical analysis was performed. Parameters that have an MCL can be found in 401 *KAR* 47:030, Section 6. For parameters with no established MCL, the data are divided into censored (nondetects) and uncensored (detected) observations. The one-sided tolerance interval statistical test is conducted only on parameters that have at least one uncensored observation. Results of the one-sided tolerance interval statistical test are used to determine whether the data show a statistically significant increase in 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 upper and lower tolerance limit to determine if statistically significant deviations in concentrations exist with respect to upgradient (background) well data. A stepwise list of the one-side tolerance interval statistical procedures applied to the data is provided in Appendix D under Statistical Analysis Process. 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
MW359 (dry)**	MW357	MW358
MW362	MW360	MW361
MW365 (dry)**	MW363	MW364
MW368 (dry)**	MW366	MW367
MW371 (upgradient)	MW369 (upgradient)	MW370 (upgradient)
MW374 (upgradient)	MW372 (upgradient)	MW373 (upgradient)
MW375		
MW376 (dry) **		
MW377 (dry)**		

*A map showing the monitoring well locations is shown on Figure 1.

**MW359, MW365, MW368, MW376, and MW377 had sufficient water to permit a water level measurement but insufficient water to provide water samples for laboratory analysis.

STATISTICAL ANALYSIS OF GROUNDWATER DATA

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

Upper Continental Recharge System

In this quarter, 17 parameters required statistical analysis in the UCRS. During the fourth quarter, dissolved oxygen, oxidation-reduction potential, and sulfate displayed elevated concentrations that were determined to qualify as statistically significant increases and are listed in Table 2.

Upper Regional Gravel Aquifer

In this quarter, 20 parameters required statistical analysis in the URGA. During the fourth quarter, calcium, conductivity, dissolved solids, magnesium, oxidation-reduction potential, sulfate, and technetium-99 displayed elevated concentrations that were determined to qualify as statistically significant increases and are listed in Table 2.

Lower Regional Gravel Aquifer

In this quarter, 18 parameters required statistical analysis in the LRGA. During the fourth quarter, dissolved oxygen, oxidation reduction potential, and technetium-99 displayed elevated concentrations that were determined to qualify as statistically significant increases and are listed in Table 2.

3. DATA VALIDATION

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

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

The initial result for the Radium-226 sample at MW373 was rejected during validation due to low tracer recovery. No resample was collected as a result of the rejected data because there was excess sample volume in the laboratory for reanalysis. The result of the reanalysis was acceptable. No rejected data were used. Data validation results for this data set indicated that all other data were considered acceptable.

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4. PROFESSIONAL GEOLOGIST AUTHORIZATION

DOCUMENT IDENTIFICATION: *C-746-U Contained Landfill*
Fourth Quarter Calendar Year 2013 (October-December)
Compliance Monitoring Report,
Paducah Gaseous Diffusion Plant,
Paducah, Kentucky (PAD-ENM-0086/V4)

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

Kenneth R. Davis — PG1194 — 2/19/14

Kenneth R. Davis | PG1194 | 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-U Contained Landfill

Permit No: 073-00045 Finds/Unit No: _____ Quarter & Year 4th Qtr. CY 2013

Please check the following as applicable:

_____ Characterization X Quarterly _____ Semiannual _____ Annual _____ Assessment

Please check applicable submittal(s): X Groundwater _____ 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 Date

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

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APPENDIX B

FACILITY INFORMATION SHEET

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FACILITY INFORMATION SHEET

Sampling Date: Groundwater: October 2013 County: McCracken Permit Nos. 073-00045

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' 45" Longitude: W 88° 47' 55"

OWNER INFORMATION

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

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

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

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

SAMPLING PERSONNEL
(IF OTHER THAN LANDFILL OR LABORATORY)

Company: LATA Environmental Services of Kentucky, LLC

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

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

LABORATORY RECORD #1

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

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

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

LABORATORY RECORD #2

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

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

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

LABORATORY RECORD #3

Laboratory: Lab ID No:

Contact Person: Phone No:

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

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APPENDIX C

GROUNDWATER SAMPLE ANALYSES AND WRITTEN COMMENTS

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

RESIDENTIAL/CONTAINED-QUARTERLY
Facility: US DOE - Paducah Gaseous Diffusion Plant
Permit Number: 073-00045

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	8004-4798	8004-4799	8004-0981	8004-4800
Facility's Local Well or Spring Number (e.g., MW-1, MW-2, etc.)	357	358	359	360
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)	10/14/2013 08:56	10/14/2013 13:00	NA	10/9/2013 12:32
Duplicate ("Y" or "N")[2]	N	N	N	N
Split ("Y" or "N")[3]	N	N	N	N
Facility Sample ID Number (if applicable)	MW357UG1-14	MW358UG1-14	NA	MW360UG1-14
Laboratory Sample ID Number (if applicable)	C13287023001	C13287037001	NA	C1328204001
Date of Analysis (Month/Day/Year) For Volatile Organics Analysis	10/15/2013	10/15/2013	NA	10/11/2013
Gradient with respect to Monitored Unit (UP, DOWN, SIDE, UNKNOWN)	DOWN	DOWN	DOWN	DOWN

CAS RN[4]		CONSTITUENT	TD[5]	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL[6]	FLAGS[7]	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS
24959-67-9		Bromide	T	mg/L	9056	<2		<2			*	<2	
16887-00-6		Chloride(s)	T	mg/L	9056	31		34			*	11	
16984-48-8		Fluoride	T	mg/L	9214	0.15		0.17			*	0.24	
S0595- -		Nitrate & Nitrite	T	mg/L	9056	1.2		<1			*	<1	
14808-79-8		Sulfate	T	mg/L	9056	57		85			*	55	J
NS1894		Barometric Pressure Reading	T	Inches/Hg	Field	30.27		30.27			*	30.13	
S0145- -		Specific Conductance	T	µMH0/cm	Field	440		513			*	536	

[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/CONTAINED-QUARTERLY
Facility: US DOE - Paducah Gaseous Diffusion Plant
Permit Number: 073-00045

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						8004-4798		8004-4799		8004-0981		8004-4800	
Facility's Local Well or Spring Number (e.g., MW-1, MW-2, BLANK-F, etc.)						357		358		359		360	
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	322.26		322.3			*	322.55	
N238		Dissolved Oxygen	T	mg/L	Field	3.5		0.59			*	0.83	
S0266- -		Total Dissolved Solids	T	mg/L	160.1	246		296			*	275	
S0296- -		pH	T	Units	Field	6.09		6.1			*	6.2	
NS215		Eh	T	mV	Field	815		488			*	392	
S0907 - -		Temperature	T	°C	Field	15.67		16.67			*	17.94	
7429-90-5		Aluminum	T	mg/L	6020	<0.2		<0.2			*	<0.2	
7440-36-0		Antimony	T	mg/L	6020	<0.005		<0.005			*	<0.005	
7440-38-2		Arsenic	T	mg/L	7060	<0.001		0.00109			*	0.00122	
7440-39-3		Barium	T	mg/L	6020	0.0567		0.0509			*	0.14	
7440-41-7		Beryllium	T	mg/L	6020	<0.001	B	<0.001	B		*	<0.001	B
7440-42-8		Boron	T	mg/L	6010	0.362		0.381			*	<0.2	
7440-43-9		Cadmium	T	mg/L	6020	<0.001		<0.001			*	<0.001	
7440-70-2		Calcium	T	mg/L	6010	27.4		34.6			*	25.1	
7440-47-3		Chromium	T	mg/L	6020	<0.01		<0.01			*	<0.01	
7440-48-4		Cobalt	T	mg/L	6020	<0.001	*	0.00246	*		*	0.0219	*
7440-50-8		Copper	T	mg/L	6020	<0.02		<0.02			*	<0.02	
7439-89-6		Iron	T	mg/L	6010	<0.1		0.548			*	3.34	
7439-92-1		Lead	T	mg/L	6020	<0.0013		<0.0013			*	<0.0013	
7439-95-4		Magnesium	T	mg/L	6010	10.9		14.2			*	9.39	
7439-96-5		Manganese	T	mg/L	6020	0.00597	*	0.173	*		*	0.212	*
7439-97-6		Mercury	T	mg/L	7470	<0.0002		<0.0002			*	<0.0002	

RESIDENTIAL/CONTAINED-QUARTERLY
Facility: US DOE - Paducah Gaseous Diffusion Plant
Permit Number: 073-00045

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						8004-4798		8004-4799		8004-0981		8004-4800	
Facility's Local Well or Spring Number (e.g., MW-1, MW-2, etc.)						357		358		359		360	
CAS RN[4]		CONSTITUENT	TD[5]	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS
7439-98-7		Molybdenum	T	mg/L	6020	<0.001	B	<0.001	B		*	<0.001	B
7440-02-0		Nickel	T	mg/L	6020	<0.005	*	<0.005	*		*	<0.005	*
7440-09-7		Potassium	T	mg/L	6010	1.66		2.27			*	0.742	
7440-16-6		Rhodium	T	mg/L	6020	<0.005		<0.005			*	<0.005	
7782-49-2		Selenium	T	mg/L	6020	<0.005		<0.005			*	<0.005	
7440-22-4		Silver	T	mg/L	6020	<0.001	B	<0.001	B		*	<0.001	B
7440-23-5		Sodium	T	mg/L	6010	40.7		40.9			*	67.9	
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	<0.001		<0.001			*	<0.001	
7440-62-2		Vanadium	T	mg/L	6020	<0.02		<0.02			*	<0.02	
7440-66-6		Zinc	T	mg/L	6020	<0.02		<0.02			*	<0.02	
108-05-4		Vinyl acetate	T	mg/L	8260	<0.01		<0.01			*	<0.01	
67-64-1		Acetone	T	mg/L	8260	<0.01		<0.01			*	<0.01	
107-02-8		Acrolein	T	mg/L	8260	<0.01		<0.01			*	<0.01	J
107-13-1		Acrylonitrile	T	mg/L	8260	<0.005		<0.01			*	<0.01	
71-43-2		Benzene	T	mg/L	8260	<0.005		<0.005			*	<0.005	
108-90-7		Chlorobenzene	T	mg/L	8260	<0.005		<0.005			*	<0.005	
1330-20-7		Xylenes	T	mg/L	8260	<0.015		<0.015			*	<0.015	
100-42-5		Styrene	T	mg/L	8260	<0.005		<0.005			*	<0.005	
108-88-3		Toluene	T	mg/L	8260	<0.005		<0.005			*	<0.005	
74-97-5		Chlorobromomethane	T	mg/L	8260	<0.005		<0.005			*	<0.005	

RESIDENTIAL/CONTAINED-QUARTERLY
Facility: US DOE - Paducah Gaseous Diffusion Plant
Permit Number: 073-00045

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						8004-4798		8004-4799		8004-0981		8004-4800	
Facility's Local Well or Spring Number (e.g., MW-1, MW-2, etc.)						357		358		359		360	
CAS RN[4]		CONSTITUENT	TD[5]	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS
75-27-4		Bromodichloromethane	T	mg/L	8260	<0.005		<0.005			*	<0.005	
75-25-2		Tribromomethane	T	mg/L	8260	<0.005		<0.005			*	<0.005	
74-83-9		Methyl bromide	T	mg/L	8260	<0.005		<0.005			*	<0.005	
78-93-3		Methyl ethyl ketone	T	mg/L	8260	<0.01		<0.01			*	<0.01	
110-57-6		trans-1,4-Dichloro-2-butene	T	mg/L	8260	<0.005		<0.005			*	<0.005	
75-15-0		Carbon disulfide	T	mg/L	8260	<0.005		<0.005			*	<0.005	
75-00-3		Chloroethane	T	mg/L	8260	<0.005		<0.005			*	<0.005	
67-66-3		Chloroform	T	mg/L	8260	<0.001		<0.001			*	<0.001	
74-87-3		Methyl chloride	T	mg/L	8260	<0.005		<0.005			*	<0.005	
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	<0.005		<0.005			*	<0.005	
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	<0.005		<0.005			*	<0.005	
79-34-5		Ethane, 1,1,2,2-Tetrachloro	T	mg/L	8260	<0.005		<0.005			*	<0.005	
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	<0.005		<0.005			*	<0.005	
75-01-4		Vinyl chloride	T	mg/L	8260	<0.002		<0.002			*	<0.002	*
127-18-4		Ethene, Tetrachloro-	T	mg/L	8260	<0.001		<0.001			*	<0.001	
79-01-6		Ethene, Trichloro-	T	mg/L	8260	0.0056		0.0051			*	<0.001	

RESIDENTIAL/CONTAINED-QUARTERLY
Facility: US DOE - Paducah Gaseous Diffusion Plant
Permit Number: 073-00045

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						8004-4798		8004-4799		8004-0981		8004-4800	
Facility's Local Well or Spring Number (e.g., MW-1, MW-2, etc.)						357		358		359		360	
CAS RN[4]		CONSTITUENT	TD[5]	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS
100-41-4		Ethylbenzene	T	mg/L	8260	<0.005		<0.005			*	<0.005	
591-78-6		2-Hexanone	T	mg/L	8260	<0.01		<0.01			*	<0.01	
74-88-4		Iodomethane	T	mg/L	8260	<0.01		<0.01			*	<0.01	
124-48-1		Methane, Dibromochloro-	T	mg/L	8260	<0.005	J	<0.005	J		*	<0.005	
56-23-5		Carbon Tetrachloride	T	mg/L	8260	<0.001		<0.005			*	<0.005	
75-09-2		Dichloromethane	T	mg/L	8260	<0.005		<0.005			*	<0.005	
108-10-1		Methyl isobutyl ketone	T	mg/L	8260	<0.01		<0.01			*	<0.01	
96-12-8		Propane, 1,2-Dibromo-3-chloro	T	mg/L	8011	<0.0002		<0.0002			*	<0.0002	
78-87-5		Propane, 1,2-Dichloro-	T	mg/L	8260	<0.005		<0.005			*	<0.005	
10061-02-6		trans-1,3-Dichloro-1-propene	T	mg/L	8260	<0.005		<0.005			*	<0.005	
10061-01-5		cis-1,3-Dichloro-1-propene	T	mg/L	8260	<0.005		<0.005			*	<0.005	
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	<0.005		<0.005			*	<0.005	
96-18-4		1,2,3-Trichloropropane	T	mg/L	8260	<0.005		<0.005			*	<0.005	
95-50-1		Benzene, 1,2-Dichloro-	T	mg/L	8260	<0.005		<0.005			*	<0.005	
106-46-7		Benzene, 1,4-Dichloro-	T	mg/L	8260	<0.005		<0.005			*	<0.005	
1336-36-3		PCB,Total	T	ug/L	8082	<0.17		<0.18			*	<0.18	
12674-11-2		PCB-1016	T	ug/L	8082	<0.16		<0.17			*	<0.17	
11104-28-2		PCB-1221	T	ug/L	8082	<0.17		<0.18			*	<0.18	
11141-16-5		PCB-1232	T	ug/L	8082	<0.14		<0.14			*	<0.14	
53469-21-9		PCB-1242	T	ug/L	8082	<0.1		<0.1			*	<0.1	
12672-29-6		PCB-1248	T	ug/L	8082	<0.12		<0.12			*	<0.12	

RESIDENTIAL/CONTAINED-QUARTERLY
Facility: US DOE - Paducah Gaseous Diffusion Plant
Permit Number: 073-00045

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						8004-4798		8004-4799		8004-0981		8004-4800	
Facility's Local Well or Spring Number (e.g., MW-1, MW-2, etc.)						357		358		359		360	
CAS RN[4]		CONSTITUENT	TD[5]	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS
11097-69-1		PCB-1254	T	ug/L	8082	<0.07		<0.07			*	<0.07	
11096-82-5		PCB-1260	T	ug/L	8082	<0.05		<0.05			*	<0.05	
11100-14-4		PCB-1268	T	ug/L	8082	<0.09		<0.09			*	<0.09	
12587-46-1		Gross Alpha	T	pCi/L	9310	1.66	*	1.35	*		*	-0.499	*
12587-47-2		Gross Beta	T	pCi/L	9310	27.3	*	28.8	*		*	3.88	*
10043-66-0		Iodine-131	T	pCi/L	RL-7124		*		*		*		*
13982-63-3		Radium-226	T	pCi/L	RL-7129	0.0485	*	0.26	*		*	0.0985	*
10098-97-2		Strontium-90	T	pCi/L	RL-7140	0.481	*B	0.612	*B		*	0.251	*B
14133-76-7		Technetium-99	T	pCi/L	RL-7100	39.5	*	43	*		*	10.2	*
14269-63-7		Thorium-230	T	pCi/L	RL-7128	-0.00536	*	0.00206	*		*	0.0206	*
10028-17-8		Tritium	T	pCi/L	704R6	95.8	*	587	*		*	178	*
S0130- -		Chemical Oxygen Demand	T	mg/L	410.4	<36		<36			*	<36	
57-12-5		Cyanide	T	mg/L	9010	<0.04	*	<0.04	*		*	<0.04	*
20461-54-5		Iodide	T	mg/L	345.1	<2		<2			*	<2	
S0268- -		Total Organic Carbon	T	mg/L	9060	<1		<1			*	2.1	
S0586- -		Total Organic Halides	T	mg/L	9020	0.015	B	0.02	B		*	0.03	

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

RESIDENTIAL/CONTAINED-QUARTERLY
Facility: US DOE - Paducah Gaseous Diffusion Plant
Permit Number: 073-00045

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						8004-4795		8004-0986		8004-4796		8004-4797	
Facility's Local Well or Spring Number (e.g., MW-1, MW-2, etc.)						361		362		363		364	
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)						10/9/2013 11:35		10/14/2013 14:17		10/9/2013 09:02		10/8/2013 11:38	
Duplicate ("Y" or "N")[2]						N		N		N		N	
Split ("Y" or "N")[3]						N		N		N		N	
Facility Sample ID Number (if applicable)						MW361UG1-14		MW362UG1-14		MW363UG1-14		MW364UG1-14	
Laboratory Sample ID Number (if applicable)						C13282040002		C13287037002		C13282040003		C13281067001	
Date of Analysis (Month/Day/Year) For Volatile Organics Analysis						10/11/2013		10/15/2013		10/11/2013		10/9/2013	
Gradient with respect to Monitored Unit (UP, DOWN, SIDE, UNKNOWN)						DOWN		DOWN		DOWN		DOWN	
CAS RN[4]		**CONSTITUENT**	**TD[5]**	**Unit OF MEASURE**	**METHOD**	**DETECTED VALUE OR PQL[6]**	**FLAGS[7]**	**DETECTED VALUE OR PQL[6]**	**FLAGS**	**DETECTED VALUE OR PQL[6]**	**FLAGS**	**DETECTED VALUE OR PQL[6]**	**FLAGS**
24959-67-9		**Bromide**	**T**	**mg/L**	**9056**	<2		<2		<2		<2	
16887-00-6		**Chloride(s)**	**T**	**mg/L**	**9056**	31		11		32		31	
16984-48-8		**Fluoride**	**T**	**mg/L**	**9214**	0.16		0.27		0.19		0.15	
S0595- -		**Nitrate & Nitrite**	**T**	**mg/L**	**9056**	<1		<1		3.4		<1	
14808-79-8		**Sulfate**	**T**	**mg/L**	**9056**	73		9.8		20		61	
NS1894		**Barometric Pressure Reading**	**T**	**Inches/Hg**	**Field**	30.13		30.27		30.13		30.17	
S0145- -		**Specific Conductance**	**T**	**μMH0/cm**	**Field**	463		578		393		449	

[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/CONTAINED-QUARTERLY
Facility: US DOE - Paducah Gaseous Diffusion Plant
Permit Number: 073-00045

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						8004-4795		8004-0986		8004-4796		8004-4797	
Facility's Local Well or Spring Number (e.g., MW-1, MW-2, BLANK-F, etc.)						361		362		363		364	
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	322.57		334.22		322.45		322.18	
N238		Dissolved Oxygen	T	mg/L	Field	3.33		2.23		0.58		2.98	
S0266- -		Total Dissolved Solids	T	mg/L	160.1	270		378		231		263	
S0296- -		pH	T	Units	Field	6.06		6.68		6.57		6.47	
NS215		Eh	T	mV	Field	538		521		597		358	
S0907 - -		Temperature	T	°C	Field	17.83		17.06		15.22		16.44	
7429-90-5		Aluminum	T	mg/L	6020	<0.2		1.71		<0.2		<0.2	
7440-36-0		Antimony	T	mg/L	6020	<0.005		<0.005		<0.005		<0.005	
7440-38-2		Arsenic	T	mg/L	7060	<0.001		<0.001		<0.001		0.00101	
7440-39-3		Barium	T	mg/L	6020	0.055		0.101		0.169		0.0771	
7440-41-7		Beryllium	T	mg/L	6020	<0.001	B	<0.001	B	<0.001	B	<0.001	B
7440-42-8		Boron	T	mg/L	6010	<0.2		<0.2		<0.2		<0.2	
7440-43-9		Cadmium	T	mg/L	6020	<0.001		<0.001		<0.001		<0.001	
7440-70-2		Calcium	T	mg/L	6010	30.4		17.6		26.1		27.6	
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	*	<0.001	*	0.00113	*	<0.001	*
7440-50-8		Copper	T	mg/L	6020	<0.02		<0.02		<0.02		<0.02	
7439-89-6		Iron	T	mg/L	6010	<0.1		0.653		0.154		0.432	
7439-92-1		Lead	T	mg/L	6020	<0.0013		<0.0013		<0.0013		<0.0013	
7439-95-4		Magnesium	T	mg/L	6010	12.3		7.5		9.9		11.6	
7439-96-5		Manganese	T	mg/L	6020	0.00688	*	0.00772	*	0.15	*	0.0436	*
7439-97-6		Mercury	T	mg/L	7470	<0.0002		<0.0002		<0.0002		<0.0002	

RESIDENTIAL/CONTAINED-QUARTERLY
Facility: US DOE - Paducah Gaseous Diffusion Plant
Permit Number: 073-00045

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						8004-4795		8004-0986		8004-4796		8004-4797	
Facility's Local Well or Spring Number (e.g., MW-1, MW-2, etc.)						361		362		363		364	
CAS RN[4]		CONSTITUENT	TD[5]	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS
7439-98-7		Molybdenum	T	mg/L	6020	<0.001	B	<0.001	B	<0.001	B	<0.001	B
7440-02-0		Nickel	T	mg/L	6020	<0.005	*	<0.005	*	<0.005	*	<0.005	*
7440-09-7		Potassium	T	mg/L	6010	2.37		0.47		1.28		1.87	
7440-16-6		Rhodium	T	mg/L	6020	<0.005		<0.005		<0.005		<0.005	
7782-49-2		Selenium	T	mg/L	6020	0.00527		<0.005		<0.005		<0.005	
7440-22-4		Silver	T	mg/L	6020	<0.001	B	<0.001	B	<0.001	B	<0.001	B
7440-23-5		Sodium	T	mg/L	6010	42.6		114		34.9		40.5	
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	<0.001		0.00214		<0.001		<0.001	
7440-62-2		Vanadium	T	mg/L	6020	<0.02		<0.02		<0.02		<0.02	
7440-66-6		Zinc	T	mg/L	6020	<0.02		<0.02		<0.02		<0.02	
108-05-4		Vinyl acetate	T	mg/L	8260	<0.01		<0.01		<0.01		<0.01	
67-64-1		Acetone	T	mg/L	8260	<0.01		<0.01		<0.01		<0.01	
107-02-8		Acrolein	T	mg/L	8260	<0.01	J	<0.01		<0.01	J	<0.01	J
107-13-1		Acrylonitrile	T	mg/L	8260	<0.01		<0.01		<0.005		<0.01	
71-43-2		Benzene	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
108-90-7		Chlorobenzene	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
1330-20-7		Xylenes	T	mg/L	8260	<0.015		<0.015		<0.015		<0.015	
100-42-5		Styrene	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
108-88-3		Toluene	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
74-97-5		Chlorobromomethane	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	

GROUNDWATER SAMPLE ANALYSIS - (Cont.)

AKGWA NUMBER[1], Facility Well/Spring Number						8004-4795		8004-0986		8004-4796		8004-4797	
Facility's Local Well or Spring Number (e.g., MW-1, MW-2, etc.)						361		362		363		364	
CAS RN[4]		CONSTITUENT	TD[5]	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS
75-27-4		Bromodichloromethane	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
75-25-2		Tribromomethane	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
74-83-9		Methyl bromide	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
78-93-3		Methyl ethyl ketone	T	mg/L	8260	<0.01		<0.01		<0.01		<0.01	
110-57-6		trans-1,4-Dichloro-2-butene	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
75-15-0		Carbon disulfide	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
75-00-3		Chloroethane	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
67-66-3		Chloroform	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
74-87-3		Methyl chloride	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
156-59-2		cis-1,2-Dichloroethene	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
74-95-3		Methylene bromide	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
75-34-3		1,1-Dichloroethane	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
107-06-2		1,2-Dichloroethane	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
75-35-4		1,1-Dichloroethylene	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
106-93-4		Ethane, 1,2-dibromo	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
79-34-5		Ethane, 1,1,2,2-Tetrachloro	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
71-55-6		Ethane, 1,1,1-Trichloro-	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
79-00-5		Ethane, 1,1,2-Trichloro	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
630-20-6		Ethane, 1,1,1,2-Tetrachloro	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
75-01-4		Vinyl chloride	T	mg/L	8260	<0.002	*	<0.002		<0.002	*	<0.002	
127-18-4		Ethene, Tetrachloro-	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
79-01-6		Ethene, Trichloro-	T	mg/L	8260	0.0037		<0.001		<0.001		0.0029	

RESIDENTIAL/CONTAINED-QUARTERLY
Facility: US DOE - Paducah Gaseous Diffusion Plant
Permit Number: 073-00045

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						8004-4795		8004-0986		8004-4796		8004-4797	
Facility's Local Well or Spring Number (e.g., MW-1, MW-2, etc.)						361		362		363		364	
CAS RN[4]		CONSTITUENT	TD[5]	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS
100-41-4		Ethylbenzene	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
591-78-6		2-Hexanone	T	mg/L	8260	<0.01		<0.01		<0.01		<0.01	
74-88-4		Iodomethane	T	mg/L	8260	<0.01		<0.01		<0.01		<0.01	
124-48-1		Methane, Dibromochloro-	T	mg/L	8260	<0.005		<0.005	J	<0.005		<0.005	
56-23-5		Carbon Tetrachloride	T	mg/L	8260	<0.005		<0.005		<0.001		<0.005	
75-09-2		Dichloromethane	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
108-10-1		Methyl isobutyl ketone	T	mg/L	8260	<0.01		<0.01		<0.01		<0.01	
96-12-8		Propane, 1,2-Dibromo-3-chloro	T	mg/L	8011	<0.0002		<0.0002		<0.0002		<0.0002	
78-87-5		Propane, 1,2-Dichloro-	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
10061-02-6		trans-1,3-Dichloro-1-propene	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
10061-01-5		cis-1,3-Dichloro-1-propene	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
156-60-5		trans-1,2-Dichloroethene	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
75-69-4		Trichlorofluoromethane	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
96-18-4		1,2,3-Trichloropropane	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
95-50-1		Benzene, 1,2-Dichloro-	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
106-46-7		Benzene, 1,4-Dichloro-	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
1336-36-3		PCB,Total	T	ug/L	8082	<0.18		<0.18		<0.18		<0.18	
12674-11-2		PCB-1016	T	ug/L	8082	<0.17		<0.17		<0.17		<0.17	
11104-28-2		PCB-1221	T	ug/L	8082	<0.18		<0.18		<0.18		<0.18	
11141-16-5		PCB-1232	T	ug/L	8082	<0.14		<0.14		<0.14		<0.14	
53469-21-9		PCB-1242	T	ug/L	8082	<0.1		<0.1		0.13		<0.1	
12672-29-6		PCB-1248	T	ug/L	8082	<0.12		<0.12		<0.12		<0.12	

RESIDENTIAL/CONTAINED-QUARTERLY
Facility: US DOE - Paducah Gaseous Diffusion Plant
Permit Number: 073-00045

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						8004-4795		8004-0986		8004-4796		8004-4797	
Facility's Local Well or Spring Number (e.g., MW-1, MW-2, etc.)						361		362		363		364	
CAS RN[4]		CONSTITUENT	TD[5]	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS
11097-69-1		PCB-1254	T	ug/L	8082	<0.07		<0.07		<0.07		<0.07	
11096-82-5		PCB-1260	T	ug/L	8082	<0.05		<0.05		<0.05		<0.05	
11100-14-4		PCB-1268	T	ug/L	8082	<0.09		<0.09		<0.09		<0.09	
12587-46-1		Gross Alpha	T	pCi/L	9310	-1.47	*	0.699	*	0.934	*	2.22	*
12587-47-2		Gross Beta	T	pCi/L	9310	35.9	*	6.06	*	10.5	*	42	*
10043-66-0		Iodine-131	T	pCi/L	RL-7124		*		*		*		*
13982-63-3		Radium-226	T	pCi/L	RL-7129	0.0761	*	0.185	*	0.145	*	0.136	*
10098-97-2		Strontium-90	T	pCi/L	RL-7140	-0.0403	*B	-0.241	*B	0.323	*B	0.827	*B
14133-76-7		Technetium-99	T	pCi/L	RL-7100	53.4	*	12.5	*	17.9	*	49.1	*
14269-63-7		Thorium-230	T	pCi/L	RL-7128	0.0457	*	-0.0382	*	0.0261	*	0.0786	*
10028-17-8		Tritium	T	pCi/L	704R6	-21.3	*	252	*	438	*	182	*
S0130- -		Chemical Oxygen Demand	T	mg/L	410.4	<36		<36		<36		<36	
57-12-5		Cyanide	T	mg/L	9010	<0.04	*	<0.04	*	<0.04		<0.04	
20461-54-5		Iodide	T	mg/L	345.1	<2		<2		<2		<2	
S0268- -		Total Organic Carbon	T	mg/L	9060	<1		1.9		1	*	<1	
S0586- -		Total Organic Halides	T	mg/L	9020	0.02		0.01	B	0.0096		0.012	

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

RESIDENTIAL/CONTAINED-QUARTERLY
Facility: US DOE - Paducah Gaseous Diffusion Plant
Permit Number: 073-00045

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	8004-0984	8004-0982	8004-4793	8004-0983
Facility's Local Well or Spring Number (e.g., MW-1, MW-2, etc.)	365	366	367	368
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)	NA	10/8/2013 12:42	10/9/2013 10:03	NA
Duplicate ("Y" or "N")[2]	N	N	N	N
Split ("Y" or "N")[3]	N	N	N	N
Facility Sample ID Number (if applicable)	NA	MW366UG1-14	MW367UG1-14	NA
Laboratory Sample ID Number (if applicable)	NA	C13281067002	C13282040004	NA
Date of Analysis (Month/Day/Year) For Volatile Organics Analysis	NA	10/9/2013	10/11/2013	NA
Gradient with respect to Monitored Unit (UP, DOWN, SIDE, UNKNOWN)	DOWN	SIDE	SIDE	SIDE

CAS RN[4]		CONSTITUENT	TD[5]	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL[6]	FLAGS[7]	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS
24959-67-9		Bromide	T	mg/L	9056		*	<2		<2			*
16887-00-6		Chloride(s)	T	mg/L	9056		*	38		10			*
16984-48-8		Fluoride	T	mg/L	9214		*	0.17		0.11			*
S0595- -		Nitrate & Nitrite	T	mg/L	9056		*	<1		<1			*
14808-79-8		Sulfate	T	mg/L	9056		*	45		25	J		*
NS1894		Barometric Pressure Reading	T	Inches/Hg	Field		*	30.17		30.13			*
S0145- -		Specific Conductance	T	μMH0/cm	Field		*	447		297			*

[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/CONTAINED-QUARTERLY
Facility: US DOE - Paducah Gaseous Diffusion Plant
Permit Number: 073-00045

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						8004-0984		8004-0982		8004-4793		8004-0983	
Facility's Local Well or Spring Number (e.g., MW-1, MW-2, BLANK-F, etc.)						365		366		367		368	
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		*	322.59		322.57			*
N238		Dissolved Oxygen	T	mg/L	Field		*	2.47		0.86			*
S0266- -		Total Dissolved Solids	T	mg/L	160.1		*	258		155			*
S0296- -		pH	T	Units	Field		*	6.17		6.2			*
NS215		Eh	T	mV	Field		*	503		380			*
S0907 - -		Temperature	T	°C	Field		*	17.17		16.33			*
7429-90-5		Aluminum	T	mg/L	6020		*	<0.2		<0.2			*
7440-36-0		Antimony	T	mg/L	6020		*	<0.005		<0.005			*
7440-38-2		Arsenic	T	mg/L	7060		*	0.00124		0.00411			*
7440-39-3		Barium	T	mg/L	6020		*	0.163		0.17			*
7440-41-7		Beryllium	T	mg/L	6020		*	<0.001	B	<0.001	B		*
7440-42-8		Boron	T	mg/L	6010		*	<0.2		<0.2			*
7440-43-9		Cadmium	T	mg/L	6020		*	<0.001		<0.001			*
7440-70-2		Calcium	T	mg/L	6010		*	27.1		15.1			*
7440-47-3		Chromium	T	mg/L	6020		*	<0.01		<0.01			*
7440-48-4		Cobalt	T	mg/L	6020		*	<0.001	*	0.00375	*		*
7440-50-8		Copper	T	mg/L	6020		*	<0.02		<0.02			*
7439-89-6		Iron	T	mg/L	6010		*	<0.1		13.2			*
7439-92-1		Lead	T	mg/L	6020		*	<0.0013		<0.0013			*
7439-95-4		Magnesium	T	mg/L	6010		*	11.2		7.29			*
7439-96-5		Manganese	T	mg/L	6020		*	0.0156	*	1.71	*		*
7439-97-6		Mercury	T	mg/L	7470		*	<0.0002		<0.0002			*

RESIDENTIAL/CONTAINED-QUARTERLY
Facility: US DOE - Paducah Gaseous Diffusion Plant
Permit Number: 073-00045

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						8004-0984		8004-0982		8004-4793		8004-0983	
Facility's Local Well or Spring Number (e.g., MW-1, MW-2, etc.)						365		366		367		368	
CAS RN[4]		CONSTITUENT	TD[5]	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS
7439-98-7		Molybdenum	T	mg/L	6020		*	<0.001	B	<0.001	B		*
7440-02-0		Nickel	T	mg/L	6020		*	<0.005	*	<0.005	*		*
7440-09-7		Potassium	T	mg/L	6010		*	1.75		2.43			*
7440-16-6		Rhodium	T	mg/L	6020		*	<0.005		<0.005			*
7782-49-2		Selenium	T	mg/L	6020		*	0.00624		<0.005			*
7440-22-4		Silver	T	mg/L	6020		*	<0.001	B	<0.001	B		*
7440-23-5		Sodium	T	mg/L	6010		*	40.9		17.5			*
7440-25-7		Tantalum	T	mg/L	6020		*	<0.005		<0.005			*
7440-28-0		Thallium	T	mg/L	6020		*	<0.002		<0.002			*
7440-61-1		Uranium	T	mg/L	6020		*	<0.001		<0.001			*
7440-62-2		Vanadium	T	mg/L	6020		*	<0.02		<0.02			*
7440-66-6		Zinc	T	mg/L	6020		*	<0.02		<0.02			*
108-05-4		Vinyl acetate	T	mg/L	8260		*	<0.01		<0.01			*
67-64-1		Acetone	T	mg/L	8260		*	<0.01		<0.01			*
107-02-8		Acrolein	T	mg/L	8260		*	<0.01	J	<0.01	J		*
107-13-1		Acrylonitrile	T	mg/L	8260		*	<0.01		<0.01			*
71-43-2		Benzene	T	mg/L	8260		*	<0.005		<0.005			*
108-90-7		Chlorobenzene	T	mg/L	8260		*	<0.005		<0.005			*
1330-20-7		Xylenes	T	mg/L	8260		*	<0.015		<0.015			*
100-42-5		Styrene	T	mg/L	8260		*	<0.005		<0.005			*
108-88-3		Toluene	T	mg/L	8260		*	<0.005		<0.005			*
74-97-5		Chlorobromomethane	T	mg/L	8260		*	<0.005		<0.005			*

GROUNDWATER SAMPLE ANALYSIS - (Cont.)

AKGWA NUMBER[1], Facility Well/Spring Number						8004-0984		8004-0982		8004-4793		8004-0983	
Facility's Local Well or Spring Number (e.g., MW-1, MW-2, etc.)						365		366		367		368	
CAS RN[4]		CONSTITUENT	TD[5]	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS
75-27-4		Bromodichloromethane	T	mg/L	8260		*	<0.005		<0.005			*
75-25-2		Tribromomethane	T	mg/L	8260		*	<0.005		<0.005			*
74-83-9		Methyl bromide	T	mg/L	8260		*	<0.005		<0.005			*
78-93-3		Methyl ethyl ketone	T	mg/L	8260		*	<0.01		<0.01			*
110-57-6		trans-1,4-Dichloro-2-butene	T	mg/L	8260		*	<0.005		<0.005			*
75-15-0		Carbon disulfide	T	mg/L	8260		*	<0.005		<0.005			*
75-00-3		Chloroethane	T	mg/L	8260		*	<0.005		<0.005			*
67-66-3		Chloroform	T	mg/L	8260		*	<0.001		<0.001			*
74-87-3		Methyl chloride	T	mg/L	8260		*	<0.005		<0.005			*
156-59-2		cis-1,2-Dichloroethene	T	mg/L	8260		*	<0.001		<0.001			*
74-95-3		Methylene bromide	T	mg/L	8260		*	<0.005		<0.005			*
75-34-3		1,1-Dichloroethane	T	mg/L	8260		*	<0.001		<0.001			*
107-06-2		1,2-Dichloroethane	T	mg/L	8260		*	<0.001		<0.001			*
75-35-4		1,1-Dichloroethylene	T	mg/L	8260		*	<0.001		<0.001			*
106-93-4		Ethane, 1,2-dibromo	T	mg/L	8260		*	<0.005		<0.005			*
79-34-5		Ethane, 1,1,2,2-Tetrachloro	T	mg/L	8260		*	<0.005		<0.005			*
71-55-6		Ethane, 1,1,1-Trichloro-	T	mg/L	8260		*	<0.001		<0.001			*
79-00-5		Ethane, 1,1,2-Trichloro	T	mg/L	8260		*	<0.001		<0.001			*
630-20-6		Ethane, 1,1,1,2-Tetrachloro	T	mg/L	8260		*	<0.005		<0.005			*
75-01-4		Vinyl chloride	T	mg/L	8260		*	<0.002		<0.002	*		*
127-18-4		Ethene, Tetrachloro-	T	mg/L	8260		*	<0.001		<0.001			*
79-01-6		Ethene, Trichloro-	T	mg/L	8260		*	0.0035		<0.001			*

RESIDENTIAL/CONTAINED-QUARTERLY
Facility: US DOE - Paducah Gaseous Diffusion Plant
Permit Number: 073-00045

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						8004-0984		8004-0982		8004-4793		8004-0983	
Facility's Local Well or Spring Number (e.g., MW-1, MW-2, etc.)						365		366		367		368	
CAS RN[4]		CONSTITUENT	TD[5]	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS
100-41-4		Ethylbenzene	T	mg/L	8260		*	<0.005		<0.005			*
591-78-6		2-Hexanone	T	mg/L	8260		*	<0.01		<0.01			*
74-88-4		Iodomethane	T	mg/L	8260		*	<0.01		<0.01			*
124-48-1		Methane, Dibromochloro-	T	mg/L	8260		*	<0.005		<0.005			*
56-23-5		Carbon Tetrachloride	T	mg/L	8260		*	<0.005		<0.005			*
75-09-2		Dichloromethane	T	mg/L	8260		*	<0.005		<0.005			*
108-10-1		Methyl isobutyl ketone	T	mg/L	8260		*	<0.01		<0.01			*
96-12-8		Propane, 1,2-Dibromo-3-chloro	T	mg/L	8011		*	<0.0002		<0.0002			*
78-87-5		Propane, 1,2-Dichloro-	T	mg/L	8260		*	<0.005		<0.005			*
10061-02-6		trans-1,3-Dichloro-1-propene	T	mg/L	8260		*	<0.005		<0.005			*
10061-01-5		cis-1,3-Dichloro-1-propene	T	mg/L	8260		*	<0.005		<0.005			*
156-60-5		trans-1,2-Dichloroethene	T	mg/L	8260		*	<0.001		<0.001			*
75-69-4		Trichlorofluoromethane	T	mg/L	8260		*	<0.005		<0.005			*
96-18-4		1,2,3-Trichloropropane	T	mg/L	8260		*	<0.005		<0.005			*
95-50-1		Benzene, 1,2-Dichloro-	T	mg/L	8260		*	<0.005		<0.005			*
106-46-7		Benzene, 1,4-Dichloro-	T	mg/L	8260		*	<0.005		<0.005			*
1336-36-3		PCB,Total	T	ug/L	8082		*	<0.18		<0.18			*
12674-11-2		PCB-1016	T	ug/L	8082		*	<0.17		<0.17			*
11104-28-2		PCB-1221	T	ug/L	8082		*	<0.18		<0.18			*
11141-16-5		PCB-1232	T	ug/L	8082		*	<0.14		<0.14			*
53469-21-9		PCB-1242	T	ug/L	8082		*	<0.1		<0.1			*
12672-29-6		PCB-1248	T	ug/L	8082		*	<0.12		<0.12			*

RESIDENTIAL/CONTAINED-QUARTERLY
Facility: US DOE - Paducah Gaseous Diffusion Plant
Permit Number: 073-00045

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						8004-0984		8004-0982		8004-4793		8004-0983	
Facility's Local Well or Spring Number (e.g., MW-1, MW-2, etc.)						365		366		367		368	
CAS RN[4]		CONSTITUENT	TD[5]	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS
11097-69-1		PCB-1254	T	ug/L	8082		*	<0.07		<0.07			*
11096-82-5		PCB-1260	T	ug/L	8082		*	<0.05		<0.05			*
11100-14-4		PCB-1268	T	ug/L	8082		*	<0.09		<0.09			*
12587-46-1		Gross Alpha	T	pCi/L	9310		*	1.17	*	0.636	*		*
12587-47-2		Gross Beta	T	pCi/L	9310		*	42.1	*	4.41	*		*
10043-66-0		Iodine-131	T	pCi/L	RL-7124		*		*		*		*
13982-63-3		Radium-226	T	pCi/L	RL-7129		*	0.00442	*	0.412	*		*
10098-97-2		Strontium-90	T	pCi/L	RL-7140		*	0.77	*B	0.529	*B		*
14133-76-7		Technetium-99	T	pCi/L	RL-7100		*	65.6	*	-0.345	*		*
14269-63-7		Thorium-230	T	pCi/L	RL-7128		*	-0.00653	*	-0.00688	*		*
10028-17-8		Tritium	T	pCi/L	704R6		*	313	*	360	*		*
S0130- -		Chemical Oxygen Demand	T	mg/L	410.4		*	<36		<36			*
57-12-5		Cyanide	T	mg/L	9010		*	<0.04		<0.04	*		*
20461-54-5		Iodide	T	mg/L	345.1		*	<2		<2			*
S0268- -		Total Organic Carbon	T	mg/L	9060		*	<1		<1			*
S0586- -		Total Organic Halides	T	mg/L	9020		*	0.014		0.018			*

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

RESIDENTIAL/CONTAINED-QUARTERLY
Facility: US DOE - Paducah Gaseous Diffusion Plant
Permit Number: 073-00045

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	8004-4820	8004-4818	8004-4819	8004-4808
Facility's Local Well or Spring Number (e.g., MW-1, MW-2, etc.)	369	370	371	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)	10/8/2013 08:32	10/8/2013 12:27	10/8/2013 09:36	10/9/2013 08:51
Duplicate ("Y" or "N")[2]	N	N	N	N
Split ("Y" or "N")[3]	N	N	N	N
Facility Sample ID Number (if applicable)	MW369UG1-14	MW370UG1-14	MW371UG1-14	MW372UG1-14
Laboratory Sample ID Number (if applicable)	C13281029001	C13281069001	C13281029002	C13282016001
Date of Analysis (Month/Day/Year) For Volatile Organics Analysis	10/9/2013	10/9/2013	10/9/2013	10/9/2013
Gradient with respect to Monitored Unit (UP, DOWN, SIDE, UNKNOWN)	UP	UP	UP	UP

CAS RN[4]		CONSTITUENT	TD[5]	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL[6]	FLAGS[7]	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS
24959-67-9		Bromide	T	mg/L	9056	<2		<2		<2		<2	
16887-00-6		Chloride(s)	T	mg/L	9056	36		42		8		47	
16984-48-8		Fluoride	T	mg/L	9214	0.19		0.16		0.3		0.17	
S0595- -		Nitrate & Nitrite	T	mg/L	9056	<1		1.2		<1		<1	
14808-79-8		Sulfate	T	mg/L	9056	13		19		13		150	
NS1894		Barometric Pressure Reading	T	Inches/Hg	Field	30.17		30.17		30.17		30.13	
S0145- -		Specific Conductance	T	μMH0/cm	Field	376		430		748		791	

[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/CONTAINED-QUARTERLY
Facility: US DOE - Paducah Gaseous Diffusion Plant
Permit Number: 073-00045

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						8004-4820		8004-4818		8004-4819		8004-4808	
Facility's Local Well or Spring Number (e.g., MW-1, MW-2, BLANK-F, etc.)						369		370		371		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	323.66		323.64		339.93		323.68	
N238		Dissolved Oxygen	T	mg/L	Field	0.99		4.59		1.38		0.83	
S0266- -		Total Dissolved Solids	T	mg/L	160.1	228		240		479		481	
S0296- -		pH	T	Units	Field	6.14		6.09		6.61		6.07	
NS215		Eh	T	mV	Field	750		811		544		519	
S0907 - -		Temperature	T	°C	Field	15.83		18.28		16.72		16	
7429-90-5		Aluminum	T	mg/L	6020	<0.2		<0.2		<0.2		<0.2	
7440-36-0		Antimony	T	mg/L	6020	<0.005		<0.005		<0.005		<0.005	
7440-38-2		Arsenic	T	mg/L	7060	<0.001		0.00138		<0.001		0.00309	
7440-39-3		Barium	T	mg/L	6020	0.385		0.204		0.169		0.0649	
7440-41-7		Beryllium	T	mg/L	6020	<0.001	B	<0.001	B	<0.001	B	<0.001	B
7440-42-8		Boron	T	mg/L	6010	<0.2		<0.2		<0.2		1.14	
7440-43-9		Cadmium	T	mg/L	6020	<0.001		<0.001		<0.001		<0.001	
7440-70-2		Calcium	T	mg/L	6010	16.2		27.6		30.2		60.2	
7440-47-3		Chromium	T	mg/L	6020	<0.01		<0.01		<0.01		<0.01	
7440-48-4		Cobalt	T	mg/L	6020	0.0145	*	<0.001	*	<0.001	*	<0.001	*
7440-50-8		Copper	T	mg/L	6020	<0.02		<0.02		<0.02		<0.02	
7439-89-6		Iron	T	mg/L	6010	0.303		<0.1		<0.1		0.438	
7439-92-1		Lead	T	mg/L	6020	<0.0013		<0.0013		<0.0013		<0.0013	
7439-95-4		Magnesium	T	mg/L	6010	6.5		11.1		12		22.8	
7439-96-5		Manganese	T	mg/L	6020	0.159	*	<0.005	*	<0.005	*	0.0161	*
7439-97-6		Mercury	T	mg/L	7470	<0.0002		<0.0002		<0.0002		<0.0002	

RESIDENTIAL/CONTAINED-QUARTERLY
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FINDS/UNIT: KY8-890-008-982 / 1
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For Official Use Only

GROUNDWATER SAMPLE ANALYSIS - (Cont.)

AKGWA NUMBER[1], Facility Well/Spring Number						8004-4820		8004-4818		8004-4819		8004-4808	
Facility's Local Well or Spring Number (e.g., MW-1, MW-2, etc.)						369		370		371		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	<0.001	B	<0.001	B	<0.001	B	<0.001	B
7440-02-0		Nickel	T	mg/L	6020	0.00871	*	<0.005	*	<0.005	*	<0.005	*
7440-09-7		Potassium	T	mg/L	6010	0.519		2.41		0.331		2.19	
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		0.00536		<0.005		0.00746	
7440-22-4		Silver	T	mg/L	6020	<0.001	B	<0.001	B	<0.001	B	<0.001	B
7440-23-5		Sodium	T	mg/L	6010	52.6		37.8		130		61.5	
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	<0.001		<0.001		0.00191		<0.001	
7440-62-2		Vanadium	T	mg/L	6020	<0.02		<0.02		<0.02		<0.02	
7440-66-6		Zinc	T	mg/L	6020	<0.02		<0.02		<0.02		<0.02	
108-05-4		Vinyl acetate	T	mg/L	8260	<0.01		<0.01		<0.01		<0.01	
67-64-1		Acetone	T	mg/L	8260	<0.01		<0.01		<0.01		<0.01	
107-02-8		Acrolein	T	mg/L	8260	<0.01	J	<0.01	J	<0.01	J	<0.01	J
107-13-1		Acrylonitrile	T	mg/L	8260	<0.01		<0.005		<0.01		<0.01	
71-43-2		Benzene	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
108-90-7		Chlorobenzene	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
1330-20-7		Xylenes	T	mg/L	8260	<0.015		<0.015		<0.015		<0.015	
100-42-5		Styrene	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
108-88-3		Toluene	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
74-97-5		Chlorobromomethane	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	

GROUNDWATER SAMPLE ANALYSIS - (Cont.)

AKGWA NUMBER[1], Facility Well/Spring Number						8004-4820		8004-4818		8004-4819		8004-4808	
Facility's Local Well or Spring Number (e.g., MW-1, MW-2, etc.)						369		370		371		372	
CAS RN[4]		CONSTITUENT	TD[5]	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS
75-27-4		Bromodichloromethane	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
75-25-2		Tribromomethane	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
74-83-9		Methyl bromide	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
78-93-3		Methyl ethyl ketone	T	mg/L	8260	<0.01		<0.01		<0.01		<0.01	
110-57-6		trans-1,4-Dichloro-2-butene	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
75-15-0		Carbon disulfide	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
75-00-3		Chloroethane	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
67-66-3		Chloroform	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
74-87-3		Methyl chloride	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
156-59-2		cis-1,2-Dichloroethene	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
74-95-3		Methylene bromide	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
75-34-3		1,1-Dichloroethane	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
107-06-2		1,2-Dichloroethane	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
75-35-4		1,1-Dichloroethylene	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
106-93-4		Ethane, 1,2-dibromo	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
79-34-5		Ethane, 1,1,2,2-Tetrachloro	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
71-55-6		Ethane, 1,1,1-Trichloro-	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
79-00-5		Ethane, 1,1,2-Trichloro	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
630-20-6		Ethane, 1,1,1,2-Tetrachloro	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
75-01-4		Vinyl chloride	T	mg/L	8260	<0.002		<0.002		<0.002		<0.002	
127-18-4		Ethene, Tetrachloro-	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
79-01-6		Ethene, Trichloro-	T	mg/L	8260	0.0018		0.0018		<0.001		0.0065	

RESIDENTIAL/CONTAINED-QUARTERLY
Facility: US DOE - Paducah Gaseous Diffusion Plant
Permit Number: 073-00045

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						8004-4820		8004-4818		8004-4819		8004-4808	
Facility's Local Well or Spring Number (e.g., MW-1, MW-2, etc.)						369		370		371		372	
CAS RN[4]		CONSTITUENT	TD[5]	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS
100-41-4		Ethylbenzene	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
591-78-6		2-Hexanone	T	mg/L	8260	<0.01		<0.01		<0.01		<0.01	
74-88-4		Iodomethane	T	mg/L	8260	<0.01		<0.01		<0.01		<0.01	
124-48-1		Methane, Dibromochloro-	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
56-23-5		Carbon Tetrachloride	T	mg/L	8260	<0.005		<0.001		<0.005		<0.005	
75-09-2		Dichloromethane	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
108-10-1		Methyl isobutyl ketone	T	mg/L	8260	<0.01		<0.01		<0.01		<0.01	
96-12-8		Propane, 1,2-Dibromo-3-chloro	T	mg/L	8011	<0.0002		<0.0002		<0.0002		<0.0002	
78-87-5		Propane, 1,2-Dichloro-	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
10061-02-6		trans-1,3-Dichloro-1-propene	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
10061-01-5		cis-1,3-Dichloro-1-propene	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
156-60-5		trans-1,2-Dichloroethene	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
75-69-4		Trichlorofluoromethane	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
96-18-4		1,2,3-Trichloropropane	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
95-50-1		Benzene, 1,2-Dichloro-	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
106-46-7		Benzene, 1,4-Dichloro-	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
1336-36-3		PCB,Total	T	ug/L	8082	<0.18		<0.18		<0.18		<0.18	
12674-11-2		PCB-1016	T	ug/L	8082	<0.17		<0.17		<0.17		<0.17	
11104-28-2		PCB-1221	T	ug/L	8082	<0.18		<0.18		<0.18		<0.18	
11141-16-5		PCB-1232	T	ug/L	8082	<0.14		<0.14		<0.14		<0.14	
53469-21-9		PCB-1242	T	ug/L	8082	<0.1		<0.1		<0.1		<0.1	
12672-29-6		PCB-1248	T	ug/L	8082	<0.12		<0.12		<0.12		<0.12	

RESIDENTIAL/CONTAINED-QUARTERLY
Facility: US DOE - Paducah Gaseous Diffusion Plant
Permit Number: 073-00045

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						8004-4820		8004-4818		8004-4819		8004-4808	
Facility's Local Well or Spring Number (e.g., MW-1, MW-2, etc.)						369		370		371		372	
CAS RN[4]		CONSTITUENT	TD[5]	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS
11097-69-1		PCB-1254	T	ug/L	8082	<0.07		<0.07		<0.07		<0.07	
11096-82-5		PCB-1260	T	ug/L	8082	<0.05		<0.05		<0.05		<0.05	
11100-14-4		PCB-1268	T	ug/L	8082	<0.09		<0.09		<0.09		<0.09	
12587-46-1		Gross Alpha	T	pCi/L	9310	2.55	*	1.57	*	-0.253	*	7.29	*
12587-47-2		Gross Beta	T	pCi/L	9310	17.3	*	15.1	*	3.97	*D	131	*
10043-66-0		Iodine-131	T	pCi/L	RL-7124		*		*		*		*
13982-63-3		Radium-226	T	pCi/L	RL-7129	0.0651	*	0.191	*	0.196	*	0.202	*
10098-97-2		Strontium-90	T	pCi/L	RL-7140	0.986	*B	0.174	*B	0.0346	*B	0.832	*B
14133-76-7		Technetium-99	T	pCi/L	RL-7100	29.7	*	27.9	*	-1.44	*	176	*
14269-63-7		Thorium-230	T	pCi/L	RL-7128	0.0511	*	0.0218	*	0.0309	*	-0.02	*
10028-17-8		Tritium	T	pCi/L	704R6	109	*	99.7	*	401	*	351	*
S0130- -		Chemical Oxygen Demand	T	mg/L	410.4	<36		<36		<36		<36	
57-12-5		Cyanide	T	mg/L	9010	<0.04		<0.04		<0.04		<0.04	
20461-54-5		Iodide	T	mg/L	345.1	<2		<2		<2		<2	
S0268- -		Total Organic Carbon	T	mg/L	9060	1.3		<1		1.6		1.1	
S0586- -		Total Organic Halides	T	mg/L	9020	0.04		0.013		0.01		0.02	

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

RESIDENTIAL/CONTAINED-QUARTERLY
Facility: US DOE - Paducah Gaseous Diffusion Plant
Permit Number: 073-00045

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	8004-0990	8004-0985	8004-0988
Facility's Local Well or Spring Number (e.g., MW-1, MW-2, etc.)	373	374	375	376
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)	10/9/2013 13:48	10/9/2013 12:35	10/8/2013 13:39	NA
Duplicate ("Y" or "N")[2]	N	N	N	N
Split ("Y" or "N")[3]	N	N	N	N
Facility Sample ID Number (if applicable)	MW373UG1-14	MW374UG1-14	MW375UG1-14	NA
Laboratory Sample ID Number (if applicable)	C13282041001	C13282041002	C13281069002	NA
Date of Analysis (Month/Day/Year) For Volatile Organics Analysis	10/11/2013	10/11/2013	10/9/2013	NA
Gradient with respect to Monitored Unit (UP, DOWN, SIDE, UNKNOWN)	UP	UP	SIDE	SIDE

CAS RN[4]		CONSTITUENT	TD[5]	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL[6]	FLAGS[7]	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS
24959-67-9		Bromide	T	mg/L	9056	<2		<2		<2			*
16887-00-6		Chloride(s)	T	mg/L	9056	44		88		6.5			*
16984-48-8		Fluoride	T	mg/L	9214	0.17		0.17		0.28			*
S0595- -		Nitrate & Nitrite	T	mg/L	9056	<1		<1		1.5			*
14808-79-8		Sulfate	T	mg/L	9056	210		6.6	J	26			*
NS1894		Barometric Pressure Reading	T	Inches/Hg	Field	30.13		30.13		30.17			*
S0145- -		Specific Conductance	T	µMH0/cm	Field	958		739		376			*

[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/CONTAINED-QUARTERLY
Facility: US DOE - Paducah Gaseous Diffusion Plant
Permit Number: 073-00045

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		8004-0990		8004-0985		8004-0988	
Facility's Local Well or Spring Number (e.g., MW-1, MW-2, BLANK-F, etc.)						373		374		375		376	
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	323.71		333.59		331.87			*
N238		Dissolved Oxygen	T	mg/L	Field	1.15		2.74		1.22			*
S0266- -		Total Dissolved Solids	T	mg/L	160.1	590		397		236			*
S0296- -		pH	T	Units	Field	6.08		6.52		6.44			*
NS215		Eh	T	mV	Field	627		802		600			*
S0907 - -		Temperature	T	°C	Field	18.78		18.89		18			*
7429-90-5		Aluminum	T	mg/L	6020	<0.2		<0.2		<0.2			*
7440-36-0		Antimony	T	mg/L	6020	<0.005		<0.005		<0.005			*
7440-38-2		Arsenic	T	mg/L	7060	0.00132		0.00182		<0.001			*
7440-39-3		Barium	T	mg/L	6020	0.0286		0.162		0.169			*
7440-41-7		Beryllium	T	mg/L	6020	<0.001	B	<0.001	B	<0.001	B		*
7440-42-8		Boron	T	mg/L	6010	1.77		<0.2		<0.2			*
7440-43-9		Cadmium	T	mg/L	6020	<0.001		<0.001		<0.001			*
7440-70-2		Calcium	T	mg/L	6010	76.4		25.5		14.1			*
7440-47-3		Chromium	T	mg/L	6020	<0.01		<0.01		<0.01			*
7440-48-4		Cobalt	T	mg/L	6020	<0.001	*	<0.001	*	<0.001	*		*
7440-50-8		Copper	T	mg/L	6020	<0.02		<0.02		<0.02			*
7439-89-6		Iron	T	mg/L	6010	<0.1		<0.1		<0.1			*
7439-92-1		Lead	T	mg/L	6020	<0.0013		<0.0013		<0.0013			*
7439-95-4		Magnesium	T	mg/L	6010	28.1		7.14		5.74			*
7439-96-5		Manganese	T	mg/L	6020	0.0619	*	<0.005	*	0.00541	*		*
7439-97-6		Mercury	T	mg/L	7470	<0.0002		<0.0002		<0.0002			*

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

AKGWA NUMBER[1], Facility Well/Spring Number						8004-4792		8004-0990		8004-0985		8004-0988	
Facility's Local Well or Spring Number (e.g., MW-1, MW-2, etc.)						373		374		375		376	
CAS RN[4]		CONSTITUENT	TD[5]	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS
7439-98-7		Molybdenum	T	mg/L	6020	<0.001	B	<0.001	B	<0.001	B		*
7440-02-0		Nickel	T	mg/L	6020	<0.005	*	<0.005	*	<0.005	*		*
7440-09-7		Potassium	T	mg/L	6010	2.84		0.452		0.265			*
7440-16-6		Rhodium	T	mg/L	6020	<0.005		<0.005		<0.005			*
7782-49-2		Selenium	T	mg/L	6020	0.00663		0.025		<0.005			*
7440-22-4		Silver	T	mg/L	6020	<0.001	B	<0.001	B	<0.001	B		*
7440-23-5		Sodium	T	mg/L	6010	66		145		56.8			*
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	<0.001		<0.001		<0.001			*
7440-62-2		Vanadium	T	mg/L	6020	<0.02		<0.02		<0.02			*
7440-66-6		Zinc	T	mg/L	6020	<0.02		<0.02		<0.02			*
108-05-4		Vinyl acetate	T	mg/L	8260	<0.01		<0.01		<0.01			*
67-64-1		Acetone	T	mg/L	8260	<0.01		<0.01		<0.01			*
107-02-8		Acrolein	T	mg/L	8260	<0.01	J	<0.01	J	<0.01	J		*
107-13-1		Acrylonitrile	T	mg/L	8260	<0.01		<0.01		<0.01			*
71-43-2		Benzene	T	mg/L	8260	<0.005		<0.005		<0.005			*
108-90-7		Chlorobenzene	T	mg/L	8260	<0.005		<0.005		<0.005			*
1330-20-7		Xylenes	T	mg/L	8260	<0.015		<0.015		<0.015			*
100-42-5		Styrene	T	mg/L	8260	<0.005		<0.005		<0.005			*
108-88-3		Toluene	T	mg/L	8260	<0.005		<0.005		<0.005			*
74-97-5		Chlorobromomethane	T	mg/L	8260	<0.005		<0.005		<0.005			*

RESIDENTIAL/CONTAINED-QUARTERLY
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FINDS/UNIT: KY8-890-008-982 / 1
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GROUNDWATER SAMPLE ANALYSIS - (Cont.)

AKGWA NUMBER[1], Facility Well/Spring Number						8004-4792		8004-0990		8004-0985		8004-0988	
Facility's Local Well or Spring Number (e.g., MW-1, MW-2, etc.)						373		374		375		376	
CAS RN[4]		CONSTITUENT	TD[5]	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS
75-27-4		Bromodichloromethane	T	mg/L	8260	<0.005		<0.005		<0.005			*
75-25-2		Tribromomethane	T	mg/L	8260	<0.005		<0.005		<0.005			*
74-83-9		Methyl bromide	T	mg/L	8260	<0.005		<0.005		<0.005			*
78-93-3		Methyl ethyl ketone	T	mg/L	8260	<0.01		<0.01		<0.01			*
110-57-6		trans-1,4-Dichloro-2-butene	T	mg/L	8260	<0.005		<0.005		<0.005			*
75-15-0		Carbon disulfide	T	mg/L	8260	<0.005		<0.005		<0.005			*
75-00-3		Chloroethane	T	mg/L	8260	<0.005		<0.005		<0.005			*
67-66-3		Chloroform	T	mg/L	8260	<0.001		<0.001		<0.001			*
74-87-3		Methyl chloride	T	mg/L	8260	<0.005		<0.005		<0.005			*
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	<0.005		<0.005		<0.005			*
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	<0.005		<0.005		<0.005			*
79-34-5		Ethane, 1,1,2,2-Tetrachloro	T	mg/L	8260	<0.005		<0.005		<0.005			*
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	<0.005		<0.005		<0.005			*
75-01-4		Vinyl chloride	T	mg/L	8260	<0.002	*	<0.002	*	<0.002			*
127-18-4		Ethene, Tetrachloro-	T	mg/L	8260	<0.001		<0.001		<0.001			*
79-01-6		Ethene, Trichloro-	T	mg/L	8260	0.0068		<0.001		<0.001			*

GROUNDWATER SAMPLE ANALYSIS - (Cont.)

AKGWA NUMBER[1], Facility Well/Spring Number						8004-4792		8004-0990		8004-0985		8004-0988	
Facility's Local Well or Spring Number (e.g., MW-1, MW-2, etc.)						373		374		375		376	
CAS RN[4]		CONSTITUENT	TD[5]	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS
100-41-4		Ethylbenzene	T	mg/L	8260	<0.005		<0.005		<0.005			*
591-78-6		2-Hexanone	T	mg/L	8260	<0.01		<0.01		<0.01			*
74-88-4		Iodomethane	T	mg/L	8260	<0.01		<0.01		<0.01			*
124-48-1		Methane, Dibromochloro-	T	mg/L	8260	<0.005		<0.005		<0.005			*
56-23-5		Carbon Tetrachloride	T	mg/L	8260	<0.005		<0.005		<0.005			*
75-09-2		Dichloromethane	T	mg/L	8260	<0.005		<0.005		<0.005			*
108-10-1		Methyl isobutyl ketone	T	mg/L	8260	<0.01		<0.01		<0.01			*
96-12-8		Propane, 1,2-Dibromo-3-chloro	T	mg/L	8011	<0.0002		<0.0002		<0.0002			*
78-87-5		Propane, 1,2-Dichloro-	T	mg/L	8260	<0.005		<0.005		<0.005			*
10061-02-6		trans-1,3-Dichloro-1-propene	T	mg/L	8260	<0.005		<0.005		<0.005			*
10061-01-5		cis-1,3-Dichloro-1-propene	T	mg/L	8260	<0.005		<0.005		<0.005			*
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	<0.005		<0.005		<0.005			*
96-18-4		1,2,3-Trichloropropane	T	mg/L	8260	<0.005		<0.005		<0.005			*
95-50-1		Benzene, 1,2-Dichloro-	T	mg/L	8260	<0.005		<0.005		<0.005			*
106-46-7		Benzene, 1,4-Dichloro-	T	mg/L	8260	<0.005		<0.005		<0.005			*
1336-36-3		PCB,Total	T	ug/L	8082	<0.18		<0.17		<0.17			*
12674-11-2		PCB-1016	T	ug/L	8082	<0.17		<0.16		<0.16			*
11104-28-2		PCB-1221	T	ug/L	8082	<0.18		<0.17		<0.17			*
11141-16-5		PCB-1232	T	ug/L	8082	<0.14		<0.14		<0.14			*
53469-21-9		PCB-1242	T	ug/L	8082	<0.1		<0.1		<0.1			*
12672-29-6		PCB-1248	T	ug/L	8082	<0.12		<0.12		<0.12			*

RESIDENTIAL/CONTAINED-QUARTERLY
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Permit Number: 073-00045

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						8004-4792		8004-0990		8004-0985		8004-0988	
Facility's Local Well or Spring Number (e.g., MW-1, MW-2, etc.)						373		374		375		376	
CAS RN[4]		CONSTITUENT	TD[5]	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS
11097-69-1		PCB-1254	T	ug/L	8082	<0.07		<0.07		<0.07			*
11096-82-5		PCB-1260	T	ug/L	8082	<0.05		<0.05		<0.05			*
11100-14-4		PCB-1268	T	ug/L	8082	<0.09		<0.09		<0.09			*
12587-46-1		Gross Alpha	T	pCi/L	9310	-0.91	*	3.03	*	-0.0817	*		*
12587-47-2		Gross Beta	T	pCi/L	9310	42.4	D	0.187	*	3.81	*		*
10043-66-0		Iodine-131	T	pCi/L	RL-7124		*		*		*		*
13982-63-3		Radium-226	T	pCi/L	RL-7129	-0.372	*	0.435	*	0.0947	*		*
10098-97-2		Strontium-90	T	pCi/L	RL-7140	0.439	*B	0.0686	*B	0.355	*B		*
14133-76-7		Technetium-99	T	pCi/L	RL-7100	59.9	*	4.2	*	8.05	*		*
14269-63-7		Thorium-230	T	pCi/L	RL-7128	-0.0478	*	-0.0126	*	-0.0261	*		*
10028-17-8		Tritium	T	pCi/L	704R6	184	*	260	*	241	*		*
S0130- -		Chemical Oxygen Demand	T	mg/L	410.4	<36		<36		<36			*
57-12-5		Cyanide	T	mg/L	9010	<0.04	*	<0.04	*	<0.04			*
20461-54-5		Iodide	T	mg/L	345.1	<2		<2		<2			*
S0268- -		Total Organic Carbon	T	mg/L	9060	1.1		1.8		<1			*
S0586- -		Total Organic Halides	T	mg/L	9020	0.018		0.025		0.016			*

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

RESIDENTIAL/CONTAINED-QUARTERLY
Facility: US DOE - Paducah Gaseous Diffusion Plant
Permit Number: 073-00045

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					8004-0989		0000-0000		0000-0000		0000-0000	
Facility's Local Well or Spring Number (e.g., MW-1, MW-2, etc.)					377		E. BLANK		F. BLANK		T. BLANK 1	
Sample Sequence #					1		1		1		1	
If sample is a Blank, specify Type: (F)ield, (T)rip, (M)ethod, or (E)quipment					NA		E		F		T	
Sample Date and Time (Month/Day/Year hour: minutes)					NA		10/14/2013 07:15		10/14/2013 08:53		10/8/2013 07:20	
Duplicate ("Y" or "N")[2]					N		N		N		N	
Split ("Y" or "N")[3]					N		N		N		N	
Facility Sample ID Number (if applicable)					NA		RI1UG1-14		FB1UG1-14		TB1UG1-14	
Laboratory Sample ID Number (if applicable)					NA		C13287022001		C13287022002		C13281068001	
Date of Analysis (Month/Day/Year) For Volatile Organics Analysis					NA		10/15/2013		10/15/2013		10/9/2013	
Gradient with respect to Monitored Unit (UP, DOWN, SIDE, UNKNOWN)					SIDE		NA		NA		NA	
CAS RN[4]		**CONSTITUENT**	**TD[5]**	**Unit OF MEASURE**	**METHOD**	**DETECTED VALUE OR PQL[6]**	**FLAGS[7]**	**DETECTED VALUE OR PQL[6]**	**FLAGS**	**DETECTED VALUE OR PQL[6]**	**FLAGS**	**DETECTED VALUE OR PQL[6]**	**FLAGS**
24959-67-9		**Bromide**	**T**	**mg/L**	**9056**		*		*		*		*
16887-00-6		**Chloride(s)**	**T**	**mg/L**	**9056**		*		*		*		*
16984-48-8		**Fluoride**	**T**	**mg/L**	**9214**		*		*		*		*
S0595- -		**Nitrate & Nitrite**	**T**	**mg/L**	**9056**		*		*		*		*
14808-79-8		**Sulfate**	**T**	**mg/L**	**9056**		*		*		*		*
NS1894		**Barometric Pressure Reading**	**T**	**Inches/Hg**	**Field**		*		*		*		*
S0145- -		**Specific Conductance**	**T**	**μMH0/cm**	**Field**		*		*		*		*

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

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

RESIDENTIAL/CONTAINED-QUARTERLY
Facility: US DOE - Paducah Gaseous Diffusion Plant
Permit Number: 073-00045

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						8004-0989		0000-0000		0000-0000		0000-0000	
Facility's Local Well or Spring Number (e.g., MW-1, MW-2, BLANK-F, etc.)						377		E. BLANK		F. BLANK		T. BLANK 1	
CAS RN[4]		CONSTITUENT	TD[5]	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS
S0906 - -		Static Water Level Elevation	T	Ft. MSL	Field		*		*		*		*
N238		Dissolved Oxygen	T	mg/L	Field		*		*		*		*
S0266- -		Total Dissolved Solids	T	mg/L	160.1		*		*		*		*
S0296- -		pH	T	Units	Field		*		*		*		*
NS215		Eh	T	mV	Field		*		*		*		*
S0907 - -		Temperature	T	°C	Field		*		*		*		*
7429-90-5		Aluminum	T	mg/L	6020		*	<0.2		<0.2			*
7440-36-0		Antimony	T	mg/L	6020		*	<0.005		<0.005			*
7440-38-2		Arsenic	T	mg/L	7060		*	<0.001		<0.001			*
7440-39-3		Barium	T	mg/L	6020		*	<0.005		<0.005			*
7440-41-7		Beryllium	T	mg/L	6020		*	<0.001	B	<0.001	B		*
7440-42-8		Boron	T	mg/L	6010		*	<0.2		<0.2			*
7440-43-9		Cadmium	T	mg/L	6020		*	<0.001		<0.001			*
7440-70-2		Calcium	T	mg/L	6010		*	<1		<1			*
7440-47-3		Chromium	T	mg/L	6020		*	<0.01		<0.01			*
7440-48-4		Cobalt	T	mg/L	6020		*	<0.001	*	<0.001	*		*
7440-50-8		Copper	T	mg/L	6020		*	<0.02		<0.02			*
7439-89-6		Iron	T	mg/L	6010		*	<0.1		<0.1			*
7439-92-1		Lead	T	mg/L	6020		*	<0.0013		<0.0013			*
7439-95-4		Magnesium	T	mg/L	6010		*	<0.025		<0.025			*
7439-96-5		Manganese	T	mg/L	6020		*	<0.005	*	<0.005	*		*
7439-97-6		Mercury	T	mg/L	7470		*	<0.0002		<0.0002			*

RESIDENTIAL/CONTAINED-QUARTERLY
Facility: US DOE - Paducah Gaseous Diffusion Plant
Permit Number: 073-00045

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						8004-0989		0000-0000		0000-0000		0000-0000	
Facility's Local Well or Spring Number (e.g., MW-1, MW-2, etc.)						377		E. BLANK		F. BLANK		T. BLANK 1	
CAS RN[4]		CONSTITUENT	TD[5]	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS
7439-98-7		Molybdenum	T	mg/L	6020		*	<0.001	B	<0.001	B		*
7440-02-0		Nickel	T	mg/L	6020		*	<0.005	*	<0.005	*		*
7440-09-7		Potassium	T	mg/L	6010		*	<0.2		<0.2			*
7440-16-6		Rhodium	T	mg/L	6020		*	<0.005		<0.005			*
7782-49-2		Selenium	T	mg/L	6020		*	<0.005		<0.005			*
7440-22-4		Silver	T	mg/L	6020		*	<0.001	B	<0.001	B		*
7440-23-5		Sodium	T	mg/L	6010		*	<1		<1			*
7440-25-7		Tantalum	T	mg/L	6020		*	<0.005		<0.005			*
7440-28-0		Thallium	T	mg/L	6020		*	<0.002		<0.002			*
7440-61-1		Uranium	T	mg/L	6020		*	<0.001		<0.001			*
7440-62-2		Vanadium	T	mg/L	6020		*	<0.02		<0.02			*
7440-66-6		Zinc	T	mg/L	6020		*	<0.02		<0.02			*
108-05-4		Vinyl acetate	T	mg/L	8260		*	<0.01		<0.01		<0.01	
67-64-1		Acetone	T	mg/L	8260		*	<0.01		0.011		<0.01	
107-02-8		Acrolein	T	mg/L	8260		*	<0.01		<0.01		<0.01	J
107-13-1		Acrylonitrile	T	mg/L	8260		*	<0.01		<0.01		<0.01	
71-43-2		Benzene	T	mg/L	8260		*	<0.005		<0.005		<0.005	
108-90-7		Chlorobenzene	T	mg/L	8260		*	<0.005		<0.005		<0.005	
1330-20-7		Xylenes	T	mg/L	8260		*	<0.015		<0.015		<0.015	
100-42-5		Styrene	T	mg/L	8260		*	<0.005		<0.005		<0.005	
108-88-3		Toluene	T	mg/L	8260		*	<0.005		<0.005		<0.005	
74-97-5		Chlorobromomethane	T	mg/L	8260		*	<0.005		<0.005		<0.005	

RESIDENTIAL/CONTAINED-QUARTERLY
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FINDS/UNIT: KY8-890-008-982 / 1
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GROUNDWATER SAMPLE ANALYSIS - (Cont.)

AKGWA NUMBER[1], Facility Well/Spring Number						8004-0989		0000-0000		0000-0000		0000-0000	
Facility's Local Well or Spring Number (e.g., MW-1, MW-2, etc.)						377		E. BLANK		F. BLANK		T. BLANK 1	
CAS RN[4]		CONSTITUENT	TD[5]	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS
75-27-4		Bromodichloromethane	T	mg/L	8260		*	<0.005		<0.005		<0.005	
75-25-2		Tribromomethane	T	mg/L	8260		*	<0.005		<0.005		<0.005	
74-83-9		Methyl bromide	T	mg/L	8260		*	<0.005		<0.005		<0.005	
78-93-3		Methyl ethyl ketone	T	mg/L	8260		*	<0.01		<0.01		<0.01	
110-57-6		trans-1,4-Dichloro-2-butene	T	mg/L	8260		*	<0.005		<0.005		<0.005	
75-15-0		Carbon disulfide	T	mg/L	8260		*	<0.005		<0.005		<0.005	
75-00-3		Chloroethane	T	mg/L	8260		*	<0.005		<0.005		<0.005	
67-66-3		Chloroform	T	mg/L	8260		*	<0.001		<0.001		<0.001	
74-87-3		Methyl chloride	T	mg/L	8260		*	<0.005		<0.005		<0.005	
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		*	<0.005		<0.005		<0.005	
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		*	<0.005		<0.005		<0.005	
79-34-5		Ethane, 1,1,2,2-Tetrachloro	T	mg/L	8260		*	<0.005		<0.005		<0.005	
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		*	<0.005		<0.005		<0.005	
75-01-4		Vinyl chloride	T	mg/L	8260		*	<0.002		<0.002		<0.002	
127-18-4		Ethene, Tetrachloro-	T	mg/L	8260		*	<0.001		<0.001		<0.001	
79-01-6		Ethene, Trichloro-	T	mg/L	8260		*	<0.001		<0.001		<0.001	

RESIDENTIAL/CONTAINED-QUARTERLY
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FINDS/UNIT: KY8-890-008-982 / 1
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GROUNDWATER SAMPLE ANALYSIS - (Cont.)

AKGWA NUMBER[1], Facility Well/Spring Number							8004-0989		0000-0000		0000-0000		0000-0000	
Facility's Local Well or Spring Number (e.g., MW-1, MW-2, etc.)							377		E. BLANK		F. BLANK		T. BLANK 1	
CAS RN[4]		CONSTITUENT	TD[5]	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL[6]	FLAGS		DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS
100-41-4		Ethylbenzene	T	mg/L	8260		*		<0.005		<0.005		<0.005	
591-78-6		2-Hexanone	T	mg/L	8260		*		<0.01		<0.01		<0.01	
74-88-4		Iodomethane	T	mg/L	8260		*		<0.01		<0.01		<0.01	
124-48-1		Methane, Dibromochloro-	T	mg/L	8260		*		<0.005	J	<0.005	J	<0.005	
56-23-5		Carbon Tetrachloride	T	mg/L	8260		*		<0.005		<0.005		<0.005	
75-09-2		Dichloromethane	T	mg/L	8260		*		<0.005		<0.005		<0.005	
108-10-1		Methyl isobutyl ketone	T	mg/L	8260		*		<0.01		<0.01		<0.01	
96-12-8		Propane, 1,2-Dibromo-3-chloro	T	mg/L	8011		*		<0.0002		<0.0002		<0.0002	
78-87-5		Propane, 1,2-Dichloro-	T	mg/L	8260		*		<0.005		<0.005		<0.005	
10061-02-6		trans-1,3-Dichloro-1-propene	T	mg/L	8260		*		<0.005		<0.005		<0.005	
10061-01-5		cis-1,3-Dichloro-1-propene	T	mg/L	8260		*		<0.005		<0.005		<0.005	
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		*		<0.005		<0.005		<0.005	
96-18-4		1,2,3-Trichloropropane	T	mg/L	8260		*		<0.005		<0.005		<0.005	
95-50-1		Benzene, 1,2-Dichloro-	T	mg/L	8260		*		<0.005		<0.005		<0.005	
106-46-7		Benzene, 1,4-Dichloro-	T	mg/L	8260		*		<0.005		<0.005		<0.005	
1336-36-3		PCB,Total	T	ug/L	8082		*		<0.18	*	<0.17			*
12674-11-2		PCB-1016	T	ug/L	8082		*		<0.17	*	<0.16			*
11104-28-2		PCB-1221	T	ug/L	8082		*		<0.18	*	<0.17			*
11141-16-5		PCB-1232	T	ug/L	8082		*		<0.14	*	<0.14			*
53469-21-9		PCB-1242	T	ug/L	8082		*		<0.1	*	<0.1			*
12672-29-6		PCB-1248	T	ug/L	8082		*		<0.12	*	<0.12			*

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

AKGWA NUMBER[1], Facility Well/Spring Number						8004-0989		0000-0000		0000-0000		0000-0000	
Facility's Local Well or Spring Number (e.g., MW-1, MW-2, etc.)						377		E. BLANK		F. BLANK		T. BLANK 1	
CAS RN[4]		CONSTITUENT	TD[5]	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS
11097-69-1		PCB-1254	T	ug/L	8082		*	<0.07	*	<0.07			*
11096-82-5		PCB-1260	T	ug/L	8082		*	<0.05	*	<0.05			*
11100-14-4		PCB-1268	T	ug/L	8082		*	<0.09	*	<0.09			*
12587-46-1		Gross Alpha	T	pCi/L	9310		*	-0.824	*	-1.05	*		*
12587-47-2		Gross Beta	T	pCi/L	9310		*	-0.0715	*	0.564	*		*
10043-66-0		Iodine-131	T	pCi/L	RL-7124		*		*		*		*
13982-63-3		Radium-226	T	pCi/L	RL-7129		*	-0.0105	*	-0.0385	*		*
10098-97-2		Strontium-90	T	pCi/L	RL-7140		*	-0.222	*B	0.105	*B		*
14133-76-7		Technetium-99	T	pCi/L	RL-7100		*	6.81	*	4.76	*		*
14269-63-7		Thorium-230	T	pCi/L	RL-7128		*	0.0256	*	0.0151	*		*
10028-17-8		Tritium	T	pCi/L	704R6		*	380	*	-220	*		*
S0130- -		Chemical Oxygen Demand	T	mg/L	410.4		*		*		*		*
57-12-5		Cyanide	T	mg/L	9010		*		*		*		*
20461-54-5		Iodide	T	mg/L	345.1		*	<2		<2			*
S0268- -		Total Organic Carbon	T	mg/L	9060		*		*		*		*
S0586- -		Total Organic Halides	T	mg/L	9020		*		*		*		*

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

RESIDENTIAL/CONTAINED-QUARTERLY
Facility: US DOE - Paducah Gaseous Diffusion Plant
Permit Number: 073-00045

FINDS/UNIT: KY8-890-008-982 / 1
LAB ID: None
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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.)					T. BLANK 2		T. BLANK 3		T. BLANK 4		T. BLANK 5	
Sample Sequence #					1		1		1		1	
If sample is a Blank, specify Type: (F)ield, (T)rip, (M)ethod, or (E)quipment					T		T		T		T	
Sample Date and Time (Month/Day/Year hour: minutes)					10/8/2013 10:02		10/9/2013 07:00		10/9/2013 07:30		10/14/2013 07:10	
Duplicate ("Y" or "N")[2]					N		N		N		N	
Split ("Y" or "N")[3]					N		N		N		N	
Facility Sample ID Number (if applicable)					TB2UG1-14		TB3UG1-14		TB4UG1-14		TB5UG1-14	
Laboratory Sample ID Number (if applicable)					C13281066001		C13282039001		C13282042001		C13287038001	
Date of Analysis (Month/Day/Year) For Volatile Organics Analysis					10/9/2013		10/11/2013		10/11/2013		10/15/2013	
Gradient with respect to Monitored Unit (UP, DOWN, SIDE, UNKNOWN)					NA		NA		NA		NA	
CAS RN[4]		CONSTITUENT	TD[5]	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL[6]	FLAGS[7]	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS
24959-67-9		Bromide	T	mg/L	9056		*		*		*		*
16887-00-6		Chloride(s)	T	mg/L	9056		*		*		*		*
16984-48-8		Fluoride	T	mg/L	9214		*		*		*		*
S0595- -		Nitrate & Nitrite	T	mg/L	9056		*		*		*		*
14808-79-8		Sulfate	T	mg/L	9056		*		*		*		*
NS1894		Barometric Pressure Reading	T	Inches/Hg	Field		*		*		*		*
S0145- -		Specific Conductance	T	μMH0/cm	Field		*		*		*		*

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

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

RESIDENTIAL/CONTAINED-QUARTERLY
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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.)						T. BLANK 2		T. BLANK 3		T. BLANK 4		T. BLANK 5	
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		*		*		*		*
7440-36-0		Antimony	T	mg/L	6020		*		*		*		*
7440-38-2		Arsenic	T	mg/L	7060		*		*		*		*
7440-39-3		Barium	T	mg/L	6020		*		*		*		*
7440-41-7		Beryllium	T	mg/L	6020		*		*		*		*
7440-42-8		Boron	T	mg/L	6010		*		*		*		*
7440-43-9		Cadmium	T	mg/L	6020		*		*		*		*
7440-70-2		Calcium	T	mg/L	6010		*		*		*		*
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	6010		*		*		*		*
7439-92-1		Lead	T	mg/L	6020		*		*		*		*
7439-95-4		Magnesium	T	mg/L	6010		*		*		*		*
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: 073-00045

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.)						T. BLANK 2		T. BLANK 3		T. BLANK 4		T. BLANK 5	
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		*		*		*		*
7440-02-0		Nickel	T	mg/L	6020		*		*		*		*
7440-09-7		Potassium	T	mg/L	6010		*		*		*		*
7440-16-6		Rhodium	T	mg/L	6020		*		*		*		*
7782-49-2		Selenium	T	mg/L	6020		*		*		*		*
7440-22-4		Silver	T	mg/L	6020		*		*		*		*
7440-23-5		Sodium	T	mg/L	6010		*		*		*		*
7440-25-7		Tantalum	T	mg/L	6020		*		*		*		*
7440-28-0		Thallium	T	mg/L	6020		*		*		*		*
7440-61-1		Uranium	T	mg/L	6020		*		*		*		*
7440-62-2		Vanadium	T	mg/L	6020		*		*		*		*
7440-66-6		Zinc	T	mg/L	6020		*		*		*		*
108-05-4		Vinyl acetate	T	mg/L	8260	<0.01		<0.01		<0.01		<0.01	
67-64-1		Acetone	T	mg/L	8260	<0.01		<0.01		<0.01		<0.01	
107-02-8		Acrolein	T	mg/L	8260	<0.01	J	<0.01	J	<0.01	J	<0.01	
107-13-1		Acrylonitrile	T	mg/L	8260	<0.01		<0.01		<0.01		<0.01	
71-43-2		Benzene	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
108-90-7		Chlorobenzene	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
1330-20-7		Xylenes	T	mg/L	8260	<0.015		<0.015		<0.015		<0.015	
100-42-5		Styrene	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
108-88-3		Toluene	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
74-97-5		Chlorobromomethane	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	

RESIDENTIAL/CONTAINED-QUARTERLY
Facility: US DOE - Paducah Gaseous Diffusion Plant
Permit Number: 073-00045

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.)						T. BLANK 2		T. BLANK 3		T. BLANK 4		T. BLANK 5	
CAS RN[4]		CONSTITUENT	TD[5]	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS
75-27-4		Bromodichloromethane	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
75-25-2		Tribromomethane	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
74-83-9		Methyl bromide	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
78-93-3		Methyl ethyl ketone	T	mg/L	8260	<0.01		<0.01		<0.01		<0.01	
110-57-6		trans-1,4-Dichloro-2-butene	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
75-15-0		Carbon disulfide	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
75-00-3		Chloroethane	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
67-66-3		Chloroform	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
74-87-3		Methyl chloride	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
156-59-2		cis-1,2-Dichloroethene	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
74-95-3		Methylene bromide	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
75-34-3		1,1-Dichloroethane	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
107-06-2		1,2-Dichloroethane	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
75-35-4		1,1-Dichloroethylene	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
106-93-4		Ethane, 1,2-dibromo	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
79-34-5		Ethane, 1,1,2,2-Tetrachloro	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
71-55-6		Ethane, 1,1,1-Trichloro-	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
79-00-5		Ethane, 1,1,2-Trichloro	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
630-20-6		Ethane, 1,1,1,2-Tetrachloro	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
75-01-4		Vinyl chloride	T	mg/L	8260	<0.002		<0.002	*	<0.002	*	<0.002	
127-18-4		Ethene, Tetrachloro-	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
79-01-6		Ethene, Trichloro-	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	

RESIDENTIAL/CONTAINED-QUARTERLY
Facility: US DOE - Paducah Gaseous Diffusion Plant
Permit Number: 073-00045

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.)						T. BLANK 2		T. BLANK 3		T. BLANK 4		T. BLANK 5	
CAS RN[4]		CONSTITUENT	TD[5]	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS
100-41-4		Ethylbenzene	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
591-78-6		2-Hexanone	T	mg/L	8260	<0.01		<0.01		<0.01		<0.01	
74-88-4		Iodomethane	T	mg/L	8260	<0.01		<0.01		<0.01		<0.01	
124-48-1		Methane, Dibromochloro-	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	J
56-23-5		Carbon Tetrachloride	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
75-09-2		Dichloromethane	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
108-10-1		Methyl isobutyl ketone	T	mg/L	8260	<0.01		<0.01		<0.01		<0.01	
96-12-8		Propane, 1,2-Dibromo-3-chloro	T	mg/L	8011	<0.0002		<0.0002		<0.0002		<0.0002	
78-87-5		Propane, 1,2-Dichloro-	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
10061-02-6		trans-1,3-Dichloro-1-propene	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
10061-01-5		cis-1,3-Dichloro-1-propene	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
156-60-5		trans-1,2-Dichloroethene	T	mg/L	8260	<0.001		<0.001		<0.001		<0.001	
75-69-4		Trichlorofluoromethane	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
96-18-4		1,2,3-Trichloropropane	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
95-50-1		Benzene, 1,2-Dichloro-	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
106-46-7		Benzene, 1,4-Dichloro-	T	mg/L	8260	<0.005		<0.005		<0.005		<0.005	
1336-36-3		PCB,Total	T	ug/L	8082		*		*		*		*
12674-11-2		PCB-1016	T	ug/L	8082		*		*		*		*
11104-28-2		PCB-1221	T	ug/L	8082		*		*		*		*
11141-16-5		PCB-1232	T	ug/L	8082		*		*		*		*
53469-21-9		PCB-1242	T	ug/L	8082		*		*		*		*
12672-29-6		PCB-1248	T	ug/L	8082		*		*		*		*

RESIDENTIAL/CONTAINED-QUARTERLY
Facility: US DOE - Paducah Gaseous Diffusion Plant
Permit Number: 073-00045

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.)						T. BLANK 2		T. BLANK 3		T. BLANK 4		T. BLANK 5	
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	RL-7124		*		*		*		*
13982-63-3		Radium-226	T	pCi/L	RL-7129		*		*		*		*
10098-97-2		Strontium-90	T	pCi/L	RL-7140		*		*		*		*
14133-76-7		Technetium-99	T	pCi/L	RL-7100		*		*		*		*
14269-63-7		Thorium-230	T	pCi/L	RL-7128		*		*		*		*
10028-17-8		Tritium	T	pCi/L	704R6		*		*		*		*
S0130- -		Chemical Oxygen Demand	T	mg/L	410.4		*		*		*		*
57-12-5		Cyanide	T	mg/L	9010		*		*		*		*
20461-54-5		Iodide	T	mg/L	345.1		*		*		*		*
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/CONTAINED-QUARTERLY
Facility: US DOE - Paducah Gaseous Diffusion Plant
Permit Number: 073-00045

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	8004-0982			
Facility's Local Well or Spring Number (e.g., MW-1, MW-2, etc.)	366			
Sample Sequence #	2			
If sample is a Blank, specify Type: (F)ield, (T)rip, (M)ethod, or (E)quipment	NA			
Sample Date and Time (Month/Day/Year hour:minutes)	10/8/2013 12:42			
Duplicate ("Y" or "N")[2]	Y			
Split ("Y" or "N")[3]	N			
Facility Sample ID Number (if applicable)	MW366DUG1-14			
Laboratory Sample ID Number (if applicable)	C13281067003			
Date of Analysis (Month/Day/Year) For Volatile Organics Analysis	10/9/2013			
Gradient with respect to Monitored Unit (UP, DOWN, SIDE, UNKNOWN)	SIDE			

CAS RN[4]		CONSTITUENT	TD[5]	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL[6]	FLAGS[7]	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS
24959-67-9		Bromide	T	mg/L	9056	<2							
16887-00-6		Chloride(s)	T	mg/L	9056	39							
16984-48-8		Fluoride	T	mg/L	9214	0.17							
S0595- -		Nitrate & Nitrite	T	mg/L	9056	<1							
14808-79-8		Sulfate	T	mg/L	9056	44							
NS1894		Barometric Pressure Reading	T	Inches/Hg	Field	30.17							
S0145- -		Specific Conductance	T	µMH0/cm	Field	447							

[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/CONTAINED-QUARTERLY
Facility: US DOE - Paducah Gaseous Diffusion Plant
Permit Number: 073-00045

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						8004-0982							
Facility's Local Well or Spring Number (e.g., MW-1, MW-2, BLANK-F, etc.)						366							
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	322.59							
N238		Dissolved Oxygen	T	mg/L	Field	2.47							
S0266- -		Total Dissolved Solids	T	mg/L	160.1	260							
S0296- -		pH	T	Units	Field	6.17							
NS215		Eh	T	mV	Field	503							
S0907 - -		Temperature	T	°C	Field	17.17							
7429-90-5		Aluminum	T	mg/L	6020	<0.2							
7440-36-0		Antimony	T	mg/L	6020	<0.005							
7440-38-2		Arsenic	T	mg/L	7060	0.00132							
7440-39-3		Barium	T	mg/L	6020	0.165							
7440-41-7		Beryllium	T	mg/L	6020	<0.001	B						
7440-42-8		Boron	T	mg/L	6010	<0.2							
7440-43-9		Cadmium	T	mg/L	6020	<0.001							
7440-70-2		Calcium	T	mg/L	6010	27.5							
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	<0.02							
7439-89-6		Iron	T	mg/L	6010	<0.1							
7439-92-1		Lead	T	mg/L	6020	<0.0013							
7439-95-4		Magnesium	T	mg/L	6010	11.5							
7439-96-5		Manganese	T	mg/L	6020	0.0312	*						
7439-97-6		Mercury	T	mg/L	7470	<0.0002							

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						8004-0982							
Facility's Local Well or Spring Number (e.g., MW-1, MW-2, etc.)						366							
CAS RN[4]		CONSTITUENT	TD[5]	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS
7439-98-7		Molybdenum	T	mg/L	6020	<0.001	B						
7440-02-0		Nickel	T	mg/L	6020	<0.005	*						
7440-09-7		Potassium	T	mg/L	6010	1.74							
7440-16-6		Rhodium	T	mg/L	6020	<0.005							
7782-49-2		Selenium	T	mg/L	6020	0.00672							
7440-22-4		Silver	T	mg/L	6020	<0.001	B						
7440-23-5		Sodium	T	mg/L	6010	41.7							
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	<0.001							
7440-62-2		Vanadium	T	mg/L	6020	<0.02							
7440-66-6		Zinc	T	mg/L	6020	<0.02							
108-05-4		Vinyl acetate	T	mg/L	8260	<0.01							
67-64-1		Acetone	T	mg/L	8260	<0.01							
107-02-8		Acrolein	T	mg/L	8260	<0.01	J						
107-13-1		Acrylonitrile	T	mg/L	8260	<0.01							
71-43-2		Benzene	T	mg/L	8260	<0.005							
108-90-7		Chlorobenzene	T	mg/L	8260	<0.005							
1330-20-7		Xylenes	T	mg/L	8260	<0.015							
100-42-5		Styrene	T	mg/L	8260	<0.005							
108-88-3		Toluene	T	mg/L	8260	<0.005							
74-97-5		Chlorobromomethane	T	mg/L	8260	<0.005							

RESIDENTIAL/CONTAINED-QUARTERLY
Facility: US DOE - Paducah Gaseous Diffusion Plant FINDS/UNIT: KY8-890-008-982 / 1
Permit Number: 073-00045 LAB ID: None
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GROUNDWATER SAMPLE ANALYSIS - (Cont.)

AKGWA NUMBER[1], Facility Well/Spring Number						8004-0982							
Facility's Local Well or Spring Number (e.g., MW-1, MW-2, etc.)						366							
CAS RN[4]		CONSTITUENT	TD[5]	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS
75-27-4		Bromodichloromethane	T	mg/L	8260	<0.005							
75-25-2		Tribromomethane	T	mg/L	8260	<0.005							
74-83-9		Methyl bromide	T	mg/L	8260	<0.005							
78-93-3		Methyl ethyl ketone	T	mg/L	8260	<0.01							
110-57-6		trans-1,4-Dichloro-2-butene	T	mg/L	8260	<0.005							
75-15-0		Carbon disulfide	T	mg/L	8260	<0.005							
75-00-3		Chloroethane	T	mg/L	8260	<0.005							
67-66-3		Chloroform	T	mg/L	8260	<0.001							
74-87-3		Methyl chloride	T	mg/L	8260	<0.005							
156-59-2		cis-1,2-Dichloroethene	T	mg/L	8260	<0.001							
74-95-3		Methylene bromide	T	mg/L	8260	<0.005							
75-34-3		1,1-Dichloroethane	T	mg/L	8260	<0.001							
107-06-2		1,2-Dichloroethane	T	mg/L	8260	<0.001							
75-35-4		1,1-Dichloroethylene	T	mg/L	8260	<0.001							
106-93-4		Ethane, 1,2-dibromo	T	mg/L	8260	<0.005							
79-34-5		Ethane, 1,1,2,2-Tetrachloro	T	mg/L	8260	<0.005							
71-55-6		Ethane, 1,1,1-Trichloro-	T	mg/L	8260	<0.001							
79-00-5		Ethane, 1,1,2-Trichloro	T	mg/L	8260	<0.001							
630-20-6		Ethane, 1,1,1,2-Tetrachloro	T	mg/L	8260	<0.005							
75-01-4		Vinyl chloride	T	mg/L	8260	<0.002							
127-18-4		Ethene, Tetrachloro-	T	mg/L	8260	<0.001							
79-01-6		Ethene, Trichloro-	T	mg/L	8260	0.0031							

RESIDENTIAL/CONTAINED-QUARTERLY
Facility: US DOE - Paducah Gaseous Diffusion Plant
Permit Number: 073-00045

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						8004-0982							
Facility's Local Well or Spring Number (e.g., MW-1, MW-2, etc.)						366							
CAS RN[4]		CONSTITUENT	TD[5]	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS
100-41-4		Ethylbenzene	T	mg/L	8260	<0.005							
591-78-6		2-Hexanone	T	mg/L	8260	<0.01							
74-88-4		Iodomethane	T	mg/L	8260	<0.01							
124-48-1		Methane, Dibromochloro-	T	mg/L	8260	<0.005							
56-23-5		Carbon Tetrachloride	T	mg/L	8260	<0.005							
75-09-2		Dichloromethane	T	mg/L	8260	<0.005							
108-10-1		Methyl isobutyl ketone	T	mg/L	8260	<0.01							
96-12-8		Propane, 1,2-Dibromo-3-chloro	T	mg/L	8011	<0.0002							
78-87-5		Propane, 1,2-Dichloro-	T	mg/L	8260	<0.005							
10061-02-6		trans-1,3-Dichloro-1-propene	T	mg/L	8260	<0.005							
10061-01-5		cis-1,3-Dichloro-1-propene	T	mg/L	8260	<0.005							
156-60-5		trans-1,2-Dichloroethene	T	mg/L	8260	<0.001							
75-69-4		Trichlorofluoromethane	T	mg/L	8260	<0.005							
96-18-4		1,2,3-Trichloropropane	T	mg/L	8260	<0.005							
95-50-1		Benzene, 1,2-Dichloro-	T	mg/L	8260	<0.005							
106-46-7		Benzene, 1,4-Dichloro-	T	mg/L	8260	<0.005							
1336-36-3		PCB,Total	T	ug/L	8082	<0.18							
12674-11-2		PCB-1016	T	ug/L	8082	<0.17							
11104-28-2		PCB-1221	T	ug/L	8082	<0.18							
11141-16-5		PCB-1232	T	ug/L	8082	<0.14							
53469-21-9		PCB-1242	T	ug/L	8082	<0.1							
12672-29-6		PCB-1248	T	ug/L	8082	<0.12							

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GROUNDWATER SAMPLE ANALYSIS - (Cont.)

AKGWA NUMBER[1], Facility Well/Spring Number						8004-0982							
Facility's Local Well or Spring Number (e.g., MW-1, MW-2, etc.)						366							
CAS RN[4]		CONSTITUENT	TD[5]	Unit OF MEASURE	METHOD	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS	DETECTED VALUE OR PQL[6]	FLAGS
11097-69-1		PCB-1254	T	ug/L	8082	<0.07							
11096-82-5		PCB-1260	T	ug/L	8082	<0.05							
11100-14-4		PCB-1268	T	ug/L	8082	<0.09							
12587-46-1		Gross Alpha	T	pCi/L	9310	2.99	*						
12587-47-2		Gross Beta	T	pCi/L	9310	41.4	*						
10043-66-0		Iodine-131	T	pCi/L	RL-7124		*						
13982-63-3		Radium-226	T	pCi/L	RL-7129	0.139	*						
10098-97-2		Strontium-90	T	pCi/L	RL-7140	0.828	*B						
14133-76-7		Technetium-99	T	pCi/L	RL-7100	57.7	*						
14269-63-7		Thorium-230	T	pCi/L	RL-7128	-0.0151	*						
10028-17-8		Tritium	T	pCi/L	704R6	259	*						
S0130- -		Chemical Oxygen Demand	T	mg/L	410.4	<36							
57-12-5		Cyanide	T	mg/L	9010	<0.04							
20461-54-5		Iodide	T	mg/L	345.1	<2							
S0268- -		Total Organic Carbon	T	mg/L	9060	<1							
S0586- -		Total Organic Halides	T	mg/L	9020	0.014							

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Monitoring Point	Facility Sample ID	Constituent	Flag	Description
8004-4798 MW357	MW357UG1-14	Cobalt	X	Other specific flags and footnotes may be required to properly define the results.
		Manganese	X	Other specific flags and footnotes may be required to properly define the results.
		Nickel	X	Other specific flags and footnotes may be required to properly define the results.
		Gross alpha	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.771. Rad error is 0.69.
		Gross beta		TPU is 4.27. Rad error is 3.09.
		Iodine-131		Analysis of constituent not required and not performed.
		Radium-226	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.225. Rad error is 0.0969.
		Strontium-90	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.163. Rad error is 0.0976.
		Technetium-99		TPU is 12.4. Rad error is 12.4.
		Thorium-230	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.126. Rad error is 0.0584.
		Tritium	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 606. Rad error is 606.
		Cyanide	*	Duplicate analysis not within control limits.
8004-4799 MW358	MW358UG1-14	Cobalt	X	Other specific flags and footnotes may be required to properly define the results.
		Manganese	X	Other specific flags and footnotes may be required to properly define the results.
		Nickel	X	Other specific flags and footnotes may be required to properly define the results.
		Gross alpha	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.639. Rad error is 0.575.
		Gross beta		TPU is 4.48. Rad error is 3.22.
		Iodine-131		Analysis of constituent not required and not performed.
		Radium-226	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.276. Rad error is 0.224.
		Strontium-90	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.207. Rad error is 0.123.
		Technetium-99		TPU is 12.5. Rad error is 12.5.
		Thorium-230	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.131. Rad error is 0.0679.
		Tritium	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 624. Rad error is 620.
		Cyanide	*	Duplicate analysis not within control limits.

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Monitoring Point	Facility Sample ID	Constituent	Flag	Description
8004-0981 MW359		Bromide		During sampling, the well went dry; therefore, no sample was collected.
		Chloride		During sampling, the well went dry; therefore, no sample was collected.
		Fluoride		During sampling, the well went dry; therefore, no sample was collected.
		Nitrate & Nitrite		During sampling, the well went dry; therefore, no sample was collected.
		Sulfate		During sampling, the well went dry; therefore, no sample was collected.
		Barometric Pressure Reading		During sampling, the well went dry; therefore, no sample was collected.
		Specific Conductance		During sampling, the well went dry; therefore, no sample was collected.
		Static Water Level Elevation		During sampling, the well went dry; therefore, no sample was collected.
		Dissolved Oxygen		During sampling, the well went dry; therefore, no sample was collected.
		Total Dissolved Solids		During sampling, the well went dry; therefore, no sample was collected.
		pH		During sampling, the well went dry; therefore, no sample was collected.
		Eh		During sampling, the well went dry; therefore, no sample was collected.
		Temperature		During sampling, the well went dry; therefore, no sample was collected.
		Aluminum		During sampling, the well went dry; therefore, no sample was collected.
		Antimony		During sampling, the well went dry; therefore, no sample was collected.
		Arsenic		During sampling, the well went dry; therefore, no sample was collected.
		Barium		During sampling, the well went dry; therefore, no sample was collected.
		Beryllium		During sampling, the well went dry; therefore, no sample was collected.
		Boron		During sampling, the well went dry; therefore, no sample was collected.
		Cadmium		During sampling, the well went dry; therefore, no sample was collected.
		Calcium		During sampling, the well went dry; therefore, no sample was collected.
		Chromium		During sampling, the well went dry; therefore, no sample was collected.
		Cobalt		During sampling, the well went dry; therefore, no sample was collected.
		Copper		During sampling, the well went dry; therefore, no sample was collected.
		Iron		During sampling, the well went dry; therefore, no sample was collected.
		Lead		During sampling, the well went dry; therefore, no sample was collected.

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Monitoring Point	Facility Sample ID	Constituent	Flag	Description
8004-0981 MW359		Magnesium		During sampling, the well went dry; therefore, no sample was collected.
		Manganese		During sampling, the well went dry; therefore, no sample was collected.
		Mercury		During sampling, the well went dry; therefore, no sample was collected.
		Molybdenum		During sampling, the well went dry; therefore, no sample was collected.
		Nickel		During sampling, the well went dry; therefore, no sample was collected.
		Potassium		During sampling, the well went dry; therefore, no sample was collected.
		Rhodium		During sampling, the well went dry; therefore, no sample was collected.
		Selenium		During sampling, the well went dry; therefore, no sample was collected.
		Silver		During sampling, the well went dry; therefore, no sample was collected.
		Sodium		During sampling, the well went dry; therefore, no sample was collected.
		Tantalum		During sampling, the well went dry; therefore, no sample was collected.
		Thallium		During sampling, the well went dry; therefore, no sample was collected.
		Uranium		During sampling, the well went dry; therefore, no sample was collected.
		Vanadium		During sampling, the well went dry; therefore, no sample was collected.
		Zinc		During sampling, the well went dry; therefore, no sample was collected.
		Vinyl acetate		During sampling, the well went dry; therefore, no sample was collected.
		Acetone		During sampling, the well went dry; therefore, no sample was collected.
		Acrolein		During sampling, the well went dry; therefore, no sample was collected.
		Acrylonitrile		During sampling, the well went dry; therefore, no sample was collected.
		Benzene		During sampling, the well went dry; therefore, no sample was collected.
		Chlorobenzene		During sampling, the well went dry; therefore, no sample was collected.
		Xylenes		During sampling, the well went dry; therefore, no sample was collected.
		Styrene		During sampling, the well went dry; therefore, no sample was collected.
		Toluene		During sampling, the well went dry; therefore, no sample was collected.
		Chlorobromomethane		During sampling, the well went dry; therefore, no sample was collected.
		Bromodichloromethane		During sampling, the well went dry; therefore, no sample was collected.

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Monitoring Point	Facility Sample ID	Constituent	Flag	Description
8004-0981 MW359		Tribromomethane		During sampling, the well went dry; therefore, no sample was collected.
		Methyl bromide		During sampling, the well went dry; therefore, no sample was collected.
		Methyl Ethyl Ketone		During sampling, the well went dry; therefore, no sample was collected.
		trans-1,4-Dichloro-2-butene		During sampling, the well went dry; therefore, no sample was collected.
		Carbon disulfide		During sampling, the well went dry; therefore, no sample was collected.
		Chloroethane		During sampling, the well went dry; therefore, no sample was collected.
		Chloroform		During sampling, the well went dry; therefore, no sample was collected.
		Methyl chloride		During sampling, the well went dry; therefore, no sample was collected.
		cis-1,2-Dichloroethene		During sampling, the well went dry; therefore, no sample was collected.
		Methylene bromide		During sampling, the well went dry; therefore, no sample was collected.
		1,1-Dichloroethane		During sampling, the well went dry; therefore, no sample was collected.
		1,2-Dichloroethane		During sampling, the well went dry; therefore, no sample was collected.
		1,1-Dichloroethylene		During sampling, the well went dry; therefore, no sample was collected.
		1,2-Dibromoethane		During sampling, the well went dry; therefore, no sample was collected.
		1,1,2,2-Tetrachloroethane		During sampling, the well went dry; therefore, no sample was collected.
		1,1,1-Trichloroethane		During sampling, the well went dry; therefore, no sample was collected.
		1,1,2-Trichloroethane		During sampling, the well went dry; therefore, no sample was collected.
		1,1,1,2-Tetrachloroethane		During sampling, the well went dry; therefore, no sample was collected.
		Vinyl chloride		During sampling, the well went dry; therefore, no sample was collected.
		Tetrachloroethene		During sampling, the well went dry; therefore, no sample was collected.
		Trichloroethene		During sampling, the well went dry; therefore, no sample was collected.
		Ethylbenzene		During sampling, the well went dry; therefore, no sample was collected.
		2-Hexanone		During sampling, the well went dry; therefore, no sample was collected.
		Iodomethane		During sampling, the well went dry; therefore, no sample was collected.
		Dibromochloromethane		During sampling, the well went dry; therefore, no sample was collected.
		Carbon tetrachloride		During sampling, the well went dry; therefore, no sample was collected.

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Monitoring Point	Facility Sample ID	Constituent	Flag	Description
8004-0981 MW359		Dichloromethane		During sampling, the well went dry; therefore, no sample was collected.
		Methyl Isobutyl Ketone		During sampling, the well went dry; therefore, no sample was collected.
		1,2-Dibromo-3-chloropropane		During sampling, the well went dry; therefore, no sample was collected.
		1,2-Dichloropropane		During sampling, the well went dry; therefore, no sample was collected.
		trans-1,3-Dichloropropene		During sampling, the well went dry; therefore, no sample was collected.
		cis-1,3-Dichloropropene		During sampling, the well went dry; therefore, no sample was collected.
		trans-1,2-Dichloroethene		During sampling, the well went dry; therefore, no sample was collected.
		Trichlorofluoromethane		During sampling, the well went dry; therefore, no sample was collected.
		1,2,3-Trichloropropane		During sampling, the well went dry; therefore, no sample was collected.
		1,2-Dichlorobenzene		During sampling, the well went dry; therefore, no sample was collected.
		1,4-Dichlorobenzene		During sampling, the well went dry; therefore, no sample was collected.
		PCB, Total		During sampling, the well went dry; therefore, no sample was collected.
		PCB-1016		During sampling, the well went dry; therefore, no sample was collected.
		PCB-1221		During sampling, the well went dry; therefore, no sample was collected.
		PCB-1232		During sampling, the well went dry; therefore, no sample was collected.
		PCB-1242		During sampling, the well went dry; therefore, no sample was collected.
		PCB-1248		During sampling, the well went dry; therefore, no sample was collected.
		PCB-1254		During sampling, the well went dry; therefore, no sample was collected.
		PCB-1260		During sampling, the well went dry; therefore, no sample was collected.
		PCB-1268		During sampling, the well went dry; therefore, no sample was collected.
		Gross alpha		During sampling, the well went dry; therefore, no sample was collected.
		Gross beta		During sampling, the well went dry; therefore, no sample was collected.
		Iodine-131		During sampling, the well went dry; therefore, no sample was collected.
		Radium-226		During sampling, the well went dry; therefore, no sample was collected.
		Strontium-90		During sampling, the well went dry; therefore, no sample was collected.
		Technetium-99		During sampling, the well went dry; therefore, no sample was collected.

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Monitoring Point	Facility Sample ID	Constituent	Flag	Description
8004-0981 MW359		Thorium-230		During sampling, the well went dry; therefore, no sample was collected.
		Tritium		During sampling, the well went dry; therefore, no sample was collected.
		Chemical Oxygen Demand		During sampling, the well went dry; therefore, no sample was collected.
		Cyanide		During sampling, the well went dry; therefore, no sample was collected.
		Iodide		During sampling, the well went dry; therefore, no sample was collected.
		Total Organic Carbon		During sampling, the well went dry; therefore, no sample was collected.
		Total Organic Halides		During sampling, the well went dry; therefore, no sample was collected.
8004-4800 MW360	MW360UG1-14	Cobalt	X	Other specific flags and footnotes may be required to properly define the results.
		Manganese	X	Other specific flags and footnotes may be required to properly define the results.
		Nickel	X	Other specific flags and footnotes may be required to properly define the results.
		Vinyl chloride	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Gross alpha	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.318. Rad error is 0.301.
		Gross beta	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.813. Rad error is 0.697.
		Iodine-131		Analysis of constituent not required and not performed.
		Radium-226	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.241. Rad error is 0.181.
		Strontium-90	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.0863. Rad error is 0.0529.
		Technetium-99	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 11.8. Rad error is 11.8.
		Thorium-230	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.136. Rad error is 0.0764.
		Tritium	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 606. Rad error is 606.
		Cyanide	*	Duplicate analysis not within control limits.

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Monitoring Point	Facility Sample ID	Constituent	Flag	Description
8004-4795 MW361	MW361UG1-14	Cobalt	X	Other specific flags and footnotes may be required to properly define the results.
		Manganese	X	Other specific flags and footnotes may be required to properly define the results.
		Nickel	X	Other specific flags and footnotes may be required to properly define the results.
		Vinyl chloride	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Gross alpha	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.797. Rad error is 0.736.
		Gross beta		TPU is 5.37. Rad error is 3.72.
		Iodine-131		Analysis of constituent not required and not performed.
		Radium-226	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.231. Rad error is 0.152.
		Strontium-90	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.0141. Rad error is 0.0089.
		Technetium-99		TPU is 13.3. Rad error is 13.2.
		Thorium-230	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.163. Rad error is 0.117.
		Tritium	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 560. Rad error is 560.
		Cyanide	*	Duplicate analysis not within control limits.
8004-0986 MW362	MW362UG1-14	Cobalt	X	Other specific flags and footnotes may be required to properly define the results.
		Manganese	X	Other specific flags and footnotes may be required to properly define the results.
		Nickel	X	Other specific flags and footnotes may be required to properly define the results.
		Gross alpha	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.401. Rad error is 0.374.
		Gross beta		TPU is 1.22. Rad error is 1.03.
		Iodine-131		Analysis of constituent not required and not performed.
		Radium-226	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.243. Rad error is 0.182.
		Strontium-90	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.0856. Rad error is 0.0552.
		Technetium-99	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 11.5. Rad error is 11.5.
		Thorium-230	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.124. Rad error is 0.00398.
		Tritium	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 610. Rad error is 610.
		Cyanide	*	Duplicate analysis not within control limits.

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Monitoring Point	Facility Sample ID	Constituent	Flag	Description
8004-4796 MW363	MW363UG1-14	Cobalt	X	Other specific flags and footnotes may be required to properly define the results.
		Manganese	X	Other specific flags and footnotes may be required to properly define the results.
		Nickel	X	Other specific flags and footnotes may be required to properly define the results.
		Vinyl chloride	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Gross alpha	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.493. Rad error is 0.453.
		Gross beta		TPU is 1.94. Rad error is 1.57.
		Iodine-131		Analysis of constituent not required and not performed.
		Radium-226	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.234. Rad error is 0.17.
		Strontium-90	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.111. Rad error is 0.0674.
		Technetium-99		TPU is 12.1. Rad error is 12.
		Thorium-230	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.13. Rad error is 0.0661.
		Tritium	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 619. Rad error is 617.
		Total Organic Carbon	X	Other specific flags and footnotes may be required to properly define the results.
8004-4797 MW364	MW364UG1-14	Cobalt	X	Other specific flags and footnotes may be required to properly define the results.
		Manganese	X	Other specific flags and footnotes may be required to properly define the results.
		Nickel	X	Other specific flags and footnotes may be required to properly define the results.
		Gross alpha	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.956. Rad error is 0.838.
		Gross beta		TPU is 6.08. Rad error is 4.06.
		Iodine-131		Analysis of constituent not required and not performed.
		Radium-226	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.201. Rad error is 0.123.
		Strontium-90	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.278. Rad error is 0.164.
		Technetium-99		TPU is 13.1. Rad error is 13.1.
		Thorium-230	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.224. Rad error is 0.192.
		Tritium	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 604. Rad error is 604.

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Monitoring Point	Facility Sample ID	Constituent	Flag	Description
8004-0984 MW365		Bromide		During sampling, the well went dry; therefore, no sample was collected.
		Chloride		During sampling, the well went dry; therefore, no sample was collected.
		Fluoride		During sampling, the well went dry; therefore, no sample was collected.
		Nitrate & Nitrite		During sampling, the well went dry; therefore, no sample was collected.
		Sulfate		During sampling, the well went dry; therefore, no sample was collected.
		Barometric Pressure Reading		During sampling, the well went dry; therefore, no sample was collected.
		Specific Conductance		During sampling, the well went dry; therefore, no sample was collected.
		Static Water Level Elevation		During sampling, the well went dry; therefore, no sample was collected.
		Dissolved Oxygen		During sampling, the well went dry; therefore, no sample was collected.
		Total Dissolved Solids		During sampling, the well went dry; therefore, no sample was collected.
		pH		During sampling, the well went dry; therefore, no sample was collected.
		Eh		During sampling, the well went dry; therefore, no sample was collected.
		Temperature		During sampling, the well went dry; therefore, no sample was collected.
		Aluminum		During sampling, the well went dry; therefore, no sample was collected.
		Antimony		During sampling, the well went dry; therefore, no sample was collected.
		Arsenic		During sampling, the well went dry; therefore, no sample was collected.
		Barium		During sampling, the well went dry; therefore, no sample was collected.
		Beryllium		During sampling, the well went dry; therefore, no sample was collected.
		Boron		During sampling, the well went dry; therefore, no sample was collected.
		Cadmium		During sampling, the well went dry; therefore, no sample was collected.
		Calcium		During sampling, the well went dry; therefore, no sample was collected.
		Chromium		During sampling, the well went dry; therefore, no sample was collected.
		Cobalt		During sampling, the well went dry; therefore, no sample was collected.
		Copper		During sampling, the well went dry; therefore, no sample was collected.
		Iron		During sampling, the well went dry; therefore, no sample was collected.
		Lead		During sampling, the well went dry; therefore, no sample was collected.

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Monitoring Point	Facility Sample ID	Constituent	Flag	Description
8004-0984 MW365		Magnesium		During sampling, the well went dry; therefore, no sample was collected.
		Manganese		During sampling, the well went dry; therefore, no sample was collected.
		Mercury		During sampling, the well went dry; therefore, no sample was collected.
		Molybdenum		During sampling, the well went dry; therefore, no sample was collected.
		Nickel		During sampling, the well went dry; therefore, no sample was collected.
		Potassium		During sampling, the well went dry; therefore, no sample was collected.
		Rhodium		During sampling, the well went dry; therefore, no sample was collected.
		Selenium		During sampling, the well went dry; therefore, no sample was collected.
		Silver		During sampling, the well went dry; therefore, no sample was collected.
		Sodium		During sampling, the well went dry; therefore, no sample was collected.
		Tantalum		During sampling, the well went dry; therefore, no sample was collected.
		Thallium		During sampling, the well went dry; therefore, no sample was collected.
		Uranium		During sampling, the well went dry; therefore, no sample was collected.
		Vanadium		During sampling, the well went dry; therefore, no sample was collected.
		Zinc		During sampling, the well went dry; therefore, no sample was collected.
		Vinyl acetate		During sampling, the well went dry; therefore, no sample was collected.
		Acetone		During sampling, the well went dry; therefore, no sample was collected.
		Acrolein		During sampling, the well went dry; therefore, no sample was collected.
		Acrylonitrile		During sampling, the well went dry; therefore, no sample was collected.
		Benzene		During sampling, the well went dry; therefore, no sample was collected.
		Chlorobenzene		During sampling, the well went dry; therefore, no sample was collected.
		Xylenes		During sampling, the well went dry; therefore, no sample was collected.
		Styrene		During sampling, the well went dry; therefore, no sample was collected.
		Toluene		During sampling, the well went dry; therefore, no sample was collected.
		Chlorobromomethane		During sampling, the well went dry; therefore, no sample was collected.
		Bromodichloromethane		During sampling, the well went dry; therefore, no sample was collected.

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Monitoring Point	Facility Sample ID	Constituent	Flag	Description
8004-0984 MW365		Tribromomethane		During sampling, the well went dry; therefore, no sample was collected.
		Methyl bromide		During sampling, the well went dry; therefore, no sample was collected.
		Methyl Ethyl Ketone		During sampling, the well went dry; therefore, no sample was collected.
		trans-1,4-Dichloro-2-butene		During sampling, the well went dry; therefore, no sample was collected.
		Carbon disulfide		During sampling, the well went dry; therefore, no sample was collected.
		Chloroethane		During sampling, the well went dry; therefore, no sample was collected.
		Chloroform		During sampling, the well went dry; therefore, no sample was collected.
		Methyl chloride		During sampling, the well went dry; therefore, no sample was collected.
		cis-1,2-Dichloroethene		During sampling, the well went dry; therefore, no sample was collected.
		Methylene bromide		During sampling, the well went dry; therefore, no sample was collected.
		1,1-Dichloroethane		During sampling, the well went dry; therefore, no sample was collected.
		1,2-Dichloroethane		During sampling, the well went dry; therefore, no sample was collected.
		1,1-Dichloroethylene		During sampling, the well went dry; therefore, no sample was collected.
		1,2-Dibromoethane		During sampling, the well went dry; therefore, no sample was collected.
		1,1,2,2-Tetrachloroethane		During sampling, the well went dry; therefore, no sample was collected.
		1,1,1-Trichloroethane		During sampling, the well went dry; therefore, no sample was collected.
		1,1,2-Trichloroethane		During sampling, the well went dry; therefore, no sample was collected.
		1,1,1,2-Tetrachloroethane		During sampling, the well went dry; therefore, no sample was collected.
		Vinyl chloride		During sampling, the well went dry; therefore, no sample was collected.
		Tetrachloroethene		During sampling, the well went dry; therefore, no sample was collected.
		Trichloroethene		During sampling, the well went dry; therefore, no sample was collected.
		Ethylbenzene		During sampling, the well went dry; therefore, no sample was collected.
		2-Hexanone		During sampling, the well went dry; therefore, no sample was collected.
		Iodomethane		During sampling, the well went dry; therefore, no sample was collected.
		Dibromochloromethane		During sampling, the well went dry; therefore, no sample was collected.
		Carbon tetrachloride		During sampling, the well went dry; therefore, no sample was collected.

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Monitoring Point	Facility Sample ID	Constituent	Flag	Description
8004-0984 MW365		Dichloromethane		During sampling, the well went dry; therefore, no sample was collected.
		Methyl Isobutyl Ketone		During sampling, the well went dry; therefore, no sample was collected.
		1,2-Dibromo-3-chloropropane		During sampling, the well went dry; therefore, no sample was collected.
		1,2-Dichloropropane		During sampling, the well went dry; therefore, no sample was collected.
		trans-1,3-Dichloropropene		During sampling, the well went dry; therefore, no sample was collected.
		cis-1,3-Dichloropropene		During sampling, the well went dry; therefore, no sample was collected.
		trans-1,2-Dichloroethene		During sampling, the well went dry; therefore, no sample was collected.
		Trichlorofluoromethane		During sampling, the well went dry; therefore, no sample was collected.
		1,2,3-Trichloropropane		During sampling, the well went dry; therefore, no sample was collected.
		1,2-Dichlorobenzene		During sampling, the well went dry; therefore, no sample was collected.
		1,4-Dichlorobenzene		During sampling, the well went dry; therefore, no sample was collected.
		PCB, Total		During sampling, the well went dry; therefore, no sample was collected.
		PCB-1016		During sampling, the well went dry; therefore, no sample was collected.
		PCB-1221		During sampling, the well went dry; therefore, no sample was collected.
		PCB-1232		During sampling, the well went dry; therefore, no sample was collected.
		PCB-1242		During sampling, the well went dry; therefore, no sample was collected.
		PCB-1248		During sampling, the well went dry; therefore, no sample was collected.
		PCB-1254		During sampling, the well went dry; therefore, no sample was collected.
		PCB-1260		During sampling, the well went dry; therefore, no sample was collected.
		PCB-1268		During sampling, the well went dry; therefore, no sample was collected.
		Gross alpha		During sampling, the well went dry; therefore, no sample was collected.
		Gross beta		During sampling, the well went dry; therefore, no sample was collected.
		Iodine-131		During sampling, the well went dry; therefore, no sample was collected.
		Radium-226		During sampling, the well went dry; therefore, no sample was collected.
		Strontium-90		During sampling, the well went dry; therefore, no sample was collected.
		Technetium-99		During sampling, the well went dry; therefore, no sample was collected.

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Monitoring Point	Facility Sample ID	Constituent	Flag	Description
8004-0984 MW365		Thorium-230		During sampling, the well went dry; therefore, no sample was collected.
		Tritium		During sampling, the well went dry; therefore, no sample was collected.
		Chemical Oxygen Demand		During sampling, the well went dry; therefore, no sample was collected.
		Cyanide		During sampling, the well went dry; therefore, no sample was collected.
		Iodide		During sampling, the well went dry; therefore, no sample was collected.
		Total Organic Carbon		During sampling, the well went dry; therefore, no sample was collected.
		Total Organic Halides		During sampling, the well went dry; therefore, no sample was collected.
8004-0982 MW366	MW366UG1-14	Cobalt	X	Other specific flags and footnotes may be required to properly define the results.
		Manganese	X	Other specific flags and footnotes may be required to properly define the results.
		Nickel	X	Other specific flags and footnotes may be required to properly define the results.
		Gross alpha	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.525. Rad error is 0.466.
		Gross beta		TPU is 6.1. Rad error is 4.07.
		Iodine-131		Analysis of constituent not required and not performed.
		Radium-226	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.273. Rad error is 0.00884.
		Strontium-90	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.26. Rad error is 0.153.
		Technetium-99		TPU is 13.7. Rad error is 13.6.
		Thorium-230	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.132. Rad error is 0.0674.
		Tritium	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 615. Rad error is 614.

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Monitoring Point	Facility Sample ID	Constituent	Flag	Description
8004-4793 MW367	MW367UG1-14	Cobalt	X	Other specific flags and footnotes may be required to properly define the results.
		Manganese	X	Other specific flags and footnotes may be required to properly define the results.
		Nickel	X	Other specific flags and footnotes may be required to properly define the results.
		Vinyl chloride	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Gross alpha	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.354. Rad error is 0.328.
		Gross beta	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.901. Rad error is 0.765.
		Iodine-131		Analysis of constituent not required and not performed.
		Radium-226	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.338. Rad error is 0.293.
		Strontium-90	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.179. Rad error is 0.106.
		Technetium-99	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 10.5. Rad error is 10.5.
		Thorium-230	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.159. Rad error is 0.0667.
		Tritium	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 613. Rad error is 612.
		Cyanide	*	Duplicate analysis not within control limits.

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Monitoring Point	Facility Sample ID	Constituent	Flag	Description
8004-0983	MW368	Bromide		During sampling, the well went dry; therefore, no sample was collected.
		Chloride		During sampling, the well went dry; therefore, no sample was collected.
		Fluoride		During sampling, the well went dry; therefore, no sample was collected.
		Nitrate & Nitrite		During sampling, the well went dry; therefore, no sample was collected.
		Sulfate		During sampling, the well went dry; therefore, no sample was collected.
		Barometric Pressure Reading		During sampling, the well went dry; therefore, no sample was collected.
		Specific Conductance		During sampling, the well went dry; therefore, no sample was collected.
		Static Water Level Elevation		During sampling, the well went dry; therefore, no sample was collected.
		Dissolved Oxygen		During sampling, the well went dry; therefore, no sample was collected.
		Total Dissolved Solids		During sampling, the well went dry; therefore, no sample was collected.
		pH		During sampling, the well went dry; therefore, no sample was collected.
		Eh		During sampling, the well went dry; therefore, no sample was collected.
		Temperature		During sampling, the well went dry; therefore, no sample was collected.
		Aluminum		During sampling, the well went dry; therefore, no sample was collected.
		Antimony		During sampling, the well went dry; therefore, no sample was collected.
		Arsenic		During sampling, the well went dry; therefore, no sample was collected.
		Barium		During sampling, the well went dry; therefore, no sample was collected.
		Beryllium		During sampling, the well went dry; therefore, no sample was collected.
		Boron		During sampling, the well went dry; therefore, no sample was collected.
		Cadmium		During sampling, the well went dry; therefore, no sample was collected.
		Calcium		During sampling, the well went dry; therefore, no sample was collected.
		Chromium		During sampling, the well went dry; therefore, no sample was collected.
		Cobalt		During sampling, the well went dry; therefore, no sample was collected.
		Copper		During sampling, the well went dry; therefore, no sample was collected.
		Iron		During sampling, the well went dry; therefore, no sample was collected.
		Lead		During sampling, the well went dry; therefore, no sample was collected.

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Monitoring Point	Facility Sample ID	Constituent	Flag	Description
8004-0983	MW368	Magnesium		During sampling, the well went dry; therefore, no sample was collected.
		Manganese		During sampling, the well went dry; therefore, no sample was collected.
		Mercury		During sampling, the well went dry; therefore, no sample was collected.
		Molybdenum		During sampling, the well went dry; therefore, no sample was collected.
		Nickel		During sampling, the well went dry; therefore, no sample was collected.
		Potassium		During sampling, the well went dry; therefore, no sample was collected.
		Rhodium		During sampling, the well went dry; therefore, no sample was collected.
		Selenium		During sampling, the well went dry; therefore, no sample was collected.
		Silver		During sampling, the well went dry; therefore, no sample was collected.
		Sodium		During sampling, the well went dry; therefore, no sample was collected.
		Tantalum		During sampling, the well went dry; therefore, no sample was collected.
		Thallium		During sampling, the well went dry; therefore, no sample was collected.
		Uranium		During sampling, the well went dry; therefore, no sample was collected.
		Vanadium		During sampling, the well went dry; therefore, no sample was collected.
		Zinc		During sampling, the well went dry; therefore, no sample was collected.
		Vinyl acetate		During sampling, the well went dry; therefore, no sample was collected.
		Acetone		During sampling, the well went dry; therefore, no sample was collected.
		Acrolein		During sampling, the well went dry; therefore, no sample was collected.
		Acrylonitrile		During sampling, the well went dry; therefore, no sample was collected.
		Benzene		During sampling, the well went dry; therefore, no sample was collected.
		Chlorobenzene		During sampling, the well went dry; therefore, no sample was collected.
		Xylenes		During sampling, the well went dry; therefore, no sample was collected.
		Styrene		During sampling, the well went dry; therefore, no sample was collected.
		Toluene		During sampling, the well went dry; therefore, no sample was collected.
		Chlorobromomethane		During sampling, the well went dry; therefore, no sample was collected.
		Bromodichloromethane		During sampling, the well went dry; therefore, no sample was collected.

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Monitoring Point	Facility Sample ID	Constituent	Flag	Description
8004-0983	MW368	Tribromomethane		During sampling, the well went dry; therefore, no sample was collected.
		Methyl bromide		During sampling, the well went dry; therefore, no sample was collected.
		Methyl Ethyl Ketone		During sampling, the well went dry; therefore, no sample was collected.
		trans-1,4-Dichloro-2-butene		During sampling, the well went dry; therefore, no sample was collected.
		Carbon disulfide		During sampling, the well went dry; therefore, no sample was collected.
		Chloroethane		During sampling, the well went dry; therefore, no sample was collected.
		Chloroform		During sampling, the well went dry; therefore, no sample was collected.
		Methyl chloride		During sampling, the well went dry; therefore, no sample was collected.
		cis-1,2-Dichloroethene		During sampling, the well went dry; therefore, no sample was collected.
		Methylene bromide		During sampling, the well went dry; therefore, no sample was collected.
		1,1-Dichloroethane		During sampling, the well went dry; therefore, no sample was collected.
		1,2-Dichloroethane		During sampling, the well went dry; therefore, no sample was collected.
		1,1-Dichloroethylene		During sampling, the well went dry; therefore, no sample was collected.
		1,2-Dibromoethane		During sampling, the well went dry; therefore, no sample was collected.
		1,1,2,2-Tetrachloroethane		During sampling, the well went dry; therefore, no sample was collected.
		1,1,1-Trichloroethane		During sampling, the well went dry; therefore, no sample was collected.
		1,1,2-Trichloroethane		During sampling, the well went dry; therefore, no sample was collected.
		1,1,1,2-Tetrachloroethane		During sampling, the well went dry; therefore, no sample was collected.
		Vinyl chloride		During sampling, the well went dry; therefore, no sample was collected.
		Tetrachloroethene		During sampling, the well went dry; therefore, no sample was collected.
		Trichloroethene		During sampling, the well went dry; therefore, no sample was collected.
		Ethylbenzene		During sampling, the well went dry; therefore, no sample was collected.
		2-Hexanone		During sampling, the well went dry; therefore, no sample was collected.
		Iodomethane		During sampling, the well went dry; therefore, no sample was collected.
		Dibromochloromethane		During sampling, the well went dry; therefore, no sample was collected.
		Carbon tetrachloride		During sampling, the well went dry; therefore, no sample was collected.

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Monitoring Point	Facility Sample ID	Constituent	Flag	Description
8004-0983	MW368	Dichloromethane		During sampling, the well went dry; therefore, no sample was collected.
		Methyl Isobutyl Ketone		During sampling, the well went dry; therefore, no sample was collected.
		1,2-Dibromo-3-chloropropane		During sampling, the well went dry; therefore, no sample was collected.
		1,2-Dichloropropane		During sampling, the well went dry; therefore, no sample was collected.
		trans-1,3-Dichloropropene		During sampling, the well went dry; therefore, no sample was collected.
		cis-1,3-Dichloropropene		During sampling, the well went dry; therefore, no sample was collected.
		trans-1,2-Dichloroethene		During sampling, the well went dry; therefore, no sample was collected.
		Trichlorofluoromethane		During sampling, the well went dry; therefore, no sample was collected.
		1,2,3-Trichloropropane		During sampling, the well went dry; therefore, no sample was collected.
		1,2-Dichlorobenzene		During sampling, the well went dry; therefore, no sample was collected.
		1,4-Dichlorobenzene		During sampling, the well went dry; therefore, no sample was collected.
		PCB, Total		During sampling, the well went dry; therefore, no sample was collected.
		PCB-1016		During sampling, the well went dry; therefore, no sample was collected.
		PCB-1221		During sampling, the well went dry; therefore, no sample was collected.
		PCB-1232		During sampling, the well went dry; therefore, no sample was collected.
		PCB-1242		During sampling, the well went dry; therefore, no sample was collected.
		PCB-1248		During sampling, the well went dry; therefore, no sample was collected.
		PCB-1254		During sampling, the well went dry; therefore, no sample was collected.
		PCB-1260		During sampling, the well went dry; therefore, no sample was collected.
		PCB-1268		During sampling, the well went dry; therefore, no sample was collected.
		Gross alpha		During sampling, the well went dry; therefore, no sample was collected.
		Gross beta		During sampling, the well went dry; therefore, no sample was collected.
		Iodine-131		During sampling, the well went dry; therefore, no sample was collected.
		Radium-226		During sampling, the well went dry; therefore, no sample was collected.
		Strontium-90		During sampling, the well went dry; therefore, no sample was collected.
		Technetium-99		During sampling, the well went dry; therefore, no sample was collected.

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Monitoring Point	Facility Sample ID	Constituent	Flag	Description
8004-0983 MW368		Thorium-230		During sampling, the well went dry; therefore, no sample was collected.
		Tritium		During sampling, the well went dry; therefore, no sample was collected.
		Chemical Oxygen Demand		During sampling, the well went dry; therefore, no sample was collected.
		Cyanide		During sampling, the well went dry; therefore, no sample was collected.
		Iodide		During sampling, the well went dry; therefore, no sample was collected.
		Total Organic Carbon		During sampling, the well went dry; therefore, no sample was collected.
		Total Organic Halides		During sampling, the well went dry; therefore, no sample was collected.
8004-4820 MW369	MW369UG1-14	Cobalt	X	Other specific flags and footnotes may be required to properly define the results.
		Manganese	X	Other specific flags and footnotes may be required to properly define the results.
		Nickel	X	Other specific flags and footnotes may be required to properly define the results.
		Gross alpha	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 1.19. Rad error is 1.06.
		Gross beta		TPU is 2.94. Rad error is 2.27.
		Iodine-131		Analysis of constituent not required and not performed.
		Radium-226	TU	Indicates analyte/nuclide was analyzed for, but not detected. Tracer recovery is < or equal to 30% or > or equal to 105%. TPU is 0.267. Rad error is 0.13.
		Strontium-90	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.33. Rad error is 0.192.
		Technetium-99		TPU is 12.5. Rad error is 12.5.
		Thorium-230	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.14. Rad error is 0.0823.
		Tritium	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 605. Rad error is 605.

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Monitoring Point	Facility Sample ID	Constituent	Flag	Description
8004-4818 MW370	MW370UG1-14	Cobalt	X	Other specific flags and footnotes may be required to properly define the results.
		Manganese	X	Other specific flags and footnotes may be required to properly define the results.
		Nickel	X	Other specific flags and footnotes may be required to properly define the results.
		Gross alpha	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.776. Rad error is 0.704.
		Gross beta		TPU is 2.62. Rad error is 2.05.
		Iodine-131		Analysis of constituent not required and not performed.
		Radium-226	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.334. Rad error is 0.293.
		Strontium-90	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.0603. Rad error is 0.0372.
		Technetium-99		TPU is 12.4. Rad error is 12.4.
		Thorium-230	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.131. Rad error is 0.0678.
		Tritium	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 606. Rad error is 606.
8004-4819 MW371	MW371UG1-14	Cobalt	X	Other specific flags and footnotes may be required to properly define the results.
		Manganese	X	Other specific flags and footnotes may be required to properly define the results.
		Nickel	X	Other specific flags and footnotes may be required to properly define the results.
		Gross alpha	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.184. Rad error is 0.169.
		Gross beta	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.687. Rad error is 0.635.
		Iodine-131		Analysis of constituent not required and not performed.
		Radium-226	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.251. Rad error is 0.193.
		Strontium-90	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.0121. Rad error is 0.00756.
		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 0.137. Rad error is 0.0774.
		Tritium	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 614. Rad error is 612.

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Monitoring Point	Facility Sample ID	Constituent	Flag	Description
8004-4808 MW372	MW372UG1-14	Cobalt	X	Other specific flags and footnotes may be required to properly define the results.
		Manganese	X	Other specific flags and footnotes may be required to properly define the results.
		Nickel	X	Other specific flags and footnotes may be required to properly define the results.
		Gross alpha	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 2.49. Rad error is 1.98.
		Gross beta		TPU is 16.3. Rad error is 8.18.
		Iodine-131		Analysis of constituent not required and not performed.
		Radium-226	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.232. Rad error is 0.168.
		Strontium-90	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.278. Rad error is 0.162.
		Technetium-99		TPU is 17.2. Rad error is 16.6.
		Thorium-230	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.123. Rad error is 0.0405.
		Tritium	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 619. Rad error is 618.
8004-4792 MW373	MW373UG1-14	Cobalt	X	Other specific flags and footnotes may be required to properly define the results.
		Manganese	X	Other specific flags and footnotes may be required to properly define the results.
		Nickel	X	Other specific flags and footnotes may be required to properly define the results.
		Vinyl chloride	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Gross alpha	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.539. Rad error is 0.47.
		Gross beta		TPU is 5.09. Rad error is 4.25.
		Iodine-131		Analysis of constituent not required and not performed.
		Radium-226	TU	Indicates analyte/nuclide was analyzed for, but not detected. Tracer recovery is < or equal to 30% or > or equal to 105%. TPU is 0.515. Rad error is 0.49.
		Strontium-90	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.149. Rad error is 0.0895.
		Technetium-99		TPU is 13.5. Rad error is 13.4.
		Thorium-230	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.127. Rad error is 0.0152.
		Tritium	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 607. Rad error is 606.
		Cyanide	*	Duplicate analysis not within control limits.

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Monitoring Point	Facility Sample ID	Constituent	Flag	Description
8004-0990 MW374	MW374UG1-14	Cobalt	X	Other specific flags and footnotes may be required to properly define the results.
		Manganese	X	Other specific flags and footnotes may be required to properly define the results.
		Nickel	X	Other specific flags and footnotes may be required to properly define the results.
		Vinyl chloride	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		Gross alpha	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 1.6. Rad error is 1.47.
		Gross beta	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.0432. Rad error is 0.0382.
		Iodine-131		Analysis of constituent not required and not performed.
		Radium-226	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.301. Rad error is 0.251.
		Strontium-90	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.0239. Rad error is 0.0149.
		Technetium-99	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 11.6. Rad error is 11.6.
		Thorium-230	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.148. Rad error is 0.0552.
		Tritium	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 613. Rad error is 613.
		Cyanide	*	Duplicate analysis not within control limits.
8004-0985 MW375	MW375UG1-14	Cobalt	X	Other specific flags and footnotes may be required to properly define the results.
		Manganese	X	Other specific flags and footnotes may be required to properly define the results.
		Nickel	X	Other specific flags and footnotes may be required to properly define the results.
		Gross alpha	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.0502. Rad error is 0.0472.
		Gross beta	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.795. Rad error is 0.681.
		Iodine-131		Analysis of constituent not required and not performed.
		Radium-226	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.224. Rad error is 0.158.
		Strontium-90	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.121. Rad error is 0.0735.
		Technetium-99	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 11.7. Rad error is 11.7.
		Thorium-230	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.123. Rad error is 0.0282.
		Tritium	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 610. Rad error is 610.

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Monitoring Point	Facility Sample ID	Constituent	Flag	Description
8004-0988	MW376	Bromide		During sampling, the well went dry; therefore, no sample was collected.
		Chloride		During sampling, the well went dry; therefore, no sample was collected.
		Fluoride		During sampling, the well went dry; therefore, no sample was collected.
		Nitrate & Nitrite		During sampling, the well went dry; therefore, no sample was collected.
		Sulfate		During sampling, the well went dry; therefore, no sample was collected.
		Barometric Pressure Reading		During sampling, the well went dry; therefore, no sample was collected.
		Specific Conductance		During sampling, the well went dry; therefore, no sample was collected.
		Static Water Level Elevation		During sampling, the well went dry; therefore, no sample was collected.
		Dissolved Oxygen		During sampling, the well went dry; therefore, no sample was collected.
		Total Dissolved Solids		During sampling, the well went dry; therefore, no sample was collected.
		pH		During sampling, the well went dry; therefore, no sample was collected.
		Eh		During sampling, the well went dry; therefore, no sample was collected.
		Temperature		During sampling, the well went dry; therefore, no sample was collected.
		Aluminum		During sampling, the well went dry; therefore, no sample was collected.
		Antimony		During sampling, the well went dry; therefore, no sample was collected.
		Arsenic		During sampling, the well went dry; therefore, no sample was collected.
		Barium		During sampling, the well went dry; therefore, no sample was collected.
		Beryllium		During sampling, the well went dry; therefore, no sample was collected.
		Boron		During sampling, the well went dry; therefore, no sample was collected.
		Cadmium		During sampling, the well went dry; therefore, no sample was collected.
		Calcium		During sampling, the well went dry; therefore, no sample was collected.
		Chromium		During sampling, the well went dry; therefore, no sample was collected.
		Cobalt		During sampling, the well went dry; therefore, no sample was collected.
		Copper		During sampling, the well went dry; therefore, no sample was collected.
		Iron		During sampling, the well went dry; therefore, no sample was collected.
		Lead		During sampling, the well went dry; therefore, no sample was collected.

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Monitoring Point	Facility Sample ID	Constituent	Flag	Description
8004-0988	MW376	Magnesium		During sampling, the well went dry; therefore, no sample was collected.
		Manganese		During sampling, the well went dry; therefore, no sample was collected.
		Mercury		During sampling, the well went dry; therefore, no sample was collected.
		Molybdenum		During sampling, the well went dry; therefore, no sample was collected.
		Nickel		During sampling, the well went dry; therefore, no sample was collected.
		Potassium		During sampling, the well went dry; therefore, no sample was collected.
		Rhodium		During sampling, the well went dry; therefore, no sample was collected.
		Selenium		During sampling, the well went dry; therefore, no sample was collected.
		Silver		During sampling, the well went dry; therefore, no sample was collected.
		Sodium		During sampling, the well went dry; therefore, no sample was collected.
		Tantalum		During sampling, the well went dry; therefore, no sample was collected.
		Thallium		During sampling, the well went dry; therefore, no sample was collected.
		Uranium		During sampling, the well went dry; therefore, no sample was collected.
		Vanadium		During sampling, the well went dry; therefore, no sample was collected.
		Zinc		During sampling, the well went dry; therefore, no sample was collected.
		Vinyl acetate		During sampling, the well went dry; therefore, no sample was collected.
		Acetone		During sampling, the well went dry; therefore, no sample was collected.
		Acrolein		During sampling, the well went dry; therefore, no sample was collected.
		Acrylonitrile		During sampling, the well went dry; therefore, no sample was collected.
		Benzene		During sampling, the well went dry; therefore, no sample was collected.
		Chlorobenzene		During sampling, the well went dry; therefore, no sample was collected.
		Xylenes		During sampling, the well went dry; therefore, no sample was collected.
		Styrene		During sampling, the well went dry; therefore, no sample was collected.
		Toluene		During sampling, the well went dry; therefore, no sample was collected.
		Chlorobromomethane		During sampling, the well went dry; therefore, no sample was collected.
		Bromodichloromethane		During sampling, the well went dry; therefore, no sample was collected.

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Monitoring Point	Facility Sample ID	Constituent	Flag	Description
8004-0988	MW376	Tribromomethane		During sampling, the well went dry; therefore, no sample was collected.
		Methyl bromide		During sampling, the well went dry; therefore, no sample was collected.
		Methyl Ethyl Ketone		During sampling, the well went dry; therefore, no sample was collected.
		trans-1,4-Dichloro-2-butene		During sampling, the well went dry; therefore, no sample was collected.
		Carbon disulfide		During sampling, the well went dry; therefore, no sample was collected.
		Chloroethane		During sampling, the well went dry; therefore, no sample was collected.
		Chloroform		During sampling, the well went dry; therefore, no sample was collected.
		Methyl chloride		During sampling, the well went dry; therefore, no sample was collected.
		cis-1,2-Dichloroethene		During sampling, the well went dry; therefore, no sample was collected.
		Methylene bromide		During sampling, the well went dry; therefore, no sample was collected.
		1,1-Dichloroethane		During sampling, the well went dry; therefore, no sample was collected.
		1,2-Dichloroethane		During sampling, the well went dry; therefore, no sample was collected.
		1,1-Dichloroethylene		During sampling, the well went dry; therefore, no sample was collected.
		1,2-Dibromoethane		During sampling, the well went dry; therefore, no sample was collected.
		1,1,2,2-Tetrachloroethane		During sampling, the well went dry; therefore, no sample was collected.
		1,1,1-Trichloroethane		During sampling, the well went dry; therefore, no sample was collected.
		1,1,2-Trichloroethane		During sampling, the well went dry; therefore, no sample was collected.
		1,1,1,2-Tetrachloroethane		During sampling, the well went dry; therefore, no sample was collected.
		Vinyl chloride		During sampling, the well went dry; therefore, no sample was collected.
		Tetrachloroethene		During sampling, the well went dry; therefore, no sample was collected.
		Trichloroethene		During sampling, the well went dry; therefore, no sample was collected.
		Ethylbenzene		During sampling, the well went dry; therefore, no sample was collected.
		2-Hexanone		During sampling, the well went dry; therefore, no sample was collected.
		Iodomethane		During sampling, the well went dry; therefore, no sample was collected.
		Dibromochloromethane		During sampling, the well went dry; therefore, no sample was collected.
		Carbon tetrachloride		During sampling, the well went dry; therefore, no sample was collected.

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Monitoring Point	Facility Sample ID	Constituent	Flag	Description
8004-0988	MW376	Dichloromethane		During sampling, the well went dry; therefore, no sample was collected.
		Methyl Isobutyl Ketone		During sampling, the well went dry; therefore, no sample was collected.
		1,2-Dibromo-3-chloropropane		During sampling, the well went dry; therefore, no sample was collected.
		1,2-Dichloropropane		During sampling, the well went dry; therefore, no sample was collected.
		trans-1,3-Dichloropropene		During sampling, the well went dry; therefore, no sample was collected.
		cis-1,3-Dichloropropene		During sampling, the well went dry; therefore, no sample was collected.
		trans-1,2-Dichloroethene		During sampling, the well went dry; therefore, no sample was collected.
		Trichlorofluoromethane		During sampling, the well went dry; therefore, no sample was collected.
		1,2,3-Trichloropropane		During sampling, the well went dry; therefore, no sample was collected.
		1,2-Dichlorobenzene		During sampling, the well went dry; therefore, no sample was collected.
		1,4-Dichlorobenzene		During sampling, the well went dry; therefore, no sample was collected.
		PCB, Total		During sampling, the well went dry; therefore, no sample was collected.
		PCB-1016		During sampling, the well went dry; therefore, no sample was collected.
		PCB-1221		During sampling, the well went dry; therefore, no sample was collected.
		PCB-1232		During sampling, the well went dry; therefore, no sample was collected.
		PCB-1242		During sampling, the well went dry; therefore, no sample was collected.
		PCB-1248		During sampling, the well went dry; therefore, no sample was collected.
		PCB-1254		During sampling, the well went dry; therefore, no sample was collected.
		PCB-1260		During sampling, the well went dry; therefore, no sample was collected.
		PCB-1268		During sampling, the well went dry; therefore, no sample was collected.
		Gross alpha		During sampling, the well went dry; therefore, no sample was collected.
		Gross beta		During sampling, the well went dry; therefore, no sample was collected.
		Iodine-131		During sampling, the well went dry; therefore, no sample was collected.
		Radium-226		During sampling, the well went dry; therefore, no sample was collected.
		Strontium-90		During sampling, the well went dry; therefore, no sample was collected.
		Technetium-99		During sampling, the well went dry; therefore, no sample was collected.

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Monitoring Point	Facility Sample ID	Constituent	Flag	Description
8004-0988	MW376	Thorium-230		During sampling, the well went dry; therefore, no sample was collected.
		Tritium		During sampling, the well went dry; therefore, no sample was collected.
		Chemical Oxygen Demand		During sampling, the well went dry; therefore, no sample was collected.
		Cyanide		During sampling, the well went dry; therefore, no sample was collected.
		Iodide		During sampling, the well went dry; therefore, no sample was collected.
		Total Organic Carbon		During sampling, the well went dry; therefore, no sample was collected.
		Total Organic Halides		During sampling, the well went dry; therefore, no sample was collected.

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Monitoring Point	Facility Sample ID	Constituent	Flag	Description
8004-0989	MW377	Bromide		During sampling, the well went dry; therefore, no sample was collected.
		Chloride		During sampling, the well went dry; therefore, no sample was collected.
		Fluoride		During sampling, the well went dry; therefore, no sample was collected.
		Nitrate & Nitrite		During sampling, the well went dry; therefore, no sample was collected.
		Sulfate		During sampling, the well went dry; therefore, no sample was collected.
		Barometric Pressure Reading		During sampling, the well went dry; therefore, no sample was collected.
		Specific Conductance		During sampling, the well went dry; therefore, no sample was collected.
		Static Water Level Elevation		During sampling, the well went dry; therefore, no sample was collected.
		Dissolved Oxygen		During sampling, the well went dry; therefore, no sample was collected.
		Total Dissolved Solids		During sampling, the well went dry; therefore, no sample was collected.
		pH		During sampling, the well went dry; therefore, no sample was collected.
		Eh		During sampling, the well went dry; therefore, no sample was collected.
		Temperature		During sampling, the well went dry; therefore, no sample was collected.
		Aluminum		During sampling, the well went dry; therefore, no sample was collected.
		Antimony		During sampling, the well went dry; therefore, no sample was collected.
		Arsenic		During sampling, the well went dry; therefore, no sample was collected.
		Barium		During sampling, the well went dry; therefore, no sample was collected.
		Beryllium		During sampling, the well went dry; therefore, no sample was collected.
		Boron		During sampling, the well went dry; therefore, no sample was collected.
		Cadmium		During sampling, the well went dry; therefore, no sample was collected.
		Calcium		During sampling, the well went dry; therefore, no sample was collected.
		Chromium		During sampling, the well went dry; therefore, no sample was collected.
		Cobalt		During sampling, the well went dry; therefore, no sample was collected.
		Copper		During sampling, the well went dry; therefore, no sample was collected.
		Iron		During sampling, the well went dry; therefore, no sample was collected.
		Lead		During sampling, the well went dry; therefore, no sample was collected.

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Monitoring Point	Facility Sample ID	Constituent	Flag	Description
8004-0989	MW377	Magnesium		During sampling, the well went dry; therefore, no sample was collected.
		Manganese		During sampling, the well went dry; therefore, no sample was collected.
		Mercury		During sampling, the well went dry; therefore, no sample was collected.
		Molybdenum		During sampling, the well went dry; therefore, no sample was collected.
		Nickel		During sampling, the well went dry; therefore, no sample was collected.
		Potassium		During sampling, the well went dry; therefore, no sample was collected.
		Rhodium		During sampling, the well went dry; therefore, no sample was collected.
		Selenium		During sampling, the well went dry; therefore, no sample was collected.
		Silver		During sampling, the well went dry; therefore, no sample was collected.
		Sodium		During sampling, the well went dry; therefore, no sample was collected.
		Tantalum		During sampling, the well went dry; therefore, no sample was collected.
		Thallium		During sampling, the well went dry; therefore, no sample was collected.
		Uranium		During sampling, the well went dry; therefore, no sample was collected.
		Vanadium		During sampling, the well went dry; therefore, no sample was collected.
		Zinc		During sampling, the well went dry; therefore, no sample was collected.
		Vinyl acetate		During sampling, the well went dry; therefore, no sample was collected.
		Acetone		During sampling, the well went dry; therefore, no sample was collected.
		Acrolein		During sampling, the well went dry; therefore, no sample was collected.
		Acrylonitrile		During sampling, the well went dry; therefore, no sample was collected.
		Benzene		During sampling, the well went dry; therefore, no sample was collected.
		Chlorobenzene		During sampling, the well went dry; therefore, no sample was collected.
		Xylenes		During sampling, the well went dry; therefore, no sample was collected.
		Styrene		During sampling, the well went dry; therefore, no sample was collected.
		Toluene		During sampling, the well went dry; therefore, no sample was collected.
		Chlorobromomethane		During sampling, the well went dry; therefore, no sample was collected.
		Bromodichloromethane		During sampling, the well went dry; therefore, no sample was collected.

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Monitoring Point	Facility Sample ID	Constituent	Flag	Description
8004-0989	MW377	Tribromomethane		During sampling, the well went dry; therefore, no sample was collected.
		Methyl bromide		During sampling, the well went dry; therefore, no sample was collected.
		Methyl Ethyl Ketone		During sampling, the well went dry; therefore, no sample was collected.
		trans-1,4-Dichloro-2-butene		During sampling, the well went dry; therefore, no sample was collected.
		Carbon disulfide		During sampling, the well went dry; therefore, no sample was collected.
		Chloroethane		During sampling, the well went dry; therefore, no sample was collected.
		Chloroform		During sampling, the well went dry; therefore, no sample was collected.
		Methyl chloride		During sampling, the well went dry; therefore, no sample was collected.
		cis-1,2-Dichloroethene		During sampling, the well went dry; therefore, no sample was collected.
		Methylene bromide		During sampling, the well went dry; therefore, no sample was collected.
		1,1-Dichloroethane		During sampling, the well went dry; therefore, no sample was collected.
		1,2-Dichloroethane		During sampling, the well went dry; therefore, no sample was collected.
		1,1-Dichloroethylene		During sampling, the well went dry; therefore, no sample was collected.
		1,2-Dibromoethane		During sampling, the well went dry; therefore, no sample was collected.
		1,1,2,2-Tetrachloroethane		During sampling, the well went dry; therefore, no sample was collected.
		1,1,1-Trichloroethane		During sampling, the well went dry; therefore, no sample was collected.
		1,1,2-Trichloroethane		During sampling, the well went dry; therefore, no sample was collected.
		1,1,1,2-Tetrachloroethane		During sampling, the well went dry; therefore, no sample was collected.
		Vinyl chloride		During sampling, the well went dry; therefore, no sample was collected.
		Tetrachloroethene		During sampling, the well went dry; therefore, no sample was collected.
		Trichloroethene		During sampling, the well went dry; therefore, no sample was collected.
		Ethylbenzene		During sampling, the well went dry; therefore, no sample was collected.
		2-Hexanone		During sampling, the well went dry; therefore, no sample was collected.
		Iodomethane		During sampling, the well went dry; therefore, no sample was collected.
		Dibromochloromethane		During sampling, the well went dry; therefore, no sample was collected.
		Carbon tetrachloride		During sampling, the well went dry; therefore, no sample was collected.

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Monitoring Point	Facility Sample ID	Constituent	Flag	Description
8004-0989	MW377	Dichloromethane		During sampling, the well went dry; therefore, no sample was collected.
		Methyl Isobutyl Ketone		During sampling, the well went dry; therefore, no sample was collected.
		1,2-Dibromo-3-chloropropane		During sampling, the well went dry; therefore, no sample was collected.
		1,2-Dichloropropane		During sampling, the well went dry; therefore, no sample was collected.
		trans-1,3-Dichloropropene		During sampling, the well went dry; therefore, no sample was collected.
		cis-1,3-Dichloropropene		During sampling, the well went dry; therefore, no sample was collected.
		trans-1,2-Dichloroethene		During sampling, the well went dry; therefore, no sample was collected.
		Trichlorofluoromethane		During sampling, the well went dry; therefore, no sample was collected.
		1,2,3-Trichloropropane		During sampling, the well went dry; therefore, no sample was collected.
		1,2-Dichlorobenzene		During sampling, the well went dry; therefore, no sample was collected.
		1,4-Dichlorobenzene		During sampling, the well went dry; therefore, no sample was collected.
		PCB, Total		During sampling, the well went dry; therefore, no sample was collected.
		PCB-1016		During sampling, the well went dry; therefore, no sample was collected.
		PCB-1221		During sampling, the well went dry; therefore, no sample was collected.
		PCB-1232		During sampling, the well went dry; therefore, no sample was collected.
		PCB-1242		During sampling, the well went dry; therefore, no sample was collected.
		PCB-1248		During sampling, the well went dry; therefore, no sample was collected.
		PCB-1254		During sampling, the well went dry; therefore, no sample was collected.
		PCB-1260		During sampling, the well went dry; therefore, no sample was collected.
		PCB-1268		During sampling, the well went dry; therefore, no sample was collected.
		Gross alpha		During sampling, the well went dry; therefore, no sample was collected.
		Gross beta		During sampling, the well went dry; therefore, no sample was collected.
		Iodine-131		During sampling, the well went dry; therefore, no sample was collected.
		Radium-226		During sampling, the well went dry; therefore, no sample was collected.
		Strontium-90		During sampling, the well went dry; therefore, no sample was collected.
		Technetium-99		During sampling, the well went dry; therefore, no sample was collected.

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For Official Use Only

GROUNDWATER
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Monitoring Point	Facility Sample ID	Constituent	Flag	Description
8004-0989	MW377	Thorium-230		During sampling, the well went dry; therefore, no sample was collected.
		Tritium		During sampling, the well went dry; therefore, no sample was collected.
		Chemical Oxygen Demand		During sampling, the well went dry; therefore, no sample was collected.
		Cyanide		During sampling, the well went dry; therefore, no sample was collected.
		Iodide		During sampling, the well went dry; therefore, no sample was collected.
		Total Organic Carbon		During sampling, the well went dry; therefore, no sample was collected.
		Total Organic Halides		During sampling, the well went dry; therefore, no sample was collected.

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Monitoring Point	Facility Sample ID	Constituent	Flag	Description
0000-0000 QC	RI1UG1-14	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.
		Cobalt	X	Other specific flags and footnotes may be required to properly define the results.
		Manganese	X	Other specific flags and footnotes may be required to properly define the results.
		Nickel	X	Other specific flags and footnotes may be required to properly define the results.
		PCB, Total	X	Other specific flags and footnotes may be required to properly define the results.
		PCB-1016	X	Other specific flags and footnotes may be required to properly define the results.
		PCB-1221	X	Other specific flags and footnotes may be required to properly define the results.
		PCB-1232	X	Other specific flags and footnotes may be required to properly define the results.
		PCB-1242	X	Other specific flags and footnotes may be required to properly define the results.
		PCB-1248	X	Other specific flags and footnotes may be required to properly define the results.
		PCB-1254	X	Other specific flags and footnotes may be required to properly define the results.
		PCB-1260	X	Other specific flags and footnotes may be required to properly define the results.
		PCB-1268	X	Other specific flags and footnotes may be required to properly define the results.
		Gross alpha	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.646. Rad error is 0.623.
		Gross beta	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.0166. Rad error is 0.0147.
		Iodine-131		Analysis of constituent not required and not performed.
		Radium-226	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.199. Rad error is 0.021.
		Strontium-90	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.0789. Rad error is 0.0507.
		Technetium-99	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 11.3. Rad error is 11.3.

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Monitoring Point	Facility Sample ID	Constituent	Flag	Description
0000-0000 QC	RI1UG1-14	Thorium-230	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.135. Rad error is 0.0738.
		Tritium	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 614. Rad error is 612.
		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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Monitoring Point	Facility Sample ID	Constituent	Flag	Description
0000-0000 QC	FB1UG1-14	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.
		Cobalt	X	Other specific flags and footnotes may be required to properly define the results.
		Manganese	X	Other specific flags and footnotes may be required to properly define the results.
		Nickel	X	Other specific flags and footnotes may be required to properly define the results.
		Gross alpha	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.886. Rad error is 0.859.
		Gross beta	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.128. Rad error is 0.113.
		Iodine-131		Analysis of constituent not required and not performed.
		Radium-226	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.181. Rad error is 0.0769.
		Strontium-90	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.0364. Rad error is 0.0226.
		Technetium-99	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 11.3. Rad error is 11.3.
		Thorium-230	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.132. Rad error is 0.0687.
		Tritium	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 595. Rad error is 595.
		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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Monitoring Point	Facility Sample ID	Constituent	Flag	Description
0000-0000 QC	TB1UG1-14	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.
		Vanadium		Analysis of constituent not required and not performed.

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Monitoring Point	Facility Sample ID	Constituent	Flag	Description
0000-0000 QC	TB1UG1-14	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.

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Monitoring Point	Facility Sample ID	Constituent	Flag	Description
0000-0000 QC	TB2UG1-14	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.
		Vanadium		Analysis of constituent not required and not performed.

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Monitoring Point	Facility Sample ID	Constituent	Flag	Description
0000-0000 QC	TB2UG1-14	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.

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Monitoring Point	Facility Sample ID	Constituent	Flag	Description
0000-0000 QC	TB3UG1-14	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.
		Vanadium		Analysis of constituent not required and not performed.

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Monitoring Point	Facility Sample ID	Constituent	Flag	Description
0000-0000 QC	TB3UG1-14	Zinc		Analysis of constituent not required and not performed.
		Vinyl chloride	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		PCB, Total		Analysis of constituent not required and not performed.
		PCB-1016		Analysis of constituent not required and not performed.
		PCB-1221		Analysis of constituent not required and not performed.
		PCB-1232		Analysis of constituent not required and not performed.
		PCB-1242		Analysis of constituent not required and not performed.
		PCB-1248		Analysis of constituent not required and not performed.
		PCB-1254		Analysis of constituent not required and not performed.
		PCB-1260		Analysis of constituent not required and not performed.
		PCB-1268		Analysis of constituent not required and not performed.
		Gross alpha		Analysis of constituent not required and not performed.
		Gross beta		Analysis of constituent not required and not performed.
		Iodine-131		Analysis of constituent not required and not performed.
		Radium-226		Analysis of constituent not required and not performed.
		Strontium-90		Analysis of constituent not required and not performed.
		Technetium-99		Analysis of constituent not required and not performed.
		Thorium-230		Analysis of constituent not required and not performed.
		Tritium		Analysis of constituent not required and not performed.
		Chemical Oxygen Demand		Analysis of constituent not required and not performed.
		Cyanide		Analysis of constituent not required and not performed.
		Iodide		Analysis of constituent not required and not performed.
		Total Organic Carbon		Analysis of constituent not required and not performed.
		Total Organic Halides		Analysis of constituent not required and not performed.

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Monitoring Point	Facility Sample ID	Constituent	Flag	Description
0000-0000 QC	TB4UG1-14	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.
		Vanadium		Analysis of constituent not required and not performed.

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Monitoring Point	Facility Sample ID	Constituent	Flag	Description
0000-0000 QC	TB4UG1-14	Zinc		Analysis of constituent not required and not performed.
		Vinyl chloride	Y	MS,MSD recovery and/or RPD failed acceptance criteria.
		PCB, Total		Analysis of constituent not required and not performed.
		PCB-1016		Analysis of constituent not required and not performed.
		PCB-1221		Analysis of constituent not required and not performed.
		PCB-1232		Analysis of constituent not required and not performed.
		PCB-1242		Analysis of constituent not required and not performed.
		PCB-1248		Analysis of constituent not required and not performed.
		PCB-1254		Analysis of constituent not required and not performed.
		PCB-1260		Analysis of constituent not required and not performed.
		PCB-1268		Analysis of constituent not required and not performed.
		Gross alpha		Analysis of constituent not required and not performed.
		Gross beta		Analysis of constituent not required and not performed.
		Iodine-131		Analysis of constituent not required and not performed.
		Radium-226		Analysis of constituent not required and not performed.
		Strontium-90		Analysis of constituent not required and not performed.
		Technetium-99		Analysis of constituent not required and not performed.
		Thorium-230		Analysis of constituent not required and not performed.
		Tritium		Analysis of constituent not required and not performed.
		Chemical Oxygen Demand		Analysis of constituent not required and not performed.
		Cyanide		Analysis of constituent not required and not performed.
		Iodide		Analysis of constituent not required and not performed.
		Total Organic Carbon		Analysis of constituent not required and not performed.
		Total Organic Halides		Analysis of constituent not required and not performed.

RESIDENTIAL/CONTAINED – QUARTERLY
Facility: US DOE - Paducah Gaseous Diffusion Plant
Permit Numbers: 073-00045

Finds/Unit: KY8-890-008-982 / 1
LAB ID:None
For Official Use Only

GROUNDWATER
WRITTEN COMMENTS

Monitoring Point	Facility Sample ID	Constituent	Flag	Description
0000-0000 QC	TB5UG1-14	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.
		Vanadium		Analysis of constituent not required and not performed.

RESIDENTIAL/CONTAINED – QUARTERLY
Facility: US DOE - Paducah Gaseous Diffusion Plant
Permit Numbers: 073-00045

Finds/Unit: KY8-890-008-982 / 1
LAB ID: None
For Official Use Only

GROUNDWATER
WRITTEN COMMENTS

Monitoring Point	Facility Sample ID	Constituent	Flag	Description
0000-0000 QC	TB5UG1-14	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.
8004-0982 MW366	MW366DUG1-14	Cobalt	X	Other specific flags and footnotes may be required to properly define the results.
		Manganese	X	Other specific flags and footnotes may be required to properly define the results.
		Nickel	X	Other specific flags and footnotes may be required to properly define the results.
		Gross alpha	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 1.26. Rad error is 1.09.
		Gross beta		TPU is 6.02. Rad error is 4.03.
		Iodine-131		Analysis of constituent not required and not performed.
		Radium-226	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.212. Rad error is 0.14.
		Strontium-90	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.278. Rad error is 0.162.
		Technetium-99		TPU is 13.4. Rad error is 13.3.
		Thorium-230	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 0.129. Rad error is 0.0503.
		Tritium	U	Indicates analyte/nuclide was analyzed for, but not detected. TPU is 612. Rad error is 612.

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APPENDIX D

STATISTICAL ANALYSES AND QUALIFICATION STATEMENT

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RESIDENTIAL/CONTAINED – QUARTERLY, 4th Quarter 2013 Finds/Unit: _____
Facility: U.S. DOE – Paducah Gaseous Diffusion Plant Lab ID: None
Permit Number: 073-00045 For Official Use Only

GROUNDWATER STATISTICAL COMMENTS

Introduction

The statistical analyses conducted on the fourth quarter 2013 groundwater data collected from the C-746-U Landfill monitoring wells (MWs) were performed in accordance with Permit Condition GSTR0001, Standard Requirement 3, using the U.S. Environmental Protection Agency (EPA) guidance document, *EPA Statistical Analysis of Groundwater 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 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 two background wells for comparison with at least three test wells or sidegradient wells (Exhibit 1). The fourth quarter 2013 data used to conduct the statistical analyses was collected in October 2013. 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 the data for the current quarter. Once a statistical result is obtained using the background data, the data for 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 background data 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-U Contained Landfill. Exhibit 2 presents the parameters from the available data set and the statistical test performed using the one-sided tolerance interval.

Excluding parameters that 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, fourth quarter 2013. The observations that are listed are not background data. Background data are presented on pages D-22 through D-78. The sampling dates associated with background data are listed next to the result on pages D-22 through D-78. When field duplicate data are available, the higher of the two readings is retained for further evaluation.

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

Exhibit 1. Station Identification for Monitoring Wells Analyzed

Station	Type	Aquifer
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	BG	URGA
MW370	BG	LRGA
MW371	BG	UCRS
MW372	BG	URGA
MW373	BG	LRGA
MW374	BG	UCRS
MW375	SG	UCRS
MW376*	SG	UCRS
MW377*	SG	UCRS

BG: upgradient or background wells
TW: downgradient or test wells
SG: sidegradient wells
*Well was dry this quarter, and a groundwater sample could not be collected.

Exhibit 2. List of Parameters Tested Using the One-Sided Upper Tolerance Level Test

Parameters
Aluminum
Boron
Calcium
Chloride
Cobalt
Conductivity
Dissolved Oxygen
Dissolved Solids
Iron
Magnesium
Manganese
Nickel
Oxidation-Reduction Potential
PCB-1242
pH*
Potassium
Sodium
Sulfate
Technetium-99
Total Organic Carbon (TOC)
Total Organic Halides (TOX)
Uranium

*****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**	**3**	**1**	**YES**
Antimony	4	0	4	0	no
Beryllium	4	0	4	0	no
Boron	4	0	4	0	no
Bromide	4	0	4	0	no
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	4	0	no
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	4	0	no
Conductivity	**4**	**0**	**0**	**4**	**YES**
Copper	4	0	4	0	no
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**	**3**	**1**	**YES**
Magnesium	**4**	**0**	**0**	**4**	**YES**
Manganese	**4**	**0**	**2**	**2**	**YES**
Methylene chloride	4	0	4	0	no
Molybdenum	4	0	4	0	no
Nickel	4	0	4	0	no
Oxidation-Reduction Potential	**4**	**0**	**0**	**4**	**YES**
PCB, Total	4	0	4	0	no
PCB-1016	4	0	4	0	no
PCB-1221	4	0	4	0	no
PCB-1232	4	0	4	0	no
PCB-1242	4	0	4	0	no
PCB-1248	4	0	4	0	no
PCB-1254	4	0	4	0	no
PCB-1260	4	0	4	0	no
PCB-1268	4	0	4	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	4	0	no
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**	**1**	**3**	**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

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

Parameters	Observations	Missing Observation	Censored Observation	Uncensored Observation	Statistical Analysis?
Trichlorofluoromethane	4	0	4	0	no
Uranium	**4**	**0**	**2**	**2**	**YES**
Vanadium	4	0	4	0	no
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	6	0	6	0	no
1,1,2,2-Tetrachloroethane	6	0	6	0	no
1,1,2-Trichloroethane	6	0	6	0	no
1,1-Dichloroethane	6	0	6	0	no
1,2,3-Trichloropropane	6	0	6	0	no
1,2-Dibromo-3-chloropropane	6	0	6	0	no
1,2-Dibromoethane	6	0	6	0	no
1,2-Dichlorobenzene	6	0	6	0	no
1,2-Dichloropropane	6	0	6	0	no
2-Butanone	6	0	6	0	no
2-Hexanone	6	0	6	0	no
4-Methyl-2-pentanone	6	0	6	0	no
Acetone	6	0	6	0	no
Acrolein	6	0	6	0	no
Acrylonitrile	6	0	6	0	no
Aluminum	6	0	6	0	no
Antimony	6	0	6	0	no
Beryllium	6	0	6	0	no
Boron	**6**	**0**	**4**	**2**	**YES**
Bromide	6	0	6	0	no
Bromochloromethane	6	0	6	0	no
Bromodichloromethane	6	0	6	0	no
Bromoform	6	0	6	0	no
Bromomethane	6	0	6	0	no
Calcium	**6**	**0**	**0**	**6**	**YES**
Carbon disulfide	6	0	6	0	no
Chemical Oxygen Demand (COD)	6	0	6	0	no
Chloride	**6**	**0**	**0**	**6**	**YES**
Chlorobenzene	6	0	6	0	no
Chloroethane	6	0	6	0	no
Chloroform	6	0	6	0	no
Chloromethane	6	0	6	0	no
cis-1,2-Dichloroethene	6	0	6	0	no
cis-1,3-Dichloropropene	6	0	6	0	no
Cobalt	**6**	**0**	**3**	**3**	**YES**
Conductivity	**6**	**0**	**0**	**6**	**YES**
Copper	6	0	6	0	no
Cyanide	6	0	6	0	no
Dibromochloromethane	6	0	6	0	no
Dibromomethane	6	0	6	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	6	0	6	0	no
Dissolved Oxygen	**6**	**0**	**0**	**6**	**YES**
Dissolved Solids	**6**	**0**	**0**	**6**	**YES**
Ethylbenzene	6	0	6	0	no
Iodide	6	0	6	0	no
Iodomethane	6	0	6	0	no
Iron	**6**	**0**	**2**	**4**	**YES**
Magnesium	**6**	**0**	**0**	**6**	**YES**
Manganese	**6**	**0**	**0**	**6**	**YES**
Methylene chloride	6	0	6	0	no
Molybdenum	6	0	6	0	no
Nickel	**6**	**0**	**5**	**1**	**YES**
Oxidation-Reduction Potential	**6**	**0**	**0**	**6**	**YES**
PCB, Total	6	0	6	0	no
PCB-1016	6	0	6	0	no
PCB-1221	6	0	6	0	no
PCB-1232	6	0	6	0	no
PCB-1242	**6**	**0**	**5**	**1**	**YES**
PCB-1248	6	0	6	0	no
PCB-1254	6	0	6	0	no
PCB-1260	6	0	6	0	no
PCB-1268	6	0	6	0	no
pH	**6**	**0**	**0**	**6**	**YES**
Potassium	**6**	**0**	**0**	**6**	**YES**
Radium-226	6	0	6	0	no
Rhodium	6	0	6	0	no
Sodium	**6**	**0**	**0**	**6**	**YES**
Styrene	6	0	6	0	no
Sulfate	**6**	**0**	**0**	**6**	**YES**
Tantalum	6	0	6	0	no
Technetium-99	**6**	**0**	**1**	**5**	**YES**
Tetrachloroethene	6	0	6	0	no
Thallium	6	0	6	0	no
Thorium-230	6	0	6	0	no
Toluene	6	0	6	0	no
Total Organic Carbon (TOC)	**6**	**0**	**2**	**4**	**YES**
Total Organic Halides (TOX)	**6**	**0**	**0**	**6**	**YES**
trans-1,2-Dichloroethene	6	0	6	0	no
trans-1,3-Dichloropropene	6	0	6	0	no
trans-1,4-Dichloro-2-butene	6	0	6	0	no
Trichlorofluoromethane	6	0	6	0	no
Uranium	6	0	6	0	no

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

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

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

Parameters	Observations	Missing Observation	Censored Observation	Uncensored Observation	Statistical Analysis?
Dissolved Solids	**6**	**0**	**0**	**6**	**YES**
Ethylbenzene	6	0	6	0	no
Iodide	6	0	6	0	no
Iodomethane	6	0	6	0	no
Iron	**6**	**0**	**3**	**3**	**YES**
Magnesium	**6**	**0**	**0**	**6**	**YES**
Manganese	**6**	**0**	**1**	**5**	**YES**
Methylene chloride	6	0	6	0	no
Molybdenum	6	0	6	0	no
Nickel	6	0	6	0	no
Oxidation-Reduction Potential	**6**	**0**	**0**	**6**	**YES**
PCB, Total	6	0	6	0	no
PCB-1016	6	0	6	0	no
PCB-1221	6	0	6	0	no
PCB-1232	6	0	6	0	no
PCB-1242	6	0	6	0	no
PCB-1248	6	0	6	0	no
PCB-1254	6	0	6	0	no
PCB-1260	6	0	6	0	no
PCB-1268	6	0	6	0	no
pH	**6**	**0**	**0**	**6**	**YES**
Potassium	**6**	**0**	**0**	**6**	**YES**
Radium-226	6	-1	7	0	no
Rhodium	6	0	6	0	no
Sodium	**6**	**0**	**0**	**6**	**YES**
Styrene	6	0	6	0	no
Sulfate	**6**	**0**	**0**	**6**	**YES**
Tantalum	6	0	6	0	no
Technetium-99	**6**	**0**	**1**	**5**	**YES**
Tetrachloroethene	6	0	6	0	no
Thallium	6	0	6	0	no
Thorium-230	6	0	6	0	no
Toluene	6	0	6	0	no
Total Organic Carbon (TOC)	**6**	**0**	**5**	**1**	**YES**
Total Organic Halides (TOX)	**6**	**0**	**0**	**6**	**YES**
trans-1,2-Dichloroethene	6	0	6	0	no
trans-1,3-Dichloropropene	6	0	6	0	no
trans-1,4-Dichloro-2-butene	6	0	6	0	no
Trichlorofluoromethane	6	0	6	0	no
Uranium	6	0	6	0	no
Vanadium	6	0	6	0	no

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

Parameters	Observations	Missing Observation	Censored Observation	Uncensored Observation	Statistical Analysis?
Vinyl acetate	6	0	6	0	no
Zinc	6	0	6	0	no

Bold denotes parameters with at least one uncensored observation.

Discussion of Results

For the UCRS, URGA, and LRGA, the results of the one-sided upper tolerance interval test are presented on pages D-22 through D-78 and the statistician qualification statement is presented on page D-79. For the UCRS, URGA, and LRGA, the test was applied to 17, 20, and 18 parameters, respectively, listed in bold print in Exhibits 3, 4, and 5. A summary of statistically significant increases by well number is shown in Exhibit 6.

UCRS

In this quarter, statistical test results indicated there were statistically significant increases dissolved oxygen, oxidation-reduction potential, and sulfate.

URGA

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

LRGA

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

Conclusion

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

Exhibit 6. Summary of Statistically Significant Increases

UCRS	URGA	LRGA
MW362: oxidation-reduction potential	MW357: oxidation-reduction potential	MW358: oxidation-reduction potential
MW371: oxidation-reduction potential	MW360: oxidation-reduction potential	MW361: oxidation-reduction , potential, technetium-99
MW374: dissolved oxygen, oxidation-reduction potential	MW363: oxidation-reduction potential	MW364: oxidation-reduction potential, technetium-99
MW375: oxidation-reduction potential, sulfate	MW366: oxidation-reduction potential	MW367: oxidation-reduction potential
	MW369: oxidation-reduction potential	MW370: dissolved oxygen, oxidation-reduction potential
	MW372: calcium, conductivity, dissolved solids, magnesium, oxidation-reduction potential, sulfate, technetium-99	MW373: oxidation-reduction potential, technetium-99

Exhibit 7. Tests Summary for Qualified Parameters—UCRS

Parameter	Performed Test	CV Normality Test	Results of Tolerance Interval Test Conducted
Aluminum	Tolerance Interval	2.08	No statistically significant increases relative to background data
Calcium	Tolerance Interval	0.40	No statistically significant increases relative to background data
Chloride	Tolerance Interval	0.95	No statistically significant increases relative to background data
Conductivity	Tolerance Interval	0.45	No statistically significant increases relative to background data
Dissolved Oxygen	Tolerance Interval	0.55	Statistically significant increases relative to background data in MW374
Dissolved Solids	Tolerance Interval	0.42	No statistically significant increases relative to background data
Iron	Tolerance Interval	0.98	No statistically significant increases relative to background data
Magnesium	Tolerance Interval	0.27	No statistically significant increases relative to background data
Manganese	Tolerance Interval	0.89	No statistically significant increases relative to background data
Oxidation-Reduction Potential	Tolerance Interval	3.54	Statistically significant increases relative to background data in MW362, MW371, MW374, and MW375
pH	Tolerance Interval	0.05	No statistically significant deviations relative to background data
Potassium	Tolerance Interval	0.72	No statistically significant increases relative to background data
Sodium	Tolerance Interval	0.40	No statistically significant increases relative to background data
Sulfate	Tolerance Interval	0.49	Statistically significant increases relative to background data in MW375
Total Organic Carbon	Tolerance Interval	1.38	No statistically significant increases relative to background data
Total Organic Halides	Tolerance Interval	1.08	No statistically significant increases relative to background data
Uranium	Tolerance Interval	1.68	No statistically significant increases relative to background data

CV: coefficient of variation

Exhibit 8. Tests Summary for Qualified Parameters—URGA

Parameter	Performed Test	CV Normality Test	Results of Tolerance Interval Test Conducted
Boron	Tolerance Interval	0.84	No statistically significant increases relative to background data
Calcium	Tolerance Interval	0.29	Statistically significant increase relative to background data in MW372
Chloride	Tolerance Interval	0.10	No statistically significant increases relative to background data
Cobalt	Tolerance Interval	0.85	No statistically significant increases relative to background data
Conductivity	Tolerance Interval	0.12	Statistically significant increase relative to background data in MW372
Dissolved Oxygen	Tolerance Interval	0.76	No statistically significant increases relative to background data
Dissolved Solids	Tolerance Interval	0.16	Statistically significant increase relative to background data in MW372
Iron	Tolerance Interval	0.95	No statistically significant increases relative to background data
Magnesium	Tolerance Interval	0.27	Statistically significant increase relative to background data in MW372
Manganese	Tolerance Interval	0.66	No statistically significant increases relative to background data
Nickel	Tolerance Interval	0.91	No statistically significant increases relative to background data
Oxidation-Reduction Potential	Tolerance Interval	1.26	Statistically significant increases relative to background data in MW357, MW360, MW363, MW366, MW369, and MW372
PCB-1242	Tolerance Interval	1.36	No statistically significant increases relative to background data
pH	Tolerance Interval	0.03	No statistically significant deviations relative to background data
Potassium	Tolerance Interval	0.29	No statistically significant increases relative to background data
Sodium	Tolerance Interval	0.26	No statistically significant increases relative to background data
Sulfate	Tolerance Interval	0.75	Statistically significant increase relative to background data in MW372

Exhibit 8. Tests Summary for Qualified Parameters—URGA (Continued)

Parameter	Performed Test	CV Normality Test	Results of Tolerance Interval Test Conducted
Technetium-99	Tolerance Interval	0.87	Statistically significant increases relative to background data in MW372
Total Organic Carbon	Tolerance Interval	1.23	No statistically significant increases relative to background data
Total Organic Halides	Tolerance Interval	0.95	No statistically significant increases relative to background data

CV: coefficient of variation

Exhibit 9. Tests Summary for Qualified Parameters—LRGA

Parameter	Performed Test	CV Normality Test	Results of Tolerance Interval Test Conducted
Boron	Tolerance Interval	0.68	No statistically significant increases relative to background data
Calcium	Tolerance Interval	0.31	No statistically significant increase relative to background data
Chloride	Tolerance Interval	0.16	No statistically significant increases relative to background data
Cobalt	Tolerance Interval	1.17	No statistically significant increases relative to background data
Conductivity	Tolerance Interval	0.26	No statistically significant increases relative to background data
Dissolved Oxygen	Tolerance Interval	0.83	Statistically significant increase relative to background data in MW370
Dissolved Solids	Tolerance Interval	0.30	No statistically significant increases relative to background data
Iron	Tolerance Interval	0.96	No statistically significant increases relative to background data
Magnesium	Tolerance Interval	0.34	No statistically significant increases relative to background data
Manganese	Tolerance Interval	0.62	No statistically significant increases relative to background data
Oxidation-Reduction Potential	Tolerance Interval	1.31	Statistically significant increases relative to background data in MW358, MW361, MW364, MW367, MW370, and MW373
pH	Tolerance Interval	0.03	No statistically significant deviations relative to background data
Potassium	Tolerance Interval	0.19	No statistically significant increases relative to background data
Sodium	Tolerance Interval	0.30	No statistically significant increases relative to background data
Sulfate	Tolerance Interval	1.59	No statistically significant increases relative to background data
Technetium-99	Tolerance Interval	1.73	Statistically significant increases relative to background data in MW361, MW364, and MW373
Total Organic Carbon	Tolerance Interval	1.96	No statistically significant increases relative to background data

Exhibit 9. Tests Summary for Qualified Parameters—LRGA

Parameter	Performed Test	CV Normality Test	Results of Tolerance Interval Test Conducted
Total Organic Halides	Tolerance Interval	0.98	No statistically significant increases relative to background data

CV: coefficient of variation

C-746-U Fourth Quarter 2013 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:	MW371
Date Collected	Result
3/18/2002	2.240
4/22/2002	0.200
7/15/2002	0.200
10/8/2002	0.200
1/8/2003	0.200
4/3/2003	0.200
7/9/2003	0.200
10/6/2003	0.200
Well Number:	MW374
Date Collected	Result
10/8/2002	21.300
1/7/2003	20.000
4/2/2003	4.110
7/9/2003	1.410
10/7/2003	1.090
1/6/2004	0.854
4/7/2004	0.200
7/14/2004	0.200

Statistics on Background Data

X= 3.300
S= 6.859
CV= 2.078
K factor = 2.523**
TL= 20.604

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

Statistics on Transformed Background Data

X= -0.371
S= 1.678
CV= -4.521
K factor = 2.523**
TL= 3.863

Transformed Background Data from Upgradient Wells

Well Number:	MW371
Date Collected	LN(Result)
3/18/2002	0.806
4/22/2002	-1.609
7/15/2002	-1.609
10/8/2002	-1.609
1/8/2003	-1.609
4/3/2003	-1.609
7/9/2003	-1.609
10/6/2003	-1.609
Well Number:	MW374
Date Collected	LN(Result)
10/8/2002	3.059
1/7/2003	2.996
4/2/2003	1.413
7/9/2003	0.344
10/7/2003	0.086
1/6/2004	-0.158
4/7/2004	-1.609
7/14/2004	-1.609

Fourth Quarter 2013 Data Collected in October 2013

Well No.	Result	Gradient	Result >TL?
MW362	1.710	Downgradient	N/A
MW371	0.200	Upgradient	N/A
MW374	0.200	Upgradient	N/A
MW375	0.200	Sidegradient	N/A

Fourth Quarter 2013 Dry/Partially Dry Wells

Well No.	Gradient
MW359	Downgradient
MW365	Downgradient
MW368	Sidegradient
MW376	Sidegradient
MW377	Sidegradient

Transformed Fourth Quarter 2013 Data Collected in October 2013

Well Number	LN(Result)	Result >TL?
MW362	0.536	NO
MW371	-1.609	NO
MW374	-1.609	NO
MW375	-1.609	NO

Conclusion of Statistical Analysis on Transformed Data

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

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

C-746-U Fourth Quarter 2013 Statistical Analysis — UCRS
Calcium — UNITS: mg/L

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

Background Data from Upgradient Wells

Well Number:	MW371
Date Collected	Result
3/18/2002	17.200
4/22/2002	22.400
7/15/2002	25.500
10/8/2002	26.400
1/8/2003	27.200
4/3/2003	30.300
7/9/2003	25.900
10/6/2003	27.000

Well Number:	MW374
Date Collected	Result
10/8/2002	67.300
1/7/2003	60.600
4/2/2003	47.200
7/9/2003	34.700
10/7/2003	37.100
1/6/2004	37.700
4/7/2004	32.200
7/14/2004	26.900

Statistics on Background Data

X= 34.100
S= 13.637
CV= 0.400
K factor = 2.523**
TL= 68.505

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

Fourth Quarter 2013 Data Collected in October 2013

Well No.	Result	Gradient	Result >TL?
MW362	17.600	Downgradient	NO
MW371	30.200	Upgradient	NO
MW374	25.500	Upgradient	NO
MW375	14.100	Sidegradient	NO

Fourth Quarter 2013 Dry/Partially Dry Wells

Well No.	Gradient
MW359	Downgradient
MW365	Downgradient
MW368	Sidegradient
MW376	Sidegradient
MW377	Sidegradient

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-U Fourth Quarter 2013 Statistical Analysis — UCRS
Chloride — UNITS: mg/L

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

Background Data from Upgradient Wells

Well Number:	MW371
Date Collected	Result
7/15/2002	8.300
10/8/2002	7.600
1/8/2003	7.700
4/3/2003	8.800
7/9/2003	8.100
10/6/2003	8.600
1/7/2004	7.600
4/6/2004	7.600

Well Number:	MW374
Date Collected	Result
10/8/2002	199.200
1/7/2003	199.700
4/2/2003	171.800
7/9/2003	178.700
10/7/2003	175.600
1/6/2004	170.400
4/7/2004	156.400
7/14/2004	144.700

Statistics on Background Data

X= 91.300
S= 86.959
CV= 0.952
K factor = 2.523**
TL= 310.697

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

Fourth Quarter 2013 Data Collected in October 2013

Well No.	Result	Gradient	Result >TL?
MW362	11.000	Downgradient	NO
MW371	8.000	Upgradient	NO
MW374	88.000	Upgradient	NO
MW375	6.500	Sidegradient	NO

Fourth Quarter 2013 Dry/Partially Dry Wells

Well No.	Gradient
MW359	Downgradient
MW365	Downgradient
MW368	Sidegradient
MW376	Sidegradient
MW377	Sidegradient

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-U Fourth Quarter 2013 Statistical Analysis — UCRS
Conductivity — UNITS: umho/cm

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

Background Data from Upgradient Wells

Well Number:	MW371
Date Collected	Result
3/18/2002	541.000
4/22/2002	643.000
7/15/2002	632.000
10/8/2002	631.000
1/8/2003	680.000
4/3/2003	749.000
7/9/2003	734.000
10/6/2003	753.000

Well Number:	MW374
Date Collected	Result
3/18/2002	1007.00
10/8/2002	1680.00
1/7/2003	1715.90
4/2/2003	172.000
7/9/2003	1231.00
10/7/2003	1214.00
1/6/2004	1172.00
4/7/2004	1145.00

Statistics on Background Data

X= 918.744
S= 417.257
CV= 0.454
K factor = 2.523**
TL= 1971.483

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

Fourth Quarter 2013 Data Collected in October 2013

Well No.	Result	Gradient	Result >TL?
MW362	578.00	Downgradient	NO
MW371	748.00	Upgradient	NO
MW374	739.00	Upgradient	NO
MW375	376.00	Sidegradient	NO

Fourth Quarter 2013 Dry/Partially Dry Wells

Well No.	Gradient
MW359	Downgradient
MW365	Downgradient
MW368	Sidegradient
MW376	Sidegradient
MW377	Sidegradient

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-U Fourth Quarter 2013 Statistical Analysis — UCRS
Dissolved Oxygen — UNITS: mg/L

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

Background Data from Upgradient Wells

Well Number:	MW371
Date Collected	Result
3/18/2002	2.260
4/22/2002	1.150
7/15/2002	0.940
10/8/2002	0.740
1/8/2003	2.620
4/3/2003	1.500
7/9/2003	1.660
10/6/2003	1.280

Well Number:	MW374
Date Collected	Result
3/18/2002	0.600
10/8/2002	0.670
1/7/2003	0.230
4/2/2003	0.650
7/9/2003	0.920
10/7/2003	0.990
1/6/2004	1.110
4/7/2004	0.880

Statistics on Background Data

X= 1.138
S= 0.621
CV= 0.546
K factor = 2.523**
TL= 2.704

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

Fourth Quarter 2013 Data Collected in October 2013

Well No.	Result	Gradient	Result >TL?
MW362	2.230	Downgradient	NO
MW371	1.380	Upgradient	NO
MW374	2.740	Upgradient	**YES**
MW375	1.220	Sidegradient	NO

Fourth Quarter 2013 Dry/Partially Dry Wells

Well No.	Gradient
MW359	Downgradient
MW365	Downgradient
MW368	Sidegradient
MW376	Sidegradient
MW377	Sidegradient

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.

MW374

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-U Fourth Quarter 2013 Statistical Analysis — UCRS
Dissolved Solids — UNITS: mg/L

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

Background Data from Upgradient Wells

Well Number:	MW371
Date Collected	Result
3/18/2002	274.000
4/22/2002	409.000
7/15/2002	418.000
10/8/2002	424.000
1/8/2003	431.000
4/3/2003	444.000
7/9/2003	445.000
10/6/2003	438.000

Well Number:	MW374
Date Collected	Result
10/8/2002	1136.00
1/7/2003	1101.00
4/2/2003	863.000
7/9/2003	682.000
10/7/2003	589.000
1/6/2004	603.000
4/7/2004	601.000
7/14/2004	582.000

Statistics on Background Data

X= 590.000
S= 248.068
CV= 0.420
K factor = 2.523**
TL= 1215.876

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

Fourth Quarter 2013 Data Collected in October 2013

Well No.	Result	Gradient	Result >TL?
MW362	378.00	Downgradient	NO
MW371	479.00	Upgradient	NO
MW374	397.00	Upgradient	NO
MW375	236.00	Sidegradient	NO

Fourth Quarter 2013 Dry/Partially Dry Wells

Well No.	Gradient
MW359	Downgradient
MW365	Downgradient
MW368	Sidegradient
MW376	Sidegradient
MW377	Sidegradient

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-U Fourth Quarter 2013 Statistical Analysis — UCRS
Iron — UNITS: mg/L

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

Background Data from Upgradient Wells

Well Number:	MW371
Date Collected	Result
3/18/2002	1.310
4/22/2002	0.913
7/15/2002	0.881
10/8/2002	3.860
1/8/2003	1.880
4/3/2003	3.180
7/9/2003	0.484
10/6/2003	2.720

Well Number:	MW374
Date Collected	Result
10/8/2002	23.000
1/7/2003	13.900
4/2/2003	14.000
7/9/2003	14.200
10/7/2003	7.920
1/6/2004	7.860
4/7/2004	4.820
7/14/2004	4.870

Statistics on Background Data

X= 6.612
S= 6.487
CV= 0.981
K factor = 2.523**
TL= 22.979

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

Fourth Quarter 2013 Data Collected in October 2013

Well No.	Result	Gradient	Result >TL?
MW362	0.653	Downgradient	NO
MW371	0.100	Upgradient	NO
MW374	0.100	Upgradient	NO
MW375	0.100	Sidegradient	NO

Fourth Quarter 2013 Dry/Partially Dry Wells

Well No.	Gradient
MW359	Downgradient
MW365	Downgradient
MW368	Sidegradient
MW376	Sidegradient
MW377	Sidegradient

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-U Fourth Quarter 2013 Statistical Analysis — UCRS
Magnesium — UNITS: mg/L

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

Background Data from Upgradient Wells

Well Number:	MW371
Date Collected	Result
3/18/2002	7.100
4/22/2002	9.770
7/15/2002	10.400
10/8/2002	10.200
1/8/2003	10.700
4/3/2003	11.900
7/9/2003	10.800
10/6/2003	10.900

Well Number:	MW374
Date Collected	Result
10/8/2002	20.000
1/7/2003	16.100
4/2/2003	13.100
7/9/2003	10.300
10/7/2003	11.100
1/6/2004	11.000
4/7/2004	9.690
7/14/2004	8.490

Statistics on Background Data

X= 11.347
S= 3.019
CV= 0.266
K factor = 2.523**
TL= 18.963

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

Fourth Quarter 2013 Data Collected in October 2013

Well No.	Result	Gradient	Result >TL?
MW362	7.500	Downgradient	NO
MW371	12.000	Upgradient	NO
MW374	7.140	Upgradient	NO
MW375	5.740	Sidegradient	NO

Fourth Quarter 2013 Dry/Partially Dry Wells

Well No.	Gradient
MW359	Downgradient
MW365	Downgradient
MW368	Sidegradient
MW376	Sidegradient
MW377	Sidegradient

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-U Fourth Quarter 2013 Statistical Analysis — UCRS
Manganese — UNITS: mg/L

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

Background Data from Upgradient Wells

Well Number:	MW371
Date Collected	Result
3/18/2002	0.063
4/22/2002	0.067
7/15/2002	0.074
10/8/2002	0.052
1/8/2003	0.039
4/3/2003	0.055
7/9/2003	0.055
10/6/2003	0.054

Well Number:	MW374
Date Collected	Result
10/8/2002	0.596
1/7/2003	0.565
4/2/2003	0.675
7/9/2003	0.397
10/7/2003	0.312
1/6/2004	0.299
4/7/2004	0.329
7/14/2004	0.342

Statistics on Background Data

X= 0.248
S= 0.222
CV= 0.894
K factor = 2.523**
TL= 0.809

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

Fourth Quarter 2013 Data Collected in October 2013

Well No.	Result	Gradient	Result >TL?
MW362	0.008	Downgradient	NO
MW371	0.005	Upgradient	NO
MW374	0.005	Upgradient	NO
MW375	0.005	Sidegradient	NO

Fourth Quarter 2013 Dry/Partially Dry Wells

Well No.	Gradient
MW359	Downgradient
MW365	Downgradient
MW368	Sidegradient
MW376	Sidegradient
MW377	Sidegradient

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-U Fourth Quarter 2013 Statistical Analysis — UCRS
Oxidation-Reduction Potential — UNITS: mV

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

Background Data from Upgradient Wells

Well Number:	MW371
Date Collected	Result
3/18/2002	75.000
4/22/2002	165.000
7/15/2002	65.000
4/3/2003	-19.000
7/9/2003	114.000
10/6/2003	-22.000
1/7/2004	20.500
4/6/2004	113.000
Well Number:	MW374
Date Collected	Result
3/18/2002	135.000
4/2/2003	-56.000
7/9/2003	-68.000
10/7/2003	-50.000
1/6/2004	-85.000
4/7/2004	6.000
7/14/2004	-38.000
10/7/2004	1.000

Statistics on Background Data

X= 22.281
S= 78.889
CV= 3.541
K factor = 2.523**
TL= 221.319

Because CV is 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 = 2.523**
TL# = 5.106

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:	MW371
Date Collected	LN(Result)
3/18/2002	4.317
4/22/2002	5.106
7/15/2002	4.174
4/3/2003	#Func!
7/9/2003	4.736
10/6/2003	#Func!
1/7/2004	3.020
4/6/2004	4.727
Well Number:	MW374
Date Collected	LN(Result)
3/18/2002	4.905
4/2/2003	#Func!
7/9/2003	#Func!
10/7/2003	#Func!
1/6/2004	#Func!
4/7/2004	1.792
7/14/2004	#Func!
10/7/2004	0.000

Fourth Quarter 2013 Data Collected in October 2013

Well No.	Result	Gradient	Result >TL?
MW362	521.000	Downgradient	N/A
MW371	544.000	Upgradient	N/A
MW374	802.000	Upgradient	N/A
MW375	600.000	Sidegradient	N/A

Fourth Quarter 2013 Dry/Partially Dry Wells

Well No.	Gradient
MW359	Downgradient
MW365	Downgradient
MW368	Sidegradient
MW376	Sidegradient
MW377	Sidegradient

Transformed Fourth Quarter 2013 Data Collected in October 2013

Well Number	LN(Result)	Result >TL?
MW362	6.256	**YES**
MW371	6.299	**YES**
MW374	6.687	**YES**
MW375	6.397	**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.

MW362

MW371

MW374

MW375

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-U Fourth Quarter 2013 Statistical Analysis — UCRS
pH — UNITS: Std Unit

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

Background Data from Upgradient Wells

Well Number:	MW371
Date Collected	Result
3/18/2002	6.300
4/22/2002	6.500
7/15/2002	6.500
10/8/2002	6.600
1/8/2003	6.600
4/3/2003	6.900
7/9/2003	6.700
10/6/2003	7.000

Well Number:	MW374
Date Collected	Result
3/18/2002	5.750
10/8/2002	6.600
1/7/2003	6.820
4/2/2003	6.860
7/9/2003	6.700
10/7/2003	6.600
1/6/2004	6.900
4/7/2004	6.580

Statistics on Background Data

X= 6.619
S= 0.295
CV= 0.045
K factor = 2.904**
TL= 7.475
LL= 5.764

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

Fourth Quarter 2013 Data Collected in October 2013

Well No.	Result	Gradient	Result <LL?
MW362	6.680	Downgradient	NO
MW371	6.610	Upgradient	NO
MW374	6.520	Upgradient	NO
MW375	6.440	Sidegradient	NO

Fourth Quarter 2013 Dry/Partially Dry Wells

Well No.	Gradient
MW359	Downgradient
MW365	Downgradient
MW368	Sidegradient
MW376	Sidegradient
MW377	Sidegradient

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-U Fourth Quarter 2013 Statistical Analysis — UCRS
Potassium — UNITS: mg/L

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

Background Data from Upgradient Wells

Well Number:	MW371
Date Collected	Result
3/18/2002	2.000
4/22/2002	2.000
7/15/2002	2.000
10/8/2002	0.408
1/8/2003	0.384
4/3/2003	0.368
7/9/2003	0.587
10/6/2003	0.382

Well Number:	MW374
Date Collected	Result
10/8/2002	3.040
1/7/2003	2.830
4/2/2003	2.000
7/9/2003	1.090
10/7/2003	0.802
1/6/2004	0.897
4/7/2004	0.689
7/14/2004	0.716

Statistics on Background Data

X= 1.262
S= 0.907
CV= 0.718
K factor = 2.523**
TL= 3.549

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

Fourth Quarter 2013 Data Collected in October 2013

Well No.	Result	Gradient	Result >TL?
MW362	0.470	Downgradient	NO
MW371	0.331	Upgradient	NO
MW374	0.452	Upgradient	NO
MW375	0.265	Sidegradient	NO

Fourth Quarter 2013 Dry/Partially Dry Wells

Well No.	Gradient
MW359	Downgradient
MW365	Downgradient
MW368	Sidegradient
MW376	Sidegradient
MW377	Sidegradient

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-U Fourth Quarter 2013 Statistical Analysis — UCRS
Sodium — UNITS: mg/L

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

Background Data from Upgradient Wells

Well Number:	MW371
Date Collected	Result
3/18/2002	129.000
4/22/2002	131.000
7/15/2002	127.000
10/8/2002	123.000
1/8/2003	128.000
4/3/2003	144.000
7/9/2003	126.000
10/6/2003	120.000

Well Number:	MW374
Date Collected	Result
10/8/2002	336.000
1/7/2003	329.000
4/2/2003	287.000
7/9/2003	181.000
10/7/2003	182.000
1/6/2004	206.000
4/7/2004	182.000
7/14/2004	198.000

Statistics on Background Data

X= 183.063
S= 73.222
CV= 0.400
K factor = 2.523**
TL= 367.800

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

Fourth Quarter 2013 Data Collected in October 2013

Well No.	Result	Gradient	Result >TL?
MW362	114.00	Downgradient	NO
MW371	130.00	Upgradient	NO
MW374	145.00	Upgradient	NO
MW375	56.800	Sidegradient	NO

Fourth Quarter 2013 Dry/Partially Dry Wells

Well No.	Gradient
MW359	Downgradient
MW365	Downgradient
MW368	Sidegradient
MW376	Sidegradient
MW377	Sidegradient

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-U Fourth Quarter 2013 Statistical Analysis — UCRS
Sulfate — UNITS: mg/L

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

Background Data from Upgradient Wells

Well Number:	MW371
Date Collected	Result
3/18/2002	16.300
4/22/2002	8.600
7/15/2002	6.700
10/8/2002	5.000
1/8/2003	5.000
4/3/2003	5.000
7/9/2003	5.000
10/6/2003	5.000

Well Number:	MW374
Date Collected	Result
10/8/2002	5.000
1/7/2003	5.000
4/2/2003	5.000
7/9/2003	5.600
10/7/2003	5.000
1/6/2004	5.000
4/7/2004	11.300
7/14/2004	5.000

Statistics on Background Data

X= 6.469
S= 3.153
CV= 0.487
K factor = 2.523**
TL= 14.423

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

Fourth Quarter 2013 Data Collected in October 2013

Well No.	Result	Gradient	Result >TL?
MW362	9.800	Downgradient	NO
MW371	13.000	Upgradient	NO
MW374	6.600	Upgradient	NO
MW375	26.000	Sidegradient	**YES**

Fourth Quarter 2013 Dry/Partially Dry Wells

Well No.	Gradient
MW359	Downgradient
MW365	Downgradient
MW368	Sidegradient
MW376	Sidegradient
MW377	Sidegradient

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.

MW375

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-U Fourth Quarter 2013 Statistical Analysis — UCRS
Total Organic Carbon (TOC) — UNITS: mg/L

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

Background Data from Upgradient Wells

Well Number:	MW371
Date Collected	Result
3/18/2002	11.100
4/22/2002	7.000
7/15/2002	4.100
10/8/2002	6.000
1/8/2003	5.300
4/3/2003	5.300
7/9/2003	2.900
10/6/2003	3.200
Well Number:	MW374
Date Collected	Result
10/8/2002	90.000
1/7/2003	64.000
4/2/2003	25.000
7/9/2003	16.000
10/7/2003	13.000
1/6/2004	10.000
4/7/2004	7.200
7/14/2004	12.000

Statistics on Background Data

X= 17.631
S= 24.314
CV= 1.379
K factor = 2.523**
TL= 78.977

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

Statistics on Transformed Background Data

X= 2.318
S= 0.979
CV= 0.422
K factor = 2.523**
TL= 4.788

Transformed Background Data from Upgradient Wells

Well Number:	MW371
Date Collected	LN(Result)
3/18/2002	2.407
4/22/2002	1.946
7/15/2002	1.411
10/8/2002	1.792
1/8/2003	1.668
4/3/2003	1.668
7/9/2003	1.065
10/6/2003	1.163
Well Number:	MW374
Date Collected	LN(Result)
10/8/2002	4.500
1/7/2003	4.159
4/2/2003	3.219
7/9/2003	2.773
10/7/2003	2.565
1/6/2004	2.303
4/7/2004	1.974
7/14/2004	2.485

Fourth Quarter 2013 Data Collected in October 2013

Well No.	Result	Gradient	Result >TL?
MW362	1.900	Downgradient	N/A
MW371	1.600	Upgradient	N/A
MW374	1.800	Upgradient	N/A
MW375	1.000	Sidegradient	N/A

Fourth Quarter 2013 Dry/Partially Dry Wells

Well No.	Gradient
MW359	Downgradient
MW365	Downgradient
MW368	Sidegradient
MW376	Sidegradient
MW377	Sidegradient

Transformed Fourth Quarter 2013 Data Collected in October 2013

Well Number	LN(Result)	Result >TL?
MW362	0.642	NO
MW371	0.470	NO
MW374	0.588	NO
MW375	0.000	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-U Fourth Quarter 2013 Statistical Analysis UCRS
Total Organic Halides (TOX) UNITS: ug/L

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

Background Data from Upgradient Wells

Well Number:	MW371
Date Collected	Result
3/18/2002	50.000
4/22/2002	105.000
7/15/2002	70.000
10/8/2002	52.000
1/8/2003	20.200
4/3/2003	104.000
7/9/2003	34.200
10/6/2003	46.100
Well Number:	MW374
Date Collected	Result
10/8/2002	903.000
1/7/2003	539.000
4/2/2003	295.000
7/9/2003	272.000
10/7/2003	197.000
1/6/2004	330.000
4/7/2004	183.000
7/14/2004	225.000

Statistics on Background Data

X= 214.094
S= 231.089
CV= 1.079
K factor = 2.523**
TL= 797.131

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

Statistics on Transformed Background Data

X= 4.867
S= 1.065
CV= 0.219
K factor = 2.523**
TL= 7.554

Transformed Background Data from Upgradient Wells

Well Number:	MW371
Date Collected	LN(Result)
3/18/2002	3.912
4/22/2002	4.654
7/15/2002	4.248
10/8/2002	3.951
1/8/2003	3.006
4/3/2003	4.644
7/9/2003	3.532
10/6/2003	3.831
Well Number:	MW374
Date Collected	LN(Result)
10/8/2002	6.806
1/7/2003	6.290
4/2/2003	5.687
7/9/2003	5.606
10/7/2003	5.283
1/6/2004	5.799
4/7/2004	5.209
7/14/2004	5.416

Fourth Quarter 2013 Data Collected in October 2013

Well No.	Result	Gradient	Result >TL?
MW362	10.000	Downgradient	N/A
MW371	10.000	Upgradient	N/A
MW374	25.000	Upgradient	N/A
MW375	16.000	Sidegradient	N/A

Fourth Quarter 2013 Dry/Partially Dry Wells

Well No.	Gradient
MW359	Downgradient
MW365	Downgradient
MW368	Sidegradient
MW376	Sidegradient
MW377	Sidegradient

Transformed Fourth Quarter 2013 Data Collected in October 2013

Well Number	LN(Result)	Result >TL?
MW362	2.303	NO
MW371	2.303	NO
MW374	3.219	NO
MW375	2.773	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-U Fourth Quarter 2013 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:	MW371
Date Collected	Result
3/18/2002	0.001
4/22/2002	0.001
7/15/2002	0.001
10/8/2002	0.027
1/8/2003	0.001
4/3/2003	0.001
7/9/2003	0.001
10/6/2003	0.001
Well Number:	MW374
Date Collected	Result
10/8/2002	0.044
1/7/2003	0.011
4/2/2003	0.009
7/9/2003	0.007
10/7/2003	0.001
1/6/2004	0.003
4/7/2004	0.003
7/14/2004	0.002

Statistics on Background Data

X= 0.007
S= 0.012
CV= 1.678
K factor = 2.523**
TL= 0.037

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

Statistics on Transformed Background Data

X= -5.884
S= 1.299
CV= -0.221
K factor = 2.523**
TL= -2.607

Transformed Background Data from Upgradient Wells

Well Number:	MW371
Date Collected	LN(Result)
3/18/2002	-6.908
4/22/2002	-6.908
7/15/2002	-6.908
10/8/2002	-3.612
1/8/2003	-6.908
4/3/2003	-6.908
7/9/2003	-6.822
10/6/2003	-6.908
Well Number:	MW374
Date Collected	LN(Result)
10/8/2002	-3.128
1/7/2003	-4.510
4/2/2003	-4.705
7/9/2003	-4.970
10/7/2003	-6.908
1/6/2004	-5.760
4/7/2004	-5.960
7/14/2004	-6.320

Fourth Quarter 2013 Data Collected in October 2013

Well No.	Result	Gradient	Result >TL?
MW362	0.002	Downgradient	N/A
MW371	0.002	Upgradient	N/A
MW374	0.001	Upgradient	N/A
MW375	0.001	Sidegradient	N/A

Fourth Quarter 2013 Dry/Partially Dry Wells

Well No.	Gradient
MW359	Downgradient
MW365	Downgradient
MW368	Sidegradient
MW376	Sidegradient
MW377	Sidegradient

Transformed Fourth Quarter 2013 Data Collected in October 2013

Well Number	LN(Result)	Result >TL?
MW362	-6.147	NO
MW371	-6.261	NO
MW374	-6.908	NO
MW375	-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-U Fourth Quarter 2013 Statistical Analysis — URGA
Boron — UNITS: mg/L

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

Background Data from Upgradient Wells

Well Number:	MW369
Date Collected	Result
3/18/2002	2.000
4/22/2002	2.000
7/15/2002	2.000
10/8/2002	0.200
1/8/2003	0.200
4/3/2003	0.200
7/8/2003	0.200
10/6/2003	0.200

Well Number:	MW372
Date Collected	Result
3/19/2002	2.000
4/23/2002	2.000
7/16/2002	2.000
10/8/2002	0.492
1/7/2003	0.492
4/2/2003	0.600
7/9/2003	0.570
10/7/2003	0.604

Statistics on Background Data

X= 0.985
S= 0.825
CV= 0.838
K factor = 2.523**
TL= 3.067

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

Fourth Quarter 2013 Data Collected in October 2013

Well No.	Result	Gradient	Result >TL?
MW357	0.362	Downgradient	NO
MW360	0.200	Downgradient	NO
MW363	0.200	Downgradient	NO
MW366	0.200	Sidegradient	NO
MW369	0.200	Upgradient	NO
MW372	1.140	Upgradient	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-U Fourth Quarter 2013 Statistical Analysis — URGA
Calcium — UNITS: mg/L

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

Background Data from Upgradient Wells

Well Number:	MW369
Date Collected	Result
3/18/2002	29.500
4/22/2002	29.800
7/15/2002	25.300
10/8/2002	21.900
1/8/2003	20.900
4/3/2003	22.200
7/8/2003	22.900
10/6/2003	21.700

Well Number:	MW372
Date Collected	Result
3/19/2002	41.500
4/23/2002	43.600
7/16/2002	40.400
10/8/2002	38.800
1/7/2003	41.100
4/2/2003	42.900
7/9/2003	35.100
10/7/2003	46.600

Statistics on Background Data

X= 32.763
S= 9.391
CV= 0.287
K factor = 2.523**
TL= 56.456

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

Fourth Quarter 2013 Data Collected in October 2013

Well No.	Result	Gradient	Result >TL?
MW357	27.400	Downgradient	NO
MW360	25.100	Downgradient	NO
MW363	26.100	Downgradient	NO
MW366	27.500	Sidegradient	NO
MW369	16.200	Upgradient	NO
MW372	60.200	Upgradient	**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

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-U Fourth Quarter 2013 Statistical Analysis — URGA
Chloride — UNITS: mg/L

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

Background Data from Upgradient Wells

Well Number:	MW369
Date Collected	Result
7/15/2002	48.300
10/8/2002	47.700
1/8/2003	45.700
4/3/2003	47.400
7/8/2003	55.900
10/6/2003	47.400
1/7/2004	45.500
4/7/2004	43.400

Well Number:	MW372
Date Collected	Result
7/16/2002	39.800
10/8/2002	41.000
1/7/2003	39.400
4/2/2003	39.200
7/9/2003	39.800
10/7/2003	40.000
1/5/2004	43.400
4/5/2004	42.000

Statistics on Background Data

X= 44.119
S= 4.554
CV= 0.103
K factor = 2.523**
TL= 55.607

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

Fourth Quarter 2013 Data Collected in October 2013

Well No.	Result	Gradient	Result >TL?
MW357	31.000	Downgradient	NO
MW360	11.000	Downgradient	NO
MW363	32.000	Downgradient	NO
MW366	39.000	Sidegradient	NO
MW369	36.000	Upgradient	NO
MW372	47.000	Upgradient	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-U Fourth Quarter 2013 Statistical Analysis — URGA
Cobalt — UNITS: mg/L

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

Background Data from Upgradient Wells

Well Number:	MW369
Date Collected	Result
3/18/2002	0.025
4/22/2002	0.025
7/15/2002	0.025
10/8/2002	0.009
1/8/2003	0.005
4/3/2003	0.006
7/8/2003	0.054
10/6/2003	0.069

Well Number:	MW372
Date Collected	Result
3/19/2002	0.025
4/23/2002	0.025
7/16/2002	0.025
10/8/2002	0.002
1/7/2003	0.015
4/2/2003	0.012
7/9/2003	0.065
10/7/2003	0.008

Statistics on Background Data

X= 0.025
S= 0.021
CV= 0.845
K factor = 2.523**
TL= 0.077

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

Fourth Quarter 2013 Data Collected in October 2013

Well No.	Result	Gradient	Result >TL?
MW357	0.001	Downgradient	NO
MW360	0.022	Downgradient	NO
MW363	0.001	Downgradient	NO
MW366	0.001	Sidegradient	NO
MW369	0.015	Upgradient	NO
MW372	0.001	Upgradient	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-U Fourth Quarter 2013 Statistical Analysis — URGA
Conductivity — UNITS: umho/cm

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

Background Data from Upgradient Wells

Well Number:	MW369
Date Collected	Result
3/18/2002	388.000
4/22/2002	404.000
7/15/2002	394.000
10/8/2002	403.000
1/8/2003	520.000
4/3/2003	487.000
7/8/2003	478.000
10/6/2003	476.000

Well Number:	MW372
Date Collected	Result
3/19/2002	508.000
4/23/2002	501.000
7/16/2002	507.000
10/8/2002	495.000
1/7/2003	508.700
4/2/2003	515.000
7/9/2003	576.000
10/7/2003	565.000

Statistics on Background Data

X= 482.856
S= 57.603
CV= 0.119
K factor = 2.523**
TL= 628.189

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

Fourth Quarter 2013 Data Collected in October 2013

Well No.	Result	Gradient	Result >TL?
MW357	440.00	Downgradient	NO
MW360	536.00	Downgradient	NO
MW363	393.00	Downgradient	NO
MW366	447.00	Sidegradient	NO
MW369	376.00	Upgradient	NO
MW372	791.00	Upgradient	**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

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-U Fourth Quarter 2013 Statistical Analysis URGA
Dissolved Oxygen UNITS: mg/L

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

Background Data from Upgradient Wells

Well Number:	MW369
Date Collected	Result
3/18/2002	5.410
4/22/2002	1.570
7/15/2002	0.800
10/8/2002	1.090
1/8/2003	2.690
4/3/2003	2.040
7/8/2003	1.190
10/6/2003	1.780

Well Number:	MW372
Date Collected	Result
3/19/2002	3.890
4/23/2002	0.050
7/16/2002	1.330
10/8/2002	2.660
1/7/2003	0.400
4/2/2003	0.910
7/9/2003	1.420
10/7/2003	1.260

Statistics on Background Data

X= 1.781
S= 1.351
CV= 0.759
K factor = 2.523**
TL= 5.190

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

Fourth Quarter 2013 Data Collected in October 2013

Well No.	Result	Gradient	Result >TL?
MW357	3.500	Downgradient	NO
MW360	0.830	Downgradient	NO
MW363	0.580	Downgradient	NO
MW366	2.470	Sidegradient	NO
MW369	0.990	Upgradient	NO
MW372	0.830	Upgradient	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-U Fourth Quarter 2013 Statistical Analysis URGA
Dissolved Solids UNITS: mg/L

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

Background Data from Upgradient Wells

Well Number:	MW369
Date Collected	Result
3/18/2002	173.000
4/22/2002	246.000
7/15/2002	232.000
10/8/2002	275.000
1/8/2003	269.000
4/3/2003	250.000
7/8/2003	295.000
10/6/2003	276.000

Well Number:	MW372
Date Collected	Result
3/19/2002	295.000
4/23/2002	322.000
7/16/2002	329.000
10/8/2002	290.000
1/7/2003	316.000
4/2/2003	311.000
7/9/2003	347.000
10/7/2003	337.000

Statistics on Background Data

X= 285.188
S= 44.908
CV= 0.157
K factor = 2.523**
TL= 398.489

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

Fourth Quarter 2013 Data Collected in October 2013

Well No.	Result	Gradient	Result >TL?
MW357	246.00	Downgradient	NO
MW360	275.00	Downgradient	NO
MW363	231.00	Downgradient	NO
MW366	260.00	Sidegradient	NO
MW369	228.00	Upgradient	NO
MW372	481.00	Upgradient	**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

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-U Fourth Quarter 2013 Statistical Analysis — URGA
Iron — UNITS: mg/L

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

Background Data from Upgradient Wells

Well Number:	MW369
Date Collected	Result
3/18/2002	0.656
4/22/2002	0.695
7/15/2002	7.100
10/8/2002	21.500
1/8/2003	18.500
4/3/2003	14.900
7/8/2003	11.300
10/6/2003	14.900

Well Number:	MW372
Date Collected	Result
3/19/2002	5.950
4/23/2002	0.792
7/16/2002	1.780
10/8/2002	0.776
1/7/2003	3.550
4/2/2003	5.020
7/9/2003	10.000
10/7/2003	0.733

Statistics on Background Data

X= 7.385
S= 6.991
CV= 0.947
K factor = 2.523**
TL= 25.024

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

Fourth Quarter 2013 Data Collected in October 2013

Well No.	Result	Gradient	Result >TL?
MW357	0.100	Downgradient	NO
MW360	3.340	Downgradient	NO
MW363	0.154	Downgradient	NO
MW366	0.100	Sidegradient	NO
MW369	0.303	Upgradient	NO
MW372	0.438	Upgradient	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-U Fourth Quarter 2013 Statistical Analysis URGA
Magnesium UNITS: mg/L

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

Background Data from Upgradient Wells

Well Number:	MW369
Date Collected	Result
3/18/2002	11.400
4/22/2002	12.000
7/15/2002	10.000
10/8/2002	8.620
1/8/2003	7.890
4/3/2003	7.970
7/8/2003	10.300
10/6/2003	9.140

Well Number:	MW372
Date Collected	Result
3/19/2002	15.700
4/23/2002	16.600
7/16/2002	15.400
10/8/2002	15.800
1/7/2003	15.800
4/2/2003	16.400
7/9/2003	15.200
10/7/2003	17.600

Statistics on Background Data

X= 12.864
S= 3.505
CV= 0.272
K factor = 2.523**
TL= 21.707

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

Fourth Quarter 2013 Data Collected in October 2013

Well No.	Result	Gradient	Result >TL?
MW357	10.900	Downgradient	NO
MW360	9.390	Downgradient	NO
MW363	9.900	Downgradient	NO
MW366	11.500	Sidegradient	NO
MW369	6.500	Upgradient	NO
MW372	22.800	Upgradient	**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

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-U Fourth Quarter 2013 Statistical Analysis URGA
Manganese UNITS: mg/L

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

Background Data from Upgradient Wells

Well Number:	MW369
Date Collected	Result
3/18/2002	0.034
4/22/2002	0.062
7/15/2002	0.436
10/8/2002	0.867
1/8/2003	0.828
4/3/2003	0.672
7/8/2003	0.321
10/6/2003	0.714

Well Number:	MW372
Date Collected	Result
3/19/2002	0.205
4/23/2002	0.345
7/16/2002	0.210
10/8/2002	0.054
1/7/2003	0.537
4/2/2003	0.415
7/9/2003	0.654
10/7/2003	0.254

Statistics on Background Data

X= 0.413
S= 0.274
CV= 0.664
K factor = 2.523**
TL= 1.105

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

Fourth Quarter 2013 Data Collected in October 2013

Well No.	Result	Gradient	Result >TL?
MW357	0.006	Downgradient	NO
MW360	0.212	Downgradient	NO
MW363	0.150	Downgradient	NO
MW366	0.031	Sidegradient	NO
MW369	0.159	Upgradient	NO
MW372	0.016	Upgradient	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-U Fourth Quarter 2013 Statistical Analysis — URGA
Nickel — UNITS: mg/L

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

Background Data from Upgradient Wells

Well Number:	MW369
Date Collected	Result
3/18/2002	0.050
4/22/2002	0.050
7/15/2002	0.050
10/8/2002	0.005
1/8/2003	0.005
4/3/2003	0.005
7/8/2003	0.013
10/6/2003	0.010

Well Number:	MW372
Date Collected	Result
3/19/2002	0.050
4/23/2002	0.050
7/16/2002	0.050
10/8/2002	0.005
1/7/2003	0.005
4/2/2003	0.005
7/9/2003	0.019
10/7/2003	0.005

Statistics on Background Data

X= 0.024
S= 0.021
CV= 0.910
K factor = 2.523**
TL= 0.078

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

Fourth Quarter 2013 Data Collected in October 2013

Well No.	Result	Gradient	Result >TL?
MW357	0.005	Downgradient	NO
MW360	0.005	Downgradient	NO
MW363	0.005	Downgradient	NO
MW366	0.005	Sidegradient	NO
MW369	0.009	Upgradient	NO
MW372	0.005	Upgradient	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-U Fourth Quarter 2013 Statistical Analysis URGA
Oxidation-Reduction Potential UNITS: mV

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

Background Data from Upgradient Wells

Well Number:	MW369
Date Collected	Result
3/18/2002	215.000
4/22/2002	110.000
7/15/2002	20.000
1/8/2003	-5.000
4/3/2003	-18.000
7/8/2003	-67.000
10/6/2003	-1.000
1/7/2004	55.000
Well Number:	MW372
Date Collected	Result
3/19/2002	210.000
4/23/2002	65.000
7/16/2002	215.000
10/8/2002	185.000
1/7/2003	45.000
4/2/2003	65.000
7/9/2003	-39.000
10/7/2003	138.000

Statistics on Background Data

X= 74.563
S= 94.243
CV= 1.264
K factor = 2.523**
TL= 312.337

Because CV is 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 = 2.523**
TL# = 5.371

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:	MW369
Date Collected	LN(Result)
3/18/2002	5.371
4/22/2002	4.700
7/15/2002	2.996
1/8/2003	#Func!
4/3/2003	#Func!
7/8/2003	#Func!
10/6/2003	#Func!
1/7/2004	4.007
Well Number:	MW372
Date Collected	LN(Result)
3/19/2002	5.347
4/23/2002	4.174
7/16/2002	5.371
10/8/2002	5.220
1/7/2003	3.807
4/2/2003	4.174
7/9/2003	#Func!
10/7/2003	4.927

Fourth Quarter 2013 Data Collected in October 2013

Well No.	Result	Gradient	Result >TL?
MW357	815.000	Downgradient	N/A
MW360	392.000	Downgradient	N/A
MW363	597.000	Downgradient	N/A
MW366	503.000	Sidegradient	N/A
MW369	750.000	Upgradient	N/A
MW372	519.000	Upgradient	N/A

Transformed Fourth Quarter 2013 Data Collected in October 2013

Well Number	LN(Result)	Result >TL?
MW357	6.703	**YES**
MW360	5.971	**YES**
MW363	6.392	**YES**
MW366	6.221	**YES**
MW369	6.620	**YES**
MW372	6.252	**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.
MW357
MW360
MW363
MW366

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-U Fourth Quarter 2013 Sta tistical Analysis	URGA
Oxidation-Reduction Potential (Continued)	UNITS: mV

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-U Fourth Quarter 2013 Statistical Analysis URGA
PCB-1242 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:	MW369
Date Collected	Result
3/18/2002	1.000
4/22/2002	0.110
7/15/2002	0.110
7/8/2003	1.150
10/6/2003	0.090
7/13/2004	0.100
7/20/2005	0.100
4/4/2006	0.100
Well Number:	MW372
Date Collected	Result
3/19/2002	1.000
4/23/2002	0.110
7/16/2002	0.110
7/9/2003	0.130
10/7/2003	0.090
7/14/2004	0.100
7/21/2005	0.100
4/5/2006	0.100

Statistics on Background Data

X= 0.281
S= 0.383
CV= 1.361
K factor = 2.523**
TL= 1.247

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

Statistics on Transformed Background Data

X= -1.835
S= 0.938
CV= -0.511
K factor = 2.523**
TL= 0.532

Transformed Background Data from Upgradient Wells

Well Number:	MW369
Date Collected	LN(Result)
3/18/2002	0.000
4/22/2002	-2.207
7/15/2002	-2.207
7/8/2003	0.140
10/6/2003	-2.408
7/13/2004	-2.303
7/20/2005	-2.303
4/4/2006	-2.303
Well Number:	MW372
Date Collected	LN(Result)
3/19/2002	0.000
4/23/2002	-2.207
7/16/2002	-2.207
7/9/2003	-2.040
10/7/2003	-2.408
7/14/2004	-2.303
7/21/2005	-2.303
4/5/2006	-2.303

Fourth Quarter 2013 Data Collected in October 2013

Well No.	Result	Gradient	Result >TL?
MW357	0.100	Downgradient	N/A
MW360	0.100	Downgradient	N/A
MW363	0.130	Downgradient	N/A
MW366	0.100	Sidegradient	N/A
MW369	0.100	Upgradient	N/A
MW372	0.100	Upgradient	N/A

Transformed Fourth Quarter 2013 Data Collected in October 2013

Well Number	LN(Result)	Result >TL?
MW357	-2.303	NO
MW360	-2.303	NO
MW363	-2.040	NO
MW366	-2.303	NO
MW369	-2.303	NO
MW372	-2.303	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-U Fourth Quarter 2013 Statistical Analysis — URGA
pH — UNITS: Std Unit

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

Background Data from Upgradient Wells

Well Number:	MW369
Date Collected	Result
3/18/2002	6.100
4/22/2002	6.100
7/15/2002	6.100
10/8/2002	6.500
1/8/2003	6.500
4/3/2003	6.600
7/8/2003	6.500
10/6/2003	6.500

Well Number:	MW372
Date Collected	Result
3/19/2002	6.100
4/23/2002	6.120
7/16/2002	6.100
10/8/2002	6.060
1/7/2003	6.260
4/2/2003	6.150
7/9/2003	6.300
10/7/2003	6.400

Statistics on Background Data

X= 6.274
S= 0.194
CV= 0.031
K factor = 2.904**
TL= 6.837
LL= 5.711

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

Fourth Quarter 2013 Data Collected in October 2013

Well No.	Result	Gradient	Result <LL?
MW357	6.090	Downgradient	NO
MW360	6.200	Downgradient	NO
MW363	6.570	Downgradient	NO
MW366	6.170	Sidegradient	NO
MW369	6.140	Upgradient	NO
MW372	6.070	Upgradient	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-U Fourth Quarter 2013 Statistical Analysis — URGA
Potassium — UNITS: mg/L

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

Background Data from Upgradient Wells

Well Number:	MW369
Date Collected	Result
3/18/2002	2.000
4/22/2002	2.210
7/15/2002	2.000
10/8/2002	0.966
1/8/2003	0.727
4/3/2003	0.800
7/8/2003	1.620
10/6/2003	1.140

Well Number:	MW372
Date Collected	Result
3/19/2002	2.040
4/23/2002	2.030
7/16/2002	2.000
10/8/2002	1.540
1/7/2003	1.880
4/2/2003	2.090
7/9/2003	1.780
10/7/2003	1.790

Statistics on Background Data

X= 1.663
S= 0.488
CV= 0.293
K factor = 2.523**
TL= 2.895

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

Fourth Quarter 2013 Data Collected in October 2013

Well No.	Result	Gradient	Result >TL?
MW357	1.660	Downgradient	NO
MW360	0.742	Downgradient	NO
MW363	1.280	Downgradient	NO
MW366	1.750	Sidegradient	NO
MW369	0.519	Upgradient	NO
MW372	2.190	Upgradient	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-U Fourth Quarter 2013 Statistical Analysis URGA
Sodium UNITS: mg/L

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

Background Data from Upgradient Wells

Well Number:	MW369
Date Collected	Result
3/18/2002	35.700
4/22/2002	37.600
7/15/2002	42.400
10/8/2002	66.900
1/8/2003	67.900
4/3/2003	61.800
7/8/2003	45.600
10/6/2003	59.100

Well Number:	MW372
Date Collected	Result
3/19/2002	37.200
4/23/2002	38.600
7/16/2002	35.600
10/8/2002	37.500
1/7/2003	34.100
4/2/2003	34.400
7/9/2003	44.100
10/7/2003	43.100

Statistics on Background Data

X= 45.100
S= 11.875
CV= 0.263
K factor = 2.523**
TL= 75.061

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

Fourth Quarter 2013 Data Collected in October 2013

Well No.	Result	Gradient	Result >TL?
MW357	40.700	Downgradient	NO
MW360	67.900	Downgradient	NO
MW363	34.900	Downgradient	NO
MW366	41.700	Sidegradient	NO
MW369	52.600	Upgradient	NO
MW372	61.500	Upgradient	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-U Fourth Quarter 2013 Statistical Analysis URGA
Sulfate UNITS: mg/L

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

Background Data from Upgradient Wells

Well Number:	MW369
Date Collected	Result
3/18/2002	15.500
4/22/2002	15.800
7/15/2002	13.800
10/8/2002	6.900
1/8/2003	10.500
4/3/2003	10.500
7/8/2003	10.900
10/6/2003	16.300

Well Number:	MW372
Date Collected	Result
3/19/2002	71.700
4/23/2002	74.700
7/16/2002	74.100
10/8/2002	70.500
1/7/2003	75.800
4/2/2003	81.800
7/9/2003	83.600
10/7/2003	88.100

Statistics on Background Data

X= 45.031
S= 33.919
CV= 0.753
K factor = 2.523**
TL= 130.609

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

Fourth Quarter 2013 Data Collected in October 2013

Well No.	Result	Gradient	Result >TL?
MW357	57.000	Downgradient	NO
MW360	55.000	Downgradient	NO
MW363	20.000	Downgradient	NO
MW366	45.000	Sidegradient	NO
MW369	13.000	Upgradient	NO
MW372	150.00	Upgradient	**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

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-U Fourth Quarter 2013 Statistical Analysis — URGA
Technetium-99 — UNITS: pCi/L

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

Background Data from Upgradient Wells

Well Number:	MW369
Date Collected	Result
3/18/2002	41.700
4/22/2002	53.100
7/15/2002	18.100
10/8/2002	16.400
1/8/2003	3.490
4/3/2003	9.340
7/8/2003	17.500
10/6/2003	17.000

Well Number:	MW372
Date Collected	Result
3/19/2002	44.800
4/23/2002	0.802
7/16/2002	19.800
10/8/2002	46.100
1/7/2003	-0.973
4/2/2003	9.070
7/9/2003	0.000
10/7/2003	36.900

Statistics on Background Data

X= 20.821
S= 18.044
CV= 0.867
K factor = 2.523**
TL= 66.344

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

Fourth Quarter 2013 Data Collected in October 2013

Well No.	Result	Gradient	Result >TL?
MW357	39.500	Downgradient	NO
MW360	10.200	Downgradient	NO
MW363	17.900	Downgradient	NO
MW366	65.600	Sidegradient	NO
MW369	29.700	Upgradient	NO
MW372	176.00	Upgradient	**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

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-U Fourth Quarter 2013 Statistical Analysis — URGA
Total Organic Carbon (TOC) — UNITS: mg/L

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

Background Data from Upgradient Wells

Well Number:	MW369
Date Collected	Result
3/18/2002	1.700
4/22/2002	1.600
7/15/2002	3.100
10/8/2002	17.700
1/8/2003	9.000
4/3/2003	4.000
7/8/2003	4.900
10/6/2003	2.400
Well Number:	MW372
Date Collected	Result
3/19/2002	1.000
4/23/2002	1.200
7/16/2002	1.000
10/8/2002	1.000
1/7/2003	1.600
4/2/2003	1.500
7/9/2003	3.000
10/7/2003	1.500

Statistics on Background Data

X= 3.513
S= 4.307
CV= 1.226
K factor = 2.523**
TL= 14.378

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

Statistics on Transformed Background Data

X= 0.851
S= 0.828
CV= 0.973
K factor = 2.523**
TL= 2.940

Transformed Background Data from Upgradient Wells

Well Number:	MW369
Date Collected	LN(Result)
3/18/2002	0.531
4/22/2002	0.470
7/15/2002	1.131
10/8/2002	2.874
1/8/2003	2.197
4/3/2003	1.386
7/8/2003	1.589
10/6/2003	0.875
Well Number:	MW372
Date Collected	LN(Result)
3/19/2002	0.000
4/23/2002	0.182
7/16/2002	0.000
10/8/2002	0.000
1/7/2003	0.470
4/2/2003	0.405
7/9/2003	1.099
10/7/2003	0.405

Fourth Quarter 2013 Data Collected in October 2013

Well No.	Result	Gradient	Result >TL?
MW357	1.000	Downgradient	N/A
MW360	2.100	Downgradient	N/A
MW363	1.000	Downgradient	N/A
MW366	1.000	Sidegradient	N/A
MW369	1.300	Upgradient	N/A
MW372	1.100	Upgradient	N/A

Transformed Fourth Quarter 2013 Data Collected in October 2013

Well Number	LN(Result)	Result >TL?
MW357	0.000	NO
MW360	0.742	NO
MW363	0.000	NO
MW366	0.000	NO
MW369	0.262	NO
MW372	0.095	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-U Fourth Quarter 2013 Statistical Analysis URGA
Total Organic Halides (TOX) UNITS: ug/L

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

Background Data from Upgradient Wells

Well Number:	MW369
Date Collected	Result
3/18/2002	50.000
4/22/2002	50.000
7/15/2002	81.000
10/8/2002	202.000
1/8/2003	177.000
4/3/2003	93.100
7/8/2003	17.500
10/6/2003	37.500

Well Number:	MW372
Date Collected	Result
3/19/2002	184.000
4/23/2002	50.000
7/16/2002	50.000
10/8/2002	50.000
1/7/2003	10.000
4/2/2003	12.700
7/9/2003	10.000
10/7/2003	12.600

Statistics on Background Data

X= 67.963
S= 64.316
CV= 0.946
K factor = 2.523**
TL= 230.231

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

Fourth Quarter 2013 Data Collected in October 2013

Well No.	Result	Gradient	Result >TL?
MW357	15.000	Downgradient	NO
MW360	30.000	Downgradient	NO
MW363	9.600	Downgradient	NO
MW366	14.000	Sidegradient	NO
MW369	40.000	Upgradient	NO
MW372	20.000	Upgradient	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-U Fourth Quarter 2013 Statistical Analysis — LRGA
Boron — UNITS: mg/L

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

Background Data from Upgradient Wells

Well Number:	MW370
Date Collected	Result
3/17/2002	2.000
4/23/2002	2.000
7/15/2002	2.000
10/8/2002	0.200
1/8/2003	0.200
4/3/2003	0.200
7/9/2003	0.200
10/6/2003	0.200

Well Number:	MW373
Date Collected	Result
3/18/2002	2.000
4/23/2002	2.000
7/16/2002	2.000
10/8/2002	0.790
1/7/2003	0.807
4/2/2003	1.130
7/9/2003	1.280
10/7/2003	1.240

Statistics on Background Data

X= 1.140
S= 0.780
CV= 0.684
K factor = 2.523**
TL= 3.108

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

Fourth Quarter 2013 Data Collected in October 2013

Well No.	Result	Gradient	Result >TL?
MW358	0.381	Downgradient	NO
MW361	0.200	Downgradient	NO
MW364	0.200	Downgradient	NO
MW367	0.200	Sidegradient	NO
MW370	0.200	Upgradient	NO
MW373	1.770	Upgradient	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-U Fourth Quarter 2013 Statistical Analysis — LRGA
Calcium — UNITS: mg/L

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

Background Data from Upgradient Wells

Well Number:	MW370
Date Collected	Result
3/17/2002	34.800
4/23/2002	43.400
7/15/2002	33.200
10/8/2002	29.200
1/8/2003	31.300
4/3/2003	32.400
7/9/2003	22.900
10/6/2003	28.000

Well Number:	MW373
Date Collected	Result
3/18/2002	61.900
4/23/2002	59.200
7/16/2002	47.600
10/8/2002	46.100
1/7/2003	49.200
4/2/2003	57.800
7/9/2003	52.700
10/7/2003	64.900

Statistics on Background Data

X= 43.413
S= 13.444
CV= 0.310
K factor = 2.523**
TL= 77.331

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

Fourth Quarter 2013 Data Collected in October 2013

Well No.	Result	Gradient	Result >TL?
MW358	34.600	Downgradient	NO
MW361	30.400	Downgradient	NO
MW364	27.600	Downgradient	NO
MW367	15.100	Sidegradient	NO
MW370	27.600	Upgradient	NO
MW373	76.400	Upgradient	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-U Fourth Quarter 2013 Statistical Analysis — LRGA
Chloride — UNITS: mg/L

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

Background Data from Upgradient Wells

Well Number:	MW370
Date Collected	Result
7/15/2002	55.500
10/8/2002	53.600
1/8/2003	52.900
4/3/2003	53.600
7/9/2003	51.900
10/6/2003	53.000
1/7/2004	53.000
4/7/2004	51.600

Well Number:	MW373
Date Collected	Result
7/16/2002	40.600
10/8/2002	38.800
1/7/2003	39.000
4/2/2003	38.400
7/9/2003	38.100
10/7/2003	38.000
1/6/2004	37.900
4/7/2004	38.800

Statistics on Background Data

X= 45.919
S= 7.524
CV= 0.164
K factor = 2.523**
TL= 64.901

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

Fourth Quarter 2013 Data Collected in October 2013

Well No.	Result	Gradient	Result >TL?
MW358	34.000	Downgradient	NO
MW361	31.000	Downgradient	NO
MW364	31.000	Downgradient	NO
MW367	10.000	Sidegradient	NO
MW370	42.000	Upgradient	NO
MW373	44.000	Upgradient	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-U Fourth Quarter 2013 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:	MW370
Date Collected	Result
3/17/2002	0.025
4/23/2002	0.025
7/15/2002	0.025
10/8/2002	0.017
1/8/2003	0.011
4/3/2003	0.009
7/9/2003	0.137
10/6/2003	0.046
Well Number:	MW373
Date Collected	Result
3/18/2002	0.025
4/23/2002	0.034
7/16/2002	0.025
10/8/2002	0.004
1/7/2003	0.003
4/2/2003	0.004
7/9/2003	0.041
10/7/2003	0.008

Statistics on Background Data

X= 0.027
S= 0.032
CV= 1.165
K factor = 2.523**
TL= 0.108

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

Statistics on Transformed Background Data

X= -4.058
S= 1.011
CV= -0.249
K factor = 2.523**
TL= -1.507

Transformed Background Data from Upgradient Wells

Well Number:	MW370
Date Collected	LN(Result)
3/17/2002	-3.689
4/23/2002	-3.689
7/15/2002	-3.689
10/8/2002	-4.051
1/8/2003	-4.556
4/3/2003	-4.677
7/9/2003	-1.988
10/6/2003	-3.073
Well Number:	MW373
Date Collected	LN(Result)
3/18/2002	-3.689
4/23/2002	-3.381
7/16/2002	-3.689
10/8/2002	-5.494
1/7/2003	-5.672
4/2/2003	-5.605
7/9/2003	-3.206
10/7/2003	-4.776

Fourth Quarter 2013 Data Collected in October 2013

Well No.	Result	Gradient	Result >TL?
MW358	0.002	Downgradient	N/A
MW361	0.001	Downgradient	N/A
MW364	0.001	Downgradient	N/A
MW367	0.004	Sidegradient	N/A
MW370	0.001	Upgradient	N/A
MW373	0.001	Upgradient	N/A

Transformed Fourth Quarter 2013 Data Collected in October 2013

Well Number	LN(Result)	Result >TL?
MW358	-6.008	NO
MW361	-6.908	NO
MW364	-6.908	NO
MW367	-5.586	NO
MW370	-6.908	NO
MW373	-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-U Fourth Quarter 2013 Statistical Analysis — LRGA
Conductivity — UNITS: umho/cm

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

Background Data from Upgradient Wells

Well Number:	MW370
Date Collected	Result
3/17/2002	406.000
4/23/2002	543.000
7/15/2002	476.000
10/8/2002	441.000
1/8/2003	486.000
4/3/2003	466.000
7/9/2003	479.000
10/6/2003	435.000

Well Number:	MW373
Date Collected	Result
3/18/2002	661.000
4/23/2002	801.000
7/16/2002	774.000
10/8/2002	680.000
1/7/2003	686.500
4/2/2003	763.000
7/9/2003	828.000
10/7/2003	814.000

Statistics on Background Data

X= 608.719
S= 156.157
CV= 0.257
K factor = 2.523**
TL= 1002.702

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

Fourth Quarter 2013 Data Collected in October 2013

Well No.	Result	Gradient	Result >TL?
MW358	513.00	Downgradient	NO
MW361	463.00	Downgradient	NO
MW364	449.00	Downgradient	NO
MW367	297.00	Sidegradient	NO
MW370	430.00	Upgradient	NO
MW373	958.00	Upgradient	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-U Fourth Quarter 2013 Statistical Analysis LRGA
Dissolved Oxygen UNITS: mg/L

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

Background Data from Upgradient Wells

Well Number:	MW370
Date Collected	Result
3/17/2002	4.320
4/23/2002	1.240
7/15/2002	0.750
10/8/2002	0.940
1/8/2003	3.080
4/3/2003	1.450
7/9/2003	1.220
10/6/2003	1.070

Well Number:	MW373
Date Collected	Result
3/18/2002	3.040
4/23/2002	0.030
7/16/2002	0.230
10/8/2002	0.860
1/7/2003	0.210
4/2/2003	1.190
7/9/2003	1.100
10/7/2003	1.460

Statistics on Background Data

X= 1.387
S= 1.153
CV= 0.831
K factor = 2.523**
TL= 4.295

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

Fourth Quarter 2013 Data Collected in October 2013

Well No.	Result	Gradient	Result >TL?
MW358	0.590	Downgradient	NO
MW361	3.330	Downgradient	NO
MW364	2.980	Downgradient	NO
MW367	0.860	Sidegradient	NO
MW370	4.590	Upgradient	**YES**
MW373	1.150	Upgradient	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

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-U Fourth Quarter 2013 Statistical Analysis LRGA
Dissolved Solids UNITS: mg/L

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

Background Data from Upgradient Wells

Well Number:	MW370
Date Collected	Result
3/17/2002	236.000
4/23/2002	337.000
7/15/2002	266.000
10/8/2002	240.000
1/8/2003	282.000
4/3/2003	238.000
7/9/2003	248.000
10/6/2003	224.000

Well Number:	MW373
Date Collected	Result
3/18/2002	427.000
4/23/2002	507.000
7/16/2002	464.000
10/8/2002	408.000
1/7/2003	404.000
4/2/2003	450.000
7/9/2003	487.000
10/7/2003	481.000

Statistics on Background Data

X= 356.188
S= 106.752
CV= 0.300
K factor = 2.523**
TL= 625.523

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

Fourth Quarter 2013 Data Collected in October 2013

Well No.	Result	Gradient	Result >TL?
MW358	296.00	Downgradient	NO
MW361	270.00	Downgradient	NO
MW364	263.00	Downgradient	NO
MW367	155.00	Sidegradient	NO
MW370	240.00	Upgradient	NO
MW373	590.00	Upgradient	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-U Fourth Quarter 2013 Statistical Analysis — LRGA
Iron — UNITS: mg/L

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

Background Data from Upgradient Wells

Well Number:	MW370
Date Collected	Result
3/17/2002	9.340
4/23/2002	4.330
7/15/2002	3.520
10/8/2002	7.450
1/8/2003	7.040
4/3/2003	4.640
7/9/2003	15.800
10/6/2003	6.490

Well Number:	MW373
Date Collected	Result
3/18/2002	37.600
4/23/2002	19.000
7/16/2002	10.700
10/8/2002	3.750
1/7/2003	3.870
4/2/2003	3.500
7/9/2003	7.720
10/7/2003	2.930

Statistics on Background Data

X= 9.230
S= 8.841
CV= 0.958
K factor = 2.523**
TL= 31.535

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

Fourth Quarter 2013 Data Collected in October 2013

Well No.	Result	Gradient	Result >TL?
MW358	0.548	Downgradient	NO
MW361	0.100	Downgradient	NO
MW364	0.432	Downgradient	NO
MW367	13.200	Sidegradient	NO
MW370	0.100	Upgradient	NO
MW373	0.100	Upgradient	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-U Fourth Quarter 2013 Statistical Analysis — LRGA
Magnesium — UNITS: mg/L

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

Background Data from Upgradient Wells

Well Number:	MW370
Date Collected	Result
3/17/2002	12.100
4/23/2002	15.100
7/15/2002	12.400
10/8/2002	12.200
1/8/2003	11.500
4/3/2003	12.300
7/9/2003	10.000
10/6/2003	12.100

Well Number:	MW373
Date Collected	Result
3/18/2002	24.800
4/23/2002	22.700
7/16/2002	18.800
10/8/2002	21.100
1/7/2003	19.900
4/2/2003	25.500
7/9/2003	23.300
10/7/2003	26.900

Statistics on Background Data

X= 17.544
S= 5.911
CV= 0.337
K factor = 2.523**
TL= 32.458

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

Fourth Quarter 2013 Data Collected in October 2013

Well No.	Result	Gradient	Result >TL?
MW358	14.200	Downgradient	NO
MW361	12.300	Downgradient	NO
MW364	11.600	Downgradient	NO
MW367	7.290	Sidegradient	NO
MW370	11.100	Upgradient	NO
MW373	28.100	Upgradient	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-U Fourth Quarter 2013 Statistical Analysis — LRGA
Manganese — UNITS: mg/L

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

Background Data from Upgradient Wells

Well Number:	MW370
Date Collected	Result
3/17/2002	0.244
4/23/2002	1.820
7/15/2002	1.220
10/8/2002	0.988
1/8/2003	0.729
4/3/2003	0.637
7/9/2003	2.510
10/6/2003	1.050

Well Number:	MW373
Date Collected	Result
3/18/2002	0.355
4/23/2002	2.160
7/16/2002	1.390
10/8/2002	0.717
1/7/2003	0.587
4/2/2003	0.545
7/9/2003	1.760
10/7/2003	0.570

Statistics on Background Data

X= 1.080
S= 0.674
CV= 0.624
K factor = 2.523**
TL= 2.780

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

Fourth Quarter 2013 Data Collected in October 2013

Well No.	Result	Gradient	Result >TL?
MW358	0.173	Downgradient	NO
MW361	0.007	Downgradient	NO
MW364	0.044	Downgradient	NO
MW367	1.710	Sidegradient	NO
MW370	0.005	Upgradient	NO
MW373	0.062	Upgradient	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-U Fourth Quarter 2013 Statistical Analysis — LRGA
Oxidation-Reduction Potential — UNITS: mV

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

Background Data from Upgradient Wells

Well Number:	MW370
Date Collected	Result
3/17/2002	140.000
4/23/2002	-15.000
7/15/2002	5.000
4/3/2003	49.000
7/9/2003	-35.000
10/6/2003	40.000
1/7/2004	101.000
4/7/2004	105.000
Well Number:	MW373
Date Collected	Result
3/18/2002	140.000
4/23/2002	-20.000
10/8/2002	10.000
1/7/2003	10.000
4/2/2003	67.000
7/9/2003	-29.000
10/7/2003	127.000
1/6/2004	52.000

Statistics on Background Data

X= 46.688
S= 60.986
CV= 1.306
K factor = 2.523**
TL= 200.555

Because CV is 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 = 2.523**
TL# = 4.942

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:	MW370
Date Collected	LN(Result)
3/17/2002	4.942
4/23/2002	#Func!
7/15/2002	1.609
4/3/2003	3.892
7/9/2003	#Func!
10/6/2003	3.689
1/7/2004	4.615
4/7/2004	4.654
Well Number:	MW373
Date Collected	LN(Result)
3/18/2002	4.942
4/23/2002	#Func!
10/8/2002	2.303
1/7/2003	2.303
4/2/2003	4.205
7/9/2003	#Func!
10/7/2003	4.844
1/6/2004	3.951

Fourth Quarter 2013 Data Collected in October 2013

Well No.	Result	Gradient	Result >TL?
MW358	488.000	Downgradient	N/A
MW361	538.000	Downgradient	N/A
MW364	358.000	Downgradient	N/A
MW367	380.000	Sidegradient	N/A
MW370	811.000	Upgradient	N/A
MW373	627.000	Upgradient	N/A

Transformed Fourth Quarter 2013 Data Collected in October 2013

Well Number	LN(Result)	Result >TL?
MW358	6.190	**YES**
MW361	6.288	**YES**
MW364	5.881	**YES**
MW367	5.940	**YES**
MW370	6.698	**YES**
MW373	6.441	**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.

MW358

MW361

MW364

MW367

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-U Fourth Quarter 2013 Statistical Analysis Oxidation-Reduction Potential (Continued)	LRGA UNITS: mV

MW370
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-U Fourth Quarter 2013 Statistical Analysis — LRGA
pH — UNITS: Std Unit

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

Background Data from Upgradient Wells

Well Number:	MW370
Date Collected	Result
3/17/2002	6.300
4/23/2002	6.400
7/15/2002	6.300
10/8/2002	6.300
1/8/2003	6.400
4/3/2003	6.500
7/9/2003	6.300
10/6/2003	6.500

Well Number:	MW373
Date Collected	Result
3/18/2002	6.000
4/23/2002	6.300
7/16/2002	6.450
10/8/2002	6.180
1/7/2003	6.350
4/2/2003	6.140
7/9/2003	6.100
10/7/2003	6.000

Statistics on Background Data

X= 6.283
S= 0.159
CV= 0.025
K factor = 2.904**
TL= 6.745
LL= 5.820

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

Fourth Quarter 2013 Data Collected in October 2013

Well No.	Result	Gradient	Result <LL?
MW358	6.100	Downgradient	NO
MW361	6.060	Downgradient	NO
MW364	6.470	Downgradient	NO
MW367	6.200	Sidegradient	NO
MW370	6.090	Upgradient	NO
MW373	6.080	Upgradient	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-U Fourth Quarter 2013 Statistical Analysis — LRGA
Potassium — UNITS: mg/L

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

Background Data from Upgradient Wells

Well Number:	MW370
Date Collected	Result
3/17/2002	3.220
4/23/2002	3.430
7/15/2002	2.980
10/8/2002	2.460
1/8/2003	2.410
4/3/2003	2.430
7/9/2003	2.440
10/6/2003	2.480

Well Number:	MW373
Date Collected	Result
3/18/2002	4.340
4/23/2002	3.040
7/16/2002	2.930
10/8/2002	2.300
1/7/2003	2.450
4/2/2003	2.700
7/9/2003	2.680
10/7/2003	2.880

Statistics on Background Data

X= 2.823
S= 0.522
CV= 0.185
K factor = 2.523**
TL= 4.139

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

Fourth Quarter 2013 Data Collected in October 2013

Well No.	Result	Gradient	Result >TL?
MW358	2.270	Downgradient	NO
MW361	2.370	Downgradient	NO
MW364	1.870	Downgradient	NO
MW367	2.430	Sidegradient	NO
MW370	2.410	Upgradient	NO
MW373	2.840	Upgradient	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-U Fourth Quarter 2013 Statistical Analysis — LRGA
Sodium — UNITS: mg/L

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

Background Data from Upgradient Wells

Well Number:	MW370
Date Collected	Result
3/17/2002	31.800
4/23/2002	50.000
7/15/2002	44.700
10/8/2002	40.000
1/8/2003	44.600
4/3/2003	41.900
7/9/2003	40.000
10/6/2003	38.100

Well Number:	MW373
Date Collected	Result
3/18/2002	43.400
4/23/2002	79.800
7/16/2002	87.700
10/8/2002	61.600
1/7/2003	59.300
4/2/2003	62.100
7/9/2003	50.100
10/7/2003	49.600

Statistics on Background Data

X= 51.544
S= 15.227
CV= 0.295
K factor = 2.523**
TL= 89.962

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

Fourth Quarter 2013 Data Collected in October 2013

Well No.	Result	Gradient	Result >TL?
MW358	40.900	Downgradient	NO
MW361	42.600	Downgradient	NO
MW364	40.500	Downgradient	NO
MW367	17.500	Sidegradient	NO
MW370	37.800	Upgradient	NO
MW373	66.000	Upgradient	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-U Fourth Quarter 2013 Statistical Analysis — LRGA
Sulfate — UNITS: mg/L

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

Background Data from Upgradient Wells

Well Number:	MW370
Date Collected	Result
3/17/2002	17.400
4/23/2002	37.900
7/15/2002	15.700
10/8/2002	13.400
1/8/2003	14.400
4/3/2003	18.100
7/9/2003	9.600
10/6/2003	16.500
Well Number:	MW373
Date Collected	Result
3/18/2002	163.300
4/23/2002	809.600
7/16/2002	109.400
10/8/2002	110.600
1/7/2003	113.700
4/2/2003	133.000
7/9/2003	182.100
10/7/2003	193.400

Statistics on Background Data

X= 122.381
S= 195.095
CV= 1.594
K factor = 2.523**
TL= 614.606

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

Statistics on Transformed Background Data

X= 3.985
S= 1.323
CV= 0.332
K factor = 2.523**
TL= 7.322

Transformed Background Data from Upgradient Wells

Well Number:	MW370
Date Collected	LN(Result)
3/17/2002	2.856
4/23/2002	3.635
7/15/2002	2.754
10/8/2002	2.595
1/8/2003	2.667
4/3/2003	2.896
7/9/2003	2.262
10/6/2003	2.803
Well Number:	MW373
Date Collected	LN(Result)
3/18/2002	5.096
4/23/2002	6.697
7/16/2002	4.695
10/8/2002	4.706
1/7/2003	4.734
4/2/2003	4.890
7/9/2003	5.205
10/7/2003	5.265

Fourth Quarter 2013 Data Collected in October 2013

Well No.	Result	Gradient	Result >TL?
MW358	85.000	Downgradient	N/A
MW361	73.000	Downgradient	N/A
MW364	61.000	Downgradient	N/A
MW367	25.000	Sidegradient	N/A
MW370	19.000	Upgradient	N/A
MW373	210.000	Upgradient	N/A

Transformed Fourth Quarter 2013 Data Collected in October 2013

Well Number	LN(Result)	Result >TL?
MW358	4.443	NO
MW361	4.290	NO
MW364	4.111	NO
MW367	3.219	NO
MW370	2.944	NO
MW373	5.347	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-U Fourth Quarter 2013 Statistical Analysis — LRGA
Technetium-99 — UNITS: pCi/L

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

Background Data from Upgradient Wells

Well Number:	MW370
Date Collected	Result
3/17/2002	10.800
4/23/2002	8.530
7/15/2002	5.090
10/8/2002	4.780
1/8/2003	-5.120
4/3/2003	5.110
7/9/2003	4.250
10/6/2003	6.540
Well Number:	MW373
Date Collected	Result
3/18/2002	16.500
4/23/2002	3.490
7/16/2002	1.420
10/8/2002	-6.060
1/7/2003	-8.410
4/2/2003	26.300
7/9/2003	3.060
10/7/2003	46.200

Statistics on Background Data

X= 7.655
S= 13.274
CV= 1.734
K factor = 2.523**
TL= 41.146

Because CV is 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 = 2.523**
TL# = 3.833

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:	MW370
Date Collected	LN(Result)
3/17/2002	2.380
4/23/2002	2.144
7/15/2002	1.627
10/8/2002	1.564
1/8/2003	#Func!
4/3/2003	1.631
7/9/2003	1.447
10/6/2003	1.878
Well Number:	MW373
Date Collected	LN(Result)
3/18/2002	2.803
4/23/2002	1.250
7/16/2002	0.351
10/8/2002	#Func!
1/7/2003	#Func!
4/2/2003	3.270
7/9/2003	1.118
10/7/2003	3.833

Fourth Quarter 2013 Data Collected in October 2013

Well No.	Result	Gradient	Result >TL?
MW358	43.000	Downgradient	N/A
MW361	53.400	Downgradient	N/A
MW364	49.100	Downgradient	N/A
MW367	-0.345	Sidegradient	N/A
MW370	27.900	Upgradient	N/A
MW373	59.900	Upgradient	N/A

Transformed Fourth Quarter 2013 Data Collected in October 2013

Well Number	LN(Result)	Result >TL?
MW358	3.761	NO
MW361	3.978	**YES**
MW364	3.894	**YES**
MW367	Error#	NO
MW370	3.329	NO
MW373	4.093	**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.
MW361
MW364
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-U Fourth Quarter 2013 Statistical Analysis — LRGA
Total Organic Carbon (TOC) — UNITS: mg/L

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

Background Data from Upgradient Wells

Well Number:	MW370
Date Collected	Result
3/17/2002	1.200
4/23/2002	4.300
7/15/2002	2.600
10/8/2002	2.300
1/8/2003	3.000
4/3/2003	1.200
7/9/2003	2.600
10/6/2003	1.700
Well Number:	MW373
Date Collected	Result
3/18/2002	1.100
4/23/2002	17.500
7/16/2002	49.000
10/8/2002	2.900
1/7/2003	3.900
4/2/2003	2.500
7/9/2003	1.700
10/7/2003	1.200

Statistics on Background Data

X= 6.169
S= 12.072
CV= 1.957
K factor = 2.523**
TL= 36.626

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

Statistics on Transformed Background Data

X= 1.069
S= 1.014
CV= 0.948
K factor = 2.523**
TL= 3.626

Transformed Background Data from Upgradient Wells

Well Number:	MW370
Date Collected	LN(Result)
3/17/2002	0.182
4/23/2002	1.459
7/15/2002	0.956
10/8/2002	0.833
1/8/2003	1.099
4/3/2003	0.182
7/9/2003	0.956
10/6/2003	0.531
Well Number:	MW373
Date Collected	LN(Result)
3/18/2002	0.095
4/23/2002	2.862
7/16/2002	3.892
10/8/2002	1.065
1/7/2003	1.361
4/2/2003	0.916
7/9/2003	0.531
10/7/2003	0.182

Fourth Quarter 2013 Data Collected in October 2013

Well No.	Result	Gradient	Result >TL?
MW358	1.000	Downgradient	N/A
MW361	1.000	Downgradient	N/A
MW364	1.000	Downgradient	N/A
MW367	1.000	Sidegradient	N/A
MW370	1.000	Upgradient	N/A
MW373	1.100	Upgradient	N/A

Transformed Fourth Quarter 2013 Data Collected in October 2013

Well Number	LN(Result)	Result >TL?
MW358	0.000	NO
MW361	0.000	NO
MW364	0.000	NO
MW367	0.000	NO
MW370	0.000	NO
MW373	0.095	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-U Fourth Quarter 2013 Statistical Analysis LRGA
Total Organic Halides (TOX) UNITS: ug/L

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

Background Data from Upgradient Wells

Well Number:	MW370
Date Collected	Result
3/17/2002	50.000
4/23/2002	228.000
7/15/2002	88.000
10/8/2002	58.000
1/8/2003	72.400
4/3/2003	26.600
7/9/2003	16.400
10/6/2003	31.100

Well Number:	MW373
Date Collected	Result
3/18/2002	50.000
4/23/2002	276.000
7/16/2002	177.000
10/8/2002	76.000
1/7/2003	45.900
4/2/2003	57.800
7/9/2003	10.000
10/7/2003	13.900

Statistics on Background Data

X= 79.819
S= 78.470
CV= 0.983
K factor = 2.523**
TL= 277.798

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

Fourth Quarter 2013 Data Collected in October 2013

Well No.	Result	Gradient	Result >TL?
MW358	20.000	Downgradient	NO
MW361	20.000	Downgradient	NO
MW364	12.000	Downgradient	NO
MW367	18.000	Sidegradient	NO
MW370	13.000	Upgradient	NO
MW373	18.000	Upgradient	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

January 29, 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 both a senior chemist with LATA as well as C. Travis Debnam, the project geologist responsible for the previous generation of these statistics.

For this project, the statistical analyses conducted on the fourth quarter 2013 monitoring well data collected from the C-746-S&T and C-746-U Landfills were performed in accordance with guidance provided in the U.S. Environmental Protection Agency guidance document, *EPA Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities, Interim Final Guidance* (1989). For pH, an additional lower tolerance interval was established. For pH only, the test well data was compared to both the upper and lower tolerance intervals to determine if statistically significant deviations in concentration with respect to upgradient well exist.

Sincerely,

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

Determination of groundwater flow rate and direction of flow in the uppermost aquifer whenever the monitoring wells (MWs) are sampled is a requirement of 401 *KAR* 48.300, Section 11. The uppermost aquifer below C-746-U Landfill 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 fourth quarter 2013 and determine groundwater flow rate and direction.

Water levels during this reporting period were measured on October 23, 2013. As shown on Figure E.1, all Upper Continental Recharge System (UCRS) wells had sufficient water to permit water level measurement during this reporting period. Many UCRS wells (MW359, MW365, MW368, MW376, and MW377) had insufficient water to permit sampling.

The UCRS has a strong vertical hydraulic gradient; therefore, the available UCRS wells screened over different elevations are not sufficient for mapping the potentiometric surface. As shown in Table E.1, the RGA data were converted to elevations to plot the potentiometric surfaces within the Upper Regional Gravel Aquifer (URGA) and Lower Regional Gravel Aquifer (LRGA). (At the request of the Commonwealth of Kentucky, the RGA is differentiated into two zones, the URGA and LRGA.) Based on the potentiometric maps (Figures E.2 and E.3), the hydraulic gradient for both the URGA and LRGA at the C-746-U Landfill was 7.20×10^{-4} ft/ft. 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), along with the C-746-S&T Landfill wells, were used to contour the general RGA potentiometric surface (Figure E.4). The hydraulic gradient for the RGA, as a whole, in the vicinity of the C-746-U Landfill was 5.03×10^{-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 Solid Waste Landfill Permit No. 073-00045 and range from 425 to 725 ft/day (0.150 to 0.256 cm/s). RGA (both URGA and LRGA) effective porosity is assumed to be 25%. Flow velocities were calculated for the URGA and LRGA using the low and high values for hydraulic conductivity, as shown in the Table E.3.

Groundwater flow beneath the C-746-U Landfill typically trends northeastward toward the Ohio River. In October, groundwater flow was northeastward with the regional flow.

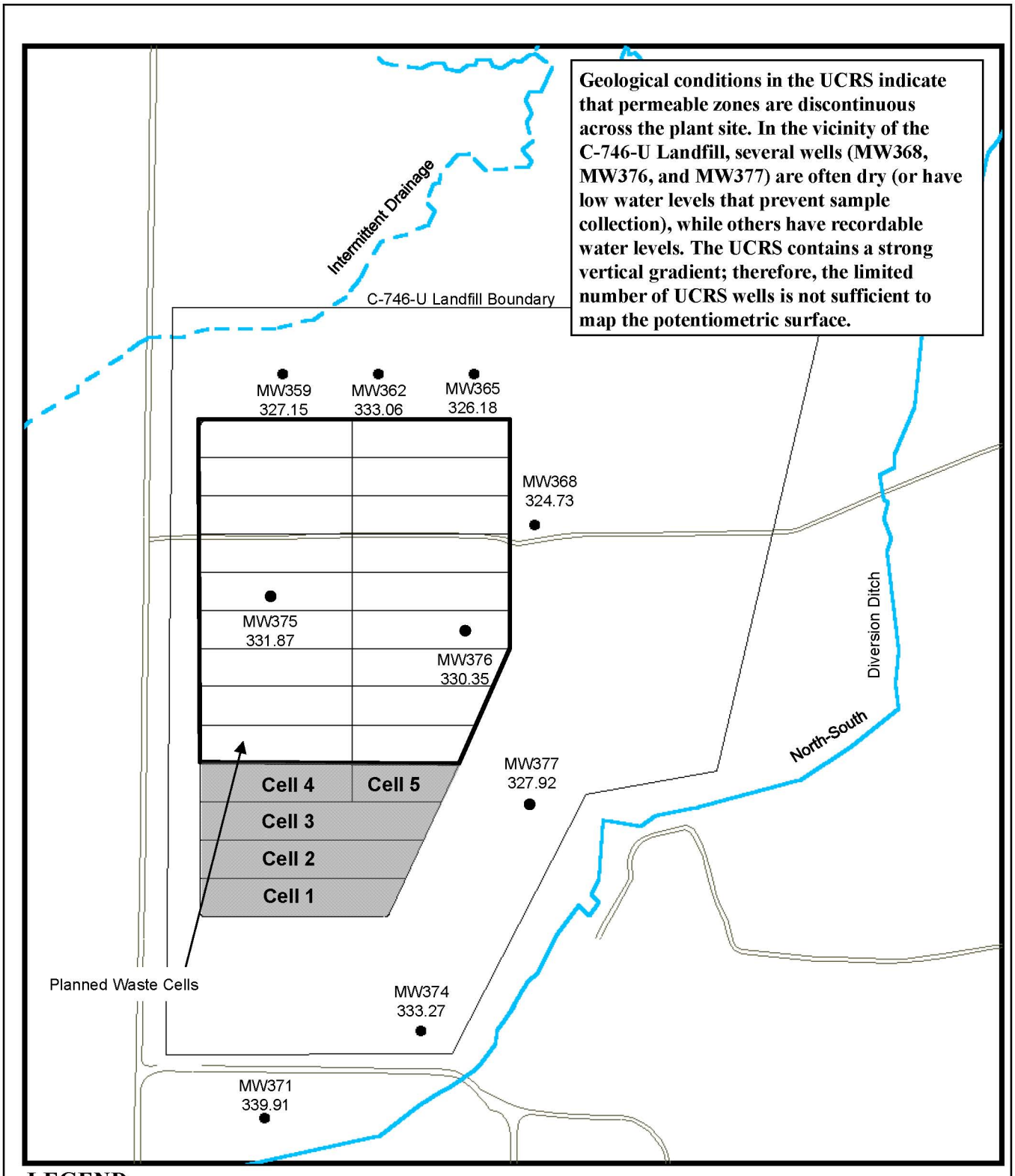

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Figure E.1. Potentiometric Surface of the Upper Continental Recharge System at the C-746-U Landfill, October 23, 2013

Table E.1. C-746-U Landfill Fourth Quarter 2013 (October) Water Levels

C-746-U Landfill (October 2013) Water Levels										
							Raw Data		*Corrected Data	
Date	Time	Well	Aquifer	Datum Elev (ft amsl)	BP (in Hg)	Delta BP (ft H20)	DTW (ft)	Elev (ft amsl)	DTW (ft)	Elev (ft amsl)
10/23/2013	7:46	MW357	URGA	368.90	30.05	0.05	46.71	322.19	46.76	322.14
10/23/2013	7:48	MW358	LRGA	369.05	30.05	0.05	46.88	322.17	46.93	322.12
10/23/2013	7:47	MW359	UCRS	369.07	30.05	0.05	41.87	327.20	41.92	327.15
10/23/2013	7:44	MW360	URGA	362.20	30.05	0.05	40.03	322.17	40.08	322.12
10/23/2013	7:42	MW361	LRGA	361.47	30.05	0.05	39.30	322.17	39.35	322.12
10/23/2013	7:43	MW362	UCRS	361.95	30.05	0.05	28.84	333.11	28.89	333.06
10/23/2013	7:51	MW363	URGA	368.68	30.05	0.05	46.62	322.06	46.67	322.01
10/23/2013	7:53	MW364	LRGA	367.63	30.05	0.05	45.59	322.04	45.64	321.99
10/23/2013	7:52	MW365	UCRS	368.27	30.05	0.05	42.04	326.23	42.09	326.18
10/23/2013	7:58	MW366	URGA	369.06	30.09	0.00	46.83	322.23	46.83	322.23
10/23/2013	7:56	MW367	LRGA	369.45	30.09	0.00	47.27	322.18	47.27	322.18
10/23/2013	7:57	MW368	UCRS	369.14	30.09	0.00	44.41	324.73	44.41	324.73
10/23/2013	8:32	MW369	URGA	364.28	30.09	0.00	40.88	323.40	40.88	323.40
10/23/2013	8:34	MW370	LRGA	365.15	30.09	0.00	41.75	323.40	41.75	323.40
10/23/2013	8:33	MW371	UCRS	364.71	30.09	0.00	24.80	339.91	24.80	339.91
10/23/2013	8:28	MW372	URGA	359.49	30.09	0.00	36.07	323.42	36.07	323.42
10/23/2013	8:30	MW373	LRGA	359.79	30.09	0.00	36.40	323.39	36.40	323.39
10/23/2013	8:29	MW374	UCRS	359.50	30.09	0.00	26.23	333.27	26.23	333.27
10/23/2013	8:23	MW375	UCRS	370.24	30.09	0.00	38.37	331.87	38.37	331.87
10/23/2013	8:21	MW376	UCRS	370.44	30.09	0.00	40.09	330.35	40.09	330.35
10/23/2013	8:17	MW377	UCRS	365.76	30.09	0.00	37.84	327.92	37.84	327.92

Initial Barometric Pressure **30.09**

Elev = elevation

amsl = above mean sea level

BP = barometric pressure

DTW = depth to water in feet below datum

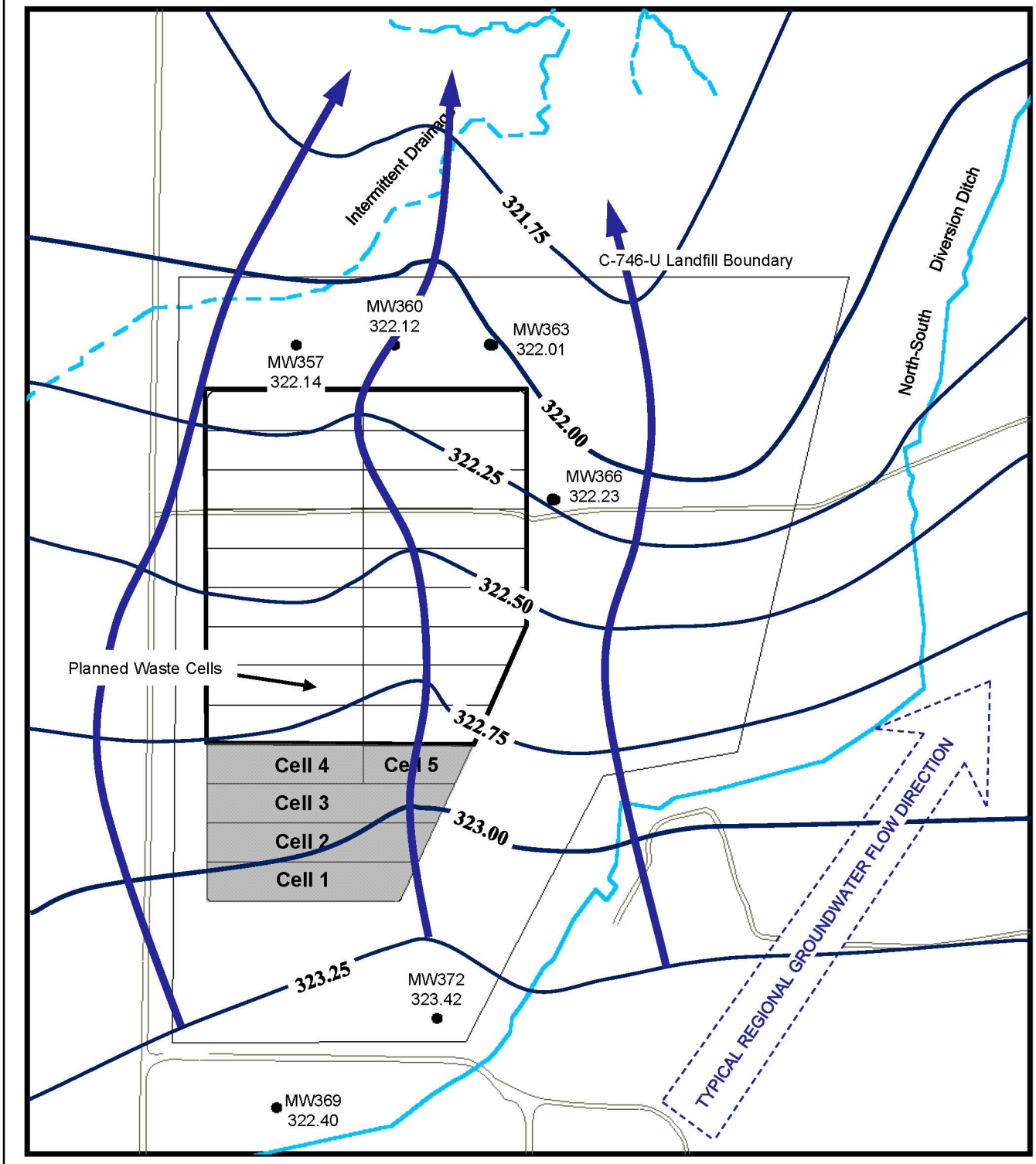
URGA = Upper Regional Gravel Aquifer

LRGA = Lower Regional Gravel Aquifer

UCRS = Upper Continental Recharge System

ND = No Data acquired

*Assumes a barometric efficiency of 1.0



LEGEND

400 0 400 Feet

Contour Interval = 0.25 ft

Groundwater Flow Direction

324.50 Potentiometric Surface Contour

20° True North Plant North

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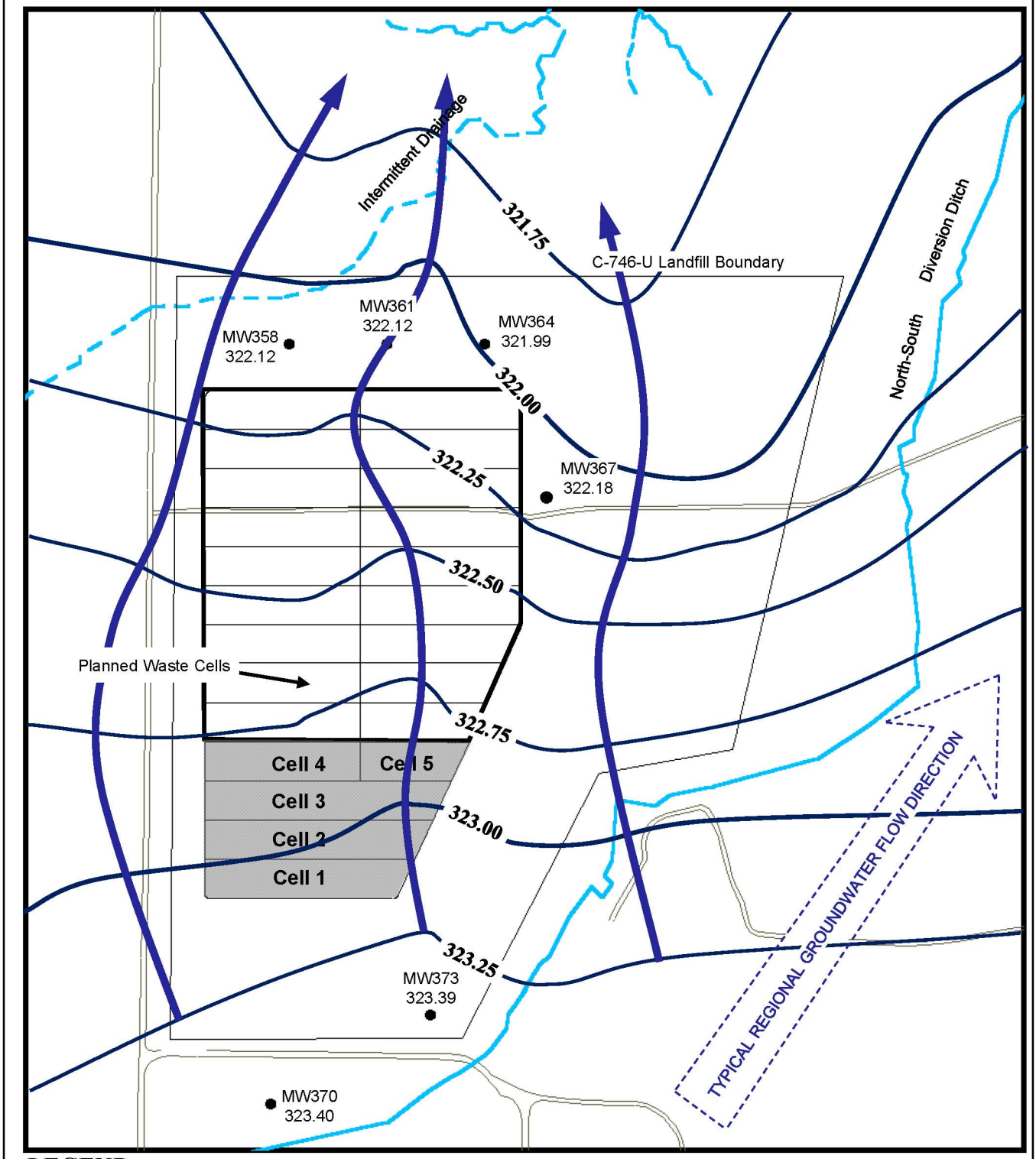
Figure E.2. Potentiometric Surface of the Upper Regional Gravel Aquifer at the C-746-U Landfill, October 23, 2013



LEGEND

400 0 400 Feet

Contour Interval = 0.25 ft

Groundwater Flow Direction

324.50 Potentiometric Surface Contour

20° True North Plant North

Figure E.3. Potentiometric Surface of the Lower Regional Gravel Aquifer at the C-746-U Landfill, October 23, 2013

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PADUCAH GASEOUS DIFFUSION PLANT

LATA Environmental Services of Kentucky, LLC

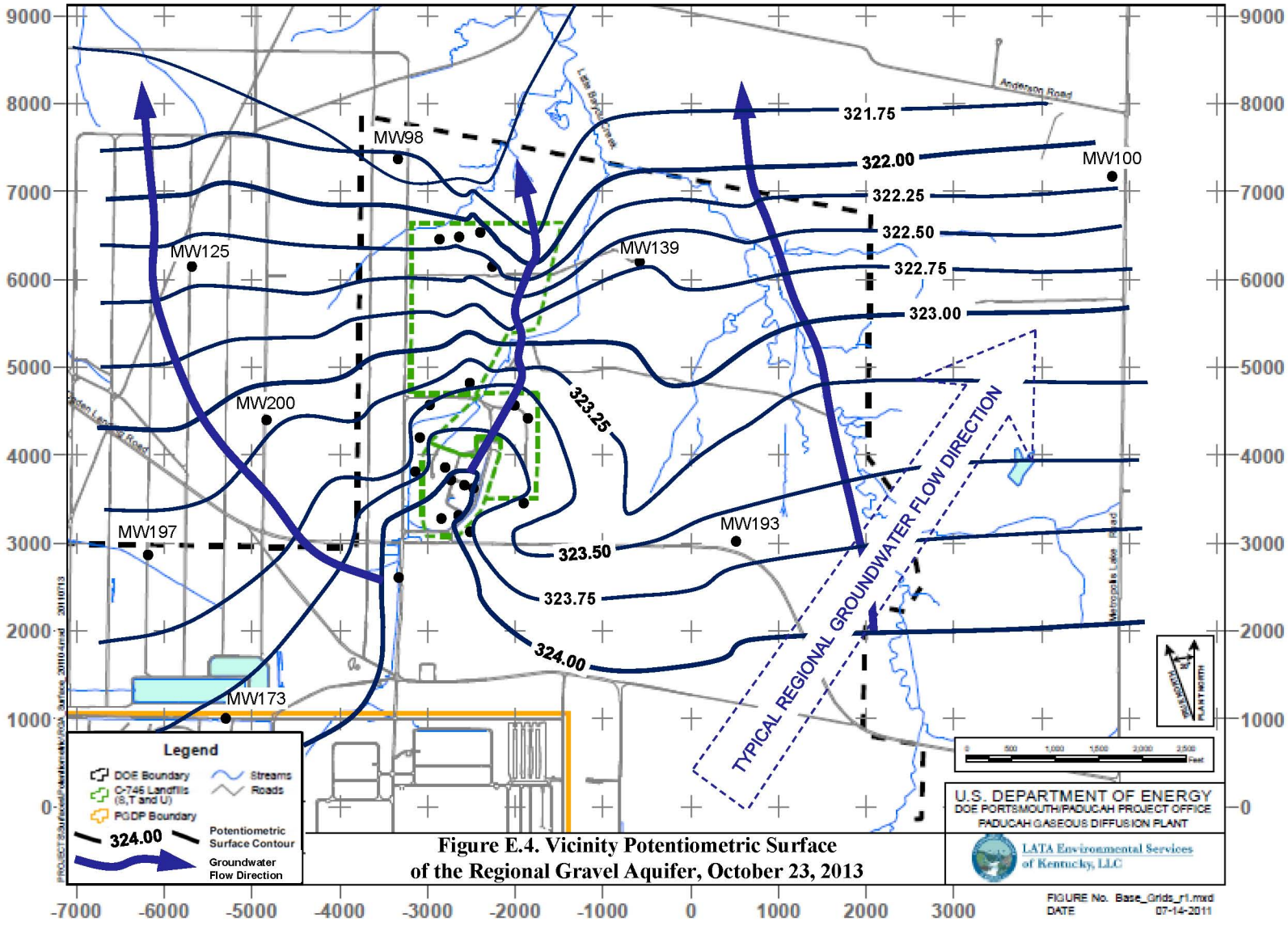

Figure E.4. Vicinity Potentiometric Surface of the Regional Gravel Aquifer, October 23, 2013

Table E.2. C-746-U Landfill Hydraulic Gradients

	ft/ft
Beneath Landfill—Upper RGA	7.20×10^{-4}
Beneath Landfill—Lower RGA	7.20×10^{-4}
Vicinity	5.03×10^{-4}

Table E.3. C-746-U Landfill 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
Upper RGA					
725	0.256	0.52	1.84×10^{-4}	2.09	7.37×10^{-4}
425	0.150	0.31	1.08×10^{-4}	1.22	4.32×10^{-4}
Lower RGA					
725	0.256	0.52	1.84×10^{-4}	2.09	7.37×10^{-4}
425	0.150	0.31	1.08×10^{-4}	1.22	4.32×10^{-4}

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APPENDIX F

NOTIFICATIONS

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NOTIFICATIONS

In accordance with 401 *KAR* 48:300, Section 7, the notification for parameters that exceed the maximum contaminant level (MCL) has been submitted to the Kentucky Division of Waste Management. The notification for parameters that had statistically significant increased concentrations relative to background concentrations is provided below.

Statistical Analysis of Parameters Notification

The statistical analyses conducted on the fourth quarter 2013 groundwater data collected from the C-746-U Landfill monitoring wells (MW) were performed in accordance with Permit Condition GSTR0001, Standard Requirement 3, using the U.S. Environmental Protection Agency guidance document, *EPA Statistical Analysis of Ground-Water Monitoring Data at RCRA Facilities, Interim Final Guidance* (1989), with the exception of pH. The method for conducting the statistical analysis of pH was selected by the project statistician.

The following are the parameters in 40 *CFR* § 302.4, Appendix A, which had statistically significant increased concentrations relative to background concentrations.

Parameter	Monitoring Well
Upper Continental Recharge System	
None	
Upper Regional Gravel Aquifer	
Technetium-99	MW372
Lower Regional Gravel Aquifer	
Technetium-99	MW361, MW364, MW373

NOTE: Although technetium-99 is not cited in 40 *CFR* § 302.4, Appendix A, this radionuclide is being reported along with the parameters of this regulation.

MCL Notification

A notification was submitted for parameters that exceeded the MCL. The parameters submitted are listed on the following page.

11/18/2013

LATA Environmental Services of Kentucky
PROJECT ENVIRONMENTAL MEASUREMENTS SYSTEM
C-746-U LANDFILL
PERMIT NUMBER 073-00045
MAXIMUM CONTAMINANT LIMIT (MCL) EXCEEDANCE REPORT
Quarterly Groundwater Sampling

AKGWA	Station	Analysis	Method	Results	Units	MCL
8004-4798	MW357	Trichloroethene	8260B/OA7302E	5.6	ug/L	5
8004-4799	MW358	Trichloroethene	8260B/OA7302E	5.1	ug/L	5
8004-4808	MW372	Beta activity	9310/RL7111	131	pCi/L	50
		Trichloroethene	8260B/OA7302E	6.5	ug/L	5
8004-4792	MW373	Trichloroethene	8260B/OA7302E	6.8	ug/L	5

NOTE 1: These limits are defined in 401 KAR 47:030.

NOTE 2: MW370, MW372, and MW373 are down-gradient wells for the C-746-S and C-746-T Landfills and upgradient for the the C-746-U Landfill. These wells are sampled with the C-746-U Landfill monitoring well network. These wells are reported on the exceedance reports for C-746-S, C-746-T, and C-746-U.

APPENDIX G

CHART OF MCL EXCEEDANCES AND STATISTICALLY SIGNIFICANT INCREASES

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Chart of MCL Exceedances and Statistical Increases for C-746-U Contained Landfill

Groundwater Flow System	UCRS									URGA						LRGA					
Gradient	S	S	S	S	D	D	D	U	U	S	D	D	D	U	U	S	D	D	D	U	U
Monitoring Well	368	375	376	377	359	362	365	371	374	366	360	363	357	369	372	367	361	364	358	370	373
ACETONE																					
Quarter 3, 2002										*	*	*									
Quarter 4, 2002										*	*	*									
Quarter 1, 2003											*	*									
Quarter 2, 2003											*	*									
Quarter 3, 2003	*						*			*	*	*			*			*			
Quarter 4, 2003						*	*				*			*							
Quarter 3, 2004						*										*					
Quarter 3, 2005						*															
Quarter 4, 2005						*															
ALPHA ACTIVITY																					
Quarter 1, 2004																					■
Quarter 2, 2004						■															
Quarter 3, 2009						■															
ALUMINUM																					
Quarter 3, 2003											*										
BETA ACTIVITY																					
Quarter 1, 2004															■						
Quarter 2, 2004															■						■
Quarter 3, 2004															■						
Quarter 4, 2004															■						
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 4, 2011															■						
Quarter 1, 2012										■											
Quarter 2, 2012										■								■			
Quarter 3, 2012										■					■						
Quarter 4, 2012															■						■

Chart of MCL Exceedances and Statistical Increases for C-746-U Contained Landfill

Groundwater Flow System	UCRS									URGA						LRGA					
Gradient	S	S	S	S	D	D	D	U	U	S	D	D	D	U	U	S	D	D	D	U	U
Monitoring Well	368	375	376	377	359	362	365	371	374	366	360	363	357	369	372	367	361	364	358	370	373
Quarter 1, 2013															■						■
Quarter 3, 2013															■						■
Quarter 4, 2013															■						
BROMIDE																					
Quarter 2, 2004													✱								
CALCIUM																					
Quarter 3, 2003										✱											
Quarter 2, 2005																					✱
Quarter 3, 2006															✱						
Quarter 2, 2008															✱						
Quarter 3, 2009															✱						
Quarter 4, 2009															✱						
Quarter 1, 2010															✱						
Quarter 2, 2010															✱						
Quarter 3, 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															✱						
CARBON DISULFIDE																					
Quarter 3, 2003										✱											
Quarter 2, 2005							✱														
Quarter 3, 2005						✱															
Quarter 4, 2005						✱															
Quarter 1, 2006						✱															
Quarter 2, 2006						✱															
Quarter 3, 2010		✱									✱										
Quarter 4, 2010														✱							
Quarter 1, 2011															✱						
CHEMICAL OXYGEN DEMAND																					
Quarter 3, 2002										✱	✱	✱	✱	✱	✱						
Quarter 4, 2002										✱	✱										
Quarter 1, 2003										✱	✱										
Quarter 2, 2003										✱	✱	✱									
Quarter 3, 2003	✱									✱	✱					✱					
Quarter 4, 2003						✱				✱	✱										
Quarter 3, 2004										✱											
Quarter 3, 2005						✱				✱					✱	✱			✱		
Quarter 4, 2005						✱												✱	✱		
Quarter 1, 2006																			✱		

Chart of MCL Exceedances and Statistical Increases for C-746-U Contained Landfill

Groundwater Flow System	UCRS									URGA						LRGA					
Gradient	S	S	S	S	D	D	D	U	U	S	D	D	D	U	U	S	D	D	D	U	U
Monitoring Well	368	375	376	377	359	362	365	371	374	366	360	363	357	369	372	367	361	364	358	370	373
CHLORIDE																					
Quarter 1, 2006																				*	
COBALT																					
Quarter 3, 2003	*						*			*	*		*	*	*	*	*	*		*	
Quarter 1, 2004														*							
CONDUCTIVITY																					
Quarter 4, 2002										*											
Quarter 1, 2003										*											
Quarter 2, 2003										*	*										
Quarter 4, 2003										*											
Quarter 1, 2004										*											
Quarter 2, 2004										*											
Quarter 3, 2004										*											
Quarter 1, 2005															*						
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Quarter 3, 2005						*													*		
Quarter 4, 2005															*			*			
Quarter 1, 2006															*						
Quarter 2, 2006															*						
Quarter 3, 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															*						
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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-U Contained Landfill

Groundwater Flow System	UCRS									URGA						LRGA					
Gradient	S	S	S	S	D	D	D	U	U	S	D	D	D	U	U	S	D	D	D	U	U
Monitoring Well	368	375	376	377	359	362	365	371	374	366	360	363	357	369	372	367	361	364	358	370	373
DISSOLVED OXYGEN																					
Quarter 1, 2003					*	*				*											
Quarter 3, 2003					*					*											
Quarter 4, 2003					*																
Quarter 1, 2004					*																
Quarter 2, 2004								*								*					
Quarter 1, 2005					*																
Quarter 2, 2005								*													
Quarter 1, 2006					*																
Quarter 2, 2006					*			*													
Quarter 3, 2006					*			*													
Quarter 4, 2006					*				*												
Quarter 2, 2007					*			*													
Quarter 3, 2007					*			*	*												
Quarter 1, 2008					*														*		
Quarter 2, 2008								*	*												
Quarter 3, 2008								*													
Quarter 1, 2009							*														
Quarter 2, 2009					*			*	*												
Quarter 3, 2009						*		*	*												
Quarter 1, 2010					*		*														
Quarter 2, 2010					*	*		*	*											*	*
Quarter 3, 2010					*	*															
Quarter 4, 2010							*					*								*	
Quarter 1, 2011						*															
Quarter 2, 2011					*	*	*	*	*					*							
Quarter 3, 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									*											*	
DISSOLVED SOLIDS																					
Quarter 4, 2002										*											
Quarter 1, 2003										*											
Quarter 2, 2003										*											
Quarter 3, 2003							*			*	*										
Quarter 4, 2003										*											
Quarter 3, 2005						*															
Quarter 4, 2006															*						
Quarter 1, 2007															*						
Quarter 2, 2007															*						
Quarter 4, 2008															*						
Quarter 1, 2009															*						
Quarter 2, 2009															*						
Quarter 3, 2009															*						

Chart of MCL Exceedances and Statistical Increases for C-746-U Contained Landfill

Groundwater Flow System	UCRS									URGA						LRGA					
Gradient	S	S	S	S	D	D	D	U	U	S	D	D	D	U	U	S	D	D	D	U	U
Monitoring Well	368	375	376	377	359	362	365	371	374	366	360	363	357	369	372	367	361	364	358	370	373
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															*						
IODIDE																					
Quarter 2, 2003																*					
Quarter 3, 2003	*									*											
Quarter 4, 2003							*														
Quarter 3, 2010						*		*					*				*				
IODINE-131																					
Quarter 3, 2010																		■			
IODOMETHANE																					
Quarter 4, 2003						*															
IRON																					
Quarter 4, 2002						*															
Quarter 3, 2003																*					
Quarter 4, 2003										*						*					
Quarter 1, 2004										*						*					
Quarter 2, 2004										*											
Quarter 3, 2004										*											
Quarter 3, 2005																*					
MAGNESIUM																					
Quarter 2, 2005															*						*
Quarter 3, 2005						*															*
Quarter 2, 2006															*						*
Quarter 3, 2006															*						
Quarter 1, 2007															*						
Quarter 2, 2008															*						
Quarter 2, 2009															*						
Quarter 3, 2009															*						
Quarter 4, 2009															*						
Quarter 1, 2010															*						
Quarter 2, 2010															*						
Quarter 3, 2010															*						
Quarter 1, 2011															*						
Quarter 2, 2011															*						

Chart of MCL Exceedances and Statistical Increases for C-746-U Contained Landfill

Groundwater Flow System	UCRS									URGA						LRGA					
Gradient	S	S	S	S	D	D	D	U	U	S	D	D	D	U	U	S	D	D	D	U	U
Monitoring Well	368	375	376	377	359	362	365	371	374	366	360	363	357	369	372	367	361	364	358	370	373
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															*						
MANGANESE																					
Quarter 3, 2002										*		*									
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 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 3, 2008							*														
Quarter 4, 2008							*														
Quarter 3, 2009							*														
Quarter 3, 2011							*														
NICKEL																					
Quarter 3, 2003										*											
OXIDATION-REDUCTION POTENTIAL																					
Quarter 4, 2002																	*		*		
Quarter 1, 2003																	*		*		
Quarter 2, 2003																			*		
Quarter 3, 2003	*																				
Quarter 4, 2003					*																
Quarter 2, 2004													*				*				*
Quarter 3, 2004					*			*					*	*	*		*			*	*
Quarter 4, 2004												*									*
Quarter 1, 2005																	*			*	*
Quarter 2, 2005								*					*				*			*	
Quarter 3, 2005					*	*		*			*	*	*				*		*	*	*

Chart of MCL Exceedances and Statistical Increases for C-746-U Contained Landfill

Groundwater Flow System	UCRS									URGA						LRGA					
Gradient	S	S	S	S	D	D	D	U	U	S	D	D	D	U	U	S	D	D	D	U	U
Monitoring Well	368	375	376	377	359	362	365	371	374	366	360	363	357	369	372	367	361	364	358	370	373
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		*				*		*	*	*	*	*	*	*	*	*	*	*	*	*	*
PCB, TOTAL																					
Quarter 4, 2003																	*				
Quarter 3, 2004												*									
Quarter 3, 2005							*														
Quarter 2, 2006							*														
Quarter 3, 2006							*														
Quarter 1, 2007							*														
Quarter 2, 2007							*														
Quarter 3, 2007							*														
Quarter 1, 2008							*														
Quarter 2, 2008							*														
Quarter 4, 2008							*														
Quarter 3, 2009							*														
Quarter 1, 2010							*														
Quarter 2, 2010							*														
Quarter 4, 2010							*														

Chart of MCL Exceedances and Statistical Increases for C-746-U Contained Landfill

Groundwater Flow System	UCRS									URGA						LRGA					
Gradient	S	S	S	S	D	D	D	U	U	S	D	D	D	U	U	S	D	D	D	U	U
Monitoring Well	368	375	376	377	359	362	365	371	374	366	360	363	357	369	372	367	361	364	358	370	373
PCB-1016																					
Quarter 3, 2004												*									
Quarter 2, 2006							*					*									
Quarter 1, 2007							*														
Quarter 2, 2007							*														
Quarter 3, 2007							*														
Quarter 2, 2008							*														
Quarter 4, 2008							*														
Quarter 3, 2009							*														
Quarter 1, 2010							*														
Quarter 2, 2010							*														
Quarter 4, 2010							*														
PCB-1242																					
Quarter 3, 2006							*					*									
Quarter 4, 2006										*											
Quarter 1, 2008							*														
Quarter 2, 2012							*														
PCB-1248																					
Quarter 2, 2008							*														
PCB-1260																					
Quarter 2, 2006							*														
pH																					
Quarter 3, 2002										*											
Quarter 4, 2002										*											
Quarter 1, 2003										*											
Quarter 2, 2003										*											
Quarter 3, 2003	*						*			*											
Quarter 4, 2003							*									*					
Quarter 1, 2004							*									*					
Quarter 3, 2005						*												*	*		
Quarter 4, 2005						*													*		
Quarter 3, 2006																*					
Quarter 2, 2011														*							
Quarter 3, 2011														*							
Quarter 4, 2011														*							
Quarter 1, 2012																*	*				
Quarter 2, 2012												*									
Quarter 1, 2013										*		*				*					
RADIUM-228																					
Quarter 2, 2005														■							
Quarter 4, 2005						■						■						■			
SELENIUM																					
Quarter 4, 2003									■												
SODIUM																					
Quarter 3, 2002										*	*		*								
Quarter 4, 2002										*	*			*							
Quarter 1, 2003										*											
Quarter 2, 2003										*	*										
Quarter 3, 2003											*										

Chart of MCL Exceedances and Statistical Increases for C-746-U Contained Landfill

Groundwater Flow System	UCRS									URGA						LRGA					
Gradient	S	S	S	S	D	D	D	U	U	S	D	D	D	U	U	S	D	D	D	U	U
Monitoring Well	368	375	376	377	359	362	365	371	374	366	360	363	357	369	372	367	361	364	358	370	373
Quarter 1, 2007											✱										
Quarter 1, 2012														✱							
STRONTIUM-90																					
Quarter 3, 2003							■														
SULFATE																					
Quarter 1, 2003							✱														
Quarter 2, 2003						✱	✱														
Quarter 3, 2003	✱					✱															
Quarter 4, 2003					✱		✱														
Quarter 1, 2004					✱	✱	✱														
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 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		✱													✱						
TECHNETIUM-99																					
Quarter 4, 2002																	✱	✱	✱		

Chart of MCL Exceedances and Statistical Increases for C-746-U Contained Landfill

Groundwater Flow System	UCRS									URGA						LRGA					
Gradient	S	S	S	S	D	D	D	U	U	S	D	D	D	U	U	S	D	D	D	U	U
Monitoring Well	368	375	376	377	359	362	365	371	374	366	360	363	357	369	372	367	361	364	358	370	373
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 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 2, 2010										*						*	*	*	*		
Quarter 3, 2010										*					*						
Quarter 4, 2010																		*			
Quarter 1, 2011		*								*							*				
Quarter 2, 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															*		*	*			*
TOTAL ORGANIC CARBON																					
Quarter 3, 2002										*	*	*		*							*
Quarter 4, 2002										*	*			*							
Quarter 1, 2003											*										
Quarter 3, 2003	*									*	*					*					
Quarter 4, 2003										*	*										
Quarter 1, 2004											*										
Quarter 3, 2005						*				*					*	*			*		
Quarter 4, 2005						*												*	*		
Quarter 1, 2006																			*		

Chart of MCL Exceedances and Statistical Increases for C-746-U Contained Landfill

Groundwater Flow System	UCRS									URGA						LRGA					
Gradient	S	S	S	S	D	D	D	U	U	S	D	D	D	U	U	S	D	D	D	U	U
Monitoring Well	368	375	376	377	359	362	365	371	374	366	360	363	357	369	372	367	361	364	358	370	373
TOTAL ORGANIC HALIDES																					
Quarter 4, 2002										✱											
Quarter 1, 2003										✱											
Quarter 2, 2003										✱											
Quarter 1, 2004																✱					
TRICHLOROETHENE																					
Quarter 3, 2002														■						■	
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													■		■						■

Chart of MCL Exceedances and Statistical Increases for C-746-U Contained Landfill

Groundwater Flow System	UCRS									URGA						LRGA					
Gradient	S	S	S	S	D	D	D	U	U	S	D	D	D	U	U	S	D	D	D	U	U
Monitoring Well	368	375	376	377	359	362	365	371	374	366	360	363	357	369	372	367	361	364	358	370	373
Quarter 2, 2013													■		■		■		■		■
Quarter 3, 2013													■		■						■
Quarter 4, 2013													■		■				■		■
TURBIDITY																					
Quarter 1, 2003										✱											
URANIUM																					
Quarter 4, 2002		✱			✱	✱	✱			✱	✱	✱	✱	✱	✱	✱		✱	✱	✱	✱
Quarter 4, 2006																					✱
ZINC																					
Quarter 3, 2005																			✱		

✱	Statistical test results indicate an elevated concentration (i.e., a statistical exceedance)
■	MCL Exceedance
UCRS	Upper Continental Recharge System
URGA	Upper Regional Gravel Aquifer
LRGA	Lower Regional Gravel Aquifer
S	Sidegradient; D Downgradient; U Upgradient

APPENDIX H

METHANE MONITORING DATA

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C-746-U LANDFILL METHANE LOG

PADUCAH GASEOUS DIFFUSION PLANT
Permit #: 073-00045
McCracken County, Kentucky

Date: December 18, 2013

Time	Location	% LEL of Methane Reading	Remarks	Weather Conditions
13:10	C-746-U1	0	checked at floor level	inside office
13:15	C-746-U2	0	checked at floor level	inside office
13:20	C-746-U-T-14	0	checked at floor level	change out trailer
12:35	C-746-U15	0	checked at floor level	treatment building
12:41	MG1	0	dry casing	wind out of SW @ 48*
12:53	MG2	0	water in casing	wind out of SW @ 51*
13:00	MG3	0	dry casing	wind out of SW @ 50*
12:48	MG4	0	dry casing	wind out of SW @ 51*
N/A	Suspect or Problem Areas	N/A	No problems noted	N/A
			Tammy Smith 12-18-13	

Tammy Smith
Signature

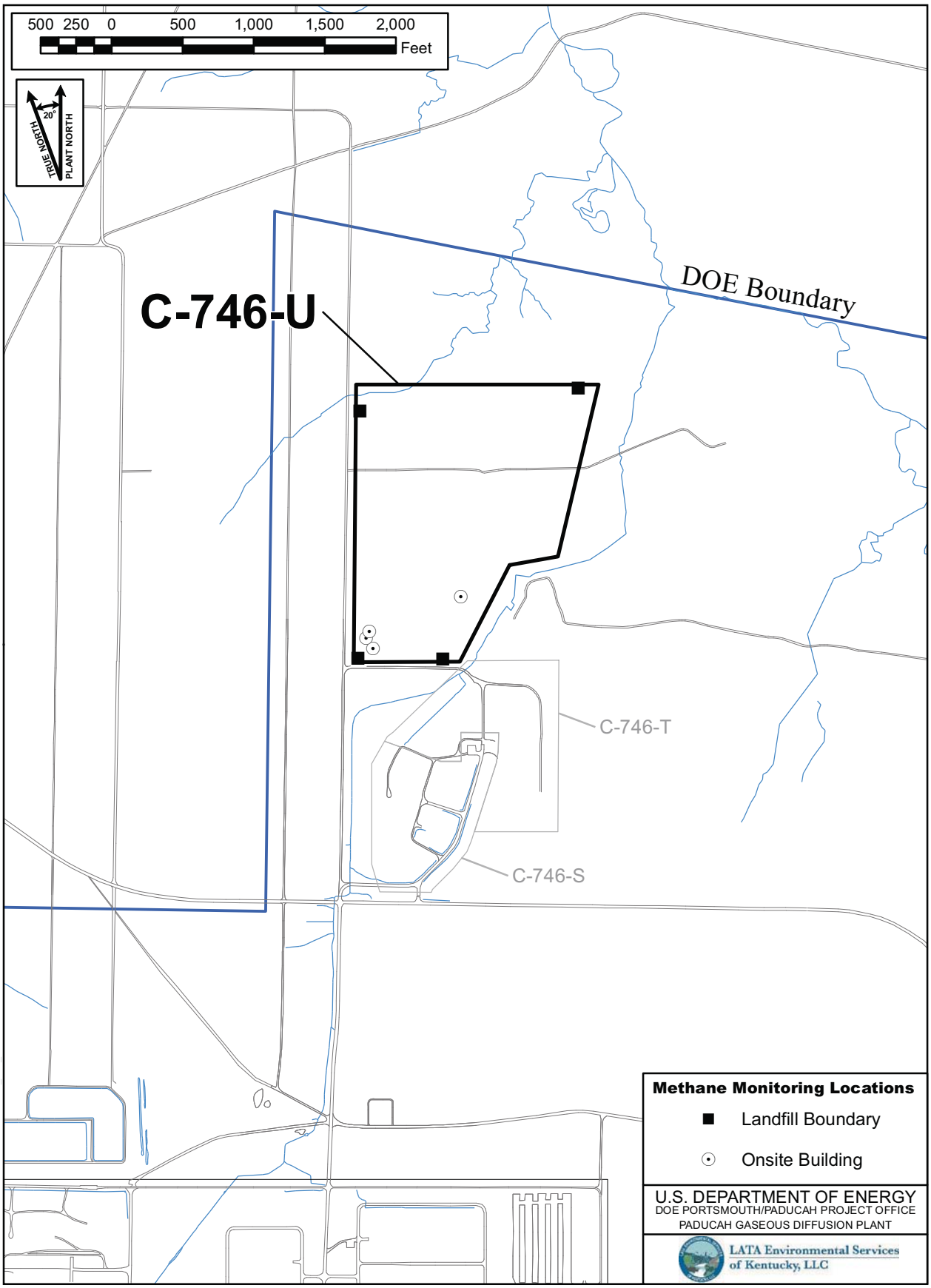

Figure H.1. C-746-U Methane Monitoring Locations