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2018 – 2019 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT

BOTTOM ASH POND
JEFFREY ENERGY CENTER
ST. MARYS, KANSAS

by Haley & Aldrich, Inc.
Cleveland, Ohio

for Westar Energy, Inc.
Topeka, Kansas

File No. 129778-018
July 2019

Public

Table of Contents

Page

Revision No.	Date	Notes

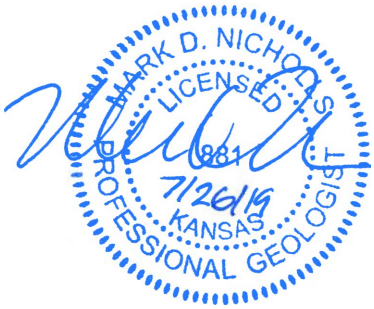
List of Tables

List of Figures

This Annual Groundwater Monitoring and Corrective Action Report documents the groundwater monitoring system results for the Jeffrey Energy Center (JEC) inactive Bottom Ash Pond (BAP) consistent with applicable sections of Code of Federal Regulations Title 40 §§ 257.90 through 257.98, and describes activities conducted in 2018 and 2019 prior to July 2019 and documents compliance with the U.S. Environmental Protection Agency Coal Combustion Residual Rule. I certify that the 2018 – 2019 Annual Groundwater Monitoring and Corrective Action Report for the JEC BAP is, to the best of my knowledge, accurate and complete.

Signed: _____
Professional Geologist

Print Name:	Mark Nicholls
Kansas License No.:	Professional Geologist No. 881
Title:	Technical Expert 2
Company:	Haley & Aldrich, Inc.



Mark Nicholls

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1. Introduction

This 2019 Annual Groundwater Monitoring and Corrective Action Report (Annual Report) addresses the inactive Bottom Ash Pond (BAP) at the Jeffrey Energy Center (JEC), operated by Westar Energy, Inc. (Westar). This Annual Report was developed in accordance with the U.S. Environmental Protection Agency (USEPA) Coal Combustion Residual (CCR) Rule, specifically Code of Federal Regulations Title 40 (40 CFR), subsections 257.90(e) and 257.100(e), effective 19 October 2015 (Rule) including subsequent revisions. Westar prepared and placed in the facility's operating record a notification of intent to initiate closure of the BAP by 17 December 2015. Due to the USEPA Extension of Compliance Deadlines for Certain Inactive Surface Impoundments, Response to Partial Vacatur effective 4 October 2016, in accordance with the requirement under § 257.100(e)(1), the alternative reporting timeframes specified in § 257.100(e)(2) through (6) are applicable for the BAP.

This Annual Report documents the groundwater monitoring system results for the BAP which is consistent with applicable sections of §§ 257.90 through 257.98, and describes activities conducted prior to July 2019 and documents compliance with the Rule. The specific requirements listed in § 257.90(e)(1) through (5) of the Rule are provided in Section 2 of this Annual Report and are in bold italic font, followed by a short narrative describing how each Rule requirement has been met.

2. 40 CFR § 257.90 Applicability

2.1 40 CFR § 257.90(a)

Except as provided for in § 257.100 for inactive CCR surface impoundments, all CCR landfills, CCR surface impoundments, and lateral expansions of CCR units are subject to the groundwater monitoring and corrective action requirements under §§ 257.90 through 257.98, except as provided in paragraph (g) of this section.

Westar has installed and certified a groundwater monitoring system at the JEC BAP. The BAP is monitored by a single-unit system subject to the groundwater monitoring and corrective action requirements described under 40 CFR §§ 257.90 through 257.98. This document addresses the requirement for the Owner/Operator to prepare an Annual Report per § 257.90(e).

2.2 40 CFR § 257.90(e) – SUMMARY

Annual groundwater monitoring and corrective action report. For existing CCR landfills and existing CCR surface impoundments, no later than January 31, 2018, and annually thereafter, the owner or operator must prepare an annual groundwater monitoring and corrective action report. For new CCR landfills, new CCR surface impoundments, and all lateral expansions of CCR units, the owner or operator must prepare the initial annual groundwater monitoring and corrective action report no later than January 31 of the year following the calendar year a groundwater monitoring system has been established for such CCR unit as required by this subpart, and annually thereafter. For the preceding calendar year, the annual report must document the status of the groundwater monitoring and corrective action program for the CCR unit, summarize key actions completed, describe any problems encountered, discuss actions to resolve the problems, and project key activities for the upcoming year. For purposes of this section, the owner or operator has prepared the annual report when the report is placed in the facility's operating record as required by § 257.105(h)(1).

40 CFR 257.100(e)(5)(ii)
No later than August 1, 2019, prepare the initial groundwater monitoring and corrective action report as set forth in § 257.90(e.)

This Annual Report is the initial report for the JEC BAP, as required by the Rule. The groundwater monitoring system was established and certified prior to 17 April 2019, as required by § 257.100(e)(5)(i). Prior to 17 April 2019, Westar installed a groundwater monitoring system at the BAP consistent with § 257.91. Groundwater sampling and analysis was conducted in accordance with requirements described in § 257.93, and the status of the groundwater monitoring program described in § 257.94 is provided in this report. This Annual Report documents the activities completed prior to July 2019.

2.2.1 Status of the Groundwater Monitoring Program

The BAP is currently in the detection monitoring program.

2.2.2 Key Actions Completed

Detection monitoring was conducted at the BAP in 2018 and 2019 prior to July 2019.

2.2.3 Problems Encountered

No noteworthy problems (i.e. problems could include damaged wells, issues with sample collection or lack of sampling, or problems with analytical analysis) were encountered at the BAP in 2018 and 2019 prior to July 2019.

2.2.4 Actions to Resolve Problems

No problems were encountered at the BAP in 2018 and 2019 prior to July 2019, therefore, no actions to resolve the problems were required.

2.2.5 Project Key Activities for Upcoming Year

Key activities planned for July 2019 through June 2020 include the 2019 – 2020 Annual Groundwater Monitoring and Corrective Action Report, statistical analysis of detection monitoring analytical data collected in March 2019, and semi-annual detection monitoring.

2.3 40 CFR § 257.90(e) – INFORMATION

At a minimum, the annual groundwater monitoring and corrective action report must contain the following information, to the extent available:

2.3.1 40 CFR § 257.90(e)(1) – CCR Unit and Monitoring Well Network

A map, aerial image, or diagram showing the CCR unit and all background (or upgradient) and downgradient monitoring wells, to include the well identification numbers, that are part of the groundwater monitoring program for the CCR unit;

As required by § 257.90(e)(1), a map showing the locations of the CCR unit and associated upgradient and downgradient monitoring wells for the BAP is included in this report as Figure 1.

2.3.2 40 CFR § 257.90(e)(2) – Monitoring System Changes

Identification of any monitoring wells that were installed or decommissioned during the preceding year, along with a narrative description of why those actions were taken;

The design and construction of the monitoring well system for the BAP at JEC are described in the CCR Groundwater Monitoring Network Description Report dated 3 April 2019. This report was placed in the facility's operating record by 17 April 2019, as required by § 257.105(h)(2). No new monitoring wells were installed or decommissioned since the groundwater monitoring system was certified.

2.3.3 40 CFR § 257.90(e)(3) – Summary of Sampling Events

In addition to all the monitoring data obtained under § 257.90 through § 257.98, a summary including the number of groundwater samples that were collected for analysis for each background and downgradient well, the dates the samples were collected, and whether the sample was required by the detection monitoring or assessment monitoring programs;

A total of eight independent detection monitoring samples from each background (upgradient) and downgradient monitoring well were collected during 2018 and 2019 prior to 17 April 2019. A summary table including the sample names, dates of sample collection, and monitoring data obtained for the groundwater monitoring program for the BAP is presented in Table I of this report. The groundwater monitoring sampling and laboratory analyses conducted in 2018 and 2019 prior to July 2019 were completed under a detection monitoring program.

2.3.4 40 CFR § 257.90(e)(4) – Monitoring Transition Narrative

A narrative discussion of any transition between monitoring programs (e.g., the date and circumstances for transitioning from detection monitoring to assessment monitoring in addition to identifying the constituent(s) detected at a statistically significant increase over background levels); and

Detection monitoring was conducted in accordance with § 257.94(b), and no transition between monitoring programs occurred for the BAP in calendar year 2018 or prior to July 2019.

2.3.5 40 CFR § 257.90(e)(5) – Other Requirements

Other information required to be included in the annual report as specified in § 257.90 through § 257.98.

This initial Annual Report documents activities conducted to comply with §§ 257.90 through 257.94 of the Rule. It is understood that there are supplemental references in §§ 257.90 through 257.98 to information that must be placed in the Annual Report; however, none of the activities referenced as required in the Annual Report are relevant to the groundwater monitoring program for activities completed in the reporting period.

TABLE

TABLE I
SUMMARY OF ANALYTICAL RESULTS
BOTTOM ASH POND
WESTAR JEFFREY ENERGY CENTER
ST. MARYS, KANSAS

Location		Measure Point Elevation (TOC)	Sample Name	Sample Date	Event	Depth to Water (btoc)	Groundwater Elevation (ft AMSL)	Field Parameters				Detection Monitoring - USEPA Appendix III Constituents (mg/L)							Assessment Monitoring - USEPA Appendix IV Constituents (mg/L)								
								Temperature (Deg C)	Conductivity (µS/cm)	Turbidity (NTU)	pH (su)	Boron, Total	Calcium, Total	Chloride	Fluoride	pH (su)	Sulfate	TDS	Antimony, Total	Arsenic, Total	Barium, Total	Beryllium, Total	Cadmium, Total	Chromium, Total	Cobalt, Total	Fluoride	Lead, Total
Up Gradient	IBA-4	1201.86	IBA-4-031318	3/13/2018	Round 1	57.45	1144.41	13.17	861.1	9.00	7.25	**0.24**	**102**	**17.7**	**0.41**	**7.3**	**164**	**599**	<0.0010	<0.0010	**0.021**	<0.0010	<0.00050	<0.0050	<0.0010	**0.41**	<0.010
			IBA-4-051118	5/14/2018	Round 2	57.49	1144.37	18.88	930	18.3	7.28	**0.23**	**108**	**19.3**	**0.58**	**7.3**	**146**	**592**	<0.0010	<0.0010	**0.022**	<0.0010	<0.00050	<0.0050	<0.0010	**0.58**	<0.010
			IBA-4-070518	7/2/2018	Round 3	57.41	1144.45	17.63	885	6.36	7.04	**0.26**	**97.3**	**17.8**	**0.56**	**7.4**	**165**	**629**	<0.0010	<0.0010	**0.019**	<0.0010	<0.00050	<0.0050	<0.0010	**0.56**	<0.010
			IBA-4-081518	8/15/2018	Round 4	56.50	1145.36	17.05	886	5.7	7.09	**0.26**	**107**	**18.4**	**0.59**	**7.2**	**165**	**626**	<0.0010	<0.0010	**0.018**	<0.0010	<0.00050	<0.0050	<0.0010	**0.59**	<0.010
			IBA-4-100218	10/2/2018	Round 5	56.42	1145.44	16.13	913	2.98	6.83	**0.23**	**104**	**18.6**	**0.53**	**7.2**	**180**	**632**	<0.0010	<0.0010	**0.020**	<0.0010	<0.00050	<0.0050	<0.0010	**0.53**	<0.010
			IBA-4-112118	11/21/2018	Round 6	55.92	1145.94	13.00	887	2.84	6.82	**0.26**	**99.2**	**18.5**	**0.51**	**7.3**	**159**	**627**	<0.0010	<0.0010	**0.016**	<0.0010	<0.00050	<0.0050	<0.0010	**0.51**	<0.010
			IBA-4-011019	1/10/2019	Round 7	55.43	1146.43	10.48	875	2.5	6.93	**0.22**	**107**	**18.3**	**0.49**	**7.2**	**172**	**643**	<0.0010	<0.0010	**0.019**	<0.0010	<0.00050	<0.0050	<0.0010	**0.49**	<0.010
			IBA-4-032819	3/28/2019	Round 8	54.14	1147.72	13.2	976	1.43	6.79	**0.23**	**104**	**19.2**	**0.58**	**7.3**	**175**	**614**	<0.0010	<0.0010	**0.019**	<0.0010	<0.00050	<0.0050	<0.0010	**0.58**	<0.010
Down Gradient	IBA-1	1171.65	IBA-1-031418	3/14/2018	Round 1	30.45	1141.20	15.39	2040	6.71	7.35	**0.37**	**300**	**126**	<0.20	**7.2**	**841**	**1740**	<0.0010	<0.0010	**0.037**	<0.0010	<0.00050	<0.0050	**0.0025**	<0.20	<0.010
			IBA-1-051418	5/14/2018	Round 2	28.05	1143.60	18.76	2220	8.83	7.23	**0.37**	**295**	**127**	**0.35**	**7.2**	**904**	**1750**	<0.0010	0.0011	**0.039**	<0.0010	<0.00050	<0.0050	**0.0027**	**0.35**	<0.010
			IBA-1-070518	7/5/2018	Round 3	25.90	1145.75	20.82	2070	5.3	6.95	**0.37**	**296**	**123**	**0.30**	**7.2**	**827**	**1770**	<0.0010	<0.0010	**0.033**	<0.0010	**0.00052**	<0.0050	**0.0023**	**0.30**	<0.010
			IBA-1-081518	8/15/2018	Round 4	26.09	1145.56	19.17	2070	6.54	7.05	**0.37**	**310**	**122**	**0.35**	**7.1**	**877**	**1680**	<0.0010	<0.0010	**0.034**	<0.0010	**0.00053**	<0.0050	**0.0025**	**0.35**	<0.010
			IBA-1-100218	10/2/2018	Round 5	26.97	1144.68	20.42	2140	6.37	6.79	**0.37**	**305**	**150**	**0.63**	**7.1**	**940**	**1820**	<0.0010	<0.0010	**0.034**	<0.0010	<0.00050	<0.0050	**0.0022**	**0.63**	<0.010
			IBA-1-112118	11/21/2018	Round 6	26.38	1145.27	16.18	2070	3.66	6.82	**0.38**	**298**	**124**	**0.28**	**7.3**	**880**	**612**	<0.0010	<0.0010	**0.029**	<0.0010	**0.00059**	<0.0050	**0.0023**	**0.28**	<0.010
			IBA-1-011019	1/10/2019	Round 7	26.20	1145.45	13.80	2070	9.01	6.92	**0.36**	**312**	**128**	**0.24**	**7.3**	**920**	**1720**	<0.0010	<0.0010	**0.038**	<0.0010	**0.00071**	<0.0050	**0.0026**	**0.24**	<0.010
			IBA-1-032819	3/28/2019	Round 8	25.44	1146.21	13.5	2233	3.26	7.10	**0.37**	**312**	**129**	**0.40**	**7.1**	**932**	**1750**	<0.0010	<0.0010	**0.033**	<0.0010	**0.00059**	<0.0050	**0.0021**	**0.40**	<0.010
	IBA-2	1171.66	IBA-2-031418	3/14/2018	Round 1	32.28	1139.38	13.89	1530	1.11	7.34	**0.18**	**196**	**106**	<0.20	**7.1**	**532**	**1220**	<0.0010	<0.0010	**0.036**	<0.0010	<0.00050	<0.0050	**0.0011**	<0.20	<0.010
			IBA-2-051418	5/14/2018	Round 2	30.00	1141.66	18.71	1710	0.18	7.29	**0.18**	**184**	**109**	**0.32**	**7.3**	**552**	**1260**	<0.0010	<0.0010	**0.032**	<0.0010	<0.00050	<0.0050	**0.0012**	**0.32**	<0.010
			IBA-2-070518	7/5/2018	Round 3	28.12	1143.54	19.52	1620	0.08	7.02	**0.20**	**204**	**109**	**0.28**	**6.7**	**566**	**1310**	<0.0010	<0.0010	**0.034**	<0.0010	<0.00050	<0.0050	**0.0011**	**0.28**	<0.010
			IBA-2-081518	8/15/2018	Round 4	28.09	1143.57	17.97	1630	0.01	7.08	**0.20**	**221**	**107**	**0.36**	**7.2**	**583**	**1330**	<0.0010	<0.0010	**0.032**	<0.0010	<0.00050	<0.0050	**0.0012**	**0.36**	<0.010
			IBA-2-100218	10/2/2018	Round 5	28.90	1142.76	19.76	1690	0.72	6.81	**0.19**	**209**	**144**	**0.40**	**7.1**	**771**	**1300**	<0.0010	<0.0010	**0.032**	<0.0010	<0.00050	<0.0050	**0.0011**	**0.40**	<0.010
			IBA-2-112118	11/21/2018	Round 6	28.38	1143.28	14.99	1640	0.52	6.90	**0.20**	**205**	**111**	**0.25**	**7.2**	**572**	**1310**	<0.0010	<0.0010	**0.029**	<0.0010	<0.00050	<0.0050	**0.0011**	**0.25**	<0.010
			IBA-2-011019	1/10/2019	Round 7	27.92	1143.74	13.33	1640	0.87	6.95	**0.18**	**219**	**110**	**0.22**	**7.3**	**585**	**1470**	<0.0010	<0.0010	**0.031**	<0.0010	<0.00050	<0.0050	**0.0013**	**0.22**	<0.010
			IBA-2-032819	3/28/2019	Round 8	27.10	1144.56	13.7	1776	1.14	7.13	**0.19**	**216**	**114**	**0.39**	**7.3**	**582**	**1320**	<0.0010	<0.0010	**0.030**	<0.0010	<0.00050	<0.0050	**0.0010**	**0.39**	<0.010
	IBA-3	1164.95	IBA-3-031418	3/14/2018	Round 1	35.10	1129.85	12.4	1868	0.56	7.16	**0.27**	**246**	**123**	<0.20	**7.4**	**769**	**1490**	<0.0010	<0.0010	**0.020**	<0.0010	<0.00050	<0.0050	**0.0021**	<0.20	<0.010
			IBA-3-051418	5/14/2018	Round 2	33.71	1131.24	17.08	2060	0.04	7.31	**0.27**	**250**	**123**	**0.31**	**7.3**	**789**	**1580**	<0.0010	<0.0010	**0.021**	<0.0010	<0.00050	<0.0050	**0.0021**	**0.31**	<0.010
			IBA-3-070518	7/5/2018	Round 3	32.42	1132.53	19.81	1920	0.02	7.05	**0.28**	**240**	**122**	**0.27**	**7.2**	**735**	**1590**	<0.0010	<0.0010	**0.019**	<0.0010	<0.00050	<0.0050	**0.0018**	**0.27**	<0.010
			IBA-3-081518	8/15/2018	Round 4	32.50	1132.45	17.80	1930	0.07	7.10	**0.29**	**264**	**120**	**0.33**	**7.2**	**774**	**1630**	<0.0010	<0.0010	**0.018**	<0.0010	<0.00050	<0.0050	**0.0021**	**0.33**	<0.010
			IBA-3-100218	10/2/2018	Round 5	33.00	1131.95	18.68	1990	0.55	6.86	**0.27**	**254**	**151**	**0.36**	**7.2**	**998**	**1510**	<0.0010	<0.0010	**0.020**	<0.0010	<0.00050	<0.0050	**0.0019**	**0.36**	<0.010
			IBA-3-112118	11/21/2018	Round 6	32.17	1132.78	13.63	1940	0.39	6.89	**0.30**	**264**	**130**	**0.25**	**7.4**	**824**	**3170**	<0.0010	<0.0010	**0.017**	<0.0010	<0.00050	<0.0050	**0.0019**	**0.25**	<0.010
			IBA-3-011019	1/10/2019	Round 7	31.83	1133.12	12.41	1930	0.43	7.07	**0.26**	**263**	**122**	**0.20**	**7.4**	**761**	**1480**	<0.0010	<0.0010	**0.019**	<0.0010	<0.00050	<0.0050	**0.0021**	**0.20**	<0.010
			IBA-3-032819	3/28/2019	Round 8	30.90	1134.05	12.8	2101	0.52	7.11	**0.27**	**261**	**125**	**0.35**	**7.3**	**817**	**1590**	<0.0010	<0.0010	**0.019**	<0.0010	<0.00050	<0.0050	**0.0011**	**0.35**	<0.010

ABBREVIATIONS AND NOTES:

Bold value: Detection above laboratory reporting limit

µS/cm: microSiemen per centimeter

CCR: Coal Combustion Residuals

MCL: Maximum Contaminant Level

mg/L: milligram per liter

NA: Not Applicable

NTU: Nephelometric Turbidity Units

pCi/L: picoCurie per liter

su: standard units

USEPA: United States Environmental Protection Agency

TABLE I
SUMMARY OF ANALYTICAL RESULTS
BOTTOM ASH POND
WESTAR JEFFREY ENERGY CENTER
ST. MARYS, KANSAS

Location		Measure Point Elevation (TOC)	Sample Name	Sample Date	Event	Depth to Water (btoc)	Groundwater Elevation (ft AMSL)	Assessment Monitoring - USEPA Appendix IV Constituents (mg/L)					Assessment Monitoring - USEPA Appendix IV Constituents (pCi/L)
								Lithium, Total	Mercury, Total	Molybdenum, Total	Selenium, Total	Thallium, Total	Radium-226 & 228 Combined
Up Gradient	IBA-4	1201.86	IBA-4-031318	3/13/2018	Round 1	57.45	1144.41	**0.037**	<0.00020	**0.0018**	<0.0010	<0.0010	**0.807**
			IBA-4-051118	5/14/2018	Round 2	57.49	1144.37	**0.036**	<0.00020	**0.0020**	<0.0010	<0.0010	**1.27**
			IBA-4-070518	7/2/2018	Round 3	57.41	1144.45	**0.031**	<0.00020	**0.0019**	<0.0010	<0.0010	**1.26**
			IBA-4-081518	8/15/2018	Round 4	56.50	1145.36	**0.035**	<0.00020	**0.0019**	<0.0010	<0.0010	**1.26**
			IBA-4-100218	10/2/2018	Round 5	56.42	1145.44	**0.032**	<0.00020	**0.0018**	<0.0010	<0.0010	**1.00**
			IBA-4-112118	11/21/2018	Round 6	55.92	1145.94	**0.033**	<0.00020	**0.0024**	<0.0010	<0.0010	**0.944**
			IBA-4-011019	1/10/2019	Round 7	55.43	1146.43	**0.035**	<0.00020	**0.0019**	<0.0010	<0.0010	**0.923**
			IBA-4-032819	3/28/2019	Round 8	54.14	1147.72	**0.034**	<0.00020	**0.0018**	<0.0010	<0.0010	**1.07**
Down Gradient	IBA-1	1171.65	IBA-1-031418	3/14/2018	Round 1	30.45	1141.20	**0.026**	<0.00020	**0.0074**	<0.0010	<0.0010	**3.12**
			IBA-1-051418	5/14/2018	Round 2	28.05	1143.60	**0.016**	<0.00020	**0.0071**	<0.0010	<0.0010	**1.66**
			IBA-1-070518	7/5/2018	Round 3	25.90	1145.75	**0.015**	<0.00020	**0.0070**	<0.0010	<0.0010	**0.306**
			IBA-1-081518	8/15/2018	Round 4	26.09	1145.56	**0.015**	<0.00020	**0.0069**	<0.0010	<0.0010	**0.397**
			IBA-1-100218	10/2/2018	Round 5	26.97	1144.68	**0.016**	<0.00020	**0.0071**	<0.0010	<0.0010	**0.730**
			IBA-1-112118	11/21/2018	Round 6	26.38	1145.27	**0.019**	<0.00020	**0.0070**	<0.0010	<0.0010	**1.40**
			IBA-1-011019	1/10/2019	Round 7	26.20	1145.45	**0.015**	<0.00020	**0.0073**	<0.0010	<0.0010	**1.02**
			IBA-1-032819	3/28/2019	Round 8	25.44	1146.21	**0.016**	<0.00020	**0.0074**	<0.0010	<0.0010	**0.182**
	IBA-2	1171.66	IBA-2-031418	3/14/2018	Round 1	32.28	1139.38	**0.028**	<0.00020	**0.0024**	<0.0010	<0.0010	**0.917**
			IBA-2-051418	5/14/2018	Round 2	30.00	1141.66	**0.017**	<0.00020	**0.0023**	<0.0010	<0.0010	**1.07**
			IBA-2-070518	7/5/2018	Round 3	28.12	1143.54	**0.019**	<0.00020	**0.0022**	<0.0010	<0.0010	**0.187**
			IBA-2-081518	8/15/2018	Round 4	28.09	1143.57	**0.020**	<0.00020	**0.0022**	<0.0010	<0.0010	**0.691**
			IBA-2-100218	10/2/2018	Round 5	28.90	1142.76	**0.020**	<0.00020	**0.0022**	<0.0010	<0.0010	**0.445**
			IBA-2-112118	11/21/2018	Round 6	28.38	1143.28	**0.021**	<0.00020	**0.0024**	<0.0010	<0.0010	**0.867**
			IBA-2-011019	1/10/2019	Round 7	27.92	1143.74	**0.021**	<0.00020	**0.0023**	<0.0010	<0.0010	**0.537**
			IBA-2-032819	3/28/2019	Round 8	27.10	1144.56	**0.022**	<0.00020	**0.0022**	<0.0010	<0.0010	**0.321**
	IBA-3	1164.95	IBA-3-031418	3/14/2018	Round 1	35.10	1129.85	**0.028**	<0.00020	**0.0020**	<0.0010	<0.0010	**0.325**
			IBA-3-051418	5/14/2018	Round 2	33.71	1131.24	**0.019**	<0.00020	**0.0021**	<0.0010	<0.0010	**0.349**
			IBA-3-070518	7/5/2018	Round 3	32.42	1132.53	**0.015**	<0.00020	**0.0020**	<0.0010	<0.0010	**0.283**
			IBA-3-081518	8/15/2018	Round 4	32.50	1132.45	**0.019**	<0.00020	**0.0021**	<0.0010	<0.0010	**1.05**
			IBA-3-100218	10/2/2018	Round 5	33.00	1131.95	**0.021**	<0.00020	**0.0021**	<0.0010	<0.0010	**0.427**
			IBA-3-112118	11/21/2018	Round 6	32.17	1132.78	**0.021**	<0.00020	**0.0025**	<0.0010	<0.0010	**0.940**
			IBA-3-011019	1/10/2019	Round 7	31.83	1133.12	**0.019**	<0.00020	**0.0021**	<0.0010	<0.0010	**0.484**
			IBA-3-032819	3/28/2019	Round 8	30.90	1134.05	**0.021**	<0.00020	**0.0022**	<0.0010	<0.0010	**0.256**

ABBREVIATIONS AND NOTES:

Bold value: Detection above laboratory reporting limit

µS/cm: microSiemen per centimeter
CCR: Coal Combustion Residuals
MCL: Maximum Contaminant Level
mg/L: milligram per liter
NA: Not Applicable
NTU: Nephelometric Turbidity Units
pCi/L: picoCurie per liter
su: standard units
USEPA: United States Environmental Protection Agency

FIGURE

LEGEND

BOTTOM ASH POND MONITORING WELL

BOTTOM ASH POND

NOTES

1. ALL LOCATIONS AND DIMENSIONS ARE APPROXIMATE.
2. AERIAL IMAGERY SOURCE: ESRI

N

0 400 800

SCALE IN FEET

HALEY ALDRICH

WESTAR ENERGY
JEFFREY ENERGY CENTER
ST. MARYS, KANSAS

BOTTOM ASH POND MONITORING WELL LOCATION MAP

JULY 2019

FIGURE 1

GIS FILE PATH: G:\Projects\Westar\Jeffrey Energy Center (JEC)\GIS\MXDs\2019_071129778_018_0002_IBA Well GWE Contours.mxd — USER: rabrown — LAST SAVED: 7/23/2019 2:48:24 PM