



2019 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT

Byproduct Storage Area B

St. Johns River Power Park

Jacksonville, Florida

Submitted to:

JEA/SJRPP

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Jacksonville, FL 32202 USA

Submitted by:

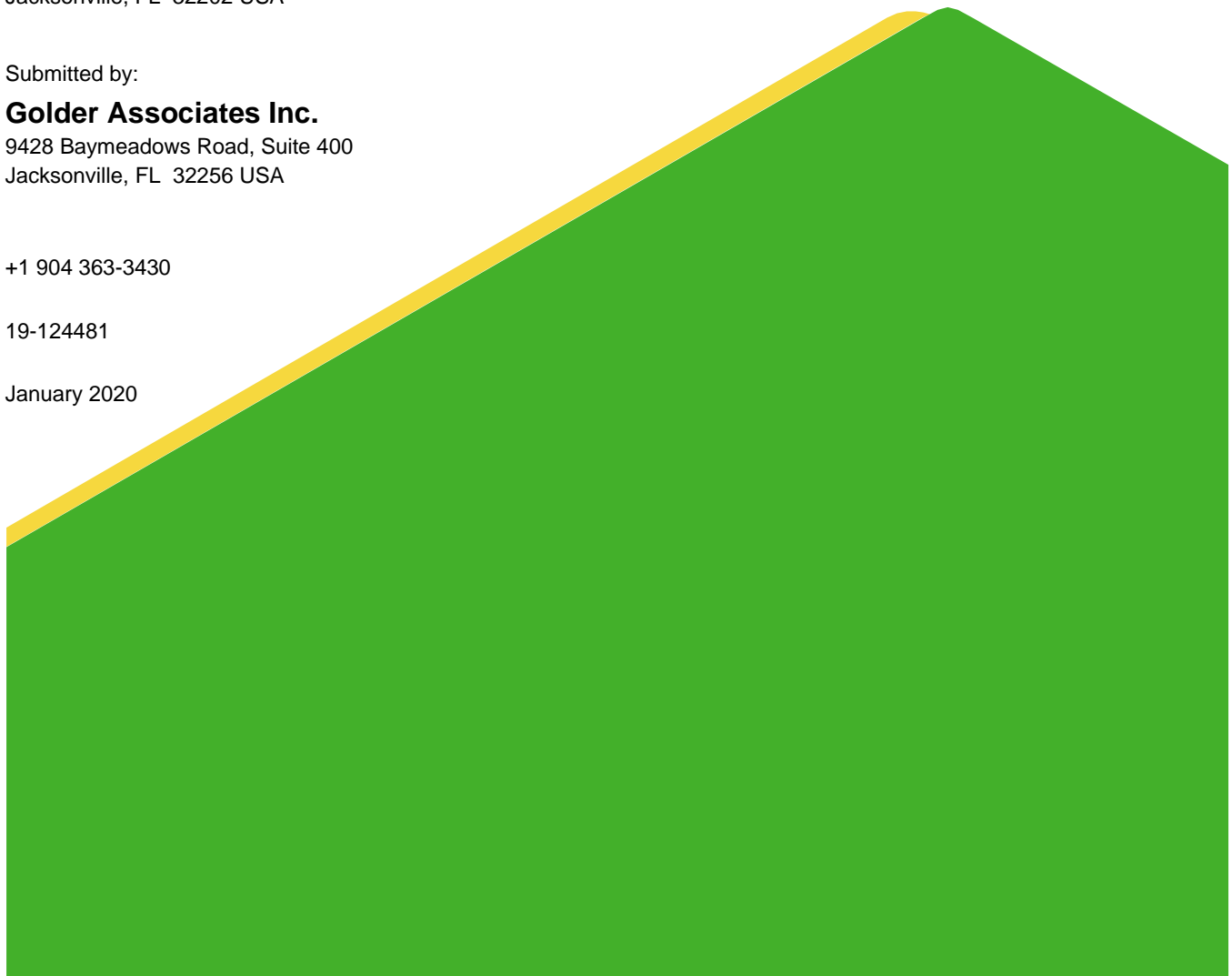
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January 2020



Distribution List

JEA

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Executive Summary

Pursuant to the Coal Combustion Residual (CCR) Rule¹, this Annual Groundwater Monitoring and Corrective Action report has been prepared for the Byproduct Storage Area B (BSA-B) at the St. Johns River Power Park (SJRPP) on behalf of JEA. This Annual Report has been prepared to meet the requirements of §257.90(e).

Pursuant to §257.94(b), JEA initiated the background monitoring (the collection of a minimum of eight independent samples prior to October 2017) in November 2015 and completed it in June 2017. Detection monitoring for Appendix III constituents was initiated in October 2017. A statistical analysis of the October 2017 sampling data and subsequent verification sampling in December 2017, identified statistically significant increases (SSIs) for boron, calcium, chloride, fluoride, sulfate and total dissolved solids in groundwater samples from downgradient monitoring wells.

Based on the SSI determination in January 2018, an assessment monitoring program was established in March 2018 pursuant to §257.94(e)(1). Annual assessment monitoring events for all Appendix IV parameters are conducted in March of each year. Subsequent semi-annual events are conducted in June and December for all Appendix III parameters and Appendix IV parameters detected during the annual event. The site is operating under the assessment monitoring program for 2019.

In October 2018, a statistical analysis of Appendix IV results from downgradient wells indicated that radium 226+228 was a statistically significant level above the groundwater protection standards for the site at one monitoring well (CCR-6). Assessment of corrective measures was initiated on January 13, 2019 and finalized June 12, 2019. JEA is currently in the process of selecting and designing an appropriate remedy pursuant to §257.97.

¹ 40 Code of Federal Regulations Part 257 (40 CFR 257), Subpart D – Standards for the Disposal of Coal Combustion Residuals in Landfills and Surface Impoundments, Published in Federal Register / Vol. 80, No. 74, April 17, 2015.

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APPENDICES

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- Appendix B Summary of Assessment Monitoring Results
- Appendix C Laboratory Analytical Results

1.0 INTRODUCTION

Pursuant to the Coal Combustion Residual (CCR) Rule², this Annual Groundwater Monitoring and Corrective Action report has been prepared for the Byproduct Storage Area B (Area B) at the St. Johns River Power Park (SJRPP) on behalf of JEA. This Annual Report has been prepared to meet the requirements of §257.90(e).

1.1 Site Information and Background

The SJRPP facility is located at 11201 New Berlin Road in Jacksonville, Florida. A site location map is provided as Figure 1. SJRPP consisted of two coal fired steam-electric generation units and associated facilities, and decommissioning began in 2018. The primary CCRs generated at SJRPP include fly ash, bottom ash, and synthetic gypsum, a flue gas desulfurization product. Phase I of Area B encompasses approximately 30 acres in the northeast portion of the SJRPP. Area B Phase I is an active unlined landfill cell receiving residual CCR that are not sold for off-site beneficial use.

1.2 Site Hydrogeology

The main hydrogeologic units at Area B are an unconfined surficial aquifer system and the Floridan aquifer system (Golder 2007 and Geosyntec 2013). The surficial aquifer system, which is the uppermost water bearing unit at Area B, is subdivided into three zones: 1) upper, 2) intermediate, and 3) deep zones. The underlying Hawthorn Group (generally encountered at about 98 to 106 feet below ground surface at Area B) consists of low-permeability sediments (i.e., silty clays, clayey silts, and sandy clays) that are confining units for the deeper Floridan aquifer. The upper zone of the surficial aquifer is the most transmissive zone of the surficial aquifer (Golder 2007). The prevailing directions of groundwater flow in the upper zone of the surficial aquifer are generally from the northwest to east with southeastern components of flow. The groundwater flow velocity is approximately 17 feet/year. The average hydraulic conductivity, of the upper zone of the surficial aquifer, determined from slug tests of monitoring wells, is approximately 5 feet/day.

1.3 CCR Groundwater Monitoring Well Network

The CCR groundwater monitoring network for BSA-B at SJRPP consists of three background monitoring wells (CCR-1, CCR-2 and CCR-3) and four downgradient monitoring wells (CCR-4, CCR-5, CCR-6 and CCR-7) (Golder 2017a). Background and downgradient monitoring wells have been installed with screen intervals in the upper zone of the surficial aquifer (total depth of approximately 20 feet below ground surface). The background wells (CCR-1, CCR-2 and CCR-3) are located such that they represent background groundwater quality that has not been affected by a CCR unit and represent groundwater quality in the same zone as the downgradient monitoring wells. Downgradient monitoring wells (CCR-4 through CCR-7) have been installed as close as practical to the waste boundary to accurately represent the quality of groundwater passing the waste boundary. The monitoring wells have been encased in a manner that maintains the integrity of the monitoring well borehole. CCR groundwater monitoring well locations (CCR-1 through CCR-7) are shown on **Figure 1** and monitoring well construction data are provided in **Table 1**.

² 40 Code of Federal Regulations Part 257 (40 CFR 257), Subpart D – Standards for the Disposal of Coal Combustion Residuals in Landfills and Surface Impoundments, Published in Federal Register / Vol. 80, No. 74, April 17, 2015.

2.0 CCR GROUNDWATER MONITORING ACTIVITIES

A statistical significant increase (SSI) analysis of the detection monitoring event performed October 11, 2017 indicated a number of SSIs of Appendix III constituents for downgradient wells above background concentrations (Golder 2018a). The SSI determination was made on January 15, 2018. Pursuant to §257.94(e)(1), an assessment monitoring program was established for Area B in March 2018. The initial annual assessment monitoring event was conducted on March 26, 2018 and subsequent semi-annual assessment monitoring events were conducted on June 27, 2018 and December 19, 2018.

A statistical analysis of the assessment monitoring results from June 2018 indicated that radium 226+228 was at a statistically significant level (SSL) above the groundwater protection standard (GWPS) at CCR-6 (Golder 2018c). Assessment of corrective measures was initiated January 13, 2019 in accordance with §257.96 (Golder 2019a). Pursuant to §257.96(a), the assessment of corrective measures was extended for 60 days (Golder 2019c). The assessment of corrective measures extension certification is provided in **Appendix A**.

Pursuant to §257.90(e), the following sections describe the groundwater monitoring activities performed during the preceding calendar year.

2.1 Monitoring Well Installation and Decommissioning

The monitoring wells that comprise the CCR groundwater monitoring well network (CCR-1, CCR-2, CCR-3, CCR-4, CCR-5, CCR-6 and CCR-7) were installed in October 2015 (Golder 2016). No additional CCR network wells were installed or abandoned in 2019.

Additional piezometers have been installed as part of the characterization required by §257.95(g)(1). A total of eight piezometers (designated AW-1 through AW-8) were installed to assist in characterizing the nature and extent of the release (Golder 2019d, Golder 2019f). The piezometer construction details are provided in **Table 1** and locations are presented on **Figure 1**. The piezometers were constructed using standard monitoring wells installation procedures and were screened in the upper surficial aquifer (approximately 10 to 20 feet below ground surface).

2.2 Groundwater Sampling Activities

The groundwater sampling activities related to the CCR groundwater monitoring program for Area B that occurred during 2019 are described in the sections below.

2.2.1 Assessment Monitoring

The second annual assessment monitoring event was conducted on March 25, 2019, and subsequent semi-annual assessment monitoring events were conducted on June 17, 2019 and December 19, 2019. Assessment monitoring laboratory analytical data is summarized in Tables B-1 to B-3 in **Appendix B** (*December 2019 results not yet available for this draft*).

During the annual assessment monitoring event, samples were collected from the CCR groundwater monitoring well network (CCR-1 through CCR-7) and analyzed for all Appendix IV constituents in accordance with §257.95(a).

During the subsequent semi-annual assessment monitoring events in June and December 2019, samples were collected from the CCR groundwater monitoring well network (CCR-1 through CCR-7) and analyzed for all Appendix III constituents and detected Appendix IV constituents from the annual monitoring event (all Appendix IV constituents other than thallium).

2.2.2 Characterization Sampling

In order to characterize the nature and extent of the release as part of the assessment of corrective measures, the following groundwater sampling events were performed:

Date	Wells/Piezometers	Parameters
December 3-4, 2018	AW-1, AW-2, AW-3, CCR-6, MW-8, MW-9	Radium 226+228, gross alpha
December 27, 2018	AW-1, AW-2, AW-3	Radium 226+228
February 20, 2019	AW-1, AW-2, AW-3, AW-4, AW-5, AW-6, AW-7, CCR-6, CCR-7, Pond A	Appendix III, Appendix IV (-cadmium and mercury), aluminum, iron, magnesium, potassium, sodium, nitrate, phosphorus, alkalinity, hardness
June 17, 2019	AW-6	Appendix III, Appendix IV (-thallium)
September 26, 2019	AW-5, AW-6, CCR-6, CCR-7	Radium 226+228
October 29, 2019	AW-4, AW-5, AW-6, AW-8, CCR-6, CCR-7	Appendix III, Appendix IV (-thallium), aluminum, iron, magnesium, potassium, sodium, nitrate, phosphorus, alkalinity, hardness
December 19, 2019	AW-5, AW-6, AW-8	Radium 226+228

Laboratory analytical results are provided in **Appendix C** (*December 2019 results not yet available for this draft*).

2.3 Groundwater Sampling Methodology

CCR groundwater sampling at Area B was performed in accordance with §257.93(a). The monitoring wells were purged and sampled using low-flow sampling techniques. Prior to purging, the depth to water level was measured for each well using an electronic water level indicator. The monitoring wells were purged and sampled using dedicated low-flow pneumatic bladder pumps. Calibrated water quality meters were used to monitor field stabilization parameters, including pH, specific conductance, temperature, dissolved oxygen, oxygen reduction potential and turbidity. After the water quality parameters stabilized, groundwater samples were collected and placed into iced coolers under chain-of-custody control pending delivery to the laboratory. Following sample collection, the samples were delivered to the JEA Springfield laboratory for analysis. The JEA laboratory sent select samples to Pace Analytical Services, LLC for analysis.

3.0 CCR GROUNDWATER DATA EVALUATION

3.1 Groundwater Flow Rate and Direction

Groundwater elevation measurements were recorded for the CCR groundwater monitoring network during each sampling event at Area B. A summary of the groundwater elevations recorded for the background and detection monitoring events is provided in **Table 2**. Groundwater elevation data was used to develop a potentiometric surface maps for the assessment monitoring events in March 2019, June 2019, September 2019, October 2019 and December 2019 (**Figures 3** through **Figure 7**, respectively). The hydraulic gradient (direction and magnitude) for each sampling event was calculated using the least-squares method of fitting the data to a plane. The average hydraulic gradient was 0.0022 feet per feet with an average eastward direction. A summary of the hydraulic gradients for each sampling event is provided in **Table 2**.

3.2 Groundwater Protection Standards

The CCR Rule requires the establishment of GWPS for any Appendix IV constituent that is detected in downgradient monitoring wells (§257.95(d)(2) and §257.95(h)). Thallium was not detected in the 2019 annual assessment event. The following GWPS have been established for BSA-B:

Parameter	BSA-B GWPS	Basis
Antimony	6 µg/L	MCL
Arsenic	10 µg/L	MCL
Barium	2000 µg/L	MCL
Beryllium	4 µg/L	MCL
Cadmium	5 µg/L	MCL
Chromium	100 µg/L	MCL
Cobalt	6 µg/L	CCR Rule GWPS
Fluoride	4 mg/L	MCL
Lead	15 µg/L	CCR Rule GWPS
Lithium	40 µg/L	CCR Rule GWPS
Mercury	2 µg/L	MCL
Molybdenum	100 µg/L	CCR Rule GWPS
Selenium	50 µg/L	MCL
Radium 226+228	5 pCi/L	MCL

3.3 Assessment Monitoring Statistical Analysis

The goal of the assessment monitoring program is to determine if downgradient monitoring well concentrations are at statistically significant levels (SSL) relative to the GWPS. The statistical analysis was performed in accordance with the Statistical Analysis Plan for CCR Groundwater Monitoring (Golder 2017b).

This assessment monitoring statistical analyses has been limited to those wells and parameters that had a maximum concentration above the GWPS. Given that BSA-B is an existing unlined facility and if there is no evidence of a shift in the constituent results from a well, then the Appendix IV data from the background period as well as assessment monitoring was used to calculate the lower confidence limit (LCL) at a 95% confidence level.

Appendix IV groundwater data collected during the background monitoring period was presented in the past annual groundwater reports (Golder 2018b, Golder 2019b).

3.3.1 December 2018 Monitoring Event Statistical Analysis Evaluation

The updated statistical analysis of the results from the December 2018 semi-annual assessment monitoring event are summarized below:

Parameter	Well	LCL	Method
Antimony	CCR-4	1.19 µg/L	Confidence band around linear regression trend line
Arsenic	CCR-4	7.66 µg/L	Confidence interval around normal mean
Beryllium	CCR-4	1.98 µg/L	Confidence interval around arithmetic mean
Beryllium	CCR-5	0.69 µg/L	Non-parametric confidence interval around median
Radium 226+228	CCR-6	8.04 pCi/L	Confidence interval around normal mean
Radium 226+228	CCR-7	4.34 pCi/L	Confidence band around linear regression trend line

One SSL above the GWPS was identified for radium 226+228 at CCR-6.

3.3.2 June 2019 Monitoring Event Statistical Analysis Evaluation

The updated statistical analysis of the results from the June 2019 semi-annual assessment monitoring event are summarized below:

Parameter	Well	LCL	Method
Antimony	CCR-4	1.96 µg/L	Non-parametric confidence band around Theil-Sen trend line
Arsenic	CCR-4	7.75 µg/L	Confidence interval around normal mean
Beryllium	CCR-4	1.78 µg/L	Confidence interval around arithmetic mean

Parameter	Well	LCL	Method
Beryllium	CCR-5	0.81 µg/L	Non-parametric confidence interval around median
Molybdenum	CCR-6	<0 µg/L	Non-parametric confidence band around Theil-Sen trend line
Radium 226+228	CCR-6	2.84 pCi/L	Confidence band around linear regression trend line
Radium 226+228	CCR-7	4.99 pCi/L	Confidence band around linear regression trend line

One SSL above the GWPS was identified for radium 226+228 at CCR-6.

4.0 CONCLUSIONS AND RECOMMENDATIONS

Assessment of corrective measures was initiated January 13, 2019 in accordance with §257.96 and was completed June 12, 2019 (Golder 2019c). The report noted that additional site data and characterization would be needed to evaluate feasible remedies and design appropriate corrective measures. Pursuant to §257.97(a), the remedy selection and design process must be documented in semi-annual progress reports. The remedy selection progress was documented in the semi-annual reported dated December 23, 2019 (Golder 2019g).

Assessment monitoring will continue during remedy selection process. The third annual assessment monitoring event will be performed in March 2020. The subsequent semi-annual assessment monitoring events will be performed in June 2020 and December 2020. Additional site characterization monitoring may be conducted to assist in the evaluation and design of appropriate remedial options.

5.0 REFERENCES

- Geosyntec Consultants. 2013. Industrial Wastewater and Solid Waste Groundwater Monitoring Plans, Revision 4, St. Johns River Power Park, Jacksonville Florida, dated June 2013.
- Golder. 2015. Technical Memorandum, Groundwater Sampling Methodology and Analytical Procedures, CCR Groundwater Monitoring Plan, Byproduct Storage Area B, St. Johns River Power Park, dated December 14, 2015.
- Golder. 2016. Monitoring Well Installation Report, CCR Rule Compliance Support, Byproduct Storage Area B – Phase I, St. Johns River Power Park, Jacksonville, Florida, dated February 4, 2016.
- Golder. 2017a. CCR Groundwater Monitoring Network Certification, Byproduct Storage Area B, Phase I Development, St. Johns River Power Park, Jacksonville, Florida, dated October 13, 2017.
- Golder. 2017b. Statistical Analysis Plan, CCR Groundwater Monitoring, St. Johns River Power Park, Jacksonville, Florida, dated October 2017.
- Golder. 2018a. Statistically Significant Increase Evaluation, Byproduct Storage Area B, St. Johns River Power Park, Jacksonville, Florida, dated January 15.
- Golder. 2018b. 2017 Annual Groundwater Monitoring and Corrective Action Report, Byproduct Storage Area B, St. Johns River Power Park, Jacksonville, Florida, dated January 30.
- Golder. 2018c. Statistically Significant Level Evaluation, Byproduct Storage Area B, St. Johns River Power Park, Jacksonville, Florida, dated October 15.
- Golder. 2019a. Initiation of Assessment of Corrective Measures, Byproduct Storage Area B- CCR Groundwater Monitoring, St. Johns River Power Park, Duval County, Florida, dated January 13.
- Golder. 2019b. 2018 Annual Groundwater Monitoring and Corrective Action Report, Byproduct Storage Area B, St. Johns River Power Park, Jacksonville, Florida, dated January.
- Golder. 2019c. Extension of Assessment of Corrective Measures, Byproduct Storage Area B- CCR Groundwater Monitoring, St. Johns River Power Park, Duval County, Florida, dated April 12.
- Golder. 2019d. AW-Series Piezometer Installation Report, CCR Rule Compliance Support, Byproduct Storage Area B – Phase I, St. Johns River Power Park, Jacksonville, Florida, dated April 26.
- Golder. 2019e. Assessment of Corrective Measures, Byproduct Storage Area B, St. Johns River Power Park, dated June 2019.
- Golder. 2019f. AW-8 Piezometer Installation Report, CCR Rule Compliance Support, Byproduct Storage Area B, St. Johns River Power Park, Jacksonville, Florida, dated November 8.
- Golder. 2019g. Semi-Annual Remedy Selection Progress Report, Byproduct Storage Area B, St. Johns River Power Park, dated December 23.
- JEA. 2007. JEA SJRPP Byproduct Storage Area B, dated April 19, 2007. [This document includes as an attachment a report prepared by Golder in April 2007, Hydrogeologic and Geotechnical Site Evaluation, St. Johns River Power Park Area B By-product Storage Area, Duval County, Florida (Golder 2007)]

Signature Page

This Annual Report has been prepared to meet the requirements of §257.90(e).

Golder appreciates the opportunity to assist JEA with this project. Should you have any questions or need any additional information, please do not hesitate to contact us.

Golder Associates Inc.



Samuel F. Stafford, PE
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SFS/DJM/ams

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TABLES

TABLE 1
SUMMARY OF MONITORING WELL AND PIEZOMETER CONSTRUCTION DETAILS

St. Johns River Power Park
Byproduct Storage Area B - SJRPP

Well ID	Date Installed	Northing (ft NAD83)	Easting (ft NAD83)	Ground Surface Elevation (ft NAVD88)	TOC Elevation (ft NAVD88)	Stick-up Height (feet)	Well Depth (ft bgs)	Screen Interval Depth (ft bgs)
CCR-1	10/20/2015	2221016.34	485450.08	13.37	16.58	3.21	19.79	9.79-19.79
CCR-2	10/20/2015	2222219.71	485292.98	14.45	18.06	3.61	19.49	9.49-19.49
CCR-3	10/20/2015	2222897.83	485087.81	14.22	17.74	3.52	19.78	9.78-19.78
CCR-4	10/21/2015	2221065.31	486365.39	17.87	20.73	2.86	20.84	10.84-20.84
CCR-5	10/21/2015	2221064.27	486865.44	15.44	18.29	2.85	20.35	10.35-20.35
CCR-6	10/21/2015	2221455.96	487055.81	13.07	16.07	3.00	20.10	10.1-20.1
CCR-7	10/22/2015	2221887.42	487053.83	12.44	15.72	3.28	20.12	10.12-20.12
AW-1	11/29/2018	2221266.24	487136.19	14.4	17.16	2.76	20.24	10.24-20.24
AW-2	11/29/2018	2221416.04	487138.12	13.3	16.14	2.84	20.16	10.16-20.16
AW-3	11/30/2018	2221699.22	487139.98	11.8	14.46	2.66	20.34	10.34-20.34
AW-4	2/8/2019	2221703.97	487052.84	10.5	13.49	2.99	20.01	10.01-20.01
AW-5	2/7/2019	2221677.18	487248.41	10.6	13.46	2.86	20.14	10.14-20.14
AW-6	2/7/2019	2221371.74	487620.88	10.8	13.76	2.96	20.04	10.04-20.04
AW-7	2/7/2019	2221217.37	488105.81	10.2	13.17	2.97	20.03	10.03-20.03

Notes:

TOC - Top of Casing

ft bgs - feet below ground surface

ft TOC - feet below top of casing

NAD83 - Horizontal Control: North American Datum, State Plan Coordinate System Florida, East Zone

NAVD88 - Vertical Control: North American Vertical Datum of 1988

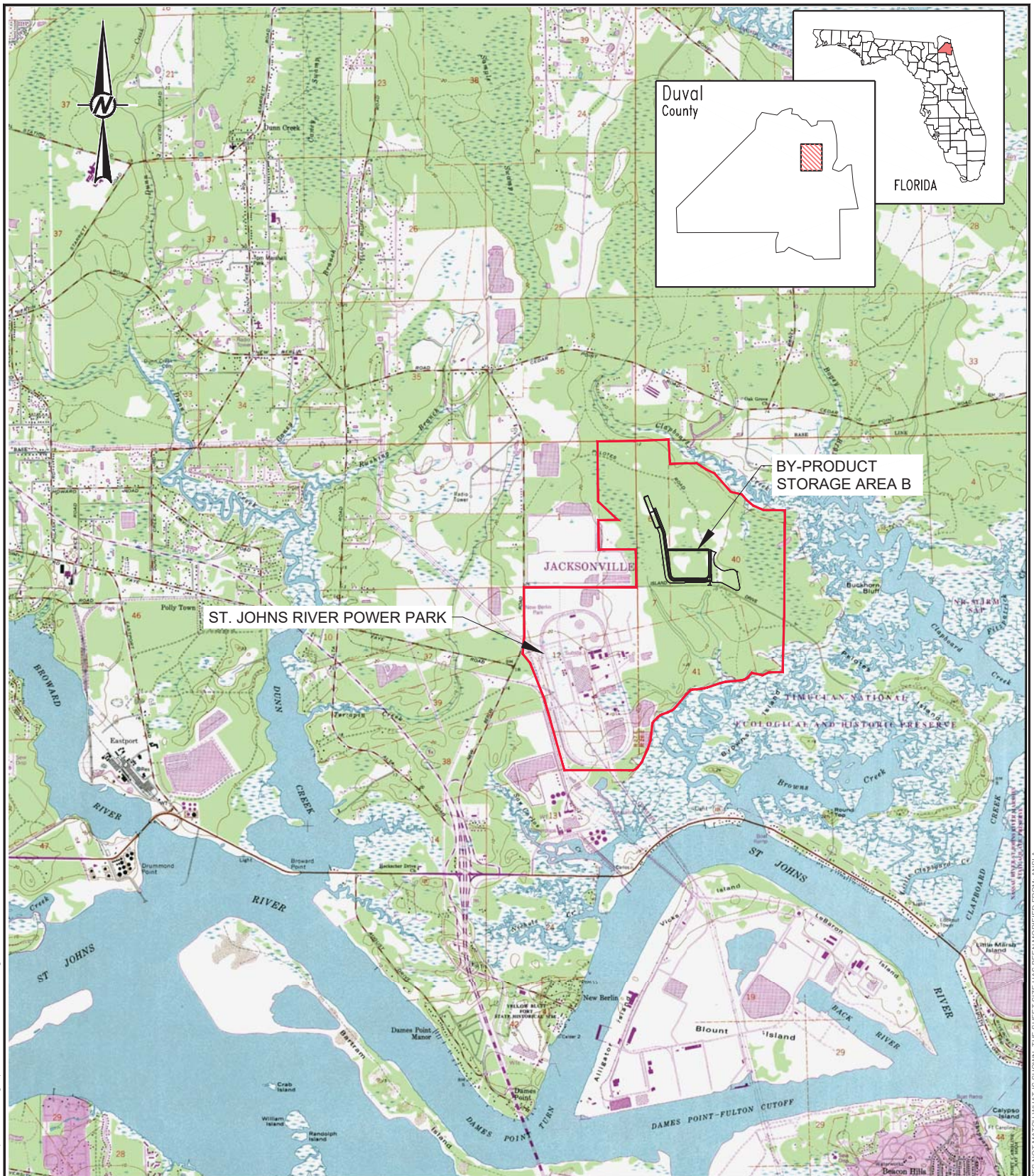
**TABLE 2
SUMMARY OF GROUNDWATER ELEVATION MEASUREMENTS**

**St. Johns River Power Park
Byproduct Storage Area B - SJRPP**

Well ID	20-Feb-19		25-Mar-19		17-Jun-19		26-Sep-19		29-Oct-19		19-Dec-09	
	Depth to Water (ft TOC)	Groundwater Elevation (ft NAVD88)	Depth to Water (ft TOC)	Groundwater Elevation (ft NAVD88)	Depth to Water (ft TOC)	Groundwater Elevation (ft NAVD88)	Depth to Water (ft TOC)	Groundwater Elevation (ft NAVD88)	Depth to Water (ft TOC)	Groundwater Elevation (ft NAVD88)	Depth to Water (ft TOC)	Groundwater Elevation (ft NAVD88)
CCR-1	NM	--	5.46	11.12	7.68	8.90	6.98	9.60	6.74	9.84	5.58	11.00
CCR-2	NM	--	6.06	12.00	8.53	9.53	8.08	9.98	7.78	10.28	7.09	10.97
CCR-3	NM	--	5.20	12.54	8.26	9.48	7.57	10.17	6.95	10.79	5.58	12.16
CCR-4	NM	--	9.54	11.19	12.29	8.44	11.57	9.16	NM	--	10.72	10.01
CCR-5	NM	--	9.46	8.83	11.61	6.68	11.30	6.99	NM	--	10.25	8.04
CCR-6	7.60	8.47	7.79	8.28	10.03	6.04	9.75	6.32	9.46	6.61	9.02	7.05
CCR-7	6.96	8.76	7.38	8.34	9.96	5.76	9.56	6.16	9.28	6.44	8.64	7.08
AW-1	9.33	7.83	9.51	7.65	11.50	5.66	11.38	5.78	NM	--	10.52	6.64
AW-2	8.25	7.89	9.43	6.71	10.56	5.58	10.30	5.84	NM	--	9.52	6.62
AW-3	6.44	8.02	6.66	7.80	9.17	5.29	8.76	5.70	NM	--	7.81	6.65
AW-4	4.95	8.54	5.24	8.25	7.66	5.83	7.31	6.18	7.00	6.49	6.45	7.04
AW-5	5.82	7.64	6.09	7.37	8.54	4.92	8.16	5.30	7.76	5.70	6.91	6.55
AW-6	6.32	7.44	6.53	7.23	8.50	5.26	8.49	5.27	8.08	5.68	7.33	6.43
AW-7	6.03	7.14	6.81	6.36	8.64	4.53	8.49	4.68	NM	--	7.20	5.97
AW-8	NM	--	NM	--	NM	--	NM	--	7.41	5.76	6.50	6.67
Hydraulic Gradient (ft/ft)	1.22E-03		2.21E-03		2.08E-03		2.30E-03		2.34E-03		3.12E-03	
Flow Direction (degrees from N)	130.3		86.2		76.7		76.6		95.6		45.0	
Coefficient of Determination	0.74		0.91		0.94		0.95		0.97		0.69	

Notes:
 Hydraulic Gradient calculated using the least squares method of fitting data to a plane
 ft/ft - feet per foot
 degrees from N - degrees from north in clockwise direction
 NM - not measured
 ft TOC - feet below top of casing

FIGURES



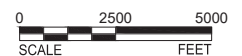
ST. JOHNS RIVER POWER PARK

BY-PRODUCT STORAGE AREA B

JACKSONVILLE

REFERENCE(S)

- 1.) USGS TOPOGRAPHIC MAP, 7.5 MIN. QUADRANGLE MAP SERIES: EASTPORT QUADRANGLE, DUVAL COUNTY, FLORIDA.



CLIENT
JEA

PROJECT
ST. JOHNS RIVER POWER PARK - CCR SUPPORT
JACKSONVILLE, DUVAL COUNTY, FLORIDA

CONSULTANT

YYYY-MM-DD 2020-01-10

DESIGNED SFS

PREPARED BCL

REVIEWED SFS

APPROVED DJM

TITLE

SITE LOCATION MAP

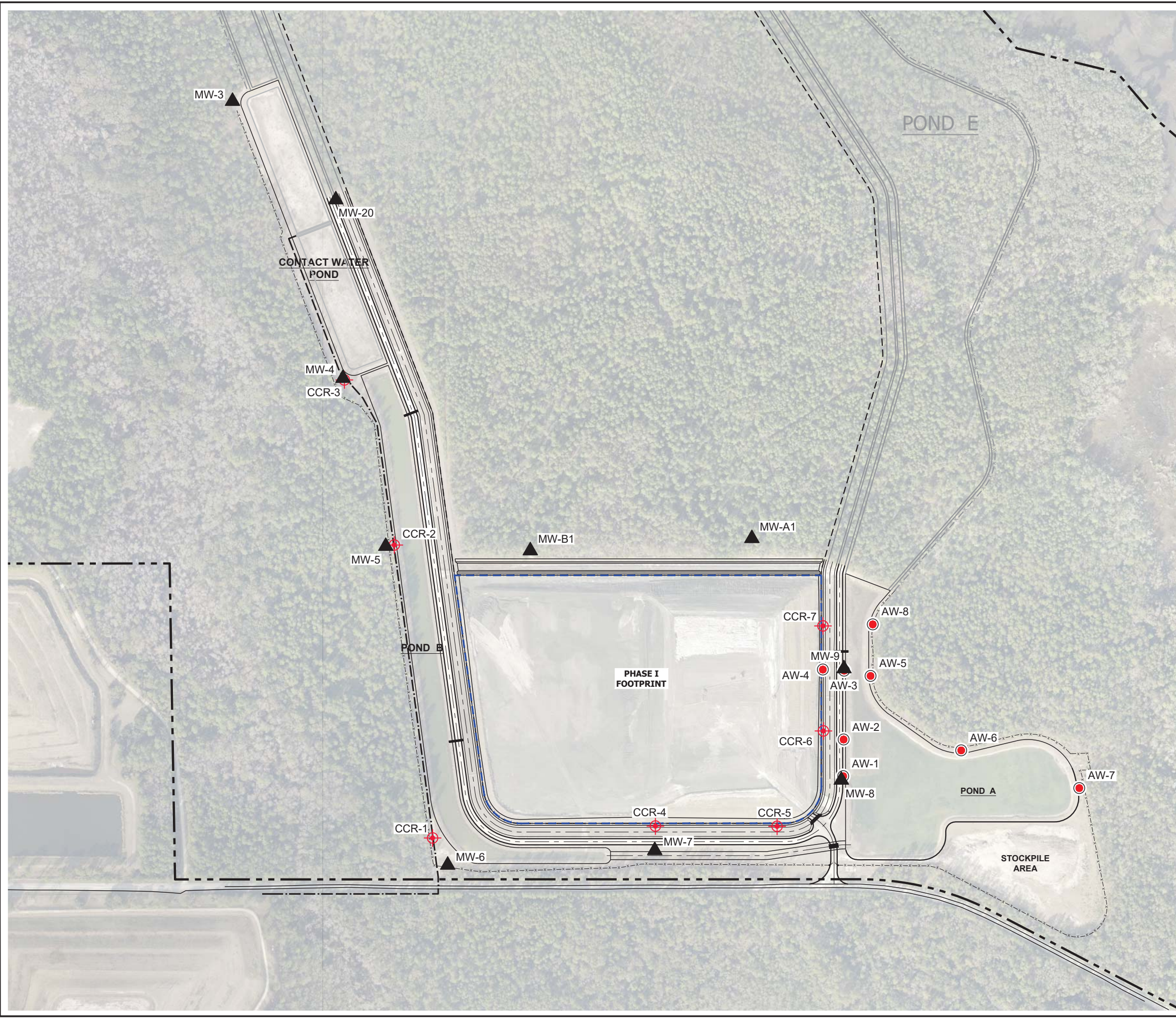
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REV.

FIGURE
1

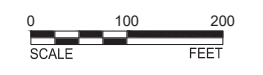




LEGEND

	PROPERTY BOUNDARY
	CHAIN LINK FENCELINE
	PHASE I LIMIT OF WASTE
	CCR-1 CCR GROUNDWATER MONITORING WELL LOCATIONS
	AW-1 PIEZOMETER LOCATION
	MW-B1 EXISTING MONITORING WELL

- REFERENCE(S)**
- 1.) CCR-SERIES MONITORING WELL AS-BUILT SURVEY PERFORMED BY B.V. & ASSOCIATES, INC. ON NOVEMBER 17, 2015.
 - 2.) AERIAL IMAGE TAKEN FROM FDEP BUREAU OF SURVEY AND MAPPING (LAND BOUNDARY INFORMATION SYSTEM), YEAR 2013.
 - 3.) AW-SERIES PIEZOMETERS FROM SURVEY PERFORMED BY R.E. HOLLAND & ASSOCIATES, INC. IN MARCH 2019.



CLIENT
JEA

CONSULTANT	YYYY-MM-DD	2020-01-10
	DESIGNED	SFS
	PREPARED	BCL
	REVIEWED	SFS
	APPROVED	DJM

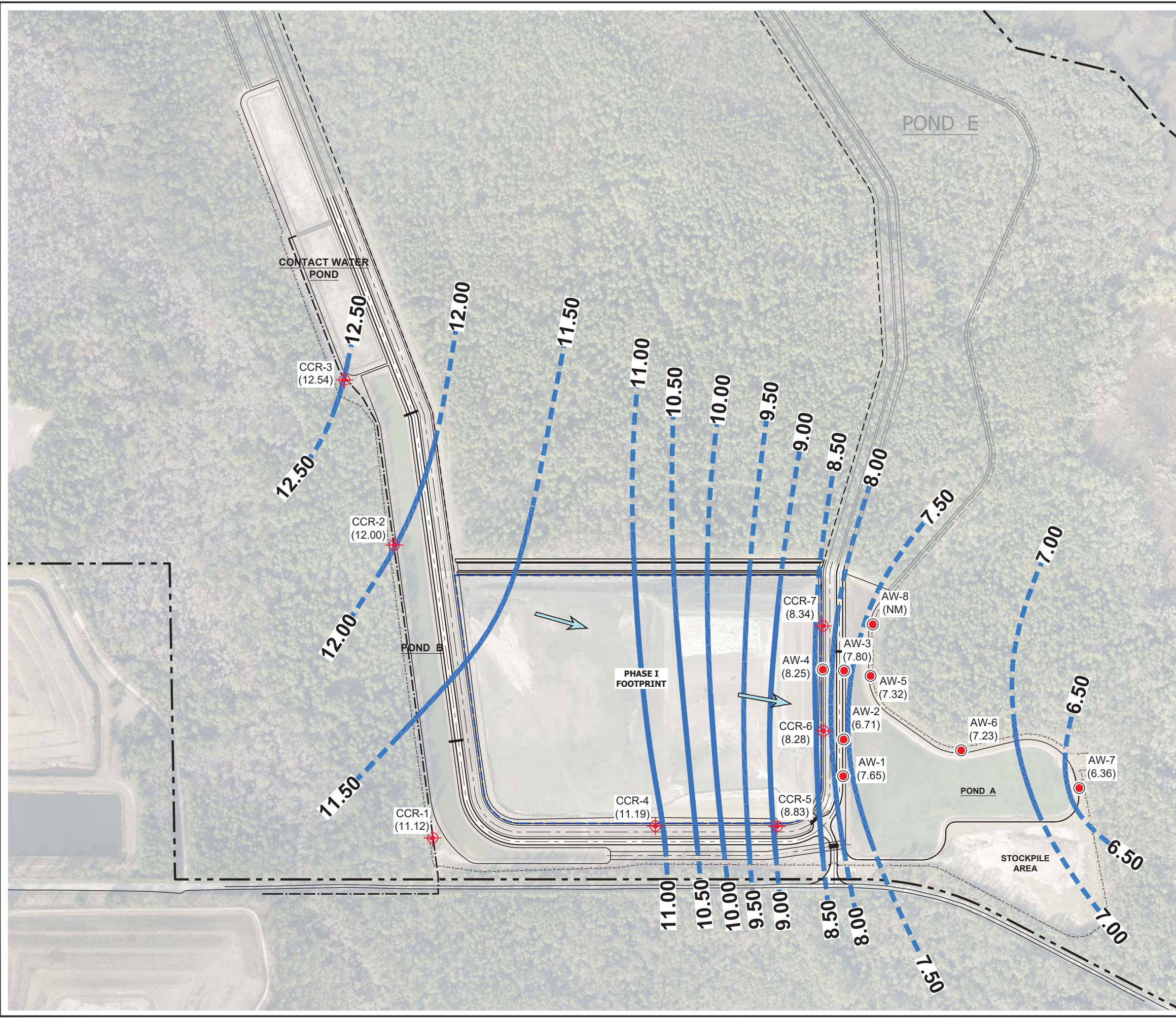
PROJECT
**ST. JOHNS RIVER POWER PARK - CCR SUPPORT
JACKSONVILLE, DUVAL COUNTY, FLORIDA**

TITLE
CCR GROUNDWATER MONITORING WELLS

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1 in IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM ANSIB

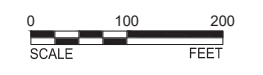
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LEGEND

- PROPERTY BOUNDARY
- X X X X CHAIN LINK FENCELINE
- PHASE I LIMIT OF WASTE
- + CCR-1 CCR-GROUNDWATER MONITORING WELL LOCATIONS
- AW-1 PIEZOMETER LOCATION
- (6.36) GROUNDWATER ELEVATION
- 11.0** GROUNDWATER CONTOUR INTERVAL (DASHED WHERE INFERRED)
- ESTIMATED GROUNDWATER FLOW DIRECTION

- REFERENCE(S)**
- 1.) CCR-SERIES MONITORING WELL AS-BUILT SURVEY PERFORMED BY B.V. & ASSOCIATES, INC. ON NOVEMBER 17, 2015.
 - 2.) AERIAL IMAGE TAKEN FROM FDEP BUREAU OF SURVEY AND MAPPING (LAND BOUNDARY INFORMATION SYSTEM), YEAR 2013.
 - 3.) AW-SERIES PIEZOMETERS FROM SURVEY PERFORMED BY R.E. HOLLAND & ASSOCIATES, INC. IN MARCH 2019.



CLIENT
JEA

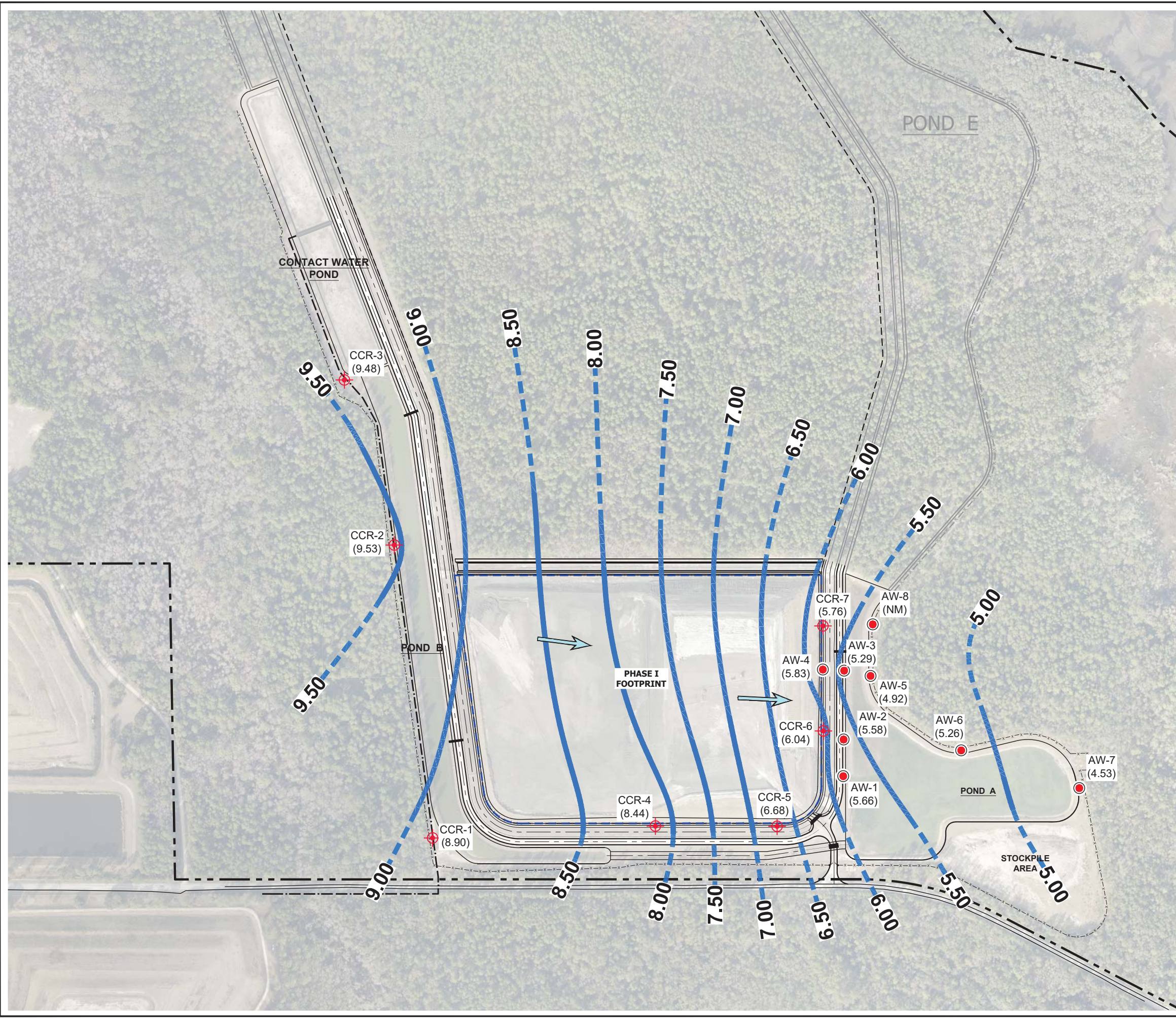
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GOLDER	DESIGNED	SFS
	PREPARED	BCL
	REVIEWED	SFS
	APPROVED	DJM

PROJECT
ST. JOHNS RIVER POWER PARK - CCR SUPPORT
JACKSONVILLE, DUVAL COUNTY, FLORIDA

TITLE
POTENTIOMETRIC MAP
(MARCH 25, 2019)

PROJECT NO.	Phase	REV.	FIGURE
19-124481	19124481-F003		3

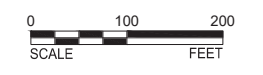
1 in IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM ANSIB



LEGEND

	PROPERTY BOUNDARY
	CHAIN LINK FENCELINE
	PHASE I LIMIT OF WASTE
	CCR-1 CCR GROUNDWATER MONITORING WELL LOCATIONS
	AW-1 PIEZOMETER LOCATION
	(4.92) GROUNDWATER ELEVATION (FT-NAVD88)
	6.0 GROUNDWATER CONTOUR INTERVAL (DASHED WHERE INFERRED) (FT-NAVD88)
	ESTIMATED GROUNDWATER FLOW DIRECTION

- REFERENCE(S)**
- 1.) CCR-SERIES MONITORING WELL AS-BUILT SURVEY PERFORMED BY B.V. & ASSOCIATES, INC. ON NOVEMBER 17, 2015.
 - 2.) AERIAL IMAGE TAKEN FROM FDEP BUREAU OF SURVEY AND MAPPING (LAND BOUNDARY INFORMATION SYSTEM), YEAR 2013.
 - 3.) AW-SERIES PIEZOMETERS FROM SURVEY PERFORMED BY R.E. HOLLAND & ASSOCIATES, INC. IN MARCH 2019.



CLIENT
JEA

CONSULTANT	YYYY-MM-DD	2020-01-10
	DESIGNED	SFS
	PREPARED	BCL
	REVIEWED	SFS
	APPROVED	DJM

PROJECT
ST. JOHNS RIVER POWER PARK - CCR SUPPORT
JACKSONVILLE, DUVAL COUNTY, FLORIDA

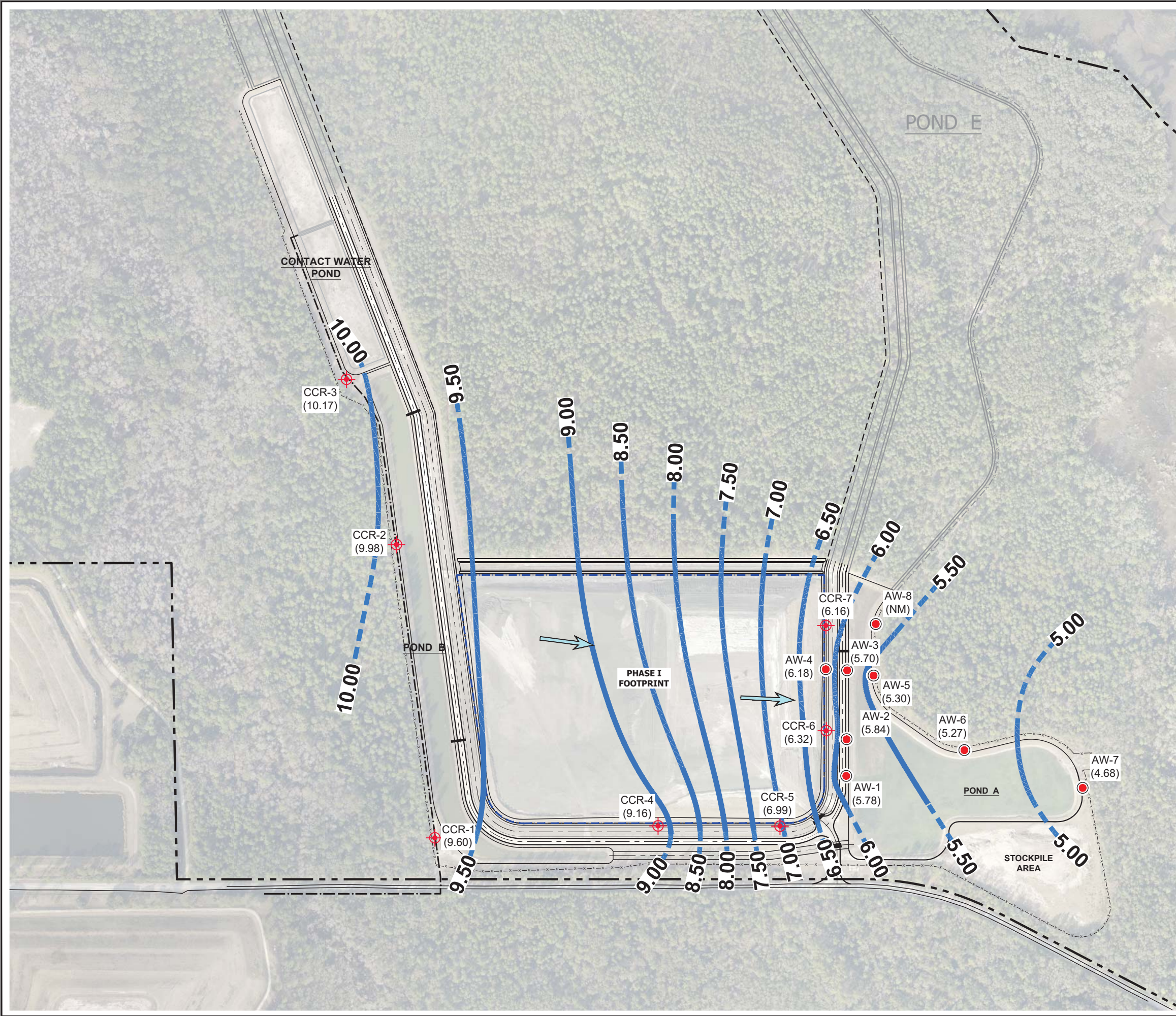
TITLE
POTENTIOMETRIC MAP
JUNE 17, 2019)

PROJECT NO.	Phase	REV.	FIGURE
19-124481	19124481-F004		4

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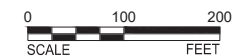
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LEGEND	
	PROPERTY BOUNDARY
	CHAIN LINK FENCELINE
	PHASE I LIMIT OF WASTE
	CCR-1 CCR GROUNDWATER MONITORING WELL LOCATIONS
	AW-1 PIEZOMETER LOCATION
	(5.27) GROUNDWATER ELEVATION (FT-NAVD88)
	6.0 GROUNDWATER CONTOUR INTERVAL (DASHED WHERE INFERRED) (FT-NAVD88)
	ESTIMATED GROUNDWATER FLOW DIRECTION

- REFERENCE(S)**
- CCR-SERIES MONITORING WELL AS-BUILT SURVEY PERFORMED BY B.V. & ASSOCIATES, INC. ON NOVEMBER 17, 2015.
 - AERIAL IMAGE TAKEN FROM FDEP BUREAU OF SURVEY AND MAPPING (LAND BOUNDARY INFORMATION SYSTEM), YEAR 2013.
 - AW-SERIES PIEZOMETERS FROM SURVEY PERFORMED BY R.E. HOLLAND & ASSOCIATES, INC. IN MARCH 2019.



CLIENT
JEA

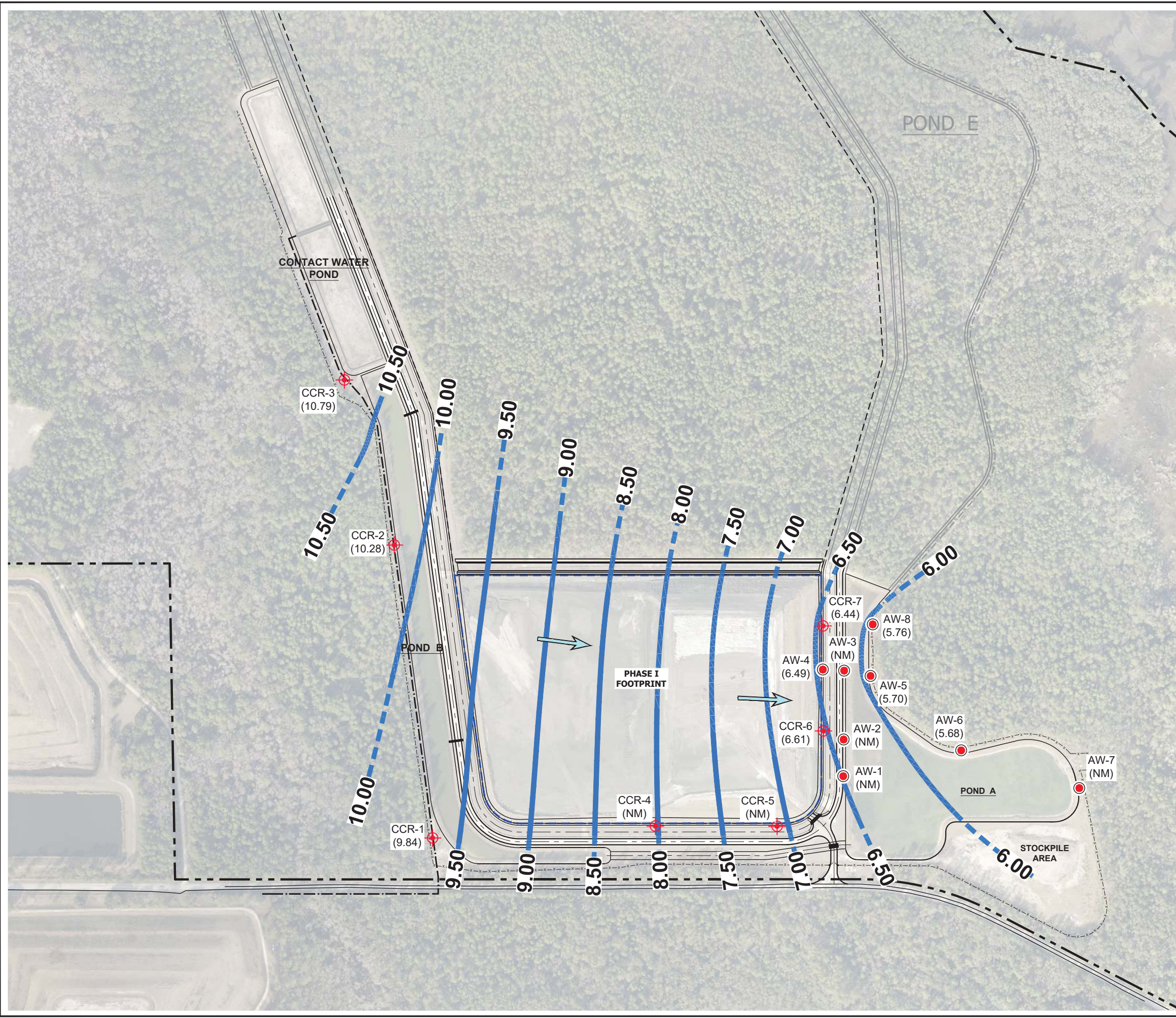
CONSULTANT	YYYY-MM-DD	2020-01-10
	DESIGNED	SFS
	PREPARED	BCL
	REVIEWED	SFS
	APPROVED	DJM

PROJECT
ST. JOHNS RIVER POWER PARK - CCR SUPPORT
JACKSONVILLE, DUVAL COUNTY, FLORIDA

TITLE
POTENTIOMETRIC MAP
(SEPTEMBER 26, 2019)

PROJECT NO.	Phase	REV.	FIGURE
19-124481	19124481-F005		5

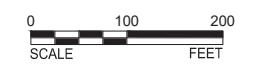
1 in IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM ANSIB



LEGEND

	PROPERTY BOUNDARY
	CHAIN LINK FENCELINE
	PHASE I LIMIT OF WASTE
	CCR-1 CCR GROUNDWATER MONITORING WELL LOCATIONS
	AW-1 PIEZOMETER LOCATION
	(5.76) GROUNDWATER ELEVATION (FT-NAVD88)
	6.0 GROUNDWATER CONTOUR INTERVAL (DASHED WHERE INFERRED) (FT-NAVD88)
	ESTIMATED GROUNDWATER FLOW DIRECTION

- REFERENCE(S)**
- 1.) CCR-SERIES MONITORING WELL AS-BUILT SURVEY PERFORMED BY B.V. & ASSOCIATES, INC. ON NOVEMBER 17, 2015.
 - 2.) AERIAL IMAGE TAKEN FROM FDEP BUREAU OF SURVEY AND MAPPING (LAND BOUNDARY INFORMATION SYSTEM), YEAR 2013.
 - 3.) AW-SERIES PIEZOMETERS FROM SURVEY PERFORMED BY R.E. HOLLAND & ASSOCIATES, INC. IN MARCH 2019.



CLIENT
JEA

CONSULTANT	YYYY-MM-DD	2020-01-10
	DESIGNED	SFS
	PREPARED	BCL
	REVIEWED	SFS
	APPROVED	DJM

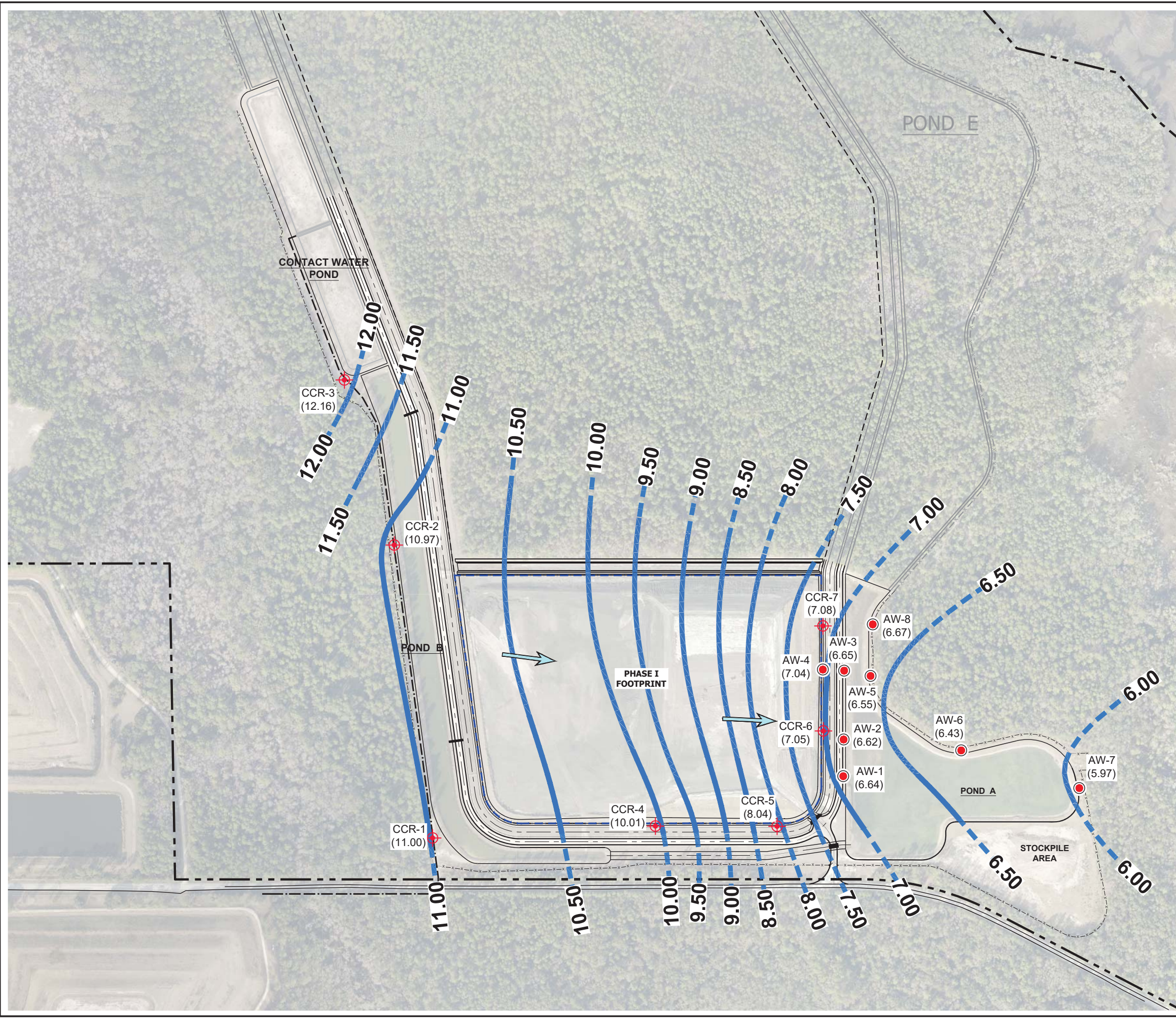
PROJECT
ST. JOHNS RIVER POWER PARK - CCR SUPPORT
JACKSONVILLE, DUVAL COUNTY, FLORIDA

TITLE
POTENTIOMETRIC MAP
(OCTOBER 29, 2019)

PROJECT NO.	Phase	REV.	FIGURE
19-124481	19124481-F006		6

Path: \\nascon\blending\19124481-F006\19-124481-F006.dwg | File Name: 19124481-F006.dwg

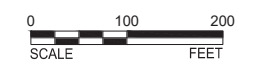
1 in IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM ANSIB



LEGEND

	PROPERTY BOUNDARY
	CHAIN LINK FENCELINE
	PHASE I LIMIT OF WASTE
	CCR-1 CCR GROUNDWATER MONITORING WELL LOCATIONS
	AW-1 PIEZOMETER LOCATION
	(6.67) GROUNDWATER ELEVATION (FT-NAVD88)
	6.0 GROUNDWATER CONTOUR INTERVAL (DASHED WHERE INFERRED) (FT-NAVD88)
	ESTIMATED GROUNDWATER FLOW DIRECTION

- REFERENCE(S)**
- 1.) CCR-SERIES MONITORING WELL AS-BUILT SURVEY PERFORMED BY B.V. & ASSOCIATES, INC. ON NOVEMBER 17, 2015.
 - 2.) AERIAL IMAGE TAKEN FROM FDEP BUREAU OF SURVEY AND MAPPING (LAND BOUNDARY INFORMATION SYSTEM), YEAR 2013.
 - 3.) AW-SERIES PIEZOMETERS FROM SURVEY PERFORMED BY R.E. HOLLAND & ASSOCIATES, INC. IN MARCH 2019.



CLIENT
JEA

CONSULTANT	YYYY-MM-DD	2020-01-10
	DESIGNED	SFS
	PREPARED	BCL
	REVIEWED	SFS
	APPROVED	DJM

PROJECT
ST. JOHNS RIVER POWER PARK - CCR SUPPORT
JACKSONVILLE, DUVAL COUNTY, FLORIDA

TITLE
POTENTIOMETRIC MAP
(DECEMBER 19, 2019)

PROJECT NO. 19-124481	Phase 19124481-F007	REV.	FIGURE 7
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1" IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM ANSIB

APPENDIX A

Assessment of Corrective Measure Extension Demonstration



April 12, 2019

15-26356.2

Matt McClure, PE

JEA

21 West Church Street

Jacksonville, FL 32202

**RE: EXTENSION OF ASSESSMENT OF CORRECTIVE MEASURES
BYPRODUCT STORAGE AREA B - CCR GROUNDWATER MONITORING
ST. JOHNS RIVER POWER PARK
DUVAL COUNTY, FLORIDA**

Dear Mr. McClure:

Golder is providing this notification of the extension of assessment of corrective measures for the Byproduct Storage Area B (BSA-B) at the St. Johns River Power Park (SJRPP). Pursuant to §257.95(a) of the CCR Rule¹, additional time is needed to complete the assessment of corrective measures due to the following:

- Delays in completing the nature and extent evaluation due to the phased approach and long turnaround times associated with radionuclide analysis.
- Additional time to evaluate the feasibility of corrective measures including monitored natural attenuation.
- Ongoing closure re-design of BSA-B associated with the decommissioning of SJRPP to include a full geosynthetic barrier layer.

Pursuant to §257.95(a), the assessment of corrective measures will be extended for no longer than 60 days.

Sincerely,

Golder Associates Inc.

A handwritten signature in blue ink, appearing to read 'Sam F. Stafford'.

Samuel F. Stafford, PE

Senior Project Engineer

SFS/GMP/ams

A handwritten signature in blue ink, appearing to read 'Gregory M. Powell'.

Gregory M. Powell, PhD, PE

Practice Leader


G:\Projects\15-115-26356.2\Reports\Final\ACM Notice\SJRPP ACM Extension Letter.docx

¹ 40 Code of Federal Regulations Part 257 (40 CFR 257), Subpart D – Standards for the Disposal of Coal Combustion Residuals in Landfills and Surface Impoundments, Published in Federal Register/Vol 80, No. 74, April 17, 2015.

PROFESSIONAL CERTIFICATION

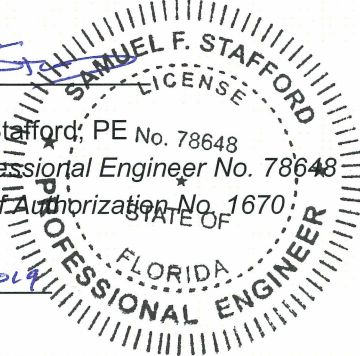
I hereby certify that the information contained in this letter is accurate to the best of my knowledge as required by 40 CFR §257.96(a).

Golder Associates Inc.



Samuel F. Stafford; PE No. 78648
Florida Professional Engineer No. 78648
Certificate of Authorization No. 1670
STATE OF
12 APR 2019

Date



APPENDIX B

Summary of Assessment Monitoring Results

Table B-1 - SECOND ANNUAL ASSESSMENT MONITORING EVENT - MARCH 2019

Sample ID	Sample Date	APPENDIX IV																	Field Parameters					
		Barium (ug/L)	Beryllium (ug/L)	Cadmium (ug/L)	Chromium (ug/L)	Cobalt (ug/L)	Molybdenum (ug/L)	Lithium (ug/L)	Antimony (ug/L)	Arsenic (ug/L)	Lead (ug/L)	Selenium (ug/L)	Thallium (ug/L)	Mercury (ug/L)	Fluoride (mg/L)	Radium-226 (pCi/L)	Radium-228 (pCi/L)	Total Radium (pCi/L)	DO Concentration (mg/L)	Turbidity (NTU)	Redox Potential (mV)	Specific Conductance (umhos/cm)	Temperature (Deg.C)	pH (S.U.)
CCR 1	3/25/2019	153.74	0.375 I	0.849 I	0.342 U	1.10 U	1.27 U	1.5	0.0946 U	0.320 I	0.460 U	1.35 U	0.428 U	0.00575 U	0.083	1.52	1.88	3.40	0.53	2.62	164	485	20.9	4.64
CCR 2	3/25/2019	47.8	0.995 I	0.647 I	2.19 I	1.10 U	1.27 U	2.8	0.0946 U	0.493 I	0.460 U	1.35 U,J2	0.428 U	0.00575 U	0.16	0.880 U	1.48 U	2.36 U	0.28	18.5	115.1	558	21.0	4.36
CCR 3	3/25/2019	95.1	0.442 I	0.241 I	0.877 I	1.10 U	1.27 U	0.19 U	0.0946 U	0.848	0.460 U	1.35 U	0.428 U	0.00575 U	0.14	2.79	3.88	6.67	0.33	11.2	129.0	1539	21.3	4.23
CCR 4	3/25/2019	109.21	0.980 I	0.224 U	3.14 I	1.10 U	23.6	0.38 I	2.10	5.89	0.658	4.99 I	0.428 U	0.0120 I	0.17 U,D3	1.23	1.38	2.61	0.42	592	-187.3	3530	22.9	6.27
CCR 4 DUP	3/25/2019	110.63	0.925 I	0.224 U	3.12 I	1.10 U	22.3	0.19 U	4.86	11.6	1.16	5.36 I	0.428 U	0.00575 U	0.034 U	1.96	2.77	4.73	0.42	592	-187.3	3530	22.9	6.27
CCR 5	3/25/2019	266.21	0.841 I	0.869 I	1.50 I	1.10 U	1.27 U	1.5	0.0946 U	0.727	0.460 U	5.41 I	0.428 U	0.00575 U	0.14	1.06 U	1.16 U	2.22 U	0.40	7.80	-107.6	1353	23.6	4.55
CCR 6	3/25/2019	60.7	0.0627 U	0.384 I	3.72 I	2.14 I	1.27 U	0.54 I	0.0946 U	1.05	0.460 U	5.06 I	0.428 U	0.00575 U	0.68 U,D3	2.19	3.37	5.56	0.37	10.8	-60.0	3930	21.5	4.60
CCR 7	3/25/2019	35.0	0.0627 U	0.224 U	0.556 I	1.10 U	25.6	0.19 U	0.0946 U	0.655	0.460 U	2.78 I	0.428 U	0.00575 U	0.17 U,D3	1.99	2.86	4.84	0.46	29.8	-127.9	3265	22.0	6.29
CCR Field Blank	3/25/2019	0.140 U	0.0627 U	0.224 U	0.342 U	1.10 U	1.27 U	0.19 U	0.0946 U	0.0499 U	0.460 U	1.35 U	0.428 U	0.00575 U	0.17 U,D3	0.789 U	0.952 U	1.74 U	NA	NA	NA	NA	NA	NA

TABLE B-2 - SEMI-ANNUAL ASSESSMENT MONITORING EVENT - JUNE 2019

Sample ID	Sample Date	APPENDIX IV															APPENDIX III							FIELD PARAMETERS					
		Antimony (ug/L)	Arsenic (ug/L)	Barium (ug/L)	Beryllium (ug/L)	Cadmium (ug/L)	Chromium (ug/L)	Cobalt (ug/L)	Lead (ug/L)	Lithium (ug/L)	Molybdenum (ug/L)	Mercury (ug/L)	Selenium (ug/L)	Radium-226 (pCi/L)	Radium-228 (pCi/L)	Total Radium (pCi/L)	Boron (ug/L)	Calcium (ug/L)	Chloride (mg/L)	Fluoride (mg/L)	pH (Field) (S.U.)	Sulfate (mg/L)	Residue, Filterable (TDS) (mg/L)	DO (Field) Concentration (mg/L)	Field Turb (NTU)	Redox Potential (Field) (mV)	Specific Conductance (Field) (umhos/cm)	Temp (Field) (Deg.C)	
CCR 1	6/17/2019	0.191 U	0.275 I	137.51	0.432 I	0.224 U	0.711 U	1.10 U	0.0560 U	1.8	1.27 U	0.00575 U	0.540 U	2.77	0.986	3.76	607.77	17750	23.5	0.082	5.02	197 J(M1)	364	0.12	1.98	-80.8	530	23.8	
CCR 2	6/17/2019	0.191 U	0.737	53.7	1.15 I	0.224 U	2.86 I	1.68 I	0.577 I	3.1	1.27 U	0.00575 U	0.540 U	1.36	1.14	2.50	838.07	23724	17.8	0.18	4.70	238	410	0.11	21.3	-151.1	563	23.3	
CCR 3	6/17/2019	0.191 U	0.473 I	69.6	0.292 U	0.224 U	0.711 U	1.10 U	0.0560 U	0.19 U	1.27 U	0.00575 U	0.540 U	2.04	1.06	3.09	3822.0	122950	25.6	0.13	4.63	445	658	0.11	3.33	-87.5	913	22.9	
CCR 4	6/17/2019	4.00	11.6	117.05	0.606 I	0.224 U	1.77 I	1.72 I	0.887	0.19 U	20.2	0.0180	5.38	2.74	1.81	4.55	31283	611220	60.8	0.17 U,D3	6.42	1880	3195	0.14	319	-335.2	3674	24.5	
CCR 5	6/17/2019	0.191 U	0.701	335.34	1.13 I	0.224 U	1.79 I	1.10 U	0.0730 I	1.8	1.27 U	0.00575 U	0.540 U	1.68	1.78	3.46	6687.6	26998	318	0.16	4.79	250	908	0.14	2.85	-170.4	1555	24.0	
CCR 6	6/17/2019	0.248 I	0.790	37.4	0.292 U	0.224 U	0.711 U	1.10 U	0.201 I	0.19 U	174.34	0.00575 U	0.540 U	4.77	3.31	2.76	6.08	31248	427860	123	0.17 U	6.45	1860	3024	0.57	9.11	-275.9	3506	24.2
CCR 7	6/17/2019	0.259 I	1.47	71.2	0.292 U	0.224 U	3.97 I	3.33 I	0.0970 I	0.83 I	1.27 U	0.00575 U	0.540 U	8.40	5.24	4.16	9.40	25015	227760	446	0.17 U	4.73	1940	3166	0.90	19.4	-20.4	4420	24.5
CCR 5 DUP	6/17/2019	0.191 U	0.707	333.37	1.12 I	0.224 U	1.76 I	1.10 U	0.0800 I	1.8	1.27 U	0.00575 U	0.540 U	2.11	1.30	3.41	6623.3	26675	319	0.18	4.79	249	910	0.14	2.85	-170.4	1555	24.0	

TABLE B-3 - SEMI-ANNUAL ASSESSMENT MONITORING EVENT - DECEMBER 2019

Well ID	Sample Date	Appendix IV															Appendix III					Field Parameters						
		Antimony (ug/L)	Arsenic (ug/L)	Barium (ug/L)	Beryllium (ug/L)	Cadmium (ug/L)	Chromium (ug/L)	Cobalt (ug/L)	Fluoride (mg/L)	Lead (ug/L)	Lithium (ug/L)	Mercury (ug/L)	Molybdenum (ug/L)	Selenium (ug/L)	Radium-226 (pCi/L)	Radium-228 (pCi/L)	Total Radium (pCi/L)	Boron (ug/L)	Calcium (ug/L)	Chloride (mg/L)	Sulfate (mg/L)	Residue, Filterable (TDS) (mg/L)	DO (Field) Concentration (mg/L)	Field Turb (NTU)	Redox Potential (Field) (mV)	Specific Conductance (Field) (umhos/cm)	Temp (Field) (Deg.C)	pH (Field) (S.U.)
CCR 1	19-Dec-19	0.233 I	0.623	67.6	1.05 I	0.224 U	0.711 U	1.10 U	0.13	0.0448 U	1.1	0.00575 U	1.27 U	0.755	1.78	0.803 U	2.34	1252.5	47617	15.0	225	405	0.34	1.25	-132.1	581	19.6	4.40
CCR 2	19-Dec-19	0.288 I	0.911	47.5	1.10 I	0.224 U	3.18 I	1.15 I	0.14	0.583	3.8	0.00640 I	1.27 U	0.432 U	0.875 U	0.971 U	1.85 U	726.47	19953	16.4	184	360	0.24	22.5	-162.1	449.8	20.9	4.60
CCR 3	19-Dec-19	0.224 I	1.02	61.2	0.541 I	0.224 U	1.08 I	1.10 U	0.17 U,D3	0.109 I	0.22 U	0.00575 U	1.27 U	0.696	3.88	2.83	6.71	8507.7	433720	42.7	1210	1900	0.22	5.83	-116.2	2210	20.8	4.39
CCR 4	19-Dec-19	2.66	11.7	106.78	0.799 I	0.224 U	3.81 I	1.79 I	0.17 U,D3	1.52	0.40 I	0.155	17.9 I	4.41	1.47	1.43	2.90	31669	566470	54.1	1570	3198	0.17	217	-382	3457	22.3	6.26
CCR 5	19-Dec-19	0.185 I	1.13	334.80	1.33 I	0.224 U	2.79 I	1.10 U	0.15	0.466 I	2.5	0.0154	1.27 U	7.20	0.841	0.967	1.81	8807.8	28151	291	298	1058	0.15	13.9	-192.9	1768	21.9	4.63
CCR 6	19-Dec-19	0.351 I	0.739	37.6	0.292 U	0.224 U	0.711 U	1.10 U	0.17 U,D3	0.299 I	0.22 U	0.00575 U	156.22	2.65	2.58	2.35	4.93	37870	458550	97.8	1800	3058	0.19	13.6	-258.5	3578	20.5	6.58
CCR 7	19-Dec-19	0.201 I	1.81	66.5	0.292 U	0.224 U	4.35 I	3.65 I	0.17 U,D3	0.162 I	0.80 I	0.00575 U	1.27 U	7.08	3.16	3.86	7.02	30496	267810	416	1780	3347	0.48	8.38	-163.7	4630	20.7	4.65
CCR 1 Well DUP	19-Dec-19	0.229 I	0.652	66.5	1.04 I	0.224 U	0.711 U	1.10 U	0.14	0.0500 I	0.94 I	0.00575 U	1.27 U	0.830	1.03 U	0.963	1.72 U	1236.4	48063	15.4	236	407	0.34	1.25	-132.1	581	19.6	4.40
Field Blank	19-Dec-19	0.166 I	0.149 U	0.140 U	0.292 U	0.224 U	0.711 U	1.10 U	0.034 U	0.0448 U	0.22 U	0.00575 U	1.27 U	0.600	0.501 U	0.865 U	1.37 U	4.14 U	6.97 U	2.5 U,J(M1)	2.5 U,J(M1)	5						

APPENDIX C

Laboratory Analytical Results

June 2019 Laboratory Analytical Results

LAB_SAMPLE_ID	CUST_SAMPLE_ID	COLLECT_DATE	METHOD	CMP_DESC	RESULT	UNITS	QUALIFIERS	MDL	PQL	DIL_FACT	ANAL_DATE_TIME	ANALYST
S190617PPCCR7XX01	CCR 7	17-Jun-19	Field	Temp (Field)	24.5	Deg.C				1	24-Jun-19	Field
S190617PPCCR7XX01	CCR 7	17-Jun-19	Field	pH (Field)	4.73	S.U.				1	24-Jun-19	Field
S190617PPCCR7XX01	CCR 7	17-Jun-19	SM2540C	Filterable (TDS)	3166	mg/L				1	19-Jun-19	GP
S190617PPCCR7XX01	CCR 7	17-Jun-19	Calcula	Total Radium	9.40	pCi/L		1.39	1.39	1	08-Jul-19	Pace
S190617PPAW6XX01	AW-6	17-Jun-19	TOTAL	Barium	46.6	ug/L		0.140	20.0	1	02-Jul-19	AC
S190617PPAW6XX01	AW-6	17-Jun-19	TOTAL	Beryllium	0.292 U	ug/L		0.292	20.0	1	02-Jul-19	AC
S190617PPAW6XX01	AW-6	17-Jun-19	TOTAL	Boron	4404.1	ug/L		4.14	20.0	1	02-Jul-19	AC
S190617PPAW6XX01	AW-6	17-Jun-19	TOTAL	Cadmium	0.224 U	ug/L		0.224	20.0	1	02-Jul-19	AC
S190617PPAW6XX01	AW-6	17-Jun-19	TOTAL	Calcium	340720	ug/L		69.7	200	10	05-Jul-19	AC
S190617PPAW6XX01	AW-6	17-Jun-19	TOTAL	Chromium	0.711 U	ug/L		0.711	20.0	1	02-Jul-19	AC
S190617PPAW6XX01	AW-6	17-Jun-19	TOTAL	Cobalt	1.10 U	ug/L		1.10	20.0	1	02-Jul-19	AC
S190617PPAW6XX01	AW-6	17-Jun-19	TOTAL	Molybdenum	1.27 U	ug/L		1.27	20.0	1	02-Jul-19	AC
S190617PPAW6XX01	AW-6	17-Jun-19	EPA 200.8	Lithium	0.22	ug/L	I	0.19	1.0	1	26-Jun-19	Pace
S190617PPAW6XX01	AW-6	17-Jun-19	TOTAL	Antimony	0.387	ug/L	I	0.191	0.625	1.25	25-Jun-19	AB
S190617PPAW6XX01	AW-6	17-Jun-19	TOTAL	Arsenic	1.32	ug/L		0.186	0.625	1.25	25-Jun-19	AB
S190617PPAW6XX01	AW-6	17-Jun-19	TOTAL	Lead	0.0570	ug/L	I	0.0560	0.625	1.25	25-Jun-19	AB
S190617PPAW6XX01	AW-6	17-Jun-19	TOTAL	Selenium	2.24	ug/L		0.540	0.625	1.25	25-Jun-19	AB
S190617PPAW6XX01	AW-6	17-Jun-19	EPA 245.1	Mercury	0.00575 U	ug/L		0.00575	0.0125	1	25-Jun-19	KC
S190617PPAW6XX01	AW-6	17-Jun-19	EPA 300.0	Chloride	42.0	mg/L		12.5	25.0	5	09-Jul-19	Pace
S190617PPAW6XX01	AW-6	17-Jun-19	EPA 300.0	Fluoride	0.17 U	ug/L	U	0.17	0.25	5	09-Jul-19	Pace
S190617PPAW6XX01	AW-6	17-Jun-19	EPA 300.0	Sulfate	1090	mg/L		50.0	100	20	10-Jul-19	Pace
S190617PPAW6XX01	AW-6	17-Jun-19	EPA 903.1	Radium-226	1.29	pCi/L		0.636	0.636	1	05-Jul-19	Pace
S190617PPAW6XX01	AW-6	17-Jun-19	EPA 904.0	Radium-228	1.17	pCi/L		1.03	1.03	1	01-Jul-19	Pace
S190617PPAW6XX01	AW-6	17-Jun-19	Field	Concentration	0.69	mg/L				1	24-Jun-19	Field
S190617PPAW6XX01	AW-6	17-Jun-19	Field	Field Turb	18.2	NTU				1	24-Jun-19	Field
S190617PPAW6XX01	AW-6	17-Jun-19	Field	(Field)	-192.7	mV				1	24-Jun-19	Field
S190617PPAW6XX01	AW-6	17-Jun-19	Field	Conductance	1839	umhos/cm				1	24-Jun-19	Field
S190617PPAW6XX01	AW-6	17-Jun-19	Field	Temp (Field)	23.4	Deg.C				1	24-Jun-19	Field
S190617PPAW6XX01	AW-6	17-Jun-19	Field	pH (Field)	4.82	S.U.				1	24-Jun-19	Field
S190617PPAW6XX01	AW-6	17-Jun-19	SM2540C	Filterable (TDS)	1558	mg/L		3	5	1	19-Jun-19	GP
S190617PPAW6XX01	AW-6	17-Jun-19	Calcula	Total Radium	2.46	pCi/L		1.67	1.67	1	08-Jul-19	Pace

December 2019 Assessment Laboratory Analytical Results

LAB_SAMPLE_ID	CUST_SAMPLE_ID	COLLECT_DATE	METHOD	CMP_DESC	RESULT	UNITS	QUALIFIERS	MDL	PQL	DIL_FACT	ANAL_DATE_TIME	ANALYST
S191219PPCCR5XX01	CCR 5	19-Dec-19	EPA 300.0	Sulfate	298	mg/L		12.5	25.0	5	03-Jan-20	Pace
S191219PPCCR5XX01	CCR 5	19-Dec-19	EPA 903.1	Radium-226	0.841	pCi/L		0.662	0.662	1	10-Jan-20	Pace
S191219PPCCR5XX01	CCR 5	19-Dec-19	EPA 904.0	Radium-228	0.967	pCi/L		0.897	0.897	1	10-Jan-20	Pace
S191219PPCCR5XX01	CCR 5	19-Dec-19	Field	DO (Field) Concentration	0.15	mg/L				1	07-Jan-20	Field
S191219PPCCR5XX01	CCR 5	19-Dec-19	Field	Field Turb	13.9	NTU				1	07-Jan-20	Field
S191219PPCCR5XX01	CCR 5	19-Dec-19	Field	Redox Potential (Field)	-192.9	mV				1	07-Jan-20	Field
S191219PPCCR5XX01	CCR 5	19-Dec-19	Field	Specific Conductance (Field)	1768	umhos/cm				1	07-Jan-20	Field
S191219PPCCR5XX01	CCR 5	19-Dec-19	Field	Temp (Field)	21.9	Deg.C				1	07-Jan-20	Field
S191219PPCCR5XX01	CCR 5	19-Dec-19	Field	pH (Field)	4.63	S.U.				1	07-Jan-20	Field
S191219PPCCR5XX01	CCR 5	19-Dec-19	SM2540C	Residue, Filterable (TDS)	1058	mg/L			5	1	22-Dec-19	PW
S191219PPCCR5XX01	CCR 5	19-Dec-19	Total Radium Calcula	Total Radium	1.81	pCi/L		1.56	1.56	1	13-Jan-20	Pace
S191219PPCCR6XX01	CCR 6	19-Dec-19	EPA 200.7 TOTAL	Barium	37.6	ug/L		0.140	20.0	1	26-Dec-19	AC
S191219PPCCR6XX01	CCR 6	19-Dec-19	EPA 200.7 TOTAL	Beryllium	0.292 U	ug/L		0.292	20.0	1	26-Dec-19	AC
S191219PPCCR6XX01	CCR 6	19-Dec-19	EPA 200.7 TOTAL	Boron	37870	ug/L		20.7	100	1	09-Jan-20	AC
S191219PPCCR6XX01	CCR 6	19-Dec-19	EPA 200.7 TOTAL	Cadmium	0.224 U	ug/L		0.224	20.0	1	26-Dec-19	AC
S191219PPCCR6XX01	CCR 6	19-Dec-19	EPA 200.7 TOTAL	Calcium	458550	ug/L		34.8	100	1	09-Jan-20	AC
S191219PPCCR6XX01	CCR 6	19-Dec-19	EPA 200.7 TOTAL	Chromium	0.711 U	ug/L		0.711	20.0	1	26-Dec-19	AC
S191219PPCCR6XX01	CCR 6	19-Dec-19	EPA 200.7 TOTAL	Cobalt	1.10 U	ug/L		1.10	20.0	1	26-Dec-19	AC
S191219PPCCR6XX01	CCR 6	19-Dec-19	EPA 200.7 TOTAL	Molybdenum	156.22	ug/L		1.27	20.0	1	26-Dec-19	AC
S191219PPCCR6XX01	CCR 6	19-Dec-19	EPA 200.8	Lithium	0.22 U	ug/L	U	0.22	1.0	1	01-Jan-20	Pace
S191219PPCCR6XX01	CCR 6	19-Dec-19	EPA 200.8 TOTAL	Antimony	0.351	ug/L	I	0.153	0.500	1	07-Jan-20	AB
S191219PPCCR6XX01	CCR 6	19-Dec-19	EPA 200.8 TOTAL	Arsenic	0.739	ug/L		0.149	0.500	1	07-Jan-20	AB
S191219PPCCR6XX01	CCR 6	19-Dec-19	EPA 200.8 TOTAL	Lead	0.299	ug/L	I	0.0448	0.500	1	07-Jan-20	AB
S191219PPCCR6XX01	CCR 6	19-Dec-19	EPA 200.8 TOTAL	Selenium	2.65	ug/L		0.432	0.500	1	07-Jan-20	AB
S191219PPCCR6XX01	CCR 6	19-Dec-19	EPA 245.1	Mercury	0.00575 U	ug/L		0.00575	0.0125	1	31-Dec-19	KC
S191219PPCCR6XX01	CCR 6	19-Dec-19	EPA 300.0	Chloride	97.8	mg/L		12.5	25.0	5	04-Jan-20	Pace
S191219PPCCR6XX01	CCR 6	19-Dec-19	EPA 300.0	Fluoride	0.17 U	mg/L	U,D3	0.17	0.25	5	04-Jan-20	Pace
S191219PPCCR6XX01	CCR 6	19-Dec-19	EPA 300.0	Sulfate	1800	mg/L		50.0	100	20	03-Jan-20	Pace
S191219PPCCR6XX01	CCR 6	19-Dec-19	EPA 903.1	Radium-226	2.58	pCi/L		0.533	0.533	1	10-Jan-20	Pace
S191219PPCCR6XX01	CCR 6	19-Dec-19	EPA 904.0	Radium-228	2.35	pCi/L		0.638	0.638	1	10-Jan-20	Pace
S191219PPCCR6XX01	CCR 6	19-Dec-19	Field	DO (Field) Concentration	0.19	mg/L				1	07-Jan-20	Field
S191219PPCCR6XX01	CCR 6	19-Dec-19	Field	Field Turb	13.6	NTU				1	07-Jan-20	Field
S191219PPCCR6XX01	CCR 6	19-Dec-19	Field	Redox Potential (Field)	-258.5	mV				1	07-Jan-20	Field
S191219PPCCR6XX01	CCR 6	19-Dec-19	Field	Specific Conductance (Field)	3578	umhos/cm				1	07-Jan-20	Field
S191219PPCCR6XX01	CCR 6	19-Dec-19	Field	Temp (Field)	20.5	Deg.C				1	07-Jan-20	Field
S191219PPCCR6XX01	CCR 6	19-Dec-19	Field	pH (Field)	6.58	S.U.				1	07-Jan-20	Field
S191219PPCCR6XX01	CCR 6	19-Dec-19	SM2540C	Residue, Filterable (TDS)	3058	mg/L			5	1	22-Dec-19	PW
S191219PPCCR6XX01	CCR 6	19-Dec-19	Total Radium Calcula	Total Radium	4.93	pCi/L		1.17	1.17	1	13-Jan-20	Pace
S191219PPCCR1XX02	CCR 1 Well DUP	19-Dec-19	EPA 200.7 TOTAL	Barium	66.5	ug/L		0.140	20.0	1	26-Dec-19	AC
S191219PPCCR1XX02	CCR 1 Well DUP	19-Dec-19	EPA 200.7 TOTAL	Beryllium	1.04	ug/L	I	0.292	20.0	1	26-Dec-19	AC
S191219PPCCR1XX02	CCR 1 Well DUP	19-Dec-19	EPA 200.7 TOTAL	Boron	1236.4	ug/L		4.14	20.0	1	26-Dec-19	AC
S191219PPCCR1XX02	CCR 1 Well DUP	19-Dec-19	EPA 200.7 TOTAL	Cadmium	0.224 U	ug/L		0.224	20.0	1	26-Dec-19	AC
S191219PPCCR1XX02	CCR 1 Well DUP	19-Dec-19	EPA 200.7 TOTAL	Calcium	48063	ug/L		6.97	20.0	1	26-Dec-19	AC
S191219PPCCR1XX02	CCR 1 Well DUP	19-Dec-19	EPA 200.7 TOTAL	Chromium	0.711 U	ug/L		0.711	20.0	1	26-Dec-19	AC
S191219PPCCR1XX02	CCR 1 Well DUP	19-Dec-19	EPA 200.7 TOTAL	Cobalt	1.10 U	ug/L		1.10	20.0	1	26-Dec-19	AC
S191219PPCCR1XX02	CCR 1 Well DUP	19-Dec-19	EPA 200.7 TOTAL	Molybdenum	1.27 U	ug/L		1.27	20.0	1	26-Dec-19	AC
S191219PPCCR1XX02	CCR 1 Well DUP	19-Dec-19	EPA 200.8	Lithium	0.94	ug/L	I	0.22	1.0	1	01-Jan-20	Pace
S191219PPCCR1XX02	CCR 1 Well DUP	19-Dec-19	EPA 200.8 TOTAL	Antimony	0.229	ug/L	I	0.153	0.500	1	07-Jan-20	AB
S191219PPCCR1XX02	CCR 1 Well DUP	19-Dec-19	EPA 200.8 TOTAL	Arsenic	0.652	ug/L		0.149	0.500	1	07-Jan-20	AB
S191219PPCCR1XX02	CCR 1 Well DUP	19-Dec-19	EPA 200.8 TOTAL	Lead	0.0500	ug/L	I	0.0448	0.500	1	07-Jan-20	AB
S191219PPCCR1XX02	CCR 1 Well DUP	19-Dec-19	EPA 200.8 TOTAL	Selenium	0.830	ug/L		0.432	0.500	1	07-Jan-20	AB
S191219PPCCR1XX02	CCR 1 Well DUP	19-Dec-19	EPA 245.1	Mercury	0.00575 U	ug/L		0.00575	0.0125	1	31-Dec-19	KC
S191219PPCCR1XX02	CCR 1 Well DUP	19-Dec-19	EPA 300.0	Chloride	15.4	mg/L		5.0	10.0	2	03-Jan-20	Pace
S191219PPCCR1XX02	CCR 1 Well DUP	19-Dec-19	EPA 300.0	Fluoride	0.14	mg/L		0.068	0.10	2	03-Jan-20	Pace
S191219PPCCR1XX02	CCR 1 Well DUP	19-Dec-19	EPA 300.0	Sulfate	236	mg/L		12.5	25.0	5	04-Jan-20	Pace
S191219PPCCR1XX02	CCR 1 Well DUP	19-Dec-19	EPA 903.1	Radium-226	1.03U	pCi/L	U	1.03	1.03	1	10-Jan-20	Pace
S191219PPCCR1XX02	CCR 1 Well DUP	19-Dec-19	EPA 904.0	Radium-228	0.963	pCi/L		0.685	0.685	1	10-Jan-20	Pace
S191219PPCCR1XX02	CCR 1 Well DUP	19-Dec-19	Field	DO (Field) Concentration	0.34	mg/L				1	07-Jan-20	Field
S191219PPCCR1XX02	CCR 1 Well DUP	19-Dec-19	Field	Field Turb	1.25	NTU				1	07-Jan-20	Field
S191219PPCCR1XX02	CCR 1 Well DUP	19-Dec-19	Field	Redox Potential (Field)	-132.1	mV				1	07-Jan-20	Field
S191219PPCCR1XX02	CCR 1 Well DUP	19-Dec-19	Field	Specific Conductance (Field)	581	umhos/cm				1	07-Jan-20	Field
S191219PPCCR1XX02	CCR 1 Well DUP	19-Dec-19	Field	Temp (Field)	19.6	Deg.C				1	07-Jan-20	Field
S191219PPCCR1XX02	CCR 1 Well DUP	19-Dec-19	Field	pH (Field)	4.40	S.U.				1	07-Jan-20	Field
S191219PPCCR1XX02	CCR 1 Well DUP	19-Dec-19	SM2540C	Residue, Filterable (TDS)	407	mg/L			5	1	22-Dec-19	PW
S191219PPCCR1XX02	CCR 1 Well DUP	19-Dec-19	Total Radium Calcula	Total Radium	1.72U	pCi/L	U	1.72	1.72	1	13-Jan-20	Pace

December 3-4, 2018 Laboratory Analytical Results

LAB_SAMPLE_ID	CUST_SAMPLE_ID	COLLECT_DATE	METHOD	CMP_DESC	RESULT	UNITS	QUALIFIERS	MDL	PQL	DIL_FACT	ANAL_DATE_TIME	ANALYST
S181204PPCCR6XX01	CCR-6	04-Dec-18	EPA 903.1	Radium-226	1.10	pCi/L		0.654	0.654	1	18-Dec-18	Pace
S181204PPCCR6XX01	CCR-6	04-Dec-18	EPA 904.0	Radium-228	3.07	pCi/L		0.830	0.830	1	17-Dec-18	Pace
S181204PPCCR6XX01	CCR-6	04-Dec-18	Field	DO (Field) Concentration	0.9	mg/L				1	06-Dec-18	Field
S181204PPCCR6XX01	CCR-6	04-Dec-18	Field	Field Turb	19.7	NTU				1	06-Dec-18	Field
S181204PPCCR6XX01	CCR-6	04-Dec-18	Field	Redox Potential (Field)	-122.2	mV				1	06-Dec-18	Field
S181204PPCCR6XX01	CCR-6	04-Dec-18	Field	Specific Conductance (Field)	3314	umhos/cm				1	06-Dec-18	Field
S181204PPCCR6XX01	CCR-6	04-Dec-18	Field	Temp (Field)	20.8	Deg.C				1	06-Dec-18	Field
S181204PPCCR6XX01	CCR-6	04-Dec-18	Field	pH (Field)	5.92	S.U.				1	06-Dec-18	Field
S181204PPCCR6XX01	CCR-6	04-Dec-18	SM7110C-11	Gross Alpha	12.5	pCi/L		1.60	1.60	1	12-Dec-18	Pace
S181204PPCCR6XX01	CCR-6	04-Dec-18	Total Radium Calcula	Total Radium	4.17	pCi/L		1.48	1.48	1	18-Dec-18	Pace
S181204PPMW9XX01	MW-9	04-Dec-18	EPA 903.1	Radium-226	1.07	pCi/L		0.639	0.639	1	18-Dec-18	Pace
S181204PPMW9XX01	MW-9	04-Dec-18	EPA 904.0	Radium-228	0.752U	pCi/L	U	0.752	0.752	1	17-Dec-18	Pace
S181204PPMW9XX01	MW-9	04-Dec-18	Field	DO (Field) Concentration	1.2	mg/L				1	06-Dec-18	Field
S181204PPMW9XX01	MW-9	04-Dec-18	Field	Field Turb	1.88	NTU				1	06-Dec-18	Field
S181204PPMW9XX01	MW-9	04-Dec-18	Field	Redox Potential (Field)	13.0	mV				1	06-Dec-18	Field
S181204PPMW9XX01	MW-9	04-Dec-18	Field	Specific Conductance (Field)	160.7	umhos/cm				1	06-Dec-18	Field
S181204PPMW9XX01	MW-9	04-Dec-18	Field	Temp (Field)	21.8	Deg.C				1	06-Dec-18	Field
S181204PPMW9XX01	MW-9	04-Dec-18	Field	pH (Field)	5.45	S.U.				1	06-Dec-18	Field
S181204PPMW9XX01	MW-9	04-Dec-18	SM7110C-11	Gross Alpha	2.91	pCi/L		2.01	2.01	1	12-Dec-18	Pace
S181204PPMW9XX01	MW-9	04-Dec-18	Total Radium Calcula	Total Radium	1.39U	pCi/L	U	1.39	1.39	1	18-Dec-18	Pace
S181204PPMW8XX01	MW-8	04-Dec-18	EPA 903.1	Radium-226	0.671U	pCi/L	U	0.671	0.671	1	18-Dec-18	Pace
S181204PPMW8XX01	MW-8	04-Dec-18	EPA 904.0	Radium-228	1.24	pCi/L		0.764	0.764	1	17-Dec-18	Pace
S181204PPMW8XX01	MW-8	04-Dec-18	Field	DO (Field) Concentration	1.6	mg/L				1	06-Dec-18	Field
S181204PPMW8XX01	MW-8	04-Dec-18	Field	Field Turb	1.54	NTU				1	06-Dec-18	Field
S181204PPMW8XX01	MW-8	04-Dec-18	Field	Redox Potential (Field)	121.7	mV				1	06-Dec-18	Field
S181204PPMW8XX01	MW-8	04-Dec-18	Field	Specific Conductance (Field)	78.6	umhos/cm				1	06-Dec-18	Field
S181204PPMW8XX01	MW-8	04-Dec-18	Field	Temp (Field)	21.7	Deg.C				1	06-Dec-18	Field
S181204PPMW8XX01	MW-8	04-Dec-18	Field	pH (Field)	5.24	S.U.				1	06-Dec-18	Field
S181204PPMW8XX01	MW-8	04-Dec-18	SM7110C-11	Gross Alpha	2.21U	pCi/L	U	2.21	2.21	1	12-Dec-18	Pace
S181204PPMW8XX01	MW-8	04-Dec-18	Total Radium Calcula	Total Radium	1.68	pCi/L		1.44	1.44	1	18-Dec-18	Pace
S181203PPAW1XX01	AW-1	03-Dec-18	EPA 903.1	Radium-226	3.80	pCi/L		1.10	1.10	1	11-Dec-18	Pace
S181203PPAW1XX01	AW-1	03-Dec-18	EPA 904.0	Radium-228	4.30	pCi/L		0.887	0.887	1	10-Dec-18	Pace
S181203PPAW1XX01	AW-1	03-Dec-18	Field	DO (Field) Concentration	0.4	mg/L				1	06-Dec-18	Field
S181203PPAW1XX01	AW-1	03-Dec-18	Field	Field Turb	11.8	NTU				1	06-Dec-18	Field
S181203PPAW1XX01	AW-1	03-Dec-18	Field	Redox Potential (Field)	0.1	mV				1	06-Dec-18	Field
S181203PPAW1XX01	AW-1	03-Dec-18	Field	Specific Conductance (Field)	3847	umhos/cm				1	06-Dec-18	Field
S181203PPAW1XX01	AW-1	03-Dec-18	Field	Temp (Field)	23.7	Deg.C				1	06-Dec-18	Field
S181203PPAW1XX01	AW-1	03-Dec-18	Field	pH (Field)	4.28	S.U.				1	06-Dec-18	Field
S181203PPAW1XX01	AW-1	03-Dec-18	SM7110C-11	Gross Alpha	15.1	pCi/L		2.40	2.40	1	10-Dec-18	Pace
S181203PPAW1XX01	AW-1	03-Dec-18	Total Radium Calcula	Total Radium	8.10	pCi/L		1.99	1.99	1	12-Dec-18	Pace
S181203PPAW3XX01	AW-3	03-Dec-18	EPA 903.1	Radium-226	7.43	pCi/L		0.875	0.875	1	11-Dec-18	Pace
S181203PPAW3XX01	AW-3	03-Dec-18	EPA 904.0	Radium-228	8.06	pCi/L		0.762	0.762	1	10-Dec-18	Pace
S181203PPAW3XX01	AW-3	03-Dec-18	Field	DO (Field) Concentration	0.4	mg/L				1	06-Dec-18	Field
S181203PPAW3XX01	AW-3	03-Dec-18	Field	Field Turb	3.09	NTU				1	06-Dec-18	Field
S181203PPAW3XX01	AW-3	03-Dec-18	Field	Redox Potential (Field)	20.9	mV				1	06-Dec-18	Field
S181203PPAW3XX01	AW-3	03-Dec-18	Field	Specific Conductance (Field)	4172	umhos/cm				1	06-Dec-18	Field
S181203PPAW3XX01	AW-3	03-Dec-18	Field	Temp (Field)	23.3	Deg.C				1	06-Dec-18	Field
S181203PPAW3XX01	AW-3	03-Dec-18	Field	pH (Field)	4.73	S.U.				1	06-Dec-18	Field
S181203PPAW3XX01	AW-3	03-Dec-18	SM7110C-11	Gross Alpha	31.5	pCi/L		1.78	1.78	1	10-Dec-18	Pace
S181203PPAW3XX01	AW-3	03-Dec-18	Total Radium Calcula	Total Radium	15.5	pCi/L		1.64	1.64	1	12-Dec-18	Pace
S181203PPAW2XX01	AW-2	03-Dec-18	EPA 903.1	Radium-226	2.64	pCi/L		0.720	0.720	1	11-Dec-18	Pace
S181203PPAW2XX01	AW-2	03-Dec-18	EPA 904.0	Radium-228	4.24	pCi/L		1.04	1.04	1	10-Dec-18	Pace
S181203PPAW2XX01	AW-2	03-Dec-18	Field	DO (Field) Concentration	0.9	mg/L				1	06-Dec-18	Field
S181203PPAW2XX01	AW-2	03-Dec-18	Field	Field Turb	18.8	NTU				1	06-Dec-18	Field
S181203PPAW2XX01	AW-2	03-Dec-18	Field	Redox Potential (Field)	57.7	mV				1	06-Dec-18	Field
S181203PPAW2XX01	AW-2	03-Dec-18	Field	Specific Conductance (Field)	4210	umhos/cm				1	06-Dec-18	Field
S181203PPAW2XX01	AW-2	03-Dec-18	Field	Temp (Field)	23.5	Deg.C				1	06-Dec-18	Field
S181203PPAW2XX01	AW-2	03-Dec-18	Field	pH (Field)	4.63	S.U.				1	06-Dec-18	Field
S181203PPAW2XX01	AW-2	03-Dec-18	SM7110C-11	Gross Alpha	11.8	pCi/L		2.23	2.23	1	10-Dec-18	Pace
S181203PPAW2XX01	AW-2	03-Dec-18	Total Radium Calcula	Total Radium	6.87	pCi/L		1.76	1.76	1	12-Dec-18	Pace

December 27, 2018 Laboratory Analytical Results

LAB_SAMPLE_ID	CUST_SAMPLE_ID	COLLECT_DATE	METHOD	CMP_DESC	RESULT	UNITS	QUALIFIERS	MDL	PQL	DIL_FACT	ANAL_DATE_TIME	ANALYST
S181227PPAW1XX01	AW-1	27-Dec-18	EPA 903.1	Radium-226	2.92	pCi/L		0.634	0.634	1	11-Jan-19	Pace
S181227PPAW1XX01	AW-1	27-Dec-18	EPA 904.0	Radium-228	2.25	pCi/L		0.792	0.792	1	10-Jan-19	Pace
S181227PPAW1XX01	AW-1	27-Dec-18	Field	DO (Field) Concentration	0.46	mg/L				1	28-Dec-18	Field
S181227PPAW1XX01	AW-1	27-Dec-18	Field	Field Turb	3.03	NTU				1	28-Dec-18	Field
S181227PPAW1XX01	AW-1	27-Dec-18	Field	Redox Potential (Field)	-49.0	mV				1	28-Dec-18	Field
S181227PPAW1XX01	AW-1	27-Dec-18	Field	Specific Conductance (Field)	3927	umhos/cm				1	28-Dec-18	Field
S181227PPAW1XX01	AW-1	27-Dec-18	Field	Temp (Field)	22.5	Deg.C				1	28-Dec-18	Field
S181227PPAW1XX01	AW-1	27-Dec-18	Field	pH (Field)	4.45	S.U.				1	28-Dec-18	Field
S181227PPAW1XX01	AW-1	27-Dec-18	Total Radium Calcula	Total Radium	5.16	pCi/L		1.43	1.43	1	11-Jan-19	Pace
S181227PPAW2XX01	AW-2	27-Dec-18	EPA 903.1	Radium-226	3.13	pCi/L		0.508	0.508	1	11-Jan-19	Pace
S181227PPAW2XX01	AW-2	27-Dec-18	EPA 904.0	Radium-228	1.85	pCi/L		0.782	0.782	1	10-Jan-19	Pace
S181227PPAW2XX01	AW-2	27-Dec-18	Field	DO (Field) Concentration	0.76	mg/L				1	28-Dec-18	Field
S181227PPAW2XX01	AW-2	27-Dec-18	Field	Field Turb	5.57	NTU				1	28-Dec-18	Field
S181227PPAW2XX01	AW-2	27-Dec-18	Field	Redox Potential (Field)	-59.6	mV				1	28-Dec-18	Field
S181227PPAW2XX01	AW-2	27-Dec-18	Field	Specific Conductance (Field)	4071	umhos/cm				1	28-Dec-18	Field
S181227PPAW2XX01	AW-2	27-Dec-18	Field	Temp (Field)	22.4	Deg.C				1	28-Dec-18	Field
S181227PPAW2XX01	AW-2	27-Dec-18	Field	pH (Field)	4.76	S.U.				1	28-Dec-18	Field
S181227PPAW2XX01	AW-2	27-Dec-18	Total Radium Calcula	Total Radium	4.98	pCi/L		1.29	1.29	1	11-Jan-19	Pace
S181227PPAW3XX01	AW-3	27-Dec-18	EPA 903.1	Radium-226	5.11	pCi/L		0.698	0.698	1	11-Jan-19	Pace
S181227PPAW3XX01	AW-3	27-Dec-18	EPA 904.0	Radium-228	5.95	pCi/L		0.753	0.753	1	10-Jan-19	Pace
S181227PPAW3XX01	AW-3	27-Dec-18	Field	DO (Field) Concentration	0.49	mg/L				1	28-Dec-18	Field
S181227PPAW3XX01	AW-3	27-Dec-18	Field	Field Turb	4.10	NTU				1	28-Dec-18	Field
S181227PPAW3XX01	AW-3	27-Dec-18	Field	Redox Potential (Field)	-61.4	mV				1	28-Dec-18	Field
S181227PPAW3XX01	AW-3	27-Dec-18	Field	Specific Conductance (Field)	4035	umhos/cm				1	28-Dec-18	Field
S181227PPAW3XX01	AW-3	27-Dec-18	Field	Temp (Field)	22.1	Deg.C				1	28-Dec-18	Field
S181227PPAW3XX01	AW-3	27-Dec-18	Field	pH (Field)	4.92	S.U.				1	28-Dec-18	Field
S181227PPAW3XX01	AW-3	27-Dec-18	Total Radium Calcula	Total Radium	11.1	pCi/L		1.45	1.45	1	11-Jan-19	Pace

February 2019 Groundwater Laboratory Analytical Results

LAB_SAMPLE_ID	CUST_SAMPLE_ID	COLLECT_DATE	METHOD	CMP_DESC	RESULT	UNITS	QUALIFIERS	MDL	PQL	DIL_FACT	ANAL_DATE_TIME	ANALYST
S190220PPSWXX01	SW	20-Feb-19	EPA 200.7 TOTAL	Cobalt	1.10 U	ug/L		1.10	20.0	1	12-Mar-19	AC
S190220PPSWXX01	SW	20-Feb-19	EPA 200.7 TOTAL	Iron	257.94	ug/L		1.20	20.0	1	13-Mar-19	AC
S190220PPSWXX01	SW	20-Feb-19	EPA 200.7 TOTAL	Magnesium	21473	ug/L		3.28	20.0	1	12-Mar-19	AC
S190220PPSWXX01	SW	20-Feb-19	EPA 200.7 TOTAL	Molybdenum	34.3	ug/L		1.27	20.0	1	12-Mar-19	AC
S190220PPSWXX01	SW	20-Feb-19	EPA 200.7 TOTAL	Potassium	26750	ug/L		7.20	100	1	13-Mar-19	AC
S190220PPSWXX01	SW	20-Feb-19	EPA 200.7 TOTAL	Sodium	120810	ug/L		8.91	20.0	1	13-Mar-19	AC
S190220PPSWXX01	SW	20-Feb-19	EPA 200.8	Lithium	3.5	ug/L		0.19	1.0	1	02-Mar-19	Pace
S190220PPSWXX01	SW	20-Feb-19	EPA 200.8 TOTAL	Antimony	1.12	ug/L		0.0946	0.625	1.25	08-Mar-19	AB
S190220PPSWXX01	SW	20-Feb-19	EPA 200.8 TOTAL	Arsenic	7.59	ug/L		0.0499	0.625	1.25	08-Mar-19	AB
S190220PPSWXX01	SW	20-Feb-19	EPA 200.8 TOTAL	Lead	0.460 U	ug/L		0.460	0.625	1.25	08-Mar-19	AB
S190220PPSWXX01	SW	20-Feb-19	EPA 200.8 TOTAL	Selenium	2.80	ug/L	I	1.35	12.5	1.25	08-Mar-19	AB
S190220PPSWXX01	SW	20-Feb-19	EPA 200.8 TOTAL	Thallium	0.428 U	ug/L		0.428	0.625	1.25	08-Mar-19	AB
S190220PPSWXX01	SW	20-Feb-19	EPA 300.0	Chloride	52.9	mg/L		25.0	50.0	10	27-Feb-19	Pace
S190220PPSWXX01	SW	20-Feb-19	EPA 300.0	Fluoride	1.0	mg/L		0.34	0.50	10	27-Feb-19	Pace
S190220PPSWXX01	SW	20-Feb-19	EPA 300.0	Sulfate	991	mg/L		50.0	100	20	27-Feb-19	Pace
S190220PPSWXX01	SW	20-Feb-19	EPA 353.2	Nitrate/Nitrite	0.05 U	mg/L		0.05	0.10	1	01-Mar-19	AB
S190220PPSWXX01	SW	20-Feb-19	EPA 365.4	Total Phosphorous	0.09	mg/L	I, V	0.02	0.10	1	27-Feb-19	CD
S190220PPSWXX01	SW	20-Feb-19	EPA 903.1	Radium-226	0.740	pCi/L		0.495	0.495	1	07-Mar-19	Pace
S190220PPSWXX01	SW	20-Feb-19	EPA 904.0	Radium-228	0.950 U	pCi/L	U	0.950	0.950	1	06-Mar-19	Pace
S190220PPSWXX01	SW	20-Feb-19	Field	DO (Field) Concentration	8.61	mg/L				1	26-Feb-19	Field
S190220PPSWXX01	SW	20-Feb-19	Field	Field Turb	14.7	NTU				1	26-Feb-19	Field
S190220PPSWXX01	SW	20-Feb-19	Field	Redox Potential (Field)	41.2	mV				1	26-Feb-19	Field
S190220PPSWXX01	SW	20-Feb-19	Field	Specific Conductance (Field)	2039	umhos/cm				1	26-Feb-19	Field
S190220PPSWXX01	SW	20-Feb-19	Field	Temp (Field)	22.8	Deg.C				1	26-Feb-19	Field
S190220PPSWXX01	SW	20-Feb-19	Field	pH (Field)	6.82	S.U.				1	26-Feb-19	Field
S190220PPSWXX01	SW	20-Feb-19	SM2320B	Alkalinity (Bicarbonate)	59.1	mg/L		20.0	20.0	1	26-Feb-19	KC
S190220PPSWXX01	SW	20-Feb-19	SM2320B	Alkalinity (Carbonate)	0.00	mg/L				1	26-Feb-19	KC
S190220PPSWXX01	SW	20-Feb-19	SM2320B	Alkalinity (Total)	59.1	mg/L		20.0	20.0	1	26-Feb-19	KC
S190220PPSWXX01	SW	20-Feb-19	SM2340B	T Hardness (as CaCO3)	941	mg/L		0.0200		1	14-Mar-19	DP
S190220PPSWXX01	SW	20-Feb-19	SM2510B	Specific Conductance	2100	umhos/cm		1.00	10.0		25-Feb-19	DS
S190220PPSWXX01	SW	20-Feb-19	SM2540C	Residue, Filterable (TDS)	1584	mg/L		3	5	1	22-Feb-19	DS
S190220PPSWXX01	SW	20-Feb-19	Total Radium Calcula	Total Radium	1.45U	pCi/L	U	1.45	1.45	1	11-Mar-19	Pace

September 2019 Laboratory Analytical Results

LAB_SAMPLE_ID	CUST_SAMPLE_ID	COLLECT_DATE	METHOD	CMP_DESC	RESULT	UNITS	QUALIFIERS	MDL	PQL	DIL_FACT	ANAL_DATE_TIME	ANALYST
S190926PPCCR6XX01	CCR-6	26-Sep-19	EPA 903.1	Radium-226	2.11	pCi/L		0.449	0.449	1	07-Oct-19	Pace
S190926PPCCR6XX01	CCR-6	26-Sep-19	EPA 904.0	Radium-228	2.91	pCi/L		0.962	0.962	1	07-Oct-19	Pace
S190926PPCCR6XX01	CCR-6	26-Sep-19	Field	Concentration	0.13	mg/L				1	02-Oct-19	Field
S190926PPCCR6XX01	CCR-6	26-Sep-19	Field	Field Turb	12.7	NTU				1	02-Oct-19	Field
S190926PPCCR6XX01	CCR-6	26-Sep-19	Field	(Field)	-274.9	mV				1	02-Oct-19	Field
S190926PPCCR6XX01	CCR-6	26-Sep-19	Field	Conductance	3680	umhos/cm				1	02-Oct-19	Field
S190926PPCCR6XX01	CCR-6	26-Sep-19	Field	Temp (Field)	26.4	Deg.C				1	02-Oct-19	Field
S190926PPCCR6XX01	CCR-6	26-Sep-19	Field	pH (Field)	6.49	S.U.				1	02-Oct-19	Field
S190926PPCCR6XX01	CCR-6	26-Sep-19	Calcula	Total Radium	5.02	pCi/L		1.41	1.41	1	08-Oct-19	Pace
S190926PPCCR7XX01	CCR-7	26-Sep-19	EPA 903.1	Radium-226	3.10	pCi/L		0.863	0.863	1	07-Oct-19	Pace
S190926PPCCR7XX01	CCR-7	26-Sep-19	EPA 904.0	Radium-228	4.74	pCi/L		0.858	0.858	1	07-Oct-19	Pace
S190926PPCCR7XX01	CCR-7	26-Sep-19	Field	Concentration	0.16	mg/L				1	02-Oct-19	Field
S190926PPCCR7XX01	CCR-7	26-Sep-19	Field	Field Turb	10.2	NTU				1	02-Oct-19	Field
S190926PPCCR7XX01	CCR-7	26-Sep-19	Field	(Field)	-187.6	mV				1	02-Oct-19	Field
S190926PPCCR7XX01	CCR-7	26-Sep-19	Field	Conductance	4686	umhos/cm				1	02-Oct-19	Field
S190926PPCCR7XX01	CCR-7	26-Sep-19	Field	Temp (Field)	26.5	Deg.C				1	02-Oct-19	Field
S190926PPCCR7XX01	CCR-7	26-Sep-19	Field	pH (Field)	4.66	S.U.				1	02-Oct-19	Field
S190926PPCCR7XX01	CCR-7	26-Sep-19	Calcula	Total Radium	7.84	pCi/L		1.72	1.72	1	08-Oct-19	Pace
S190926PPAW5XX01	AW-5	26-Sep-19	EPA 903.1	Radium-226	0.871	pCi/L		0.625	0.625	1	07-Oct-19	Pace
S190926PPAW5XX01	AW-5	26-Sep-19	EPA 904.0	Radium-228	1.95	pCi/L		0.947	0.947	1	07-Oct-19	Pace
S190926PPAW5XX01	AW-5	26-Sep-19	Field	Concentration	0.22	mg/L				1	02-Oct-19	Field
S190926PPAW5XX01	AW-5	26-Sep-19	Field	Field Turb	7.88	NTU				1	02-Oct-19	Field
S190926PPAW5XX01	AW-5	26-Sep-19	Field	(Field)	-48.7	mV				1	02-Oct-19	Field
S190926PPAW5XX01	AW-5	26-Sep-19	Field	Conductance	1962	umhos/cm				1	02-Oct-19	Field
S190926PPAW5XX01	AW-5	26-Sep-19	Field	Temp (Field)	24.5	Deg.C				1	02-Oct-19	Field
S190926PPAW5XX01	AW-5	26-Sep-19	Field	pH (Field)	4.67	S.U.				1	02-Oct-19	Field
S190926PPAW5XX01	AW-5	26-Sep-19	Calcula	Total Radium	2.82	pCi/L		1.57	1.57	1	08-Oct-19	Pace
S190926PPAW6XX01	AW-6	26-Sep-19	EPA 903.1	Radium-226	1.15	pCi/L		0.867	0.867	1	07-Oct-19	Pace
S190926PPAW6XX01	AW-6	26-Sep-19	EPA 904.0	Radium-228	0.918U	pCi/L	U	0.918	0.918	1	07-Oct-19	Pace
S190926PPAW6XX01	AW-6	26-Sep-19	Field	Concentration	0.47	mg/L				1	02-Oct-19	Field
S190926PPAW6XX01	AW-6	26-Sep-19	Field	Field Turb	9.56	NTU				1	02-Oct-19	Field
S190926PPAW6XX01	AW-6	26-Sep-19	Field	(Field)	-143.6	mV				1	02-Oct-19	Field
S190926PPAW6XX01	AW-6	26-Sep-19	Field	Conductance	1843	umhos/cm				1	02-Oct-19	Field
S190926PPAW6XX01	AW-6	26-Sep-19	Field	Temp (Field)	25.6	Deg.C				1	02-Oct-19	Field
S190926PPAW6XX01	AW-6	26-Sep-19	Field	pH (Field)	4.86	S.U.				1	02-Oct-19	Field
S190926PPAW6XX01	AW-6	26-Sep-19	Calcula	Total Radium	1.98	pCi/L		1.79	1.79	1	08-Oct-19	Pace

October 2019 Laboratory Analytical Results

LAB_SAMPLE_ID	CUST_SAMPLE_ID	COLLECT_DATE	METHOD	CMP_DESC	RESULT	UNITS	QUALIFIERS	MDL	PQL	DIL_FACT	ANAL_DATE_TIME	ANALYST
S191029PPAW6XX01	AW-6	29-Oct-19	Total Radium Calcula	Total Radium	2.42	pCi/L		1.66	1.66	1	20-Nov-19	Pace
S191029PPAW8XX01	AW-8	29-Oct-19	EPA 200.7 TOTAL	Aluminum	8985.2	ug/L		1.62	20.0	1	06-Nov-19	AC
S191029PPAW8XX01	AW-8	29-Oct-19	EPA 200.7 TOTAL	Barium	37.1	ug/L		0.140	20.0	1	06-Nov-19	AC
S191029PPAW8XX01	AW-8	29-Oct-19	EPA 200.7 TOTAL	Beryllium	0.429	ug/L	I	0.292	20.0	1	06-Nov-19	AC
S191029PPAW8XX01	AW-8	29-Oct-19	EPA 200.7 TOTAL	Boron	8557.2	ug/L		4.14	20.0	1	06-Nov-19	AC
S191029PPAW8XX01	AW-8	29-Oct-19	EPA 200.7 TOTAL	Cadmium	0.224 U	ug/L		0.224	20.0	1	06-Nov-19	AC
S191029PPAW8XX01	AW-8	29-Oct-19	EPA 200.7 TOTAL	Calcium	345730	ug/L		6.97	20.0	1	06-Nov-19	AC
S191029PPAW8XX01	AW-8	29-Oct-19	EPA 200.7 TOTAL	Chromium	1.67	ug/L	I	0.711	20.0	1	06-Nov-19	AC
S191029PPAW8XX01	AW-8	29-Oct-19	EPA 200.7 TOTAL	Cobalt	1.10 U	ug/L		1.10	20.0	1	06-Nov-19	AC
S191029PPAW8XX01	AW-8	29-Oct-19	EPA 200.7 TOTAL	Iron	7650	ug/L		1.20	20.0	1	06-Nov-19	AC
S191029PPAW8XX01	AW-8	29-Oct-19	EPA 200.7 TOTAL	Magnesium	32000	ug/L		3.28	20.0	1	06-Nov-19	AC
S191029PPAW8XX01	AW-8	29-Oct-19	EPA 200.7 TOTAL	Molybdenum	1.27 U	ug/L		1.27	20.0	1	06-Nov-19	AC
S191029PPAW8XX01	AW-8	29-Oct-19	EPA 200.7 TOTAL	Potassium	32100	ug/L		36.0	500	1	26-Nov-19	AC
S191029PPAW8XX01	AW-8	29-Oct-19	EPA 200.7 TOTAL	Sodium	128000	ug/L		101	200	1	26-Nov-19	AC
S191029PPAW8XX01	AW-8	29-Oct-19	EPA 200.8	Lithium	2.2 U	ug/L	U,D3	2.2	10.0	10	06-Nov-19	Pace
S191029PPAW8XX01	AW-8	29-Oct-19	EPA 200.8 TOTAL	Antimony	0.153 U	ug/L		0.153	0.500	1	07-Nov-19	AB
S191029PPAW8XX01	AW-8	29-Oct-19	EPA 200.8 TOTAL	Arsenic	1.07	ug/L		0.149	0.500	1	20-Nov-19	AB
S191029PPAW8XX01	AW-8	29-Oct-19	EPA 200.8 TOTAL	Lead	0.0720	ug/L	I	0.0448	0.500	1	07-Nov-19	AB
S191029PPAW8XX01	AW-8	29-Oct-19	EPA 200.8 TOTAL	Selenium	0.733	ug/L		0.432	0.500	1	07-Nov-19	AB
S191029PPAW8XX01	AW-8	29-Oct-19	EPA 245.1	Mercury	0.00575 U	ug/L		0.00575	0.0125	1	01-Nov-19	KC
S191029PPAW8XX01	AW-8	29-Oct-19	EPA 300.0	Chloride	51.9	mg/L		5.0	10.0	2	13-Nov-19	Pace
S191029PPAW8XX01	AW-8	29-Oct-19	EPA 300.0	Fluoride	0.16	mg/L		0.068	0.10	2	13-Nov-19	Pace
S191029PPAW8XX01	AW-8	29-Oct-19	EPA 300.0	Sulfate	1250	mg/L		50.0	100	20	14-Nov-19	Pace
S191029PPAW8XX01	AW-8	29-Oct-19	EPA 353.2	Nitrate	0.05 U	mg/L		0.05	0.10	1	05-Nov-19	AB
S191029PPAW8XX01	AW-8	29-Oct-19	EPA 353.2	Nitrate/Nitrite	0.05 U	mg/L		0.05	0.10	1	31-Oct-19	AB
S191029PPAW8XX01	AW-8	29-Oct-19	EPA 365.4	Total Phosphorous	0.02 U	mg/L		0.02	0.10	1	05-Nov-19	GP
S191029PPAW8XX01	AW-8	29-Oct-19	EPA 903.1	Radium-226	4.14	pCi/L		0.754	0.754	1	19-Nov-19	Pace
S191029PPAW8XX01	AW-8	29-Oct-19	EPA 904.0	Radium-228	2.96	pCi/L		0.834	0.834	1	18-Nov-19	Pace
S191029PPAW8XX01	AW-8	29-Oct-19	Field	DO (Field) Concentration	0.33	mg/L	Field			1	31-Oct-19	Field
S191029PPAW8XX01	AW-8	29-Oct-19	Field	Field Turb	4.56	NTU				1	31-Oct-19	Field
S191029PPAW8XX01	AW-8	29-Oct-19	Field	Redox Potential (Field)	78.7	mV				1	31-Oct-19	Field
S191029PPAW8XX01	AW-8	29-Oct-19	Field	Specific Conductance (Field)	2209	umhos/cm				1	31-Oct-19	Field
S191029PPAW8XX01	AW-8	29-Oct-19	Field	Temp (Field)	24.9	Deg.C				1	31-Oct-19	Field
S191029PPAW8XX01	AW-8	29-Oct-19	Field	pH (Field)	4.44	S.U.				1	31-Oct-19	Field
S191029PPAW8XX01	AW-8	29-Oct-19	SM2320B	Alkalinity (Total)	20.0 U	mg/L		20.0	20.0	1	31-Oct-19	KC
S191029PPAW8XX01	AW-8	29-Oct-19	SM2340B	T Hardness (as CaCO3)	995	mg/L		0.0200		1	22-Nov-19	DP
S191029PPAW8XX01	AW-8	29-Oct-19	SM2540C	Residue, Filterable (TDS)	1943	mg/L		3	5	1	01-Nov-19	PW
S191029PPAW8XX01	AW-8	29-Oct-19	Total Radium Calcula	Total Radium	7.10	pCi/L		1.59	1.59	1	20-Nov-19	Pace

December 2019 AW Laboratory Analytical Results

LAB_SAMPLE_ID	CUST_SAMPLE_ID	COLLECT_DATE	METHOD	CMP_DESC	RESULT	UNITS	QUALIFIERS	MDL	PQL	DIL_FACT	ANAL_DATE_TIME	ANALYST
S191219PPAW5XX01	AW-5	19-Dec-19	EPA 903.1	Radium-226	0.650U	pCi/L	U	0.650	0.650	1	10-Jan-20	Pace
S191219PPAW5XX01	AW-5	19-Dec-19	EPA 904.0	Radium-228	0.957U	pCi/L	U	0.957	0.957	1	10-Jan-20	Pace
S191219PPAW5XX01	AW-5	19-Dec-19	Field	DO (Field) Concentration	0.14	mg/L				1	07-Jan-20	Field
S191219PPAW5XX01	AW-5	19-Dec-19	Field	Field Turb	3.63	NTU				1	07-Jan-20	Field
S191219PPAW5XX01	AW-5	19-Dec-19	Field	Redox Potential (Field)	-107	mV				1	07-Jan-20	Field
S191219PPAW5XX01	AW-5	19-Dec-19	Field	Specific Conductance (Field)	2051	umhos/cm				1	07-Jan-20	Field
S191219PPAW5XX01	AW-5	19-Dec-19	Field	Temp (Field)	21.9	Deg.C				1	07-Jan-20	Field
S191219PPAW5XX01	AW-5	19-Dec-19	Field	pH (Field)	4.62	S.U.				1	07-Jan-20	Field
S191219PPAW5XX01	AW-5	19-Dec-19	Total Radium Calcula	Total Radium	1.61U	pCi/L	U	1.61	1.61	1	13-Jan-20	Pace
S191219PPAW6XX01	AW-6	19-Dec-19	EPA 903.1	Radium-226	1.18U	pCi/L	U	1.18	1.18	1	10-Jan-20	Pace
S191219PPAW6XX01	AW-6	19-Dec-19	EPA 904.0	Radium-228	1.36	pCi/L		0.867	0.867	1	10-Jan-20	Pace
S191219PPAW6XX01	AW-6	19-Dec-19	Field	DO (Field) Concentration	0.16	mg/L				1	07-Jan-20	Field
S191219PPAW6XX01	AW-6	19-Dec-19	Field	Field Turb	6.3	NTU				1	07-Jan-20	Field
S191219PPAW6XX01	AW-6	19-Dec-19	Field	Redox Potential (Field)	-147	mV				1	07-Jan-20	Field
S191219PPAW6XX01	AW-6	19-Dec-19	Field	Specific Conductance (Field)	1880	umhos/cm				1	07-Jan-20	Field
S191219PPAW6XX01	AW-6	19-Dec-19	Field	Temp (Field)	23.1	Deg.C				1	07-Jan-20	Field
S191219PPAW6XX01	AW-6	19-Dec-19	Field	pH (Field)	4.38	S.U.				1	07-Jan-20	Field
S191219PPAW6XX01	AW-6	19-Dec-19	Total Radium Calcula	Total Radium	2.28	pCi/L		2.05	2.05	1	13-Jan-20	Pace
S191219PPAW8XX01	AW-8	19-Dec-19	EPA 903.1	Radium-226	1.88	pCi/L		0.823	0.823	1	10-Jan-20	Pace
S191219PPAW8XX01	AW-8	19-Dec-19	EPA 904.0	Radium-228	2.64	pCi/L		0.928	0.928	1	10-Jan-20	Pace
S191219PPAW8XX01	AW-8	19-Dec-19	Field	DO (Field) Concentration	0.17	mg/L				1	07-Jan-20	Field
S191219PPAW8XX01	AW-8	19-Dec-19	Field	Field Turb	24.3	NTU				1	07-Jan-20	Field
S191219PPAW8XX01	AW-8	19-Dec-19	Field	Redox Potential (Field)	-118.5	mV				1	07-Jan-20	Field
S191219PPAW8XX01	AW-8	19-Dec-19	Field	Specific Conductance (Field)	2269	umhos/cm				1	07-Jan-20	Field
S191219PPAW8XX01	AW-8	19-Dec-19	Field	Temp (Field)	21.7	Deg.C				1	07-Jan-20	Field
S191219PPAW8XX01	AW-8	19-Dec-19	Field	pH (Field)	4.76	S.U.				1	07-Jan-20	Field
S191219PPAW8XX01	AW-8	19-Dec-19	Total Radium Calcula	Total Radium	4.52	pCi/L		1.75	1.75	1	13-Jan-20	Pace



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