

January 31, 2020
Project No. DNA-190173

Mr. David M. Heger
Senior Counsel
AES US Services, LLC
One Monument Circle, Suite 701A
Indianapolis, Indiana 46204-2901

**2019 CCR Annual Groundwater Monitoring and Corrective Action Report
AES Puerto Rico LP, Guayama, Puerto Rico**

Dear Mr. Heger:

DNA-Environment, LLC (DNA) has prepared this 2019 CCR Annual Groundwater Monitoring and Corrective Action Report for the temporary staging area of manufactured aggregate (Agremax) at AES Puerto Rico LP (AES-PR) in Guayama, Puerto Rico. This report has been prepared to comply with the reporting requirements described in the United States Environmental Protection Agency (USEPA) Hazardous and Solid Waste Management System; Disposal of Coal Combustion Residuals (CCR) from Electric Utilities, 40 CFR Part 257, Subpart D (CCR Rule), as required by §257.90(e)(1) through §257.90(e)(5).

Section 257.90(e) of the CCR Rule specifies the following:

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).

The following key actions were completed in 2019 to comply with the CCR Rule:

- Assessment-monitoring sampling events were conducted in April and September 2019 in accordance with 40 CFR §257.95.
- A statistical evaluation was completed in January 2019 in accordance with 40 CFR §257.93(h) and §257.95(h). This evaluation resulted in statistical significant levels above the groundwater protection standards (GWPS) of lithium, molybdenum and selenium in groundwater samples collected from certain monitoring wells at AES-PR (see below). The corresponding notification was completed and posted to the AES-PR CCR website pursuant to 40 CFR §257.95(g) and §257.107(h)(6).
- An assessment of corrective measures was initiated on April 15, 2019 in accordance with 40 CFR §257.96(a). The corresponding notification (i.e., Notice of Initiation of Assessment of Corrective Measures) was posted to the AES-PR CCR website as required by 40 CFR §257.107(h)(7).
- A demonstration for a 60-day extension for the completion of the assessment of corrective measures was completed and certified by a professional engineer, dated July 15, 2019. The demonstration for the 60-day extension is included as an appendix in this annual groundwater and corrective action report as required by §257.96(a).
- Groundwater characterization of the nature and extent of lithium, molybdenum and selenium was conducted pursuant to 40 CFR §257.95(g)(1). The results of this characterization are contained in the *Groundwater Characterization Report* prepared by DNA. This report was included as Appendix A of the document entitled *Corrective Measures Assessment, AES Puerto Rico – Agremax™ Staging Area, Guayama, Puerto Rico* (the “CMA Report”), dated September 2019 (amended on 8 November 2019). The CMA Report was prepared by Haley & Aldrich, Inc. and is available on the AES-PR CCR website.
- AES-PR completed a Corrective Measures Assessment (CMA) on September 13, 2019, which evaluated groundwater remediation alternatives based on applicable criteria listed in 40 CFR 257.97(b) and 40 CFR 257.97(c)(1)-(3). The status of the corrective action program is as follows:

On December 12, 2019, AES-PR held a public meeting to discuss the findings presented in the CMA and receive comments concerning the CMA. AES will continue accepting comments on the CMA through the AES-PR CCR public website through January 28, 2020. Following review of comments on the CMA, AES-PR will select a corrective remedy as soon as feasible. Key activities and timing will be dependent upon the remedy that is selected and will be described in a Selection of Remedy Report prepared in accordance with 40 CFR 257.97(a).

To report on the activities conducted during the prior calendar year and document compliance with the CCR Rule, the specific requirements listed in §257.90(e)(1) through §257.90(e)(5) are

provided below in bold/italic type followed by a narrative addressing how that specific requirement has been met.

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

§257.90(e)(1): 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;

AES-PR is located in the municipality of Guayama in the south coast of Puerto Rico (Site). The Site is bordered to the north and west by an inactive pharmaceutical facility (formerly TAPI Puerto Rico) and by an undeveloped parcel of land, to the south by land owned by the Puerto Rico Ports Authority and Las Mareas Harbor, to the east by an inactive petroleum refinery (formerly Chevron Phillips Chemical Puerto Rico Core), and to the west by AES Ilumina (solar energy farm). A Site Location Map is provided as Figure 1. A map showing the location of the temporary staging area of the manufactured aggregate pile (Agremax) and associated upgradient and downgradient CCR monitoring wells is provided as Figure 2.

§257.90(e)(2): 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;

Groundwater characterization of the nature and extent of lithium, molybdenum and selenium was conducted pursuant to 40 CFR §257.95(g)(1). The characterization included the installation of nine temporary monitoring wells at the southern portion of the Facility (temporary wells TW-101 through TW-109), and sampling and analysis of groundwater samples from all newly installed temporary wells and downgradient CCR Monitoring Wells MW-3 through MW-5. The locations of the temporary wells are shown in Figure 3. This figure also shows the location of temporary piezometers installed during the nature and extent characterization to better define the groundwater elevation contours at the Site. No temporary wells or piezometers were decommissioned in 2019. The soil boring and well construction diagrams for the temporary wells and piezometers were provided in the *Groundwater Characterization Report* prepared by DNA that was included as Appendix A of the CMA Report.

No permanent CCR monitoring wells were installed or decommissioned during this reporting period.

§257.90(e)(3): 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;

Table 1 provides a summary of the number of samples collected at each monitoring well, sampling dates, and designation of whether the samples were required by detection or assessment monitoring program. Information pertaining to the groundwater sampling event for the nature and extent characterization is also included in the table.

Groundwater analytical results for the samples collected during the 2019 CCR monitoring events and field monitoring data are summarized in Table 2 and Table 3.

The analytical results for the nature and extent characterization were included in the *Groundwater Characterization Report* included as Appendix A of the CMA Report.

§257.90(e)(4): 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);

AES remained in the assessment monitoring program during 2019.

A statistical evaluation was completed in January 2019 in accordance with 40 CFR §257.93(h) and §257.95(h). This evaluation resulted in statistical significant levels above the groundwater protection standards (GWPS) of selenium and molybdenum in groundwater samples collected from Monitoring Well MW-3, and of lithium and molybdenum from Monitoring Well MW-4 (see Table 4). The corresponding notification was completed and posted to the AES-PR CCR website pursuant to 40 CFR §257.95(g) and 40 CFR 257.107(h)(6).

In accordance with 40 CFR §257.95(g)(1), AES-PR installed additional wells to characterize the nature and extent of lithium, molybdenum and selenium in the groundwater. Nine temporary monitoring wells were installed downgradient of the Agremax Staging Area, as follows:

- Three wells to the east and west of the CCR wells showing levels above GWPS (adjacent to the Agremax Staging Area).
- Six wells at the southern property boundary of AES-PR, which is less than 200 feet south of the Agremax Staging Area.

All nine temporary wells and downgradient CCR wells MW-3 through MW-5 were sampled on June 3 and 4, 2019. Analytical results from this sampling event show that the concentration of lithium, molybdenum and selenium above GWPS are limited to within the AES-PR property and are not leaving the site. The analytical results for the nature and extent characterization were included in the *Groundwater Characterization Report* included as Appendix A of the CMA Report.

§257.90(e)(5): Other information required to be included in the annual report as specified in §257.90 through §257.98.

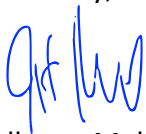
Assessment monitoring events were completed in April and September 2019 in accordance with §257.95(b) and §257.95(d). Tables 2 and 3 summarize the groundwater analytical results and field monitoring data for these events. Table 4 summarizes the groundwater protection standards established and Site background levels in accordance with §257.95(d)(2) and §257.95(h). Analytical data used in the computation of background levels were provided in the 2017 and 2018 CCR Annual Groundwater Monitoring Reports.

Projected key activities to be completed during the 2020 calendar year include the following:

- Statistical evaluation inclusive of 2019 analytical results to determine whether there is a statistical significant exceedance of GWPS for Appendix IV constituents in accordance with 40 CFR §257.93(h) and §257.95(h).
- Annual and semi-annual assessment monitoring sampling events in accordance with §257.95.
- AES will continue accepting comments on the CMA through the AES-PR CCR public website through January 28, 2020. Following review of comments on the CMA, AES-PR will select a corrective remedy as soon as feasible. Key activities and timing will be dependent upon the remedy that is selected and will be described in a Selection of Remedy Report prepared in accordance with 40 CFR 257.97(a).

We appreciate the opportunity to assist with the CCR Rule groundwater monitoring program at AES-PR.

Sincerely,



Alberto Meléndez
Principal Environmental Consultant

Enclosure

c.: Ms. Angelique Collier, AES US Services, LLC – w/enclosure
Mr. Héctor Ávila, AES Puerto Rico, LP - w/enclosure

TABLES

Table 1. Summary of 2019 CCR Groundwater Sampling Program, AES Puerto Rico LP, Guayama, Puerto Rico

Monitoring Well ID	Upgradient or Downgradient Well	Number of Samples Collected in 2019 *	Sample Collection Date	Monitoring Phase
MW-1	Upgradient	2	23-Apr-19	Assessment
			23-Sep-19	
MW-2	Upgradient	2	23-Apr-19	Assessment
			23-Sep-19	
MW-3	Downgradient	2	23-Apr-19	Assessment
			23-Sep-19	
MW-4	Downgradient	4	24-Apr-19	Assessment
			23-Sep-19	
MW-5	Downgradient	2	24-Apr-19	Assessment
			23-Sep-19	
MW-3	Downgradient	1	3-June-19	Nature and Extent
MW-4	Downgradient	2	3-June-19	Nature and Extent
MW-5	Downgradient	1	3-June-19	Nature and Extent
TW-101	Downgradient	1	3-June-19	Nature and Extent
TW-102	Downgradient	1	3-June-19	Nature and Extent
TW-103	Downgradient	1	3-June-19	Nature and Extent
TW-104	Downgradient	1	4-June-19	Nature and Extent
TW-105	Downgradient	1	4-June-19	Nature and Extent
TW-106	Downgradient	1	4-June-19	Nature and Extent
TW-107	Downgradient	1	4-June-19	Nature and Extent
TW-108	Downgradient	1	4-June-19	Nature and Extent
TW-109	Downgradient	1	4-June-19	Nature and Extent

Notes:

* Assessment Monitoring: One groundwater sample was collected per sampling event at Monitoring Wells MW-1, MW-2, MW-3 and MW-5, whereas two groundwater samples were collected per sampling event at MW-4 (these consisted of one sample and one field duplicate sample per event).

* Nature and Extent Characterization: One field duplicate sample was collected at MW-4. TW = Temporary Monitoring Well.

Table 2. Analytical Results and Monitoring Data for Groundwater Samples Collected in April 2019
AES Puerto Rico, LP in Guayama, Puerto Rico

	Well ID	MW-1	MW-2	MW-3	MW-4	MW-4	MW-5
	Well Location	Upgradient	Upgradient	Downgradient	Downgradient	NA	Downgradient
	Sample ID	AES-MW1-042319	AES-MW2-042319	AES-MW3-042319	AES-MW4-042419	AES-MW4-DUP-042419	AES-MW5-042419
	Sampling Date	4/23/2019	4/23/2019	4/23/2019	4/24/2019	4/24/2019	4/24/2019
Static Water Elevation (ft MSL)		10.30	10.24	1.51	4.02	NA	1.50
Field Parameters	Units						
pH	SU	7.61	7.22	7.56	7.43	NA	6.77
Conductivity	mS/cm	1.370	1.083	15.11	16.49	NA	13.50
Redox Potential	mV	90.8	84.1	17.2	-61.1	NA	14.6
Dissolved Oxygen	mg/L	0.64	0.89	0.64	0.48	NA	0.82
Turbidity	NTU	9.17	1.91	1.67	19.2	NA	11.89
Temperature	°C	29.10	29.13	30.62	33.0	NA	29.53
Analytical Results							
Antimony	mg/L	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U	0.0010 U
Arsenic	mg/L	0.00046 U	0.00046 U	0.0016	0.0021	0.0017	0.0084
Barium	mg/L	0.019	0.13	0.17	0.045	0.046	0.032
Beryllium	mg/L	0.00034 U	0.00034 U	0.00034 U	0.00034 U	0.00034 U	0.00034 U
Cadmium	mg/L	0.00034 U	0.00034 U	0.00034 U	0.00034 U	0.00034 U	0.00034 U
Chromium	mg/L	0.0011 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U
Cobalt	mg/L	0.00040 U	0.00040 U	0.0023 J	0.00083 J	0.00083 J	0.0030
Fluoride	mg/L	0.75	0.68	1.6	0.94	0.96	0.43
Lead	mg/L	0.00035 U	0.00035 U	0.00035 U	0.00035 U	0.00035 U	0.00035 U
Lithium	mg/L	0.0011 U	0.0011 U	0.0052	0.28	0.29	0.0031 J
Mercury	mg/L	0.000070 U	0.000070 U	0.000070 U	0.000070 U	0.000070 U	0.000070 U
Molybdenum	mg/L	0.0020 U	0.0020 U	0.17	0.66	0.65	0.0036 J
Selenium	mg/L	0.0020	0.00071 U	0.13	0.0012 J	0.0011 J	0.00071 U
Thallium	mg/L	0.000085 U	0.000085 U	0.000085 U	0.000085 U	0.000085 U	0.000085 U
Radium 226 and 228 combined	pCi/L	-0.168 U	-0.0217 U	-0.0595 U	0.0175 U	0.432	-0.0140 U
Boron	mg/L	0.23	0.14	0.90	1.8	1.7	0.38
Calcium	mg/L	65	110	290	150	150	680
Chloride	mg/L	160	72	4200	3500	3600	3700
pH (field)	SU	7.61	7.22	7.56	7.43	NA	6.77
Sulfate	mg/L	170	6.6	2200	3300	3200	2300
Total Dissolved Solids	mg/L	900	660	10000	12000	11000	9300

Notes:

mg/L - milligrams per Liter

SU - Standard Units

pCi/L - picocuries per Liter

ft MSL - Feet above Mean Sea Level

mS/cm - millisiemens per centimeter

mV - millivolts

NTU - Nephelometric Turbidity Units

°C - degrees Celsius

Analytical results of metal elements are "Total Recoverable".

Sample ID format is: "Site_Name-MW_ID-Sampling_Date" (Sampling Date format is mmddyy).

Sample AES-MW4-DUP-042419 is the field duplicate sample of AES-MW4-042419.

U - Not detected at indicated Method Detection Limit (MDL).

J - Result is less than the Reporting Limit, but greater than

or equal to the MDL; concentration is an approximate value.

NA - Not Applicable to the field duplicate sample.

Static water elevations listed are based on measurements collected in all wells on 24 April 2019.

Table 3. Analytical Results and Monitoring Data for Groundwater Samples Collected in September 2019
AES Puerto Rico, LP in Guayama, Puerto Rico

	Well ID	MW-1	MW-2	MW-3	MW-4	MW-4	MW-5
	Well Location	Upgradient	Upgradient	Downgradient	Downgradient	NA	Downgradient
	Sample ID	AES-MW1-092319	AES-MW2-092319	AES-MW3-092319	AES-MW4-092319	AES-MW4-DUP-092319	AES-MW5-092319
	Sampling Date	9/23/2019	9/23/2019	9/23/2019	9/23/2019	9/23/2019	9/23/2019
Static Water Elevation (ft MSL)		9.82	10.16	2.07	4.37	NA	2.18
Field Parameters	Units						
pH	SU	6.59	6.31	6.54	6.58	NA	6.03
Conductivity	mS/cm	1.983	1.053	13.01	26.19	NA	12.33
Redox Potential	mV	-98.6	-99.1	-106.6	-167.6	NA	-82.0
Dissolved Oxygen	mg/L	0.48	0.68	0.47	0.49	NA	1.20
Turbidity	NTU	4.70	2.16	7.08	18.95	NA	28.72
Temperature	°C	30.05	30.66	31.43	33.60	NA	30.08
Analytical Results							
Arsenic	mg/L	0.00043 J	0.00031 J	0.0019	0.0041	0.0034	0.015
Barium	mg/L	0.035	0.14	0.16	0.061	0.061	0.034
Cobalt	mg/L	0.00069 J	0.00057 J	0.0020 J	0.00086 J	0.00084 J	0.0027
Fluoride	mg/L	0.67	0.71	1.7	0.66	0.64	0.42
Lithium	mg/L	0.00054 J	0.00050 U	0.0034 J	0.47	0.48	0.0046 J
Molybdenum	mg/L	0.0025 U	0.0025 U	0.15	0.35	0.37	0.0025 J
Selenium	mg/L	0.0059	0.00098 U	0.10	0.0043	0.0047	0.0014
Radium 226 and 228 combined	pCi/L	0.450 U	0.230 U	-0.0238 U	-0.0471 U	-0.0153 U	0.723
Boron	mg/L	0.27	0.16	0.93	1.9	1.9	0.41
Calcium	mg/L	120	130	270	650	630	840
Chloride	mg/L	360	72	3700	690	690	3700
pH (field)	SU	6.59	6.31	6.54	6.58	NA	6.03
Sulfate	mg/L	310	8.0	1500	8200	8500	2200
Total Dissolved Solids	mg/L	1400	670	9300	31000	23000	10000

Notes:

mg/L - milligrams per Liter

SU - Standard Units

pCi/L - picocuries per Liter

ft MSL - Feet above Mean Sea Level

mS/cm - millisiemens per centimeter

mV - millivolts

NTU - Nephelometric Turbidity Units

°C - degrees Celsius

Analytical results of metal elements are "Total Recoverable".

Sample ID format is: "Site_Name-MW_ID-Sampling_Date" (Sampling Date format is mmddyy).

Sample AES-MW4-DUP-092319 is the field duplicate sample of AES-MW4-092319.

U - Not detected at indicated Method Detection Limit (MDL).

J - Result is less than the Reporting Limit, but greater than

or equal to the MDL; concentration is an approximate value.

NA - Not Applicable to the field duplicate sample.

Static water elevations listed are based on measurements collected in all wells on 23 September 2019.

Table 4. Groundwater Protection Standards, Site Background Levels and Statistical Evaluation of Lower Confidence Limits
CCR Groundwater Monitoring Program, AES Puerto Rico LP, Guayama, Puerto Rico

	Comparison Criteria	Antimony (mg/L)	Arsenic (mg/L)	Barium (mg/L)	Beryllium (mg/L)	Cadmium (mg/L)	Chromium (mg/L)	Cobalt (mg/L)	Fluoride (mg/L)	Lead (mg/L)	Lithium (mg/L)	Mercury (mg/L)	Molybdenum (mg/L)	Selenium (mg/L)	Thallium (mg/L)	Radium 226 + 228 Combined (pCi/L)
Monitoring Well ID¹	GWPS (greater of MCL, USEPA Amendments Level, or Site Background)	0.006	0.010	2	0.004	0.005	0.1	0.006	4.0	0.015	0.040	0.002	0.100	0.05	0.002	5
	MCL	0.006	0.010	2	0.004	0.005	0.1		4.0			0.002		0.05	0.002	5
	USEPA Amendments to the National Minimum Criteria*							0.006		0.015	0.040		0.100			
	Site Background Level**	0.0025	0.0014	0.1599	0.0025	0.0025	0.0039	0.0025	0.7506	0.0013	0.005	0.0002	0.015	0.02271	0.0005	0.8265
	Through Monitoring Date²	Lower Confidence Limit³														
MW-3	2-Oct-2018	0.0012	0.002483	0.2171	0.0025	0.00042	0.0024	0.002295	1.784	0.0013	0.0056	0.0002	0.1949	0.1417	0.0005	0.3297
MW-4	2-Oct-2018	0.0012	0.002947	0.04589	0.0025	0.00034	0.0012	0.0016	0.53	0.00036	0.6523	0.0002	0.4	0.00613	0.0005	0.1934
MW-5	2-Oct-2018	0.0025	0.003404	0.03396	0.0025	0.0025	0.0025	0.003081	0.4334	0.0013	0.003269	0.0002	0.0046	0.003715	0.0005	0.2499

Notes:

mg/L = milligrams per Liter

pCi/L = picocuries per Liter

GWPS = Groundwater Protection Standard

MCL = USEPA Maximum Contaminant Level

*USEPA Amendments to the National Minimum Criteria (Phase One, Part One), Disposal of Coal Combustion Residuals from Electric Utilities; effective August 29, 2018.

** Site background levels for each constituent were computed based on the Upper Tolerance Limit (UTL), with 95% Coverage and 95% Confidence, of the pooled groundwater data from upgradient wells MW-1 and MW-2.

¹Downgradient Monitoring Well Identification

²Includes groundwater results from ten groundwater monitoring events conducted from the initial date of CCR groundwater monitoring program to October 2, 2018.

³Lower Confidence Limit (LCL): 95% Parametric LCL for normal or transformed-normal distributions. Otherwise, for Nonparametric LCL, the confidence level was set based on the number of available observations.


Values in bold font and gray shading indicate a Lower Confidence Limit exceeding the corresponding GWPS.


FIGURES




Figure 1
Site Location Map
AES Puerto Rico, LP
Guayama, Puerto Rico

Legend

 AES Puerto Rico
Approximate Property Boundary



0 250 500 750 1000 1250 ft



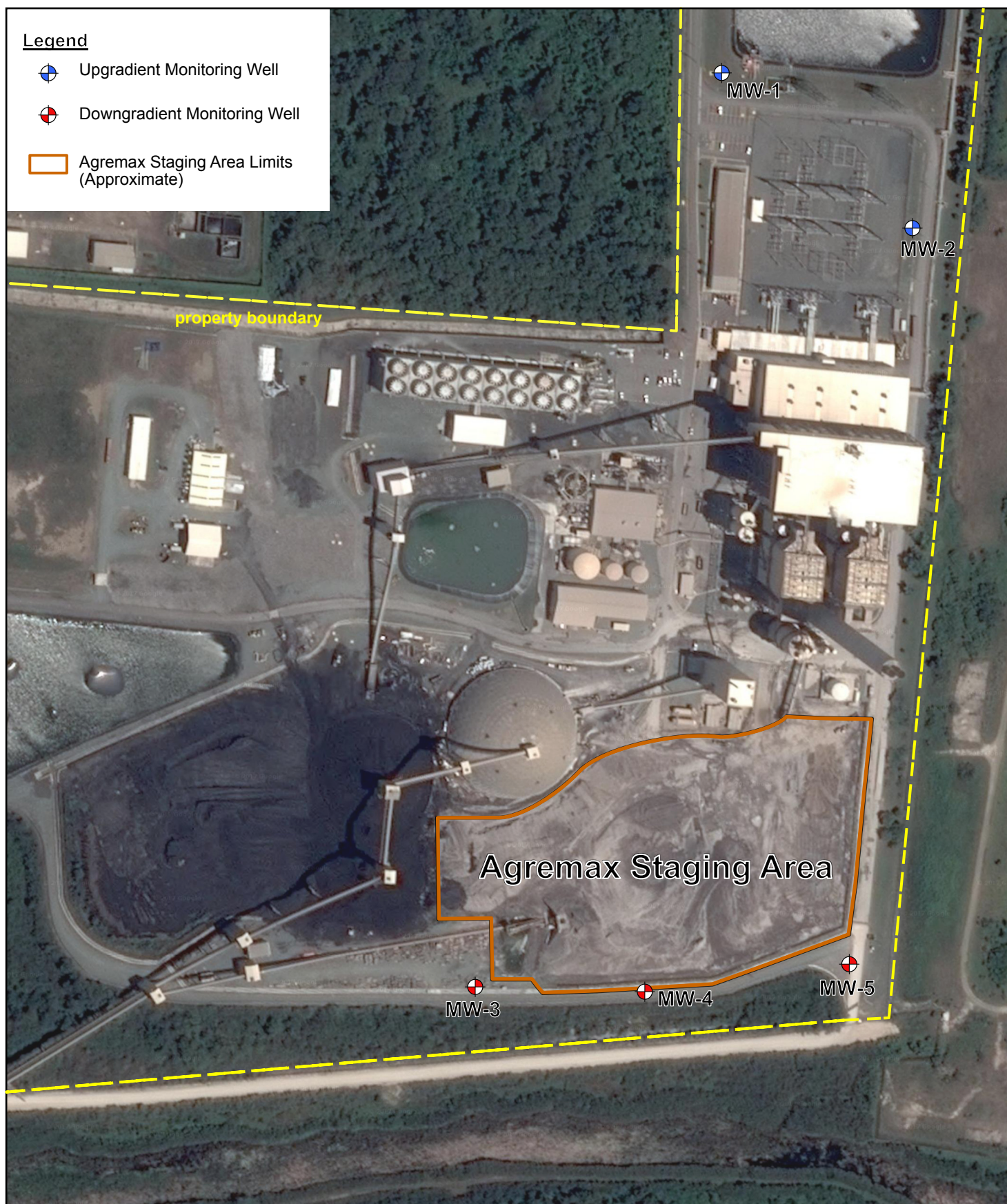
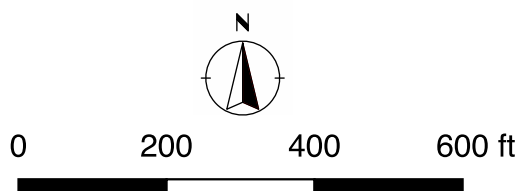


Figure 2
CCR Groundwater Monitoring System
AES Puerto Rico, LP
Guayama, Puerto Rico



Legend





-  CCR Upgradient Monitoring Well
-  CCR Downgradient Monitoring Well
-  Temporary Monitoring Well
-  Temporary Piezometer



Figure 3

**CCR Groundwater Monitoring System and
Groundwater Characterization Temporary Wells
AES Puerto Rico, LP in Guayama, PR**



0 100 200 300 ft



DNA-ENVIRONMENT, LLC

APPENDIX

DEMONSTRATION FOR 60-DAY EXTENSION – CORRECTIVE MEASURES ASSESSMENT



Winston R. Esteves

Environmental Consultant

July 15, 2019

**SUBJECT: Demonstration for 60-Day Extension – Corrective Measures Assessment (CMA)
AGREMAX™ Staging Area-AES Puerto Rico, Guayama, Puerto Rico**

Pursuant to CFR Title 40 Chapter 257 Subpart D §257.96(a) (CCR Rule), I certify that AES Puerto Rico (AES-PR) AGREMAX™ staging area (Staging Area) has demonstrated the need for an additional 60 days beyond the regulatory time period of 90 days to complete the assessment of corrective measures due to site-specific conditions and the evaluation of remedial treatment alternatives in support of an informed CMA process.

In the case of the assessment for the Staging Area, the site has complex transitional marine shoreline hydro geological and geochemical characteristics and is encroached by other industrial facilities. This setting will require further comprehensive investigations to support a thorough CMA process since nature and extent information is an important component of the CMA. Based on these site-specific conditions, a 60-day extension is needed to complete the CMA process.

This certification is based solely upon, and limited by, information provided by others and my understanding of applicable environmental regulations. While I used reasonable care to avoid reliance upon faulty or incomplete information, I am not able or required to verify the accuracy of all data and information provided by third parties. I did not detect obvious inconsistencies or omissions of a nature that might question the validity of the information. I assume no responsibility for any consequence arising from any information or condition that was inaccurate, concealed, withheld, misrepresented or otherwise not fully disclosed or available to me from third parties. If additional information that might impact my conclusions becomes available, I reserve the right to review the information, reassess the potential concerns, and modify my opinions, if warranted.

This certification is to the best of my knowledge and belief, accurate and complete.

Signed: _____

Winston R. Esteves
PE, BCEE, QEP, CHMM
Consulting Principal

