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April 24, 2019

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2701 Veeco Street  
Chesapeake, Virginia 23323**


Dear Library Manager:

Please find attached, one document related to Dominion Energy's Chesapeake Energy Center (CEC) industrial landfill. The Major Hillard Library is the public data repository for information submitted by Dominion Energy to the Virginia Department of Environmental Quality relating to the CEC landfill Corrective Action Monitoring Program (CAMP). Throughout the life of the program, Dominion Energy will place on file with the Library copies of associated materials, which should be made available for public viewing until Dominion Energy provides notice. Please include the following document with related CEC materials currently being held for public viewing at the library:

*Summary of Corrective Action Monitoring Data  
2019 1st Semi-Annual Monitoring (February 25 – 27, 2019)  
Chesapeake Energy Center Landfill - Permit No. 440  
Chesapeake, Virginia*

Thank you for your assistance and please do not hesitate to call Mr. Donald Hintz of Dominion Energy's Environmental Department at (804) 273-3552 should there be any questions and/or comments.

Sincerely,

  
Jason E. Williams  
Director, Environmental

Attachment

*Data Repository  
Chesapeake Energy Center  
Chesapeake, Virginia  
April 24, 2019*

cc (cover letter only):

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**Table 1**  
**Summary of Corrective Action Monitoring Data**  
**2019 1st Semi-Annual Monitoring Event (February 25 - 27, 2019)**  
**Chesapeake Energy Center Industrial Landfill - Permit #440**  
**Chesapeake, Virginia**

**Groundwater Monitoring Wells**

Sample ID: Sample Date:	MW-5 02/25/2019				MW-5D 02/25/2019				CECW-1 02/26/2019				CECW-1D 02/26/2019				CECW-2 02/26/2019				CECW-2D 02/26/2019				CECW-3 02/26/2019				CECW-3D 02/26/2019			
	Result	Qual	MDL	RL	Result	Qual	MDL	RL	Result	Qual	MDL	RL	Result	Qual	MDL	RL	Result	Qual	MDL	RL	Result	Qual	MDL	RL	Result	Qual	MDL	RL	Result	Qual	MDL	RL
<b>Primary Performance Parameters (µg/L)</b>																																
Arsenic, total	3.8 J	0.75	5.0	2.0 J	0.75	5.0	20	0.75	5.0	39	0.75	5.0	7.4	0.75	5.0	260	0.75	5.0	NS	--	--	190	0.75	5.0								
Arsenic, dissolved	3.6 J	0.75	5.0	0.81 J	0.75	5.0	16	0.75	5.0	18	0.75	5.0	2.4 J	0.75	5.0	130	0.75	5.0	NS	--	--	220	0.75	5.0								
Arsenic III (dissolved)	3.5	0.79	2.0	1.8 J+	0.79	2.0	16	0.79	2.0	1.3 J	0.79	2.0	1.9 J	0.79	2.0	81	0.79	2.0	NS	--	--	180	0.79	2.0								
Arsenic V (dissolved)	1.3 J	0.75	2.0	< 0.75	0.75	2.0	2.3	0.75	2.0	17	0.75	2.0	2.3	0.75	2.0	< 0.75	0.75	2.0	NS	--	--	14	0.75	2.0								
Beryllium, total	< 0.31	0.31	1.0	< 0.31	0.31	1.0	< 0.31	0.31	1.0	0.40 J	0.31	1.0	< 0.31	0.31	1.0	< 0.31	0.31	1.0	NS	--	--	0.44 J	0.31	1.0								
Beryllium, dissolved	< 0.31	0.31	1.0	< 0.31	0.31	1.0	< 0.31	0.31	1.0	0.35 J	0.31	1.0	< 0.31	0.31	1.0	< 0.31	0.31	1.0	NS	--	--	< 0.31	0.31	1.0								
Cobalt, total	0.33 J	0.19	1.0	18	0.19	1.0	0.22 J	0.19	1.0	0.41 J	0.19	1.0	4.2	0.19	1.0	< 0.19	0.19	1.0	NS	--	--	1.9	0.19	1.0								
Cobalt, dissolved	0.22 JB	0.19	1.0	18 B	0.19	1.0	0.19 J	0.19	1.0	0.39 J	0.19	1.0	0.88 J	0.19	1.0	< 0.19	0.19	1.0	NS	--	--	< 0.19	0.19	1.0								
Selenium, total	1.1 J	0.89	5.0	< 0.89	0.89	5.0	< 0.89	0.89	5.0	< 0.89	0.89	5.0	< 0.89	0.89	5.0	< 0.89	0.89	5.0	NS	--	--	< 0.89	0.89	5.0								
Selenium, dissolved	1.1 J	0.89	5.0	< 0.89	0.89	5.0	< 0.89	0.89	5.0	< 0.89	0.89	5.0	< 0.89	0.89	5.0	< 0.89	0.89	5.0	NS	--	--	< 0.89	0.89	5.0								
Sulfide	< 580	580	1,000	< 580	580	1,000	1000	580	1,000	< 580	580	1,000	3000	580	1,000	600 J	580	1,000	NS	--	--	1400	580	1,000								
Sulfide, dissolved	< 580	580	1,000	< 580	580	1,000	600 J	580	1,000	< 580	580	1,000	600 J	580	1,000	< 580	580	1,000	NS	--	--	600 J	580	1,000								
<b>Performance Parameters (mg/L)</b>																																
Iron, total	0.83	0.047	0.1	22	0.047	0.1	4.1	0.047	0.1	6.5	0.047	0.1	9.4	0.047	0.1	2.4	0.047	0.1	NS	--	--	6	0.047	0.1								
Iron, dissolved	0.32	0.047	0.1	12	0.047	0.1	3.4	0.047	0.1	3.7	0.047	0.1	4	0.047	0.1	0.17	0.047	0.1	NS	--	--	< 0.047	0.047	0.1								
Manganese	0.0067	0.0021	0.0050	0.78	0.0021	0.0050	0.14 B	0.0021	0.0050	0.32	0.0021	0.0050	0.17 B	0.0021	0.0050	0.19	0.0021	0.0050	NS	--	--	0.016	0.0021	0.0050								
<b>Field Measurements</b>																																
Dissolved Oxygen (mg/L)	0.57	0.01	0.01	0.65	0.01	0.01	0.50	0.01	0.01	0.59	0.01	0.01	0.45	0.01	0.01	0.47	0.01	0.01	--	--	--	0.32	0.01	0.01								
Oxidation Reduction Potential (mV)	29.1	0.1	0.1	34.2	0.1	0.1	-86.1	0.1	0.1	2.7	0.1	0.1	-128.3	0.1	0.1	-129.1	0.1	0.1	--	--	--	-188.5	0.1	0.1								
pH (S.U.)	5.89	0.10	0.10	6.01	0.10	0.10	6.49	0.10	0.10	6.21	0.10	0.10	5.61	0.10	0.10	6.66	0.10	0.10	--	--	--	7.69	0.10	0.10								
Specific Conductance (µS/cm)	163.3	0.1	0.1	2798	0.1	0.1	3391	0.1	0.1	17235	0.1	0.1	6250	0.1	0.1	24812	0.1	0.1	--	--	--	1523	0.1	0.1								
Temperature (Degrees Celsius)	14.3	0.01	0.01	17.8	0.01	0.01	15.9	0.01	0.01	17.6	0.01	0.01	15.7	0.01	0.01	17.9	0.01	0.01	--	--	--	17.9	0.01	0.01								
Turbidity (NTU)	9.8	0.1	0.1	7.6	0.1	0.1	8.1	0.1	0.1	12.0	0.1	0.1	34.1	0.1	0.1	11.0	0.1	0.1	--	--	--	145.95	0.1	0.1								

**Groundwater Monitoring Wells**

Sample ID: Sample Date:	CECW-6I 02/26/2019				CECW-6D 02/26/2019				CECW-8 02/26/2019				CECW-8D 02/26/2019				CECW-10R 02/26/2019				CECW-15 02/26/2019				PO-8 02/27/2019				PO-8D 02/27/2019			
	Result	Qual	MDL	RL	Result	Qual	MDL	RL	Result	Qual	MDL	RL	Result	Qual	MDL	RL	Result	Qual	MDL	RL	Result	Qual	MDL	RL	Result	Qual	MDL	RL	Result	Qual	MDL	RL
<b>Primary Performance Parameters (µg/L)</b>																																
Arsenic, total	89	0.75	5.0	120	0.75	5.0	1.4 J	0.75	5.0	14	0.75	5.0	100	0.75	5.0	1.0 J	0.75	5.0	26	0.75	5.0	2.3 J	0.75	5.0								
Arsenic, dissolved	57	0.75	5.0	88	0.75	5.0	1.8 J	0.75	5.0	2.1 J	0.75	5.0	100	0.75	5.0	< 0.75	0.75	5.0	29	0.75	5.0	1.0 J	0.75	5.0								
Arsenic III (dissolved)	22	0.79	2.0	11	0.79	2.0	2.4 J+	0.79	2.0	4.8	0.79	2.0	18	0.79	2.0	1.4 J+	0.79	2.0	2.7	0.79	2.0	2.5 J+	0.79	2.0								
Arsenic V (dissolved)	20	0.75	2.0	20	0.75	2.0	5.8	0.75	2.0	4.9	0.75	2.0	1.5 J	0.75	2.0	5.4	0.75	2.0	1.4 J	0.75	2.0	1.0 J	0.75	2.0								
Beryllium, total	< 0.31	0.31	1.0	< 0.31	0.31	1.0	< 0.31	0.31	1.0	< 0.31	0.31	1.0	< 0.31	0.31	1.0	< 0.31	0.31	1.0	< 0.31	0.31	1.0	0.52 J	0.31	1.0								
Beryllium, dissolved	< 0.31	0.31	1.0	< 0.31	0.31	1.0	< 0.31	0.31	1.0	< 0.31	0.31	1.0	< 0.31	0.31	1.0	< 0.31	0.31	1.0	< 0.31	0.31	1.0	1.1	0.31	1.0								
Cobalt, total	5.1	0.19	1.0	1.6	0.19	1.0	0.28 J	0.19	1.0	0.45 J	0.19	1.0	0.55 J	0.19	1.0	1.1	0.19	1.0	< 0.19	0.19	1.0	1.6	0.19	1.0								
Cobalt, dissolved	5.6	0.19	1.0	1.9	0.19	1.0	0.28 J	0.19	1.0	0.47 J	0.19	1.0	< 0.19	0.19	1.0	1.3	0.19	1.0	< 0.19	0.19	1.0	1.5	0.19	1.0								
Selenium, total	< 0.89	0.89	5.0	< 0.89	0.89	5.0	< 0.89	0.89	5.0	< 0.89	0.89	5.0	< 0.89	0.89	5.0	< 0.89	0.89	5.0	< 0.89	0.89	5.0	< 0.89	0.89	5.0								
Selenium, dissolved	< 0.89	0.89	5.0	< 0.89	0.89	5.0	< 0.89	0.89	5.0	< 0.89	0.89	5.0	< 0.89	0.89	5.0	1.0 J	0.89	5.0	< 0.89	0.89	5.0	< 0.89	0.89	5.0								
Sulfide	1000	580	1,000	< 580	580	1,000	77000	580	1,000	< 580	580	1,000	5000	580	1,000	< 580	580	1,000	3000	580	1,000	< 580	580	1,000								
Sulfide, dissolved	< 580	580	1,000	< 580	580	1,000	65000	580	1,000	< 580	580	1,000	2600	580	1,000	< 580	580	1,000	2200	580	1,000	< 580	580	1,000								
<b>Performance Parameters (mg/L)</b>																																
Iron, total	12	0.047	0.1	6	0.047	0.1	1.9	0.047	0.1	18	0.047	0.1	2.2	0.047	0.1	17	0.047	0.1	0.18	0.047	0.1	0.92	0.047	0.1								
Iron, dissolved	11	0.047	0.1	3.7	0.047	0.1	< 0.047	0.047	0.1	18	0.047	0.1	1	0.047	0.1	21	0.047	0.1	0.07 J	0.047	0.1	< 0.047	0.047	0.1								
Manganese	0.37 B	0.0021	0.0050	0.14	0.0021	0.0050	0.15	0.0021	0.0050	0.23	0.0021	0.0050	0.034 B	0.0021	0.0050	0.27	0.0021	0.0050	0.43	0.0021	0.0050	0.034	0.0021	0.0050								
<b>Field Measurements</b>																																
Dissolved Oxygen (mg/L)	0.60	0.01	0.01	0.49	0.01	0.01	0.44	0.01	0.01	0.97	0.01	0.01	0.12	0.01	0.01	0.67	0.01	0.01	0.87	0.01	0.01	0.67	0.01	0.01								
Oxidation Reduction Potential (mV)	27.0	0.1	0.1	-14.2	0.1	0.1	-315.9	0.1	0.1	79.7	0.1	0.1	-261.3	0.1	0.1	12.2	0.1	0.1	-176.5	0.1	0.1	76.0	0.1	0.1								
pH (S.U.)	5.98	0.10	0.10	6.30	0.10	0.10	6.98	0.10	0.10	5.85	0.10	0.10	6.84	0.10	0.10	4.81	0.10	0.10	6.46	0.10	0.10	6.44	0.10	0.10								
Specific Conductance (µS/cm)	17446	0.1	0.1	3091	0.1	0.1	24069	0.1	0.1	24357	0.1	0.1	3242	0.1	0.1	28975	0.1	0.1	2726	0.1	0.1	1571	0.1	0.1								
Temperature (Degrees Celsius)	18.2	0.01	0.01	18.4	0.01	0.01	11.1	0.01	0.01	16.2	0.01	0.01	12.3	0.01	0.01	16.0	0.01	0.01	15.0	0.01	0.01	17.5	0.01	0.01								
Turbidity (NTU)	10.3	0.1	0.1	7.7	0.1	0.1	28.39	0.1	0.1	14.8	0.1	0.1	36.34	0.1	0.1	7.92	0.1	0.1	4.26	0.1	0.1	15.7	0.1	0.1								

**Table 1**  
**Summary of Corrective Action Monitoring Data**  
**2019 1st Semi-Annual Monitoring Event (February 25 - 27, 2019)**  
**Chesapeake Energy Center Industrial Landfill - Permit #440**  
**Chesapeake, Virginia**

**Groundwater Monitoring Wells**

Sample ID:	PO-10 02/26/2019				PO-10D 02/27/2019				PO-10 DUP 02/26/2019				FIELD BLANK 02/25/2019			
	Result	Qual	MDL	RL	Result	Qual	MDL	RL	Result	Qual	MDL	RL	Result	Qual	MDL	RL
<b>Primary Performance Parameters (µg/L)</b>																
Arsenic, total	<b>140</b>		0.75	5.0	<b>180</b>		0.75	5.0	<b>130</b>		0.75	5.0	< 0.75		0.75	5.0
Arsenic, dissolved	<b>150</b>		0.75	5.0	<b>170</b>		1.5	10	<b>150</b>		0.75	5.0	< 0.75		0.75	5.0
Arsenic III (dissolved)	<b>44</b>		0.79	2.0	<b>49</b>		0.79	2.0	<b>45</b>		0.79	2.0	<b>1.7</b> J		0.79	2.0
Arsenic V (dissolved)	<b>1.4</b> J		0.75	2.0	<b>52</b>		0.75	2.0	<b>1.4</b> J		0.75	2.0	< 0.75		0.75	2.0
Beryllium, total	< 0.31		0.31	1.0	<b>2.1</b>		0.31	1.0	< 0.31		0.31	1.0	< 0.31		0.31	1.0
Beryllium, dissolved	< 0.31		0.31	1.0	<b>0.68</b> J		0.61	2.0	< 0.31		0.31	1.0	< 0.31		0.31	1.0
Cobalt, total	<b>0.21</b> J		0.19	1.0	<b>10</b>		0.19	1.0	< 0.19		0.19	1.0	< 0.19		0.19	1.0
Cobalt, dissolved	< 0.19		0.19	1.0	< 0.38		0.38	2.0	< 0.19		0.19	1.0	< 0.19		0.19	1.0
Selenium, total	< 0.89		0.89	5.0	<b>3.0</b> J		0.89	5.0	< 0.89		0.89	5.0	< 0.89		0.89	5.0
Selenium, dissolved	< 0.89		0.89	5.0	<b>1.9</b> J		1.8	10	< 0.89		0.89	5.0	< 0.89		0.89	5.0
Sulfide	<b>3000</b>		580	1,000	<b>1400</b>		580	1,000	<b>3000</b>		580	1,000	< 580		580	1,000
Sulfide, dissolved	<b>600</b> J		580	1,000	<b>1000</b>		580	1,000	< 580		580	1,000	< 580		580	1,000
<b>Performance Parameters (mg/L)</b>																
Iron, total	<b>0.67</b> J		0.047	0.1	<b>32</b>		0.047	0.1	<b>0.52</b> J		0.047	0.1	< 0.047		0.047	0.1
Iron, dissolved	<b>0.21</b>		0.047	0.1	<b>1.4</b>		0.094	0.2	<b>0.22</b>		0.047	0.1	< 0.047		0.047	0.1
Manganese	<b>0.04</b> B		0.0021	0.0050	<b>0.042</b>		0.0021	0.0050	<b>0.037</b> B		0.0021	0.0050	< 0.0021		0.0021	0.0050
<b>Field Measurements</b>																
Dissolved Oxygen (mg/L)	0.18		0.01	0.01	0.59		0.01	0.01	--		--	--	--		--	--
Oxidation Reduction Potential (mV)	-273.7		0.1	0.1	-99.1		0.1	0.1	--		--	--	--		--	--
pH (S.U.)	7.27		0.10	0.10	7.67		0.10	0.10	--		--	--	--		--	--
Specific Conductance (uS/cm)	2547		0.1	0.1	1604		0.1	0.1	--		--	--	--		--	--
Temperature (Degrees Celsius)	13.0		0.01	0.01	15.7		0.01	0.01	--		--	--	--		--	--
Turbidity (NTU)	9.55		0.1	0.1	577.1		0.1	0.1	--		--	--	--		--	--

**Surface Water**

Sample ID: Sample Date:	SW-1 02/25/2019				SW-2 02/25/2019				SW-3 02/25/2019				SW-4 02/25/2019				SW-3 DUP 02/25/2019				FIELD BLANK 02/25/2019			
	Result	Qual	MDL	RL	Result	Qual	MDL	RL	Result	Qual	MDL	RL	Result	Qual	MDL	RL	Result	Qual	MDL	RL	Result	Qual	MDL	RL
<b>Primary Constituents (µg/L)</b>																								
Arsenic, total	<b>1.8</b> J		0.75	5.0	<b>3.6</b> J		0.75	5.0	<b>0.92</b> J		0.75	5.0	<b>0.98</b> J		0.75	5.0	<b>0.79</b> J		0.75	5.0	< 0.75		0.75	5.0
Arsenic III (dissolved)	<b>4.7</b>		0.79	2.0	<b>1.4</b> J		0.79	2.0	<b>2.0</b>		0.79	2.0	<b>0.96</b> J		0.79	2.0	< 0.79		0.79	2.0	< 0.79		0.79	2.0
Arsenic V (dissolved)	<b>3.0</b>		0.75	2.0	<b>2.2</b>		0.75	2.0	<b>4.0</b>		0.75	2.0	<b>2.7</b>		0.75	2.0	<b>2.6</b>		0.75	2.0	< 0.75		0.75	2.0
Beryllium, total	<b>0.65</b> J		0.31	1.0	<b>0.80</b> J		0.31	1.0	< 0.31		0.31	1.0	< 0.31		0.31	1.0	< 0.31		0.31	1.0	< 0.31		0.31	1.0
Cobalt, total	<b>0.66</b> J		0.19	1.0	<b>3.3</b>		0.19	1.0	<b>0.39</b> J		0.19	1.0	<b>0.43</b> J		0.19	1.0	<b>0.40</b> J		0.19	1.0	< 0.19		0.19	1.0
Selenium, total	< 0.89		0.89	5.0	< 0.89		0.89	5.0	< 0.89		0.89	5.0	< 0.89		0.89	5.0	< 0.89		0.89	5.0	< 0.89		0.89	5.0
Sulfide	< 580		580	1,000	< 580		580	1,000	< 580		580	1,000	< 580		580	1,000	< 580		580	1,000	< 580		580	1,000
<b>Water Quality Parameters (mg/L)</b>																								
Iron, total	<b>0.79</b>		0.047	0.1	<b>9.8</b>		0.047	0.1	<b>0.75</b>		0.047	0.1	<b>0.88</b>		0.047	0.1	<b>0.76</b>		0.047	0.1	< 0.047		0.047	0.1
Total Suspended Solids	<b>9.0</b>		2.2	4.0	<b>17</b>		2.2	4.0	<b>9.0</b>		2.2	4.0	<b>11</b>		2.2	4.0	<b>10</b>		2.2	4.0	< 2.2		2.2	4.0
<b>Field Measurements</b>																								
Dissolved Oxygen (mg/L)	9.22		0.01	0.01	10.36		0.01	0.01	10.20		0.01	0.01	10.17		0.01	0.01	--		--	--	--		--	--
Oxidation Reduction Potential (mV)	121.7		0.1	0.1	131.0		0.1	0.1	118.4		0.1	0.1	119.4		0.1	0.1	--		--	--	--		--	--
pH (S.U.)	6.99		0.10	0.10	7.24		0.10	0.10	6.78		0.10	0.10	6.32		0.10	0.10	--		--	--	--		--	--
Specific Conductance (uS/cm)	14514		0.1	0.1	8185		0.1	0.1	9588		0.1	0.1	7884		0.1	0.1	--		--	--	--		--	--
Temperature (Degrees Celsius)	10.9		0.01	0.01	11.0		0.01	0.01	10.8		0.01	0.01	11.0		0.01	0.01	--		--	--	--		--	--
Turbidity (NTU)	44.21		0.1	0.1	34.78		0.1	0.1	36.8		0.1	0.1	18.35		0.1	0.1	--		--	--	--		--	--

**Notes:**

MDL = Method detection limit  
 RL = Reporting limit  
 µg/L = Microgram per liter  
 mg/L = Milligram per liter  
 < = Less than or equal to reporting MDL  
 NS = Not sampled, insufficient water  
 mV = Millivolt  
 S.U. = Standard Unit  
 uS/cm = MicroSiemen per centimeter  
 NTU = Nephelometric Turbidity Unit  
**Bold font** = Detected concentration

**Laboratory Data Qualifiers (Qual):**

J = The reported result is an estimated value.  
 J+ = The reported result is estimated bias high.  
 B = Compound was found in the blank and sample.