

**2017 ANNUAL GROUNDWATER MONITORING
AND
CORRECTIVE ACTION REPORT**

**CCR LANDFILL
SIBLEY GENERATING STATION
SIBLEY, MISSOURI**

Presented To:

KCP&L Greater Missouri Operations Company

Presented By:

SCS ENGINEERS
7311 West 130th Street, Suite 100
Overland Park, Kansas 66213
(913) 681-0030

Revision 1: February 5, 2018
January 30, 2018
File Number 27213169.17

CERTIFICATIONS

I, John R. Rockhold, being a qualified groundwater scientist and Registered Geologist in the State of Missouri, do hereby certify that the 2017 Annual Groundwater Monitoring and Corrective Action Report for the CCR Landfill at the Sibley Generating Station was prepared by me or under my direct supervision and fulfills the requirements of 40 CFR 257.90(e).



John R. Rockhold, R.G.
SCS Engineers

I, Douglas L. Doerr, being a qualified licensed Professional Engineer in the State of Missouri, do hereby certify that the 2017 Annual Groundwater Monitoring and Corrective Action Report for the CCR Landfill at the Sibley Generating Station was prepared by me or under my direct supervision and fulfills the requirements of 40 CFR 257.90(e).



Douglas L. Doerr, P.E.
SCS Engineers

Revision Number	Revision Date	Revision Section	Summary of Revisions
1	2/5/2018	Report Text	Revision table added. No changes to text regarding the 2017 Annual Groundwater Monitoring and Corrective Action Report. Table 1 revised to include two extra data results as explained below.
1	2/5/2018	Appendix B Table 1	Table 1 was revised to include an extra sample for calcium from MW-504 collected 11/16/2017 and an extra sample for chloride from MW-510 collected 11/16/2017. These samples were collected as part of the quality control process.

Table of Contents

Section	Page
CERTIFICATIONS	i
1 INTRODUCTION.....	1
2 § 257.90(E) ANNUAL REPORT REQUIREMENTS	1
2.1 § 257.90(e)(1) Site Map	1
2.2 § 257.90(e)(2) Monitoring System Changes	2
2.3 § 257.90(e)(3) Summary of Sampling Events.....	2
2.4 § 257.90(e)(4) Monitoring Transition Narrative.....	2
2.5 § 257.90(e)(5) Other Requirements	2
2.5.1 § 257.90(e)	3
2.5.2 § 257.94(d)(3).....	3
2.5.3 § 257.94(e)(2)	3
2.5.4 § 257.95(c)(3).....	4
2.5.5 § 257.95(d)(3).....	4
2.5.6 § 257.95(g)(3)(ii).....	4
2.5.7 § 257.96(a).....	4
3 GENERAL COMMENTS	5

Appendices

Appendix A Figures

Figure 1: Site Map

Appendix B Tables

Table 1: Appendix III and Appendix IV Detection Monitoring Results

Table 2: Detection Monitoring Field Measurements

1 INTRODUCTION

This 2017 Annual Groundwater Monitoring and Corrective Action Report was prepared to support compliance with the groundwater monitoring requirements of the “Coal Combustion Residuals (CCR) Final Rule” (Rule) published by the United States Environmental Protection Agency (USEPA) in the *Hazardous and Solid Waste Management System; Disposal of Coal Combustion Residuals from Electric Utilities; Final Rule*, dated April 17, 2015 (USEPA, 2015). Specifically, this report was prepared to fulfill the requirements of 40 CFR 257.90 (e). The applicable sections of the Rule are provided below in *italics*, followed by applicable information relative to the 2017 Annual Groundwater Monitoring and Corrective Action Report for the CCR Landfill at the Sibley Generating Station.

2 § 257.90(e) ANNUAL REPORT REQUIREMENTS

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

2.1 § 257.90(e)(1) SITE MAP

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;

A site map with an aerial image showing the CCR Landfill and all background (or upgradient) and downgradient monitoring wells with identification numbers for the CCR Landfill groundwater monitoring program is provided as Figure 1 in Appendix A.

2.2 § 257.90(e)(2) MONITORING SYSTEM CHANGES

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

The CCR groundwater monitoring system was initially certified on October 13, 2017. No new monitoring wells were installed and no wells were decommissioned as part of the CCR groundwater monitoring program for the CCR Landfill in 2017.

2.3 § 257.90(e)(3) SUMMARY OF SAMPLING EVENTS

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

Only detection monitoring was conducted during the reporting period. Sampling for the detection monitoring program began in December 2015. Samples were analyzed as indicated in **Appendix B, Table 1** (Appendix III and Appendix IV Detection Monitoring Results, and **Table 2** (Detection Monitoring Field Measurements). The dates of sample collection and the results of the analyses are also provided in these tables.

2.4 § 257.90(e)(4) MONITORING TRANSITION NARRATIVE

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

There was no transition between monitoring programs in 2017. Only detection monitoring was conducted in 2017. Statistical evaluation of the data was still in process as of the end of 2017.

2.5 § 257.90(e)(5) OTHER REQUIREMENTS

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

A summary of potentially required information and the corresponding section of the Rule is provided in the following sections. In addition, the information if applicable is provided.

2.5.1 § 257.90(e)

Status of Groundwater Monitoring and Corrective Action Program.

The groundwater monitoring and corrective action program is in detection monitoring.

Summary of Key Actions Completed.

Collection of initial background groundwater quality data was completed and the initial detection monitoring sampling and analysis event was completed in October 2017. Verification sampling was also conducted per the certified statistical method.

Description of Any Problems Encountered.

No noteworthy problems were encountered.

Discussion of Actions to Resolve the Problems.

Not applicable because no noteworthy problems were encountered.

Projection of Key Activities for the Upcoming Year (2018).

Completion of statistical evaluation of detection monitoring data. Groundwater sampling and analysis and alternative source demonstration(s) (if required).

2.5.2 § 257.94(d)(3)

Demonstration providing the basis for an alternative monitoring frequency for detection monitoring and certification that it meets the requirements of this section.

Not applicable because no alternative monitoring frequency for detection monitoring and certification was pursued.

2.5.3 § 257.94(e)(2)

Demonstration that an alternative source other than the CCR unit caused the statistically significant increase (SSI) over background or that the SSI was caused by an error in sampling, analysis, statistical evaluation, or natural variation in groundwater quality. In addition, certification of the demonstration is to be included in the annual report.

Not applicable because no such demonstration was conducted.

2.5.4 § 257.95(c)(3)

Demonstration providing the basis for an alternative monitoring frequency for assessment monitoring and certification that it meets the requirements of this section.

Not applicable because no such demonstration was conducted.

2.5.5 § 257.95(d)(3)

Include the concentrations of Appendix III and detected Appendix IV constituents from the assessment monitoring, the established background concentrations, and the established groundwater protection standards.

Not applicable because there was no assessment monitoring conducted.

2.5.6 § 257.95(g)(3)(ii)

Demonstration that an alternative source other than the CCR unit caused the contamination, or that the SSI (during assessment monitoring) resulted from an error in sampling, analysis, statistical evaluation, or natural variation in groundwater quality. In addition, certification of the demonstration is to be included in the annual report.

Not applicable because no such demonstration was conducted.

2.5.7 § 257.96(a)

Demonstration of the need for additional time to complete the assessment of corrective measures due to site-specific conditions or circumstances. In addition, certification of the demonstration is to be included in the annual report.

Not applicable because no such demonstration was conducted.

3 GENERAL COMMENTS

This report has been prepared and reviewed under the direction of a qualified groundwater scientist and qualified professional engineer. The information contained in this report is a reflection of the conditions encountered at the Sibley Generating Station at the time of fieldwork. This report includes a review and compilation of the required information and does not reflect any variations of the subsurface, which may occur between sampling locations. Actual subsurface conditions may vary and the extent of such variations may not become evident without further investigation.

Conclusions drawn by others from the result of this work should recognize the limitation of the methods used. Please note that SCS Engineers does not warrant the work of regulatory agencies or other third parties supplying information used in the assimilation of this report. This report is prepared in accordance with generally accepted environmental engineering and geological practices, within the constraints of the client's directives. It is intended for the exclusive use of KCP&L Greater Missouri Operations Company for specific application to the Sibley Generating Station CCR Landfill. No warranties, express or implied, are intended or made.

APPENDIX A

FIGURES

Figure 1: Site Map

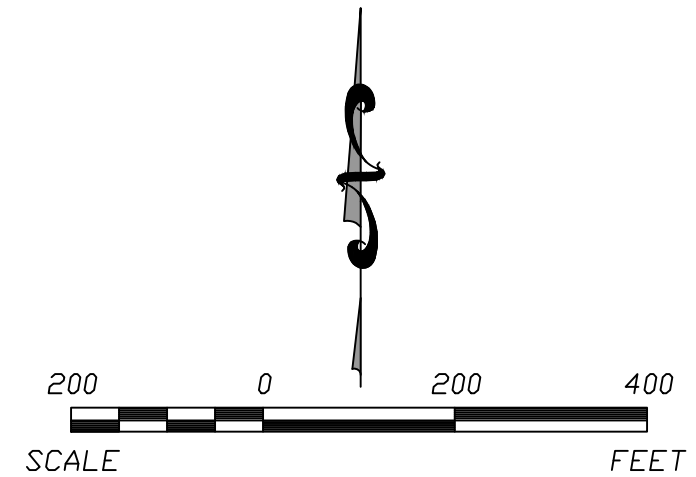


LEGEND:

- 506 CCR GROUNDWATER MONITORING SYSTEM WELLS
- CCR LANDFILL UNIT BOUNDARY

NOTES:

1. HORIZONTAL & VERTICAL DATUM: URS PLANS FOR CONSTRUCTION, KCP&L SIBLEY GENERATING STATION, DESIGN FILE 16530511.00001, DATED JANUARY 2010
2. GOOGLE EARTH AERIAL IMAGE, MARCH 2015. MONITOR WELL LOCATIONS ARE APPROXIMATE.
3. BOUNDARY AND MONITORING WELL LOCATIONS SHOWN ARE APPROXIMATE.



SHEET TITLE SITE MAP CCR LANDFILL CCR GROUNDWATER MONITORING SYSTEM		REV.	DATE
PROJECT TITLE 2017 GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT			
CLIENT KCP&L GREATER MISSOURI OPERATIONS CO. SIBLEY GENERATING STATION SIBLEY, MISSOURI			
SCS ENGINEERS 7311 W. 130th St. Ste. 100 Overland Park, Kansas 66213 PH. (913) 661-0030 FAX. (913) 661-0012		DWG. BY: RCW CHK. BY: JRF	C/A. RW. BY: JRF PROJ. MGR. JRF
CADD FILE: FIG 1 - SIBLEY LF.DWG		DATE: 1/12/18	
FIGURE NO. 1			

APPENDIX B

TABLES

Table 1: Appendix III and Appendix IV Detection Monitoring Results

Table 2: Detection Monitoring Field Measurements

**Table 1
CCR Landfill
Appendix III and Appendix IV Detection Monitoring Results
KCP&L GMO Sibley Generating Station**

Well Number	Sample Date	Appendix III Constituents							Appendix IV Constituents														
		Boron (mg/L)	Calcium (mg/L)	Chloride (mg/L)	Fluoride (mg/L)	pH (S.U.)	Sulfate (mg/L)	Total Dissolved Solids (mg/L)	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 Combined (pCi/L)
MW-504	12/16/2015	<0.200	31.5	<1	0.168	7.83	14.3	155	<0.002	<0.002	0.117	<0.002	<0.001	<0.01	<0.01	0.168	<0.002	<0.015	<0.0002	<0.005	<0.002	<0.002	0.24
MW-504	2/18/2016	<0.200	34.3	<1	0.170	6.99	14.7	236	<0.002	<0.002	0.113	<0.002	<0.001	<0.01	<0.01	0.170	<0.002	<0.015	<0.0002	<0.005	0.00228	<0.002	0.108
MW-504	5/25/2016	<0.200	30.2	<1	0.188	7.66	18.9	385	<0.002	0.00211	0.106	<0.002	<0.001	<0.01	<0.01	0.188	<0.002	<0.015	<0.0002	<0.005	0.00239	<0.002	2.883
MW-504	8/23/2016	<0.200	32.2	<1	0.118	6.74	15.4	168	<0.002	<0.002	0.111	<0.002	<0.001	<0.01	<0.01	0.118	<0.002	<0.015	<0.0002	<0.005	0.00248	<0.002	0.957
MW-504	11/11/2016	<0.200	36.9	<1	0.171	9.03	17.4	173	<0.002	<0.002	0.121	<0.002	<0.001	<0.01	<0.01	0.171	<0.002	<0.015	<0.0002	<0.005	0.00268	<0.002	0.655
MW-504	2/8/2017	<0.200	29.6	<1	0.151	7.09	21.0	174	<0.002	<0.002	0.123	<0.002	<0.001	<0.01	<0.01	0.151	<0.002	<0.015	<0.0002	<0.005	0.00249	<0.002	0.499
MW-504	5/4/2017	<0.200	27.7	1.27	0.157	6.40	21.8	181	<0.002	0.00202	0.110	<0.002	<0.001	<0.01	<0.01	0.157	<0.002	<0.015	<0.0002	<0.005	0.00311	<0.002	0.965
MW-504	8/1/2017	<0.200	30.5	<1	0.189	6.83	23.3	156	<0.002	<0.002	0.116	<0.002	<0.001	<0.01	<0.01	0.189	<0.002	<0.015	<0.0002	<0.005	0.00342	<0.002	1.08
MW-504	10/3/2017	<0.200	33.2	3.91	0.117	6.30	24.3	181	<0.002	<0.002	0.121	<0.002	<0.001	<0.01	<0.01	0.117	<0.002	<0.015	<0.0002	<0.005	0.00307	<0.002	1.94
MW-504	11/16/2017	---	**37.6	*1.52	---	**6.45	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-504	12/28/2017	---	---	*1.00	---	**6.47	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-505	12/16/2015	<0.200	28.0	<1	0.164	7.74	29.2	162	<0.002	<0.002	0.105	<0.002	<0.001	<0.01	<0.01	0.164	<0.002	<0.015	<0.0002	<0.005	0.00299	<0.002	0.153
MW-505	2/18/2016	<0.200	25.4	1.05	0.174	6.88	16.0	148	<0.002	<0.002	0.0876	<0.002	<0.001	<0.01	<0.01	0.174	<0.002	<0.015	<0.0002	<0.005	0.00249	<0.002	0.915
MW-505	5/25/2016	<0.200	24.6	<1	0.143	7.42	21.9	172	<0.002	<0.002	0.0872	<0.002	<0.001	<0.01	<0.01	0.143	<0.002	<0.015	<0.0002	<0.005	0.00269	<0.002	0.427
MW-505	8/23/2016	<0.200	25.7	1.19	0.265	6.79	9.73	182	<0.002	<0.002	0.0878	<0.002	<0.001	<0.01	<0.01	0.265	<0.002	<0.015	<0.0002	<0.005	0.00221	<0.002	0.388
MW-505	11/11/2016	<0.200	21.6	<1	0.177	9.20	15.9	152	<0.002	<0.002	0.0882	<0.002	<0.001	<0.01	<0.01	0.177	<0.002	<0.015	<0.0002	<0.005	0.00210	<0.002	1.17
MW-505	2/8/2017	<0.200	23.5	<1	0.217	6.84	14.9	151	<0.002	<0.002	0.0919	<0.002	<0.001	<0.01	<0.01	0.217	<0.002	<0.015	<0.0002	<0.005	0.00231	<0.002	0
MW-505	5/4/2017	<0.200	23.2	<1	0.160	6.80	19.2	159	<0.002	<0.002	0.0890	<0.002	<0.001	<0.01	<0.01	0.160	<0.002	<0.015	<0.0002	<0.005	0.00300	<0.002	0.292
MW-505	8/1/2017	<0.200	25.1	1.18	0.206	7.44	14.4	156	<0.002	<0.002	0.0937	<0.002	<0.001	<0.01	<0.01	0.206	<0.002	<0.015	<0.0002	<0.005	0.00230	<0.002	0
MW-505	10/3/2017	<0.200	26.6	3.13	0.124	6.98	13.4	158	<0.002	<0.002	0.101	<0.002	<0.001	<0.01	<0.01	0.124	<0.002	<0.015	<0.0002	<0.005	0.00244	<0.002	0.063
MW-505	11/16/2017	---	**26.0	*1.59	---	**6.84	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-505	12/28/2017	---	---	*2.12	---	**6.85	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-506	12/15/2015	<0.200	100	6.45	0.296	7.78	64.8	475	<0.002	<0.002	0.252	<0.002	<0.001	<0.01	<0.01	0.296	<0.002	<0.015	<0.0002	<0.005	0.00743	<0.002	0.917
MW-506	2/18/2016	<0.200	99.3	6.15	0.290	6.97	65.6	423	<0.002	<0.002	0.232	<0.002	<0.001	<0.01	<0.01	0.290	<0.002	<0.015	<0.0002	<0.005	0.00892	<0.002	0.517
MW-506	5/25/2016	<0.200	98.3	5.76	0.324	7.24	71.0	133	<0.002	<0.002	0.237	<0.002	<0.001	<0.01	<0.01	0.324	<0.002	<0.015	<0.0002	<0.005	0.00895	<0.002	3.461
MW-506	8/23/2016	<0.200	97.2	6.16	0.312	7.04	65.8	459	<0.002	<0.002	0.237	<0.002	<0.001	<0.01	<0.01	0.312	<0.002	<0.015	<0.0002	<0.005	0.00932	<0.002	0.997
MW-506	11/11/2016	<0.200	96.5	6.13	0.298	7.58	65.0	477	<0.002	<0.002	0.250	<0.002	<0.001	<0.01	<0.01	0.298	<0.002	<0.015	<0.0002	<0.005	0.0107	<0.002	0.508
MW-506	2/8/2017	<0.200	83.6	5.89	0.317	7.00	76.5	451	<0.002	<0.002	0.233	<0.002	<0.001	<0.01	<0.01	0.317	<0.002	<0.015	<0.0002	<0.005	0.0101	<0.002	0.177
MW-506	5/4/2017	<0.200	96.4	6.15	0.338	7.59	69.2	462	<0.002	0.00392	0.319	<0.002	<0.001	0.0152	<0.01	0.338	0.00822	<0.015	<0.0002	<0.005	0.0116	<0.002	0.841
MW-506	8/4/2017	<0.200	99.0	5.45	0.359	6.98	73.3	480	<0.002	<0.002	0.236	<0.002	<0.001	<0.01	<0.01	0.359	<0.002	<0.015	<0.0002	<0.005	0.0106	<0.002	0.48
MW-506	10/3/2017	<0.200	105	8.74	0.182	6.88	71.3	450	<0.002	<0.002	0.250	<0.002	<0.001	<0.01	<0.01	0.182	<0.002	<0.015	<0.0002	<0.005	0.0115	<0.002	0.693
MW-506	11/16/2017	---	*96.0	*6.15	---	**6.96	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-510	12/15/2015	<0.200	122	3.33	0.296	7.14	14.7	489	<0.002	<0.002	0.356	<0.002	<0.001	<0.01	<0.01	0.296	<0.002	<0.015	<0.0002	<0.005	0.00338	<0.002	0.578
MW-510	2/18/2016	<0.200	121	3.48	0.282	7.05	12.0	446	<0.002	<0.002	0.361	<0.002	<0.001	<0.01	<0.01	0.282	<0.002	<0.015	<0.0002	<0.005	0.00349	<0.002	0.197
MW-510	5/25/2016	<0.200	119	3.12	0.273	7.95	18.1	451	<0.002	<0.002	0.365	<0.002	<0.001	<0.01	<0.01	0.273	<0.002	<0.015	<0.0002	<0.005	0.00333	<0.002	0.317
MW-510	8/23/2016	<0.200	122	3.58	0.311	6.84	12.7	472	<0.002	<0.002	0.367	<0.002	<0.001	<0.01	<0.01	0.311	<0.002	<0.015	<0.0002	<0.005	0.00314	<0.002	0.848
MW-510	11/10/2016	<0.200	119	3.49	0.296	8.15	16.0	468	<0.002	<0.002	0.373	<0.002	<0.001	<0.01	<0.01	0.296	<0.002	<0.015	<0.0002	<0.005	0.00407	<0.002	1.311
MW-510	2/8/2017	<0.200	103	3.49	0.320	7.06	16.1	462	<0.002	<0.002	0.355	<0.002	<0.001	<0.01	<0.01	0.320	<0.002	<0.015	<0.0002	<0.005	0.00341	<0.002	0.344
MW-510	5/3/2017	<0.200	116	3.63	0.290	6.94	15.0	486	<0.002	<0.002	0.353	<0.002	<0.001	<0.01	<0.01	0.290	<0.002	<0.015	<0.0002	<0.005	0.00361	<0.002	0.711
MW-510	8/1/2017	<0.200	120	3.53	0.315	6.95	16.8	456	<0.002	<0.002	0.362	<0.002	<0.001	<0.01	<0.01	0.315	<0.002	<0.015	<0.0002	<0.005	0.00350	<0.002	0.862
MW-510	10/3/2017	<0.200	130	3.36	0.271	6.72	16.9	485	<0.002	<0.002	0.393	<0.002	<0.001	<0.01	<0.01	0.271	<0.002	<0.015	<0.0002	<0.005	0.00490	<0.002	1.08
MW-510	11/16/2017	---	*119	**3.91	---	**6.90	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
MW-512	12/15/2015	<0.200	98.1	2.72	0.281	7.29	23.0	425	<0.002	<0.002	0.371	<0.002	<0.001	0.0121	<0.01	0.281	<0.002	<0.015	<0.0002	<0.005	0.00436	<0.002	2.134
MW-512	2/18/2016	<0.200	100	2.78	0.270	7.00	21.0	366	<0.002	<0.002	0.358	<0.002	<0.001	<0.01	<0.01	0.270	<0.002	<0.015	<0.0002	<0.005	0.00459	<0.002	1.541
MW-512	5/25/2016	<0.200	98.9	2.55	0.308	7.18	23.1	467	<0.002	<0.002	0.361	<0.002	<0.001	<0.01	<0.01	0.308	<0.002	<0.015	<0.0002	<0.005	0.00421	<0.002	2.469
MW-512	8/23/2016	<0.200	103	3.23	0.331	6.77	24.4	422	<0.002	<0.002	0.360	<0.002	<0.001	0.0111	<0.01	0.331	<0.002	<0.015	<0.0002	<0.005	0.00505	<0.002	0.529
MW-512	11/11/2016	<0.200	100	3.17	0.282	6.80	24.0	443	<0.002	<0.002	0.374	<0.002	<0.001	0.0103	<0.01	0.282	<0.002	<0.015	<0.0002	<0.005	0.00495	<0.002	1.424
MW-512	2/8/2017	<0.200	86.4	3.14	0.302	7.70	27.8	404	<0.														

Table 2
CCR Landfill
Detection Monitoring Field Measurements
KCP&L GMO Sibley Generating Station

Well Number	Sample Date	pH (S.U.)	Specific Conductivity (µS)	Temperature (°C)	Turbidity (NTU)	Water Level (ft btoc)	Groundwater Elevation (ft NGVD)
MW-504	12/16/2015	7.83	237	13.52	10.9	18.85	797.93
MW-504	2/18/2016	6.99	309	14.30	13.1	21.99	794.79
MW-504	5/25/2016	7.66	218	21.09	0.0	21.58	795.20
MW-504	8/23/2016	6.74	282	19.32	14.2	21.83	794.95
MW-504	11/11/2016	9.03	280	15.10	11.0	22.56	794.22
MW-504	2/8/2017	7.09	299	11.20	19.1	23.74	793.04
MW-504	5/4/2017	6.40	248	14.70	15.0	19.04	797.74
MW-504	8/1/2017	6.83	250	19.15	8.3	21.55	795.23
MW-504	10/3/2017	6.30	274	16.97	0.0	22.27	794.51
MW-504	11/16/2017	**6.45	343	13.35	0.5	22.44	793.88
MW-504	12/28/2017	**6.47	288	11.54	2.7	23.57	792.75
MW-505	12/16/2015	7.74	256	13.39	21.4	22.38	793.02
MW-505	2/18/2016	6.88	283	14.13	13.2	27.58	787.82
MW-505	5/25/2016	7.42	212	17.16	0.0	26.35	789.05
MW-505	8/23/2016	6.79	288	19.30	0.0	27.63	787.77
MW-505	11/11/2016	9.20	242	15.80	3.2	28.16	787.24
MW-505	2/8/2017	6.84	274	8.07	2.1	28.76	786.64
MW-505	5/4/2017	6.80	320	15.32	0.0	23.25	792.15
MW-505	8/1/2017	7.44	240	20.23	0.0	26.78	788.62
MW-505	10/3/2017	6.98	251	16.73	0.0	28.03	787.37
MW-505	11/16/2017	**6.84	255	14.15	0.0	27.96	787.01
MW-505	12/28/2017	**6.85	246	11.38	1.2	28.67	786.30
MW-506	12/15/2015	7.78	698	14.10	8.9	41.23	758.27
MW-506	2/18/2016	6.97	802	15.82	17.1	41.21	758.29
MW-506	5/25/2016	7.24	771	19.01	0.0	41.14	758.36
MW-506	8/23/2016	7.04	514	21.51	0.0	41.19	758.31
MW-506	11/11/2016	7.58	828	15.84	8.9	42.05	767.63
MW-506	2/8/2017	7.00	810	7.78	1.1	42.24	767.44
MW-506	5/4/2017	7.59	826	13.87	37.3	52.26	757.42
MW-506	8/4/2017	6.98	752	20.84	8.9	60.99	757.37
MW-506	10/3/2017	6.88	660	26.11	0.0	61.05	757.31
MW-506	11/16/2017	**6.96	685	14.33	0.0	61.12	757.24
MW-510	12/15/2015	7.14	941	12.37	0.0	42.67	746.59
MW-510	2/18/2016	7.05	856	17.54	5.0	39.11	750.15
MW-510	5/25/2016	7.95	690	21.38	8.0	39.81	749.45
MW-510	8/23/2016	6.84	786	17.45	1.0	40.29	748.97
MW-510	11/10/2016	8.15	881	15.49	0.0	41.70	747.56
MW-510	2/8/2017	7.06	888	7.72	0.7	44.89	744.37
MW-510	5/3/2017	6.94	862	12.88	0.0	43.76	745.50
MW-510	8/1/2017	6.95	813	18.09	0.0	44.82	744.44
MW-510	10/3/2017	6.72	838	16.85	1.3	42.87	746.39
MW-510	11/16/2017	**6.90	781	12.87	0.0	44.45	741.34
MW-512	12/15/2015	7.29	767	11.84	19.7	23.93	741.13
MW-512	2/18/2016	7.00	725	16.46	7.7	20.41	744.65
MW-512	5/25/2016	7.18	751	16.56	22.1	22.75	742.31
MW-512	8/23/2016	6.77	709	20.00	0.0	23.44	741.62
MW-512	11/11/2016	6.80	748	15.36	0.0	24.82	740.24
MW-512	2/8/2017	7.70	800	9.93	16.0	26.55	738.51
MW-512	5/3/2017	6.92	747	13.17	30.1	24.66	740.40
MW-512	8/1/2017	6.97	704	17.40	18.7	32.18	737.95
MW-512	10/3/2017	6.79	745	15.79	19.1	29.56	740.57
MW-512	11/16/2017	**6.92	662	14.92	5.2	31.70	738.43
MW-512	12/28/2017	**6.88	657	10.33	4.0	32.49	737.64
MW-601	12/15/2015	8.11	683	13.24	25.0	46.61	734.29
MW-601	2/18/2016	6.80	735	15.13	12.9	45.74	735.16
MW-601	5/26/2016	8.13	661	16.31	0.0	46.29	734.61
MW-601	8/23/2016	6.75	693	18.10	0.0	46.35	734.55
MW-601	11/11/2016	6.71	748	15.32	29.4	45.81	735.09
MW-601	2/8/2017	6.93	762	8.20	1.5	46.18	734.72
MW-601	5/3/2017	6.81	720	13.98	39.1	45.82	735.08
MW-601	8/1/2017	6.84	603	24.47	14.8	46.20	734.70
MW-601	10/3/2017	6.65	706	18.33	1.8	45.73	735.17
MW-601	11/16/2017	*6.84	822	14.24	0.0	46.12	734.78
MW-601	12/28/2017	**6.78	626	9.84	0.8	46.30	734.60

* Verification Sample

** Extra Sample Collected per Standard Sampling Procedure

S.U. - Standard Units

µS - microsiemens

°C - Degrees Celsius

ft btoc - Feet Below Top of Casing

ft NGVD - National Geodetic Vertical Datum (NAVD 88)

NTU - Nephelometric Turbidity Unit