



**CORRESPONDENCE COVER SHEET
WASTE PERMITS DIVISION
TEXAS COMMISSION ON ENVIRONMENTAL QUALITY**

Date: 30 January 2024
Facility Name: Calaveras Plant Site
Permit or Registration No.: CCR102

Nature of Correspondence:
☒ Initial/New
☐ Response/Revision*

*If Response/Revision, please provide previous TCEQ Tracking No.:
(Previous TCEQ Tracking No. can be found in the Subject line of the TCEQ's response letter to your original submittal.)

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Table 1 - Municipal Solid Waste

APPLICATIONS	REPORTS and RESPONSES
<input type="checkbox"/> New Notification	<input type="checkbox"/> Closure Report
<input type="checkbox"/> New Permit (including Subchapter T)	<input type="checkbox"/> Groundwater Alternate SRC Demonstration
<input type="checkbox"/> New Registration (including Subchapter T)	<input type="checkbox"/> Groundwater Corrective Action
<input type="checkbox"/> Major Amendment	<input type="checkbox"/> Groundwater Monitoring Report
<input type="checkbox"/> Minor Amendment	<input type="checkbox"/> Groundwater Statistical Evaluation
<input type="checkbox"/> Limited Scope Major Amendment	<input type="checkbox"/> Landfill Gas Corrective Action
<input type="checkbox"/> Notice Modification	<input type="checkbox"/> Landfill Gas Monitoring
<input type="checkbox"/> Non-Notice Modification	<input type="checkbox"/> Liner Evaluation Report
<input type="checkbox"/> Transfer/Name Change Modification	<input type="checkbox"/> Soil Boring Plan
<input type="checkbox"/> Temporary Authorization	<input type="checkbox"/> Special Waste Request
<input type="checkbox"/> Voluntary Revocation	<input type="checkbox"/> Other:
<input type="checkbox"/> Subchapter T Workplan	
<input type="checkbox"/> Other:	

Table 2 - Industrial & Hazardous Waste

APPLICATIONS	REPORTS and RESPONSES
<input type="checkbox"/> New	<input type="checkbox"/> Annual/Biennial Site Activity Report
<input type="checkbox"/> Renewal	<input type="checkbox"/> CfPT Plan/Result
<input type="checkbox"/> Post-Closure Order	<input type="checkbox"/> Closure Certification/Report
<input type="checkbox"/> Major Amendment	<input type="checkbox"/> Construction Certification/Report
<input type="checkbox"/> Minor Amendment	<input type="checkbox"/> CPT Plan/Result
<input type="checkbox"/> Class 3 Modification	<input type="checkbox"/> Extension Request
<input type="checkbox"/> Class 2 Modification	<input checked="" type="checkbox"/> Groundwater Monitoring Report - FA Landfill
<input type="checkbox"/> Class 1 ED Modification	<input type="checkbox"/> Interim Status Change
<input type="checkbox"/> Class 1 Modification	<input type="checkbox"/> Interim Status Closure Plan
<input type="checkbox"/> Endorsement	<input type="checkbox"/> Soil Core Monitoring Report
<input type="checkbox"/> Temporary Authorization	<input type="checkbox"/> Treatability Study
<input type="checkbox"/> Voluntary Revocation	<input type="checkbox"/> Trial Burn Plan/Result
<input type="checkbox"/> 335.6 Notification	<input type="checkbox"/> Unsaturated Zone Monitoring Report
<input type="checkbox"/> Other:	<input type="checkbox"/> Waste Minimization Report
	<input type="checkbox"/> Other:



Annual Groundwater Monitoring and Corrective Action Report

Calaveras Power Station –
Fly Ash Landfill
San Antonio, Texas

PREPARED FOR
CPS Energy

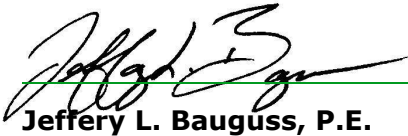
DATE
January 2024

REFERENCE
0681818

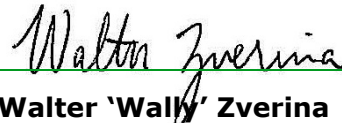


Annual Groundwater Monitoring and Corrective Action Report

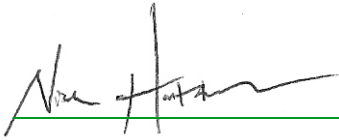
Calaveras Power Station –
Fly Ash Landfill
San Antonio, Texas
0681818



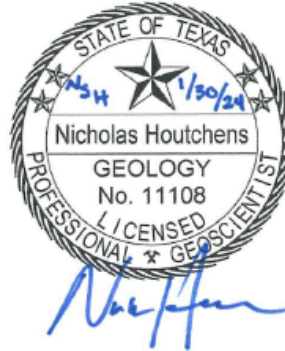
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CLIENT: CPS Energy

PROJECT NO: 0681818

DATE: January 30, 2024 VERSION: 01

AUS\Projects\0681818\DM\12202A 2023 GWMR FAL

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1. CURRENT STATUS SUMMARY

As required in Title 40, Code of Federal Regulations (CFR), Part 257.90 and Title 30, Texas Administrative Code (TAC), Chapter 352.901, this section provides an overview of the current status of the groundwater monitoring and corrective action program for the Fly Ash Landfill (FAL) located at the CPS Energy Calaveras Power Station:

- At the start of the 2023 annual reporting period, the FAL was operating under the detection monitoring program, as defined in 40 CFR §257.94 and 30 TAC §352.941.
- At the end of the 2023 annual reporting period, the FAL was operating under the detection monitoring program, as defined in 40 CFR §257.94 and 30 TAC §352.941.
- An *Alternative Source Demonstration* was prepared and submitted pursuant to 40 CFR §257.94(e) and 30 TAC §352.941 during the 2023 annual reporting period.
- At this time, there was no confirmed statistically significant increase over background for one or more constituents listed in Appendix III pursuant to 40 CFR §257.94(e) and 30 TAC §352.941(a).
- An assessment monitoring program was not required or initiated for the FAL.
- A remedy was not required or selected pursuant to 40 CFR §257.97 and 30 TAC §352.971 during the 2023 annual reporting period.
- No remedial activities were initiated or are ongoing pursuant to 40 CFR §257.98 and 30 TAC §352.981 during the 2023 annual reporting period.

2. INTRODUCTION

CPS Energy owns and operates the Calaveras Power Station which consists of two power plants [J.T. Deely (ceased operation at the end of December 2018) and J.K. Spruce] that are subject to regulation under Title 40, Code of Federal Regulations, Part 257 (40 CFR §257) Subpart D (a.k.a. the CCR Rule) and Title 30, Texas Administrative Code, Chapter 352 (30 TAC §352), Subchapter H (a.k.a. the Texas CCR Rule), collectively referred to as the CCR Rules. The Power Station is located in unincorporated Bexar County, Texas, approximately 13 miles southeast of San Antonio. Currently, two CCR units [Fly Ash Landfill (FAL) and Plant Drains Pond (PDP)] are in operation and three CCR units [Bottom Ash Ponds (BAPs), Evaporation Pond (EP) and Sludge Recycle Holding Pond (SRHP)] are undergoing closure. This *Annual Groundwater Monitoring and Corrective Action Report* (Report) addresses only the FAL.

This Report was produced by Environmental Resource Management, Inc. (ERM), on behalf of CPS Energy, and summarizes the groundwater monitoring activities for the FAL in 2023 and provides a statistical summary of the findings for samples collected in October 2023. Consistent with the notification requirements of the CCR Rule, this Report will be posted to the operational record and notification will be made to the State of Texas. Additionally, this Report will be placed on the publicly accessible internet site. The table below cross references the reporting requirements under the CCR Rule with the contents of this Report.

Regulatory Requirement Cross-Reference

Regulatory Citation	Requirement (paraphrased)	Where Addressed in this Report
40 CFR §257.90(e) and 30 TAC §352.901	Status of the groundwater monitoring and corrective action program	Sections 1 and 3
40 CFR §257.90(e) and 30 TAC §352.901	Summarize key actions completed	Section 3
40 CFR §257.90(e) and 30 TAC §352.901	Describe any problems encountered and actions to resolve problems	Section 3
40 CFR §257.90(e) and 30 TAC §352.901	Key activities for upcoming year	Section 5
40 CFR §257.90(e)(1) and 30 TAC §352.901	Map or aerial image of CCR unit and monitoring wells	Figure 1
40 CFR §257.90(e)(2) and 30 TAC §352.901	Identification of new monitoring wells installed or decommissioned during the preceding year	Section 3
40 CFR §257.90(e)(3) and 30 TAC §352.901	Summary of groundwater data, monitoring wells and dates sampled, and whether sample was required under detection or assessment monitoring	Sections 3 and 4, Tables 1 through 3, and Figures 2A and 2B
40 CFR §257.90(e)(4) and 30 TAC §352.901	Narrative discussion of any transition between monitoring programs	Section 5

The FAL is located northeast of the Power Station generating units and is north of the EP. The FAL currently receives fly ash, bottom ash, economizer ash, scrubber sludge from flue gas desulphurization ponds, and flue gas desulphurization gypsum. The FAL was constructed in 1992. The CCR unit location is shown in Figure 1.

3. PROGRAM STATUS

From December 2016 through October 2017, groundwater samples were collected as part of background sampling. After October 2017, groundwater samples were collected as part of Detection Monitoring. The samples were collected from the groundwater monitoring well network certified for use in determining compliance with the CCR Rules.

The groundwater monitoring well network consists of two upgradient monitor wells (JKS-45 and JKS-57) and four downgradient monitor wells (JKS-31, JKS-33, JKS-46, and JKS-60). As documented in the *2020 Annual Groundwater Monitoring and Corrective Action Report – Fly Ash Landfill* (ERM, 2021), non-proportional changes in water levels were observed during the 2020 monitoring events and a site-wide water level study (Study) was recommended to understand temporal changes in hydrogeology. ERM completed this Study by collecting five rounds of water level measurements at each CCR Unit, which included observations from other on-site monitor wells, from February to October 2021.

As initially documented in the Study, JKS-57 no longer appeared to be a viable background well. Therefore, ERM recommended the installation of one or two new monitor wells located west and/or northwest of the FAL. It was anticipated that the new wells would be designated as background wells for the FAL. However, in July 2022, during the installation of soil borings SB-20220713-01 and SB-20220713-02 on the west side of the FAL, the uppermost groundwater bearing unit (GWBU) was not encountered at either boring location, suggesting that the GWBU may pinch out under the western boundary of the FAL and that JKS-57 is situated on the upgradient edge of the GWBU. This additional information regarding the groundwater monitoring network is documented in the updated *Groundwater Monitoring System* (ERM, 2023) and the updated *Groundwater Sampling and Analysis Program (GSAP)* (ERM, 2023).

In October 2023, the installation of two additional monitor wells was attempted in order to expand the monitoring well network surrounding the CCR unit. Monitor well JKS-71 was successfully installed immediately south of the FAL, located between monitor wells JKS-45 and JKS-31. It is anticipated that JKS-71 will be designated as a downgradient monitor well; however, CPS Energy is currently confirming survey data. During the installation of soil boring SB-20231003-01 on the north side of the FAL (near JKS-37), the uppermost GWBU was not encountered at that boring location. This further suggests that the GWBU may pinch out under the northern boundary of the FAL.

All monitor wells are screened within the uppermost GWBU in the vicinity of the FAL. The uppermost GWBU is approximately 5 feet to over 25 feet thick and is comprised of clayey/silty sand to well-sorted sand. The uppermost GWBU is located below unconsolidated material (i.e., sands, silts, and low to medium plasticity clays), and above a high plasticity clay (lower confining unit).

The monitor well and soil boring locations are shown in Figure 1. No problems were encountered in the data collection or in well performance with the exceptions of JKS-57 and JKS-71. Groundwater samples were not collected from JKS-57 during the April and October 2023 sampling events and from JKS-71 during the October 2023 sampling event due to well performance (well went dry). JKS-57 and JKS-71 well performances will be evaluated prior to the April 2024

sampling event. As mentioned above, JKS-71 was installed in October 2023. No monitor wells were decommissioned in 2023.

3.1 GROUNDWATER OBSERVATIONS

Depth to groundwater surface measurements were made at each monitor well prior to each sampling event. Groundwater elevations were calculated by subtracting the depth to ground-water measurement from the surveyed reference elevation for each well.

Groundwater elevations collected during all the monitoring events are summarized in Table 1. Groundwater elevations and the potentiometric surface for the April and October 2023 monitoring events are shown in Figure 2A and Figure 2B, respectively. For both sampling events, groundwater west of the FAL appears to flow radially to the northeast and east from a potentiometric high located at JKS-45. The horizontal gradient is approximately 0.009 feet/foot and 0.013 feet/foot for the April and October 2023 monitoring events, respectively.

3.2 SAMPLING SUMMARY

A summary of the total number of samples collected from each monitor well is provided in Table 2. Groundwater analytical results for Appendix III constituents for all the monitoring events are summarized in Table 3. Laboratory data packages are provided in Appendix A.

The FAL monitor wells were sampled by CPS Energy using low flow sampling techniques during the monitoring events. With the exceptions of JKS-57 and JKS-71 (as noted above), no other data gaps were identified during the 2023 semi-annual groundwater monitoring events.

3.3 DATA QUALITY

ERM reviewed field and laboratory documentation to assess the validity, reliability and usability of the analytical results. Samples were sent to San Antonio Testing Laboratory (SATL), located in San Antonio, Texas for analysis. Chain-of-Custody procedures were followed throughout the sample handling process. Data quality information reviewed for these results included field sampling forms, chain-of-custody documentation, holding times, lab methods, cooler temperatures, laboratory method blanks, laboratory control sample recoveries, field duplicate samples, matrix spikes / matrix spike duplicates, quantitation limits, and equipment blanks following data quality review guidance from the Environmental Protection Agency and the Texas Commission on Environmental Quality. A summary of the data usability qualifiers is included in Table 3. The data quality review found the results to be valid, reliable, and useable for decision making purposes with the listed qualifiers. No analytical results were rejected.

4. STATISTICAL ANALYSIS AND RESULTS

Consistent with the CCR Rules and with the updated *GSAP*, a prediction limit approach (40 CFR §257.93(f)) was used to identify potential impacts to groundwater. The steps outlined in the decision framework in the *GSAP* include:

- Interwell versus intrawell comparisons;
- Establishment of the upgradient dataset;
- Calculating prediction limits; and
- Conclusions.

Tables and figures generated as part of the statistical analysis, including updating of prediction limits are provided in Appendix B. The remaining sections of the Report are focused on evaluation of the most recent October 2023 data. Note the April 2023 sampling results were evaluated as discussed in Appendix C. The April 2023 sampling results were evaluated relative to the pre-updated prediction limits.

4.1 INTERWELL VERSUS INTRAWELL COMPARISONS

When multiple upgradient wells were available within the same unit, concentrations were compared among these wells to determine if they could be pooled to create a single, interwell, upgradient dataset. For each analyte, Boxplots (Appendix B, Figure 1) and Kruskal-Wallis test results (Appendix B, Table 1) are provided for upgradient wells. The statistical tests indicate that:

- All analytes were found to follow intrawell analysis.

As discussed in the *GSAP* and presented in the following sections, analytes for intrawell analysis utilize individual, separate datasets from each upgradient well.

4.2 ESTABLISHMENT OF UPGRADIENT DATASET

When evaluating the concentrations of analytes in groundwater, USEPA guidance (2009) recommends performing a careful quality check of the data to identify any anomalies. In addition to the data validation that was performed, descriptive statistics, outlier testing, and temporal stationarity checks were completed to finalize the upgradient dataset.

4.2.1 DESCRIPTIVE STATISTICS

Descriptive statistics were calculated for the upgradient wells and analytes at the site (Appendix B, Table 2). The descriptive statistics highlight a number of relevant characteristics about the upgradient datasets including:

- There are two upgradient monitoring wells and seven Appendix III constituents for Detection Monitoring.
- There are a total of 14 well-analyte combinations after accounting for interwell versus intrawell analysis.
 - 14 well-analyte combinations have detection rates greater than or equal to 50 percent.
 - 12 well-analyte combinations have 100 percent detects.

- Four well-analyte combinations follow a normal distribution (using Shapiro-Wilks Normality Test).
- Three well-analyte combinations follow a log-normal distribution.
- The remaining well-analyte combinations have no discernible distribution.

4.2.2 OUTLIER DETERMINATION

Both statistical and visual outlier tests were performed on the upgradient datasets. A total of four outliers were initially flagged in the upgradient datasets. Data points identified as both statistical and visual outliers (Appendix B, Table 3 and Appendix B, Figure 2) were reviewed prior to exclusion from the dataset.

Of the four data points that were flagged as outliers, all four were retained in the dataset. After review, it was determined that these values were consistent with natural fluctuations and concentrations detected in other upgradient wells in the area. No analytical or sampling issues were identified during data review; therefore, the four outlier values were considered valid and were retained in the upgradient datasets.

4.2.3 CHECK FOR TEMPORAL STABILITY

A trend test was performed for all values in the upgradient wells with at least eight detected data points and at least 50 percent detection rate. Time series figures of upgradient wells are provided in Appendix B, Figure 3. Additionally, the Mann Kendall trend test results are provided in Appendix B, Table 4. The results of the trend analysis indicate that:

- There are a total of 14 well-analyte combinations in the upgradient dataset.
 - 14 well-analyte combinations meet the data requirements of the trend test.
 - Eight well-analyte combinations had a significant increasing trend.
 - Two well-analyte combinations had a significant decreasing trend.
 - Four well-analyte combinations had no significant trend (i.e., concentrations were stable over time).

4.3 ESTABLISHING UPPER PREDICTION LIMITS

A multi-part assessment of the monitoring wells was performed to determine what type of upper prediction limit (UPL) to calculate as a compliance point. A decision framework was applied for each upgradient well based on interwell/intrawell analysis, data availability, and presence of temporal trends. A summary of the UPLs (and LPLs) and the methods used to calculate them are provided in Appendix B, Table 5.

A total of ten well-analyte combinations were found to have either increasing or decreasing trends. For these well-analyte pairs, a bootstrapped UPL calculated around a Theil Sen trend was used to derive a more accurate UPL.

The remaining four well-analyte combinations were found to have no significant trend. ProUCL v5.2 was used to calculate static UPLs using an annual site-wide false positive rate of 0.1 with a 1-of-2 re-testing approach.

A final UPL was selected for each analyte and compared to the most recent sample result in each downgradient well. For pH, a final lower prediction limit (LPL) was also identified and used for comparison. For the seven analytes with intrawell analysis, a UPL value was calculated for each of the upgradient wells. For these wells and analytes, the maximum UPL was selected as the representative UPL for each analyte, to capture the possible range of values found in upgradient wells. A similar approach was used to determine the LPL for pH; however, the minimum LPL was selected in the case of intrawell analysis. All final UPL and LPL values are shown in the table below. Full upgradient well prediction limit calculations are provided in Appendix B, Table 5.

Final UPLs and LPLs Values

Analysis Type	Analyte	LPL	UPL	Unit
Intrawell	Boron	–	6.28	mg/L
Intrawell	Calcium	–	912	mg/L
Intrawell	Chloride	–	7,720	mg/L
Intrawell	Fluoride	–	5.16	mg/L
Intrawell	pH	5.2	7.09	SU
Intrawell	Sulfate	–	8,240	mg/L
Intrawell	TDS	–	20,800	mg/L

4.4 CONCLUSIONS

The downgradient samples collected during the October 2023 sampling event were used for compliance comparisons. All downgradient wells were below the UPLs and above the LPLs with the following exceptions shown on the table below. Full downgradient results are provided in Appendix B, Table 6.

Potential Exceedances

Analyte	Well	LPL	UPL	Sample Date	Value	Unit
pH	JKS-31	5.2	7.09	2023-10-18	3.65	SU
pH	JKS-33	5.2	7.09	2023-10-17	7.54	SU
pH	JKS-46	5.2	7.09	2023-10-17	3.34	SU

Initial exceedances of the UPL may be confirmed with re-testing of the downgradient wells per the 1-of-2 retesting scheme. If the initial exceedance is confirmed with re-testing results in the same well, the well-analyte pair will be declared a statistically significant increase (SSI) above background. If an SSI is found, a notification or alternate source demonstration will be prepared within 90 days. Any wells with re-testing results at or below the UPL, and at or greater than the LPL, will be considered in compliance and will not require further action. These re-testing results will be reported in the subsequent *Alternative Source Demonstration*.

All downgradient wells with initial exceedances were examined for trends to assess the stability of concentrations. A summary of these trend test results can be found in Appendix B, Table 6. Of the wells with potential SSIs, none of these wells had identifiable trends.

All wells with potential SSIs are plotted in Appendix B, Figure 4. All potential SSIs are within one order of magnitude of the UPLs. Trends in these wells relative to UPLs and LPLs will be monitored closely in future sampling events.

5. RECOMMENDATIONS

Currently, there are no plans to transition between Detection Monitoring and Assessment Monitoring. Consistent with the 1-of-2 retesting approach described in the Unified Guidance (USEPA 2009) and the *GSAP*, initial exceedances may be retested within 90 days. Based on these findings, Detection Monitoring and/or Assessment Monitoring will be initiated as appropriate under 40 CFR §257.94 and 30 TAC §352.941, and 40 CFR §257.95 and 30 TAC §352.951.

6. REFERENCES

- ERM, 2023. *Groundwater Monitoring System*. CPS Energy, Calaveras Power Station, San Antonio, Texas.
- ERM, 2023. *Groundwater Sampling and Analysis Program*. CPS Energy, Calaveras Power Station, San Antonio, Texas.
- USEPA. 2009. *Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities*. Unified Guidance. USEPA/530/R/09/007. Office of Resource Conservation and Recovery. Washington, D.C.



TABLES

TABLE 1 GROUNDWATER ELEVATIONS SUMMARY

TABLE 2 GROUNDWATER SAMPLING SUMMARY

TABLE 3 GROUNDWATER ANALYTICAL RESULTS SUMMARY

TABLE 1
Groundwater Elevations Summary
CPS Energy - Calaveras Power Station
Fly Ash Landfill

		JKS-45 Upgradient		JKS-57 Upgradient		JKS-58 Water Level Only		JKS-59 Water Level Only	
		TOC Elevation	531.46	TOC Elevation	506.91	TOC Elevation	504.45	TOC Elevation	496.45
Sampling Event	Sampling Event Dates	Depth to Water (feet btoc)	Water Level (msl)	Depth to Water (feet btoc)	Water Level (msl)	Depth to Water (feet btoc)	Water Level (msl)	Depth to Water (feet btoc)	Water Level (msl)
1	12/6/16 to 12/8/16	46.83	484.63	19.89	487.02	18.85	485.60	15.67	480.78
2	2/21/17 to 2/23/17	46.64	484.82	18.95	487.96	15.95	488.50	14.12	482.33
3	3/28/17 to 3/30/17	46.52	484.94	18.20	488.71	15.10	489.35	14.12	482.33
4	5/2/17 to 5/4/17	46.35	485.11	18.80	488.11	16.50	487.95	14.94	481.51
5	6/20/17 to 6/21/17	46.64	484.82	20.23	486.68	18.38	486.07	16.46	479.99
6	7/25/17 to 7/26/17	46.38	485.08	21.16	485.75	15.63	488.82	17.80	478.65
7	8/29/17 to 8/30/17	46.73	484.73	19.44	487.47	19.90	484.55	17.77	478.68
8	10/10/17 to 10/11/17	46.50	484.96	21.67	485.24	20.67	483.78	18.00	478.45
9	4/4/18 to 4/5/18	46.59	484.87	23.22	483.69	21.86	482.59	17.36	479.09
10	10/30/18 to 10/31/18	46.55	484.91	24.65	482.26	21.63	482.82	19.00	477.45
11	4/9/19 to 4/10/19	46.21	485.25	21.09	485.82	17.79	486.66	17.08	479.37
12	10/22/19 to 10/23/19	46.63	484.83	22.61	484.30	20.90	483.55	19.55	476.90
13	4/28/20 to 4/29/20	46.21	485.25	23.97	482.94	22.17	482.28	18.53	477.92
14	10/20/20 to 10/21/20	46.45	485.01	25.68	481.23	23.29	481.16	20.89	475.56
15	4/13/21 to 4/14/21	46.74	484.72	26.89	480.02	23.94	480.51	19.48	476.97
16	10/19/21 to 10/20/21	46.89	484.57	26.02	480.89	21.20	483.25	18.40	478.05
17	4/13/22 to 4/14/22	47.14	484.32	25.55	481.36	22.72	481.73	18.15	478.30
18	10/25/22 to 10/26/22	47.24	484.22	26.76	480.15	23.93	480.52	21.27	475.18
19	4/13/23 to 4/19/23	47.31	484.15	27.83	479.08	24.45	480.00	19.83	476.62
20	10/10/2023	47.58	483.88	28.08	478.83	25.10	479.35	22.05	474.40

		JKS-31 Downgradient		JKS-33 Downgradient		JKS-46 Downgradient		JKS-60 Downgradient	
		TOC Elevation	507.79	TOC Elevation	498.96	TOC Elevation	499.08	TOC Elevation	495.70
Sampling Event	Sampling Event Dates	Depth to Water (feet btoc)	Water Level (msl)	Depth to Water (feet btoc)	Water Level (msl)	Depth to Water (feet btoc)	Water Level (msl)	Depth to Water (feet btoc)	Water Level (msl)
1	12/6/16 to 12/8/16	27.01	480.44	18.03	480.68	17.61	481.47	17.15	478.55
2	2/21/17 to 2/23/17	26.50	480.95	17.32	481.39	16.30	482.78	16.34	479.36
3	3/28/17 to 3/30/17	25.98	481.47	16.99	481.72	16.10	482.98	15.93	479.77
4	5/2/17 to 5/4/17	26.60	480.85	17.27	481.44	16.70	482.38	15.96	479.74
5	6/20/17 to 6/21/17	26.70	480.75	18.08	480.63	17.98	481.10	16.43	479.27
6	7/25/17 to 7/26/17	26.77	480.68	18.50	480.21	18.80	480.28	17.00	478.70
7	8/29/17 to 8/30/17	26.58	480.87	18.23	480.48	18.91	480.17	17.52	478.18
8	10/10/17 to 10/11/17	26.73	480.72	18.10	480.61	19.37	479.71	17.20	478.50
9	4/4/18 to 4/5/18	26.86	480.59	17.28	481.43	19.65	479.43	16.95	478.75
10	10/30/18 to 10/31/18	26.70	480.75	18.25	480.46	20.54	478.54	17.75	477.95
11	4/9/19 to 4/10/19	25.10	482.35	17.10	481.61	18.90	480.18	16.53	479.17
12	10/22/19 to 10/23/19	27.04	480.41	18.80	479.91	20.45	478.63	18.03	477.67
13	4/28/20 to 4/29/20	26.51	480.94	18.18	480.53	20.22	478.86	17.76	477.94
14	10/20/20 to 10/21/20	27.59	479.86	19.68	479.03	21.55	477.53	19.33	476.37
15	4/13/21 to 4/14/21	27.54	479.91	18.83	479.88	21.29	477.79	18.81	476.89
16	10/19/21 to 10/20/21	27.34	480.11	18.89	479.82	20.20	478.88	18.44	477.26
17	4/13/22 to 4/14/22	27.23	480.56	18.24	480.72	20.81	478.27	17.99	477.71
18	10/25/22 to 10/26/22	28.02	479.77	20.01	478.95	21.90	477.18	20.07	475.63
19	4/13/23 to 4/19/23	27.68	480.11	18.98	479.98	21.59	477.49	19.27	476.43
20	10/10/2023	28.44	479.35	20.52	478.44	22.82	476.26	19.62	476.08

NOTES:
btoc = below top of casing
msl = mean sea level

TABLE 2
Groundwater Sampling Summary
CPS Energy - Calaveras Power Station
Fly Ash Landfill

CCR Unit	Well ID	Well Function	Number of Samples Collected in 2016 - 2023	2016 - 2023 Sample Dates																			Monitoring Program
				12/6/16 to 12/8/16	2/21/17 to 2/23/17	3/28/17 to 3/30/17	5/2/17 to 5/4/17	6/20/17 to 6/21/17	7/25/17 to 7/26/17	8/29/17 to 8/30/17	10/10/17 to 10/11/17	4/4/18 to 4/5/18	10/30/18 to 10/31/18	4/9/19 to 4/10/19	10/22/19 to 10/23/19	4/28/20 to 4/29/20	10/20/20 to 10/21/20	4/13/21 to 4/14/21	10/19/21 to 10/20/21	4/13/22 to 4/14/22	10/25/22 to 10/26/22	4/13/23 to 4/19/23	
Fly Ash Landfill	JKS-31	Downgradient Monitoring	20	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	Detection
	JKS-33	Downgradient Monitoring	20	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	Detection
	JKS-45	Upgradient Monitoring	20	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	Detection
	JKS-46	Downgradient Monitoring	20	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	Detection
	JKS-57	Upgradient Monitoring	18	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	(1)	(1)	Detection
	JKS-60	Downgradient Monitoring	20	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	Detection

NOTES:
X = Indicates that a sample was collected.
(1) = Not sampled due to insufficient water in well.

TABLE 3
Groundwater Analytical Results Summary
CPS Energy - Calaveras Power Station
Fly Ash Landfill

		JKS-45 Upgradient																			
Sample Date	Task	12/6/16	2/23/17	3/28/17	5/3/17	6/20/17	7/25/17	8/29/17	10/10/17	4/4/18	10/30/18	4/10/19	10/23/19	4/28/20	10/21/20	4/13/21	10/20/21	4/13/22	10/25/22	04/18/23	10/17/23
Constituents	Unit	Event 1 Dec 2016	Event 2 Feb 2017	Event 3 Mar 2017	Event 4 May 2017	Event 5 Jun 2017	Event 6 Jul 2017	Event 7 Aug 2017	Event 8 Oct 2017	Event 9 Apr 2018	Event 10 Oct 2018	Event 11 Apr 2019	Event 12 Oct 2019	Event 13 Apr 2020	Event 14 Oct 2020	Event 15 Apr 2021	Event 16 Oct 2021	Event 17 Apr 2022	Event 18 Oct 2022	Event 19 Apr 2023	Event 20 Oct 2023
Appendix III - Detection Monitoring																					
Boron	mg/L	1.65	1.51	2.27	1.11	2.03	1.91	2.02	2.21	2.28	3.24	2.78	2.98	3.01	2.81	2.76	2.94	2.67	2.77	2.57	2.52
Calcium	mg/L	144	122	184	105	101	103	120	130	128	161 D	195	161 D	141 J	132	146	188	178	152	139	153
Chloride	mg/L	196	187	181 J	160	152	0.803	345 JHD	24.8	118	137	167	144	113	98.7	109	130	134	104	96.1	90.6
Fluoride	mg/L	0.0360 U	0.207	0.334	0.337 JH	0.174 J	0.274 JH	0.0960 U	0.131 JH	0.0360 U	0.0360 U	0.0621 UJ	0.101 J	0.100	0.018 U	0.018 U	0.018 U	0.018 U	0.169	0.087	0.018 U
Sulfate	mg/L	623 D	639 D	661	613 X	602 D	2.95 JH	770 JHD	120	662 D	707	874	698	619	564	561	634	651	629	598	536
pH - Field Collected	SU	5.41	5.17	3.98	5.62	5.13	5.66	5.82	5.60	5.59	5.70	5.03	5.59	5.85	5.94	5.99	5.93	6.06	6.03	6.21	6.6
Total dissolved solids	mg/L	1270	1300	1330	1350	1270	1250	1680 JH	1100	1190	741	1350	1320	1590	1260	1360	1390	1550	1320	1250	1200
Appendix IV - Assessment Monitoring																					
Antimony	mg/L	0.000240 U	0.000310 J	0.000400 J	0.00120 U	0.00120 U	0.000240 U	0.000348 J	0.000490 J	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Arsenic	mg/L	0.000534 J	0.00216	0.00595	0.00123 U	0.00123 U	0.000346 J	0.00283	0.000618 J	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Barium	mg/L	0.0185	0.0436	0.103	0.0128 J	0.0176 J	0.0114	0.0480	0.0142	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Beryllium	mg/L	0.00261 U	0.000383 J	0.000921 J	0.000654 U	0.000654 U	0.000149 J	0.000408 J	0.000229 J	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Cadmium	mg/L	0.000147 U	0.000147 U	0.000189 J	0.000734 U	0.000734 U	0.000147 U	0.000147 U	0.000147 U	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Chromium	mg/L	0.00743	0.0152	0.0320	0.00403 J	0.00262 U	0.00313 J	0.0135	0.00272 J	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Cobalt	mg/L	0.00506	0.00465	0.00828	0.00346 J	0.00351 J	0.00277	0.00376	0.00358	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Fluoride	mg/L	0.0360 U	0.207	0.334	0.337 JH	0.174 J	0.274 JH	0.0960 U	0.131 JH	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Lead	mg/L	0.000571 J	0.00419	0.0117	0.000758 U	0.000758 U	0.000479 J	0.00482	0.000968 J	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Lithium	mg/L	0.0329	0.0601	0.00238 U	0.0600	0.0639	0.0694	0.0935	0.0781	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Mercury	mg/L	0.0000263 U	0.0000320 JX	0.0000263 U	0.0000263 U	0.0000300 J	0.0000263 U	0.0000263 U	0.0000263 U	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Molybdenum	mg/L	0.00105 J	0.00245	0.00372	0.00128 U	0.00128 U	0.000255 U	0.00115 J	0.000271 J	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Selenium	mg/L	0.0147	0.0144	0.0174	0.0121	0.0123	0.00990	0.0136	0.0118	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Thallium	mg/L	0.000332 U	0.000332 U	0.000460 J	0.00166 U	0.00166 U	0.000332 U	0.000332 U	0.000332 U	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Radium-226	pCi/L	4.78 ± 0.890	4.29 ± 0.612	7.63 ± 0.795	3.29 ± 0.485	4.24 ± 0.671	4.34 ± 0.607	3.65 ± 0.553	5.07 ± 0.718	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Radium-228	pCi/L	1.92 ± 1.19	4.59 ± 1.34	2.27 ± 1.19	1.42 ± 0.908	2.84 ± 1.15	1.83 ± 0.868	1.86 ± 0.827	1.66 ± 0.847	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Radium-226/228 Combined	pCi/L	6.7 ± 2.08	8.88 ± 1.952	9.9 ± 1.985	4.71 ± 1.393	7.08 ± 1.821	6.17 ± 1.475	5.51 ± 1.38	6.73 ± 1.565	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR

NOTES:
mg/L: Milligrams per Liter.
SU: Standard Units.
pCi/L: Picocuries per Liter.
-- : Laboratory did not analyze sample for indicated constituent.
R: Resample event.

D: Sample diluted due to targets detected over highest point of calibration curve or due to matrix interference.

F: Relative percent difference exceeded laboratory control limits.
H: Bias in sample result likely to be high.
J: Analyte detected above method (sample) detection limit but below method quantitation limit.
K: Sample analyzed outside of recommended hold time.
L: Bias in sample result likely to be low.
NR: Analysis of this constituent not required for detection monitoring.

(1) Sample not collected due to insufficient water in well.

U: Analyte not detected at laboratory reporting limit (Sample Detection Limit).
X: Matrix Spike/Matrix Spike Duplicate recoveries were found to be outside of the laboratory control limits.

TABLE 3
Groundwater Analytical Results Summary
CPS Energy - Calaveras Power Station
Fly Ash Landfill

		JKS-57 Upgradient																			
Sample Date	Task	12/7/16	2/22/17	3/28/17	5/2/17	6/20/17	7/25/17	8/29/17	10/10/17	4/4/18	10/30/18	4/10/19	10/23/19	4/28/20	10/20/20	4/13/21	10/20/21	4/13/22	10/26/22	--	--
Constituents	Unit	Event 1 Dec 2016	Event 2 Feb 2017	Event 3 Mar 2017	Event 4 May 2017	Event 5 Jun 2017	Event 6 Jul 2017	Event 7 Aug 2017	Event 8 Oct 2017	Event 9 Apr 2018	Event 10 Oct 2018	Event 11 Apr 2019	Event 12 Oct 2019	Event 13 Apr 2020	Event 14 Oct 2020	Event 15 Apr 2021	Event 16 Oct 2021	Event 17 Apr 2022	Event 18 Oct 2022	Event 19 Apr 2023	Event 20 Oct 2023
Appendix III - Detection Monitoring																					
Boron	mg/L	3.19	3.24	3.17	2.67	3.09	3.08	2.98	3.48	4.49	2.81	3.23	4.14	5.97	3.82	3.74	4.99	4.79	3.46	(1)	(1)
Calcium	mg/L	349	362	413	--	290	327	337	393	409	401 D	477 D	479 D	622 J	592	742	742	726	968	(1)	(1)
Chloride	mg/L	70.6	76.2	89.6	130	158	311 D	12.5 JH	185	534 D	3770	119	841	3460	3150	4360	4940	4980	6360	(1)	(1)
Fluoride	mg/L	3.62	3.32	2.84	2.27	3.42	3.43	0.0960 U	3.28	4.29	2.31	3.03	2.72	4.17	2.99	4.28	0.018 U	0.018 U	3.56	(1)	(1)
Sulfate	mg/L	2780 D	1980 DX	2090	2470 D	3080	3410 D	450 JH	3610	4260 D	5000	3570	4240	6510	3890	3740	5380	5290	3750	(1)	(1)
pH - Field Collected	SU	6.73	6.08	5.13	6.63	6.37	6.72	6.60	6.70	6.63	6.35	6.20	6.19	6.49	6.33	6.38	6.68	6.76	6.58	6.58	(1)
Total dissolved solids	mg/L	4770	3780	3320	4060	5800	5920	850 JH	5850	7390	9750	6000	6700	15100	12200	13300	16000	17200	16600	(1)	(1)
Appendix IV - Assessment Monitoring																					
Antimony	mg/L	0.00120 U	0.000240 U	0.000240 U	0.000240 U	0.00120 U	0.000240 U	0.000240 U	0.000240 U	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Arsenic	mg/L	0.00138 J	0.000630 J	0.000654 J	0.000561 J	0.00123 U	0.000480 J	0.000519 J	0.000486 J	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Barium	mg/L	0.0311	0.0211	0.0208	0.0174	0.0164 J	0.0149	0.0128	0.0145	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Beryllium	mg/L	0.000654 U	0.000131 U	0.000161 J	0.000131 U	0.000654 U	0.000131 U	0.000131 U	0.000131 U	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Cadmium	mg/L	0.000734 U	0.000147 U	0.000147 U	0.000147 U	0.000734 U	0.000147 U	0.000147 U	0.000147 U	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Chromium	mg/L	0.00262 U	0.000687 J	0.000525 U	0.000525 U	0.00262 U	0.000739 J	0.000816 J	0.00104 J	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Cobalt	mg/L	0.000520 J	0.00232	0.000297 J	0.000449 J	0.000407 J	0.000748 J	0.000195 J	0.000322 J	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Fluoride	mg/L	3.62	3.32	2.84	2.27	3.42	3.43	0.0960 U	3.28	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Lead	mg/L	0.000758 U	0.000152 U	0.000152 U	0.000152 U	0.000758 U	0.000152 U	0.000256 J	0.000152 U	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Lithium	mg/L	0.545	0.287 X	0.00238 U	--	0.533	0.649	0.671	0.733	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Mercury	mg/L	0.0000263 U	0.0000300 J	0.0000263 U	0.0000580 J	0.0000263 U	0.0000263 U	0.0000263 U	0.0000263 U	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Molybdenum	mg/L	0.00128 U	0.000385 J	0.000278 J	0.000255 U	0.00128 U	0.000329 J	0.000283 J	0.000255 U	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Selenium	mg/L	0.00237 J	0.000664 J	0.000594 J	0.000561 J	0.00227 U	0.000612 J	0.000858 J	0.000697 J	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Thallium	mg/L	0.00166 U	0.000332 U	0.000332 U	0.000332 U	0.00166 U	0.000332 U	0.000332 U	0.000332 U	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Radium-226	pCi/L	0.592 ± 0.325	0.322 ± 0.157	0.519 ± 0.219	0.356 ± 0.176	0.273 ± 0.273	0.338 ± 0.221	0.255 ± 0.176	0.0986 ± 0.153	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Radium-228	pCi/L	1.15 ± 0.895	2.31 ± 1.03	0.794 ± 0.818	2.86 ± 1.27	0.903 ± 0.843	0.786 ± 0.900	1.9 ± 0.894	1.73 ± 1.00	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Radium-226/228 Combined	pCi/L	1.742 ± 1.22	2.632 ± 1.187	1.313 ± 1.037	3.216 ± 1.446	1.176 ± 1.116	1.124 ± 1.121	2.155 ± 1.07	1.8286 ± 1.153	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR

NOTES:
mg/L: Milligrams per Liter.
SU: Standard Units.
pCi/L: Picocuries per Liter.
-- : Laboratory did not analyze sample for indicated constituent.
R: Resample event.

D: Sample diluted due to targets detected over highest point of calibration curve or due to matrix interference.

F: Relative percent difference exceeded laboratory control limits.
H: Bias in sample result likely to be high.
J: Analyte detected above method (sample) detection limit but below method quantitation limit.
K: Sample analyzed outside of recommended hold time.
L: Bias in sample result likely to be low.
NR: Analysis of this constituent not required for detection monitoring.

(1) Sample not collected due to insufficient water in well.

U: Analyte not detected at laboratory reporting limit (Sample Detection Limit).
X: Matrix Spike/Matrix Spike Duplicate recoveries were found to be outside of the laboratory control limits.

TABLE 3
Groundwater Analytical Results Summary
CPS Energy - Calaveras Power Station
Fly Ash Landfill

		JKS-31 Downgradient																			
Sample Date	Task	12/8/16	2/21/17	3/29/17	5/2/17	6/20/17	7/25/17	8/29/17	10/10/17	4/4/18	10/30/18	4/10/19	10/22/19	4/28/20	10/20/20	4/14/21	10/20/21	4/13/22	10/25/22	04/18/23	10/18/23
Constituents	Unit	Event 1 Dec 2016	Event 2 Feb 2017	Event 3 Mar 2017	Event 4 May 2017	Event 5 Jun 2017	Event 6 Jul 2017	Event 7 Aug 2017	Event 8 Oct 2017	Event 9 Apr 2018	Event 10 Oct 2018	Event 11 Apr 2019	Event 12 Oct 2019	Event 13 Apr 2020	Event 14 Oct 2020	Event 15 Apr 2021	Event 16 Oct 2021	Event 17 Apr 2022	Event 18 Oct 2022	Event 19 Apr 2023	Event 20 Oct 2023
Appendix III - Detection Monitoring																					
Boron	mg/L	0.446	0.580	0.642	0.499	0.573	0.510	0.494	0.553	0.485	0.514	0.557	0.483	0.429	0.379	0.511	0.435	0.460	0.424	0.442	0.429
Calcium	mg/L	188	384 X	317	--	216	171	230	228	187	208 D	295 D	200 D	171 J	216	286	330	339	163	205	272
Chloride	mg/L	223 D	477 D	303 D	317	285 D	0.280 UDXF	0.347 U	288	253 D	256	322	267	272	319	411	467	525	270	389	428
Fluoride	mg/L	0.801	0.186 J	0.548	0.865	0.661	0.979 JHXF	0.0960 U	0.735 JH	0.839	0.694	0.791 U	0.784	1.00	0.786	0.742	0.018 U	0.018 U	0.894	0.706	0.018 U
Sulfate	mg/L	697 D	1130 D	768 D	875	782 D	1.17 JHDXF	0.160 JH	803	771 D	774	852	819	877	914	1060	1150	1400	887	1070	1070
pH - Field Collected	SU	3.94	4.04	6.34	4.29	3.84	5.14	3.99	3.98	3.74	3.07	3.56	2.62	3.70	3.68	3.96	3.92	4.04	4.08	4.71	3.65
Total dissolved solids	mg/L	1470	2290	2430	1850	1730	1500	25.0 U	1890	1420	1390	1660	1620	1890	1700	2380	2440	3170	1680	2120	2300
Appendix IV - Assessment Monitoring																					
Antimony	mg/L	0.00120 U	0.000240 U	0.000295 J	0.000301 J	0.00120 U	0.000527 J	0.000240 U	0.000559 J	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Arsenic	mg/L	0.00151 J	0.0110	0.00834	0.00501	0.00363 J	0.00134 J	0.00556	0.00279	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Barium	mg/L	0.0167 J	0.0141	0.0198	0.0136	0.0127 J	0.0229	0.0129	0.0122	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Beryllium	mg/L	0.00793 J	0.00851	0.00885	0.00814	0.00865 J	0.00593	0.00827	0.00857	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Cadmium	mg/L	0.000734 U	0.000147 U	0.000147 U	0.000147 U	0.000734 U	0.000147 U	0.000147 U	0.000147 U	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Chromium	mg/L	0.0200 J	0.000663 J	0.000596 J	0.000525 U	0.00262 U	0.000890 J	0.000849 J	0.000760 J	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Cobalt	mg/L	0.000440 J	0.0399	0.0623	0.0227	0.0173	0.0113	0.0302	0.0192	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Fluoride	mg/L	0.801	0.186 J	0.548	0.865	0.661	0.979 JHXF	0.0960 U	0.735 JH	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Lead	mg/L	0.000758 U	0.000415 J	0.000223 J	0.000344 J	0.000758 U	0.000348 J	0.00233	0.000580 J	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Lithium	mg/L	0.533	0.510	0.00238 U	--	0.572	0.484	0.615	0.590	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Mercury	mg/L	0.0000263 U	0.0000263 U	0.0000263 U	0.0000360 J	0.0000263 U	0.0000263 U	0.0000263 U	0.0000263 U	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Molybdenum	mg/L	0.00128 U	0.000255 U	0.000255 U	0.000255 U	0.00128 U	0.000255 U	0.000255 U	0.000255 U	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Selenium	mg/L	0.00227 U	0.00163 J	0.00175 J	0.00125 J	0.00227 U	0.00162 J	0.00177 J	0.00155 J	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Thallium	mg/L	0.00166 U	0.000332 U	0.000332 U	0.000332 U	0.00166 U	0.000332 U	0.000332 U	0.000332 U	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Radium-226	pCi/L	2.46 ± 0.574	2.60 ± 0.473	1.44 ± 0.425	1.40 ± 0.338	1.40 ± 0.403	1.28 ± 0.341	1.36 ± 0.399	1.01 ± 0.323	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Radium-228	pCi/L	7.35 ± 1.59	8.16 ± 2.15	5.33 ± 1.47	5.85 ± 1.79	4.63 ± 1.23	4.44 ± 1.37	3.58 ± 1.22	4.96 ± 1.43	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Radium-226/228 Combined	pCi/L	9.81 ± 2.164	10.76 ± 2.623	6.77 ± 1.895	7.25 ± 2.128	6.03 ± 1.633	5.72 ± 1.711	4.94 ± 1.619	5.97 ± 1.753	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR

NOTES:
mg/L: Milligrams per Liter.
SU: Standard Units.
pCi/L: Picocuries per Liter.
-- : Laboratory did not analyze sample for indicated constituent.
R: Resample event.

D: Sample diluted due to targets detected over highest point of calibration curve or due to matrix interference.

F: Relative percent difference exceeded laboratory control limits.
H: Bias in sample result likely to be high.
J: Analyte detected above method (sample) detection limit but below method quantitation limit.
K: Sample analyzed outside of recommended hold time.
L: Bias in sample result likely to be low.
NR: Analysis of this constituent not required for detection monitoring.

(1) Sample not collected due to insufficient water in well.

U: Analyte not detected at laboratory reporting limit (Sample Detection Limit).
X: Matrix Spike/Matrix Spike Duplicate recoveries were found to be outside of the laboratory control limits.

TABLE 3
Groundwater Analytical Results Summary
CPS Energy - Calaveras Power Station
Fly Ash Landfill

		JKS-33 Downgradient																				
Sample Date	Task	12/7/16	2/22/17	3/28/17	5/2/17	6/20/17	7/26/17	8/29/17	10/10/17	4/5/18	10/30/18	4/10/19	10/22/19	4/28/20	10/20/20	4/13/21	8/25/21	10/20/21	4/13/22	10/25/22	04/19/23	10/17/23
Constituents	Unit	Event 1 Dec 2016	Event 2 Feb 2017	Event 3 Mar 2017	Event 4 May 2017	Event 5 Jun 2017	Event 6 Jul 2017	Event 7 Aug 2017	Event 8 Oct 2017	Event 9 Apr 2018	Event 10 Oct 2018	Event 11 Apr 2019	Event 12 Oct 2019	Event 13 Apr 2020	Event 14 Oct 2020	Event 15 Apr 2021	Event 15R Aug 2021	Event 16 Oct 2021	Event 17 Apr 2022	Event 18 Oct 2022	Event 19 Apr 2023	Event 20 Oct 2023
Appendix III - Detection Monitoring																						
Boron	mg/L	0.940	1.02	1.05	0.987	1.09	1.01	1.03	1.11	0.990	0.791	1.13	1.18	1.18	1.09	1.09	--	1.06	1.02	1.11	0.988	1.06
Calcium	mg/L	564	600	553	--	563	558	567	531	552	385 D	631	553 D	573 J	493	516	--	504	499	434	376	420
Chloride	mg/L	735 D	679 D	731 D	690	692 D	693 D	125 JH	666	786	758	806	773 JLKD	756	751	1560	736	693	731	683	732	657
Fluoride	mg/L	1.86	1.08	1.77	1.36	1.81	1.34	0.480 U	1.69	1.85	1.21	1.23	1.24 JLK	1.68	0.864	0.988	--	0.018 U	0.018 U	1.26	1.05	0.018 U
Sulfate	mg/L	1850 D	1670 D	1780 D	1710	1690 D	1710 D	3170 D	1640	1810	1740	1640	1690 JLKD	1620	1650	3270	--	1450	1560	1520	1550	1340
pH - Field Collected	SU	6.51	5.90	4.91	6.52	6.15	5.71	6.49	6.49	6.33	6.26	5.98	5.18	6.30	6.23	6.27	6.31	6.33	6.55	6.41	5.75	7.54
Total dissolved solids	mg/L	4000	3990	4310	4410	3750	4070	3580	4320	3970	3320	2650 JLK	4040 JLK	4370	4060	4080	--	3590	3960	3940	3680	3220
Appendix IV - Assessment Monitoring																						
Antimony	mg/L	0.00120 U	0.000240 U	0.00120 U	0.000240 U	0.00120 U	0.000240 U	0.000240 U	0.000240 U	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Arsenic	mg/L	0.00123 U	0.000246 U	0.00123 U	0.000257 J	0.00123 U	0.000279 J	0.000316 J	0.000246 U	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Barium	mg/L	0.0326	0.0318	0.0297	0.0268	0.0279	0.0274	0.0263	0.0264	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Beryllium	mg/L	0.000654 U	0.000131 U	0.000709 J	0.000131 U	0.000654 U	0.000131 U	0.000131 U	0.000131 U	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Cadmium	mg/L	0.000734 U	0.000147 U	0.000734 U	0.000147 U	0.000734 U	0.000147 U	0.000147 U	0.000147 U	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Chromium	mg/L	0.00262 U	0.000611 J	0.00262 U	0.000525 U	0.00262 U	0.000525 U	0.00113 J	0.00108 J	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Cobalt	mg/L	0.000690 J	0.000433 J	0.000487 J	0.000435 J	0.000512 J	0.000731 J	0.000902 J	0.000554 J	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Fluoride	mg/L	1.86	1.08	1.77	1.36	1.81	1.34	0.480 U	1.69	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Lead	mg/L	0.000758 U	0.000152 U	0.000758 U	0.000152 U	0.000758 U	0.000152 U	0.000157 J	0.000152 U	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Lithium	mg/L	0.000476 U	0.000476 U	0.00238 U	--	0.194	0.181	0.255	0.176	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Mercury	mg/L	0.0000263 U	0.0000263 U	0.0000263 U	0.0000720 J	0.0000263 U	0.0000263 U	0.0000263 U	0.0000263 U	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Molybdenum	mg/L	0.00128 U	0.000255 U	0.00128 U	0.000255 U	0.00128 U	0.000255 U	0.000255 U	0.000255 U	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Selenium	mg/L	0.0314	0.0356	0.0389	0.0368	0.0451	0.0495	0.0546	0.0342	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Thallium	mg/L	0.00166 U	0.000332 U	0.00166 U	0.000332 U	0.00166 U	0.000332 U	0.000332 U	0.000332 U	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Radium-226	pCi/L	2.04 ± 0.439	1.14 ± 0.328	2.36 ± 0.522	1.81 ± 0.365	1.73 ± 0.428	1.55 ± 0.422	1.37 ± 0.394	2.23 ± 0.491	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Radium-228	pCi/L	2.95 ± 1.16	3.52 ± 1.07	4.69 ± 1.33	3.24 ± 1.26	1.73 ± 0.902	4.11 ± 1.19	1.98 ± 1.01	2.99 ± 1.26	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Radium-226/228 Combined	pCi/L	4.99 ± 1.599	4.66 ± 1.398	7.05 ± 1.852	5.05 ± 1.625	3.46 ± 1.33	5.66 ± 1.612	3.35 ± 1.404	5.22 ± 1.751	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR

NOTES:
mg/L: Milligrams per Liter.
SU: Standard Units.
pCi/L: Picocuries per Liter.
-- : Laboratory did not analyze sample for indicated constituent.
R: Resample event.

D: Sample diluted due to targets detected over highest point of calibration curve or due to matrix interference.

F: Relative percent difference exceeded laboratory control limits.
H: Bias in sample result likely to be high.
J: Analyte detected above method (sample) detection limit but below method quantitation limit.
K: Sample analyzed outside of recommended hold time.
L: Bias in sample result likely to be low.
NR: Analysis of this constituent not required for detection monitoring.

(1) Sample not collected due to insufficient water in well.

U: Analyte not detected at laboratory reporting limit (Sample Detection Limit).
X: Matrix Spike/Matrix Spike Duplicate recoveries were found to be outside of the laboratory control limits.

TABLE 3
Groundwater Analytical Results Summary
CPS Energy - Calaveras Power Station
Fly Ash Landfill

		JKS-46 Downgradient																			
Sample Date	Task	12/6/16	2/22/17	3/28/17	5/3/17	6/20/17	7/25/17	8/29/17	10/10/17	4/4/18	10/30/18	4/10/19	10/23/19	4/28/20	10/20/20	4/13/21	10/20/21	4/13/22	10/25/22	04/18/23	10/17/23
Constituents	Unit	Event 1 Dec 2016	Event 2 Feb 2017	Event 3 Mar 2017	Event 4 May 2017	Event 5 Jun 2017	Event 6 Jul 2017	Event 7 Aug 2017	Event 8 Oct 2017	Event 9 Apr 2018	Event 10 Oct 2018	Event 11 Apr 2019	Event 12 Oct 2019	Event 13 Apr 2020	Event 14 Oct 2020	Event 15 Apr 2021	Event 16 Oct 2021	Event 17 Apr 2022	Event 18 Oct 2022	Event 19 Apr 2023	Event 20 Oct 2023
Appendix III - Detection Monitoring																					
Boron	mg/L	0.902	0.837	0.645	0.799	0.920	0.801	0.788	1.01	0.828	0.702	0.997	1.01	0.864	0.530	0.431	0.797	0.736	0.464	0.425	0.439
Calcium	mg/L	120	132	145	115	126	117	137	145	140	126 D	212 D	172 D	143 J	107	90.3	207	181	97.3	91.4	105
Chloride	mg/L	11.6	11.8	12.2	10.5	12.6	11.8	327 JHD	11.7	11.6	11.6	13.2	13.0	17.9	23.4	35.5	14.9	14.8	42.2	46.2	44.4
Fluoride	mg/L	1.51	1.38	1.03	1.59	2.25	2.34	0.460 JH	1.83	2.16	1.68	2.52	2.22	1.61 J	0.764	1.07	0.018 UJ	2.55	1.63	1.07	1.22
Sulfate	mg/L	700 D	692 D	608 D	677	0.0460 U	780 D	288 JHD	800	864 D	855	1030	1020	1180	734	658	1180	1370	787	766	634
pH - Field Collected	SU	3.60	3.55	2.10	3.57	2.96	3.54	3.21	3.20	3.15	3.00	2.85	2.62	3.10	3.01	3.42	3.41	3.45	3.55	3.88	3.34
Total dissolved solids	mg/L	1160	1040	926	1030	1270	1180	1170 JH	1390	1300	1220	1550	1500	1970	1160	1130	1760	1870	1150	1120	1070
Appendix IV - Assessment Monitoring																					
Antimony	mg/L	0.000240 U	0.000240 U	0.000240 U	0.00120 U	0.00120 U	0.000240 U	0.000240 U	0.000240 U	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Arsenic	mg/L	0.00190 J	0.00227	0.00144 J	0.00196 J	0.00277 J	0.00253	0.00295	0.00290	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Barium	mg/L	0.0429	0.0356	0.0308	0.0307	0.0364	0.0317	0.0323	0.0331	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Beryllium	mg/L	0.00381 J	0.00362	0.00340	0.00399 J	0.00459 J	0.00415	0.00462	0.00479	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Cadmium	mg/L	0.00110 J	0.000988 J	0.00121 J	0.00120 J	0.00101 J	0.00133 J	0.00141 J	0.00136 J	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Chromium	mg/L	0.000942 J	0.00140 J	0.00104 J	0.00262 U	0.00262 U	0.00156 J	0.00191 J	0.00202 J	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Cobalt	mg/L	0.0303	0.0324	0.0329	0.0367	0.0387	0.0383	0.0412	0.0414	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Fluoride	mg/L	1.51	1.38	1.03	1.59	2.25	2.34	0.460 JH	1.83	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Lead	mg/L	0.0162	0.0134	0.0109	0.0144	0.0192	0.0201	0.0236	0.0257	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Lithium	mg/L	0.0646	0.000476 U	0.00238 U	0.0673	0.0749	0.0799	0.107	0.0863	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Mercury	mg/L	0.0000263 U	0.0000263 U	0.0000263 U	0.0000263 U	0.0000263 U	0.0000263 U	0.0000263 U	0.0000263 U	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Molybdenum	mg/L	0.000255 U	0.000255 U	0.000255 U	0.00128 U	0.00128 U	0.000255 U	0.000255 U	0.000255 U	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Selenium	mg/L	0.0255	0.0266	0.0205	0.0247	0.0296	0.0257	0.0298	0.0283	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Thallium	mg/L	0.00293	0.00292	0.00235	0.00263 J	0.00314 J	0.00300	0.00335	0.00345	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Radium-226	pCi/L	3.16 ± 0.701	1.69 ± 0.387	1.80 ± 0.448	1.20± 0.315	1.82 ± 0.420	1.40 ± 0.353	1.52 ± 0.375	1.99 ± 0.459	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Radium-228	pCi/L	4.98 ± 1.41	2.17 ± 1.48	2.96 ± 1.24	1.98 ± 0.957	4.39 ± 1.13	2.80 ± 1.05	2.28 ± 1.13	3.82 ± 1.15	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Radium-226/228 Combined	pCi/L	8.14 ± 2.111	3.86 ± 1.867	4.76 ± 1.688	3.18 ± 1.272	6.21 ± 1.55	4.2 ± 1.403	3.8 ± 1.505	5.81 ± 1.609	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR

NOTES:
mg/L: Milligrams per Liter.
SU: Standard Units.
pCi/L: Picocuries per Liter.
-- : Laboratory did not analyze sample for indicated constituent.
R: Resample event.

D: Sample diluted due to targets detected over highest point of calibration curve or due to matrix interference.

F: Relative percent difference exceeded laboratory control limits.
H: Bias in sample result likely to be high.
J: Analyte detected above method (sample) detection limit but below method quantitation limit.
K: Sample analyzed outside of recommended hold time.
L: Bias in sample result likely to be low.
NR: Analysis of this constituent not required for detection monitoring.

(1) Sample not collected due to insufficient water in well.

U: Analyte not detected at laboratory reporting limit (Sample Detection Limit).
X: Matrix Spike/Matrix Spike Duplicate recoveries were found to be outside of the laboratory control limits.

TABLE 3
Groundwater Analytical Results Summary
CPS Energy - Calaveras Power Station
Fly Ash Landfill

		JKS-60 Downgradient																			
Sample Date		12/7/16	2/22/17	3/28/17	5/2/17	6/20/17	7/25/17	8/29/17	10/10/17	4/4/18	10/30/18	4/10/19	10/23/19	4/28/20	10/20/20	4/13/21	10/20/21	4/13/22	10/25/22	04/19/23	10/17/23
	Task	Event 1 Dec 2016	Event 2 Feb 2017	Event 3 Mar 2017	Event 4 May 2017	Event 5 Jun 2017	Event 6 Jul 2017	Event 7 Aug 2017	Event 8 Oct 2017	Event 9 Apr 2018	Event 10 Oct 2018	Event 11 Apr 2019	Event 12 Oct 2019	Event 13 Apr 2020	Event 14 Oct 2020	Event 15 Apr 2021	Event 16 Oct 2021	Event 17 Apr 2022	Event 18 Oct 2022	Event 19 Apr 2023	Event 20 Oct 2023
Constituents	Unit																				
Appendix III - Detection Monitoring																					
Boron	mg/L	0.655	0.504	0.449	0.456	0.442	0.394	0.436	0.479	0.399	0.334	0.405	0.377	0.325	0.433	0.533	0.579	0.573	0.612	0.579	0.756
Calcium	mg/L	433	375	290	--	379	336	350	383	363	382 D	501 D	524 D	530 J	380	432	473	438	362	358	418
Chloride	mg/L	411 D	311 D	311 D	285	300 D	319 D	287 JHD	352	366 D	202	149 X	183	168	235	281	278	324	278	287	290
Fluoride	mg/L	0.0360 U	0.319	0.324	0.421	0.306	0.338 JH	0.0960 U	0.284 JH	0.22 J	0.239 J	0.187 UJ	0.231 J	0.188	0.018 U	0.290	0.018 U	0.018 U	0.371	0.218	0.163
Sulfate	mg/L	1480 D	999 D	1010 D	976 X	1020 D	818 D	760 JHDX	759	801 D	906	968	1320	1280	963	1080	1130	1200	1220	1220	1290
pH - Field Collected	SU	5.82	5.38	4.21	5.75	6.07	6.44	5.93	5.97	6.09	6.42	5.93	6.23	6.61	6.16	6.21	6.20	6.36	6.19	5.77	6.92
Total dissolved solids	mg/L	2790	2340	2020	2110	2510	2120	1450 JH	2300	1860	1910	2010	2820	3180	2520	2450	2530	2680	2700	2310	2680
Appendix IV - Assessment Monitoring																					
Antimony	mg/L	0.00120 U	0.000240 U	0.000240 U	0.000240 U	0.00120 U	0.000240 U	0.000240 U	0.000240 U	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Arsenic	mg/L	0.00123 U	0.000861 J	0.000592 J	0.000366 J	0.00123 U	0.000367 J	0.000381 J	0.000266 J	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Barium	mg/L	0.0702	0.0491	0.0465	0.0450	0.0469	0.0454	0.0490	0.0503	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Beryllium	mg/L	0.000654 U	0.000131 U	0.000131 U	0.000131 U	0.000654 U	0.000131 U	0.000131 U	0.000131 U	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Cadmium	mg/L	0.000774 J	0.000778 J	0.000786 J	0.000695 J	0.000734 U	0.000359 J	0.000608 J	0.000699 J	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Chromium	mg/L	0.00262 U	0.000743 J	0.000525 U	0.000525 U	0.00262 U	0.000690 J	0.00204 J	0.00100 J	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Cobalt	mg/L	0.115	0.0542	0.0423	0.0389	0.0210	0.00896	0.0166	0.0183	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Fluoride	mg/L	0.0360 U	0.319	0.324	0.421	0.306	0.338 JH	0.0960 U	0.284 JH	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Lead	mg/L	0.000758 U	0.000152 U	0.000152 U	0.000152 U	0.000758 U	0.000152 U	0.000152 U	0.000216 J	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Lithium	mg/L	0.000476 U	0.000476 U	0.00238 U	--	0.0305	0.0179 J	0.0635	0.0314	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Mercury	mg/L	0.0000263 U	0.0000263 U	0.0000263 U	0.0000370 J	0.0000263 U	0.0000263 U	0.0000263 U	0.0000263 U	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Molybdenum	mg/L	0.00128 U	0.000726 J	0.000622 J	0.000715 J	0.00148 J	0.00162 J	0.00124 J	0.00103 J	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Selenium	mg/L	0.00227 U	0.00168 J	0.00132 J	0.00981	0.0390	0.0244	0.00761	0.00745	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Thallium	mg/L	0.00166 U	0.000425 J	0.000412 J	0.000403 J	0.00166 U	0.000332 U	0.000372 J	0.000387 J	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Radium-226	pCi/L	3.01 ± 0.578	2.29 ± 0.421	2.74 ± 0.572	1.71 ± 0.378	0.914 ± 0.341	1.57 ± 0.381	1.34 ± 0.378	4.61 ± 0.650	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Radium-228	pCi/L	2.57 ± 1.15	2.62 ± 1.04	0.838 ± 0.826	0.269 ± 0.713	2.24 ± 1.02	0.701 ± 0.850	1.72 ± 0.940	2.48 ± 1.60	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR
Radium-226/228 Combined	pCi/L	5.58 ± 1.728	4.91 ± 1.461	3.578 ± 1.398	1.979 ± 1.091	3.154 ± 1.361	2.271 ± 1.231	3.06 ± 1.318	7.09 ± 2.25	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR	NR

NOTES:
mg/L: Milligrams per Liter.
SU: Standard Units.
pCi/L: Picocuries per Liter.
-- : Laboratory did not analyze sample for indicated constituent.
R: Resample event.

D: Sample diluted due to targets detected over highest point of calibration curve or due to matrix interference.

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(1) Sample not collected due to insufficient water in well.

U: Analyte not detected at laboratory reporting limit (Sample Detection Limit).
X: Matrix Spike/Matrix Spike Duplicate recoveries were found to be outside of the laboratory control limits.



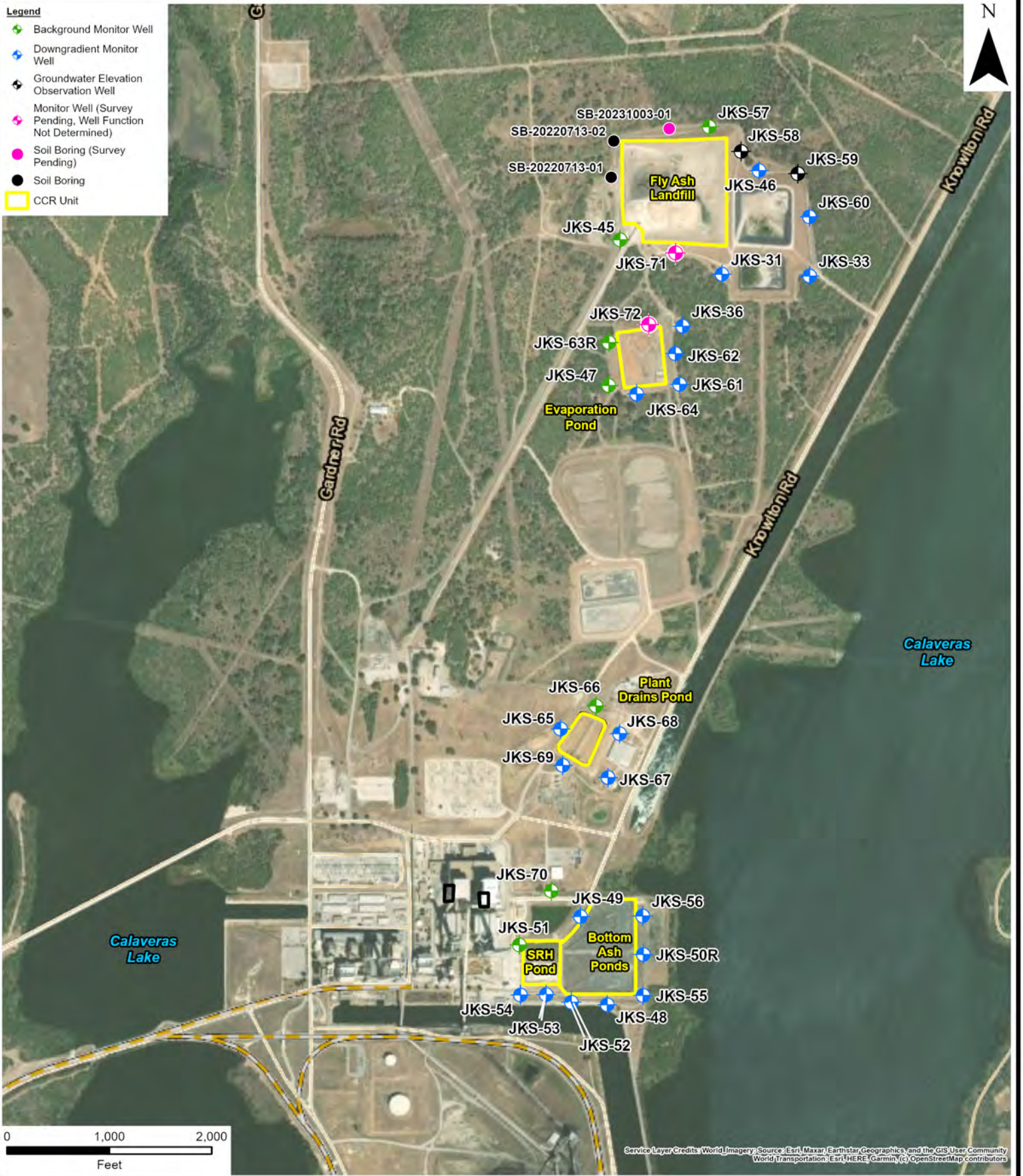
FIGURES

FIGURE 1 CCR WELL NETWORK LOCATION MAP

FIGURE 2A POTENTIOMETRIC SURFACE MAP – APRIL 2023

FIGURE 2B POTENTIOMETRIC SURFACE MAP – OCTOBER 2023

- Legend**
- Background Monitor Well
 - Downgradient Monitor Well
 - Groundwater Elevation Observation Well
 - Monitor Well (Survey Pending, Well Function Not Determined)
 - Soil Boring (Survey Pending)
 - Soil Boring
 - CCR Unit



Environmental Resources Management

DESIGN: WZ	DRAWN: EFC	CHKD.: WZ
DATE: 1/9/2024	SCALE: AS SHOWN	REVISION: 0

M:\US\Projects\A-C\PS_Energy\SanAntonio_TX\APRX\CPS_Energy_SanAntonio_2022\CPS_Energy_SanAntonio_2022 APRX

FIGURE 1
CCR WELL NETWORK LOCATION MAP
CPS Energy - Calaveras Power Station
San Antonio, Texas



ERM







APPENDIX A LABORATORY DATA PACKAGES

JANUARY 2024

Data Usability Summary
Sampling Event/April 2023

CPS Energy Calaveras Power Station
Coal Combustion Residuals (CCR) Units
San Antonio, Texas

This data usability summary (DUS) was prepared in general accordance with the following key documents:

- 1) *Groundwater Sampling and Analysis Program*, CPS Energy, Calaveras Power Station (ERM, January 2022);
- 2) Texas Commission on Environmental Quality's (TCEQ's) *Review and Reporting of COC Concentration Data Under TRRP* (RG-366/TRRP-13, May 2010); and
- 3) Environmental Protection Agency's (EPA's) *National Functional Guidelines for Inorganic Superfund Methods Data Review* (EPA-540-R-2017-001, January 2017).

Environmental Resources Management (ERM) reviewed four laboratory analytical data packages (2304292, 2304293, 2304294, and 2304295) from San Antonio Testing Laboratory (SATL) of San Antonio, Texas for the analysis of ground water samples collected on 18 April to 19 April 2023 at the CPS Energy Calaveras Power Station in San Antonio, Texas. Analytes Radium-226, Radium-228, and Lithium were subbed to Eurofins of St. Louis by SATL for analysis. Data were reviewed to assess conformance with the requirements of the above-referenced documents.

SATL and Eurofins are NELAC-accredited under the Texas Laboratory Accreditation Program for the matrices, analytes, and methods of analysis requested on the chain-of-custody documentation. SATL and Eurofins National Environmental Laboratory Accreditation Program (NELAP) certificates applicable to the period during which the laboratories generated the data in these reports is referenced in the laboratory reports.

Intended Use of Data: To provide concentration data on Appendix III Coal Combustion Residuals (CCR) Rule parameters in ground water at the CPS Energy Calaveras Facility.

Analyses requested for the laboratory packages include the following:

- EPA 300.0 – Inorganic Anions (Chloride, Fluoride, Sulfate) by Ion Chromatography (IC)
- EPA 6010B – Total Metals by Inductively Coupled Plasma-Atomic Emission Spectroscopy (ICP-AES)
- EPA 903.0 and 904.0 – Radium-226 and Radium-228 (GFPC)
- EPA 6010A – Total Metals (Lithium) ICP
- SW846 7470A – Mercury (CVAA)

Data were reviewed and validated as described in the above-referenced documents, and the results of the review/validation are discussed in this Data Usability Summary (DUS). The following laboratory submittals and field data were examined:

- The reportable data;
- The laboratory review checklist (LRC) and associated exception report (ER); and
- The Quality Assurance/Quality Control (QA/QC) data supplied by the laboratory.

The results of supporting QC analyses are summarized on the LRC and ER, which are included in this review. The LRC, associated ER, QA/QC data, and reportable data covered by this review are included in the laboratory reports.

The Laboratory Data Package Cover Pages and Laboratory Review Checklists provided in the analytical data packages are outdated and inconsistent with current TRRP-13 guidance (May 2010). It is highly recommended that required items in the current TRRP-13 guidance be followed for laboratory data packages generated to satisfy corrective action program requirements. Data were not qualified based on this deficiency.

Introduction

Twenty-five (25) groundwater samples, three (3) duplicate samples, two (2) field blanks, and one (1) equipment blank were analyzed for select metals and anions. Six (6) groundwater samples, one duplicate sample, and one field blank was also analyzed for Radium and Lithium. Table 1 lists the sample identifications cross-referenced to laboratory identifications.

Project Data Quality Objectives (DQO)

The quantitative project DQO limits specified in the *Groundwater Sampling and Analysis Program* were utilized as follows:

- Recovery (%R)
 - Spike samples 75-125%
 - Non-spike samples 70-130%
- Relative Percent Difference (RPD) <20%

Data were qualified in accordance with the TCEQ's TRRP-13 guidance document, including data qualifier codes and data qualifier code definitions.

Data Review / Validation Results

Analytical Results

Ground water analytical results were reported in milligrams per liter (mg/L) for metals and anions. Analytical results from Eurofins was reported in micrograms per liter (µg/L) for metals and in picocuries per liter (pCi/L) for radiological analysis. Non-detect results are reported as less than the value of the sample detection limits (SDLs). The method quantitation limits (MQLs) are also reported.

Preservation and Holding Times

The samples were evaluated for agreement with the chain-of-custody forms. The samples were received in the appropriate containers and in good condition with the paperwork properly completed.

Sample receipt temperature of the cooler at SATL were within or less than the acceptance criteria of 4 +/- 2 degrees Celsius. Sample receipt temperature for lab reports 2304292, 2304293, 2304294, and 2304295 were 2.2°C, 2.2°C, 0.4°C, and 1.4°C, respectively. No qualifiers were added to the data. Samples were prepared and analyzed within holding times as specified by the methods. The samples were preserved in the field as specified by the methods, with the following exception.

For radium analysis, the reference method required samples to be preserved to a pH of <2. If samples are collected without preservation, they must be received by the laboratory within 5 days for preservation according to Method 904 specifications. All the samples in lab report 2304295 and one sample, JKS-70-20230419-CCR, in lab report 2304294 was received by the laboratory unpreserved 6-7 days after the samples were collected. The sample was preserved to the appropriate pH in the laboratory; however, the analytical results were still qualified as JL, estimated low, for detected results and UJL, non-detect and estimated low for non-detect results for radium.

Calibrations

According to the LRC, initial calibrations, continuing calibrations, and calibration verifications data met method requirements for metals and anions, as applicable.

Mass Spectral Tuning

As documented in the LRC, mass spectrometry instrument performance tunes were either not applicable (appropriate compound for the method) or met specific requirements for the requested analytical methods (ion abundance data within limits).

Internal Standards

As documented in the LRC, internal standard area counts and retention times were within or not applicable for the requested analytical methods.

Percent Yield

Ba and Y Carrier percent yields for radium analysis were within laboratory acceptance limits.

Blanks

Metals and anions were not detected in the method blanks.

Laboratory Control Samples

Laboratory control sample and duplicate (LCS/LCSD) precision and accuracy results (*i.e.*, percent recoveries and RPDs) for all analyses were within project DQO acceptance limits, with the following exception.

In laboratory packages 2304294 and 2304295, the LCS percent recovery in prep batch 610073 were above DQO acceptance limits for Radium-228 (135%). Affected samples in batch 610073 (all samples in laboratory package 2304295 and JKS-70-20230419-CCR) with detected results would typically be qualified as JH, estimated with high bias. However, as the samples were previously qualified as JL for insufficient preservation, the affected sample results were qualified as J, estimated.

Matrix Spike/Matrix Spike Duplicates

Matrix spike/matrix spike duplicate (MS/MSD) precision and accuracy results (*i.e.*, percent recoveries and RPDs) using project samples were within project DQO acceptance limits, with the following exceptions.

In laboratory packages 2304292 and 2304293, matrix spike/matrix spike duplicate (MS/MSD) analysis was performed on project samples JKS-45-20230418-CCR for anions and JKS-36-20230418-CCR and JKS-60-20230419-CCR for metals. The MS and MSD had recoveries above laboratory and DQO limits for chloride and below laboratory and DQO limits for boron. The parent concentration for chloride, calcium, and sulfate were greater than four times the amount spiked into it; therefore, no qualifiers were required for high MS/MSD recoveries for chloride or for NR-flagged recoveries for calcium and sulfate. The MS and MSD recoveries for metals were run on two project-related samples in the same batch. The MS/MSD recoveries for boron were below DQO limits associated with sample JKS-36-20230418-CCR; however, MS/MSD recoveries were within DQO limits associated with sample JKS-60-20230419-CCR in the same batch. As such, only the parent sample, JKS-36-20230418-CCR, was qualified as estimated with low bias (JL) for boron due to low MS/MSD recoveries.

In laboratory packages 2304294 and 2304295, matrix spike/matrix spike duplicate (MS/MSD) analysis was performed on project samples JKS-65-20230418-FPDP and JKS-66-20230419-FPDP for anions, JKS-70-20230419-CCR for mercury, JKS-36-20230418-CCR and JKS-60-20230419-CCR for select metals (boron and calcium), and JKS-56-20230419-CCR and FB-003-20230419 for all metals. The MS and MSD had recoveries above DQO limits for chloride, calcium (Batch B317141), and sulfate and below DQO limits for boron and calcium (Batch B317142). The parent concentration for calcium (both batches), and sulfate were greater than four times the amount spiked into it; therefore, no qualifiers were required for high or low MS/MSD recoveries for sulfate and calcium or for NR-flagged recoveries for calcium. In batch B318130 MS/MSD recoveries for chloride using project-related sample JKS-66-20230419-FPDP was higher than DQO acceptance limits and the spiking amount was not greater than four times the amount spiked into it; as such, samples in the batch were qualified as estimated with high bias (JH) for chloride due to high MS/MSD recoveries. The MS and MSD recoveries for metals (boron and calcium) were run on two project-related samples in the same batch. The MS/MSD recoveries for boron were below DQO limits associated with sample JKS-36-20230418-CCR; however, MS/MSD recoveries were within DQO limits associated with sample JKS-60-20230419-CCR in the same batch. As such, only the parent sample, JKS-36-20230418-CCR was qualified as estimated with low bias (JL) for boron due to low MS/MSD recoveries.

Post Digestion Spike

According to the LRC, post digestion spike (PDS) recoveries were within method acceptance limits.

Serial Dilution

According to the LRC, serial dilution (SD) percent differences (%D) were within method acceptance limits.

Laboratory Precision

Laboratory duplicate RPD using project samples were within project DQO acceptance limits, with the following exception.

In laboratory packages 2304294 and 2304295, the laboratory duplicate RPD for arsenic in batch B317142, performed on project sample JKS-56-20230419-CCR, was higher than DQO acceptance limits. The analyte concentration was less than five times the MQL and all affected sample results were less than the value of the MQL; as such, no qualifiers were required.

Field Precision

Three pairs of field precision samples were collected during the April 2023 event (JKS-33-20230419-CCR / DUP-001-20230419; JKS-48-20230419-CCR / DUP-002-20230419; JKS-68-20230418-FPDP / DUP-001-20230418). RPD calculations for detected analytes for each field precision pair are shown in Table 2. All RPD were within DQO limits or had sample concentrations less than two times the value of the MQL; as such, no qualifiers were required.

Field Procedures

Sample collection procedures were in accordance with EPA ground water sampling protocols and the *Ground Water Sampling and Analysis Program*, dated January 2022.

SUMMARY

Ground water analytical results are useable for the purpose of provide concentration data on Appendix III Coal Combustion Residuals (CCR) Rule parameters in ground water at the CPS Energy Calaveras Power Station. Table 2 lists qualified data.

Tables

TABLE 1
Sample Cross-Reference

CPS Energy
Calaveras Power Station

Lab Report	Lab Identification	Field Identification	Sample Date	Sample Type
2304292	2304292-01	JKS-36-20230418-CCR	4/18/2023	Groundwater
2304292	2304292-02	JKS-47-20230419-CCR	4/19/2023	Groundwater
2304292	2304292-03	JKS-61-20230419-CCR	4/19/2023	Groundwater
2304292	2304292-04	JKS-63R-20230418-CCR	4/18/2023	Groundwater
2304292	2304292-05	JKS-64-20230419-CCR	4/19/2023	Groundwater
2304292	2304292-06	EB-001-20230419	4/19/2023	Equipment Blank
2304293	2304293-01	JKS-31-20230418-CCR	4/18/2023	Groundwater
2304293	2304293-02	JKS-33-20230419-CCR	4/19/2023	Groundwater
2304293	2304293-03	JKS-45-20230418-CCR	4/18/2023	Groundwater
2304293	2304293-04	JKS-46-20230418-CCR	4/18/2023	Groundwater
2304293	2304293-05	JKS-60-20230419-CCR	4/19/2023	Groundwater
2304293	2304293-06	DUP-001-20230419	4/19/2023	Duplicate Sample
2304293	2304293-07	FB-001-20230419	4/19/2023	Field Blank
2304294	2304294-01	JKS-48-20230419-CCR	4/19/2023	Groundwater
2304294	2304294-02	JKS-49-20230418-CCR	4/18/2023	Groundwater
2304294	2304294-03	JKS-50R-20230418-CCR	4/18/2023	Groundwater
2304294	2304294-04	JKS-51-20230419-CCR	4/19/2023	Groundwater
2304294	2304294-05	JKS-52-20230419-CCR	4/19/2023	Groundwater
2304294	2304294-06	JKS-53-20230419-CCR	4/19/2023	Groundwater
2304294	2304294-07	JKS-54-20230419-CCR	4/19/2023	Groundwater
2304294	2304294-08	JKS-55-20230418-CCR	4/18/2023	Groundwater
2304294	2304294-09	JKS-56-20230419-CCR	4/19/2023	Groundwater
2304294	2304294-10	JKS-70-20230419-CCR	4/19/2023	Groundwater
2304294	2304294-11	DUP-002-20230419	4/19/2023	Duplicate Sample
2304294	2304294-12	FB-002-20230419	4/19/2023	Field Blank
2304295	2304295-01	JKS-65-20230418-FPDP	4/18/2023	Groundwater
2304295	2304295-02	JKS-66-20230419-FPDP	4/19/2023	Groundwater
2304295	2304295-03	JKS-67-20230418-FPDP	4/18/2023	Groundwater
2304295	2304295-04	JKS-68-20230418-FPDP	4/18/2023	Groundwater
2304295	2304295-05	JKS-69-20230418-FPDP	4/18/2023	Groundwater
2304295	2304295-06	DUP-001-20230418	4/18/2023	Duplicate Sample
2304295	2304295-07	FB-003-20230419	4/19/2023	Field Blank

TABLE 2
Data Usability Qualifiers

CPS Energy
Calaveras Power Station

Lab Report	Field ID	Parameter	Qualification	Rationale
2304292	JKS-36-20230418-CCR	Boron	JL	Low MS/MSD Recovery
2304294	JKS-70-20230419-CCR	Arsenic	JH	High Field Precision RPD
2304294	JKS-48-20230419-CCR	Chloride	JH	High MS/MSD Recovery
2304294	JKS-49-20230418-CCR	Chloride	JH	High MS/MSD Recovery
2304294	JKS-50R-20230418-CCR	Chloride	JH	High MS/MSD Recovery
2304294	JKS-51-20230419-CCR	Chloride	JH	High MS/MSD Recovery
2304294	JKS-52-20230419-CCR	Chloride	JH	High MS/MSD Recovery
2304294	JKS-53-20230419-CCR	Chloride	JH	High MS/MSD Recovery
2304294	JKS-54-20230419-CCR	Chloride	JH	High MS/MSD Recovery
2304294	JKS-55-20230418-CCR	Chloride	JH	High MS/MSD Recovery
2304294	JKS-56-20230419-CCR	Chloride	JH	High MS/MSD Recovery
2304294	JKS-70-20230419-CCR	Chloride	JH	High MS/MSD Recovery
2304294	DUP-002-20230419	Chloride	JH	High MS/MSD Recovery
2304295	JKS-65-20230418-FPDP	Chloride	JH	High MS/MSD Recovery
2304295	JKS-66-20230419-FPDP	Chloride	JH	High MS/MSD Recovery
2304295	JKS-67-20230418-FPDP	Chloride	JH	High MS/MSD Recovery
2304295	JKS-68-20230418-FPDP	Chloride	JH	High MS/MSD Recovery
2304295	JKS-69-20230418-FPDP	Chloride	JH	High MS/MSD Recovery
2304295	DUP-001-20230418	Chloride	JH	High MS/MSD Recovery
2304295	JKS-65-20230418-FPDP	Radium-226	JL	Outside Preservation Holding Time
2304295	JKS-66-20230419-FPDP	Radium-226	JL	Outside Preservation Holding Time
2304295	JKS-67-20230418-FPDP	Radium-226	JL	Outside Preservation Holding Time
2304295	JKS-68-20230418-FPDP	Radium-226	UJL	Outside Preservation Holding Time
2304295	JKS-69-20230418-FPDP	Radium-226	JL	Outside Preservation Holding Time
2304295	DUP-001-20230418	Radium-226	JL	Outside Preservation Holding Time
2304295	FB-003-20230419	Radium-226	UJL	Outside Preservation Holding Time
2304294	JKS-70-20230419-CCR	Radium-226	JL	Outside Preservation Holding Time
2304295	JKS-65-20230418-FPDP	Radium-228	J	Outside Preservation Holding Time and High LCS
2304295	JKS-66-20230419-FPDP	Radium-228	J	Outside Preservation Holding Time
2304295	JKS-67-20230418-FPDP	Radium-228	UJL	Outside Preservation Holding Time
2304295	JKS-68-20230418-FPDP	Radium-228	J	Outside Preservation Holding Time and High LCS
2304295	JKS-69-20230418-FPDP	Radium-228	J	Outside Preservation Holding Time and High LCS
2304295	DUP-001-20230418	Radium-228	J	Outside Preservation Holding Time and High LCS
2304295	FB-003-20230419	Radium-228	UJL	Outside Preservation Holding Time
2304294	JKS-70-20230419-CCR	Combined Radium	JL	Outside Preservation Holding Time and High LCS
2304295	JKS-65-20230418-FPDP	Combined Radium	JL	Outside Preservation Holding Time
2304295	JKS-66-20230419-FPDP	Combined Radium	JL	Outside Preservation Holding Time
2304295	JKS-67-20230418-FPDP	Combined Radium	JL	Outside Preservation Holding Time
2304295	JKS-68-20230418-FPDP	Combined Radium	JL	Outside Preservation Holding Time
2304295	JKS-69-20230418-FPDP	Combined Radium	JL	Outside Preservation Holding Time
2304295	DUP-001-20230418	Combined Radium	JL	Outside Preservation Holding Time
2304295	FB-003-20230419	Combined Radium	UJL	Outside Preservation Holding Time
2304294	JKS-70-20230419-CCR	Combined Radium	JL	Outside Preservation Holding Time

Notes:

J = Estimated

UJ = Non-detect Estimated

TABLE 3
Field Precision

CPS Energy
Calaveras Power Station

Lab Report	Field Duplicate Pair	Parameter	Sample Result	Duplicate Result	RPD	Qualifier
2304293	JKS-33-20230419- CCR / DUP-001- 20230419	TDS	3680	3630	1.37	A
		Chloride	732	752	2.70	A
		Sulfate	1550	1600	3.17	A
		Boron	0.988	0.996	0.81	A
		Calcium	376	386	2.62	A
2304294	JKS-48-20230419- CCR / DUP-002- 20230419	TDS	1370	1400	2.17	A
		Chloride	434	470	7.96	A
		Fluoride	0.964	0.975	1.13	A
		Sulfate	182	197	7.92	A
		Boron	1.93	1.97	2.05	A
		Calcium	118	120	1.68	A
2304295	JKS-68-20230418- FPDP / DUP-001- 20230418	TDS	4080	3970	2.73	A
		Chloride	861	866	0.58	A
		Fluoride	0.864	0.959	10.42	A
		Sulfate	1290	1230	4.76	A
		Boron	1.29	1.24	3.95	A
		Calcium	244	239	2.07	A
		Arsenic	0.002	J 0.0006	U 107.69	A*
		Barium	0.029	0.028	3.51	A
		Cadmium	0.0008	J 0.001	J 22.22	A*
		Chromium	0.002	J 0.002	J 0.00	A
		Molybdenum	0.0005	J 0.0004	J 22.22	A*
		Selenium	0.039	0.043	9.76	A
		Radium-226	0.108	U 0.165	41.76	A*
		Radium-228	1.41	0.749	61.23	A*
		Combined Radium-226 and 228	1.51	0.914	49.17	A*

Notes:

RPD - Relative Percent Difference

RPD = (Sample Result - Duplicate Result) x 200 / (Sample Result + Duplicate Result)

Qualifier: A = Acceptable (no qualification necessary)

A* = Acceptable data based on sample concentrations less than two times the MQL

J = Estimated

May 03, 2023

Chelsey Vasbinder

CPS Energy - Environmental Dept.

P.O. Box 1771

San Antonio, TX 78296-1771

SATL Report No.: 2304293

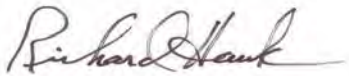
RE: Calaveras Power Station- CCR Units FlyAsh Landfill

Dear Chelsey Vasbinder

SATL received 7 Sample(s) on 04/20/2023 for analyses identified on the chain of custody. The analyses were performed using methods indicated on the laboratory report. Any deviations observed at sample receiving are notated on the Sample Receipt Checklist and/or Chain of Custody documents attached as part of this analytical report.

Sincerely,

For San Antonio Testing Laboratory, Inc.



Richard Hawk,
General Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

1610 S. Laredo Street, San Antonio, Texas 78207-7029 (210) 229-9920 Fax (210) 229-9921

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Appendix A Laboratory Data Package Cover Page

This data package consists of:

- ☒ This signature page, the laboratory review checklist, and the following reportable data:
- ☒ R1 Field chain-of-custody documentation;
- ☒ R2 Sample identification cross-reference;
- ☒ R3 Test reports (analytical data sheets) for each environmental sample that includes:
 - a) Items consistent with NELAC 5.13 or ISO/IEC 17025 Section 5.10
 - b) dilution factors,
 - c) preparation methods,
 - d) cleanup methods, and
 - e) if required for the project, tentatively identified compounds (TICs).
- ☒ R4 Surrogate recovery data including:
 - a) Calculated recovery (%R), and
 - b) The laboratory's surrogate QC limits.
- ☒ R5 Test reports/summary forms for blank samples;
- ☒ R6 Test reports/summary forms for laboratory control samples (LCSs) including:
 - a) LCS spiking amounts,
 - b) Calculated %R for each analyte, and
 - c) The laboratory's LCS QC limits.
- ☒ R7 Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:
 - a) Samples associated with the MS/MSD clearly identified,
 - b) MS/MSD spiking amounts,
 - c) Concentration of each MS/MSD analyte measured in the parent and spiked samples,
 - d) Calculated %Rs and relative percent differences (RPDs), and
 - e) The laboratory's MS/MSD QC limits
- ☒ R8 Laboratory analytical duplicate (if applicable) recovery and precision:
 - a) the amount of analyte measured in the duplicate,
 - b) the calculated RPD, and
 - c) the laboratory's QC limits for analytical duplicates.
- ☒ R9 List of method quantitation limits (MQLs) for each analyte for each method and matrix;
- ☒ R10 Other problems or anomalies.
- ☒ The Exception Report for every "No" or "Not Reviewed (NR)" item in laboratory review checklist.

Release Statement: I am responsible for the release of this laboratory data package. This data package has been reviewed by the laboratory and is complete and technically compliant with the requirements of the methods used, except where noted by the laboratory in the attached exception reports. By my signature below, I affirm to the best of my knowledge, all problems/anomalies, observed by the laboratory as having the potential to affect the quality of the data, have been identified by the laboratory in the Laboratory Review Checklist, and no information or data have been knowingly withheld that would affect the quality of the data.

Aimee Landon For Marcela Gracia Hawk, President



Richard Hawk, General Manager

05/03/23 17:25

Date/Time

Project Name: Calaveras Power Station- CCR Units FlyAsh Landfill
Laboratory Job Number: 2304293

Reviewer Name: JA,SG,XE
Matrix :

RG-366/TRRP-13 December 2002

1610 S. Laredo Street, San Antonio, Texas 78207-7029 (210) 229-9920 Fax (210) 229-9921

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Appendix A (cont'd): Laboratory Review Checklist: Reportable Data									
Laboratory Name:		San Antonio Testing Laboratory Inc.		LRC Date:		12/30/99 to 05/03/23			
Project Name:		Calaveras Power Station- CCR Units FlyAsh Land		Laboratory Job Number:		2304293			
Reviewer Name:		JA,SG,XE		Prep Batch Number(s):		B317141,B317252,B317261,B317276,B317278			
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵		
R1		Chain-of-custody (C-O-C)							
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	X						
		Were all departures from standard conditions described in an exception report?	X						
R2		Sample and quality control (QC) identification							
		Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	X						
		Are all laboratory ID numbers cross-referenced to the corresponding QC data?	X						
R3		Test reports							
		Were all samples prepared and analyzed within holding times?	X						
		Other than those results < MQL, were all other raw values bracketed by calibration standards?	X						
		Were calculations checked by a peer or supervisor?	X						
		Were all analyte identifications checked by a peer or supervisor?	X						
		Were sample quantitation limits reported for all analytes not detected?	X						
		Were all results for soil and sediment samples reported on a dry weight basis?				X			
		Were % moisture (or solids) reported for all soil and sediment samples?				X			
		If required for the project, TICs reported?				X			
R4		Surrogate recovery data							
		Were surrogates added prior to extraction?				X			
		Were surrogate percent recoveries in all samples within the laboratory QC limits?				X			
R5		Test reports/summary forms for blank samples							
		Were appropriate type(s) of blanks analyzed?	X						
		Were blanks analyzed at the appropriate frequency?	X						
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	X						
		Were blank concentrations < MQL?	X						
R6		Laboratory control samples (LCS):							
		Were all COCs included in the LCS?				X			
		Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	X						
		Were LCSs analyzed at the required frequency?	X						
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	X						
		Does the detectability data document the laboratory's capability to detect the COCs at the MDL used to calculate the SQLs?	X						
		Was the LCSD RPD within QC limits?	X						
R7		Matrix spike (MS) and matrix spike duplicate (MSD) data							
		Were the project/method specified analytes included in the MS and MSD?	X						
		Were MS/MSD analyzed at the appropriate frequency?	X						
		Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?			X			S001	
		Were MS/MSD RPDs within laboratory QC limits?			X			S002	
R8		Analytical duplicate data							
		Were appropriate analytical duplicates analyzed for each matrix?	X						
		Were analytical duplicates analyzed at the appropriate frequency?	X						
		Were RPDs or relative standard deviations within the laboratory QC limits?	X						
R9		Method quantitation limits (MQLs):							
		Are the MQLs for each method analyte included in the laboratory data package?	X						
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	X						
		Are unadjusted MQLs included in the laboratory data package?	X						
R10		Other problems/anomalies							
		Are all known problems/anomalies/special conditions noted in this LRC and ER?	X						
		Were all necessary corrective actions performed for the reported data?	X						
		Was applicable and available technology used to lower the SQL minimize the matrix interference affects on the sample results?	X						

1. Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.

2. O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);

3. NA = Not applicable;

4. NR = Not reviewed;

5. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

RG-366/TRRP-13 December 2002

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Appendix A (cont'd): Laboratory Review Checklist: Reportable Data									
Laboratory Name:		San Antonio Testing Laboratory Inc.		LRC Date:		12/30/99 to 05/03/23			
Project Name:		Calaveras Power Station- CCR Units FlyAsh Lar		Laboratory Job Number:		2304293			
Reviewer Name:		JA,SG,XE		Prep Batch Number(s):		B317141,B317252,B317261,B317276,B317278			
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵		
S1		Initial calibration (ICAL)							
		Were response factors and/or relative response factors for each analyte within QC limits?	X						
		Were percent RSDs or correlation coefficient criteria met?	X						
		Was the number of standards recommended in the method used for all analytes?	X						
		Were all points generated between the lowest and highest standard used to calculate the curve?	X						
		Are ICAL data available for all instruments used?	X						
		Has the initial calibration curve been verified using an appropriate second source standard?	X						
S2		Initial and continuing calibration verification (ICCV and CCV) and continuing calibration							
		Was the CCV analyzed at the method-required frequency?	X						
		Were percent differences for each analyte within the method-required QC limits?	X						
		Was the ICAL curve verified for each analyte?	X						
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?							
S3		Mass spectral tuning:							
		Was the appropriate compound for the method used for tuning?	X						
		Were ion abundance data within the method-required QC limits?							
S4		Internal standards (IS):							
		Were IS area counts and retention times within the method-required QC limits?							
S5		Raw data (NELAC section 1 appendix A glossary, and section 5.12 or ISO/IEC 17025 section							
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X						
		Were data associated with manual integrations flagged on the raw data?	X						
S6		Dual column confirmation							
		Did dual column confirmation results meet the method-required QC?				X			
S7		Tentatively identified compounds (TICs):							
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?				X			
S8		Interference Check Sample (ICS) results:							
		Were percent recoveries within method QC limits?							
S9		Serial dilutions, post digestion spikes, and method of standard additions							
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?							
S10		Method detection limit (MDL) studies							
		Was a MDL study performed for each reported analyte?	X						
		Is the MDL either adjusted or supported by the analysis of DCSSs?	X						
S11		Proficiency test reports:							
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	X						
S12		Standards documentation							
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X						
S13		Compound/analyte identification procedures							
		Are the procedures for compound/analyte identification documented?	X						
S14		Demonstration of analyst competency (DOC)							
		Was DOC conducted consistent with NELAC Chapter 5C or ISO/IEC 4?	X						
		Is documentation of the analyst's competency up-to-date and on file?	X						
S15		Verification/validation documentation for methods (NELAC Chap 5 or ISO/IEC 17025 Section 5)							
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	X						
S16		Laboratory standard operating procedures (SOPs):							
		Are laboratory SOPs current and on file for each method performed?	X						

- Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.
- O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);
- NA = Not applicable;
- NR = Not reviewed;
- ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

RG-366/TRRP-13 December 2002

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Appendix A (cont'd): Laboratory Review Checklist: Exception Reports			
Laboratory Name: San Antonio Testing Laboratory Inc.		LRC Date: 12/30/99 to 05/03/23	
Project Name: Calaveras Power Station- CCR Units FlyAsh Lar		Laboratory Job Number: 2304293	
Reviewer Name: JA,SG,XE		Prep Batch Number(s): B317141,B317252,B317261,B317276,B317278	
ER#¹	Description		
S001	Matrix spike recoveries outside the QC acceptance criteria, due to matrix interferences, are flagged on the analytical report.		
S002	RPD values above the acceptance limits are flagged on the analytical report.		

1. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked on the LRC)

RG-366/TRRP-13 December 2002

CPS Energy - Environmental Dept.
P.O. Box 1771
San Antonio TX, 78296-1771

Project: Calaveras Power Station- CCR Units FlyAsh Landfill

Project Number: [none]
Project Manager: Chelsey Vasbinder

Reported:
05/03/23 17:25
Received:
04/20/23 11:05

Notes:

Report No. 2304293

SAMPLE SUMMARY

Total Samples received in this work order: 7

<u>Sample ID</u>	<u>Laboratory ID</u>	<u>Matrix</u>	<u>Sampling Method</u>	<u>Date Sampled</u>	<u>Date Received</u>
JKS-31-20230418-CCR	2304293-01	Non-potable Water	Grab	04/18/23 13:43	04/20/23 11:05
JKS-33-20230419-CCR	2304293-02	Non-potable Water	Grab	04/19/23 08:20	04/20/23 11:05
JKS-45-20230418-CCR	2304293-03	Non-potable Water	Grab	04/18/23 12:58	04/20/23 11:05
JKS-46-20230418-CCR	2304293-04	Non-potable Water	Grab	04/18/23 11:08	04/20/23 11:05
JKS-60-20230419-CCR	2304293-05	Non-potable Water	Grab	04/19/23 09:25	04/20/23 11:05
DUP-001-20230419	2304293-06	Non-potable Water	Grab	04/19/23 12:00	04/20/23 11:05
FB-001-20230419	2304293-07	Non-potable Water	Grab	04/19/23 08:02	04/20/23 11:05

Notes

All quality control samples and checks are within acceptance limits unless otherwise indicated.
Test results pertain only to those items tested.
All samples were in good condition when received by the laboratory unless otherwise noted.

CPS Energy - Environmental Dept.
P.O. Box 1771
San Antonio TX, 78296-1771

Project: Calaveras Power Station- CCR Units FlyAsh Landfill

Project Number: [none]
Project Manager: Chelsey Vasbinder

Reported:
05/03/23 17:25
Received:
04/20/23 11:05

Notes:

Report No. 2304293

Sample ID #: JKS-31-20230418-CCR

Sampling Method: Grab

Lab Sample ID #: 2304293-01

Sample Matrix: Non-potable Water

Date/Time Collected: 04/18/23 13:43

Analyte	Result	ML	Flag	MDL	SQL[SDL]	Units	PrepMethod	Method	Analyzed	Analyst	Notes
General Chemistry											
<i>Batch ID > B317276</i>											
Total Dissolved Solids *	2120	3.57		2.50	3.57	mg/L	SM2540C	SM2540C	04/24/23	JA	
Anions by Ion Chromatography											
<i>Batch ID > B317261</i>											
Chloride *	389	5.00		0.052	2.60	mg/L	EPA 300.0	EPA 300.0	04/27/23	SG	
Fluoride	0.706	0.020		0.018	0.018	mg/L	EPA 300.0	EPA 300.0	04/27/23	SG	
Sulfate *	1070	5.00		0.06	2.80	mg/L	EPA 300.0	EPA 300.0	04/27/23	SG	
Total Metals By ICP											
<i>Batch ID > B317141</i>											
Boron	0.442	0.010		0.0006	0.0006	mg/L	EPA 6010B	EPA 6010B	04/24/23	XE	
Calcium *	205	1.00		0.009	0.009	mg/L	EPA 6010B	EPA 6010B	04/24/23	XE	

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San Antonio TX, 78296-1771

Project: Calaveras Power Station- CCR Units FlyAsh Landfill

Project Number: [none]
Project Manager: Chelsey Vasbinder

Reported:
05/03/23 17:25
Received:
04/20/23 11:05

Notes:

Report No. 2304293

Sample ID #: JKS-33-20230419-CCR

Sampling Method: Grab

Lab Sample ID #: 2304293-02

Sample Matrix: Non-potable Water

Date/Time Collected: 04/19/23 08:20

Analyte	Result	MLQ	Flag	MDL	SQL[SDL]	Units	PrepMethod	Method	Analyzed	Analyst	Notes
General Chemistry											
<i>Batch ID > B317278</i>											
Total Dissolved Solids *	3680	6.25		2.50	6.25	mg/L	SM2540C	SM2540C	04/25/23	JA	
Anions by Ion Chromatography											
<i>Batch ID > B317261</i>											
Chloride *	732	25.0		0.052	13.0	mg/L	EPA 300.0	EPA 300.0	04/27/23	SG	
Fluoride	1.05	0.020		0.018	0.018	mg/L	EPA 300.0	EPA 300.0	04/27/23	SG	
Sulfate *	1550	25.0		0.06	14.0	mg/L	EPA 300.0	EPA 300.0	04/27/23	SG	
Total Metals By ICP											
<i>Batch ID > B317141</i>											
Boron	0.988	0.010		0.0006	0.0006	mg/L	EPA 6010B	EPA 6010B	04/24/23	XE	
Calcium *	376	1.00		0.009	0.009	mg/L	EPA 6010B	EPA 6010B	04/24/23	XE	

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Project: Calaveras Power Station- CCR Units FlyAsh Landfill

Project Number: [none]
Project Manager: Chelsey Vasbinder

Reported:
05/03/23 17:25
Received:
04/20/23 11:05

Notes:

Report No. 2304293

Sample ID #: JKS-45-20230418-CCR

Sampling Method: Grab

Lab Sample ID #: 2304293-03

Sample Matrix: Non-potable Water

Date/Time Collected: 04/18/23 12:58

Analyte	Result	ML	Flag	MDL	SQL[SDL]	Units	PrepMethod	Method	Analyzed	Analyst	Notes
General Chemistry											
<i>Batch ID > B317276</i>											
Total Dissolved Solids *	1250	2.50		2.50	2.50	mg/L	SM2540C	SM2540C	04/24/23	JA	
Anions by Ion Chromatography											
<i>Batch ID > B317261</i>											
Chloride *	96.1	2.50		0.052	1.30	mg/L	EPA 300.0	EPA 300.0	04/27/23	SG	
Fluoride	0.087	0.020		0.018	0.018	mg/L	EPA 300.0	EPA 300.0	04/27/23	SG	
Sulfate *	598	2.50		0.06	1.40	mg/L	EPA 300.0	EPA 300.0	04/27/23	SG	
Total Metals By ICP											
<i>Batch ID > B317141</i>											
Boron	2.57	0.010		0.0006	0.0006	mg/L	EPA 6010B	EPA 6010B	04/24/23	XE	
Calcium *	139	1.00		0.009	0.009	mg/L	EPA 6010B	EPA 6010B	04/24/23	XE	

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Project: Calaveras Power Station- CCR Units FlyAsh Landfill

Project Number: [none]
Project Manager: Chelsey Vasbinder

Reported:
05/03/23 17:25
Received:
04/20/23 11:05

Notes:

Report No. 2304293

Sample ID #: JKS-46-20230418-CCR

Sampling Method: Grab

Lab Sample ID #: 2304293-04

Sample Matrix: Non-potable Water

Date/Time Collected: 04/18/23 11:08

Analyte	Result	ML	Flag	MDL	SQL[SDL]	Units	PrepMethod	Method	Analyzed	Analyst	Notes
General Chemistry											
<i>Batch ID > B317276</i>											
Total Dissolved Solids *	1120	2.50		2.50	2.50	mg/L	SM2540C	SM2540C	04/24/23	JA	
Anions by Ion Chromatography											
<i>Batch ID > B317261</i>											
Chloride *	46.2	2.50		0.052	1.30	mg/L	EPA 300.0	EPA 300.0	04/27/23	SG	
Fluoride	1.07	0.020		0.018	0.018	mg/L	EPA 300.0	EPA 300.0	04/27/23	SG	
Sulfate *	766	2.50		0.06	1.40	mg/L	EPA 300.0	EPA 300.0	04/27/23	SG	
Total Metals By ICP											
<i>Batch ID > B317141</i>											
Boron	0.425	0.010		0.0006	0.0006	mg/L	EPA 6010B	EPA 6010B	04/24/23	XE	
Calcium *	91.4	1.00		0.009	0.009	mg/L	EPA 6010B	EPA 6010B	04/24/23	XE	

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Project: Calaveras Power Station- CCR Units FlyAsh Landfill

Project Number: [none]
Project Manager: Chelsey Vasbinder

Reported:
05/03/23 17:25
Received:
04/20/23 11:05

Notes:

Report No. 2304293

Sample ID #: JKS-60-20230419-CCR

Sampling Method: Grab

Lab Sample ID #: 2304293-05

Sample Matrix: Non-potable Water

Date/Time Collected: 04/19/23 09:25

Analyte	Result	MLQ	Flag	MDL	SQL[SDL]	Units	PrepMethod	Method	Analyzed	Analyst	Notes
General Chemistry											
<i>Batch ID > B317278</i>											
Total Dissolved Solids *	2310	3.57		2.50	3.57	mg/L	SM2540C	SM2540C	04/25/23	JA	
Anions by Ion Chromatography											
<i>Batch ID > B317261</i>											
Chloride *	287	5.00		0.052	2.60	mg/L	EPA 300.0	EPA 300.0	04/27/23	SG	
Fluoride	0.218	0.020		0.018	0.018	mg/L	EPA 300.0	EPA 300.0	04/27/23	SG	
Sulfate *	1220	5.00		0.06	2.80	mg/L	EPA 300.0	EPA 300.0	04/27/23	SG	
Total Metals By ICP											
<i>Batch ID > B317141</i>											
Boron	0.579	0.010		0.0006	0.0006	mg/L	EPA 6010B	EPA 6010B	04/24/23	XE	
Calcium *	358	1.00		0.009	0.009	mg/L	EPA 6010B	EPA 6010B	04/24/23	XE	

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Project: Calaveras Power Station- CCR Units FlyAsh Landfill

Project Number: [none]
Project Manager: Chelsey Vasbinder

Reported:
05/03/23 17:25
Received:
04/20/23 11:05

Notes:

Report No. 2304293

Sample ID #: DUP-001-20230419

Sampling Method: Grab

Lab Sample ID #: 2304293-06

Sample Matrix: Non-potable Water

Date/Time Collected: 04/19/23 12:00

Analyte	Result	MLQ	Flag	MDL	SQL[SDL]	Units	PrepMethod	Method	Analyzed	Analyst	Notes
General Chemistry											
<i>Batch ID > B317278</i>											
Total Dissolved Solids *	3630	6.25		2.50	6.25	mg/L	SM2540C	SM2540C	04/25/23	JA	
Anions by Ion Chromatography											
<i>Batch ID > B317261</i>											
Chloride *	752	25.0		0.052	13.0	mg/L	EPA 300.0	EPA 300.0	04/27/23	SG	
Fluoride	1.05	0.020		0.018	0.018	mg/L	EPA 300.0	EPA 300.0	04/27/23	SG	
Sulfate *	1600	25.0		0.06	14.0	mg/L	EPA 300.0	EPA 300.0	04/27/23	SG	
Total Metals By ICP											
<i>Batch ID > B317141</i>											
Boron	0.996	0.010		0.0006	0.0006	mg/L	EPA 6010B	EPA 6010B	04/24/23	XE	
Calcium *	386	1.00		0.009	0.009	mg/L	EPA 6010B	EPA 6010B	04/24/23	XE	

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P.O. Box 1771
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Project: Calaveras Power Station- CCR Units FlyAsh Landfill

Project Number: [none]
Project Manager: Chelsey Vasbinder

Reported:
05/03/23 17:25
Received:
04/20/23 11:05

Notes:

Report No. 2304293

Sample ID #: FB-001-20230419

Sampling Method: Grab

Lab Sample ID #: 2304293-07

Sample Matrix: Non-potable Water

Date/Time Collected: 04/19/23 08:02

Analyte	Result	ML	Flag	MDL	SQL[SDL]	Units	PrepMethod	Method	Analyzed	Analyst	Notes
General Chemistry											
<i>Batch ID > B317278</i>											
Total Dissolved Solids *	< 2.50	2.50		2.50	2.50	mg/L	SM2540C	SM2540C	04/25/23	JA	
Anions by Ion Chromatography											
<i>Batch ID > B317261</i>											
Chloride *	< 0.052	0.100		0.052	0.052	mg/L	EPA 300.0	EPA 300.0	04/27/23	SG	
Fluoride	< 0.018	0.020		0.018	0.018	mg/L	EPA 300.0	EPA 300.0	04/27/23	SG	
Sulfate *	< 0.06	0.10		0.06	0.06	mg/L	EPA 300.0	EPA 300.0	04/27/23	SG	
Total Metals By ICP											
<i>Batch ID > B317141</i>											
Boron	0.002	0.010	J	0.0006	0.0006	mg/L	EPA 6010B	EPA 6010B	04/24/23	XE	
Calcium *	0.559	1.00	J	0.009	0.009	mg/L	EPA 6010B	EPA 6010B	04/24/23	XE	

CPS Energy - Environmental Dept.

P.O. Box 1771

San Antonio TX, 78296-1771

Notes:

Project: Calaveras Power Station- CCR Units FlyAsh Landfill

Project Number: [none]

Project Manager: Chelsey Vasbinder

Reported:

05/03/23 17:25

Received:

04/20/23 11:05

Report No. 2304293
General Chemistry - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch B317276 - SM2540C									
Blank (B317276-BLK1)				Prepared: 04/24/23 15:30 Analyzed: 04/24/23 16:50					
Total Dissolved Solids	<2.50	2.50	mg/L				-		
LCS (B317276-BS1)				Prepared: 04/24/23 15:30 Analyzed: 04/24/23 16:50					
Total Dissolved Solids	108	2.50	mg/L	100		108	80-120		
LCS Dup (B317276-BSD1)				Prepared: 04/24/23 15:30 Analyzed: 04/24/23 16:50					
Total Dissolved Solids	95.0	2.50	mg/L	100		95	80-120	13	20
Duplicate (B317276-DUP1)				Source: 2304293-01		Prepared: 04/24/23 15:30 Analyzed: 04/24/23 16:50			
Total Dissolved Solids	2200	3.57	mg/L		2120		-	4	20
Duplicate (B317276-DUP2)				Source: 2304295-06		Prepared: 04/24/23 15:30 Analyzed: 04/24/23 16:50			
Total Dissolved Solids	4060	8.33	mg/L		3970		-	2	20
Batch B317278 - SM2540C									
Blank (B317278-BLK1)				Prepared: 04/25/23 15:00 Analyzed: 04/25/23 16:45					
Total Dissolved Solids	<2.50	2.50	mg/L				-		
LCS (B317278-BS1)				Prepared: 04/25/23 15:00 Analyzed: 04/25/23 16:45					
Total Dissolved Solids	108	2.50	mg/L	100		108	80-120		
LCS Dup (B317278-BSD1)				Prepared: 04/25/23 15:00 Analyzed: 04/25/23 16:45					
Total Dissolved Solids	95.0	2.50	mg/L	100		95	80-120	13	20
Duplicate (B317278-DUP1)				Source: 2304293-05		Prepared: 04/25/23 15:00 Analyzed: 04/25/23 16:45			
Total Dissolved Solids	2480	3.57	mg/L		2310		-	7	20

CPS Energy - Environmental Dept.
P.O. Box 1771
San Antonio TX, 78296-1771

Project: Calaveras Power Station- CCR Units FlyAsh Landfill

Project Number: [none]
Project Manager: Chelsey Vasbinder

Reported:
05/03/23 17:25
Received:
04/20/23 11:05

Notes:

Report No. 2304293

General Chemistry - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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Batch B317278 - SM2540C

Duplicate (B317278-DUP2)

Source: 2304294-11

Prepared: 04/25/23 15:00 Analyzed: 04/25/23 16:45

Total Dissolved Solids	1440	3.12	mg/L	1400	-	2	20
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CPS Energy - Environmental Dept.
P.O. Box 1771
San Antonio TX, 78296-1771

Project: Calaveras Power Station- CCR Units FlyAsh Landfill

Project Number: [none]
Project Manager: Chelsey Vasbinder

Reported:
05/03/23 17:25
Received:
04/20/23 11:05

Notes:

Report No. 2304293

Anions by Ion Chromatography - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch B317252 - EPA 300.0									
Blank (B317252-BLK1)				Prepared: 04/27/23 16:00 Analyzed: 04/27/23 18:01					
Fluoride	<0.020	0.020	mg/L				-		
LCS (B317252-BS1)				Prepared: 04/27/23 16:00 Analyzed: 04/27/23 18:19					
Fluoride	1.07	0.020	mg/L	1.00		107	90-110		
LCS Dup (B317252-BSD1)				Prepared: 04/27/23 16:00 Analyzed: 04/27/23 18:37					
Fluoride	1.01	0.020	mg/L	1.00		101	90-110	5	20
Duplicate (B317252-DUP1)				Source: 2304293-03		Prepared: 04/27/23 16:00 Analyzed: 04/27/23 21:54			
Fluoride	0.0875	0.020	mg/L		0.0869		-	0.7	20
Matrix Spike (B317252-MS1)				Source: 2304293-03		Prepared: 04/27/23 16:00 Analyzed: 04/27/23 22:12			
Fluoride	0.945	0.020	mg/L	1.00	0.0869	86	80-120		
Matrix Spike Dup (B317252-MSD1)				Source: 2304293-03		Prepared: 04/27/23 16:00 Analyzed: 04/27/23 22:29			
Fluoride	0.945	0.020	mg/L	1.00	0.0869	86	80-120	0.04	20
Batch B317261 - EPA 300.0									
Blank (B317261-BLK1)				Prepared: 04/27/23 16:00 Analyzed: 04/27/23 18:01					
Chloride	<0.100	0.100	mg/L				-		
Sulfate	<0.10	0.10	mg/L				-		
LCS (B317261-BS1)				Prepared: 04/27/23 16:00 Analyzed: 04/27/23 18:19					
Chloride	5.47	0.100	mg/L	5.00		109	90-110		
Sulfate	5.51	0.10	mg/L	5.00		110	90-110		

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CPS Energy - Environmental Dept.
P.O. Box 1771
San Antonio TX, 78296-1771

Project: Calaveras Power Station- CCR Units FlyAsh Landfill

Project Number: [none]
Project Manager: Chelsey Vasbinder

Reported:
05/03/23 17:25
Received:
04/20/23 11:05

Notes:

Report No. 2304293

Anions by Ion Chromatography - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	
Batch B317261 - EPA 300.0										
LCS Dup (B317261-BSD1)				Prepared: 04/27/23 16:00 Analyzed: 04/27/23 18:37						
Chloride	5.48	0.100	mg/L	5.00		110	90-110	0.1	20	
Sulfate	5.51	0.10	mg/L	5.00		110	90-110	0.04	20	L
Duplicate (B317261-DUP1)				Source: 2304293-03		Prepared: 04/27/23 16:00 Analyzed: 04/27/23 23:05				
Chloride	95.8	2.50	mg/L		96.1		-	0.4	20	
Sulfate	598	2.50	mg/L		598		-	0.03	20	
Matrix Spike (B317261-MS1)				Source: 2304293-03		Prepared: 04/27/23 16:00 Analyzed: 04/27/23 22:12				
Chloride	119	0.100	mg/L	5.00	96.1	454	80-120			M
Sulfate	742	0.10	mg/L	5.00	598	NR	80-120			M
Matrix Spike Dup (B317261-MSD1)				Source: 2304293-03		Prepared: 04/27/23 16:00 Analyzed: 04/27/23 22:29				
Chloride	119	0.100	mg/L	5.00	96.1	452	80-120	0.09	20	M
Sulfate	742	0.10	mg/L	5.00	598	NR	80-120	0.02	20	M

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Project Number: [none]
Project Manager: Chelsey Vasbinder

Reported:
05/03/23 17:25
Received:
04/20/23 11:05

Notes:

Report No. 2304293

Total Metals By ICP - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch B317141 - EPA 6010B									
Blank (B317141-BLK1)					Prepared: 04/24/23 13:00 Analyzed: 04/24/23 17:14				
Boron	<0.010	0.010	mg/L				-		
Calcium	<1.00	1.00	mg/L				-		
LCS (B317141-BS1)					Prepared: 04/24/23 13:00 Analyzed: 04/24/23 17:25				
Boron	1.90	0.010	mg/L	2.00		95	85-115		
Calcium	1.87	1.00	mg/L	2.00		94	85-115		
LCS Dup (B317141-BSD1)					Prepared: 04/24/23 13:00 Analyzed: 04/24/23 17:31				
Boron	1.88	0.010	mg/L	2.00		94	85-115	0.9	20
Calcium	1.86	1.00	mg/L	2.00		93	85-115	0.5	20
Duplicate (B317141-DUP1)					Source: 2304292-01 Prepared: 04/24/23 13:00 Analyzed: 04/24/23 17:53				
Boron	0.392	0.010	mg/L		0.415		-	6	20
Calcium	160	1.00	mg/L		166		-	4	20
Duplicate (B317141-DUP2)					Source: 2304293-05 Prepared: 04/24/23 13:00 Analyzed: 04/24/23 19:40				
Boron	0.561	0.010	mg/L		0.579		-	3	20
Calcium	352	1.00	mg/L		358		-	2	20
Matrix Spike (B317141-MS1)					Source: 2304292-01 Prepared: 04/24/23 13:00 Analyzed: 04/24/23 17:59				
Boron	1.72	0.010	mg/L	2.00	0.415	65	75-125		M
Calcium	159	1.00	mg/L	2.00	166	NR	75-125		M
Matrix Spike (B317141-MS2)					Source: 2304293-05 Prepared: 04/24/23 13:00 Analyzed: 04/24/23 19:46				
Boron	2.62	0.010	mg/L	2.00	0.579	102	75-125		
Calcium	352	1.00	mg/L	2.00	358	NR	75-125		M
Matrix Spike Dup (B317141-MSD1)					Source: 2304292-01 Prepared: 04/24/23 13:00 Analyzed: 04/24/23 18:05				
Boron	1.69	0.010	mg/L	2.00	0.415	64	75-125	2	20
Calcium	163	1.00	mg/L	2.00	166	NR	75-125	3	20

CPS Energy - Environmental Dept.
P.O. Box 1771
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Project: Calaveras Power Station- CCR Units FlyAsh Landfill

Project Number: [none]
Project Manager: Chelsey Vasbinder

Reported:
05/03/23 17:25
Received:
04/20/23 11:05

Notes:

Report No. 2304293

Total Metals By ICP - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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Batch B317141 - EPA 6010B

Matrix Spike Dup (B317141-MSD2)		Source: 2304293-05		Prepared: 04/24/23 13:00		Analyzed: 04/24/23 19:52			
Boron	2.62	0.010	mg/L	2.00	0.579	102	75-125	0.08	20
Calcium	336	1.00	mg/L	2.00	358	NR	75-125	5	20

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P.O. Box 1771
San Antonio TX, 78296-1771

Project: Calaveras Power Station- CCR Units FlyAsh Landfill

Project Number: [none]
Project Manager: Chelsey Vasbinder

Reported:
05/03/23 17:25
Received:
04/20/23 11:05

Notes:

Report No. 2304293

DEFINITIONS

*	TNI / NELAC accredited analyte
PQL	Practical Quantitation Limit
MCL	Maximum Contaminant Level
mg/Kg	Milligrams per Kilogram (Parts per Million)
mg/L	Milligrams per Liter (Parts per Million)
PPM	Parts per Million
ND	This qualifier indicates that the analyte was analyzed but not detected above the MDL
J	This qualifier indicates that the analyte is an estimate value between MQL and MDL
SQL	Sample Quantitation Limit
MQL	Method Quantitation Limit
MDL	Method Detection Limit
L	LCS/LCSD recovery is outside QC limits, the results may have a slight bias.
M	MS/MSD recovery is outside QC limits due to possible matrix interferences, results may have a slight bias .
S	RPD is outside QC limits.
RMCCCL	Recommended Maximum Concentration of Contaminants Level
μR/hr	MicroRoentgens per hour (Measure of Radioactivity Level)
HT	Sample received past holdtime
IC	Improper Container for this analyte(s)
IT	Improper Temperature
IP	Improper preservation for this analyte(s)
V	Insufficient Volume
B	Sample collected in Bulk
AB	VOA Vial contained air bubbles.
OP	ortho-Phosphate was not filtered in the field within 15minutes of collection.
CCV	Continuing Calibration Verification Standard.
ICV	Initial Calibration Verification Standard.
Surr L	Surrogate recovery is low outside QC limits.
Surr H	Surrogate recovery is high outside QC limits.
NR	Not Recovered due to source sample concentration exceeds spiked concentration.

Test Methods followed by the laboratory are referenced in the following approved methodology, unless otherwise specified.

Standard Methods for the Examination of Water and Wastewater, 23rd Edition, 2017
Methods for Chemical Analysis of Water and Wastes, EPA 600/4-79-020, Rev. March 1983
EPA SW Test Methods for the Examination of Solid Waste, SW-846, 1996

CPS Energy - Environmental Dept.
P.O. Box 1771
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Project: Calaveras Power Station- CCR Units FlyAsh Landfill

Project Number: [none]
Project Manager: Chelsey Vasbinder

Reported:
05/03/23 17:25
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04/20/23 11:05

Notes:

Report No. 2304293

Aimee Landon For Marcela Gracia Hawk, President For

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Richard Hawk, General Manager

TRRP

2304293

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Client Information	Project Information	Laboratory Information	COC Information
CPS Energy - Environmental Dept. P.O. Box 1771 San Antonio TX 78296-1771 Phone: (210) 353-4719 Fax: (210) 353-4271	Calaveras Power Station- CCR Units FlyAsh Landfill Number: [none] Sample count: 7 TAT: 7	San Antonio Testing Laboratory 1610 S. Laredo St San Antonio TX 78207 Phone: 210-229-9920 Fax: 210-229-9921	Shipped via: Walk-in

#	Client Information	Project Information	Laboratory Information	COC Information
#1	JKS-31-20230418-CCR 04/18/2023 13:43 Grab / Liquid	B_T TAT: 7 Ca_T TAT: 7 Chloride_IC TAT: 7 Fluoride_IC TAT: 7 Sulfate_IC TAT: 7 TDS TAT: 7	Analyses	Containers 1 L Plastic Unpreserved (1) 250 mL Plastic HNO3 (1)
Comments: TRRP REPORTING				
#2	JKS-33-20230419-CCR 04/19/2023 08:20 Grab / Liquid	B_T TAT: 7 Ca_T TAT: 7 Chloride_IC TAT: 7 Fluoride_IC TAT: 7 Sulfate_IC TAT: 7 TDS TAT: 7	Analyses	Containers 1 L Plastic Unpreserved (1) 250 mL Plastic HNO3 (1)
Comments: TRRP REPORTING				
#3	JKS-45-20230418-CCR 04/18/2023 12:58 Grab / Liquid	B_T TAT: 7 Ca_T TAT: 7 Chloride_IC TAT: 7 Fluoride_IC TAT: 7 Sulfate_IC TAT: 7 TDS TAT: 7	Analyses	Containers 1 L Plastic Unpreserved (1) 250 mL Plastic HNO3 (1)
Comments: TRRP REPORTING				
#4	JKS-46-20230418-CCR 04/18/2023 11:08 Grab / Liquid	B_T TAT: 7 Ca_T TAT: 7 Chloride_IC TAT: 7 Fluoride_IC TAT: 7 Sulfate_IC TAT: 7 TDS TAT: 7	Analyses	Containers 1 L Plastic Unpreserved (1) 250 mL Plastic HNO3 (1)
Comments: TRRP REPORTING				
#5	JKS-60-20230419-CCR 04/19/2023 09:25 Grab / Liquid	B_T TAT: 7 Ca_T TAT: 7 Chloride_IC TAT: 7 Fluoride_IC TAT: 7 Sulfate_IC TAT: 7 TDS TAT: 7	Analyses	Containers 1 L Plastic Unpreserved (1) 250 mL Plastic HNO3 (1)
Comments: TRRP REPORTING				
#6	DUP-001-20230419 04/19/2023 12:00 Grab / Liquid	B_T TAT: 7 Ca_T TAT: 7 Chloride_IC TAT: 7 Fluoride_IC TAT: 7 Sulfate_IC TAT: 7 TDS TAT: 7	Analyses	Containers 1 L Plastic Unpreserved (1) 250 mL Plastic HNO3 (1)
Comments: TRRP REPORTING				

TRRP

2304293

Submission key K110-HBA-768S	NOT SUBMITTED	Page 2/2
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#7	FB-001-20230419 04/19/2023 08:02 Grab / Liquid	Analyses B_T TAT: 7 Ca_T TAT: 7 Chloride_IC TAT: 7 Fluoride_IC TAT: 7 Sulfate_IC TAT: 7 TDS TAT: 7	Containers 1 L Plastic Unpreserved (1) 250 mL Plastic HNO3 (1)
Comments: TRRP REPORTING			

2.22 12.22 TG #7

Relinquished by	Date/Time	Accepted by	Date/Time
Melissa Vargas <i>Mel V</i>	4-20-23/1015	LANCE SIMMONS <i>Lance S</i>	4-20-23/1015
LANCE SIMMONS <i>Lance S</i>	4-22-23 11:25	A J Lata <i>A J Lata</i>	APR 20 2023 1105

Sample Receipt Checklist

Client: CPS Energy - Environmental Dept. Project: Calaveras Power Station- CCR Units FlyAsh	Project Manager: Marcela Gracia Hawk Project Number: [none]
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Report To:

Chelsey Vasbinder

SATL Report Number: 2304293

Work Order Due by:	05/04/23 17:00 (10 day TAT)	Date Received:	04/20/23 11:05
Received By:	Aimee Landon	Date Logged In:	04/20/23 11:37
Logged In By:	Aimee Landon		

Sample(s) Received on ICE/evidence of Ice (cooler with melted ice,etc):	Yes
Sample temperature at receipt *:	2.2°C
Custody Seals Present:	No
All containers intact:	Yes
Sample labels/COC agree:	Yes
Samples Received within Holding time :	Yes
Samples appropriately preserved **:	Yes
Containers received broken/damaged/leaking:	No
Air bubbles present in VOA vials for VOC/TPH analyses, if applicable:	Not Applicable
TRRP 13 Reporting requested?	Yes
BacT Sample bottles filled to volume (100mL mark), if applicable:	Not Applicable
LCR Sample bottles filled to volume (1 Liter mark), if applicable:	Not Applicable
Subcontracting required for any analyses:	No
RUSH turnaround time requested:	Yes
Requested Turnaround Time:	10 Business days
Samples delivered via :	Walk-in
Air bill included if Samples were shipped:	No
Other deviations not meeting SATL sample acceptance criteria notated on CoC:	None

Notes:

* Samples delivered to the laboratory on the same day that they are collected may not meet thermal preservation criteria (>0°C but <6°C) but are acceptable, if they arrive on ice.

** If improperly preserved, notate client authorization on CoC to proceed with analysis.

 Checked By : Aimee Landon

 Date : 04/20/23 11:05

 SATL#FO001
 Revised 09/15/2022

Data Usability Summary
Sampling Event/October 2023

CPS Energy Calaveras Power Station
Coal Combustion Residuals (CCR) Units
San Antonio, Texas

This data usability summary (DUS) was prepared in general accordance with the following key documents:

- 1) *Groundwater Sampling and Analysis Program*, CPS Energy, Calaveras Power Station (ERM, August 2023);
- 2) Texas Commission on Environmental Quality's (TCEQ's) *Review and Reporting of COC Concentration Data Under TRRP* (RG-366/TRRP-13, May 2010); and
- 3) Environmental Protection Agency's (EPA's) *National Functional Guidelines for Inorganic Superfund Methods Data Review* (EPA-540-R-2017-001, January 2017).

Environmental Resources Management (ERM) reviewed four laboratory analytical data packages (2310293, 2310294, 2310304, 2310305) from San Antonio Testing Laboratory (SATL) of San Antonio, Texas for the analysis of ground water samples collected on 17 October to 18 October 2023 at the CPS Energy Calaveras Power Station in San Antonio, Texas. Analytes Radium-226, Radium-228, and Lithium were subbed to Eurofins of St. Louis by SATL for analysis. Data were reviewed to assess conformance with the requirements of the above-referenced documents.

SATL and Eurofins are NELAC-accredited under the Texas Laboratory Accreditation Program for the matrices, analytes, and methods of analysis requested on the chain-of-custody documentation. SATL and Eurofins National Environmental Laboratory Accreditation Program (NELAP) certificates applicable to the period during which the laboratories generated the data in these reports is referenced in the laboratory reports.

Intended Use of Data: To provide concentration data on Appendix III Coal Combustion Residuals (CCR) Rule parameters in ground water at the CPS Energy Calaveras Facility.

Analyses requested for the laboratory packages include the following:

- EPA 300.0 – Inorganic Anions (Chloride, Fluoride, Sulfate) by Ion Chromatography (IC)
- EPA 6010B – Total Metals by Inductively Coupled Plasma-Atomic Emission Spectroscopy (ICP-AES)
- EPA 903.0 and 904.0 – Radium-226 and Radium-228 by Gas Flow Proportional Counters (GFPC)
- SW846 6010D – Total Metals (Lithium) by ICP
- EPA 7470A – Mercury by Cold-Vapor Atomic Absorption (CVAA)
- SM2540C – Total Dissolved Solids

Data were reviewed and validated as described in the above-referenced documents, and the results of the review/validation are discussed in this Data Usability Summary (DUS). The following laboratory submittals and field data were examined:

- The reportable data;
- The laboratory review checklist (LRC) and associated exception report (ER); and
- The Quality Assurance/Quality Control (QA/QC) data supplied by the laboratory.

The results of supporting QC analyses are summarized on the LRC and ER, which are included in this review. The LRC, associated ER, QA/QC data, and reportable data covered by this review are included in the laboratory reports.

The Laboratory Data Package Cover Pages and Laboratory Review Checklists provided in the analytical data packages are outdated and inconsistent with current TRRP-13 guidance (May 2010). It is highly recommended that required items in the current TRRP-13 guidance be followed for laboratory data packages generated to satisfy corrective action program requirements. Data were not qualified based on this deficiency.

Introduction

Twenty-six (26) groundwater samples, two (2) duplicate samples, two (2) field blanks, and one (1) equipment blank were analyzed for select metals and anions. Seven (7) groundwater samples, one (1) duplicate sample, and one (1) field blank was also analyzed for Radium and Lithium. Table 1 lists the sample identifications cross-referenced to laboratory identifications.

Project Data Quality Objectives (DQO)

The quantitative project DQO limits specified in the *Groundwater Sampling and Analysis Program* were utilized as follows:

- Recovery (%R)
 - Spike samples 75-125%
 - Non-spike samples 70-130%
- Relative Percent Difference (RPD) <20%

Data were qualified in accordance with the TCEQ's TRRP-13 guidance document, including data qualifier codes and data qualifier code definitions.

Data Review / Validation Results

Analytical Results

Ground water analytical results were reported in milligrams per liter (mg/L) for metals and anions. Analytical results from Eurofins was reported in micrograms per liter (µg/L) for metals and in picocuries per liter (pCi/L) for radiological analysis. Non-detect results are reported as less than the value of the sample detection limits (SDLs). The method quantitation limits (MQLs) are also reported.

Preservation and Holding Times

The samples were evaluated for agreement with the chain-of-custody forms. The samples were received in the appropriate containers and in good condition with the paperwork properly completed.

Sample receipt temperature of the cooler at SATL were within or less than the acceptance criteria of 4 +/- 2 degrees Celsius. Sample receipt temperature for lab reports 2310293, 2310294, 2310304, 2310305 were 4.1°C, 3.9°C, 4°C, and 3.4°C, respectively. No qualifiers were added to the data. Samples were prepared and analyzed within holding times as specified by the methods. The samples were preserved in the field as specified by the methods, with the following exceptions.

In lab report 2310304, sample FB-002-20231018, and in lab report 2310305, samples JKS-36-20231017-CCR, JKS-61-20231017-CCR, and JKS-72-20231017-CCR were analyzed one day outside of holding time for TDS. The results were qualified as JL, estimated with low bias, for detected results or non-detect and estimated with low bias, UJL, for non-detect results.

For radium analysis, the reference method required samples to be preserved to a pH of <2. If samples are collected without preservation, they must be received by the laboratory within 5 days for preservation according to Method 904 specifications. One sample, JKS-72-20231017-CCR, in lab report 2310305 was received by the laboratory unpreserved 6 days after the sample was collected. The sample was preserved to the appropriate pH in the laboratory; however, the analytical results were still qualified as JL, estimated low, for detected results for radium.

Calibrations

According to the LRC, initial calibrations, continuing calibrations, and calibration verifications data met method requirements for metals and anions, as applicable.

Mass Spectral Tuning

As documented in the LRC, mass spectrometry instrument performance tunes were either not applicable (appropriate compound for the method) or met specific requirements for the requested analytical methods (ion abundance data within limits).

Internal Standards

As documented in the LRC, internal standard area counts and retention times were within or not applicable for the requested analytical methods.

Percent Yield

Ba and Y Carrier percent yields for radium analysis were within laboratory acceptance limits.

Blanks

Metals, radium, and anions were not detected in the method blanks, field blanks, or equipment blanks, with the following exceptions.

For laboratory report 2310294, boron (0.004J) and calcium (0.076J) were detected in the field blank. For laboratory report 2310304, boron (0.003J), calcium (0.057J), and chloride (0.052J) were detected in the field blank. For laboratory report 2310295, boron (0.007J) and calcium (0.122J) were detected in the equipment blank. However, detected results for calcium, boron, and chloride were greater than five times the field or equipment blank concentrations; as such, no qualifiers were required.

Laboratory Control Samples

Laboratory control sample and duplicate (LCS/LCSD) precision and accuracy results (*i.e.*, percent recoveries and RPDs) for all analyses were within project DQO acceptance limits, with the following exception.

In lab reports 2310294, 2310304, and 2310305, LCS/LCSD percent recoveries for mercury were above laboratory limits, but within DQO limits; therefore, no qualifiers were required.

Matrix Spike/Matrix Spike Duplicates

Matrix spike/matrix spike duplicate (MS/MSD) precision and accuracy results (*i.e.*, percent recoveries and RPDs) using project samples were within project DQO acceptance limits, with the following exceptions.

In lab report 2310293, MS/MSD analysis was performed on project samples JKS-46-20231017-CCR for anions and JKS-31-20231018-CCR and JKS-51-20231018-CCR for metals. The MS and MSD had recoveries above laboratory and DQO limits or Not Recoverable (NR) for chloride and sulfate. The parent concentrations for chloride and sulfate were greater than four times the amount spiked into it; therefore, no qualifiers were required for high MS/MSD recoveries for chloride or the NR-flagged recoveries for sulfate. The MS and MSD recoveries for metals were run on two project-related samples in the same batch. The MS/MSD recoveries for boron and calcium were above laboratory and DQO limits or Not Recoverable (NR) for calcium. The parent concentration for calcium was greater than four times the amount spiked into it; therefore, no qualifiers were required for calcium. Additionally, MS/MSD recoveries for boron were within DQO limits associated with sample JKS-51-20231018-CCR in the same batch. As such, only the parent sample would be qualified as estimated with high bias (JH) due to high MS/MSD recoveries.

In lab report 2310294, MS/MSD analysis was performed on project samples JKS-46-20231017-CCR and FB-001-20231018 for anions and JKS-31-20231018-CCR and JKS-51-20231018-CCR for metals. The MS and MSD had recoveries above laboratory and DQO limits or Not Recoverable (NR) for chloride and sulfate. The parent concentrations for chloride and sulfate were greater than four times the amount spiked into it; therefore, no qualifiers were required for high MS/MSD recoveries for chloride or the NR-flagged recoveries for sulfate. The MS and MSD had recoveries above laboratory and DQO limits for cadmium, calcium, selenium, arsenic, and boron; however, MS/MSD recoveries for arsenic and boron were within DQO limits associated with sample JKS-31-20231018-CCR in the same batch. As such, only the parent sample JKS-51-20231018-CCR was qualified as estimated with high bias (JH) for arsenic and boron (if analyzed) due to high MS/MSD recoveries. All samples in the batch with reported detections for cadmium and selenium were qualified as estimated with high bias (JH) due to high MS/MSD recoveries. The MS/MSD recoveries were Not Recoverable (NR) for Calcium as the parent concentrations were greater than four times the amount spiked into it; therefore, no qualifiers were required for calcium.

In lab report 2310304, MS/MSD analysis was performed on project sample JKS-65-20231018-PDP for anions. The MS and MSD had recoveries above laboratory and DQO limits or Not Recoverable (NR) and MSD RPDs higher than DQO limits for chloride and sulfate. The parent concentrations for chloride and sulfate were greater than four times the amount spiked into it; therefore, no qualifiers were required for high MS/MSD recoveries or RPDs for sulfate or the NR-flagged recoveries for chloride.

In lab report 2310305, MS/MSD analysis was performed on project sample JKS-47-20231018-CCR for anions. The MS and MSD had Not Recoverable (NR) recoveries for chloride and sulfate. The parent concentrations for chloride and sulfate were greater than four times the amount spiked into it; therefore, no qualifiers were required for the NR-flagged recoveries.

In lab report 2310305, MS/MSD analysis was performed on project sample 2310305-01 for metals. MS/MSD recoveries were below DQO limits for antimony, barium, beryllium, boron, chromium, and cobalt and were above DQO limits or Not Recoverable (NR) for cadmium and calcium. The parent concentration for calcium was greater than four times the amount spiked into it; therefore, no qualifiers were required for calcium. All samples in the batch with reported concentrations for antimony, barium, beryllium, boron, chromium, and cobalt were qualified as estimated with low bias (JL) or non-detect and estimated with low bias (UJL) due to low MS/MSD recoveries. All samples in the batch with reported detections for cadmium were qualified as estimated with high bias (JH) for cadmium (if analyzed) due to high MS/MSD recoveries.

Post Digestion Spike

According to the LRC, post digestion spike (PDS) recoveries were within method acceptance limits.

Serial Dilution

According to the LRC, serial dilution (SD) percent differences (%D) were within method acceptance limits.

Laboratory Precision

Laboratory duplicate RPD using project samples were within project DQO acceptance limits, with the following exceptions.

In lab report 2310293, the laboratory duplicate RPDs for boron and calcium, performed on project samples JKS-31-20231018-CCR and JKS-51-20231018-CCR, were higher than DQO limits only for sample JKS-51-20231018-CCR. Since both laboratory duplicates were run on the same batch, only the parent sample, JKS-51-20231018-CCR, was qualified as estimated (J) for boron and calcium due to high laboratory precision RPD.

In lab report 2310294, the laboratory duplicate RPDs for arsenic, barium, boron, calcium, and molybdenum, performed on project samples JKS-31-20231018-CCR and JKS-51-20231018-CCR, were higher than DQO limits; however, only arsenic RPDs were above DQO limits for both parent samples. Affected samples in the batch had detected results less than the MQL; as such, no qualifiers were required for arsenic. Since both laboratory duplicates were run on the same batch, only the parent sample, JKS-31-20231018-CCR or JKS-51-20231018-CCR would need to be qualified for molybdenum, boron, barium, calcium, and/or lead. However, only boron and calcium were analyzed in parent sample JKS-51-20231018-CCR; as such, only boron and calcium were qualified.

In lab report 2310305, the laboratory duplicate RPD for sulfate, performed on project sample JKS-47-20231018-CCR, was higher than DQO limits. Affected samples in the batch detected at concentrations above the MQL for sulfate were qualified as estimated, J, for high laboratory precision RPD.

Field Precision

Two pairs of field precision samples were collected during the November 2023 event (JKS-56-20231017-CCR / DUP-001-20231017 and JKS-65-20231018-PDP / DUP-002-20231018). RPD calculations for detected analytes for each field precision pair are shown in Table 2. All RPD were within DQO limits or had sample concentrations less than two times the value of the MQL; as such, no qualifiers were required.

Field Procedures

Sample collection procedures were in accordance with EPA ground water sampling protocols and the *Ground Water Sampling and Analysis Program*, dated August 2023.

SUMMARY

Ground water analytical results are useable for the purpose of provide concentration data on Appendix III Coal Combustion Residuals (CCR) Rule parameters in ground water at the CPS Energy Calaveras Power Station. Table 2 lists qualified data.

Tables

TABLE 1
Sample Cross-Reference

CPS Energy
Calaveras Power Station

Lab Report	Lab Identification	Field Identification	Sample Date	Sample Type
2310293	2310293-01	JKS-31-20231018-CCR	10/18/2023	Groundwater
2310293	2310293-02	JKS-33-20231017-CCR	10/17/2023	Groundwater
2310293	2310293-03	JKS-45-20231017-CCR	10/17/2023	Groundwater
2310293	2310293-04	JKS-46-20231017-CCR	10/17/2023	Groundwater
2310293	2310293-05	JKS-60-20231017-CCR	10/17/2023	Groundwater
2310294	2310294-01	JKS-48-20231017-CCR	10/17/2023	Groundwater
2310294	2310294-02	JKS-49-20231017-CCR	10/17/2023	Groundwater
2310294	2310294-03	JKS-50R-20231017-CCR	10/17/2023	Groundwater
2310294	2310294-04	JKS-51-20231018-CCR	10/28/2023	Groundwater
2310294	2310294-05	JKS-52-20231017-CCR	10/17/2023	Groundwater
2310294	2310294-06	JKS-53-20231017-CCR	10/17/2023	Groundwater
2310294	2310294-07	JKS-54-20231017-CCR	10/17/2023	Groundwater
2310294	2310294-08	JKS-56-20231017-CCR	10/17/2023	Groundwater
2310294	2310294-09	JKS-70-20231018-CCR	10/18/2023	Groundwater
2310294	2310294-10	FB-001-20231018	10/18/2023	Field Blank
2310294	2310294-11	DUP-001-20231017	10/17/2023	Duplicate Sample
2310294	2310294-12	JKS-55-20231017-CCR	10/17/2023	Groundwater
2310304	2310304-01	JKS-65-20231018-PDP	10/18/2023	Groundwater
2310304	2310304-02	JKS-66-20231018-PDP	10/18/2023	Groundwater
2310304	2310304-03	JKS-67-20231018-PDP	10/18/2023	Groundwater
2310304	2310304-04	JKS-68-20231018-PDP	10/18/2023	Groundwater
2310304	2310304-05	JKS-69-20231018-PDP	10/18/2023	Groundwater
2310304	2310304-06	DUP-002-20231018	10/18/2023	Duplicate Sample
2310304	2310304-07	FB-002-20231018	10/18/2023	Field Blank
2310305	2310305-01	JKS-36-20231017-CCR	10/17/2023	Groundwater
2310305	2310305-02	JKS-47-20231018-CCR	10/17/2023	Groundwater
2310305	2310305-03	JKS-61-20231017-CCR	10/18/2023	Groundwater
2310305	2310305-04	JKS-63R-20231018-CCR	10/17/2023	Groundwater
2310305	2310305-05	JKS-64-20231018-CCR	10/18/2023	Groundwater
2310305	2310305-06	JKS-72-20231017-CCR	10/17/2023	Groundwater
2310305	2310305-07	EB-001-20231018-CCR	10/18/2023	Equipment Blank

TABLE 2
Data Usability Qualifiers

CPS Energy
Calaveras Power Station

Lab Report	Field ID	Parameter	Qualification	Rationale
2310304	FB-002-20231018	TDS	UJL	Outside Analysis Holding Time
2310305	JKS-36-20231017-CCR	TDS	JL	Outside Analysis Holding Time
2310305	JKS-61-20231017-CCR	TDS	JL	Outside Analysis Holding Time
2310305	JKS-72-20231017-CCR	TDS	JL	Outside Analysis Holding Time
2310305	JKS-72-20231017-CCR	Radium-226	JL	Outside Preservation Holding Time
2310305	JKS-72-20231017-CCR	Radium-228	JL	Outside Preservation Holding Time
2310305	JKS-72-20231017-CCR	Combined Radium	JL	Outside Preservation Holding Time
2310294	JKS-51-20231018-CCR	Boron	JH	High MS/MSD Recovery and High Laboratory Precision RPD
2310294	JKS-51-20231018-CCR	Calcium	J	High Laboratory Precision RPD
2310294	JKS-70-20231018-CCR	Cadmium	JH	High MS/MSD Recovery
2310294	JKS-70-20231018-CCR	Selenium	JH	High MS/MSD Recovery
2310305	JKS-36-20231017-CCR	Sulfate	J	High Laboratory Precision RPD
2310305	JKS-47-20231018-CCR	Sulfate	J	High Laboratory Precision RPD
2310305	JKS-61-20231017-CCR	Sulfate	J	High Laboratory Precision RPD
2310305	JKS-63R-20231018-CCR	Sulfate	J	High Laboratory Precision RPD
2310305	JKS-64-20231018-CCR	Sulfate	J	High Laboratory Precision RPD
2310305	JKS-72-20231017-CCR	Sulfate	J	High Laboratory Precision RPD
2310305	JKS-36-20231017-CCR	Boron	JL	Low MS/MSD Recovery
2310305	JKS-47-20231018-CCR	Boron	JL	Low MS/MSD Recovery
2310305	JKS-61-20231017-CCR	Boron	JL	Low MS/MSD Recovery
2310305	JKS-63R-20231018-CCR	Boron	JL	Low MS/MSD Recovery
2310305	JKS-64-20231018-CCR	Boron	JL	Low MS/MSD Recovery
2310305	JKS-72-20231017-CCR	Boron	JL	Low MS/MSD Recovery
2310305	EB-001-20231018-CCR	Boron	JL	Low MS/MSD Recovery
2310305	JKS-72-20231017-CCR	Antimony	UJL	Low MS/MSD Recovery
2310305	JKS-72-20231017-CCR	Barium	JL	Low MS/MSD Recovery
2310305	JKS-72-20231017-CCR	Beryllium	JL	Low MS/MSD Recovery
2310305	JKS-72-20231017-CCR	Chromium	JL	Low MS/MSD Recovery
2310305	JKS-72-20231017-CCR	Cobalt	JL	Low MS/MSD Recovery
2310305	JKS-72-20231017-CCR	Cadmium	JH	High MS/MSD Recovery

Notes:

J = Estimated

UJ = Non-detect Estimated

TABLE 3
Field Precision

CPS Energy
Calaveras Power Station

Lab Report	Field Duplicate Pair	Parameter	Sample Result	Duplicate Result	RPD	Qualifier
2310294	JKS-56-20231017-CCR / DUP-001-20231017	TDS	840	780	7.41	A
		Chloride	133	131	1.52	A
		Fluoride	0.448	0.451	0.67	A
		Sulfate	0.62 J	0.62 J	0.00	A
		Boron	3.35	3.39	1.19	A
		Calcium	106	102	3.85	A
2310304	JKS-65-20231018-PDP / DUP-002-20231018	TDS	524	511	2.51	A
		Chloride	114	104	9.17	A
		Fluoride	0.600	0.605	0.83	A
		Sulfate	62.2	56.1	10.31	A
		Arsenic	0.002 J	0.0006 J	107.69	A*
		Boron	0.273	0.284	3.95	A
		Barium	0.027	0.027	0.00	A
		Calcium	21.3	21.6	1.40	A
		Cadmium	0.0003 U	0.0004 J	28.57	A*
		Chromium	0.002 J	0.002 J	0.00	A
		Lead	0.002 J	0.006 J	100.00	A*
		Selenium	0.007 J	0.013	60.00	A*

Notes:

RPD - Relative Percent Difference

$RPD = (Sample\ Result - Duplicate\ Result) \times 200 / (Sample\ Result + Duplicate\ Result)$

Qualifier: A = Acceptable (no qualification necessary)

A* = Acceptable data based on sample concentrations less than two times the MQL

J = Estimated

October 27, 2023

Chelsey Vasbinder

CPS Energy - Environmental Dept.

P.O. Box 1771

San Antonio, TX 78296-1771

SATL Report No.: 2310293

RE: Calaveras Power Station- CCR Units FlyAsh Landfill

Dear Chelsey Vasbinder

SATL received 5 Sample(s) on 10/18/2023 for analyses identified on the chain of custody. The analyses were performed using methods indicated on the laboratory report. Any deviations observed at sample receiving are notated on the Sample Receipt Checklist and/or Chain of Custody documents attached as part of this analytical report.

Sincerely,

For San Antonio Testing Laboratory, Inc.



Richard Hawk,
General Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

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Appendix A Laboratory Data Package Cover Page

This data package consists of:

- ☒ This signature page, the laboratory review checklist, and the following reportable data:
- ☒ R1 Field chain-of-custody documentation;
- ☒ R2 Sample identification cross-reference;
- ☒ R3 Test reports (analytical data sheets) for each environmental sample that includes:
 - a) Items consistent with NELAC 5.13 or ISO/IEC 17025 Section 5.10
 - b) dilution factors,
 - c) preparation methods,
 - d) cleanup methods, and
 - e) if required for the project, tentatively identified compounds (TICs).
- ☒ R4 Surrogate recovery data including:
 - a) Calculated recovery (%R), and
 - b) The laboratory's surrogate QC limits.
- ☒ R5 Test reports/summary forms for blank samples;
- ☒ R6 Test reports/summary forms for laboratory control samples (LCSs) including:
 - a) LCS spiking amounts,
 - b) Calculated %R for each analyte, and
 - c) The laboratory's LCS QC limits.
- ☒ R7 Test reports for project matrix spike/matrix spike duplicates (MS/MSDs) including:
 - a) Samples associated with the MS/MSD clearly identified,
 - b) MS/MSD spiking amounts,
 - c) Concentration of each MS/MSD analyte measured in the parent and spiked samples,
 - d) Calculated %Rs and relative percent differences (RPDs), and
 - e) The laboratory's MS/MSD QC limits
- ☒ R8 Laboratory analytical duplicate (if applicable) recovery and precision:
 - a) the amount of analyte measured in the duplicate,
 - b) the calculated RPD, and
 - c) the laboratory's QC limits for analytical duplicates.
- ☒ R9 List of method quantitation limits (MQLs) for each analyte for each method and matrix;
- ☒ R10 Other problems or anomalies.
- ☒ The Exception Report for every "No" or "Not Reviewed (NR)" item in laboratory review checklist.

Release Statement: I am responsible for the release of this laboratory data package. This data package has been reviewed by the laboratory and is complete and technically compliant with the requirements of the methods used, except where noted by the laboratory in the attached exception reports. By my signature below, I affirm to the best of my knowledge, all problems/anomalies, observed by the laboratory as having the potential to affect the quality of the data, have been identified by the laboratory in the Laboratory Review Checklist, and no information or data have been knowingly withheld that would affect the quality of the data.

Marcela Gracia Hawk, President



Richard Hawk, General Manager

10/27/23 14:04

Date/Time

Project Name: Calaveras Power Station- CCR Units FlyAsh Landfill
Laboratory Job Number: 2310293

Reviewer Name: SG,SJ
Matrix :

RG-366/TRRP-13 December 2002

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Appendix A (cont'd): Laboratory Review Checklist: Reportable Data									
Laboratory Name: San Antonio Testing Laboratory Inc.			LRC Date: 10/27/23						
Project Name: Calaveras Power Station- CCR Units FlyAsh Landfill			Laboratory Job Number: 2310293						
Reviewer Name: SG,SJ			Prep Batch Number(s): B343132,B343139,B343231,B343245						
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵		
R1		Chain-of-custody (C-O-C)							
		Did samples meet the laboratory's standard conditions of sample acceptability upon receipt?	X						
		Were all departures from standard conditions described in an exception report?	X						
R2		Sample and quality control (QC) identification							
		Are all field sample ID numbers cross-referenced to the laboratory ID numbers?	X						
		Are all laboratory ID numbers cross-referenced to the corresponding QC data?	X						
R3		Test reports							
		Were all samples prepared and analyzed within holding times?	X						
		Other than those results < MQL, were all other raw values bracketed by calibration standards?	X						
		Were calculations checked by a peer or supervisor?	X						
		Were all analyte identifications checked by a peer or supervisor?	X						
		Were sample quantitation limits reported for all analytes not detected?	X						
		Were all results for soil and sediment samples reported on a dry weight basis?				X			
		Were % moisture (or solids) reported for all soil and sediment samples?				X			
		If required for the project, TICs reported?				X			
R4		Surrogate recovery data							
		Were surrogates added prior to extraction?				X			
		Were surrogate percent recoveries in all samples within the laboratory QC limits?				X			
R5		Test reports/summary forms for blank samples							
		Were appropriate type(s) of blanks analyzed?	X						
		Were blanks analyzed at the appropriate frequency?	X						
		Were method blanks taken through the entire analytical process, including preparation and, if applicable, cleanup procedures?	X						
		Were blank concentrations < MQL?	X						
R6		Laboratory control samples (LCS):							
		Were all COCs included in the LCS?	X						
		Was each LCS taken through the entire analytical procedure, including prep and cleanup steps?	X						
		Were LCSs analyzed at the required frequency?	X						
		Were LCS (and LCSD, if applicable) %Rs within the laboratory QC limits?	X						
		Does the detectability data document the laboratory's capability to detect the COCs at the MDL used to calculate the SQLs?	X						
		Was the LCSD RPD within QC limits?	X						
R7		Matrix spike (MS) and matrix spike duplicate (MSD) data							
		Were the project/method specified analytes included in the MS and MSD?	X						
		Were MS/MSD analyzed at the appropriate frequency?	X						
		Were MS (and MSD, if applicable) %Rs within the laboratory QC limits?			X				S001
		Were MS/MSD RPDs within laboratory QC limits?	X						
R8		Analytical duplicate data							
		Were appropriate analytical duplicates analyzed for each matrix?	X						
		Were analytical duplicates analyzed at the appropriate frequency?	X						
		Were RPDs or relative standard deviations within the laboratory QC limits?	X						
R9		Method quantitation limits (MQLs):							
		Are the MQLs for each method analyte included in the laboratory data package?	X						
		Do the MQLs correspond to the concentration of the lowest non-zero calibration standard?	X						
		Are unadjusted MQLs included in the laboratory data package?	X						
R10		Other problems/anomalies							
		Are all known problems/anomalies/special conditions noted in this LRC and ER?	X						
		Were all necessary corrective actions performed for the reported data?	X						
		Was applicable and available technology used to lower the SQL minimize the matrix interference affects on the sample results?	X						

1. Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.

2. O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);

3. NA = Not applicable;

4. NR = Not reviewed;

5. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

RG-366/TRRP-13 December 2002

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Appendix A (cont'd): Laboratory Review Checklist: Reportable Data									
Laboratory Name:		San Antonio Testing Laboratory Inc.		LRC Date:		10/27/23			
Project Name:		Calaveras Power Station- CCR Units FlyAsh Lab		Laboratory Job Number:		2310293			
Reviewer Name:		SG,SJ		Prep Batch Number(s):		B343132,B343139,B343231,B343245			
# ¹	A ²	Description	Yes	No	NA ³	NR ⁴	ER# ⁵		
S1		Initial calibration (ICAL)							
		Were response factors and/or relative response factors for each analyte within QC limits?	X						
		Were percent RSDs or correlation coefficient criteria met?	X						
		Was the number of standards recommended in the method used for all analytes?	X						
		Were all points generated between the lowest and highest standard used to calculate the curve?	X						
		Are ICAL data available for all instruments used?	X						
		Has the initial calibration curve been verified using an appropriate second source standard?	X						
S2		Initial and continuing calibration verification (ICCV and CCV) and continuing calibration							
		Was the CCV analyzed at the method-required frequency?	X						
		Were percent differences for each analyte within the method-required QC limits?	X						
		Was the ICAL curve verified for each analyte?	X						
		Was the absolute value of the analyte concentration in the inorganic CCB < MDL?	X						
S3		Mass spectral tuning:							
		Was the appropriate compound for the method used for tuning?			X				
		Were ion abundance data within the method-required QC limits?			X				
S4		Internal standards (IS):							
		Were IS area counts and retention times within the method-required QC limits?	X						
S5		Raw data (NELAC section 1 appendix A glossary, and section 5.12 or ISO/IEC 17025 section							
		Were the raw data (for example, chromatograms, spectral data) reviewed by an analyst?	X						
		Were data associated with manual integrations flagged on the raw data?	X						
S6		Dual column confirmation							
		Did dual column confirmation results meet the method-required QC?			X				
S7		Tentatively identified compounds (TICs):							
		If TICs were requested, were the mass spectra and TIC data subject to appropriate checks?			X				
S8		Interference Check Sample (ICS) results:							
		Were percent recoveries within method QC limits?	X						
S9		Serial dilutions, post digestion spikes, and method of standard additions							
		Were percent differences, recoveries, and the linearity within the QC limits specified in the method?	X						
S10		Method detection limit (MDL) studies							
		Was a MDL study performed for each reported analyte?	X						
		Is the MDL either adjusted or supported by the analysis of DCSs?	X						
S11		Proficiency test reports:							
		Was the laboratory's performance acceptable on the applicable proficiency tests or evaluation studies?	X						
S12		Standards documentation							
		Are all standards used in the analyses NIST-traceable or obtained from other appropriate sources?	X						
S13		Compound/analyte identification procedures							
		Are the procedures for compound/analyte identification documented?	X						
S14		Demonstration of analyst competency (DOC)							
		Was DOC conducted consistent with NELAC Chapter 5C or ISO/IEC 4?	X						
		Is documentation of the analyst's competency up-to-date and on file?	X						
S15		Verification/validation documentation for methods (NELAC Chap 5 or ISO/IEC 17025 Section 5)							
		Are all the methods used to generate the data documented, verified, and validated, where applicable?	X						
S16		Laboratory standard operating procedures (SOPs):							
		Are laboratory SOPs current and on file for each method performed?	X						

1. Items identified by the letter "R" must be included in the laboratory data package submitted in the TRRP-required report(s). Items identified by the letter "S" should be retained and made available upon request for the appropriate retention period.

2. O = organic analyses; I = inorganic analyses (and general chemistry, when applicable);

3. NA = Not applicable;

4. NR = Not reviewed;

5. ER# = Exception Report identification number (an Exception Report should be completed for an item if "NR" or "No" is checked).

RG-366/TRRP-13 December 2002

Appendix A (cont'd): Laboratory Review Checklist: Exception Reports			
Laboratory Name: San Antonio Testing Laboratory Inc.		LRC Date: 10/27/23	
Project Name: Calaveras Power Station- CCR Units FlyAsh Lar		Laboratory Job Number: 2310293	
Reviewer Name: SG,SJ		Prep Batch Number(s): B343132,B343139,B343231,B343245	
ER#¹	Description		
S001	Matrix spike recoveries outside the QC acceptance criteria, due to matrix interferences, are flagged on the analytical report.		

1. ER# = Exception Report identification number (an Exception Report should be completed for an item if “NR” or “No” is checked on the LRC)

RG-366/TRRP-13 December 2002

CPS Energy - Environmental Dept.
P.O. Box 1771
San Antonio TX, 78296-1771

Project: Calaveras Power Station- CCR Units FlyAsh Landfill

Project Number: [none]
Project Manager: Chelsey Vasbinder

Reported:
10/27/23 14:04
Received:
10/18/23 13:36

Notes:

Report No. 2310293

SAMPLE SUMMARY

Total Samples received in this work order: 5

<u>Sample ID</u>	<u>Laboratory ID</u>	<u>Matrix</u>	<u>Sampling Method</u>	<u>Date Sampled</u>	<u>Date Received</u>
JKS-31-20231018-CCR	2310293-01	Non-potable Water	Grab	10/18/23 07:57	10/18/23 13:36
JKS-33-20231017-CCR	2310293-02	Non-potable Water	Grab	10/17/23 12:41	10/18/23 13:36
JKS-45-20231017-CCR	2310293-03	Non-potable Water	Grab	10/17/23 08:22	10/18/23 13:36
JKS-46-20231017-CCR	2310293-04	Non-potable Water	Grab	10/17/23 10:13	10/18/23 13:36
JKS-60-20231017-CCR	2310293-05	Non-potable Water	Grab	10/17/23 09:37	10/18/23 13:36

Notes

All quality control samples and checks are within acceptance limits unless otherwise indicated.
Test results pertain only to those items tested.
All samples were in good condition when received by the laboratory unless otherwise noted.

CPS Energy - Environmental Dept.
P.O. Box 1771
San Antonio TX, 78296-1771

Project: Calaveras Power Station- CCR Units FlyAsh Landfill

Project Number: [none]
Project Manager: Chelsey Vasbinder

Reported:
10/27/23 14:04
Received:
10/18/23 13:36

Notes:

Report No. 2310293

Sample ID #: JKS-31-20231018-CCR

Sampling Method: Grab

Lab Sample ID #: 2310293-01

Sample Matrix: Non-potable Water

Date/Time Collected: 10/18/23 07:57

Analyte	Result	ML	Flag	MDL	SQL[SDL]	Units	PrepMethod	Method	Analyzed	Analyst	Notes
General Chemistry											
<i>Batch ID > B343132</i>											
Total Dissolved Solids *	2300	4.17		2.50	4.17	mg/L	SM2540C	SM2540C	10/24/23	SG	
Anions by Ion Chromatography											
<i>Batch ID > B343245</i>											
Chloride *	428	10.0		0.052	5.19	mg/L	EPA 300.0	EPA 300.0	10/26/23	SG	
Fluoride	< 0.018	0.020		0.018	0.018	mg/L	EPA 300.0	EPA 300.0	10/25/23	SG	
Sulfate *	1070	10.0		0.06	5.59	mg/L	EPA 300.0	EPA 300.0	10/26/23	SG	
Total Metals By ICP											
<i>Batch ID > B343139</i>											
Boron	0.429	0.010		0.0006	0.0006	mg/L	EPA 3010A	EPA 6010B	10/23/23	SJ	
Calcium *	272	1.00		0.009	0.009	mg/L	EPA 3010A	EPA 6010B	10/23/23	SJ	

CPS Energy - Environmental Dept.
P.O. Box 1771
San Antonio TX, 78296-1771

Project: Calaveras Power Station- CCR Units FlyAsh Landfill

Project Number: [none]
Project Manager: Chelsey Vasbinder

Reported:
10/27/23 14:04
Received:
10/18/23 13:36

Notes:

Report No. 2310293

Sample ID #: JKS-33-20231017-CCR

Sampling Method: Grab

Lab Sample ID #: 2310293-02

Sample Matrix: Non-potable Water

Date/Time Collected: 10/17/23 12:41

Analyte	Result	ML	Flag	MDL	SQL[SDL]	Units	PrepMethod	Method	Analyzed	Analyst	Notes
General Chemistry											
<i>Batch ID > B343132</i>											
Total Dissolved Solids *	3220	6.25		2.50	6.25	mg/L	SM2540C	SM2540C	10/24/23	SG	
Anions by Ion Chromatography											
<i>Batch ID > B343245</i>											
Chloride *	657	10.0		0.052	5.19	mg/L	EPA 300.0	EPA 300.0	10/26/23	SG	
Fluoride	< 0.018	0.020		0.018	0.018	mg/L	EPA 300.0	EPA 300.0	10/25/23	SG	
Sulfate *	1340	10.0		0.06	5.59	mg/L	EPA 300.0	EPA 300.0	10/26/23	SG	
Total Metals By ICP											
<i>Batch ID > B343139</i>											
Boron	1.06	0.010		0.0006	0.0006	mg/L	EPA 3010A	EPA 6010B	10/23/23	SJ	
Calcium *	420	1.00		0.009	0.009	mg/L	EPA 3010A	EPA 6010B	10/23/23	SJ	

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Project: Calaveras Power Station- CCR Units FlyAsh Landfill

Project Number: [none]
Project Manager: Chelsey Vasbinder

Reported:
10/27/23 14:04
Received:
10/18/23 13:36

Notes:

Report No. 2310293

Sample ID #: JKS-45-20231017-CCR

Sampling Method: Grab

Lab Sample ID #: 2310293-03

Sample Matrix: Non-potable Water

Date/Time Collected: 10/17/23 08:22

Analyte	Result	MLQ	Flag	MDL	SQL[SDL]	Units	PrepMethod	Method	Analyzed	Analyst	Notes
General Chemistry											
<i>Batch ID > B343132</i>											
Total Dissolved Solids *	1200	2.50		2.50	2.50	mg/L	SM2540C	SM2540C	10/25/23	SG	
Anions by Ion Chromatography											
<i>Batch ID > B343245</i>											
Chloride *	90.6	5.00		0.052	2.60	mg/L	EPA 300.0	EPA 300.0	10/26/23	SG	
Fluoride	< 0.018	0.020		0.018	0.018	mg/L	EPA 300.0	EPA 300.0	10/25/23	SG	
Sulfate *	536	5.00		0.06	2.80	mg/L	EPA 300.0	EPA 300.0	10/26/23	SG	
Total Metals By ICP											
<i>Batch ID > B343139</i>											
Boron	2.52	0.010		0.0006	0.0006	mg/L	EPA 3010A	EPA 6010B	10/23/23	SJ	
Calcium *	153	1.00		0.009	0.009	mg/L	EPA 3010A	EPA 6010B	10/23/23	SJ	

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Project: Calaveras Power Station- CCR Units FlyAsh Landfill

Project Number: [none]
Project Manager: Chelsey Vasbinder

Reported:
10/27/23 14:04
Received:
10/18/23 13:36

Notes:

Report No. 2310293

Sample ID #: JKS-46-20231017-CCR

Sampling Method: Grab

Lab Sample ID #: 2310293-04

Sample Matrix: Non-potable Water

Date/Time Collected: 10/17/23 10:13

Analyte	Result	MLQ	Flag	MDL	SQL[SDL]	Units	PrepMethod	Method	Analyzed	Analyst	Notes
General Chemistry											
<i>Batch ID > B343132</i>											
Total Dissolved Solids *	1070	2.50		2.50	2.50	mg/L	SM2540C	SM2540C	10/24/23	SG	
Anions by Ion Chromatography											
<i>Batch ID > B343245</i>											
Chloride *	44.4	5.00		0.052	2.60	mg/L	EPA 300.0	EPA 300.0	10/26/23	SG	
Fluoride	1.22	0.020		0.018	0.018	mg/L	EPA 300.0	EPA 300.0	10/25/23	SG	
Sulfate *	634	5.00		0.06	2.80	mg/L	EPA 300.0	EPA 300.0	10/26/23	SG	
Total Metals By ICP											
<i>Batch ID > B343139</i>											
Boron	0.439	0.010		0.0006	0.0006	mg/L	EPA 3010A	EPA 6010B	10/23/23	SJ	
Calcium *	105	1.00		0.009	0.009	mg/L	EPA 3010A	EPA 6010B	10/23/23	SJ	

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Project: Calaveras Power Station- CCR Units FlyAsh Landfill

Project Number: [none]
Project Manager: Chelsey Vasbinder

Reported:
10/27/23 14:04
Received:
10/18/23 13:36

Notes:

Report No. 2310293

Sample ID #: JKS-60-20231017-CCR

Sampling Method: Grab

Lab Sample ID #: 2310293-05

Sample Matrix: Non-potable Water

Date/Time Collected: 10/17/23 09:37

Analyte	Result	ML	Flag	MDL	SQL[SDL]	Units	PrepMethod	Method	Analyzed	Analyst	Notes
General Chemistry											
<i>Batch ID > B343132</i>											
Total Dissolved Solids *	2680	4.17		2.50	4.17	mg/L	SM2540C	SM2540C	10/24/23	SG	
Anions by Ion Chromatography											
<i>Batch ID > B343245</i>											
Chloride *	290	10.0		0.052	5.19	mg/L	EPA 300.0	EPA 300.0	10/26/23	SG	
Fluoride	0.163	0.020		0.018	0.018	mg/L	EPA 300.0	EPA 300.0	10/26/23	SG	
Sulfate *	1290	10.0		0.06	5.59	mg/L	EPA 300.0	EPA 300.0	10/26/23	SG	
Total Metals By ICP											
<i>Batch ID > B343139</i>											
Boron	0.756	0.010		0.0006	0.0006	mg/L	EPA 3010A	EPA 6010B	10/23/23	SJ	
Calcium *	418	1.00		0.009	0.009	mg/L	EPA 3010A	EPA 6010B	10/23/23	SJ	

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Project: Calaveras Power Station- CCR Units FlyAsh Landfill

Project Number: [none]
Project Manager: Chelsey Vasbinder

Reported:
10/27/23 14:04
Received:
10/18/23 13:36

Notes:

Report No. 2310293

General Chemistry - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch B343132 - SM2540C									
Blank (B343132-BLK1)				Prepared: 10/23/23 09:17 Analyzed: 10/24/23 16:06					
Total Dissolved Solids	<2.50	2.50	mg/L				-		
LCS (B343132-BS1)				Prepared: 10/23/23 09:17 Analyzed: 10/25/23 11:54					
Total Dissolved Solids	103	2.50	mg/L	100		103	80-120		
LCS Dup (B343132-BSD1)				Prepared: 10/23/23 09:17 Analyzed: 10/24/23 16:07					
Total Dissolved Solids	88.0	2.50	mg/L	100		88	80-120	16	20
Duplicate (B343132-DUP1)				Source: 2310293-01 Prepared: 10/23/23 09:17 Analyzed: 10/24/23 16:10					
Total Dissolved Solids	2260	4.17	mg/L		2300		-	2	20

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Project: Calaveras Power Station- CCR Units FlyAsh Landfill

Project Number: [none]
Project Manager: Chelsey Vasbinder

Reported:
10/27/23 14:04
Received:
10/18/23 13:36

Notes:

Report No. 2310293

Anions by Ion Chromatography - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch B343231 - EPA 300.0									
Blank (B343231-BLK1)				Prepared: 10/25/23 16:00 Analyzed: 10/25/23 17:54					
Fluoride	<0.020	0.020	mg/L				-		
LCS (B343231-BS1)				Prepared: 10/25/23 16:00 Analyzed: 10/25/23 18:11					
Fluoride	0.954	0.020	mg/L	1.00		95	90-110		
LCS Dup (B343231-BSD1)				Prepared: 10/25/23 16:00 Analyzed: 10/25/23 18:29					
Fluoride	0.952	0.020	mg/L	1.00		95	90-110	0.2	20
Duplicate (B343231-DUP1)				Source: 2310293-04 Prepared: 10/25/23 16:00 Analyzed: 10/25/23 23:33					
Fluoride	1.21	0.020	mg/L		1.22		-	0.4	20
Matrix Spike (B343231-MS1)				Source: 2310293-04 Prepared: 10/25/23 16:00 Analyzed: 10/25/23 23:51					
Fluoride	2.08	0.020	mg/L	1.00	1.22	87	80-120		
Matrix Spike Dup (B343231-MSD1)				Source: 2310293-04 Prepared: 10/25/23 16:00 Analyzed: 10/26/23 00:27					
Fluoride	2.07	0.020	mg/L	1.00	1.22	85	80-120	0.7	20
Batch B343245 - EPA 300.0									
Blank (B343245-BLK1)				Prepared: 10/25/23 16:00 Analyzed: 10/25/23 17:54					
Chloride	<0.100	0.100	mg/L				-		
Sulfate	<0.10	0.10	mg/L				-		
LCS (B343245-BS1)				Prepared: 10/25/23 16:00 Analyzed: 10/25/23 18:11					
Chloride	4.64	0.100	mg/L	5.00		93	90-110		
Sulfate	4.86	0.10	mg/L	5.00		97	90-110		

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Project: Calaveras Power Station- CCR Units FlyAsh Landfill

Project Number: [none]
Project Manager: Chelsey Vasbinder

Reported:
10/27/23 14:04
Received:
10/18/23 13:36

Notes:

Report No. 2310293

Anions by Ion Chromatography - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch B343245 - EPA 300.0									
LCS Dup (B343245-BSD1)					Prepared: 10/25/23 16:00 Analyzed: 10/25/23 18:29				
Chloride	4.70	0.100	mg/L	5.00		94	90-110	1	20
Sulfate	4.92	0.10	mg/L	5.00		98	90-110	1	20
Duplicate (B343245-DUP1)					Source: 2310293-04 Prepared: 10/25/23 16:00 Analyzed: 10/26/23 11:00				
Chloride	42.4	5.00	mg/L		44.4		-	5	20
Sulfate	634	5.00	mg/L		634		-	0.02	20
Matrix Spike (B343245-MS1)					Source: 2310293-04 Prepared: 10/25/23 16:00 Analyzed: 10/25/23 23:51				
Chloride	55.1	0.100	mg/L	5.00	44.4	213	80-120		M
Sulfate	954	0.10	mg/L	5.00	634	NR	80-120		M
Matrix Spike Dup (B343245-MSD1)					Source: 2310293-04 Prepared: 10/25/23 16:00 Analyzed: 10/26/23 00:27				
Chloride	55.0	0.100	mg/L	5.00	44.4	210	80-120	0.2	20
Sulfate	951	0.10	mg/L	5.00	634	NR	80-120	0.3	20

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San Antonio TX, 78296-1771

Notes:

Project: Calaveras Power Station- CCR Units FlyAsh Landfill

Project Number: [none]

Project Manager: Chelsey Vasbinder

Reported:

10/27/23 14:04

Received:

10/18/23 13:36

Report No. 2310293
Total Metals By ICP - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch B343139 - EPA 3010A									
Blank (B343139-BLK1)				Prepared: 10/23/23 12:30 Analyzed: 10/23/23 13:14					
Boron	<0.010	0.010	mg/L				—		
Calcium	<1.00	1.00	mg/L				—		
LCS (B343139-BS1)				Prepared: 10/23/23 12:30 Analyzed: 10/23/23 13:25					
Boron	2.08	0.010	mg/L	2.00		104	85–115		
Calcium	2.04	1.00	mg/L	2.00		102	85–115		
LCS Dup (B343139-BSD1)				Prepared: 10/23/23 12:30 Analyzed: 10/23/23 13:31					
Boron	2.13	0.010	mg/L	2.00		106	85–115	3	20
Calcium	2.14	1.00	mg/L	2.00		107	85–115	5	20
Duplicate (B343139-DUP1)				Source: 2310293-01		Prepared: 10/23/23 12:30 Analyzed: 10/23/23 17:24			
Boron	0.440	0.010	mg/L		0.429		—	2	20
Calcium	280	1.00	mg/L		272		—	3	20
Duplicate (B343139-DUP2)				Source: 2310294-04		Prepared: 10/23/23 12:30 Analyzed: 10/23/23 19:16			
Boron	1.93	0.010	mg/L		0.656		—	99	20 S
Calcium	158	1.00	mg/L		236		—	39	20 S
Matrix Spike (B343139-MS1)				Source: 2310293-01		Prepared: 10/23/23 12:30 Analyzed: 10/23/23 17:30			
Boron	2.36	0.010	mg/L	2.00	0.429	97	75–125		
Calcium	267	1.00	mg/L	2.00	272	NR	75–125		M
Matrix Spike (B343139-MS2)				Source: 2310294-04		Prepared: 10/23/23 12:30 Analyzed: 10/23/23 19:22			
Boron	3.91	0.010	mg/L	2.00	0.656	163	75–125		M
Calcium	140	1.00	mg/L	2.00	236	NR	75–125		M
Matrix Spike Dup (B343139-MSD1)				Source: 2310293-01		Prepared: 10/23/23 12:30 Analyzed: 10/23/23 17:36			
Boron	2.36	0.010	mg/L	2.00	0.429	96	75–125	0.3	20
Calcium	250	1.00	mg/L	2.00	272	NR	75–125	7	20 M

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Project: Calaveras Power Station- CCR Units FlyAsh Landfill

Project Number: [none]
Project Manager: Chelsey Vasbinder

Reported:
10/27/23 14:04
Received:
10/18/23 13:36

Notes:

Report No. 2310293

Total Metals By ICP - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
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Batch B343139 - EPA 3010A

Matrix Spike Dup (B343139-MSD2)		Source: 2310294-04		Prepared: 10/23/23 12:30		Analyzed: 10/23/23 19:28				
Boron	4.01	0.010	mg/L	2.00	0.656	168	75-125	2	20	M
Calcium	145	1.00	mg/L	2.00	236	NR	75-125	3	20	M

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P.O. Box 1771
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Project: Calaveras Power Station- CCR Units FlyAsh Landfill

Project Number: [none]
Project Manager: Chelsey Vasbinder

Reported:
10/27/23 14:04
Received:
10/18/23 13:36

Notes:

Report No. 2310293

DEFINITIONS

*	TNI / NELAC accredited analyte
PQL	Practical Quantitation Limit
MCL	Maximum Contaminant Level
mg/Kg	Milligrams per Kilogram (Parts per Million)
mg/L	Milligrams per Liter (Parts per Million)
PPM	Parts per Million
ND	This qualifier indicates that the analyte was analyzed but not detected above the MDL
J	This qualifier indicates that the analyte is an estimate value between MQL and MDL
SQL	Sample Quantitation Limit
MQL	Method Quantitation Limit
MDL	Method Detection Limit
L	LCS/LCSD recovery is outside QC limits, the results may have a slight bias.
M	MS/MSD recovery is outside QC limits due to possible matrix interferences, results may have a slight bias .
S	RPD is outside QC limits.
RMCCCL	Recommended Maximum Concentration of Contaminants Level
μR/hr	MicroRoentgens per hour (Measure of Radioactivity Level)
HT	Sample received past holdtime
IC	Improper Container for this analyte(s)
IT	Improper Temperature
IP	Improper preservation for this analyte(s)
V	Insufficient Volume
B	Sample collected in Bulk
AB	VOA Vial contained air bubbles.
OP	ortho-Phosphate was not filtered in the field within 15minutes of collection.
CCV	Continuing Calibration Verification Standard.
ICV	Initial Calibration Verification Standard.
Surr L	Surrogate recovery is low outside QC limits.
Surr H	Surrogate recovery is high outside QC limits.
NR	Not Recovered due to source sample concentration exceeds spiked concentration.

Test Methods followed by the laboratory are referenced in the following approved methodology, unless otherwise specified.

Standard Methods for the Examination of Water and Wastewater, 23rd Edition, 2017
Methods for Chemical Analysis of Water and Wastes, EPA 600/4-79-020, Rev. March 1983
EPA SW Test Methods for the Examination of Solid Waste, SW-846, 1996

CPS Energy - Environmental Dept.
P.O. Box 1771
San Antonio TX, 78296-1771

Project: Calaveras Power Station- CCR Units FlyAsh Landfill

Project Number: [none]
Project Manager: Chelsey Vasbinder

Reported:
10/27/23 14:04
Received:
10/18/23 13:36

Notes:

Report No. 2310293

Marcela Gracia Hawk, President For

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Richard Hawk, General Manager

Client Information	Project Information	Laboratory Information	COC Information
CPS Energy - Environmental Dept. P.O. Box 1771 San Antonio TX 78296-1771 Phone: (210) 353-4719 Fax: (210) 353-4271	Calaveras Power Station- CCR Units FlyAsh Landfill Number: [none] Sample count: 5 TAT: 7	San Antonio Testing Laboratory 1610 S. Laredo St San Antonio TX 78207 Phone: 210-229-9920 Fax: 210-229-9921	Shipped via: Hand Delivered

#	Client Information	Analyses	Containers
#1	JKS-31-20231018-CCR 10/18/2023 07:57 Grab / Non-potable Water	B_T TAT: 7 Ca_T TAT: 7 Chloride_IC TAT: 7 Fluoride_IC TAT: 7 Sulfate_IC TAT: 7 TDS TAT: 7	250 mL Plastic HNO3 (1) 1 L Plastic Unpreserved (1)
Comments: TRRP REPORTING			
#2	JKS-33-20231017-CCR 10/17/2023 12:41 Grab / Non-potable Water	B_T TAT: 7 Ca_T TAT: 7 Chloride_IC TAT: 7 Fluoride_IC TAT: 7 Sulfate_IC TAT: 7 TDS TAT: 7	250 mL Plastic HNO3 (1) 1 L Plastic Unpreserved (1)
Comments: TRRP REPORTING			
#3	JKS-45-20231017-CCR 10/17/2023 08:22 Grab / Non-potable Water	B_T TAT: 7 Ca_T TAT: 7 Chloride_IC TAT: 7 Fluoride_IC TAT: 7 Sulfate_IC TAT: 7 TDS TAT: 7	250 mL Plastic HNO3 (1) 1 L Plastic Unpreserved (1)
Comments: TRRP REPORTING			
#4	JKS-46-20231017-CCR 10/17/2023 10:13 Grab / Non-potable Water	B_T TAT: 7 Ca_T TAT: 7 Chloride_IC TAT: 7 Fluoride_IC TAT: 7 Sulfate_IC TAT: 7 TDS TAT: 7	250 mL Plastic HNO3 (1) 1 L Plastic Unpreserved (1)
Comments: TRRP REPORTING			
#5	JKS-60-20231017-CCR 10/17/2023 09:37 Grab / Non-potable Water	B_T TAT: 7 Ca_T TAT: 7 Chloride_IC TAT: 7 Fluoride_IC TAT: 7 Sulfate_IC TAT: 7 TDS TAT: 7	250 mL Plastic HNO3 (1) 1 L Plastic Unpreserved (1)
Comments: TRRP REPORTING			

Temp Cntr # 7 4.1°C / 41.0°C - 100d

Relinquished by	Date/Time	Accepted by	Date/Time
<i>Ed Pataky</i> Ed Pataky	10-18-23/1305	<i>Lance Simms</i> Lance Simms	10-18-23 1335
<i>Lance Simms</i>	10-18-23 1334	<i>Lin Lin</i>	10-18-23 1354

Sample Receipt Checklist

Client: CPS Energy - Environmental Dept.	Project Manager: Marcela Gracia Hawk
Project: Calaveras Power Station- CCR Units FlyAsh]	Project Number: [none]

Report To:

Chelsey Vasbinder

SATL Report Number: 2310293

Work Order Due by:	10/27/23 17:00 (7 day TAT)	
Received By:	Aimee Landon	Date Received: 10/18/23 13:39
Logged In By:	Aimee Landon	Date Logged In: 10/18/23 14:14

Sample(s) Received on ICE/evidence of Ice (cooler with melted ice,etc):	Yes
Sample temperature at receipt *:	4.1°C
Custody Seals Present:	No
All containers intact:	Yes
Sample labels/COC agree:	Yes
Samples Received within Holding time :	Yes
Samples appropriately preserved **:	Yes
Containers received broken/damaged/leaking:	No
Air bubbles present in VOA vials for VOC/TPH analyses, if applicable:	Not Applicable
TRRP 13 Reporting requested?	Yes
BacT Sample bottles filled to volume (100mL mark), if applicable:	Not Applicable
LCR Sample bottles filled to volume (1 Liter mark), if applicable:	Not Applicable
Subcontracting required for any analyses:	Yes
RUSH turnaround time requested:	No
Requested Turnaround Time:	No
Samples delivered via :	Hand Delivered
Air bill included if Samples were shipped:	No
Other deviations not meeting SATL sample acceptance criteria notated on CoC:	Notated on CoC, if any

Notes:

* Samples delivered to the laboratory on the same day that they are collected may not meet thermal preservation criteria (>0°C but <6°C) but are acceptable, if they arrive on ice.

** If improperly preserved, notate client authorization on CoC to proceed with analysis.

Checked By : Aimee Landon

Date : 10/18/23 13:39

SATL#FO001
Revised 09/15/2022



APPENDIX B STATISTICAL ANALYSIS TABLES AND FIGURES

JANUARY 2024

Appendix B - Table 1
Kruskal-Wallis Test Comparisons of Upgradient Wells
Calaveras Power Station
Fly Ash Landfill

Analyte	N	N Detect	Percent Detect	DF	statistic	p-value	Conclusion	UPL Type
Boron	38	38	100.00%	1	21.6	<0.001	Significant Difference	Intrawell
Calcium	37	37	100.00%	1	26.8	<0.001	Significant Difference	Intrawell
Chloride	38	38	100.00%	1	4.87	0.0273	Significant Difference	Intrawell
Fluoride	38	25	65.79%	1	15.6	<0.001	Significant Difference	Intrawell
pH	39	39	100.00%	1	20	<0.001	Significant Difference	Intrawell
Sulfate	38	38	100.00%	1	22.4	<0.001	Significant Difference	Intrawell
TDS	38	38	100.00%	1	22.2	<0.001	Significant Difference	Intrawell

Notes

Non-detects were substituted with a value of half the detection limit for calculations

N: number of data points

DF: degrees of freedom

statistic: Kruskal Wallis test statistic

p-value: P-values below 0.05 indicate that the median concentrations in the upgradient wells are significantly different from each other and the upgradient wells should not be pooled.

p-value: P-values equal or above 0.05 indicate that the median concentrations in the upgradient wells are not significantly different from each other and the upgradient wells can be pooled.

Appendix B - Table 2
Descriptive Statistics for Upgradient Wells
Calaveras Power Station
Fly Ash Landfill

Analyte	Well	Units	N	N Detect	Percent Detect	Min ND	Max ND	Min Detect	Median	Mean	Max Detect	SD	CV	Distribution
Boron	JKS-45	mg/L	20	20	100.00%			1.11	2.54	2.4	3.24	0.562	0.234114	Normal
Boron	JKS-57	mg/L	18	18	100.00%			2.67	3.35	3.69	5.97	0.876	0.237658	Lognormal
Calcium	JKS-45	mg/L	20	20	100.00%			101	142	144	195	27.9	0.193357	Normal
Calcium	JKS-57	mg/L	17	17	100.00%			290	413	508	968	192	0.378351	Lognormal
Chloride	JKS-45	mg/L	20	20	100.00%			0.803	132	134	345	69.6	0.517882	NDD
Chloride	JKS-57	mg/L	18	18	100.00%			12.5	422	1860	6360	2220	1.188776	Lognormal
Fluoride	JKS-45	mg/L	20	10	50.00%	0.009	0.048	0.087	0.0675	0.104	0.337	0.111	1.069216	NDD
Fluoride	JKS-57	mg/L	18	15	83.33%	0.009	0.048	2.27	3.16	2.76	4.29	1.38	0.502235	NDD
pH	JKS-45	SU	20	20	100.00%			3.98	5.68	5.65	6.6	0.544	0.096337	NDD
pH	JKS-57	SU	19	19	100.00%			5.13	6.58	6.43	6.76	0.374	0.058225	NDD
Sulfate	JKS-45	mg/L	20	20	100.00%			2.95	626	588	874	196	0.33342	NDD
Sulfate	JKS-57	mg/L	18	18	100.00%			450	3680	3640	6510	1420	0.391376	Normal
TDS	JKS-45	mg/L	20	20	100.00%			741	1310	1300	1680	191	0.146416	NDD
TDS	JKS-57	mg/L	18	18	100.00%			850	6350	8590	17200	5160	0.600535	Normal

Notes

Non-detects were substituted with a value of half the detection limit for calculations

Well = Pooled, indicates that the summary statistics were produced for the pooled upgradient wells based on the Kruskal-Wallis test (Table 1).

SU: Standard units

N: number of data points

ND: Non-detect

SD: Standard Deviation

CV: Coefficient of Variation (standard deviation divided by the mean)

Appendix B - Table 3
Potential Outliers in Upgradient Wells
Calaveras Power Station
Fly Ash Landfill

Well	Sample	Date	Analyte	Units	Detect	Concentration	UPL type	Distribution	Statistical Outlier	Visual Outlier	Normal Outlier	Log Statistical Outlier	Log Visual Outlier	Lognormal Outlier	Statistical and Visual Outlier	Final Outlier Decision	Notes
JKS-45	JKS-45561478-015	08/29/2017	Chloride	mg/L	TRUE	345	Intrawell	NDD	X	X	X				0		
JKS-45	JKS-45-WG-20170328	03/28/2017	pH	SU	TRUE	3.98	Intrawell	NDD	X	X	X	X	X	X	0		
JKS-57	JKS-57-WG-20170328	03/28/2017	pH	SU	TRUE	5.13	Intrawell	NDD	X	X	X	X	X	X	0		
JKS-45	JKS45620556-016	04/09/2019	Sulfate	mg/L	TRUE	874	Intrawell	NDD	X	X	X		X		0		

Notes

NDD: No Discernible Distribution

SU: Standard units

Outlier tests were performed on detected data only.

Statistical outliers were determined using a Dixon's test for N < 25 and with Rosner's test for N > 25.

Visual outliers were identified if they fall above the confidence envelope on the QQ plot.

Data points were considered potential outliers if they were both statistical and visual outliers.

NDD wells had data points considered as potential outliers if they were either a normal or lognormal outlier.

[Blank] data distribution indicates that the well data did not have enough detected data points for outlier analysis.

Lognormally distributed data was first log-transformed before visual and statistical outlier tests were performed.

Normal data distribution indicates that the well data was directly used for statistical and visual outlier tests.

NDD indicates that both the untransformed and transformed data were examined with statistical and visual outlier tests.

'0' indicates that the data point was a statistical and visual outlier but was retained after review by the hydrogeologist.

Appendix B - Table 4
Mann Kendall Test for Trends in Upgradient Wells
Calaveras Power Station
Fly Ash Landfill

Analyte	UPL Type	Well	N	Num Detects	Percent Detect	p-value	tau	Conclusion
Boron	Intrawell	JKS-45	20	20	100.00%	0.0111	0.411	Increasing Trend
Boron	Intrawell	JKS-57	18	18	100.00%	0.0264	0.386	Increasing Trend
Calcium	Intrawell	JKS-45	20	20	100.00%	0.0477	0.322	Increasing Trend
Calcium	Intrawell	JKS-57	17	17	100.00%	<0.001	0.76	Increasing Trend
Chloride	Intrawell	JKS-45	20	20	100.00%	0.00235	-0.484	Decreasing Trend
Chloride	Intrawell	JKS-57	18	18	100.00%	<0.001	0.778	Increasing Trend
Fluoride	Intrawell	JKS-45	20	10	50.00%	0.04	-0.355	Decreasing Trend
Fluoride	Intrawell	JKS-57	18	15	83.33%	0.649	-0.0792	Stable, No Trend
pH	Intrawell	JKS-45	20	20	100.00%	<0.001	0.67	Increasing Trend
pH	Intrawell	JKS-57	19	19	100.00%	0.753	0.0529	Stable, No Trend
Sulfate	Intrawell	JKS-45	20	20	100.00%	0.461	-0.126	Stable, No Trend
Sulfate	Intrawell	JKS-57	18	18	100.00%	<0.001	0.569	Increasing Trend
TDS	Intrawell	JKS-45	20	20	100.00%	0.845	0.0319	Stable, No Trend
TDS	Intrawell	JKS-57	18	18	100.00%	<0.001	0.765	Increasing Trend

Notes

Non-detects were substituted with a value of zero for trend calculations

N: number of data points

tau: Kendall's tau statistic

p-value: A two-sided p-value describing the probability of the H0 being true ($\alpha=0.05$)

Trend tests were performed on all upgradient data, only if the dataset met the minimum data quality criteria (ERM 2017).

Appendix B - Table 5
Calculated Prediction Limits for Upgradient Datasets
Calaveras Power Station
Fly Ash Landfill

Analyte	UPL Type	Trend	Well	N	Num Detects	Percent Detects	LPL	UPL	Units	Method	Final LPL	Final UPL	Notes
Boron	Intrawell	Increasing Trend	JKS-45	20	20	100.00%		4.07	mg/L	rended UPL			
Boron	Intrawell	Increasing Trend	JKS-57	18	18	100.00%		6.28	mg/L	rended UPL		X	
Calcium	Intrawell	Increasing Trend	JKS-45	20	20	100.00%		211	mg/L	rended UPL			
Calcium	Intrawell	Increasing Trend	JKS-57	17	17	100.00%		912	mg/L	rended UPL		X	
Chloride	Intrawell	Decreasing Trend	JKS-45	20	20	100.00%		297	mg/L	rended UPL			
Chloride	Intrawell	Increasing Trend	JKS-57	18	18	100.00%		7720	mg/L	rended UPL		X	
Fluoride	Intrawell	Decreasing Trend	JKS-45	20	10	50.00%		0.232	mg/L	rended UPL			
Fluoride	Intrawell	Stable, No Trend	JKS-57	18	15	83.33%		5.16	mg/L	KM UPL (t)		X	
pH	Intrawell	Increasing Trend	JKS-45	20	20	100.00%	5.2	6.96	SU	rended UPL	X		
pH	Intrawell	Stable, No Trend	JKS-57	19	19	100.00%	5.76	7.09	SU	5% UPL (t)		X	
Sulfate	Intrawell	Stable, No Trend	JKS-45	20	20	100.00%		869	mg/L	95% UPL			
Sulfate	Intrawell	Increasing Trend	JKS-57	18	18	100.00%		8240	mg/L	rended UPL		X	
TDS	Intrawell	Stable, No Trend	JKS-45	20	20	100.00%		1640	mg/L	5% UPL (t)			
TDS	Intrawell	Increasing Trend	JKS-57	18	18	100.00%		20800	mg/L	rended UPL		X	

Notes

Non-detects were substituted with a value of half the detection limit for calculations

UPL: upper prediction limit

LPL: Lower prediction limit. These were only calculated for pH

UPLs were constructed with a site wide false positive rate of 0.1 and a 1 of 2 retesting.

UPLs were calculated using ProUCL software.

SU: Standard units

NP: non parametric

RL: Reporting Limit

Intra: indicates an intrawell UPL was used

Inter: indicates an interwell UPL was used

In the case where multiple UPLs were calculated for an analyte, the maximum UPL was used as the final UPL.

In the case where multiple LPLs were calculated for an pH the minimum LPL was used as the final LPL.

Appendix B - Table 6
Comparisons of Downgradient Wells to Prediction Limits
Calaveras Power Station
Fly Ash Landfill

Analyte	Well	LPL	UPL	Units	Recent Date	Observation	Qualifier	Obs > UPL	Notes	Mann Kendall p-value	Mann Kendall tau	WRS p-value	WRS Conclusion	Exceed Median	Overall Conclusion
pH	JKS-31	5.2	7.09	SU	10/18/2023	3.65		X	Trend Test: Stable, No Trend	0.347	-0.153	<0.001	***	X	Both Exceedance
pH	JKS-33	5.2	7.09	SU	10/17/2023	7.54		X	Trend Test: Stable, No Trend	0.304	0.163	1	NS		UPL Exceedance
pH	JKS-46	5.2	7.09	SU	10/17/2023	3.34		X	Trend Test: Stable, No Trend	0.77	0.0475	<0.001	***	X	Both Exceedance

Notes

Non-detects were substituted with a value of zero for trend calculation

UPL: Upper Prediction Limit

ND: Not detected

SU: Standard units

tau: Kendall's tau statistic

Obs > UCL: Exceed 'X' indicates that the most recent observed value is higher than the UPL (or out of range of the LPL and UPL in the case of pH)

Obs > UCL: Exceed 'X0' indicates that the two most recent values are higher than the UPL, but the upgradient well is 100% N

Obs > UCL: Exceed '0' indicated that the most recent observed value is higher than the UPL, but is not scored as an SSI due to Double Quantification Rule (ERM 201)

WRS: Wilcoxon Rank Sum test comparing if median of downgradient well is larger than the UPL (for pH, also checks if median is less than LP

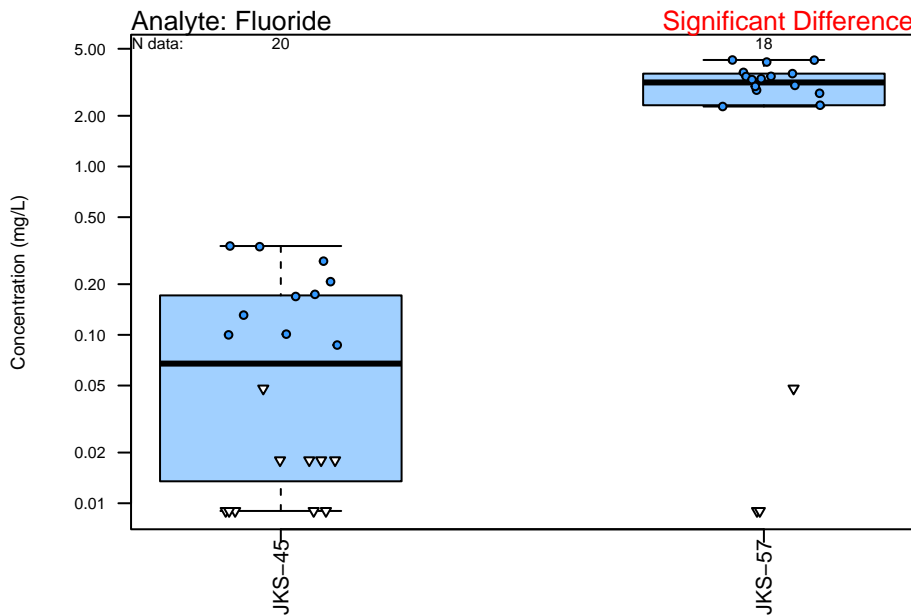
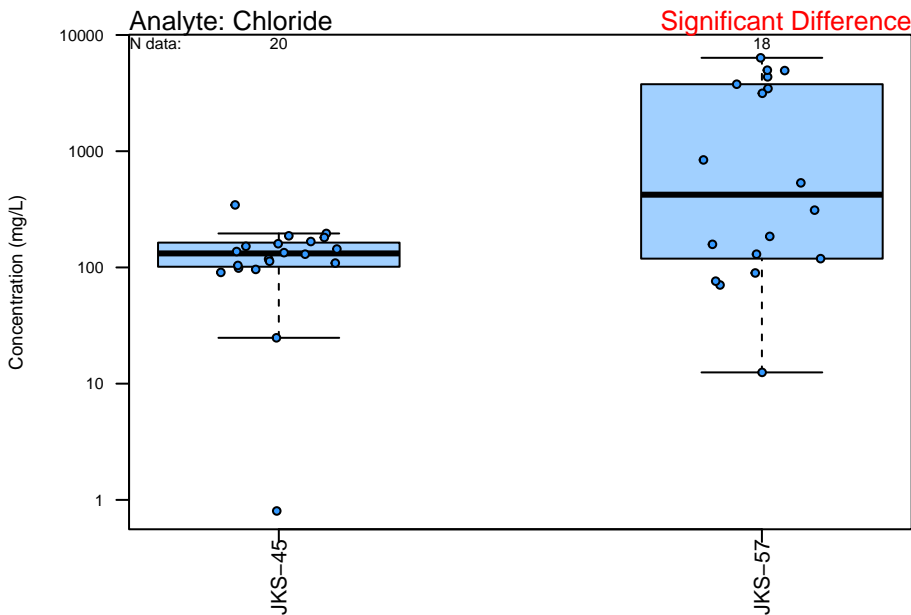
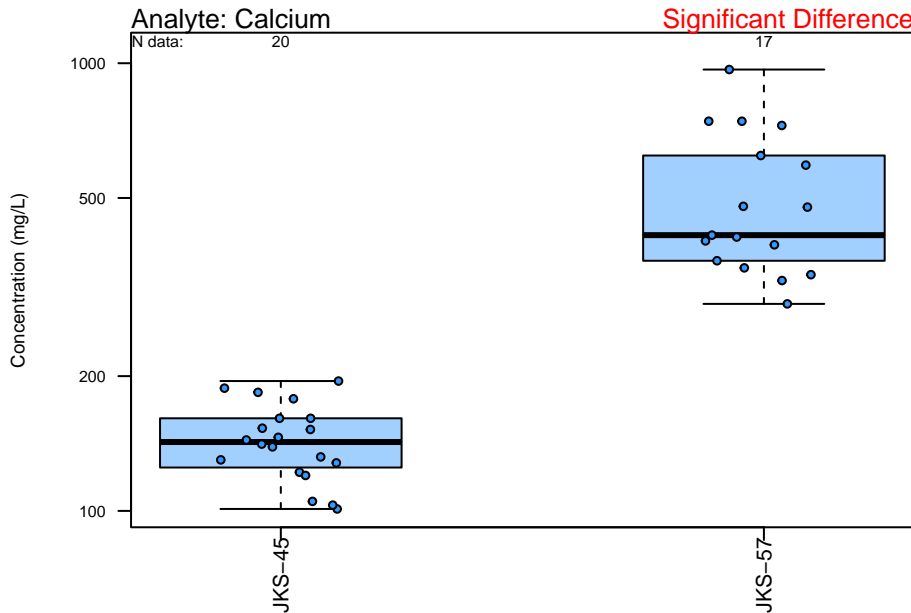
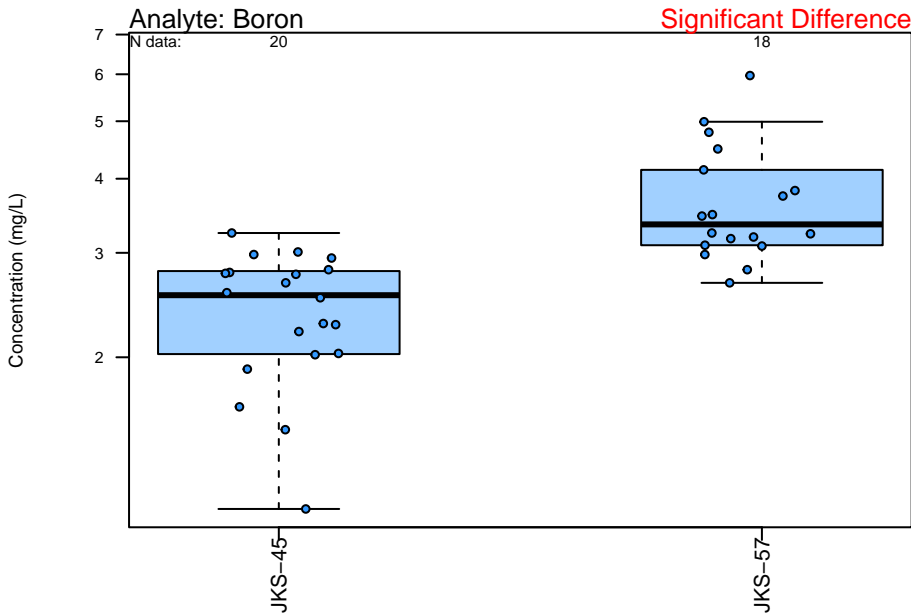
WRS p-value: A one-sided p-value describing the probability of the H0 (UPL/LPL) being true (a=0.0)

Overall: UPL Exceedance - most recent sampling event exceeds the UPL, but median of the well is not greater than U

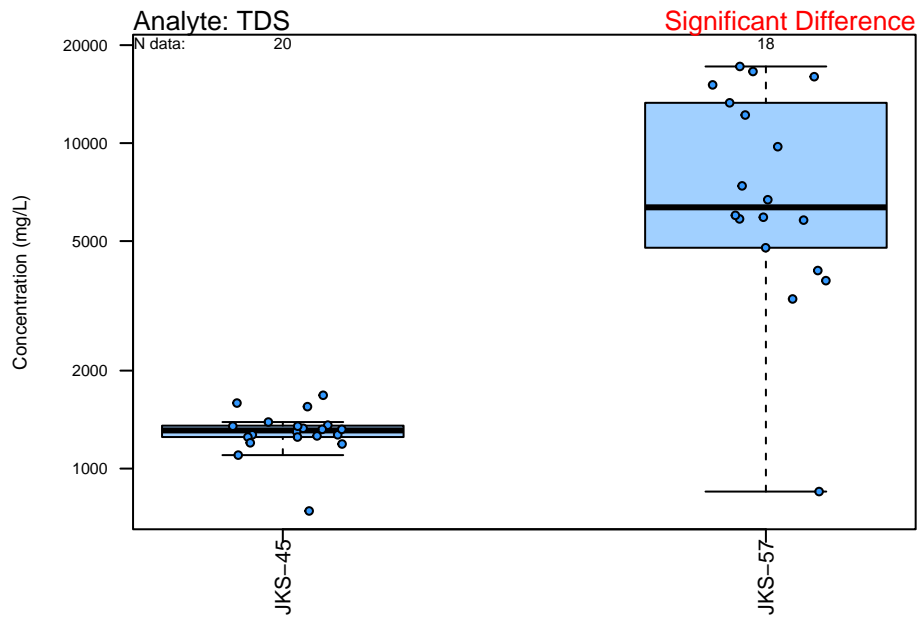
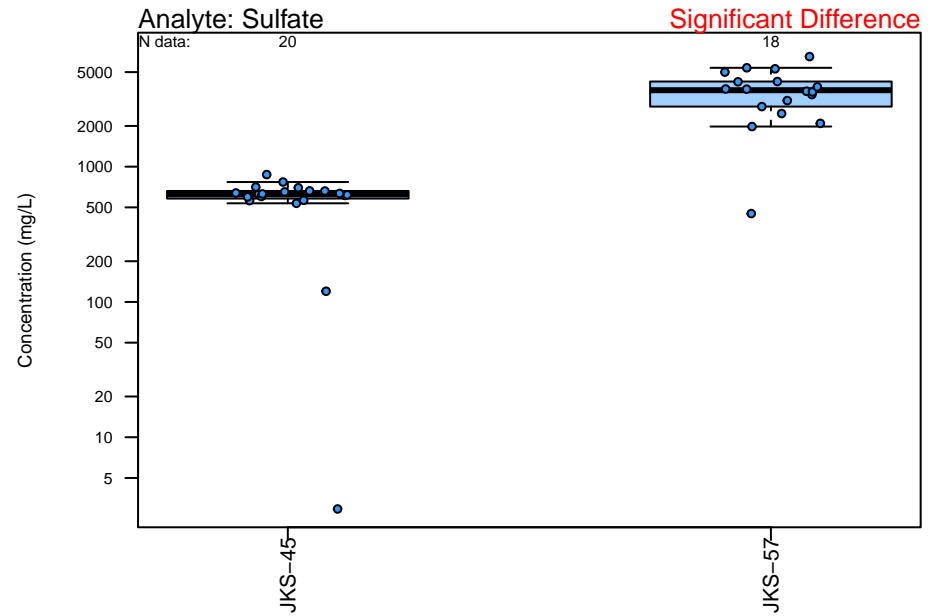
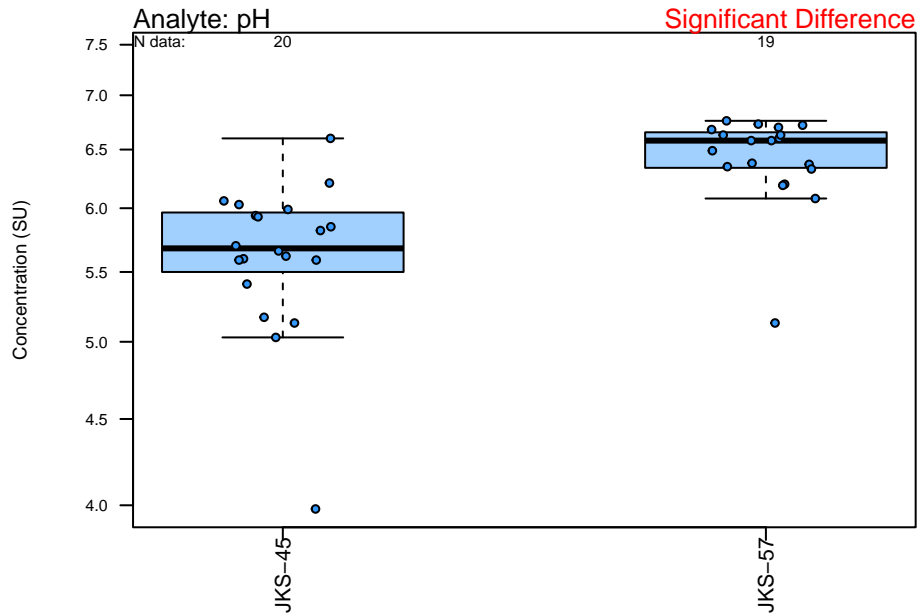
Overall: WRS Exceedance - most recent sampling event does not exceed the UPL, but median of the well is greater than U

Overall: Both Exceedance - most recent sampling event exceeds the UPL and median of the well is larger than the U

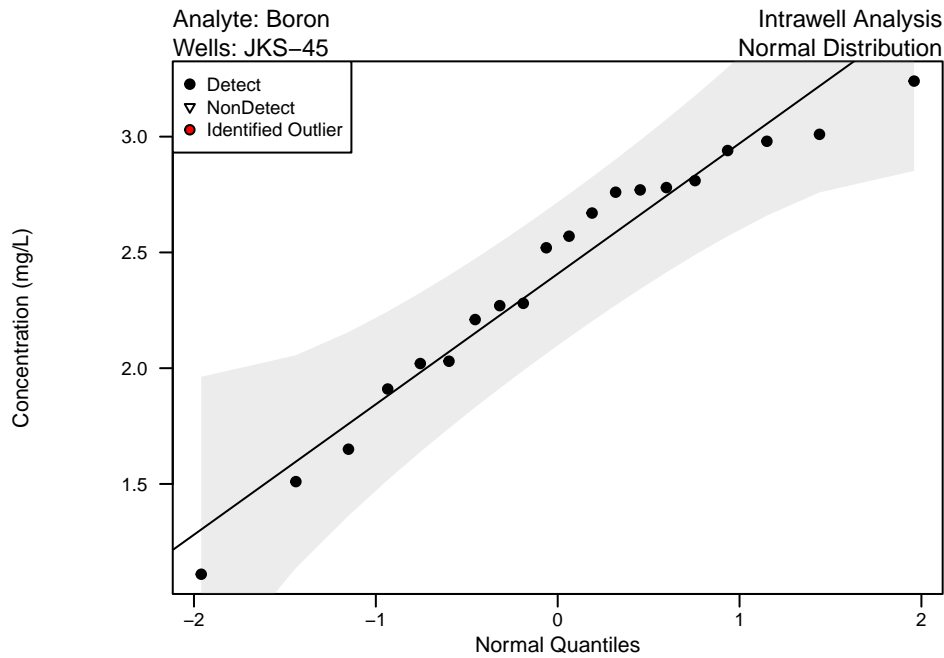
Boxplots of Upgradient Wells



Appendix B – Figure 1
Unit: Fly Ash Landfill
Boxplots of Upgradient Wells

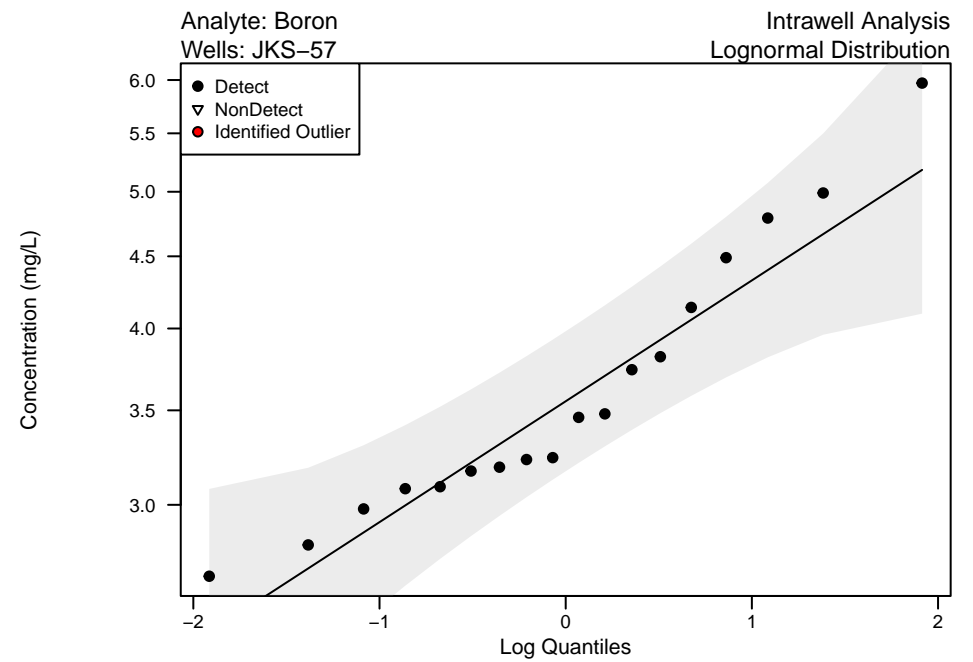


Appendix B – Figure 2
Unit: Fly Ash Landfill
QQ Plots of Upgradient Wells

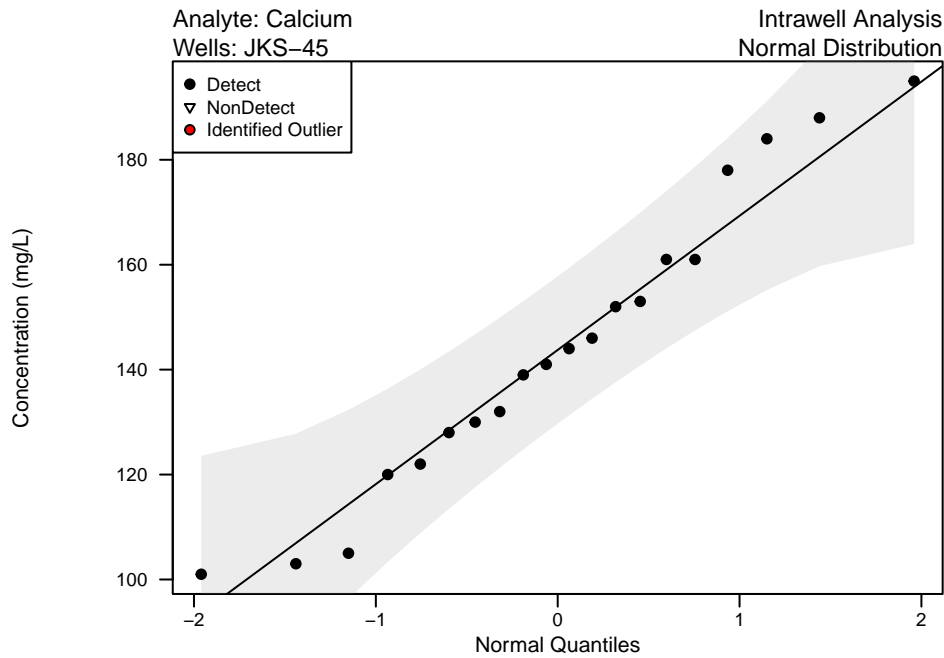


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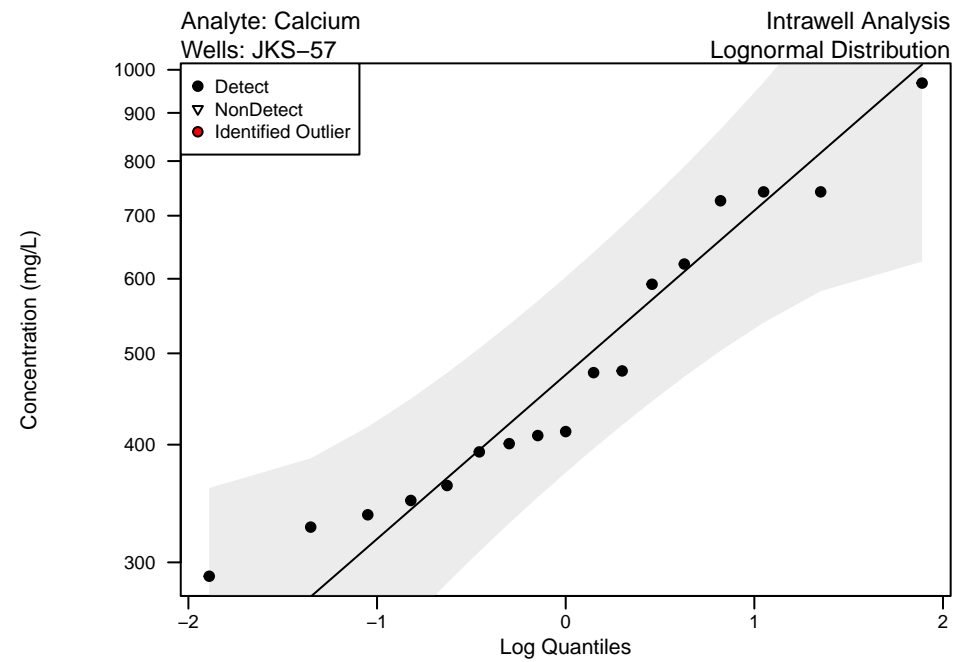


Appendix B – Figure 2
Unit: Fly Ash Landfill
QQ Plots of Upgradient Wells

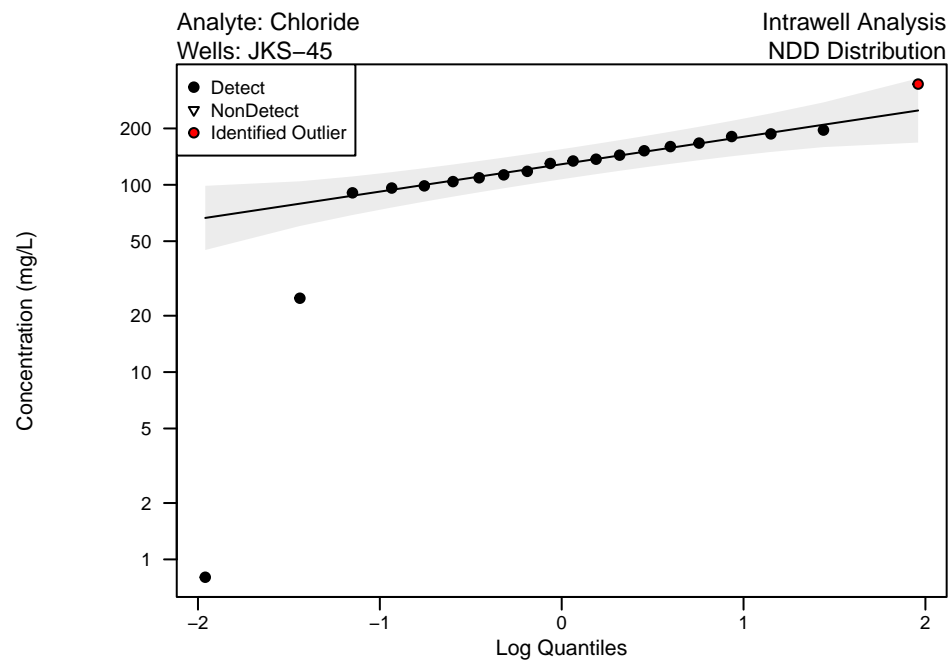
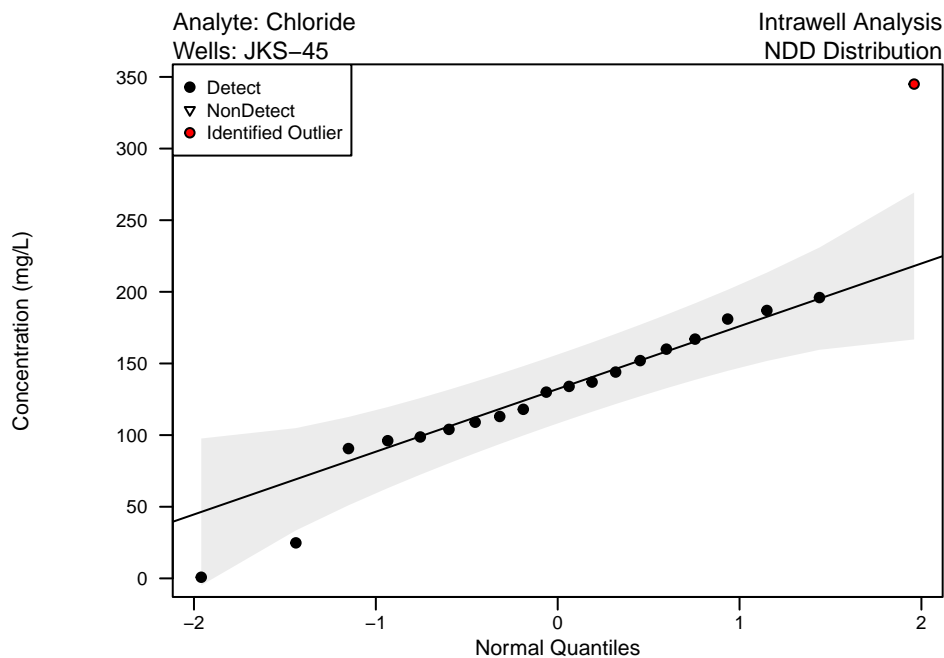


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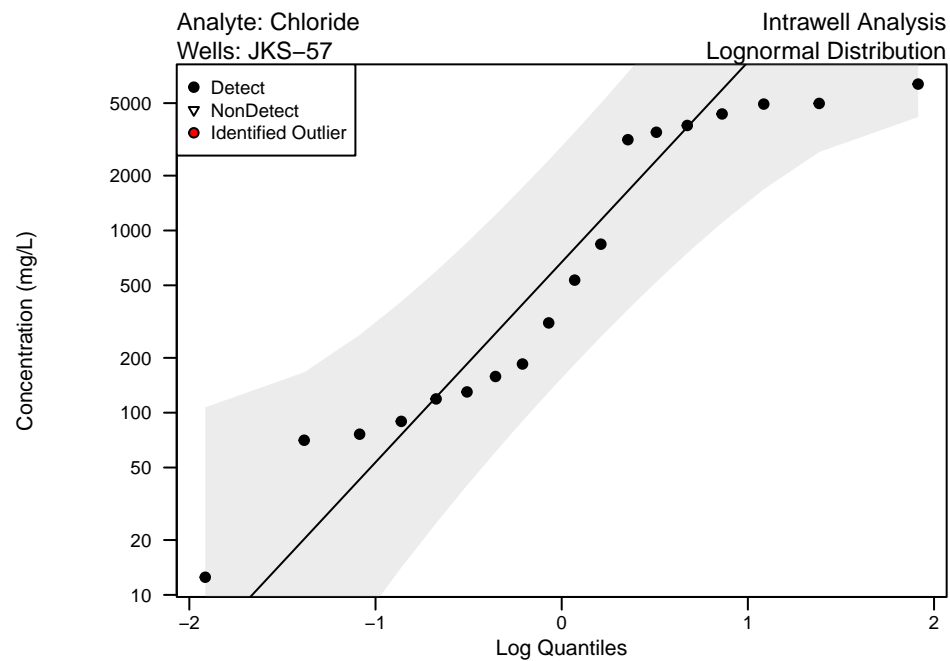
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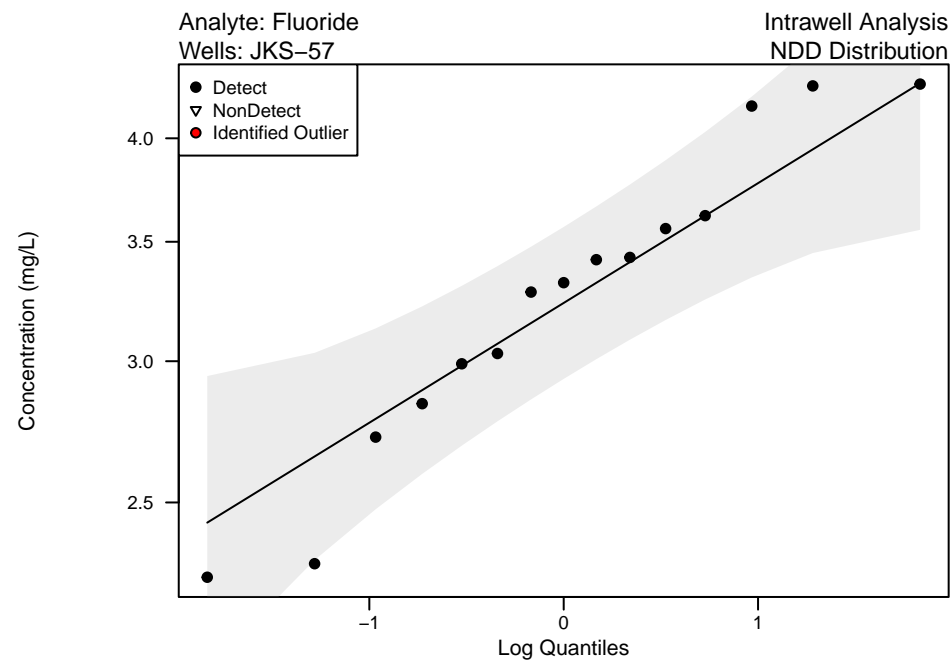
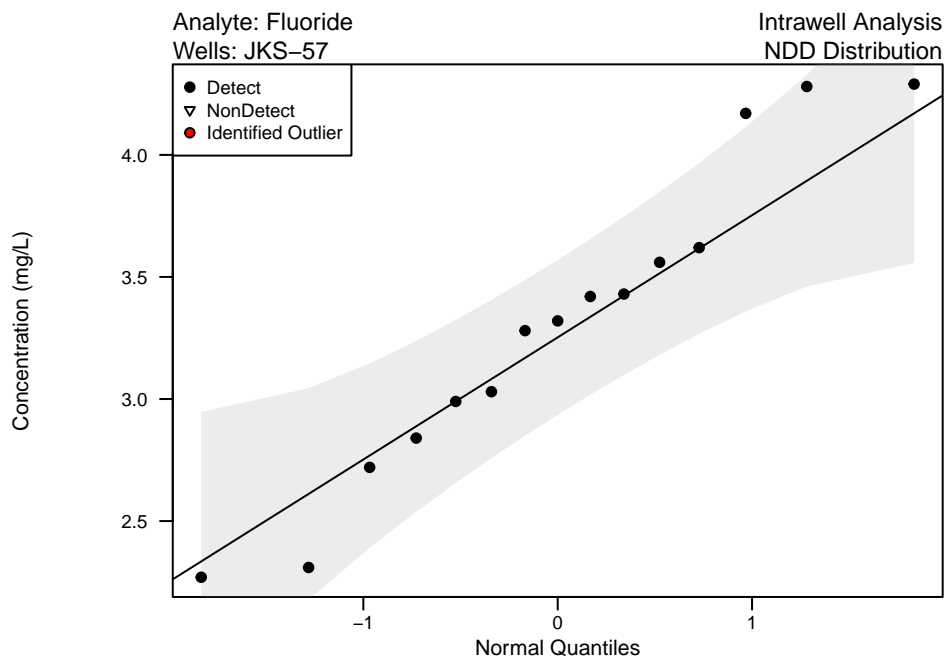
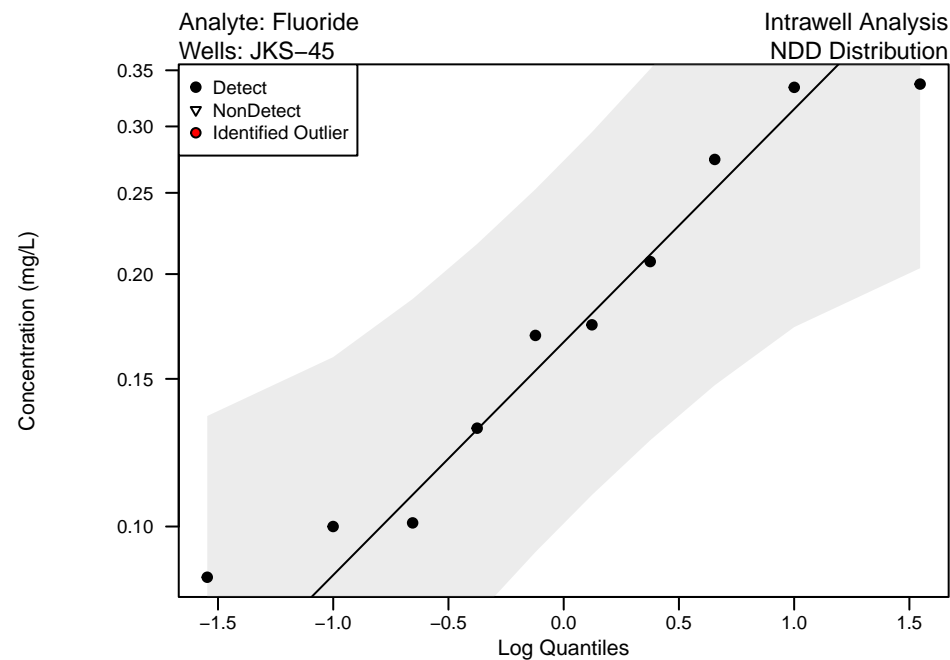
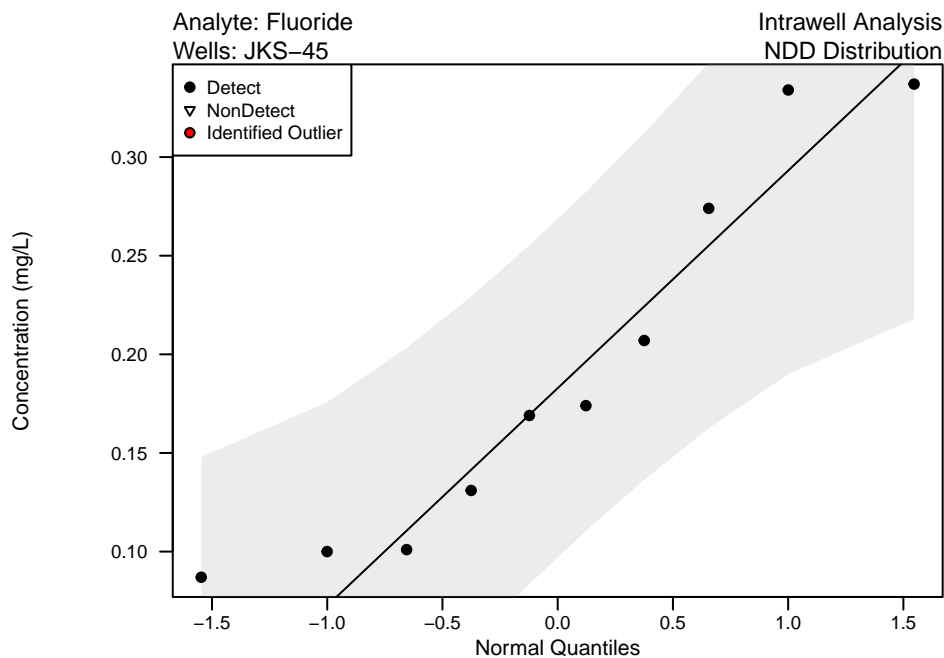
Appendix B – Figure 2
Unit: Fly Ash Landfill
QQ Plots of Upgradient Wells



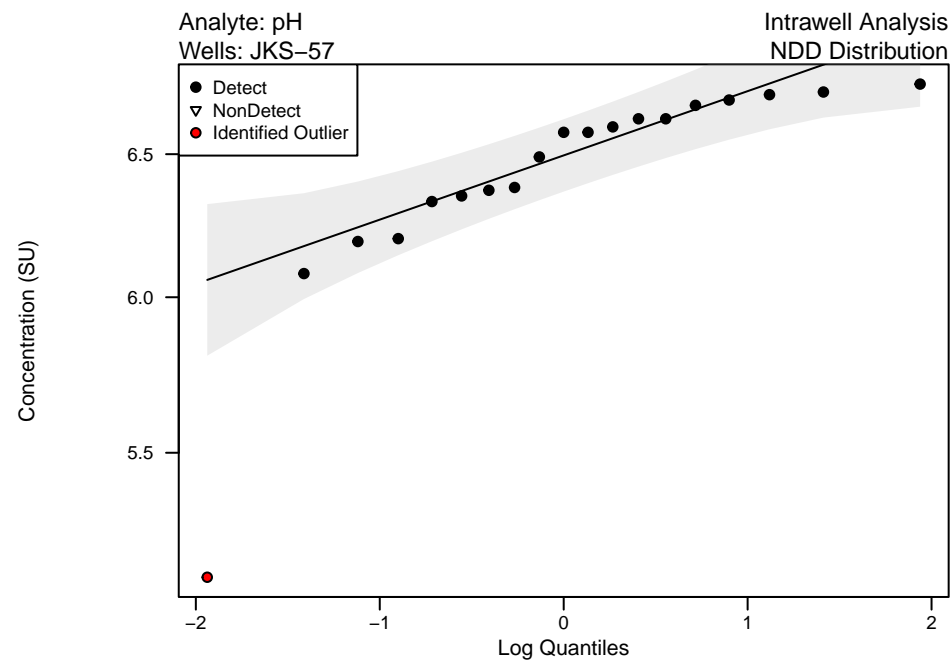
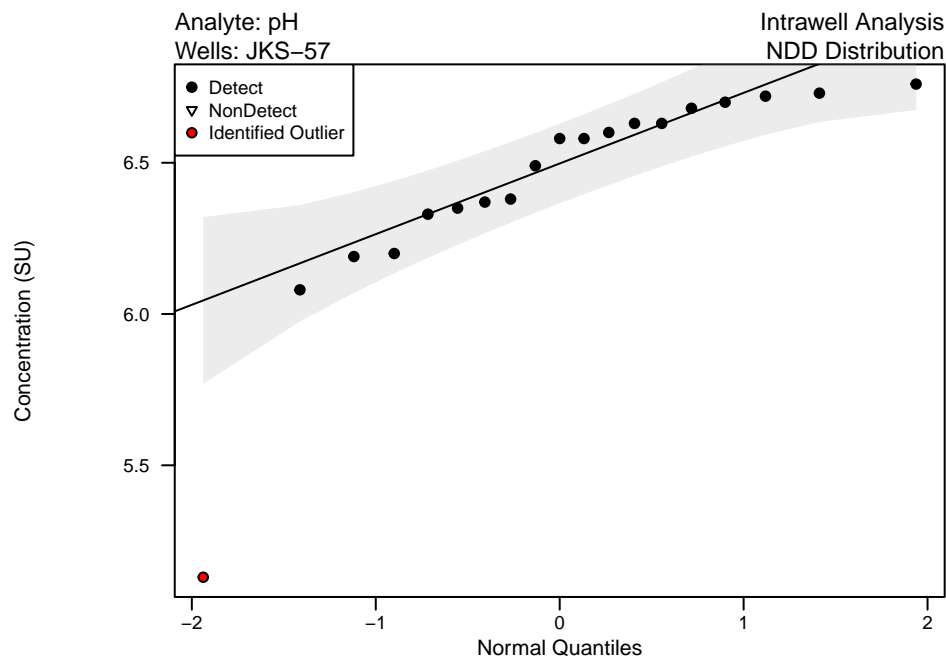
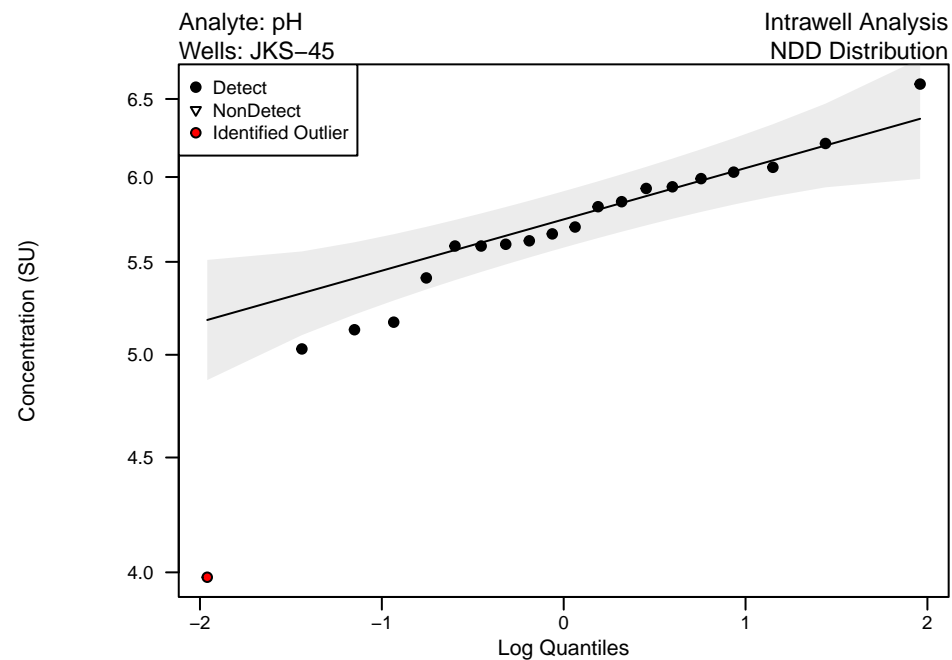
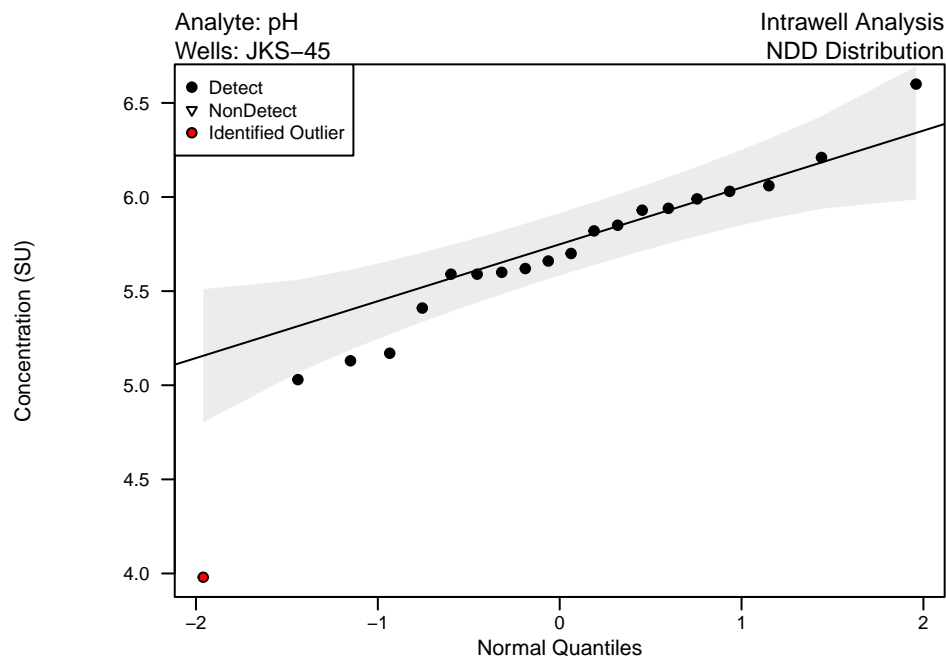
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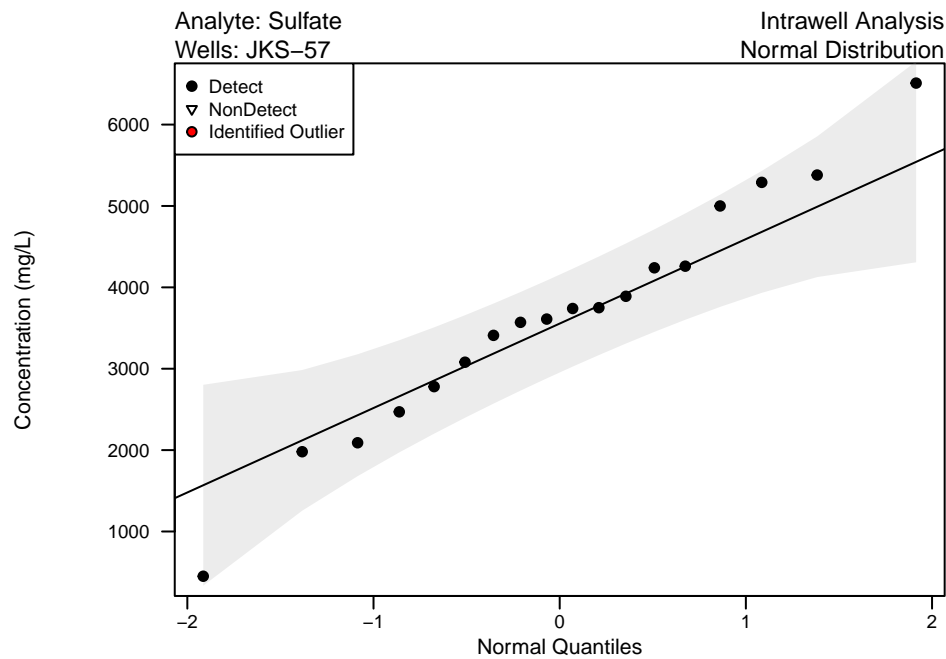
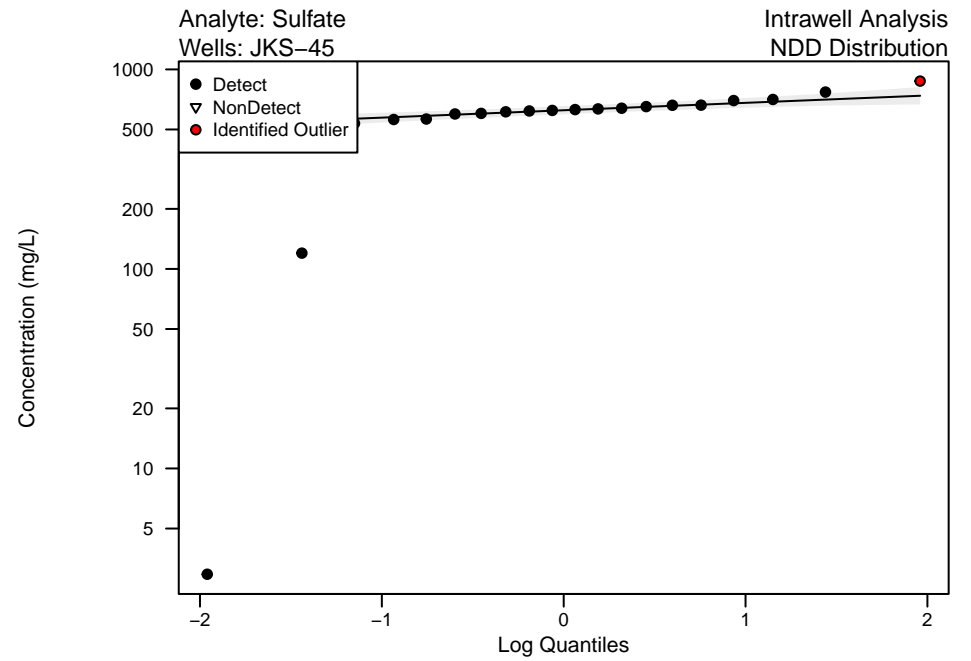
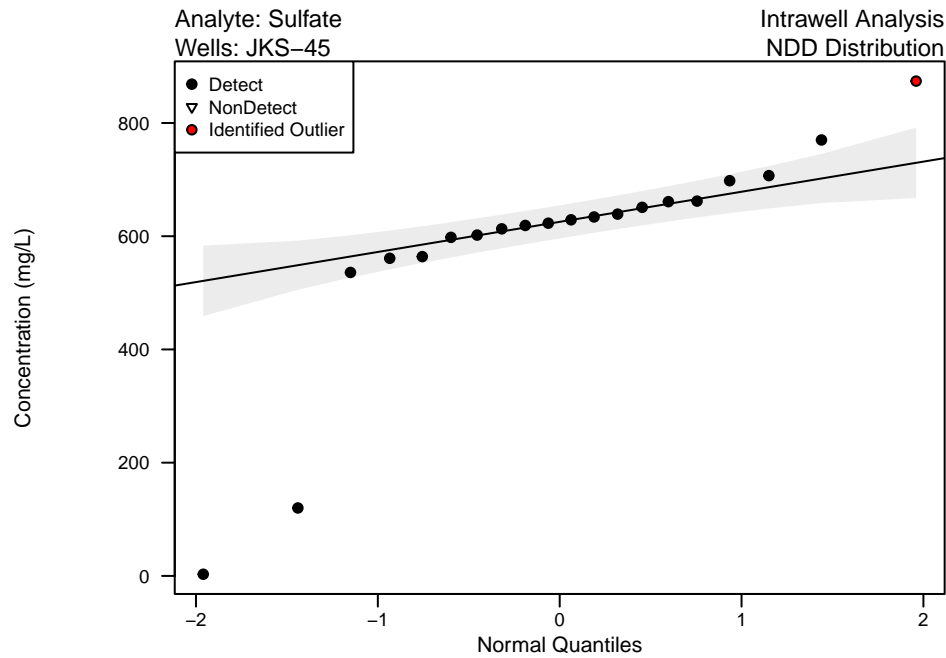
Appendix B – Figure 2
Unit: Fly Ash Landfill
QQ Plots of Upgradient Wells



Appendix B – Figure 2
Unit: Fly Ash Landfill
QQ Plots of Upgradient Wells

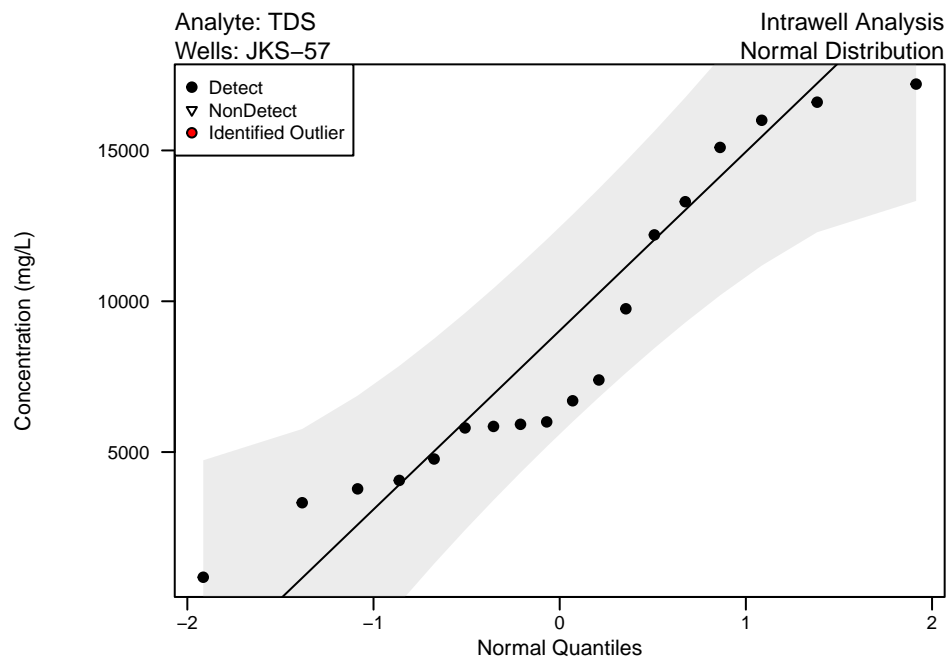
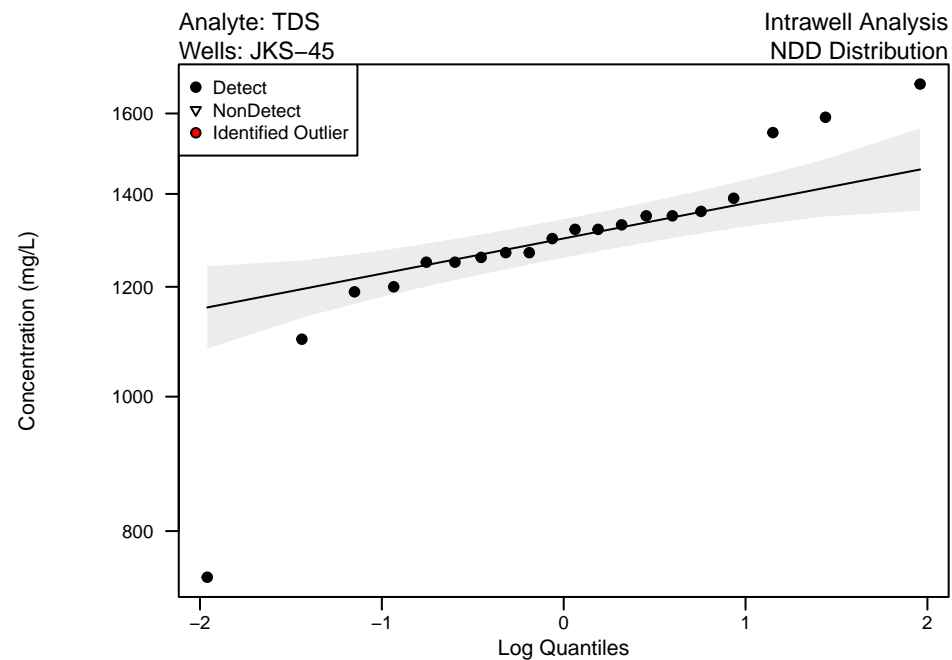
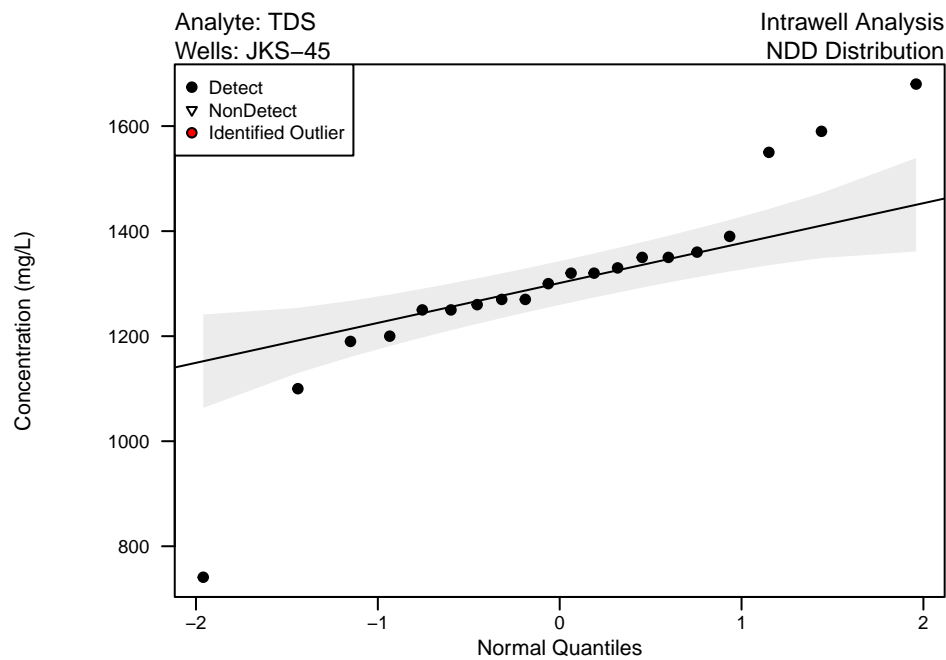


Appendix B – Figure 2
Unit: Fly Ash Landfill
QQ Plots of Upgradient Wells



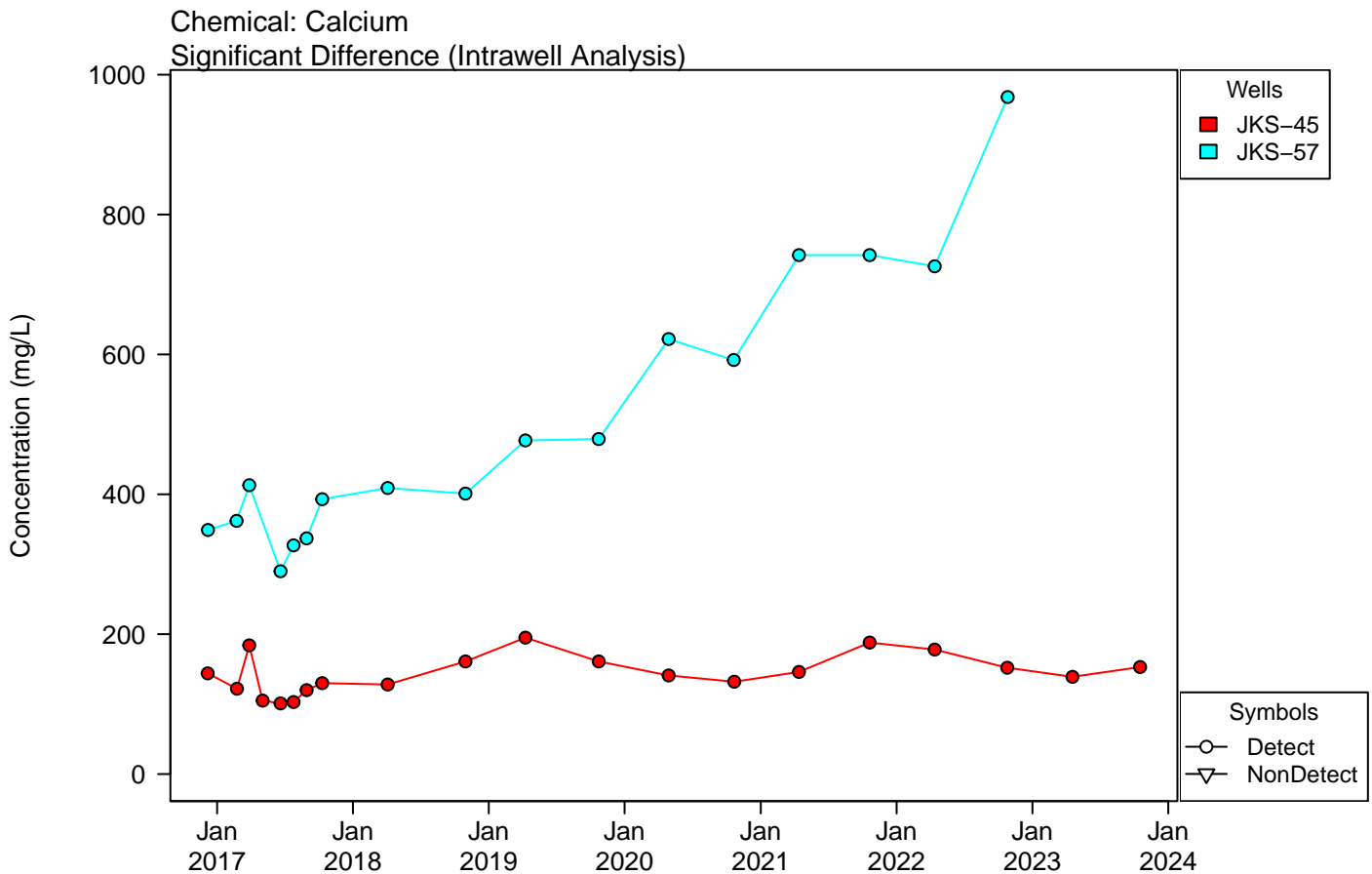
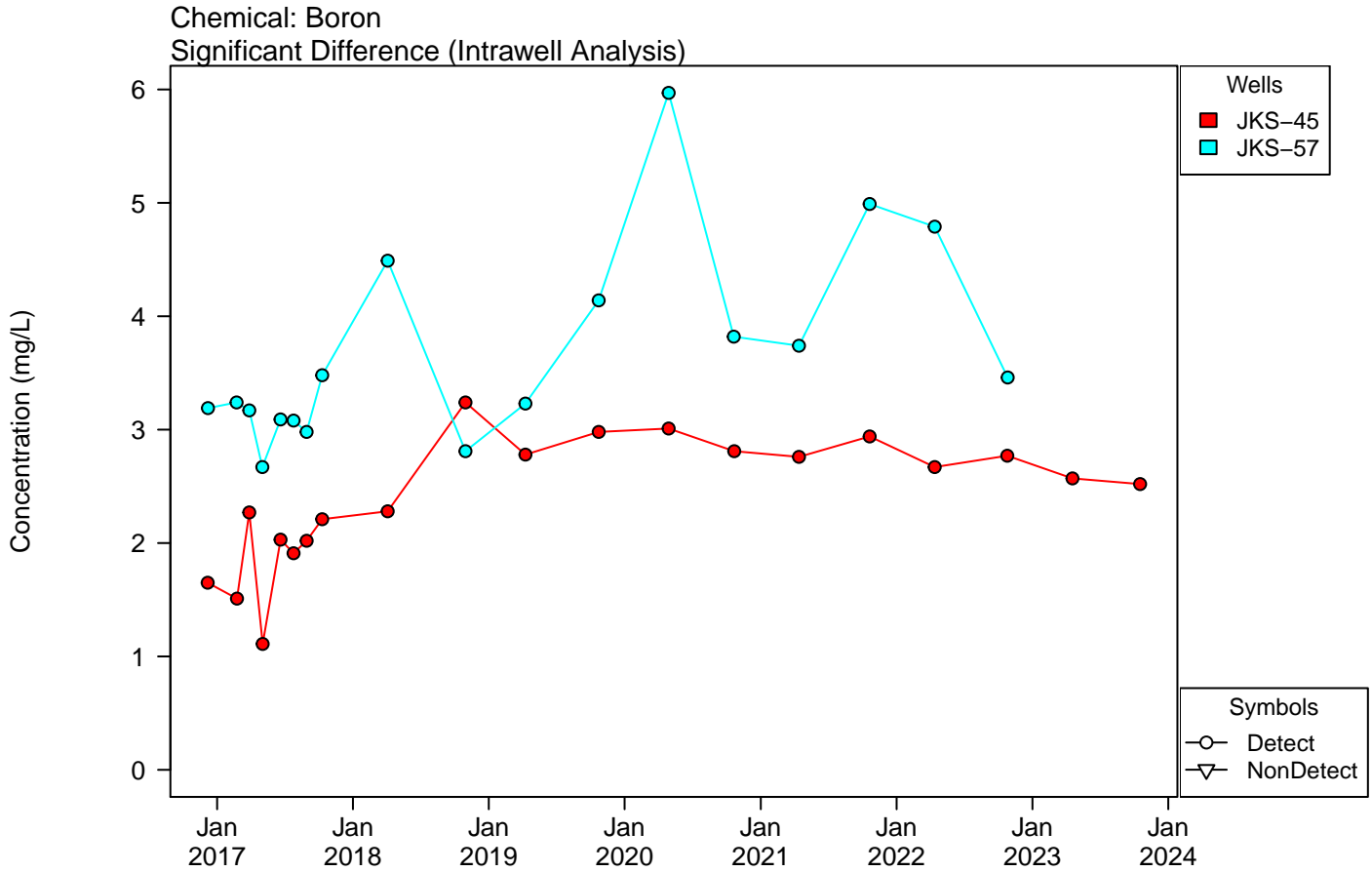
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Appendix B – Figure 2
Unit: Fly Ash Landfill
QQ Plots of Upgradient Wells



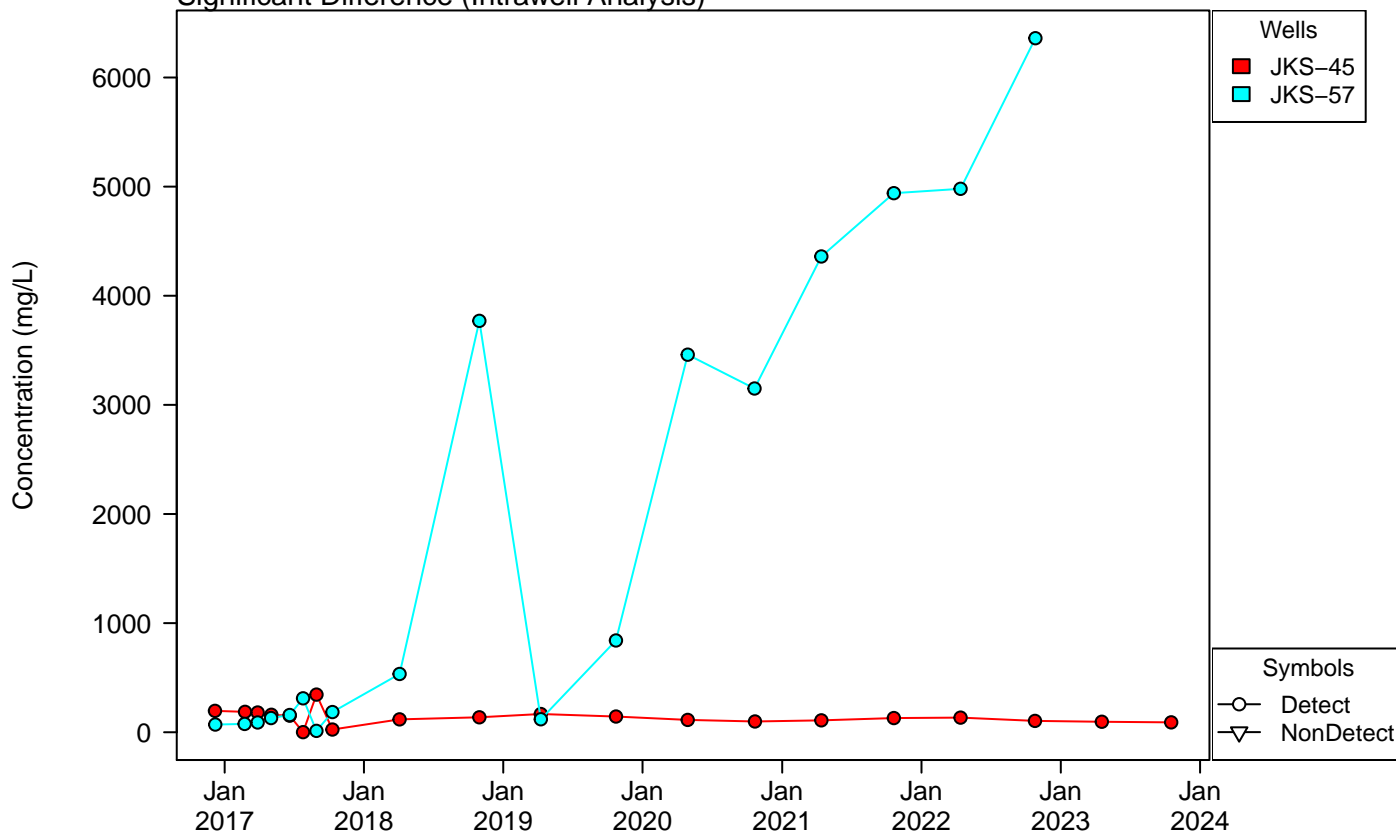
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Appendix B – Figure 3
Unit: Fly Ash Landfill
Timeseries of Upgradient Wells

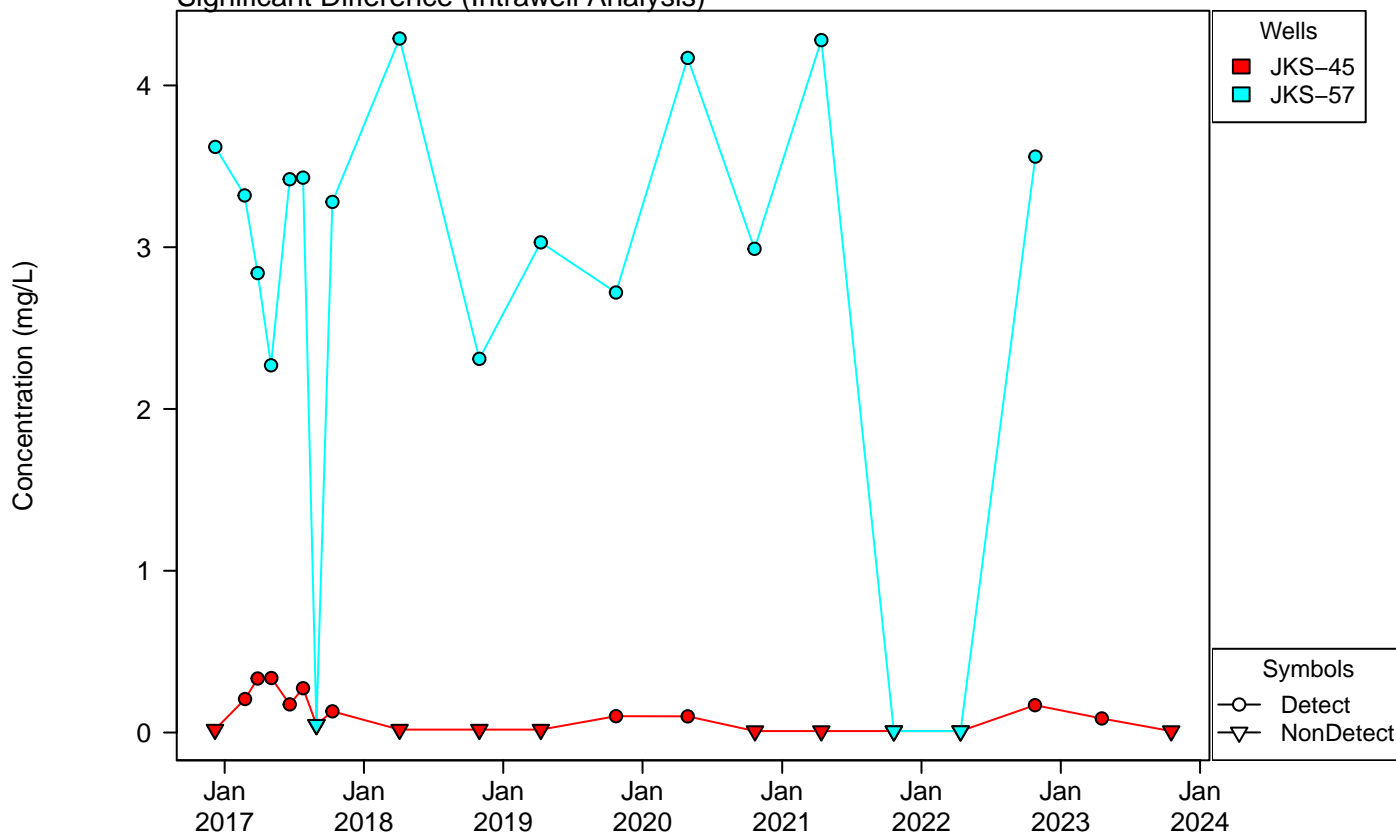


Appendix B – Figure 3
Unit: Fly Ash Landfill
Timeseries of Upgradient Wells

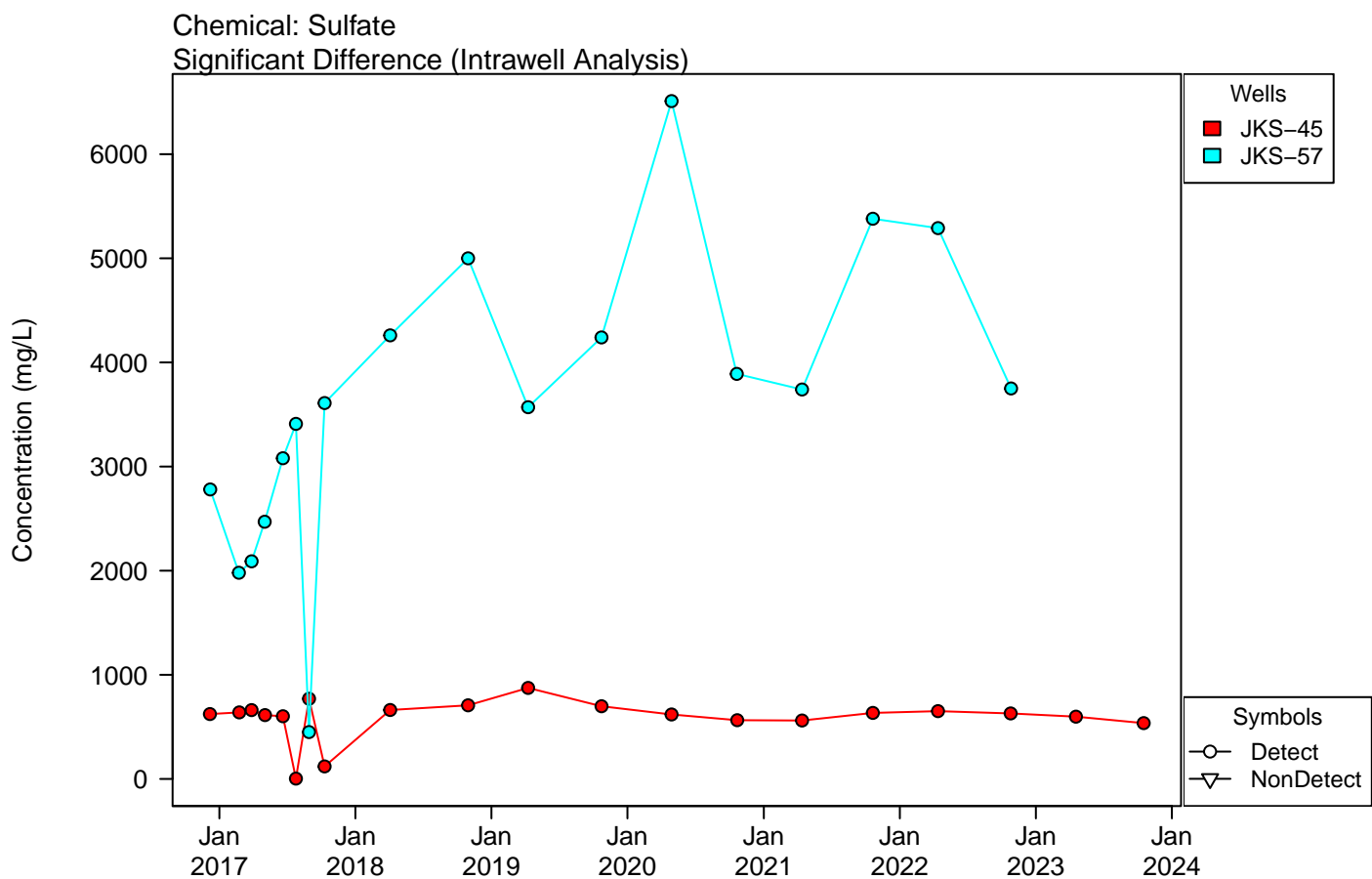
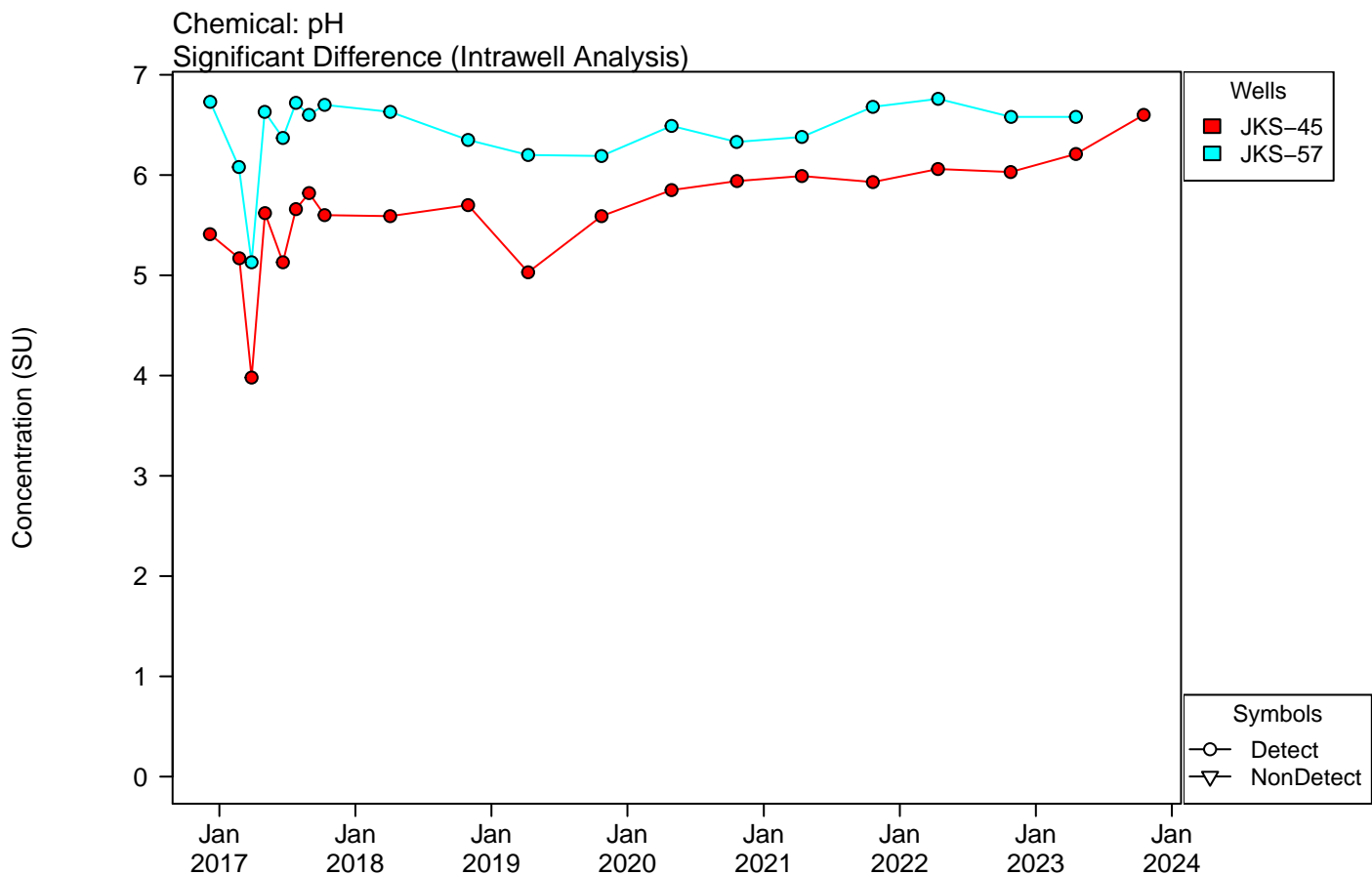
Chemical: Chloride
Significant Difference (Intrawell Analysis)



Chemical: Fluoride
Significant Difference (Intrawell Analysis)

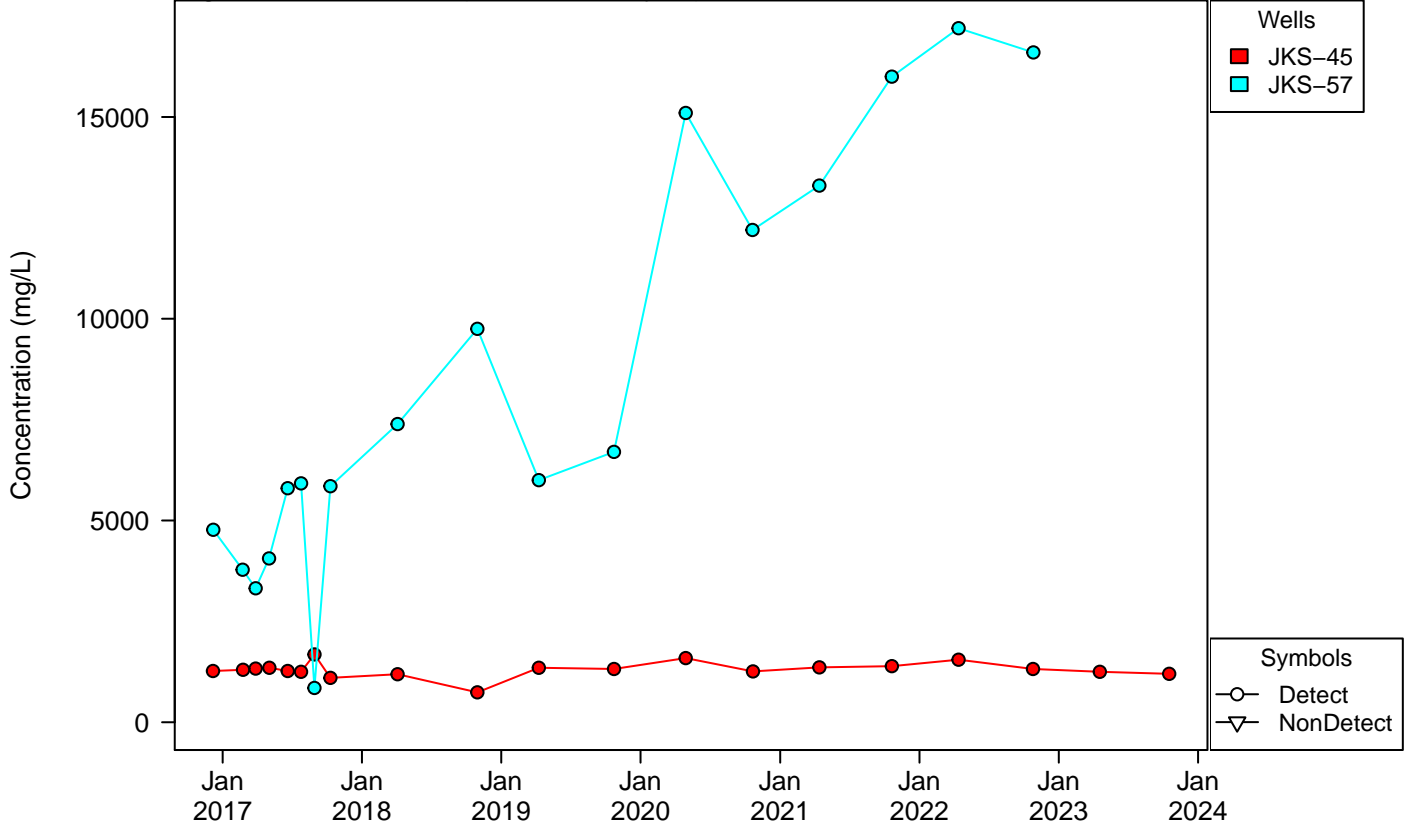


Appendix B – Figure 3
Unit: Fly Ash Landfill
Timeseries of Upgradient Wells

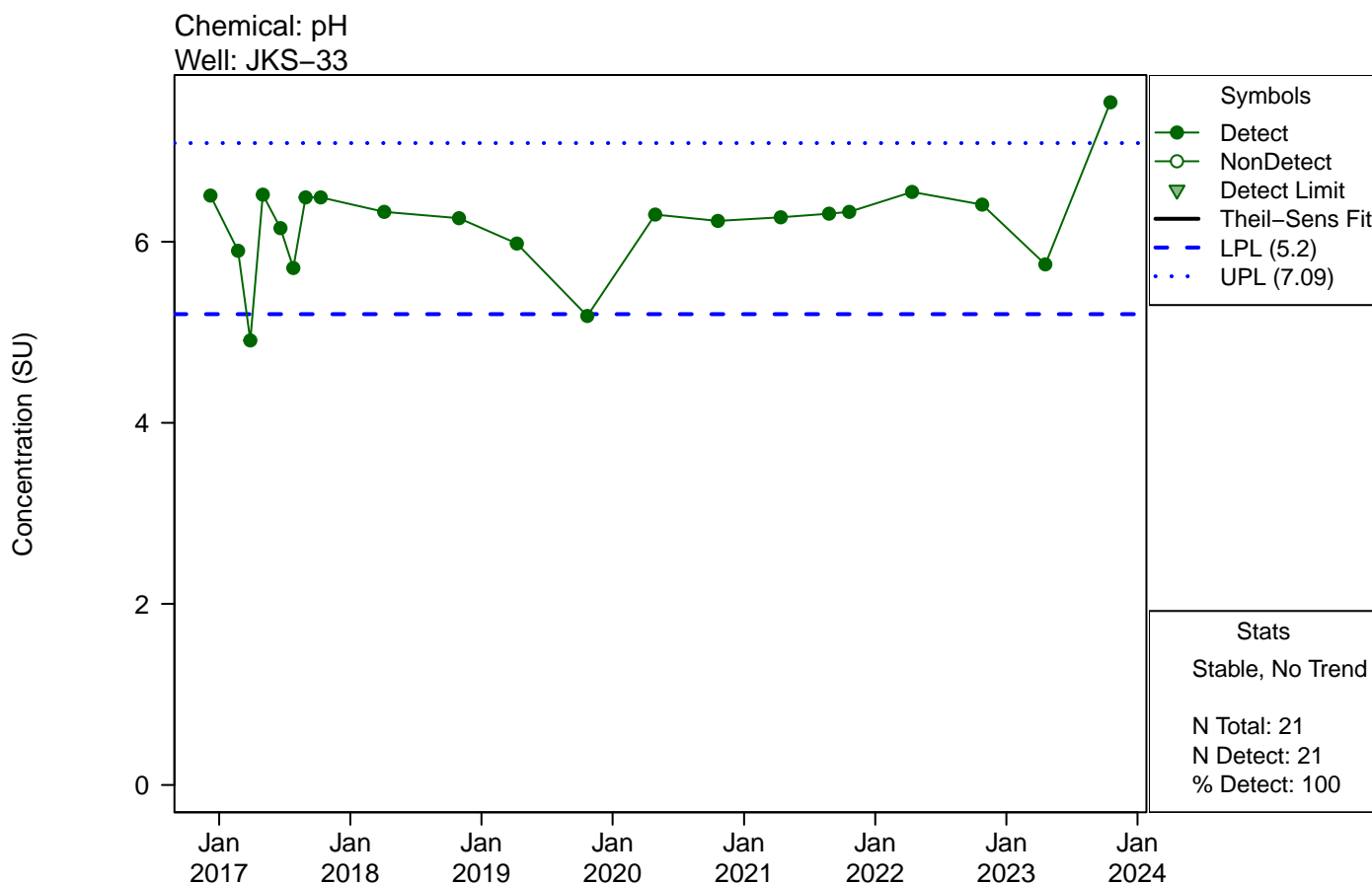
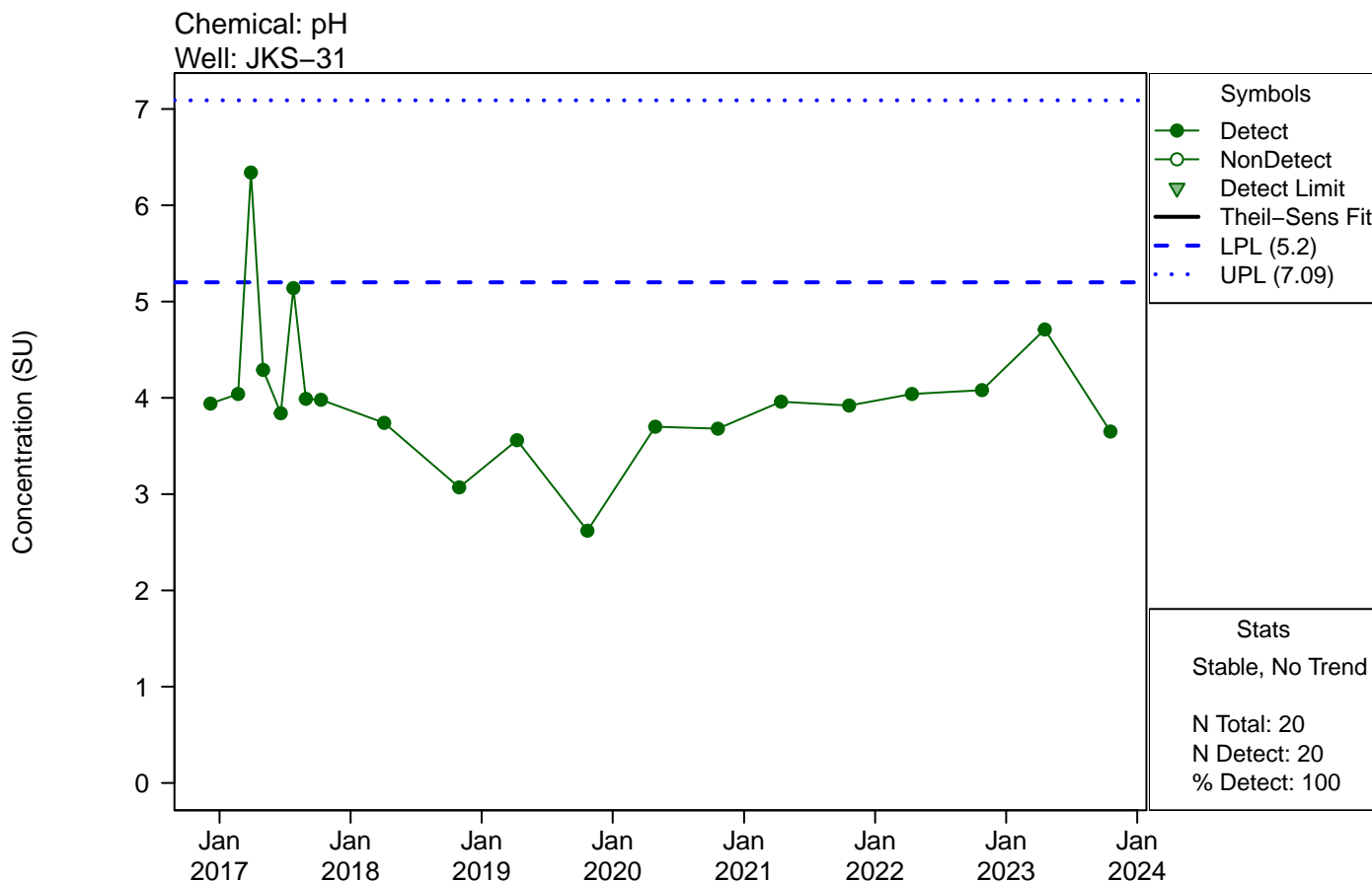


Appendix B – Figure 3
Unit: Fly Ash Landfill
Timeseries of Upgradient Wells

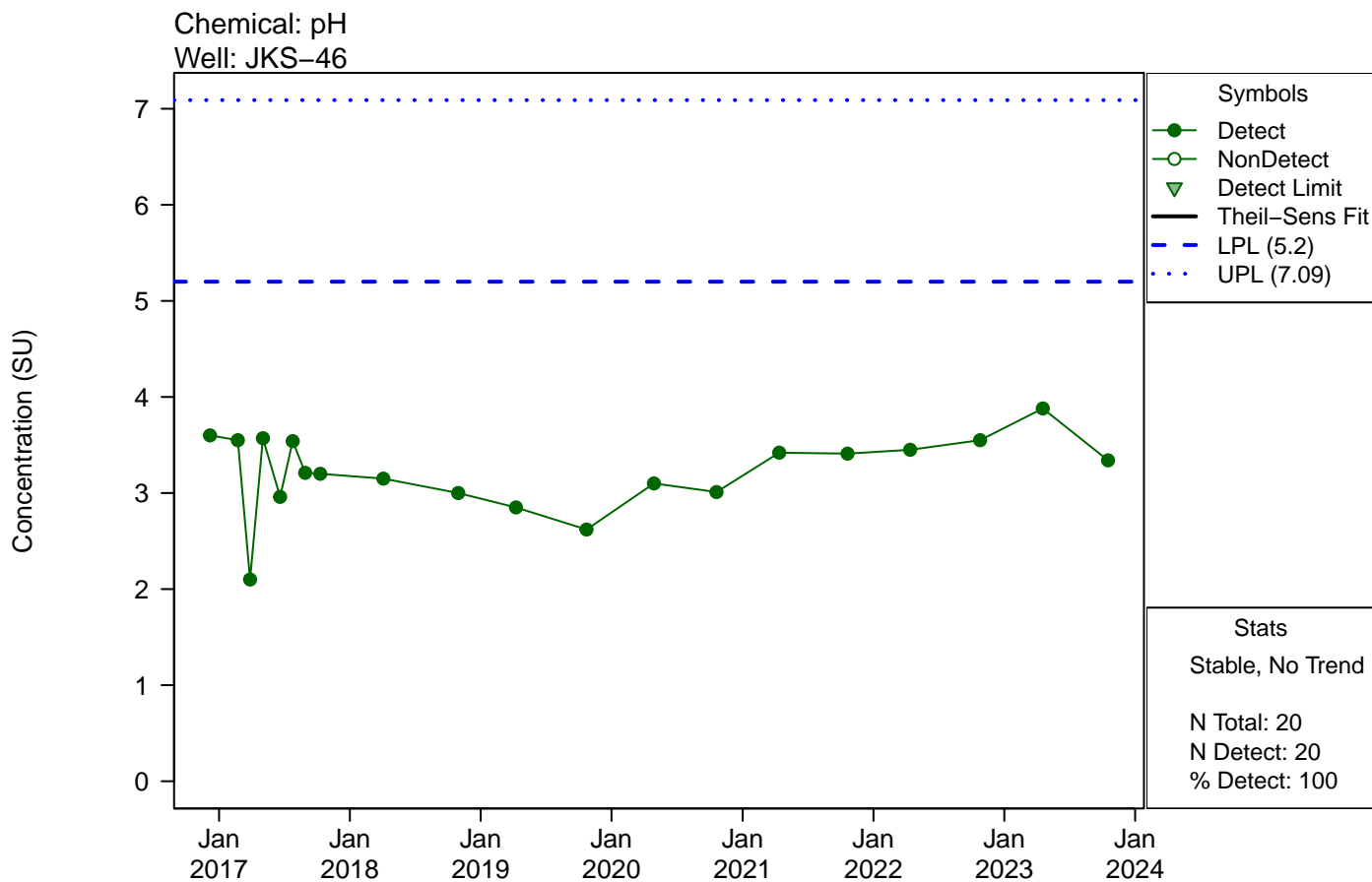
Chemical: TDS
Significant Difference (Intrawell Analysis)



Appendix B – Figure 4
Unit: Fly Ash Landfill
Trend Analysis of Downgradient Wells with Exceedances



Appendix B – Figure 4
Unit: Fly Ash Landfill
Trend Analysis of Downgradient Wells with Exceedances





APPENDIX C APRIL 2023 GROUNDWATER SAMPLING RESULTS

JANUARY 2024



August 31, 2023

Mr. Michael Malone
CPS Energy
500 McCullough Avenue
San Antonio, Texas 78215

Reference: 0681818

Subject: April 2023 Groundwater Sampling Event
Calaveras Power Station CCR Units
San Antonio, Texas

Introduction

Title 40 Code of Federal Regulations, Part 257, (40 CFR §257) Subpart D [a.k.a. Coal Combustion Residual (CCR) Rule] was published in the Federal Register in April 2015 and became effective in October 2015. Additionally, Title 30, Texas Administrative Code, Chapter 352 (30 TAC 352) (a.k.a. Texas CCR Rule), became effective in May 2020. One of the many requirements of the Federal and Texas CCR Rule was for CPS Energy to determine if there are impacts to groundwater from the surface impoundments [Evaporation Pond (EP), Bottom Ash Ponds (BAPs), and Sludge Recycling Holding Pond (SRHP)] and the landfill [Fly Ash Landfill (FAL)] that contain CCR at the Calaveras Power Station.

In the initial *2017 Annual Groundwater Monitoring and Corrective Action Report* for each CCR unit, the downgradient monitoring well results from the October 2016 sampling event were compared to Upper Prediction Limits (UPLs) and Lower Prediction Limits (LPLs). UPLs and LPLs were calculated in the *Annual Groundwater Monitoring and Corrective Action Reports* for the purpose of determining a potential statistically significant increase (SSI) over background levels. In the subsequent *Annual Groundwater Monitoring and Corrective Action Reports* for each CCR unit, the downgradient monitoring well results from the previous October sampling events were compared to updated UPLs and LPLs. These updated UPLs and LPLs were recalculated in the respective *Annual Groundwater Monitoring and Corrective Action Reports* using the additional data collected from the previous year. The April 2023 groundwater sample results were compared to the updated UPLs and LPLs and the evaluations of the sample results indicated a potential SSI for a limited number of constituents from the EP, FAL, and BAPs. No potential SSIs were identified for any constituents from the SRH Pond.

According to the Federal CCR Rule [40 CFR §257.94(e)] and Texas CCR Rule [30 TAC §352.941(c)], if the owner or operator of a CCR unit determines there is a SSI over background levels for one or more Appendix III constituents, the owner or operator may demonstrate that a source other than the CCR unit caused the SSI over background levels or that the SSI resulted from error in sampling, analysis, statistical evaluation or natural variation in groundwater quality. The CCR Rule also indicates that the owner or operator must complete the written demonstration within 90 days of detecting a SSI over the background levels. If a successful demonstration is

completed within the 90-day period, the owner or operator may continue with a detection monitoring program.

To address the potential SSIs identified in the previous *Annual Groundwater Monitoring and Corrective Action Reports*, CPS Energy prepared six *Written Demonstrations – Responses to Potential Statistically Significant Increases*¹ (dated 4 April 2018; 27 February 2019; 27 April 2020; 18 June 2021; 26 April 2022; and 31 May 2023). Based on the evidence provided in the *Written/ Alternative Source Demonstrations*, no SSIs over background levels were determined for any of the CPS Energy CCR units (EP, FAL, BAPs, and SRHP) and therefore, CPS Energy continued with a detection monitoring program that would include semiannual sampling.

Sampling Events Summary

The first semiannual groundwater sampling event for 2023 was conducted on April 18 and 19, 2023. The sampling event included the collection of water level measurements and groundwater samples from all the background and downgradient monitoring wells in the CCR monitoring program. Monitoring wells were gauged and then sampled by CPS Energy using low flow sampling techniques during the sampling event. The groundwater samples were analyzed for Appendix III constituents.

For each CCR unit, the downgradient monitoring well results from the April 2023 sampling event was compared to the updated UPLs and LPLs recalculated in their respective *2022 Annual Groundwater Monitoring and Corrective Action Report*. The April 2023 groundwater sample results for the downgradient monitoring wells in each CCR unit are summarized in Attachment 1.

Although the evaluations of the April 2023 groundwater sample results indicate potential SSIs for a limited number of constituents, the constituents associated with the potential SSIs are the same constituents, were detected at similar concentrations and were identified in one or all of the previous *Written/ Alternative Source Demonstrations*. The evaluations of the April 2023 groundwater sample results with potential SSIs are summarized below.

EP – The constituents associated with potential SSIs include fluoride in JKS-36 and JKS-61; and pH in JKS-36. As previously presented in the *Written/ Alternative Source Demonstrations*, the concentrations of fluoride and pH appear to reflect natural variation in groundwater quality in the vicinity of the CCR unit. The reported April 2023 concentrations were within the range of naturally occurring concentrations identified in the *Written/ Alternative Source Demonstrations*.

FAL – The constituents associated with potential SSIs include pH in JKS-31 and JKS-46. As previously presented in the *Written/ Alternative Source Demonstrations*, the concentration of pH in JKS-31 appears to reflect natural variation in groundwater quality in the vicinity of the CCR unit. The concentration of pH in JKS-46 is slightly higher than the naturally occurring range previously detected at this monitor well; however, the detected concentration is within historical ranges of naturally occurring pH values detected at JKS-36, JKS-40, and JKS-43 located in the vicinity of the

¹ The term 'Written Demonstration' was historically used for a document that provided responses to potential SSIs. Starting with the 26 April 2022 document, the term 'Alternative Source Demonstration' was used for these types of documents.

Northern CCR Units. The reported April 2023 concentrations were within the range of naturally occurring concentrations identified in the *Written/ Alternative Source Demonstrations*.

BAPs – The constituents associated with potential SSIs include boron in JKS-48, JKS-49, JKS-50R, JKS-52, JKS-55, and JKS-56; and fluoride in JKS-48, JKS-52, and JKS-55. As previously presented in the *Written/ Alternative Source Demonstrations*, the concentrations of boron and fluoride appear to reflect natural variation in groundwater quality in the vicinity of the CCR unit. The reported April 2023 concentrations were within the range of naturally occurring concentrations identified in the *Written/ Alternative Source Demonstrations*.

SRHP – The constituents associated with potential SSIs include boron in JKS-52, JKS-53, and JKS-54; and fluoride in JKS-52 and JKS-54. As previously presented in the *Written/ Alternative Source Demonstrations*, the concentrations of boron and fluoride appear to reflect natural variation in groundwater quality in the vicinity of the CCR unit. The reported April 2023 concentrations were within the range of naturally occurring concentrations identified in the *Written/ Alternative Source Demonstrations*.

Note: As discussed in the *2022 Annual Groundwater Monitoring and Corrective Action Reports* for the BAPs and SRHP, the groundwater monitoring well network was revised to designate newly installed well JKS-70 as an upgradient well. In addition, for the BAPs, JKS-49 was redesignated from an upgradient well to a downgradient well. Therefore, starting with the 2022 monitoring events, all statistical analyses (including the establishment of UPLs, LPLs and potential exceedances) were conducted using an upgradient monitoring well network comprised of JKS-51 and JKS-70. Further noted in the *Reports*, JKS-70 was only sampled during one event in 2022, and the incorporation of those analytical results into the statistical analyses have resulted in lower UPLs, and therefore the potential for additional exceedances. CPS Energy will continue to collect additional sample results from JKS-70 to better assess and evaluate these potential exceedances.

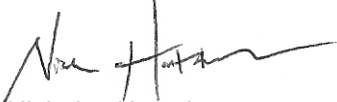
Conclusions

Based on the April 2023 groundwater sample results and the evidence provided in one or all of the *Written/ Alternative Source Demonstrations*, no SSIs over background levels have been determined for any of the CPS Energy CCR units (EP, FAL, BAPs, and SRHP) and therefore, CPS Energy should continue with a detection monitoring program. The second semiannual sampling event should be performed in October 2023.

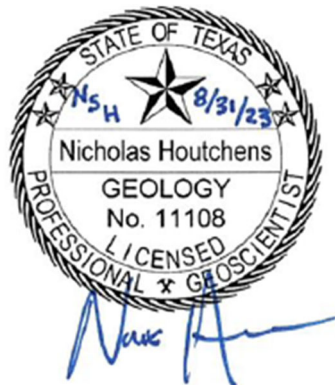
We appreciate the opportunity to work with you on this project. Please contact me if you should have any questions.

Sincerely,

Environmental Resources Management Southwest, Inc.



Nicholas Houtchens
Senior Geologist



ATTACHMENT 1

APRIL 2023 GROUNDWATER SAMPLE RESULTS

April 2023 Groundwater Sample Results
CCR Unit: Evaporation Pond
CPS Energy Calaveras Power Station
San Antonio, TX

				CCR Unit	EP	EP	EP	EP
				Well Designation	Downgradient	Downgradient	Downgradient	Downgradient
				Well ID	JKS-36	JKS-61	JKS-62	JKS-64
				Sample Date	4/18/2023	4/19/2023	4/19/2023	4/19/2023
				Sample Type Code	N	N	N	N
Constituent	Units	2022 LPL - EP	2022 UPL - EP					
Boron	mg/L	--	1.67		0.415	1.06	NS	0.683
Calcium	mg/L	--	1,480		166	71.2	NS	21.6
Chloride	mg/L	--	3,420		341	150	NS	19.2
Fluoride	mg/L	--	0.252		1.30	0.355	NS	0.107
pH, Field	SU	4.94	6.51		4.55	5.96	NS	5.51
Sulfate	mg/L	--	2,100		950	331	NS	212
Total Dissolved Solids	mg/L	--	10,500		2,020	1,090	NS	574

NOTES:

Shaded results either exceed of the Upper Prediction Limit (UPL) or are below the Lower Prediction Limit (LPL) for this CCR unit.

Sample Type Code: N - Normal

NS: Not sampled (well blockage or limited water in well column)

April 2023 Groundwater Sample Results
CCR Unit: Fly Ash Landfill
CPS Energy Calaveras Power Station
San Antonio, TX

				FAL	FAL	FAL	FAL	FAL
				Downgradient	Downgradient	Downgradient	Downgradient	Downgradient
				JKS-31	JKS-33	JKS-33	JKS-46	JKS-60
				4/18/2023	4/19/2023	4/19/2023	4/18/2023	4/19/2023
				N	N	FD	N	N
Constituent	Units	2022 LPL - FAL	2022 UPL - FAL					
Boron	mg/L	--	5.16	0.442	0.988	0.996	0.425	0.579
Calcium	mg/L	--	948	205	376	386	91.4	358
Chloride	mg/L	--	5,300	389	732	752	46.2	287
Fluoride	mg/L	--	4.46	0.706	1.05	1.05	1.07	0.218
pH, Field	SU	4.98	7.10	4.71	5.75	5.75	3.88	5.77
Sulfate	mg/L	--	8,600	1,070	1,550	1,600	766	1,220
Total Dissolved Solids	mg/L	--	20,500	2,120	3,680	3,630	1,120	2,310

NOTES:

Shaded results either exceed of the Upper Prediction Limit (UPL) or are below the Lower Prediction Limit (LPL) for this CCR unit.

Sample Type Code: N - Normal; FD - Field Duplicate

April 2023 Groundwater Sample Results
CCR Unit: Bottom Ash Ponds
CPS Energy Calaveras Power Station
San Antonio, TX

CCR Unit				BAP	BAP	BAP	BAP	BAP	BAP	BAP
Well Designation				Downgradient	Downgradient	Downgradient	Downgradient	Downgradient	Downgradient	Downgradient
Well ID				JKS-48	JKS-48	JKS-49	JKS-50R	JKS-52	JKS-55	JKS-56
Sample Date				4/19/2023	4/19/2023	4/18/2023	4/18/2023	4/19/2023	4/18/2023	4/19/2023
Sample Type Code				N	FD	N	N	N	N	N
Constituent	Units	2022 LPL - BAP	2022 UPL - BAP							
Boron	mg/L	--	0.726	1.93	1.97	2.24	5.15	2.47	0.794	2.86
Calcium	mg/L	--	404	118	120	106	119	179	126	92.0
Chloride	mg/L	--	658	434	470	404	84.8	412	406	138
Fluoride	mg/L	--	0.547	0.964	0.975	0.289	0.310	0.626	0.844	0.398
pH, Field	SU	5.48	7.16	6.72	6.72	7.16	6.60	6.74	6.80	6.68
Sulfate	mg/L	--	625	182	197	202	171	256	173	39.8
Total Dissolved Solids	mg/L	--	3,180	1,370	1,400	1,380	1,030	1,650	1,380	791

NOTES:

Shaded results either exceed of the Upper Prediction Limit (UPL) or are below the Lower Prediction Limit (LPL) for this CCR unit.

Sample Type Code: N - Normal; FD - Field Duplicate

April 2023 Groundwater Sample Results
CCR Unit: SRH Pond
CPS Energy Calaveras Power Station
San Antonio, TX

				CCR Unit	SRH Pond	SRH Pond	SRH Pond
				Well Designation	Downgradient	Downgradient	Downgradient
				Well ID	JKS-52	JKS-53	JKS-54
				Sample Date	4/19/2023	4/19/2023	4/19/2023
				Sample Type Code	N	N	N
Constituent	Units	2022 LPL - SRH	2022 UPL - SRH				
Boron	mg/L	--	0.726		2.47	1.72	1.07
Calcium	mg/L	--	404		179	140	144
Chloride	mg/L	--	658		412	450	440
Fluoride	mg/L	--	0.547		0.626	0.345	0.635
pH, Field	SU	5.48	7.16		6.74	6.52	6.60
Sulfate	mg/L	--	616		256	312	437
Total Dissolved Solids	mg/L	--	3,180		1,650	1,580	1,570

NOTES:

Shaded results either exceed of the Upper Prediction Limit (UPL) or are below the Lower Prediction Limit (LPL) for this CCR unit.
Sample Type Code: N - Normal; FD - Field Duplicate



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