

ANNUAL GROUNDWATER MONITORING REPORT FOR 2025

COLORADO SPRINGS UTILITIES' CLEAR SPRING RANCH Coal Combustion Residuals Landfill El Paso County, Colorado

January 30, 2026

Prepared For:

40 CFR Part 257.90(e)

and

Colorado Department of Public Health and Environment

Hazardous Materials and Waste Management Division

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1.0 EXECUTIVE SUMMARY

During the 2025 reporting period, Colorado Springs Utilities' (Utilities') Clear Spring Ranch (CSR) Coal Combustion Residuals (CCR) Landfill was operating pursuant to the assessment monitoring program set forth in 40 CFR §257.95. The landfill entered assessment monitoring in 2018.

During 2025, the following monitoring wells were determined to have a statistically significant increase over background for the following EPA CCR Rule Appendix III constituents pursuant to 40 CFR §257.94(e):

- ▼ Boron within monitoring wells SC-11 and SC-12
- ▼ Chloride within monitoring wells SC-10 and SC-11
- ▼ Fluoride within monitoring wells SC-10, SC-11, and SC-12

As previously reported in the Annual Groundwater Monitoring Report for 2021, EPA CCR Rule Appendix IV constituent selenium was measured in downgradient well SC-10 at a statistically significant level exceeding the Groundwater Protection Standards (GWPS) during the second semi-annual (2021) sampling event. Utilities completed an Alternate Source Demonstration (ASD) in April 2022, in accordance with §257.95(g)(3)(ii). During 2025 no EPA CCR Rule Appendix IV constituents were measured at a statistically significant level exceeding the GWPS.

2.0 INTRODUCTION

This annual report summarizes the groundwater monitoring activities performed during 2025 in association with the CCR Landfill at Utilities' CSR. The landfill is located west-southwest of the intersection of Interstate 25 and Ray Nixon Road (Exit 125) in El Paso County, Colorado. CCR from Utilities' Ray Nixon Power Plant is placed in the landfill. CCR from Utilities' Martin Drake Power Plant was being placed in the landfill; however, the Martin Drake Power Plant ceased operation of its coal-burning units in Fall 2021 and CCR is no longer being generated at this power plant.

The CCR Landfill is regulated by the U.S. Environmental Protection Agency (EPA), the Colorado Department of Public Health & Environment (CDPHE), and El Paso County. The land-use is authorized via a Certificate of Designation (CD) obtained from El Paso County (CD #004-001).

The groundwater monitoring activities were performed for compliance with the EPA's Standards for the Disposal of Coal Combustion Residuals in Landfills and Surface Impoundments (40 CFR §257.50 through §257.107) (EPA CCR Rule) and the CDPHE's Regulations Pertaining to Solid Waste Sites and Facilities (6 CCR 1007-2, Part 1, Section 2.2 - Ground Water Monitoring).

The groundwater monitoring activities were conducted in general accordance with the October 2017 Coal Combustion Residuals Landfill Groundwater Detection Monitoring Plan and results are being reported in general accordance with the January 2026 Coal Combustion Residuals Landfill Groundwater Detection Monitoring Plan (AECOM 2026). The Groundwater Monitoring Plan was recently updated to account for a complex site geology, where it was identified that groundwater chemistry is different in the North Paleo-Alluvial Valley as compared to the South Paleo-Alluvial Valley. Previously, in the October 2017 Coal Combustion Residuals Landfill Groundwater Detection Monitoring Plan, the background data set for statistical evaluation was based only on the wells located in the South Paleo-Alluvial Valley. The April 2022 ASD demonstrated that modification of the groundwater monitoring program to account for the full diversity of background geochemical conditions of the North and South Paleo-Alluvial Valleys was necessary. From

2022 to 2025, additional monitoring wells were installed, sampled to establish a new background dataset for the North Paleo-Alluvial Valley, and data was evaluated to inform the January 2026 Groundwater Detection Monitoring Plan. This 2025 Annual Report follows the statistical analysis outlined in the updated January 2026 Groundwater Detection Monitoring Plan. Additional information on this process is in the attached August 23, 2023 *Groundwater Monitoring Network Modification* letter (Appendix A).

This 2025 Annual Groundwater Monitoring Report fulfills the EPA's, CDPHE's, and El Paso County's annual reporting requirements.

2.1 Groundwater Classification and Management

From its inception in the late 1970's, the CCR Landfill has been designed and operated to protect the Fountain Creek Alluvial Aquifer, which is the closest aquifer to the site used for drinking water purposes. The CCR Landfill is located approximately 0.5 miles upgradient of a Retention Dam, described below. The Fountain Creek Alluvial Aquifer is located approximately 0.5 miles downgradient of the Retention Dam. There are no drinking water or agricultural wells within the CD Area, in which the CCR Landfill is located. To protect the Fountain Creek Alluvial Aquifer, groundwater associated with the CCR Landfill is managed via a Retention Dam System. The Retention Dam was constructed downgradient of the CCR Landfill in 1978 to inhibit the off-site migration of surface water and groundwater. The dam has a bentonite core and is keyed into the underlying Pierre Shale bedrock. To improve the dam's performance, in the 1990s, Utilities installed a bentonite barrier wall along the upgradient toe of the dam. The Retention Dam System also includes a french drain and pump back system downgradient of the dam. The drain extends for approximately 525 feet along the southern portion of the dam. The french drain's collection trench is gravel filled and slopes towards a sump located at the northern end of the trench. An extraction well and pump remove water collected in the sump and pump it back to the upgradient Retention Dam pond. The dam is registered with and inspected by the Office of the State Engineer - Division of Water Resources - Dam Safety Branch (Dam I.D. #100401). A site plan is presented in Appendix B.

3.0 GROUNDWATER FLOW ANALYSIS AND GEOLOGIC PROFILE

The CCR Landfill is located within a small, west-east trending topographic depression that contains up to approximately 50 feet of Piney Creek Alluvium sediments underlain with, and bounded to the north and south, by Pierre Shale, which has a reported thickness of approximately 3,500 to 4,000 feet and forms a hydraulic barrier between the alluvium and any potential deeper water-bearing formations, if present.

The alluvium is concentrated in the lower areas and drainages, with Pierre Shale generally present nearer the ground surface along the higher topographic features and ridges. The groundwater flow beneath the CCR Landfill is present within hydraulically separated buried paleo-alluvial valley drainages, two of which are separated by a bedrock high located beneath the landfill. These two paleo-alluvial valley drainages are referred to as the "South Paleo-Alluvial Valley" and the "North Paleo-Alluvial Valley" (AECOM, 2022).

The two paleo-alluvial valleys have different background/upgradient areas, but they converge into a single channel downgradient from the landfill. Because of their separate background/upgradient areas, the two channels have differing geochemical conditions that result in different downgradient constituent concentrations. Accordingly, the North Paleo-alluvial Valley background represented by wells SC-15, SC-18 and SC-19, is used to test the statistical significance of data from downgradient wells SC-10 and SC-11. The South Paleo-alluvial Valley background characterized by upgradient wells CC-1, FC-1, FC-2, FC-3A, and FC-3B, is used to test the statistical significance of data from downgradient wells SC-12 and SC-13.

Groundwater elevation measurements collected October 16 and 17, 2025, were used to interpolate a potentiometric groundwater surface, which is depicted within Appendix B – Figure 2. The groundwater surface data suggests that groundwater beneath the CCR Landfill generally flows in an east / southeasterly direction towards the Retention Dam.

4.0 GROUNDWATER QUALITY SAMPLING AND ANALYSIS

As detailed in the January 2026 CCR Landfill Groundwater Detection Monitoring Plan, the current groundwater quality monitoring well network for the CCR Landfill is comprised of eight background wells (CC-1, FC-1, FC-2, FC-3A, FC-3B, SC-15, SC-18, & SC-19), and four downgradient wells along the eastern edge of the landfill (SC-10, SC-11, SC-12, & SC-13). In March 2025 and September 2025, two rounds of semi-annual Appendix III Detection Monitoring and Appendix IV Assessment Monitoring groundwater samples were collected from monitoring wells CC-1, FC-1, FC-2, FC-3A, FC-3B, SC-10, SC-11, SC-12, and SC-13. From September 2023 to November 2024, eight rounds of bimonthly Appendix III Detection Monitoring and Appendix IV Assessment Monitoring groundwater samples were collected from monitoring wells SC-15, SC-18, and SC-19. The locations of the monitoring wells are depicted within Appendix B – Figure 2.

Groundwater samples were collected in general accordance with the 2026 CCR Landfill Groundwater Detection Monitoring Plan. The monitoring wells were purged using dedicated bladder pumps with tubing; after which, the groundwater samples were collected from the discharge tube of the bladder pump directly into laboratory-supplied sample containers. The sample containers were then labeled and placed into an insulated ice-chilled sample cooler. Samples were hand delivered to the analytical laboratory.

In 2018, Utilities' CCR Landfill migrated from Detection Monitoring to Assessment Monitoring. Assessment Monitoring is required whenever a statistically significant increase over background levels has been detected for one or more of the Detection Monitoring constituents. Assessment Monitoring must continue until concentrations of all Detection and Assessment Monitoring constituents are determined to be at or below background values using statistical procedures for two consecutive sampling events.

Boron, chloride, and fluoride have been measured at concentrations estimated statistically as being significantly higher than background and have not been determined to be at or below background values using statistical procedures for two consecutive sampling events. Therefore, both Detection Monitoring and Assessment Monitoring continued throughout 2025.

4.1 Detection Monitoring

During 2025, Utilities collected groundwater samples from the monitoring wells as described in Section 4.0 above and analyzed the samples using EPA and/or industry accepted methods for the Detection Monitoring constituents listed in Appendix III of the EPA CCR Rule (boron, calcium, chloride, fluoride, pH, sulfate, and total dissolved solids). The laboratory analytical results and sampling dates are summarized in the table presented in Appendix C. Copies of the analytical reports and chain of custody documentation are presented in Appendix D.

4.2 Assessment Monitoring

During 2025, Utilities collected groundwater samples from the monitoring wells as described in Section 4.0 above and analyzed the samples using EPA and/or industry accepted methods for the Assessment

Monitoring constituents listed in Appendix IV of the EPA CCR Rule (antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, fluoride, lead, lithium, mercury, molybdenum, radium 226 + 228, selenium, and thallium). The laboratory analytical results and sampling dates are summarized in the tables presented in Appendix C. Copies of the analytical reports and chain of custody documentation are presented in Appendix D.

4.3 Quality Assurance / Quality Control

Quality assurance and quality control (QA/QC) measures were implemented to ensure the reliability and validity of field and analytical data. Appendix D contains copies of the laboratory analytical reports along with QA/QC data. The QA/QC data includes duplicate samples (identified as Duplicate or Field_Dup), equipment / decontamination blanks (identified by Equip-Blk), method blanks (identified as LRB – Lab Reagent Blank), matrix spike sample results, and laboratory control sample results.

The equipment blanks were collected using laboratory-provided distilled water. Analytes were not detected in the equipment blank samples. During the March 2025 sampling event a duplicate sample was collected from monitoring well SC-11 and during the September 2025 sampling event a duplicate sample was collected from monitoring well SC-13.

Utilities reviewed the analytical results for the 2025 laboratory QC samples. Review included chain-of-custody record and laboratory-receipt form to verify custody, sample holding-times were met, and samples were properly handled from collection through laboratory analysis. No exceptions regarding custody, sample holding-times, or sample management were noted. Laboratory quality control activities and additional information on matrix spike recovery, sample dilutions, interferants, and calibration range is provided in the Appendix D laboratory report case narratives.

4.4 Monitoring Well Installation, Repair, and Abandonment

No CCR landfill monitoring wells were installed, repaired, or abandoned in 2025.

5.0 STATISTICAL ANALYSIS RESULTS SUMMARY

The methods used to statistically analyze the Detection and Assessment Monitoring groundwater data, the rationale for the analytical methods, and the results of the 2025 statistical analysis are presented in Appendix E.

The 2025 groundwater sampling results suggest that the following EPA CCR Rule Appendix III constituents are present at concentrations estimated as being a statistically significant increase above background:

- ▼ Boron within monitoring wells SC-11 and SC-12
- ▼ Chloride within monitoring wells SC-10 and SC-11
- ▼ Fluoride within monitoring well SC-10, SC-11, and SC-12

These constituents were observed to have the following trends in upgradient and downgradient monitoring wells:

APPENDIX III CONSTITUENT TRENDS – UPGRADIENT MONITORING WELLS

Appendix III Constituent	Monitoring Well CC-1	Monitoring Well FC-1	Monitoring Well FC-2	Monitoring Well FC-3A	Monitoring Well FC-3B	Monitoring Well SC-15	Monitoring Well SC-18	Monitoring Well SC-19
Boron	No Significant Trend	No Significant Trend	No Significant Trend	Decreasing	Decreasing	No Significant Trend	No Significant Trend	No Significant Trend
Chloride	Increasing	Increasing	Decreasing	Increasing	Decreasing	No Significant Trend	No Significant Trend	Increasing
Fluoride	No Significant Trend	No Significant Trend	No Significant Trend	No Significant Trend	No Significant Trend	No Significant Trend	No Significant Trend	No Significant Trend

* Trends shown for constituents with statistically significant increases above background.

* See Appendix E, the statistical analysis report, Attachment A for additional details.

APPENDIX III CONSTITUENT TRENDS – DOWNGRAIDENT MONITORING WELLS

Appendix III Constituent	Monitoring Well SC-10	Monitoring Well SC-11	Monitoring Well SC-12	Monitoring Well SC-13
Boron	No Significant Trend	Increasing	Increasing	Decreasing
Chloride	Increasing	Increasing	No Significant Trend	Increasing
Fluoride	No Significant Trend	No Significant Trend	No Significant Trend	No Significant Trend

* Trends shown for constituents with statistically significant increases above background.

* See Appendix E, the statistical analysis report, Attachment A for additional details.

During 2025, no EPA CCR Rule Appendix IV constituents were measured at a statistically significant level exceeding the GWPS.

6.0 GROUNDWATER PROTECTION STANDARDS (GWPS)

GWPS were established in accordance with §257.95(d)(2) of the EPA CCR Rule. The Rule states in §257.95(h) that the GWPS shall be:

- (1) *For constituents for which a maximum contaminant level (MCL) has been established under §141.62 and §141.66 of this title, the MCL for that constituent;*
- (2) *For the following constituents:*
 - (i) *Cobalt 6 micrograms per liter (ug/l);*
 - (ii) *Lead 15 ug/l;*
 - (iii) *Lithium 40 ug/l; and*
 - (iv) *Molybdenum 100 ug/l.*
- (3) *For constituents for which the background level is higher than the levels identified under paragraphs (h)(1) and (h)(2) of this section, the background concentration.*

To create the GWPS, an upper tolerance limit (UTL) was calculated for each of the EPA CCR Rule Appendix IV constituents to establish their background concentration. Each UTL was then compared to the

corresponding MCL or EPA CCR Rule standard. If a UTL was greater than the MCL or standard, then the UTL was used as the GWPS.

GWPS were calculated for the 2025 semi-annual sampling events and are provided in the statistical analysis report provided in Appendix E. A summary of the GWPS resulting from the 2025 sampling are presented in the tables below:

GROUNDWATER PROTECTION STANDARDS – SOUTH PALEO-ALLUVIAL VALLEY

Appendix IV Constituent	MCL (ug/L)	EPA CCR Rule Standard (ug/L)	Background Higher than MCL or Standard *	Upper Tolerance Limit (ug/L)	GWPS (ug/L)
Antimony	6	-	Yes	10.4	10.4
Arsenic	10	-	Yes	13.4	13.4
Barium	2000	-	No	27.5	2000
Beryllium	4	-	No	4	4
Cadmium	5	-	No	9.8	9.8
Chromium	100	-	No	18.9	100
Cobalt	-	6	Yes	10.8	10.8
Fluoride	4 mg/L	-	No	0.855 mg/L	4 mg/L
Lead	-	15	No	11.2	15
Lithium	-	40	Yes	1132	1130
Mercury	2	-	No	0.00993	2
Molybdenum	-	100	No	11.9	100
Selenium	50	-	Yes	224	224
Thallium	2	-	Yes	9.63	9.63
Radium 226 and 228 Combined	5 pCi/L	-	No	4.49 pCi/L	5 pCi/L

* Upper tolerance limit calculated for the constituents and compared to the MCL or the EPA CCR Rule standard. If the UTL was greater than the MCL or standard, then the UTL was used as the GWPS.

* South Paleo-Alluvial Valley Groundwater Protection Standards were developed using background monitoring wells CC-1, FC-1, FC-2, FC-3A, and FC-3B, and are applicable to downgradient monitoring wells SC-12 and SC-13.

GROUNDWATER PROTECTION STANDARDS- NORTH PALEO-ALLUVIAL VALLEY

Appendix IV Constituent	MCL (ug/L)	EPA CCR Rule Standard (ug/L)	Background Higher than MCL or Standard *	Upper Tolerance Limit (ug/L)	GWPS (ug/L)
Antimony	6	-	No	2	6
Arsenic	10	-	No	5	10
Barium	2000	-	No	22.5	2000
Beryllium	4	-	No	1	4
Cadmium	5	-	No	1	5

Appendix IV Constituent	MCL (ug/L)	EPA CCR Rule Standard (ug/L)	Background Higher than MCL or Standard *	Upper Tolerance Limit (ug/L)	GWPS (ug/L)
Chromium	100	-	No	3	100
Cobalt	-	6	No	5	6
Fluoride	4 mg/L	-	No	0.369 mg/L	4 mg/L
Lead	-	15	No	1	15
Lithium	-	40	Yes	978	978
Mercury	2	-	No	0.0247	2
Molybdenum	-	100	No	2.48	100
Selenium	50	-	Yes	340	340
Thallium	2	-	No	1	2
Radium 226 and 228 Combined	5 pCi/L	-	No	2.73 pCi/L	5 pCi/L

* Upper tolerance limit calculated for the constituents and compared to the MCL or the EPA CCR Rule standard. If the UTL was greater than the MCL or standard, then the UTL was used as the GWPS.

* North Paleo-Alluvial Valley Groundwater Protection Standards were developed using background monitoring wells SC-15, SC-18 and SC-19, and are applicable to downgradient monitoring wells SC-10 and SC-11.

Once GWPS have been calculated, §257.95(g) requires that the owner / operator determine if any of the Appendix IV constituents are present at a statistically significant level exceeding the GWPS. To determine such, a confidence interval was calculated for each constituent and compared to the GWPS, for the applicable paleochannel. A statistically significant level is identified if the confidence interval band fully exceeds the applicable GWPS at the most recent sampling event. The confidence interval calculations for 2025 are provided in Appendix E. The confidence interval calculations indicate that no Appendix IV constituents exceeded the GWPS at a statistically significant level in 2025.

7.0 SUMMARY OF FINDINGS

Comparison of the groundwater flow to those historically measured shows de minimis differences in the groundwater flow regime beneath the site. Groundwater associated with the CCR Landfill continues to flow in an east / southeasterly direction towards the Retention Dam, which inhibits its migration off-site.

Statistical analysis suggests that boron concentrations at compliance groundwater monitoring wells SC-11 and SC-12, chloride concentrations at compliance groundwater monitoring wells SC-10 and SC-11, and fluoride concentrations at compliance groundwater monitoring well SC-10 and SC-11, and SC-12 exhibit a statistically significant increase over background concentrations; therefore, the CCR Landfill will continue with Assessment Monitoring in 2026.

No EPA CCR Rule Appendix IV constituents were measured at a statistically significant level exceeding their respective GWPS during 2025.

The overall CCR Landfill groundwater monitoring program was reviewed and no notable problems were encountered during 2025. Changes to the monitoring program were memorialized in the January 2026 Groundwater Monitoring Plan based on consideration of the complex geology and other constraints, where the Groundwater Monitoring Plan was revised to account for the full diversity of background geochemical

conditions of the North and South Paleo-Alluvial Valleys. Utilities believes that the 2026 Professional Engineer-certified Coal Combustion Residuals Landfill Groundwater Detection Monitoring Plan is appropriate for the site and compliant with the EPA CCR Rule. Utilities will conduct activities in general accordance with the 2026 Professional Engineer-certified Coal Combustion Residuals Landfill Groundwater Detection Monitoring Plan.

7.1 **Risk**

Utilities believes that the risk posed by the CCR Landfill to human health and the environment via the groundwater exposure pathway continues to be low for the following reasons:

- ▼ Groundwater underlying the CSR CD Area (which includes the CCR Landfill) is not used for domestic or agricultural purposes. There are no drinking water or agricultural wells within the CD Area and there is no reasonable potential for future domestic or agricultural uses of groundwater within this area, as it is owned and controlled by Utilities.
- ▼ Previously evaluated groundwater quality data indicated that groundwater upgradient of and underlying the CSR CD Area, in which the CCR Landfill is located, has a total dissolved solids (TDS) concentration exceeding 10,000 mg/L. The EPA, in their Guidelines for Groundwater Classification Under the EPA Groundwater Protection Strategy, classifies groundwater with TDS concentrations greater than or equal to 10,000 mg/L as Class III water (EPA 1988). Class III is defined as “groundwater not a potential source of drinking water and/or limited beneficial use.” The high TDS of groundwater upgradient of and beneath the CD Area discourages its use for domestic or agricultural purposes.
- ▼ The CSR Retention Dam inhibits the off-site migration of stormwater and groundwater associated with the CCR Landfill; therefore, limiting the potential for exposure. The Retention Dam largely hydrologically disconnects the CCR Landfill associated groundwater from the downgradient Fountain Creek Alluvial Aquifer (i.e. the closest drinking water source).

7.2 **Activities for 2026**

For 2026, Utilities plans to continue with Detection Monitoring and Assessment Monitoring.

8.0 **REFERENCES**

AECOM Technical Services. 2017. Coal Combustion Residuals (CCR) Ash Monofill Groundwater Detection Monitoring Plan Clear Spring Ranch, El Paso County, Colorado Revision 0. October 2017.

AECOM. 2022. Coal Combustion Residuals (CCR) Landfill Alternative Source Demonstration Assessment Monitoring, Selenium Clear Spring Ranch, El Paso County, Colorado Revision 0. April 2022.

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Haley & Aldrich. 1994. Hannah Ranch Dam Seepage Analysis Preliminary Engineering Report. April 1994.

Haley & Aldrich. 1995. Hanna Ranch Supernatant Dam Design Summary Report. February 1995.

Layne Western. 1977. Ash Disposal Site, R.D. Nixon Power Plant. Carl Nuzman, Bruce Maxwell & Carl Larson. August 1977.

Title 40 of the Code of Federal Regulations (CFR) Part 257 Subpart D.

U.S. EPA. 1988. Guidelines for Groundwater Classification Under the EPA Groundwater Protection Strategy. Office of Groundwater Protection. June 1988.



Report Distribution List:

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- ▼ Colorado Springs Utilities' CCR Website

APPENDIX A

August 23, 2023, *Groundwater Monitoring Network Modification* Letter

From: [Lawrence - CDPHE, Ashley](#)
To: [Amber Holmberg](#)
Cc: [Jill Parisi \(JILL.PARISI@STATE.CO.US\)](#); [Heather Barbare](#); [Brock Foster](#); [Mike Brady](#)
Subject: Re: Colorado Springs Utilities CSR Groundwater Monitoring Network Modifications Memo
Date: Friday, August 25, 2023 9:33:03 AM

[External Email - Be careful! DO NOT open attachments or click links from unknown senders or unexpected email.]

Hi Amber,

Thank you for sending the AECOM memo about the Groundwater Monitoring Network Modifications at Clear Spring Ranch for the Coal Combustions Residuals Landfill. The revisions look good and I don't have any additional questions or concerns at the moment.

Best,

Ashley

--

Ashley Lawrence
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On Wed, Aug 23, 2023 at 9:36 AM Amber Holmberg <aholmberg@csu.org> wrote:

Hello Ashley and Jill,

Attached, you will find an AECOM memo about the Groundwater Monitoring Network Modifications at Clear Spring Ranch for the Coal Combustions Residuals Landfill.

Let me know if you need any additional information or have any questions.

Thanks,

Amber

Amber Holmberg | Environmental Engineer I

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August 23, 2023

Ms. Amber Holmberg
Colorado Springs Utilities
121 S. Tejon Street, 4th Floor
Colorado Springs, CO 80947

**Subject: Groundwater Monitoring Network Modification
Coal Combustions Residuals Landfill
Colorado Springs Utilities, Clear Spring Ranch
El Paso County, Colorado**

Dear Ms. Holmberg,

In response to the downgradient detection of selenium at concentrations representing a statistically significant level (SSL) above the groundwater protection standard (GWPS) at the Colorado Springs Utilities (UTILITIES) Clear Spring Ranch facility coal combustion residuals (CCR) landfill (Landfill), UTILITIES contracted AECOM Technical Services, Inc. (AECOM) to conduct an alternative source demonstration (ASD) to evaluate whether the selenium concentrations were due to the presence or operation of the CCR Landfill or to an alternative source. The ASD report dated April 2022 and Additional Information letter dated August 9, 2022 identified background conditions to the north of the CCR Landfill as an alternative source for the selenium.

To further evaluate the nature and location of the background conditions north of the CCR Landfill responsible for the selenium, three new monitoring wells (SC-15, SC-16, and SC-17) were installed and tested at the locations illustrated on **Figure 1**.

This purpose of this memorandum is to summarize AECOM's evaluation of the groundwater quality data collected from these wells during the November 2022 and March 2023 CCR groundwater monitoring events and to compare concentrations of constituents at each well to determine which of the three newly installed monitoring wells are representative of groundwater conditions upgradient of the CCR Landfill. This letter summarizes this evaluation and current conditions and provides a proposed path forward and recommended changes to the groundwater monitoring network.

Data Evaluation

Groundwater from the three new monitoring wells was sampled during the CCR Landfill's semiannual Assessment Monitoring events in November 2022 and March 2023. The data from these events are presented in **Table 1**.

Concentrations of selenium and nitrate at all three new wells in November 2022 were much lower than concentrations detected in the March 2023 samples (taking into account the different nitrate analyses performed in November versus March). This suggests the newly installed wells had not reached equilibrium with the groundwater environment. Data collected for the newly installed upgradient wells in March 2023 was utilized during this evaluation as it was deemed more representative of site conditions.

The data were evaluated with attention to representing groundwater quality upgradient of the north boundary of the CCR Landfill. Lines of evidence and findings from the ASD report included the following:

- Groundwater flow within the Piney Creek Alluvium Hydrostratigraphic Unit (PCA HSU) beneath the CCR Landfill is present within hydraulically separated buried paleo-alluvial valley drainages, two of which are separated by a bedrock high located beneath the landfill.

- Groundwater chemistry is significantly different in the North Paleo-Alluvial Valley as compared to the South Paleo-Alluvial Valley, but the current background data set for statistical evaluation is based only on wells located within the South Paleo-Alluvial Valley.
- Nitrate concentrations in groundwater samples from upgradient monitoring wells located in the North Paleo-Alluvial Valley are significantly higher than samples obtained from upgradient monitoring wells located in the South Paleo-Alluvial Valley. Concentrations of selenium are correspondingly significantly higher in upgradient monitoring wells located in the North Paleo-Alluvial Valley than upgradient monitoring wells located in the South Paleo-Alluvial Valley.
- Elevated concentrations of nitrate in groundwater can mobilize and transport selenium from naturally occurring geologic sources such as the Pierre Shale bedrock and alluvial sediments derived from the Pierre Shale in the Clear Spring Ranch region.
- Concentrations of boron in downgradient monitoring wells SC-11 and SC-12 triggered the transition from Detection to Assessment monitoring, but the concentration of boron in the selenium-affected northern well (SC-10) does not suggest impact from the Landfill.

The March 2023 data from the new upgradient monitoring wells installed north of the CCR Landfill confirm the groundwater flow direction and flow paths presented in the ASD and the presence of elevated concentrations of both selenium and nitrate in groundwater to the north of the CCR Landfill.

- Water levels measured in the new wells indicate higher groundwater elevations to the north of the CCR Landfill, indicating that groundwater flow direction is from northwest to southeast, following the downstream trend of the North Paleo-Alluvial Valley (**Figure 1**).
- Each Paleo-Alluvial Valley, has unique geochemistry attributes. The March 2023 data, shown in **Table 1**, indicate that there is additional variability within the North Paleo-Alluvial Valley that will be investigated as part of the recommended activities outlined below (Recommendations).
- One element of geochemical variability in the North Paleo-Alluvial Valley upgradient groundwater is the concentrations of nitrate and selenium.
- For the upgradient monitoring wells of the North Paleo-Alluvial Valley, concentrations of selenium are highest in wells SC-9 and SC-16 (0.578 and 0.56 mg/L, respectively), and lowest in wells SC-15 and SC-17 (0.0382 and 0.135 mg/L, respectively).
- In these same monitoring well pairs, concentrations of nitrate are elevated in well SC-9 and well SC-16 (340 and 460 mg/L, respectively), and lowest in wells SC-15 and SC-17 (110 and 130 mg/L, respectively). The highest nitrate concentration was detected in well SC-8 (740 mg/L).
- Groundwater chemistry in each of the new wells (SC-15, SC-16, and SC-17) is consistent with nearby wells in the North Paleo-Alluvial Valley. For example, groundwater chemistry at well SC-16 is very similar to groundwater collected at well SC-8, while SC-15 is similar to nearby WW-3A and SC-17 is similar to nearby SC-9.

The March 2023 data support the hydraulic separation of the North and South Paleo-Alluvial Valleys and support the interpretation that the selenium concentrations observed in downgradient monitoring wells SC-10 and SC-11 are affected by groundwater conditions originating upgradient to the northwest within the North Paleo-Alluvial Valley alignment.

Groundwater chemistry in the new wells supports the association of elevated selenium with elevated nitrate concentrations.

Status and Path Forward

The ASD lines of evidence are supported by data collected from three newly installed wells (SC-15, SC-16, and SC-17), suggesting two parallel paths for action moving forward.

- Modification of the groundwater monitoring program to account for the full diversity of background geochemical conditions of the North and South Paleo-Alluvial Valleys.

- Installation of additional wells as needed to more fully represent the effect of North Paleo-Alluvial Valley geochemistry on nitrate and selenium concentrations.

Recommendations

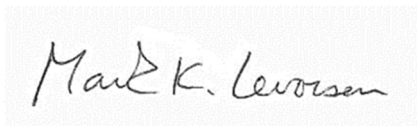
The recommended sequential steps to achieve the path forward for the Landfill groundwater monitoring program are as follows:

- Installation and testing of two additional monitoring wells (SC-18 and SC-19) at the locations designated on **Figure 2** to further define groundwater flow conditions in the North Paleo-Alluvial Valley HSU and to provide additional upgradient groundwater monitoring points for potential inclusion in the groundwater monitoring program. A brief work plan describing the planned monitoring well installation activities is included as **Attachment 1**.
- Performance of eight (8) bimonthly (every other month) monitoring events for the proposed background evaluation wells (shown in Table 2) to characterize background conditions and establish additional potential baseline conditions.
- Completion of one full round of groundwater monitoring to include 25 monitoring wells during one of the bimonthly monitoring event (Table 3). Groundwater elevations and water quality from this event will be utilized to update the potentiometric surface map and groundwater geochemistry for the CCR Landfill and surrounding area.
- Continue semi-annual groundwater monitoring of the 10 CCR program wells located upgradient and downgradient of the CCR Landfill as described in the current version of the Groundwater Monitoring Plan.
- Modification of the Groundwater Monitoring Plan to include new background monitoring wells for the Landfill. Background monitoring well selection will be based on the baseline sampling program outlined above and in **Tables 2** through **4**.
- Adjustment of the GWPS as appropriate based on the inclusion of additional background (upgradient) groundwater monitoring wells.
- Submittal of the modified Groundwater Monitoring Plan for CDPHE review / approval.
- Continuation of Assessment Monitoring for the CCR Landfill.

Sincerely,



Patrick Clem, PE
Project Manager



Mark Levorsen, PG
Principal Hydrogeologist

Table 1

		Boron (Total Recoverable)	Calcium (Total Recoverable)	Chloride	Fluoride (Total)	Iron (Total Recoverable)	Nitrite+Nitrate as Nitrogen*	Selenium (Total Recoverable)	Sodium (Total Recoverable)	Sulfate	Total Dissolved Solids
Well ID	Sample Date	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
SC-15	3/15/2023	1.18	362	407	0.37	0.0363	110	0.038	3,410	11,200	16,000
SC-16	3/16/2023	2.01	501	1,260	0.70	0.0422	460	0.56	2,170	4,800	11,200
SC-17	3/16/2023	1.01	334	510	0.94	0.192	130	0.135	2,600	7,300	12,600
SC-8	3/16/2023	1.03	572	1,380	0.74	0.304	740	0.145	1,860	3,620	11,800
SC-9	3/16/2023	1.27	322	1,430	0.98	7.7	340	0.578	4,230	11,600	18,200
SC-15	11/30/2022	1.21	424	386	0.39	6.92	111.9	0.0026	4,110	11,300	17,400
SC-16	11/30/2022	2.13	340	1,270	0.56	5.38	99.6	0.499	2,570	4,640	11,900
SC-17	11/30/2022	0.985	424	505	0.72	7.54	37.09	0.111	2,820	7,580	11,500
SC-8	11/28/2022	1.17	569	1,410	0.68	0.512	800.36	0.0578	1,820	3,340	11,900
SC-9	11/28/2022	1.37	478	1,530	0.96	134	350.88	0.528	4,430	12,000	20,600

Note*: March 2023 results are for Nitrite+Nitrate as Nitrogen from Method EPA 353.2 and

the November 2022 results shown are the sum of results for Nitrate as Nitrogen and Nitrite as Nitrogen using Method EPA 353.2.

Table 2 - Proposed "Background Evaluation" CCR Lanfill Upgradient Wells - Bi-Monthly Monitoring (8X)

Well ID	HSU	CCR Monitoring Well	Location Relative to CCR Landfill	Appendix III Analytes	Appendix IV Analytes
SC-15	PCA-NPAV	Background Evaluation	Upgradient (North)	X	X
SC-16	PCA-NPAV	Background Evaluation	Upgradient (North)	X	X
SC-17	PCA-NPAV	Background Evaluation	Upgradient (North)	X	X
SC-18 (New Well Install)	PCA-SPAV	Background Evaluation	Upgradient (North)	X	X
SC-19 (New Well Install)	PCA-NPAV	Background Evaluation	Upgradient (North)	X	X
SC-8	PCA-NPAV	Background Evaluation	Upgradient (North)	X	X
SC-9	PCA-NPAV	Background Evaluation	Upgradient (North)	X	X

Notes:

HSU = Hydrostratigraphic Unit

PCA-NPAV = Piney Creek Alluvium-North Paleo-Alluvial Valley

PCA-NSAV = Piney Creek Alluvium-South Paleo-Alluvial Valley

Appendix III Analytes = Boron, Calcium, Chloride, Fluoride, Sulfate, pH, TDS

Appendix IV Analytes = Antimony, Arsenic, Barium, Beryllium, Cadmium, Chromium, Cobalt, Fluoride, Lead,

Lithium, Mercury, Molybdenum, Rad226+228, Selenium, Thallium

Table 3 - List of Wells and Analytes for One-Time Monitoring Event (Water Levels and Water Chemistry)

Well ID	HSU	CCR Monitoring Well	Location Relative to CCR Landfill	Appendix III Analytes	Appendix IV Analytes	Additional Analytes (AA Below)
SC-15	PCA-NPAV	Background Evaluation	Upgradient (North)	X	X	AA
SC-16	PCA-NPAV	Background Evaluation	Upgradient (North)	X	X	AA
SC-17	PCA-NPAV	Background Evaluation	Upgradient (North)	X	X	AA
SC-18 (New Well Install)	PCA-NPAV	Background Evaluation	Upgradient (North)	X	X	AA
SC-19 (New Well Install)	PCA-NPAV	Background Evaluation	Upgradient (North)	X	X	AA
SC-8	PCA-NPAV	Background Evaluation	Upgradient (North)	X	X	AA
SC-9	PCA-NPAV	Background Evaluation	Upgradient (North)	X	X	AA
FC-1A	PCA-SPAV	No	Upgradient (Southwest)	X	X	AA
FC-2A	PCA-SPAV	No	Upgradient (Southwest)	X	X	AA
SC-2	PCA-SPAV	No	Downgradient	X	X	AA
SC-3	PCA-SPAV	No	Downgradient	X	X	AA
SC-7	PCA-NPAV	No	Downgradient	X	X	AA
WW-3A	Kp-NPAV	No	Upgradient (North)	X	X	AA
WW-5A	Kp-NEPAV	No	Cross-gradient	X	X	AA
WW-6A	Kp-NEPAV	No	Cross-gradient	X	X	AA
CC-1	PCA-SPAV	Current Background	Upgradient (Southwest)	X	X	AA
FC-1	PCA-SPAV	Current Background	Upgradient (Southwest)	X	X	AA
FC-2	PCA-SPAV	Current Background	Upgradient (Southwest)	X	X	AA
FC-3A	PCA-SPAV	Current Background	Upgradient (Southwest)	X	X	AA
FC-3B	Kp-SPAV	Current Background	Upgradient (Southwest)	X	X	AA
SC-10	PCA-NPAV	Current Downgradient	Downgradient (Northeast)	X	X	AA
SC-11	PCA-NPAV	Current Downgradient	Downgradient (Northeast)	X	X	AA
SC-12	PCA-SPAV	Current Downgradient	Downgradient (Southeast)	X	X	AA
SC-13	PCA-SPAV	Current Downgradient	Downgradient (Southeast)	X	X	AA
SC-14	PCA-SPAV	Current Downgradient	Downgradient (Southeast)	X	X	AA

Notes:

HSU = Hydrostratigraphic Unit

PCA-NPAV = Piney Creek Alluvium-North Paleo-Alluvial Valley

PCA-NSAV = Piney Creek Alluvium-South Paleo-Alluvial Valley

Kp-NPCA = Pierre Shale-North Paleo-Alluvial Valley

Kp-NEPCA = Pierre Shale-Northeast Paleo-Alluvial Valley

Kp-SPCA = Pierre Shale-South Paleo-Alluvial Valley

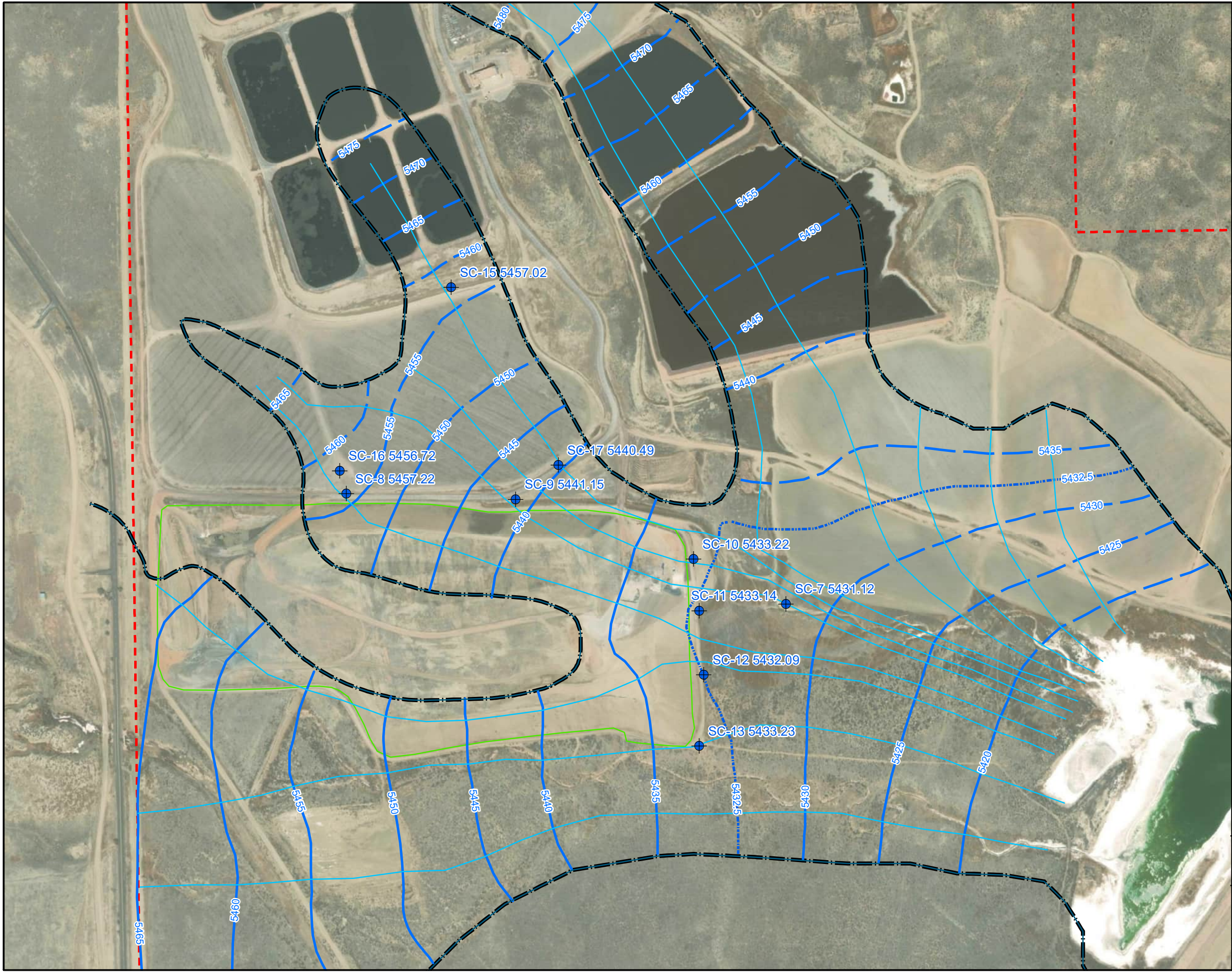
Appendix III Analytes = Boron, Calcium, Chloride, Fluoride, Sulfate, pH, TDS

Appendix IV Analytes = Antimony, Arsenic, Barium, Beryllium, Cadmium, Chromium, Cobalt, Fluoride, Lead, Lithium, Mercury, Molybdenum, Rad226+228, Selenium, Thallium

AA - Additional Analytes = Sodium, Potassium, Magnesium, Manganese, Iron, Total Alkalinity, Bicarbonate Alkalinity, Ammonia, and Nitrate+Nitrite

Table 4 - Current CCR Rule Monitoring Well Network - Semi-Annual Monitoring

Well ID	HSU	CCR Monitoring Well	Location Relative to CCR Landfill	Appendix III Analytes	Appendix IV Analytes
CC-1	PCA-SPAV	Current Background	Upgradient (West)	X	X
FC-1	PCA-SPAV	Current Background	Upgradient (West)	X	X
FC-2	PCA-SPAV	Current Background	Upgradient (West)	X	X
FC-3A	PCA-SPAV	Current Background	Upgradient (West)	X	X
FC-3B	Kp-SPAV	Current Background	Upgradient (West)	X	X
SC-10	PCA-NPAV	Current Downgradient	Downgradient (Northeast)	X	X
SC-11	PCA-NPAV	Current Downgradient	Downgradient (Northeast)	X	X
SC-12	PCA-SPAV	Current Downgradient	Downgradient (Southeast)	X	X
SC-13	PCA-SPAV	Current Downgradient	Downgradient (Southeast)	X	X
SC-14	PCA-SPAV	Current Downgradient	Downgradient (Southeast)	X	X



Legend
Groundwater Elevation Nov 2022
● PCA Well November 2022
Groundwater Elevation
— Potentiometric Surface Contour (5-ft interval)
- - Dashed Where Inferred
- - - 5432.5 Contour (half-interval)
— Groundwater Flow Line
- - - Boundary - Piney Creek Alluvium HSU Approximate
- - - Boundary Certificate of Designation
— Boundary CCR Landfill

Note: Groundwater elevations for November 2022 were obtained for 11 monitoring wells. This data was used to modify potentiometric contours from the February 2022 monitoring event where 20 wells were monitored.

1 inch = 500 feet
0 250 500 1,000
Feet

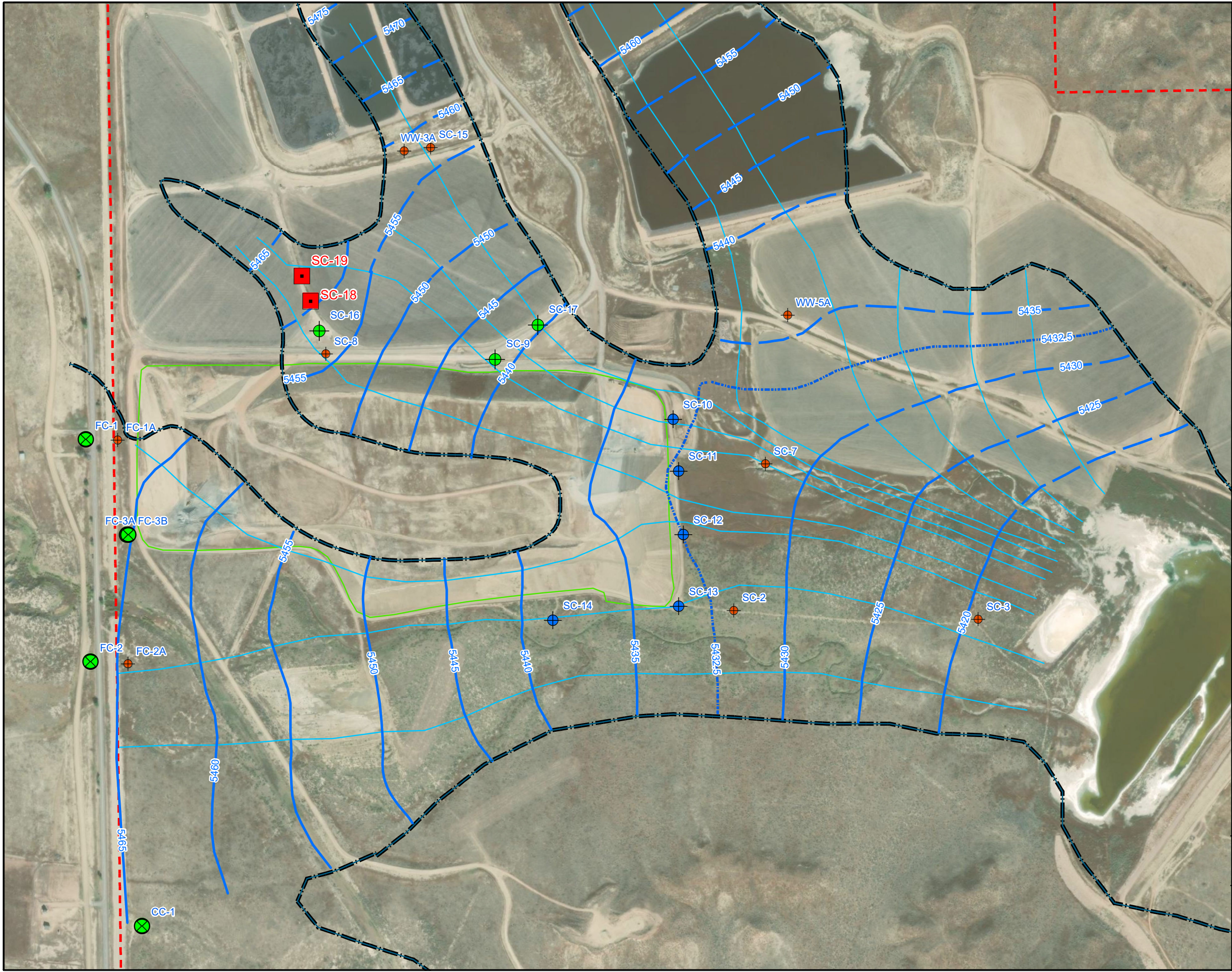
Note: Groundwater elevations at monitoring wells completed predominantly in the Kp HSU used as general guidance for construction of PCA HSU elevation contours from February 2022

Title: **Groundwater Potentiometric Surface Contours with Flow Lines November 2022 Sampling Event Combined with February 2022 Data Depth to Water Measured November 2022 and February 2022**

Project: **Revisions to the Groundwater Monitoring Plan - CCR Landfill**

Location: **Clear Spring Ranch
El Paso County, CO**

Project No.: 60712294	Date: 7/28/2023	Figure: 1
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Legend

CCR_Status

Background - NPAV

Background - SPAV

Downgradient Compliance

Other Monitoring Wells

Proposed Well InstallationsSC-18SC-19Boundary_PCA_HSU**Groundwater Elevation**Potentiometric Surface Contour (5-ft interval)Dashed Where Inferred5432.5 Contour (half-interval)Groundwater Flow LineBoundary Certificate of DesignationBoundary CCR LandfillBoundary - Piney Creek Alluvium HSU Approximate1 inch = 500 feetN0 250 500 1,000 Feet

Title:		
Locations of Existing Wells and Proposed Background Monitoring Wells		
Project: Revisions to the Groundwater Monitoring Plan CCR Landfill		
Location: Clear Spring Ranch El Paso County, CO		
Project No.: 60712294	Date: 7/28/2023	Figure: 2

Attachment 1 - Monitoring Well Installation Work Plan

This plan describes the activities that will take place at the Colorado Springs Utilities (UTILITIES) Clear Spring Ranch facility for installation of two new groundwater monitoring wells located north of the CCR Landfill to support revision of the Groundwater Monitoring Plan. The groundwater monitoring well installation activities will include the following.

Utility Locating / Clearance

The Utility Notification Center of Colorado ("UNCC") will be notified at least five business days prior to any excavation or earthwork activities to ensure proper location and clearance of utilities.

Monitoring Well Notifications

Monitoring well permit notifications will be prepared and submitted to the Colorado State Engineer's Office in accordance with Rule 6.3 of the Water Well Construction Rules (2 CCR 402-2). The Notice of Intent will be provided before drilling any groundwater monitoring well. Notice is accomplished by submitting Form GWS-51 (Monitoring and Observation Holes) to the Division of Water Resources at least three (3) days and no more than ninety (90) days prior to well construction.

Monitoring Well Installation

Monitoring wells will be drilled and installed by a Colorado licensed Water Well Construction Contractor. A hydrogeologist or geologist will oversee the field activities performed by the drilling subcontractor. The proposed monitoring wells will be drilled and boreholes will be advanced using continuous sampling with hollow stem augers. Monitoring wells will be constructed using 2-inch diameter flush-joint Schedule 40 PVC. Well screens will be fifteen (15) feet in length with 0.010-inch slot size (10-slot). The bottom of the screen interval will be set at or close to the bedrock-alluvium contact. Graded filtered silica sand (20-40 gradation) will extend from the bottom of the borehole to approximately two feet above the top of the well screen. Bentonite chips will be placed above the filter pack material up to approximately two feet below ground surface. The top portion of the hole will be sealed with cement. The wells will be completed at ground surface with above grade protective well covers / stick-ups in 2 foot x 2 foot x 4 inch concrete well pads. The wells will be equipped with a locking J-plug well cap, or equivalent. Monitoring well locations will be surveyed by UTILITIES to determine the horizontal and vertical coordinates for the top of PVC casing and ground surface at the well head following well installation.

Monitoring Well Development

The monitoring wells will be developed to remove solids or other particulates that may have been deposited on the boring wall during drilling. Development will occur no sooner than 24 hours after well installation. Well development will be accomplished using methods commonly accepted by environmental professionals and approved will include one of more of the following - bailing, surging, and/or pumping. Temperature, pH, conductivity and turbidity will be monitored during well development. The well-development will continue until the groundwater's temperature, pH, turbidity (target <5 NTU) and conductivity have stabilized within 10% between successive readings, or a maximum of 10 borehole volumes of water has been removed from the well and at least three surging and bailing/pumping events have been performed. If the well goes dry during development and does not readily recharge, development will be deemed complete after a minimum of 3 well casing volumes have been removed and one surging event. Typically, a well is considered developed when free of visible sediment; however, previous well installations in this area have shown that turbidity doesn't readily clear up.

Field Documentation

Field personnel will document the field activities in a logbook and/or field logs. A daily field log will be kept documenting the timing of field activities and the content of any pertinent project communications. Each daily field log will be dated and signed by field personnel. Photographs will be taken to record the soil core samples and any other relevant field activities. The field geologist logging the soil cores will classify per the Unified Soil Classification System.

Monitoring Well Permits

Monitoring well permit applications will be submitted to the State Engineer's Office upon completion of the well installations. A Monitoring and Observation Well Permit Application (Form GWS-46) and Well Construction and Yield Estimate Report (Form GWS-31) will signed by the well driller to register the monitoring wells with the State Engineer's Office.

APPENDIX B

Vicinity Map and Groundwater Elevation Contours

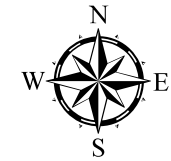


Colorado Springs Utilities

It's how we're all connected

Environmental Services
121 South Tejon Street, Fourth Floor
Colorado Springs, Colorado 80903

Orientation:



Legend:

-  Fountain Creek
-  Boundary - Certificate of Designation CD-04-001
-  Boundary - Clear Spring Ranch

VICINITY MAP

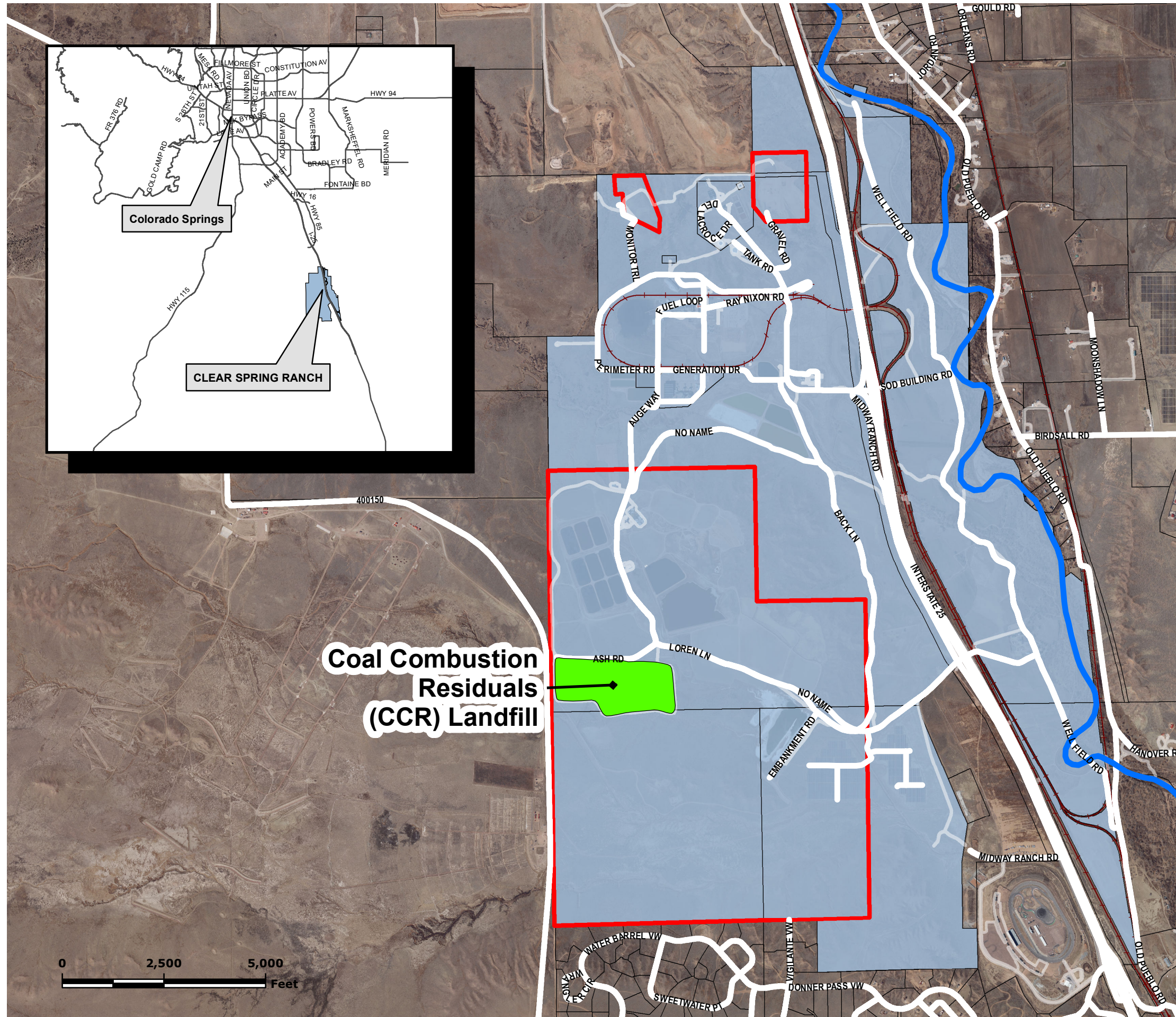
Clear Spring Ranch
Coal Combustion Residuals Landfill
El Paso County

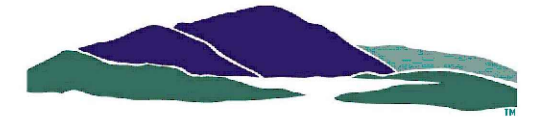
Project No: 550-504-7

Prepared By: Environmental Services

Date: January 16, 2026

**Figure
Number**
1



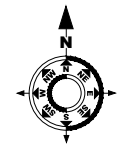


Colorado Springs Utilities

It's how we're all connected

Environmental Services
121 South Tejon Street, Fourth Floor
Colorado Springs, Colorado 80903

Orientation:



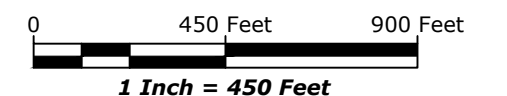
Legend:

- Coal Combustion Residuals (CCR) Landfill
- Boundary - Clear Spring Ranch Property
- Boundary - Certificate of Designation
- Boundary - Piney Creek Alluvium Hydrostratigraphic Unit (HSU) - Approximate
- Groundwater Potentiometric Surface (Dashed portions are estimated)
- Groundwater Monitoring Well Location
- Groundwater Elevation - Feet (Above mean sea level)

Notes:

- Groundwater Elevation Measurements Collected October 16-17, 2025.

Scale:



GROUNDWATER ELEVATION CONTOURS - 2025

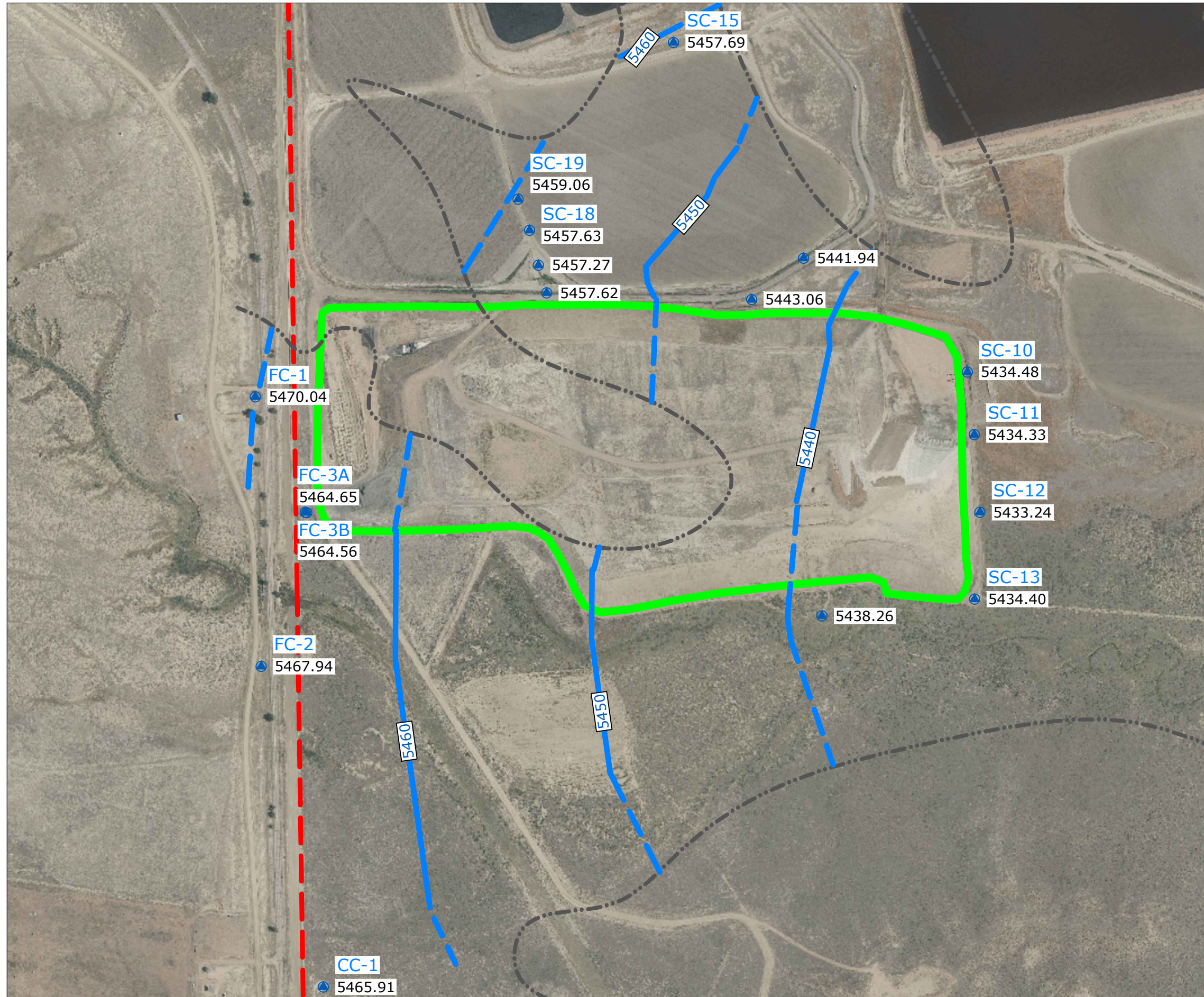
Clear Spring Ranch
Coal Combustion Residuals Landfill
El Paso County

Project No: 550-504-7

Prepared By: Environmental Services

Date: January 21, 2026

**Figure
Number
2**



APPENDIX C

Groundwater Laboratory Analytical Results and Groundwater Depths / Elevations / Hydrographs

CCR LANDFILL
Groundwater Laboratory Analytical Results

Monitoring Well ID	Sample Date	Antimony	Arsenic	Barium	Beryllium	Boron	Cadmium	Calcium	Chloride	Chromium	Cobalt	Fluoride	Lead	Lithium	Mercury	Molybdenum	pH	Radium 226 + 228	Selenium	Sulfate	Thallium	Total Dissolved Solids
		ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	ug/L	ug/L	mg/L	ug/L	ug/L	ug/L	ug/L	SU	pCi/L	ug/L	mg/L	ug/L	mg/L
CC-1	3/10/2025	<2.0	<2.0	5.4	<1.0	1090	<1.0	400000	1740	<3.0	<2.00	0.23	<1.0	772	0.006	<2.0	7	0.61	190	22200	<1.0	32000
	9/22/2025	<2.0	<2.0	5.6	<1.0	1010	<1.0	399000	1740	<3.0	<2.00	0.62	<1.0	702	0.00527	<2.0	6.9	1.07	260	22100	<1.0	37600
FC-1	3/10/2025	<2.0	<2.0	8.9	<1.0	994	<1.0	349000	794	<3.0	<2.00	0.13	<1.0	872	0.002	2.2	7.1	2.17	2.8	13100	<1.0	20000
	9/22/2025	<2.0	<2.0	8.8	<1.0	996	<1.0	372000	808	<3.0	<2.00	0.19	<1.0	924	0.00175	<2.0	7	2.81	2.9	13200	<1.0	22000
FC-2	3/10/2025	<2.0	<2.0	9.1	<1.0	948	<1.0	368000	111	<3.0	<2.00	0.54	<1.0	252	0.002	2.6	7.2	0.812	37	6470	<1.0	12000
	9/22/2025	<2.0	<2.0	6.1	<1.0	906	<1.0	368000	120	<3.0	<2.00	0.69	<1.0	260	0.00225	2.8	7.2	0.569	42	6530	<1.0	10400
FC-3A	3/10/2025	<2.0	<2.0	13	<1.0	1030	<1.0	392000	142	<3.0	<2.00	0.49	<1.0	285	0.002	6.8	7.4	0.484	49	5640	<1.0	9100
	9/22/2025	<2.0	<2.0	11	<1.0	995	<1.0	404000	153	<3.0	<2.00	0.64	<1.0	285	0.00147	8.6	7.3	1.1	49	5740	<1.0	9300
FC-3B	3/10/2025	<2.0	<2.0	12	<1.0	1110	<1.0	256000	191	<3.0	<2.00	0.68	<1.0	242	0.002	6	7.2	0.745	<2.0	4320	<1.0	7400
	9/22/2025	<2.0	<2.0	10	<1.0	1090	<1.0	259000	197	<3.0	<2.00	0.72	<1.0	256	0.00395	4.8	7.4	0.87	<2.0	4370	<1.0	7540
SC-10	3/11/2025	<2.0	<2.0	9.6	<1.0	1350	<1.0	421000	1030	<3.0	<2.00	0.53	<1.0	753	0.006	4.7	7.3	0.0515	170	9750	<1.0	17000
	9/24/2025	<2.0	<2.0	9.5	<1.0	1160	<1.0	377000	1110	<3.0	<2.00	0.76	<1.0	635	0.006	4.8	7.2	0.712	210	9660	<1.0	17200
SC-11	3/11/2025	<2.0	<2.0	7.7	<1.0	2780	<1.0	447000	1310	<3.0	<2.00	0.63	<1.0	636	0.009	3.2	7.2	0.574	300	8770	<1.0	17000
	3/11/2025 Dup	<2.0	<2.0	7.2	<1.0	2870	<1.0	468000	1320	<3.0	<2.00	0.64	<1.0	667	0.008	3.1	7.2	0.849	310	8800	<1.0	16000
	9/24/2025	<2.0	<2.0	7.7	<1.0	2500	<1.0	434000	1320	<3.0	<2.00	0.92	<1.0	569	0.008	3.6	7.1	1.03	390	8520	<1.0	16200
SC-12	3/11/2025	<2.0	<2.0	6.4	<1.0	4840	<1.0	395000	352	<3.0	<2.00	0.95	<1.0	445	0.003	4.8	7.3	0.531	12	8180	<1.0	13000
	9/24/2025	<2.0	<2.0	6.2	<1.0	3950	<1.0	357000	356	<3.0	<2.00	1.28	<1.0	440	0.00198	4.8	7.2	1.25	14	7920	<1.0	13300
SC-13	3/11/2025	<2.0	<2.0	7.5	<1.0	1560	<1.0	381000	168	<3.0	<2.00	0.78	<1.0	336	0.002	4.2	7.3	0.786	24	7320	<1.0	11000
	9/24/2025	<2.0	<2.0	6.7	<1.0	1360	<1.0	355000	176	<3.0	<2.00	1.10	<1.0	340	0.00149	3.8	7.1	0.382	29	7250	<1.0	11600
	9/24/2025 Dup	<2.0	<2.0	5.7	<1.0	1360	<1.0	360000	181	<3.0	<2.00	1.05	<1.0	342	0.00151	3.8	7.1	0.778	29	7430	<1.0	11300

* Metals are Total / Total Recoverable

* See laboratory reports for data qualifiers

* Per the 2017 Groundwater Monitoring Plan, North Paleo-alluvial Channel monitoring wells (SC-15, SC-18, and SC-19) were not sampled in 2025. These wells were sampled from 2023 to 2024.

< Indicates the constituent was not detected above the stated laboratory reporting limit

Dup = Duplicate



CCR LANDFILL
Groundwater Laboratory Analytical Results

Monitoring Well ID	Sample Date	Antimony	Arsenic	Barium	Beryllium	Boron	Cadmium	Calcium	Chloride	Chromium	Cobalt	Fluoride	Lead	Lithium	Mercury	Molybdenum	pH	Radium 226 + 228	Selenium	Sulfate	Thallium	Total Dissolved Solids
		ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	mg/L	ug/L	ug/L	mg/L	ug/L	ug/L	ug/L	ug/L	SU	pCi/L	ug/L	mg/L	ug/L	mg/L
SC-15	9/27/2023	<2.0	<5.0	45	<1.0	1140	<1.0	387000	330	5.8	<5.00	0.38	5.80	894	0.009	2.3	7.2	2.19	<5.0	8600	<1.0	18200
	11/30/2023	<2.0	<5.0	13	<1.0	1230	<1.0	367000	422	<3.0	<5.00	0.18	<1.0	746	0.010	2	7.2	2.11	<5.0	12600	<1.0	18400
	1/22/2024	<2.0	<5.0	11	<1.0	1220	<1.0	377000	396	<3.0	<5.00	0.18	<1.0	982	0.011	<2.0	7.0	2.27	<5.0	11100	<1.0	14600
	3/27/2024	<2.0	<5.0	9.6	<1.0	1240	<1.0	535000	396	<3.0	<5.00	0.18	<1.0	953	0.007	<2.0	7.1	1.81	<5.0	11200	<1.0	17700
	5/20/2024	<2.0	<5.0	9.9	<1.0	1210	<1.0	407000	388	<3.0	<5.00	0.19	<1.0	938	0.005	2.2	7.0	1.70	<5.0	11000	<1.0	17100
	7/22/2024	<2.0	<5.0	9.5	<1.0	325	<1.0	108000	387	<3.0	<2.00	0.18	<1.0	190	0.005	2	7.0	1.64	<5.0	10800	<1.0	17200
	9/16/2024	<2.0	<5.0	8.5	<1.0	1260	<1.0	385000	390	<3.0	<2.00	0.18	<1.0	727	0.004	2.4	7.0	2.17	<5.0	11400	<1.0	18200
	11/18/2024	<2.0	<5.0	9.1	<1.0	1210	<1.0	400000	381	<3.0	1.3	0.17	<1.0	725	0.004	<2.0	7.0	1.95	<5.0	11000	<1.0	17300
SC-18	9/27/2023	<2.0	<5.0	17	<1.0	1450	<1.0	649000	600	<3.0	<5.00	0.17	<1.0	455	0.008	<2.0	6.9	2.41	330	3300	<1.0	11200
	11/30/2023	<2.0	<5.0	15	<1.0	1480	<1.0	593000	648	<3.0	<5.00	0.19	<1.0	423	0.012	<2.0	6.8	1.44	320	3920	<1.0	11800
	11/30/2023 Dup	<2.0	<5.0	14	<1.0	1460	<1.0	606000	644	<3.0	<5.00	0.18	<1.0	408	0.012	<2.0	6.8	1.43	330	3930	<1.0	11900
	1/22/2024	<2.0	<5.0	17	<1.0	1430	<1.0	579000	653	<3.0	<5.00	0.19	<1.0	545	0.019	<2.0	6.7	1.8	340	3910	<1.0	12500
	3/26/2024	<2.0	<5.0	15	<1.0	1550	<1.0	666000	633	<3.0	<5.00	0.18	<1.0	572	0.018	<2.0	6.7	1.21	340	3820	<1.0	12400
	5/20/2024	<2.0	<5.0	12	<1.0	1560	<1.0	668000	613	<3.0	<5.00	0.18	<1.0	543	0.014	<2.0	6.6	1.32	280	3960	<1.0	11200
	5/20/2024 Dup	<2.0	<5.0	12	<1.0	1480	<1.0	702000	614	<3.0	<5.00	0.18	<1.0	515	0.014	<2.0	6.6	1.59	300	3980	<1.0	11300
	7/22/2024	<2.0	<5.0	14	<1.0	1440	<1.0	661000	622	<3.0	<2.00	0.17	<1.0	466	0.01	<2.0	6.6	1.44	300	3630	<1.0	11700
	9/16/2024	<2.0	<5.0	14	<1.0	2710	<1.0	667000	624	<3.0	<2.00	0.18	<1.0	440	0.01	<2.0	6.7	1.45	320	3840	<1.0	11800
	9/16/2024 Dup	<2.0	<5.0	13	<1.0	1460	<1.0	653000	579	<3.0	<5.00	0.18	<1.0	478	0.008	<2.0	6.7	1.07	320	3510	<1.0	11700
	11/18/2024	<2.0	<5.0	13	<1.0	1470	<1.0	670000	638	<3.0	1.4	0.17	<1.0	424	0.008	<2.0	6.6	0.806	330	4150	<1.0	12200
SC-19	9/27/2023	<2.0	<5.0	8.8	<1.0	922	<1.0	439000	360	<3.0	<5.00	0.10	<1.0	456	0.001	<2.0	7.3	2.09	270	5800	<1.0	16000
	9/27/2023 Dup	<2.0	<5.0	9.3	<1.0	902	<1.0	430000	370	<3.0	<5.00	0.10	<1.0	441	0.001	<2.0	7.3	2.99	260	5800	<1.0	15900
	11/30/2023	<2.0	<5.0	6.8	<1.0	902	<1.0	435000	476	<3.0	<5.00	0.10	<1.0	335	0.002	<2.0	7.3	1.2	260	8020	<1.0	15600
	1/22/2024	<2.0	<5.0	7.7	<1.0	966	<1.0	420000	470	<3.0	<5.00	0.10	<1.0	464	0.002	<2.0	7.1	0.781	290	7520	<1.0	16100
	3/26/2024	<2.0	<5.0	7.2	<1.0	975	<1.0	436000	486	<3.0	<5.00	0.10	<1.0	481	0.002	<2.0	7.2	1.5	280	7400	<1.0	15900
	5/20/2024	<2.0	<5.0	6.2	<1.0	909	<1.0	461000	480	<3.0	<5.00	0.10	<1.0	432	0.002	<2.0	7.1	1.02	260	7870	<1.0	15000
	7/22/2024	<2.0	<5.0	6.1	<1.0	908	<1.0	458000	489	<3.0	<2.00	<0.10	<1.0	410	0.002	<2.0	7.1	0.958	270	7420	<1.0	15500
	7/22/2024 Dup	<2.0	<5.0	5.9	<1.0	911	<1.0	456000	491	<3.0	<2.00	<0.10	<1.0	413	<0.002	2.9	7.1	0.658	270	7070	<1.0	15200
	9/16/2024	<2.0	<5.0	6.3	<1.0	938	<1.0	450000	497	<3.0	<5.00	0.10	<1.0	425	0.002	<2.0	7.2	1.05	290	7610	<1.0	15500
	11/18/2024	<2.0	<5.0	5.8	<1.0	926	<1.0	440000	505	<3.0	<1.0	<0.10	<1.0	348	--	<2.0	7.1	2.03	280	7490	<1.0	14900
	11/18/2024 Dup	<2.0	<5.0	6.1	<1.0	938	<1.0	460000	503	<3.0	<1.0	<0.10	<1.0	353	<0.001	<2.0	7.1	1.93	280	7590	<1.0	15400

* Metals are Total / Total Recoverable

* See laboratory reports for data qualifiers

* North Paleo-alluvial Channel upgradient monitoring wells (SC-15, SC-18, and SC-19) were sampled from 2023 to 2024 per the August 23, 2023 Groundwater Monitoring Network Modification letter.

< Indicates the constituent was not detected above the stated laboratory reporting limit

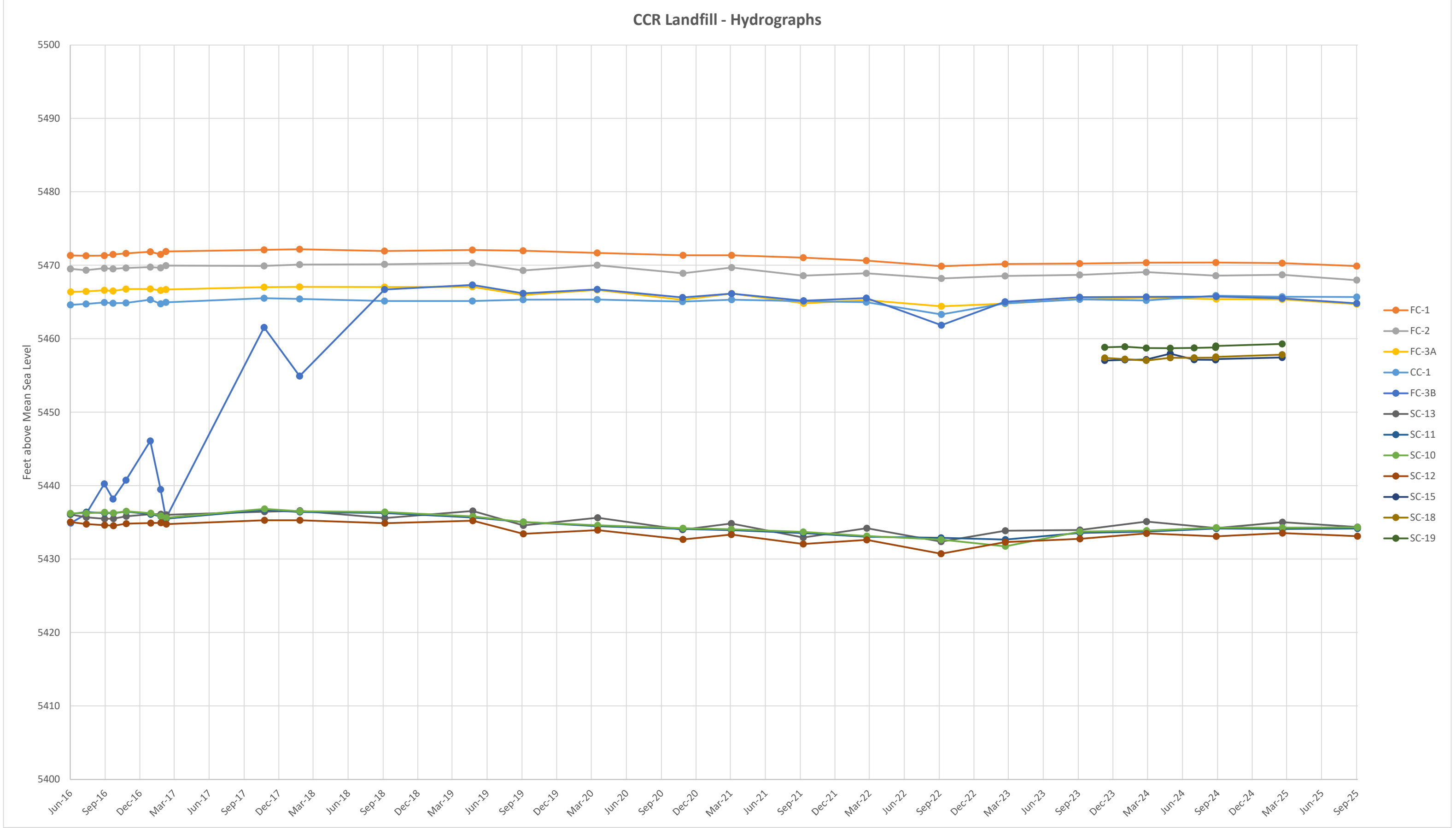
-- Indicates not sampled. (Bottle broke in transit to lab.)

Dup = Duplicate

CCR LANDFILL
Groundwater Depths / Elevations

Monitoring Well ID	CC-1		FC-1		FC-2		FC-3A		FC-3B		SC-10		SC-11		SC-12		SC-13		SC-15		SC-18		SC-19	
Measuring Point Elevation	5478.67		5486.87		5483.00		5484.29		5483.75		5447.65		5444.54		5444.32		5445.98		5483.13		5468.19		5469.68	
Date Measured	Depth to Water	Water Surface Elevation	Depth to Water	Water Surface Elevation	Depth to Water	Water Surface Elevation	Depth to Water	Water Surface Elevation	Depth to Water	Water Surface Elevation	Depth to Water	Water Surface Elevation	Depth to Water	Water Surface Elevation	Depth to Water	Water Surface Elevation	Depth to Water	Water Surface Elevation	Depth to Water	Water Surface Elevation	Depth to Water	Water Surface Elevation	Depth to Water	Water Surface Elevation
6/22/2016	14.07	5,464.60	15.53	5,471.34	13.49	5,469.51	-	-	-	-	11.43	5,436.22	8.40	5,436.14	9.29	5,435.03	9.92	5,436.06	-	-	-	-	-	-
6/23/2016	-	-	-	-	-	-	17.91	5,466.38	48.85	5,434.90	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8/2/2016	13.95	5,464.72	15.57	5,471.30	13.67	5,469.33	17.85	5,466.44	47.62	5,436.13	-	-	-	-	-	-	-	-	-	-	-	-	-	-
8/3/2016	-	-	-	-	-	-	-	-	-	-	11.40	5,436.25	8.15	5,436.39	9.56	5,434.76	10.30	5,435.68	-	-	-	-	-	-
9/19/2016	13.74	5,464.93	15.55	5,471.32	13.41	5,469.59	17.70	5,466.59	43.52	5,440.23	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9/20/2016	-	-	-	-	-	-	-	-	-	-	11.28	5,436.37	8.28	5,436.26	9.70	5,434.62	10.50	5,435.48	-	-	-	-	-	-
10/12/2016	13.85	5,464.82	15.40	5,471.47	13.49	5,469.51	17.80	5,466.49	45.58	5,438.17	-	-	-	-	-	-	-	-	-	-	-	-	-	-
10/13/2016	-	-	-	-	-	-	-	-	-	-	11.39	5,436.26	8.30	5,436.24	9.79	5,434.53	10.49	5,435.49	-	-	-	-	-	-
11/15/2016	13.79	5,464.88	15.26	5,471.61	13.38	5,469.62	17.54	5,466.75	43.01	5,440.74	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11/16/2016	-	-	-	-	-	-	-	-	-	-	11.15	5,436.50	8.07	5,436.47	9.51	5,434.81	10.15	5,435.83	-	-	-	-	-	-
1/18/2017	13.35	5,465.32	15.04	5,471.83	13.25	5,469.75	17.51	5,466.78	37.68	5,446.07	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1/19/2017	-	-	-	-	-	-	-	-	-	-	11.40	5,436.25	8.44	5,436.10	9.42	5,434.90	9.87	5,436.11	-	-	-	-	-	-
2/14/2017	13.93	5,464.74	15.39	5,471.48	13.35	5,469.65	17.71	5,466.58	44.27	5,439.48	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2/15/2017	-	-	-	-	-	-	-	-	-	-	11.78	5,435.87	8.74	5,435.80	9.38	5,434.94	9.88	5,436.10	-	-	-	-	-	-
2/28/2017	13.71	5,464.96	15.00	5,471.87	13.06	5,469.94	17.60	5,466.69	48.20	5,435.55	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3/1/2017	-	-	-	-	-	-	-	-	-	-	12.03	5,435.62	9.05	5,435.49	9.57	5,434.75	9.95	5,436.03	-	-	-	-	-	-
11/13/2017	13.16	5,465.51	14.78	5,472.09	13.10	5,469.90	17.28	5,467.01	22.21	5,461.54	-	-	-	-	-	-	-	-	-	-	-	-	-	-
11/14/2017	-	-	-	-	-	-	-	-	-	-	10.82	5,436.83	7.85	5,436.69	9.05	5,435.27	9.54	5,436.44	-	-	-	-	-	-
2/14/2018	13.26	5,465.41	14.69	5,472.18	12.91	5,470.09	17.23	5,467.06	28.84	5,454.91	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2/15/2018	-	-	-	-	-	-	-	-	-	-	11.15	5,436.50	8.13	5,436.41	9.04	5,435.28	9.40	5,436.58	-	-	-	-	-	-
9/25/2018	13.54	5,465.13	14.94	5,471.93	12.88	5,470.12	17.25	5,467.04	17.06	5,466.69	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9/26/2018	-	-	-	-	-	-	-	-	-	-	11.24	5,436.41	8.28	5,436.26	9.45	5,434.87	10.39	5,435.59	-	-	-	-	-	-
5/14/2019	13.54	5,465.13	14.79	5,472.08	12.71	5,470.29	17.24	5,467.05	16.43	5,467.32	-	-	-	-	-	-	-	-	-	-	-	-	-	-
5/15/2019	-	-	-	-	-	-	-	-	-	-	11.85	5,435.80	8.87	5,435.67	9.11	5,435.21	9.44	5,436.54	-	-	-	-	-	-
9/24/2019	13.36	5,465.31	14.90	5,471.97	13.71	5,469.29	18.34	5,465.95	17.57	5,466.18	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9/25/2019	-	-	-	-	-	-	-	-	-	-	12.62	5,435.03	9.50	5,435.04	10.89	5,433.43	11.41	5,434.57	-	-	-	-	-	-
4/6/2020	13.34	5,465.33	15.20	5,471.67	12.99	5,470.01	17.65	5,466.64	17.04	5,466.71	-	-	-	-	-	-	-	-	-	-	-	-	-	-
4/7/2020	-	-	-	-	-	-	-	-	-	-	13.06	5,434.59	10.07	5,434.47	10.38	5,433.94	10.35	5,435.63	-	-	-	-	-	-
11/16/2020	13.62	5,465.05	-	-	-	-	19.00	5,465.29	18.13	5,465.62	-	-	-	-	-	-	11.99	5,433.99	-	-	-	-	-	-
11/17/2020	-	-	15.52	5,471.35	14.09	5,468.91	-	-	-	-	13.45	5,434.20	10.45	5,434.09	11.65	5,432.67	-	-	-	-	-	-	-	-
3/24/2021	-	-	-	-	-	-	-	-	-	-	13.60	5,434.05	10.60	5,433.94	10.99	5,433.33	11.14	5,434.84	-	-	-	-	-	-
3/25/2021	13.35	5,465.32	15.51	5,471.36	13.32	5,469.68	18.14	5,466.15	17.62	5,466.13	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9/29/2021	-	-	15.83	5,471.04	14.41	5,468.59	-	-	-	-	13.96	5,433.69	11.01	5,433.53	12.28	5,432.04	13.05	5,432.93	-	-	-	-	-	-
9/30/2021	13.56	5,465.11	-	-	-	-	19.48	5,464.81	18.57	5,465.18	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3/14/2022	13.69	5,464.98	16.23	5,470.64	14.09	5,468.91	19.04	5,465.25	18.22	5,465.53	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3/15/2022	-	-	-	-	-	-	-	-	-	-	14.52	5,433.13	11.51	5,433.03	11.72	5,432.60	11.78	5,434.20	-	-	-	-	-	-
9/26/2022	-	-	-	-	-	-	-	-	-	-	15.01	5,432.64	11.64	5,432.90	13.59	5,430.73	13.61	5,432.37	-	-	-	-	-	-
9/27/2022	15.36	5,463.31	17.00	5,469.87	14.80	5,468.20	19.88	5,464.41	21.91	5,461.84	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3/13/2023	13.87	5,464.80	16.71	5,470.16	14.46	5,468.54	19.52	5,464.77	18.72	5,465.03	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3/14/2023	-	-	-	-	-	-	-	-	-	-	15.91	5,431.74	11.89	5,432.65	12.01	5,432.31	12.12	5,433.86	-	-	-	-	-	-
9/25/2023	13.32	5,465.35	16.64	5,470.23	14.31	5,468.69	18.88	5,465.41	18.10	5,465.65	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9/26/2023	-	-	-	-	-	-	-	-	-	-	13.91	5,433.74	10.98	5,433.56	11.57	5,432.75	12.02	5,433.96	-	-	-	-	-	-
9/27/2023	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	26.09	5,457.04	10.81	5,457.38	10.85	5,458.83
11/30/2023	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	26.00	5,457.13	10.96	5,457.23	10.78	5,458.90
1/22/2024	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25.97	5,457.16	11.15	5,457.04	10.96	5,458.72
3/18/2024	13.46	5,465.21	16.52	5,470.35	13.94	5,469.06	18.71	5,465.58	18.06	5,465.69	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3/19/2024	-	-	-	-	-	-	-	-	-	-	13.78	5,433.87	10.80	5,433.74	10.83	5,433.49	10.88	5,435.10	-	-	-	-	-	-
3/27/2024	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25.16	5,457.97	10.78	5,457.41	10.97	5,458.71
5/20/2024	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25.98	5,457.15	10.78	5,457.41	10.94	5,458.74
7/22/2024	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	26.01	5,457.12	10.77	5,457.42	10.87	5,458.81
9/16/2024	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25.90	5,457.23	10.67	5,457.52	10.68	5,459.00
9/17/2024	12.80	5,465.87	16.49	5,470.38	14.41	5,468.59	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9/18/2024	-	-	-	-	-	-	18.90	5,465.39	18.02	5,465.73	13.38	5,434.27	10.39	5,434.15	11.22	5,433.10	11.77	5,434.21	-	-	-	-	-	-
11/18/2024	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25.69	5,457.44	10.36	5,457.83	10.39	5,459.29
3/10/2025	12.96	5,465.71	16.58	5,470.29	14.29	5,468.71	18.93	5,465.36	18.26	5,465.49	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3/11/2025	-	-	-	-	-	-	-	-	-	-	13.38	5,434.27	10.44	5,434.10	10.79	5,433.53	10.96	5,435.02	-	-	-	-	-	-
9/22/2025	13.00	5,465.67	16.99	5,469.88	15.02	5,467.98	19.58	5,464.71	18.95	5,464.80	-	-	-	-	-	-	-	-	-	-	-	-	-	-
9/24/2025	-	-	-	-	-	-	-	-	-	-	13.33	5,434.32	10.39	5,434.15	11.20	5,433.12	11.62	5,434.36	-	-	-	-	-	-

Depth to Water = Feet
Water Surface Elevation = Feet Above Mean Sea Level



APPENDIX D

Laboratory Analytical Results



Colorado Springs Utilities

It's how we're all connected



Laboratory Report For:

Coal Combustion Residuals - Landfill

Colorado Springs Utilities Environmental Services

Report Authorized by: *Kelly Nelson*

Title: Environmental Specialist

Report Date: April 16, 2025

Report generated by: Kelly A. Nelson

Colorado Springs Utilities Laboratory Services Section certifies that the test results meet all approved method and Laboratory Quality Assurance Plan requirements unless otherwise noted

Samples

516541	10-Mar-2025 14:02	Crooked Canyon Well #1
516542	10-Mar-2025 07:58	Fort Carson Well #1
516543	10-Mar-2025 09:05	Fort Carson Well #2
516544	10-Mar-2025 11:03	Fort Carson Well #3A
516545	10-Mar-2025 12:40	Fort Carson Well #3B
516546	10-Mar-2025 11:40	Equipment Blank
516547	11-Mar-2025 14:00	Sand Canyon Well #10
516548	11-Mar-2025 12:44	Sand Canyon Well #11
516549	11-Mar-2025 11:12	Sand Canyon Well #12
516550	11-Mar-2025 09:33	Sand Canyon Well #13
516551	11-Mar-2025 08:21	Sand Canyon Well #14
516552	11-Mar-2025 00:00	Field Duplicate sample

LIMS #: 516541

Sample Date: 3/10/2025 2:02:57 PM

Sample Point: CC_1

Sample Point Description: Crooked Canyon Well #1

Collection Comments: Perform matrix QC

Sample Type: GRAB

Sampler Initials: JDC

Flag	Method	Analyte	Result	Units	RL	Data Qualifiers	Analyzed On	Dilution Factor
+	SM_4500HB	pH	7.0	SU	2.0			1
+	SM_2550_B	Temperature Centigrade (Field)	13.2	degrees C	0.000			1
+	SM_2510_B	Conductivity	29200	umhos/cm	1			1
+	SM_2580_B	Oxidation-Reduction Potential	178	mV	0			1
+	SM_4500_OG	Dissolved Oxygen	<1.0	mg/L	1.0			1
+	SM_2130_B	Turbidity	1.9	NTU	0.05			1
	NA	Depth to Water	12.96	ft.	0.000			1
	SM_4500_FC	Fluoride (Total)	0.23	mg/L	0.10	T	03/21/2025	1
	EPA_1631	Mercury (Total)	0.006	ug/L	0.002	T	03/28/2025	1
	EPA_300_0	Chloride	1740	mg/L	25.0	D	03/13/2025	50
		Sulfate	22200	mg/L	500	D	03/13/2025	1000
	EPA_200_7	Boron (Total)	1090	ug/L	80.0	D	03/25/2025	10
		Calcium (Total)	400000	ug/L	500	D/T1	03/25/2025	10
		Cobalt (Total)	<2.00	ug/L	2.00	F	03/25/2025	1
		Lithium (Total)	772	ug/L	100	D	03/25/2025	10
*	SM_2540_C	Total Dissolved Solids	32000	mg/L	1000		03/13/2025	1
*	EPA_6020_B	Antimony (Total)	<2.0	ug/L	2.0		03/13/2025	1
		Arsenic (Total)	<2.0	ug/L	2.0		03/13/2025	1
		Barium (Total)	5.4	ug/L	2.0		03/13/2025	1
		Beryllium (Total)	<1.0	ug/L	1.0		03/14/2025	1
		Cadmium (Total)	<1.0	ug/L	1.0		03/13/2025	1
		Chromium (Total)	<3.0	ug/L	3.0		03/13/2025	1
		Lead (Total)	<1.0	ug/L	1.0		03/13/2025	1
		Molybdenum (Total)	<2.0	ug/L	2.0		03/13/2025	1
		Selenium (Total)	190	ug/L	2.0		03/13/2025	1
		Thallium (Total)	<1.0	ug/L	1.0		03/13/2025	1

LIMS #: 516542

Sample Date: 3/10/2025 7:58:57 AM

Sample Point: FC_1

Sample Point Description: Fort Carson Well #1

Collection Comments:

Sample Type: GRAB

Sampler Initials: JDC

Flag	Method	Analyte	Result	Units	RL	Data Qualifiers	Analyzed On	Dilution Factor
+	SM_4500HB	pH	7.1	SU	2.0			1
+	SM_2550_B	Temperature Centigrade (Field)	12.7	degrees C	0.000			1
+	SM_2510_B	Conductivity	21900	umhos/cm	1			1
+	SM_2580_B	Oxidation-Reduction Potential	246	mV	0			1
+	SM_4500_OG	Dissolved Oxygen	<1.0	mg/L	1.0			1
+	SM_2130_B	Turbidity	1.7	NTU	0.05			1
	NA	Depth to Water	16.58	ft.	0.000			1
	SM_4500_FC	Fluoride (Total)	0.13	mg/L	0.10		03/21/2025	1
	EPA_1631	Mercury (Total)	0.002	ug/L	0.002		03/28/2025	1
	EPA_300_0	Chloride	794	mg/L	25.0	D	03/13/2025	50
		Sulfate	13100	mg/L	250	D	03/13/2025	500
	EPA_200_7	Boron (Total)	994	ug/L	80.0	D	03/25/2025	10
		Calcium (Total)	349000	ug/L	500	D	03/25/2025	10
		Cobalt (Total)	<2.00	ug/L	2.00	F	03/25/2025	1
		Lithium (Total)	872	ug/L	100	D	03/25/2025	10
*	SM_2540_C	Total Dissolved Solids	20000	mg/L	1000		03/13/2025	1
*	EPA_6020_B	Antimony (Total)	<2.0	ug/L	2.0		03/13/2025	1
		Arsenic (Total)	<2.0	ug/L	2.0		03/13/2025	1
		Barium (Total)	8.9	ug/L	2.0		03/13/2025	1
		Beryllium (Total)	<1.0	ug/L	1.0		03/14/2025	1
		Cadmium (Total)	<1.0	ug/L	1.0		03/13/2025	1
		Chromium (Total)	<3.0	ug/L	3.0		03/13/2025	1
		Lead (Total)	<1.0	ug/L	1.0		03/13/2025	1
		Molybdenum (Total)	2.2	ug/L	2.0		03/13/2025	1
		Selenium (Total)	2.8	ug/L	2.0		03/13/2025	1
		Thallium (Total)	<1.0	ug/L	1.0		03/13/2025	1

LIMS #: 516543

Sample Date: 3/10/2025 9:05:57 AM

Sample Point: FC_2

Sample Point Description: Fort Carson Well #2

Collection Comments:

Sample Type: GRAB

Sampler Initials: JDC

Flag	Method	Analyte	Result	Units	RL	Data Qualifiers	Analyzed On	Dilution Factor
+	SM_4500HB	pH	7.2	SU	2.0			1
+	SM_2550_B	Temperature Centigrade (Field)	12.7	degrees C	0.000			1
+	SM_2510_B	Conductivity	9840	umhos/cm	1			1
+	SM_2580_B	Oxidation-Reduction Potential	254	mV	0			1
+	SM_4500_OG	Dissolved Oxygen	<1.0	mg/L	1.0			1
+	SM_2130_B	Turbidity	6.2	NTU	0.05			1
	NA	Depth to Water	14.29	ft.	0.000			1
	SM_4500_FC	Fluoride (Total)	0.54	mg/L	0.10		03/21/2025	1
	EPA_1631	Mercury (Total)	0.002	ug/L	0.002		03/28/2025	1
	EPA_300_0	Chloride	111	mg/L	25.0	D	03/13/2025	50
		Sulfate	6470	mg/L	250	D	03/13/2025	500
	EPA_200_7	Boron (Total)	948	ug/L	80.0	D	03/25/2025	10
		Calcium (Total)	368000	ug/L	500	D	03/25/2025	10
		Cobalt (Total)	<2.00	ug/L	2.00	F	03/25/2025	1
		Lithium (Total)	252	ug/L	100	D	03/25/2025	10
*	SM_2540_C	Total Dissolved Solids	12000	mg/L	100		03/13/2025	1
*	EPA_6020_B	Antimony (Total)	<2.0	ug/L	2.0		03/13/2025	1
		Arsenic (Total)	<2.0	ug/L	2.0		03/13/2025	1
		Barium (Total)	9.1	ug/L	2.0		03/13/2025	1
		Beryllium (Total)	<1.0	ug/L	1.0		03/14/2025	1
		Cadmium (Total)	<1.0	ug/L	1.0		03/13/2025	1
		Chromium (Total)	<3.0	ug/L	3.0		03/13/2025	1
		Lead (Total)	<1.0	ug/L	1.0		03/13/2025	1
		Molybdenum (Total)	2.6	ug/L	2.0		03/13/2025	1
		Selenium (Total)	37	ug/L	2.0		03/13/2025	1
		Thallium (Total)	<1.0	ug/L	1.0		03/13/2025	1

LIMS #: 516544

Sample Date: 3/10/2025 11:03:57 AM

Sample Point: FC_3A

Sample Point Description: Fort Carson Well #3A

Collection Comments:

Sample Type: GRAB

Sampler Initials: JDC

Flag	Method	Analyte	Result	Units	RL	Data Qualifiers	Analyzed On	Dilution Factor
+	SM_4500HB	pH	7.4	SU	2.0			1
+	SM_2550_B	Temperature Centigrade (Field)	13.0	degrees C	0.000			1
+	SM_2510_B	Conductivity	8940	umhos/cm	1			1
+	SM_2580_B	Oxidation-Reduction Potential	221	mV	0			1
+	SM_4500_OG	Dissolved Oxygen	<1.0	mg/L	1.0			1
+	SM_2130_B	Turbidity	10	NTU	0.05			1
	NA	Depth to Water	18.93	ft.	0.000			1
	SM_4500_FC	Fluoride (Total)	0.49	mg/L	0.10		03/21/2025	1
	EPA_1631	Mercury (Total)	0.002	ug/L	0.002		03/28/2025	1
	EPA_300_0	Chloride	142	mg/L	25.0	D	03/13/2025	50
		Sulfate	5640	mg/L	250	D	03/13/2025	500
	EPA_200_7	Boron (Total)	1030	ug/L	80.0	D	03/25/2025	10
		Calcium (Total)	392000	ug/L	500	D	03/25/2025	10
		Cobalt (Total)	<2.00	ug/L	2.00	F	03/25/2025	1
		Lithium (Total)	285	ug/L	100	D	03/25/2025	10
*	SM_2540_C	Total Dissolved Solids	9100	mg/L	100		03/13/2025	1
*	EPA_6020_B	Antimony (Total)	<2.0	ug/L	2.0		03/13/2025	1
		Arsenic (Total)	<2.0	ug/L	2.0		03/13/2025	1
		Barium (Total)	13	ug/L	2.0		03/13/2025	1
		Beryllium (Total)	<1.0	ug/L	1.0		03/14/2025	1
		Cadmium (Total)	<1.0	ug/L	1.0		03/13/2025	1
		Chromium (Total)	<3.0	ug/L	3.0		03/13/2025	1
		Lead (Total)	<1.0	ug/L	1.0		03/13/2025	1
		Molybdenum (Total)	6.8	ug/L	2.0		03/13/2025	1
		Selenium (Total)	49	ug/L	2.0		03/13/2025	1
		Thallium (Total)	<1.0	ug/L	1.0		03/13/2025	1

LIMS #: 516545

Sample Date: 3/10/2025 12:40:57 PM

Sample Point: FC_3B

Sample Point Description: Fort Carson Well #3B

Collection Comments:

Sample Type: GRAB

Sampler Initials: JDC

Flag	Method	Analyte	Result	Units	RL	Data Qualifiers	Analyzed On	Dilution Factor
+	SM_4500HB	pH	7.2	SU	2.0			1
+	SM_2550_B	Temperature Centigrade (Field)	13.6	degrees C	0.000			1
+	SM_2510_B	Conductivity	8660	umhos/cm	1			1
+	SM_2580_B	Oxidation-Reduction Potential	-116	mV	0			1
+	SM_4500_OG	Dissolved Oxygen	<1.0	mg/L	1.0			1
+	SM_2130_B	Turbidity	11	NTU	0.05			1
	NA	Depth to Water	18.26	ft.	0.000			1
	SM_4500_FC	Fluoride (Total)	0.68	mg/L	0.10		03/21/2025	1
	EPA_1631	Mercury (Total)	0.002	ug/L	0.002		03/28/2025	1
	EPA_300_0	Chloride	191	mg/L	25.0	D	03/13/2025	50
		Sulfate	4320	mg/L	250	D	03/13/2025	500
	EPA_200_7	Boron (Total)	1110	ug/L	80.0	D	03/25/2025	10
		Calcium (Total)	256000	ug/L	500	D	03/25/2025	10
		Cobalt (Total)	<2.00	ug/L	2.00	F	03/25/2025	1
		Lithium (Total)	242	ug/L	100	D	03/25/2025	10
*	SM_2540_C	Total Dissolved Solids	7400	mg/L	100		03/13/2025	1
*	EPA_6020_B	Antimony (Total)	<2.0	ug/L	2.0		03/13/2025	1
		Arsenic (Total)	<2.0	ug/L	2.0		03/13/2025	1
		Barium (Total)	12	ug/L	2.0		03/13/2025	1
		Beryllium (Total)	<1.0	ug/L	1.0		03/14/2025	1
		Cadmium (Total)	<1.0	ug/L	1.0		03/13/2025	1
		Chromium (Total)	<3.0	ug/L	3.0		03/13/2025	1
		Lead (Total)	<1.0	ug/L	1.0		03/13/2025	1
		Molybdenum (Total)	5.8	ug/L	2.0		03/13/2025	1
		Selenium (Total)	<2.0	ug/L	2.0		03/13/2025	1
		Thallium (Total)	<1.0	ug/L	1.0		03/13/2025	1

LIMS #: 516546

Sample Date: 3/10/2025 11:40:57 AM

Sample Point: EQUIP_BLK

Sample Point Description: Equipment Blank

Collection Comments:

Sample Type: GRAB

Sampler Initials: JDC

Flag	Method	Analyte	Result	Units	RL	Data Qualifiers	Analyzed On	Dilution Factor
	SM_4500_FC	Fluoride (Total)	<0.10	mg/L	0.10		03/21/2025	1
	EPA_300_0	Chloride	<0.50	mg/L	0.50		03/12/2025	1
		Sulfate	<0.50	mg/L	0.50		03/12/2025	1
	EPA_1631	Mercury (Total)	<0.002	ug/L	0.002		03/28/2025	1
	EPA_200_7	Boron (Total)	<8.00	ug/L	8.00		03/25/2025	1
		Calcium (Total)	<50.0	ug/L	50.0		03/25/2025	1
		Cobalt (Total)	<2.00	ug/L	2.00		03/25/2025	1
		Lithium (Total)	<10.0	ug/L	10.0		03/25/2025	1
*	EPA_6020_B	Antimony (Total)	<2.0	ug/L	2.0		03/13/2025	1
		Arsenic (Total)	<2.0	ug/L	2.0		03/13/2025	1
		Barium (Total)	<2.0	ug/L	2.0		03/13/2025	1
		Beryllium (Total)	<1.0	ug/L	1.0		03/14/2025	1
		Cadmium (Total)	<1.0	ug/L	1.0		03/13/2025	1
		Chromium (Total)	<3.0	ug/L	3.0		03/13/2025	1
		Lead (Total)	<1.0	ug/L	1.0		03/13/2025	1
		Molybdenum (Total)	<2.0	ug/L	2.0		03/13/2025	1
		Selenium (Total)	<2.0	ug/L	2.0		03/13/2025	1
		Thallium (Total)	<1.0	ug/L	1.0		03/13/2025	1
*	SM_2540_C	Total Dissolved Solids	<10	mg/L	10		03/13/2025	1

LIMS #: 516547

Sample Date: 3/11/2025 2:00:36 PM

Sample Point: SC_10

Sample Point Description: Sand Canyon Well #10

Collection Comments:

Sample Type: GRAB

Sampler Initials: JDC

Flag	Method	Analyte	Result	Units	RL	Data Qualifiers	Analyzed On	Dilution Factor
+	SM_4500HB	pH	7.3	SU	2.0			1
+	SM_2550_B	Temperature Centigrade (Field)	14.4	degrees C	0.000			1
+	SM_2510_B	Conductivity	17300	umhos/cm	1			1
+	SM_2580_B	Oxidation-Reduction Potential	232	mV	0			1
+	SM_4500_OG	Dissolved Oxygen	<1.0	mg/L	1.0			1
+	SM_2130_B	Turbidity	12	NTU	0.05			1
	NA	Depth to Water	13.38	ft.	0.000			1
	SM_4500_FC	Fluoride (Total)	0.53	mg/L	0.10		03/21/2025	1
	EPA_1631	Mercury (Total)	0.006	ug/L	0.002		03/28/2025	1
	EPA_300_0	Chloride	1030	mg/L	25.0	D	03/13/2025	50
		Sulfate	9750	mg/L	250	D	03/13/2025	500
	EPA_200_7	Boron (Total)	1350	ug/L	80.0	D	03/25/2025	10
		Calcium (Total)	421000	ug/L	500	D	03/25/2025	10
		Cobalt (Total)	<2.00	ug/L	2.00	F	03/25/2025	1
		Lithium (Total)	753	ug/L	100	D	03/25/2025	10
*	EPA_6020_B	Antimony (Total)	<2.0	ug/L	2.0		03/18/2025	1
		Arsenic (Total)	<2.0	ug/L	2.0		03/18/2025	1
		Barium (Total)	9.6	ug/L	2.0		03/18/2025	1
		Beryllium (Total)	<1.0	ug/L	1.0		03/18/2025	1
		Cadmium (Total)	<1.0	ug/L	1.0		03/18/2025	1
		Chromium (Total)	<3.0	ug/L	3.0		03/18/2025	1
		Lead (Total)	<1.0	ug/L	1.0		03/18/2025	1
		Molybdenum (Total)	4.7	ug/L	2.0		03/18/2025	1
		Selenium (Total)	170	ug/L	2.0		03/18/2025	1
		Thallium (Total)	<1.0	ug/L	1.0		03/18/2025	1
*	SM_2540_C	Total Dissolved Solids	17000	mg/L	40	E	03/17/2025	1

LIMS #: 516548

Sample Date: 3/11/2025 12:44:36 PM

Sample Point: SC_11

Sample Point Description: Sand Canyon Well #11

Collection Comments:

Sample Type: GRAB

Sampler Initials: JDC

Flag	Method	Analyte	Result	Units	RL	Data Qualifiers	Analyzed On	Dilution Factor
+	SM_4500HB	pH	7.2	SU	2.0			1
+	SM_2550_B	Temperature Centigrade (Field)	15.0	degrees C	0.000			1
+	SM_2510_B	Conductivity	16700	umhos/cm	1			1
+	SM_2580_B	Oxidation-Reduction Potential	304	mV	0			1
+	SM_4500_OG	Dissolved Oxygen	<1.0	mg/L	1.0			1
+	SM_2130_B	Turbidity	5.3	NTU	0.05			1
	NA	Depth to Water	10.44	ft.	0.000			1
	SM_4500_FC	Fluoride (Total)	0.63	mg/L	0.10		03/21/2025	1
	EPA_1631	Mercury (Total)	0.009	ug/L	0.002		03/28/2025	1
	EPA_300_0	Chloride	1310	mg/L	25.0	D	03/13/2025	50
		Sulfate	8770	mg/L	250	D	03/13/2025	500
	EPA_200_7	Boron (Total)	2780	ug/L	80.0	D	03/25/2025	10
		Calcium (Total)	447000	ug/L	500	D	03/25/2025	10
		Cobalt (Total)	<2.00	ug/L	2.00	F	03/25/2025	1
		Lithium (Total)	636	ug/L	100	D	03/25/2025	10
*	EPA_6020_B	Antimony (Total)	<2.0	ug/L	2.0		03/18/2025	1
		Arsenic (Total)	<2.0	ug/L	2.0		03/18/2025	1
		Barium (Total)	7.7	ug/L	2.0		03/18/2025	1
		Beryllium (Total)	<1.0	ug/L	1.0		03/18/2025	1
		Cadmium (Total)	<1.0	ug/L	1.0		03/18/2025	1
		Chromium (Total)	<3.0	ug/L	3.0		03/18/2025	1
		Lead (Total)	<1.0	ug/L	1.0		03/18/2025	1
		Molybdenum (Total)	3.2	ug/L	2.0		03/18/2025	1
		Selenium (Total)	300	ug/L	2.0		03/18/2025	1
		Thallium (Total)	<1.0	ug/L	1.0		03/18/2025	1
*	SM_2540_C	Total Dissolved Solids	17000	mg/L	1000		03/17/2025	1

LIMS #: 516549

Sample Date: 3/11/2025 11:12:36 AM

Sample Point: SC_12

Sample Point Description: Sand Canyon Well #12

Collection Comments: Perform matrix QC

Sample Type: GRAB

Sampler Initials: JDC

Flag	Method	Analyte	Result	Units	RL	Data Qualifiers	Analyzed On	Dilution Factor
+	SM_4500HB	pH	7.3	SU	2.0			1
+	SM_2550_B	Temperature Centigrade (Field)	14.1	degrees C	0.000			1
+	SM_2510_B	Conductivity	12900	umhos/cm	1			1
+	SM_2580_B	Oxidation-Reduction Potential	516	mV	0			1
+	SM_4500_OG	Dissolved Oxygen	<1.0	mg/L	1.0			1
+	SM_2130_B	Turbidity	1.5	NTU	0.05			1
	NA	Depth to Water	10.79	ft.	0.000			1
	SM_4500_FC	Fluoride (Total)	0.95	mg/L	0.10	T	03/21/2025	1
	EPA_1631	Mercury (Total)	0.003	ug/L	0.002		03/28/2025	1
	EPA_300_0	Chloride	352	mg/L	25.0	D	03/13/2025	50
		Sulfate	8180	mg/L	250	D	03/13/2025	500
	EPA_200_7	Boron (Total)	4840	ug/L	80.0	D	03/25/2025	10
		Calcium (Total)	395000	ug/L	500	D/T1	03/25/2025	10
		Cobalt (Total)	<2.00	ug/L	2.00	F	03/25/2025	1
		Lithium (Total)	445	ug/L	100	D	03/25/2025	10
*	EPA_6020_B	Antimony (Total)	<2.0	ug/L	2.0		03/18/2025	1
		Arsenic (Total)	<2.0	ug/L	2.0		03/18/2025	1
		Barium (Total)	6.4	ug/L	2.0		03/18/2025	1
		Beryllium (Total)	<1.0	ug/L	1.0		03/18/2025	1
		Cadmium (Total)	<1.0	ug/L	1.0		03/18/2025	1
		Chromium (Total)	<3.0	ug/L	3.0		03/18/2025	1
		Lead (Total)	<1.0	ug/L	1.0		03/18/2025	1
		Molybdenum (Total)	4.8	ug/L	2.0		03/18/2025	1
		Selenium (Total)	12	ug/L	2.0		03/18/2025	1
		Thallium (Total)	<1.0	ug/L	1.0		03/18/2025	1
*	SM_2540_C	Total Dissolved Solids	13000	mg/L	1000		03/18/2025	1

LIMS #: 516550

Sample Date: 3/11/2025 9:33:36 AM

Sample Point: SC_13

Sample Point Description: Sand Canyon Well #13

Collection Comments:

Sample Type: GRAB

Sampler Initials: JDC

Flag	Method	Analyte	Result	Units	RL	Data Qualifiers	Analyzed On	Dilution Factor
+	SM_4500HB	pH	7.3	SU	2.0			1
+	SM_2550_B	Temperature Centigrade (Field)	11.8	degrees C	0.000			1
+	SM_2510_B	Conductivity	11000	umhos/cm	1			1
+	SM_2580_B	Oxidation-Reduction Potential	298	mV	0			1
+	SM_4500_OG	Dissolved Oxygen	<1.0	mg/L	1.0			1
+	SM_2130_B	Turbidity	15	NTU	0.05			1
	NA	Depth to Water	10.96	ft.	0.000			1
	SM_4500_FC	Fluoride (Total)	0.78	mg/L	0.10		03/21/2025	1
	EPA_1631	Mercury (Total)	0.002	ug/L	0.002		03/28/2025	1
	EPA_300_0	Chloride	168	mg/L	25.0	D	03/13/2025	50
		Sulfate	7320	mg/L	250	D	03/13/2025	500
	EPA_200_7	Boron (Total)	1560	ug/L	80.0	D	03/25/2025	10
		Calcium (Total)	381000	ug/L	500	D	03/25/2025	10
		Cobalt (Total)	<2.00	ug/L	2.00	F	03/25/2025	1
		Lithium (Total)	336	ug/L	100	D	03/25/2025	10
*	EPA_6020_B	Antimony (Total)	<2.0	ug/L	2.0		03/18/2025	1
		Arsenic (Total)	<2.0	ug/L	2.0		03/18/2025	1
		Barium (Total)	7.5	ug/L	2.0		03/18/2025	1
		Beryllium (Total)	<1.0	ug/L	1.0		03/18/2025	1
		Cadmium (Total)	<1.0	ug/L	1.0		03/18/2025	1
		Chromium (Total)	<3.0	ug/L	3.0		03/18/2025	1
		Lead (Total)	<1.0	ug/L	1.0		03/18/2025	1
		Molybdenum (Total)	4.2	ug/L	2.0		03/18/2025	1
		Selenium (Total)	24	ug/L	2.0		03/18/2025	1
		Thallium (Total)	<1.0	ug/L	1.0		03/18/2025	1
*	SM_2540_C	Total Dissolved Solids	11000	mg/L	1000		03/17/2025	1

LIMS #: 516551

Sample Date: 3/11/2025 8:21:36 AM

Sample Point: SC_14

Sample Point Description: Sand Canyon Well #14

Collection Comments:

Sample Type: GRAB

Sampler Initials: JDC

Flag	Method	Analyte	Result	Units	RL	Data Qualifiers	Analyzed On	Dilution Factor
+	SM_4500HB	pH	7.3	SU	2.0			1
+	SM_2550_B	Temperature Centigrade (Field)	11.0	degrees C	0.000			1
+	SM_2510_B	Conductivity	10600	umhos/cm	1			1
+	SM_2580_B	Oxidation-Reduction Potential	408	mV	0			1
+	SM_4500_OG	Dissolved Oxygen	<1.0	mg/L	1.0			1
+	SM_2130_B	Turbidity	0.43	NTU	0.05			1
	NA	Depth to Water	11.11	ft.	0.000			1
	SM_4500_FC	Fluoride (Total)	0.76	mg/L	0.10		03/21/2025	1
	EPA_1631	Mercury (Total)	<0.002	ug/L	0.002		03/28/2025	1
	EPA_300_0	Chloride	150	mg/L	25.0	D	03/13/2025	50
		Sulfate	6980	mg/L	250	D	03/13/2025	500
	EPA_200_7	Boron (Total)	1520	ug/L	80.0	D	03/25/2025	10
		Calcium (Total)	396000	ug/L	500	D	03/25/2025	10
		Cobalt (Total)	<2.00	ug/L	2.00	F	03/25/2025	1
		Lithium (Total)	354	ug/L	100	D	03/25/2025	10
*	EPA_6020_B	Antimony (Total)	<2.0	ug/L	2.0		03/18/2025	1
		Arsenic (Total)	<2.0	ug/L	2.0		03/18/2025	1
		Barium (Total)	5.4	ug/L	2.0		03/18/2025	1
		Beryllium (Total)	<1.0	ug/L	1.0		03/18/2025	1
		Cadmium (Total)	<1.0	ug/L	1.0		03/18/2025	1
		Chromium (Total)	<3.0	ug/L	3.0		03/18/2025	1
		Lead (Total)	<1.0	ug/L	1.0		03/18/2025	1
		Molybdenum (Total)	11	ug/L	2.0		03/18/2025	1
		Selenium (Total)	5.6	ug/L	2.0		03/18/2025	1
		Thallium (Total)	<1.0	ug/L	1.0		03/18/2025	1
*	SM_2540_C	Total Dissolved Solids	11000	mg/L	1000		03/17/2025	1

LIMS #: 516552

Sample Date: 3/11/2025 12:00:00 AM

Sample Point: FIELD_DUP

Sample Point Description: Field Duplicate sample

Collection Comments:

Sample Type: GRAB

Sampler Initials: JDC

Flag	Method	Analyte	Result	Units	RL	Data Qualifiers	Analyzed On	Dilution Factor
	SM_4500_FC	Fluoride (Total)	0.64	mg/L	0.10		03/21/2025	1
	EPA_300_0	Chloride	1320	mg/L	25.0	D	03/12/2025	50
		Sulfate	8800	mg/L	250	D	03/12/2025	500
	EPA_1631	Mercury (Total)	0.008	ug/L	0.002		03/28/2025	1
	EPA_200_7	Boron (Total)	2870	ug/L	80.0	D	03/25/2025	10
		Calcium (Total)	468000	ug/L	500	D	03/25/2025	10
		Cobalt (Total)	<2.00	ug/L	2.00	F	03/25/2025	1
		Lithium (Total)	667	ug/L	100	D	03/25/2025	10
*	EPA_6020_B	Antimony (Total)	<2.0	ug/L	2.0		03/18/2025	1
		Arsenic (Total)	<2.0	ug/L	2.0		03/18/2025	1
		Barium (Total)	7.2	ug/L	2.0		03/18/2025	1
		Beryllium (Total)	<1.0	ug/L	1.0		03/18/2025	1
		Cadmium (Total)	<1.0	ug/L	1.0		03/18/2025	1
		Chromium (Total)	<3.0	ug/L	3.0		03/18/2025	1
		Lead (Total)	<1.0	ug/L	1.0		03/18/2025	1
		Molybdenum (Total)	3.1	ug/L	2.0		03/18/2025	1
		Selenium (Total)	310	ug/L	2.0		03/18/2025	1
		Thallium (Total)	<1.0	ug/L	1.0		03/18/2025	1
*	SM_2540_C	Total Dissolved Solids	16000	mg/L	1000		03/17/2025	1

Flags

- * Analysis performed by an external contract laboratory.
- + Analysis performed in the field.

Data Qualifiers

D - Value reported is multiplied by a dilution factor.

E - Qualified by external laboratory. See case narrative in external report for more details

F - Customer/Project data quality requirements met. There are deviations from the reference method or the SOP.

T - MS recovery outside the established range. The recovery is matrix related, not method related.

T1 - The analyte concentration is disproportionate to the spike level and is outside the established range.

Glossary

DQ - Data Qualifier

RL – Reporting Limit

MDL – Method Detection Limit

Dil Fac – Dilution Factor

Case Narrative

Co was reported from the 1x dilution despite an interferant being over range. The affect on the data is minimal, and it was determined that this would be more accurate to report than from a dilution since cobalt is below the reporting limit on all samples. Associated data is F-qualified.



CCR Landfill Groundwater Assessment Upgradient Wells

Sample Date: 3/10/2025

QC Report Needed

Sampler:

J Suslow

LOCATION	# Bottles	LIMS #	Sample Time	Please mark boxes that apply.															Comments
				pH, Field (su) SM 4500 H	Temperature SM 2550 B	Conductivity, Field (umhos/cm) SM 2510 B	Oxidation Reduction Potential, Field (mV)	Dissolved Oxygen (mg/L)	Turbidity, Field (NTU), SM 2130 B	Depth to Water (feet)	Check which sample should have MSMSD performed on it	Fluoride, SM 4500 F C	Total Dissolved Solids, SM 2540 C (Sent to TA Denver)	Chloride, Sulfate EPA 300.0	EPA 200.7 (B, Ca, Co & Li - Total)	EPA 8020 B (Sb, As, Ba, Be, Cd, Cr, Pb, Mo, Se & Ti - Total) Sent to Eurofins TA Denver	Mercury, EPA 1631	Total Radium 226 & Radium 228 (Sent to Test America St. Louis)	
CC_1	8	516541	1402	6.95	13.2	29185	178.5	0.11	1.94	12.96	X	X	X	X	X	X	X	X	
FC_1	8	516542	758	7.13	12.7	21942	246.3	0.24	1.73	16.58		X	X	X	X	X	X	X	
FC_2	8	516543	9:05	7.22	12.7	9843	254.3	0.07	6.18	14.29		X	X	X	X	X	X	X	
FC_3A	8	516544	1103	7.36	13.0	8936	221.4	0.31	10.1	18.93		X	X	X	X	X	X	X	
FC_3B	8	516545	1240	7.22	13.6	8664	-115.8	0.04	11.11	18.26		X	X	X	X	X	X	X	
EQUIP_BLK	8	516546	1140									X	X	X	X	X	X	X	
Total # of Bottles	48											1- 250 mL GP	1 - 250mL GP	1-250 mL GP	1-500 mL New Certified plastic	1-250 mL bottles provided by external lab (pre-preserved with HNO3)	1-250 mL glass acid- rinsed	2-1000 mL plastic	

☐ Check if samples left in walk-in overnight

Signature/Print last name

Relinquished by

Received by

Suslow

3-10-25

Date/Time
@ 15:11

ENDORSES

3/10/25

@ 1511

Temperature Blank (deg C): 3.7
Date: 3/10/24 25 ONE 3/10
Notify Amber Holmberg if the temperature is >4 deg C

Additional Comments / Sample Rejections/
Actions

Workflow: CCR LANDFILL
Project ID: CCR LAND
Test Schedule: CCR LAND

Samples are NOT filtered in the field.



CCR Landfill Groundwater Assessment Downgradient and Cross Gradient Wells

Sample Date: 3/11/2025

QC Report Needed

Sampler: J Suslow

LOCATION	# Bottles	LIMS #	Sample Time	Please mark boxes that apply.							Check which sample should have MSMSD performed on it	Fluoride, SM 4500 F C	Total Dissolved Solids, SM 2540 C (Sent to TA Denver)	Chloride, Sulfate EPA 300.0	EPA 200.7 (B, Ca, Co & Li - Total)	EPA 6020 B (Sp, As, Ba, Be, Cd, Cr, Pb, Mo, Se & Ti - Total) Sent to Eurofins TA Denver	Mercury, EPA 1631	Total Radium 226 & Radium 228 (Sent to Test America St. Louis)	Comments
				pH, Field (su) SM 4500 H	Temperature, SM 2550 B	Conductivity, Field (umhos/cm) SM 2510 B	Oxidation Reduction Potential, Field (mV)	Dissolved Oxygen (mg/L)	Turbidity, Field (NTU), SM 2130 B	Depth to Water (feet)									
SC_10	8	516547	1400	7.27	14.4	17342	232.5	0.07	11.6	13.38		X	X	X	X	X	X	X	
SC_11	8	516548	1244	7.21	15.0	16735	303.5	0.11	5.32	10.44		X	X	X	X	X	X	X	
SC_12	8	516549	1112	7.26	14.1	12933	516.3	0.17	1.51	10.79	X	X	X	X	X	X	X	X	
SC_13	8	516550	933	7.29	11.8	10960	298.5	0.13	14.7	10.96		X	X	X	X	X	X	X	
SC_14	8	516551	821	7.27	11.0	10611	408.3	0.24	0.43	11.11		X	X	X	X	X	X	X	
FIELD_DUP	8	516552	0:00									X	X	X	X	X	X	X	
Total # of Bottles		48										1-500 mL GP	1 - 500mL GP	1-250 mL GP	1-500 mL New Certified plastic	1-250 mL bottles provided by external lab (pre- preserved with HNO3)	1-250 mL glass acid- rinsed	2-1000 mL plastic	

☐ Check if samples left in walk-in overnight

Relinquished by J Suslow Date/Time 3-11-25 @ 1510

Received by Carol Engel Date/Time 3/11/25 @ 1510
Temperature Blank (deg C): 1.7°C
Date: 03/11/24/25
CME 3/11

Check if samples left in walk-in overnight

Additional Comments / Sample Rejections/
Actions

Workflow: CCR LANDFILL
Project ID: CCR LAND
Test Schedule: CCR LAND

Samples are NOT filtered in the field.



Colorado Springs Utilities

It's how we're all connected

**Laboratory Services Section
QC Report**

**CCR Landfill Wells
March 2025**

Quality Assurance Approval: Lesley Pearce

Date: 4/11/2025

QC Narrative

This report is for sample numbers 516541 – 516552.

Fluoride by Standard Methods 4500 F C

The matrix spike recoveries are outside the established range. The recoveries are matrix related, not method related. Associated data are T qualified.

Anions by EPA Method 300.0

There are no anomalies to report for this analysis.

Mercury by EPA 1631 E

The matrix spike recoveries are outside the established range. The recoveries are matrix related, not method related. Associated data are T qualified.

EPA 200.7

The calcium concentrations are disproportionate to the spike level and are outside the established range. Associated data are T1 qualified.

Method: Fluoride by Standard Methods 4500 F C
 Batch Analysis date: 3/21/2025
 Sampled date: 3/10/2025 for samples 516541 - 516546
 Sampled date: 3/11/2025 for samples 516547 - 516552

Matrix QC performed on samples 516541 and 516549

QC Type	Analyte	Recovery (%)	Acceptable Range (%)	RPD (%)	RPD Limit (%)
MRL	Fluoride (Total)	103	90 - 110		
QCS	Fluoride (Total)	101	90 - 110		
MS	Fluoride (Total) (516541)	<u>*39</u>	80 - 120		
MSD	Fluoride (Total) (516541)			0	<20
MS	Fluoride (Total) (516549)	<u>*72</u>	80 - 120		
MSD	Fluoride (Total) (516549)			0	<20
QC Type	Analyte	Concentration	Limit		
LRB	Fluoride (Total)	<0.05 mg/L	0.05 mg/L		

***See Narrative**

Method: Anions by EPA Method 300.0

Batch Number: ANIONS000074
 Batch Analysis Date: 3/13/2025
 Sampled Date: 3/10/2025 for 516541 - 516546
 Sampled Date: 3/11/2025 for 516547 – 516552

Matrix QC performed on 516549, 516541

Component Name	Result	Units
Chloride (Duplicate) 516549	0	RPD
Chloride (Duplicate) 516541	0	RPD
Chloride (LFB)	100	%REC
Chloride (LFB) (Duplicate)	0	RPD
Chloride (LRB)	<0.17	mg/L
Chloride (MRL)	108	%REC
Chloride (MS) 516549	108	%REC
Chloride (MS) 516541	95	%REC
Sulfate (Duplicate) 516549	0	RPD
Sulfate (Duplicate) 516541	2	RPD
Sulfate (LFB)	101	%REC
Sulfate (LFB) (Duplicate)	0	RPD
Sulfate (LRB)	<0.17	mg/L
Sulfate (MRL)	116	%REC
Sulfate (MS) 516549	109	%REC
Sulfate (MS) 516541	105	%REC

EPA 300.0 QC Acceptance Limits

Analyte	LRB Concentration (mg/L)	LRB Limit (mg/L)	MRL Acceptable Range (%)	LFB Acceptable Range (%)	LFB Duplicate RPD Limit (%)	MS Acceptable Range (%)	LD RPD Limit (%)
Chloride	<0.17	0.17	50-150	90-110	<20	80-120	<20
Sulfate	<0.17	0.17	50-150	90-110	<20	80-120	<20

Method: Mercury by EPA 1631 E

Batch Name: HG_PSA000031

Batch Analysis Date: 3/28/2025

Sample Date: 3/10/2025 for 516542 - 516546

Sample Date: 3/11/2025 for 516547 – 516552

Matrix QC performed on 516541, 516549

Component Name	Result	Units
Mercury (Total) (LRB)	<0.5	ng/L
Mercury (Total) (MRL)	78	%REC
Mercury (Total) (QCS)	96	%REC
Mercury (Total) (MS) 516541	146*	%REC
Mercury (Total) (RPD) 516541	5	RPD
Mercury (Total) (MS) 516549	80	%REC
Mercury (Total) (RPD) 516549	4	RPD

See narrative*EPA 1631 E QC Acceptable Limits**

Analyte	LRB Concentration (ng/L)	LRB Limit (ng/L)	MRL Acceptable Range (%)	QCS Acceptable Range (%)	MS Acceptable Range (%)	MSD RPD Limit (%)
Hg (Total)	<0.5	0.5	60-140	77-123	71-125	<24

Method: EPA 200.7

Batch Name: OES_TOT000059

Batch Digestion Date: 3/13/2025

Batch Analysis Date: 3/25/2025

Sample Date: 3/10/2025 for 516541 - 516546

Sample Date: 3/11/2025 for 516547 - 516552

Matrix QC performed on sample 516541 and 516549

Component Name	Result	Units
Boron (Total) (LFB)	104	%REC
Boron (Total) (LRB)	<8.00	ug/L
Boron (Total) (MRL)	105	%REC
Boron (Total) (MS) 516549	81	%REC
Boron (Total) (MS) 516541	109	%REC
Boron (Total) (RPD) 516549	2	RPD
Boron (Total) (RPD) 516541	8	RPD
Calcium (Total) (LFB)	111	%REC
Calcium (Total) (LRB)	<50.0	ug/L
Calcium (Total) (MRL)	126	%REC
Calcium (Total) (MS) 516549	54*	%REC
Calcium (Total) (MS) 516541	167*	%REC
Calcium (Total) (RPD) 516549	2	RPD
Calcium (Total) (RPD) 516541	8	RPD
Cobalt (Total) (LFB)	99	%REC
Cobalt (Total) (LRB)	<0.569	ug/L
Cobalt (Total) (MRL)	105	%REC
Cobalt (Total) (MS) 516549	87	%REC
Cobalt (Total) (MS) 516541	73	%REC
Cobalt (Total) (RPD) 516549	2	RPD
Cobalt (Total) (RPD) 516541	2	RPD
Lithium (Total) (LFB)	106	%REC
Lithium (Total) (LRB)	<7.98	ug/L
Lithium (Total) (MRL)	89	%REC
Lithium (Total) (MS) 516549	111	%REC
Lithium (Total) (MS) 516541	124	%REC
Lithium (Total) (RPD) 516549	4	RPD
Lithium (Total) (RPD) 516541	11	RPD

See narrative*EPA 200.7 QC Acceptable Limits**

Analyte	LRB Concentration (ug/L)	LRB Limit (ug/L)	MRL Acceptable Range (%)	LFB Acceptable Range (%)	MS Acceptable Range (%)	MSD RPD Limit (%)
Boron (Total)	<8.00	8.00	50-150	85-115	70-130	<20
Calcium (Total)	<50.0	50	50-150	85-115	70-130	<20

Cobalt (Total)	<0.569	0.569	50-150	85-115	70-130	<20
Lithium (Total)	<7.98	7.98	50-150	50-150	70-130	<20

LD – Field Duplicate

LFB – Laboratory Fortified Blank

LRB – Laboratory Reagent Blank (Method Blank)

QCS – Quality Control Sample

MRL – Minimum Reporting Limit (Verification)

MS – Matrix Spike

MSD – Matrix Spike Duplicate

Underline – Data was outside the limit

ANALYTICAL REPORT

PREPARED FOR

Attn: Ms. Wendy Asay
Colorado Springs Utilities
Laboratory Services Section
701 E. Las Vegas St., MC 1465
Colorado Springs, Colorado 80903

Generated 3/19/2025 9:54:56 AM

JOB DESCRIPTION

CCR Landfill Day 1

JOB NUMBER

280-204242-1

Eurofins Denver

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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Authorization



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Case Narrative

Client: Colorado Springs Utilities
Project: CCR Landfill Day 1

Job ID: 280-204242-1

Job ID: 280-204242-1

Eurofins Denver

Job Narrative 280-204242-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt

The samples were received on 3/12/2025 9:20 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 0.7°C.

Method 6020B - Metals (ICP/MS)

Samples 516541 CC_1 (280-204242-1), 516541 CC_1 (280-204242-1MS), 516541 CC_1 (280-204242-1MSD), 516542 FC_1 (280-204242-2), 516543 FC_2 (280-204242-3), 516544 FC_3A (280-204242-4), 516545 FC_3B (280-204242-5) and EQUIP_BLK (280-204242-6) were analyzed for Metals (ICP/MS). The samples were prepared on 3/13/2025 and analyzed on 3/13/2025 and 3/14/2025.

Method SM 2540C - Solids, Total Dissolved (TDS)

Samples 516541 CC_1 (280-204242-1), 516541 CC_1 (280-204242-1DU), 516542 FC_1 (280-204242-2), 516543 FC_2 (280-204242-3), 516544 FC_3A (280-204242-4), 516545 FC_3B (280-204242-5) and EQUIP_BLK (280-204242-6) were analyzed for Solids, Total Dissolved (TDS). The samples were analyzed on 3/13/2025 and 3/14/2025.

Eurofins Denver

Definitions/Glossary

Client: Colorado Springs Utilities
Project/Site: CCR Landfill Day 1

Job ID: 280-204242-1

Qualifiers

Metals

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Detection Summary

Client: Colorado Springs Utilities
Project/Site: CCR Landfill Day 1

Job ID: 280-204242-1

Client Sample ID: 516541 CC_1

Lab Sample ID: 280-204242-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	5.4		2.0		ug/L	1		6020B	Total/NA
Selenium	190		2.0		ug/L	1		6020B	Total/NA
Total Dissolved Solids (TDS)	32000		1000		mg/L	1		SM 2540C	Total/NA

Client Sample ID: 516542 FC_1

Lab Sample ID: 280-204242-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	8.9		2.0		ug/L	1		6020B	Total/NA
Molybdenum	2.2		2.0		ug/L	1		6020B	Total/NA
Selenium	2.8		2.0		ug/L	1		6020B	Total/NA
Total Dissolved Solids (TDS)	20000		1000		mg/L	1		SM 2540C	Total/NA

Client Sample ID: 516543 FC_2

Lab Sample ID: 280-204242-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	9.1		2.0		ug/L	1		6020B	Total/NA
Molybdenum	2.6		2.0		ug/L	1		6020B	Total/NA
Selenium	37		2.0		ug/L	1		6020B	Total/NA
Total Dissolved Solids (TDS)	12000		100		mg/L	1		SM 2540C	Total/NA

Client Sample ID: 516544 FC_3A

Lab Sample ID: 280-204242-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	13		2.0		ug/L	1		6020B	Total/NA
Molybdenum	6.8		2.0		ug/L	1		6020B	Total/NA
Selenium	49		2.0		ug/L	1		6020B	Total/NA
Total Dissolved Solids (TDS)	9100		100		mg/L	1		SM 2540C	Total/NA

Client Sample ID: 516545 FC_3B

Lab Sample ID: 280-204242-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	12		2.0		ug/L	1		6020B	Total/NA
Molybdenum	5.8		2.0		ug/L	1		6020B	Total/NA
Total Dissolved Solids (TDS)	7400		100		mg/L	1		SM 2540C	Total/NA

Client Sample ID: EQUIP_BLK

Lab Sample ID: 280-204242-6

No Detections.

This Detection Summary does not include radiochemical test results.

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Method Summary

Client: Colorado Springs Utilities
Project/Site: CCR Landfill Day 1

Job ID: 280-204242-1

Method	Method Description	Protocol	Laboratory
6020B	Metals (ICP/MS)	SW846	EET DEN
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET DEN
3005A	Preparation, Total Metals	SW846	EET DEN

Protocol References:

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET DEN = Eurofins Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

Sample Summary

Client: Colorado Springs Utilities
Project/Site: CCR Landfill Day 1

Job ID: 280-204242-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
280-204242-1	516541 CC_1	Water	03/10/25 14:02	03/12/25 09:20
280-204242-2	516542 FC_1	Water	03/10/25 07:58	03/12/25 09:20
280-204242-3	516543 FC_2	Water	03/10/25 09:05	03/12/25 09:20
280-204242-4	516544 FC_3A	Water	03/10/25 11:03	03/12/25 09:20
280-204242-5	516545 FC_3B	Water	03/10/25 12:40	03/12/25 09:20
280-204242-6	EQUIP_BLK	Water	03/10/25 11:40	03/12/25 09:20

Client Sample Results

Client: Colorado Springs Utilities
Project/Site: CCR Landfill Day 1

Job ID: 280-204242-1

Client Sample ID: 516541 CC_1

Lab Sample ID: 280-204242-1

Date Collected: 03/10/25 14:02

Matrix: Water

Date Received: 03/12/25 09:20

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0		ug/L		03/13/25 08:50	03/13/25 17:17	1
Arsenic	ND		2.0		ug/L		03/13/25 08:50	03/13/25 17:17	1
Barium	5.4		2.0		ug/L		03/13/25 08:50	03/13/25 17:17	1
Beryllium	ND		1.0		ug/L		03/13/25 08:50	03/14/25 11:38	1
Cadmium	ND		1.0		ug/L		03/13/25 08:50	03/13/25 17:17	1
Chromium	ND		3.0		ug/L		03/13/25 08:50	03/13/25 17:17	1
Lead	ND		1.0		ug/L		03/13/25 08:50	03/13/25 17:17	1
Molybdenum	ND		2.0		ug/L		03/13/25 08:50	03/13/25 17:17	1
Selenium	190		2.0		ug/L		03/13/25 08:50	03/13/25 17:17	1
Thallium	ND		1.0		ug/L		03/13/25 08:50	03/13/25 17:17	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (TDS) (SM 2540C)	32000		1000		mg/L			03/13/25 08:58	1

Client Sample Results

Client: Colorado Springs Utilities
Project/Site: CCR Landfill Day 1

Job ID: 280-204242-1

Client Sample ID: 516542 FC_1

Lab Sample ID: 280-204242-2

Date Collected: 03/10/25 07:58

Matrix: Water

Date Received: 03/12/25 09:20

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0		ug/L		03/13/25 08:50	03/13/25 17:24	1
Arsenic	ND		2.0		ug/L		03/13/25 08:50	03/13/25 17:24	1
Barium	8.9		2.0		ug/L		03/13/25 08:50	03/13/25 17:24	1
Beryllium	ND		1.0		ug/L		03/13/25 08:50	03/14/25 11:46	1
Cadmium	ND		1.0		ug/L		03/13/25 08:50	03/13/25 17:24	1
Chromium	ND		3.0		ug/L		03/13/25 08:50	03/13/25 17:24	1
Lead	ND		1.0		ug/L		03/13/25 08:50	03/13/25 17:24	1
Molybdenum	2.2		2.0		ug/L		03/13/25 08:50	03/13/25 17:24	1
Selenium	2.8		2.0		ug/L		03/13/25 08:50	03/13/25 17:24	1
Thallium	ND		1.0		ug/L		03/13/25 08:50	03/13/25 17:24	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (TDS) (SM 2540C)	20000		1000		mg/L			03/13/25 08:58	1

Client Sample Results

Client: Colorado Springs Utilities
Project/Site: CCR Landfill Day 1

Job ID: 280-204242-1

Client Sample ID: 516543 FC_2

Lab Sample ID: 280-204242-3

Date Collected: 03/10/25 09:05

Matrix: Water

Date Received: 03/12/25 09:20

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0		ug/L		03/13/25 08:50	03/13/25 17:26	1
Arsenic	ND		2.0		ug/L		03/13/25 08:50	03/13/25 17:26	1
Barium	9.1		2.0		ug/L		03/13/25 08:50	03/13/25 17:26	1
Beryllium	ND		1.0		ug/L		03/13/25 08:50	03/14/25 11:48	1
Cadmium	ND		1.0		ug/L		03/13/25 08:50	03/13/25 17:26	1
Chromium	ND		3.0		ug/L		03/13/25 08:50	03/13/25 17:26	1
Lead	ND		1.0		ug/L		03/13/25 08:50	03/13/25 17:26	1
Molybdenum	2.6		2.0		ug/L		03/13/25 08:50	03/13/25 17:26	1
Selenium	37		2.0		ug/L		03/13/25 08:50	03/13/25 17:26	1
Thallium	ND		1.0		ug/L		03/13/25 08:50	03/13/25 17:26	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (TDS) (SM 2540C)	12000		100		mg/L			03/13/25 08:58	1

Client Sample Results

Client: Colorado Springs Utilities
Project/Site: CCR Landfill Day 1

Job ID: 280-204242-1

Client Sample ID: 516544 FC_3A

Lab Sample ID: 280-204242-4

Date Collected: 03/10/25 11:03

Matrix: Water

Date Received: 03/12/25 09:20

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0		ug/L		03/13/25 08:50	03/13/25 17:28	1
Arsenic	ND		2.0		ug/L		03/13/25 08:50	03/13/25 17:28	1
Barium	13		2.0		ug/L		03/13/25 08:50	03/13/25 17:28	1
Beryllium	ND		1.0		ug/L		03/13/25 08:50	03/14/25 11:50	1
Cadmium	ND		1.0		ug/L		03/13/25 08:50	03/13/25 17:28	1
Chromium	ND		3.0		ug/L		03/13/25 08:50	03/13/25 17:28	1
Lead	ND		1.0		ug/L		03/13/25 08:50	03/13/25 17:28	1
Molybdenum	6.8		2.0		ug/L		03/13/25 08:50	03/13/25 17:28	1
Selenium	49		2.0		ug/L		03/13/25 08:50	03/13/25 17:28	1
Thallium	ND		1.0		ug/L		03/13/25 08:50	03/13/25 17:28	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (TDS) (SM 2540C)	9100		100		mg/L			03/13/25 08:58	1

Client Sample Results

Client: Colorado Springs Utilities
Project/Site: CCR Landfill Day 1

Job ID: 280-204242-1

Client Sample ID: 516545 FC_3B

Lab Sample ID: 280-204242-5

Date Collected: 03/10/25 12:40

Matrix: Water

Date Received: 03/12/25 09:20

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0		ug/L		03/13/25 08:50	03/13/25 17:31	1
Arsenic	ND		2.0		ug/L		03/13/25 08:50	03/13/25 17:31	1
Barium	12		2.0		ug/L		03/13/25 08:50	03/13/25 17:31	1
Beryllium	ND		1.0		ug/L		03/13/25 08:50	03/14/25 11:53	1
Cadmium	ND		1.0		ug/L		03/13/25 08:50	03/13/25 17:31	1
Chromium	ND		3.0		ug/L		03/13/25 08:50	03/13/25 17:31	1
Lead	ND		1.0		ug/L		03/13/25 08:50	03/13/25 17:31	1
Molybdenum	5.8		2.0		ug/L		03/13/25 08:50	03/13/25 17:31	1
Selenium	ND		2.0		ug/L		03/13/25 08:50	03/13/25 17:31	1
Thallium	ND		1.0		ug/L		03/13/25 08:50	03/13/25 17:31	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (TDS) (SM 2540C)	7400		100		mg/L			03/13/25 08:58	1

Client Sample Results

Client: Colorado Springs Utilities
Project/Site: CCR Landfill Day 1

Job ID: 280-204242-1

Client Sample ID: EQUIP_BLK

Lab Sample ID: 280-204242-6

Date Collected: 03/10/25 11:40

Matrix: Water

Date Received: 03/12/25 09:20

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0		ug/L		03/13/25 08:50	03/13/25 17:33	1
Arsenic	ND		2.0		ug/L		03/13/25 08:50	03/13/25 17:33	1
Barium	ND		2.0		ug/L		03/13/25 08:50	03/13/25 17:33	1
Beryllium	ND		1.0		ug/L		03/13/25 08:50	03/14/25 11:55	1
Cadmium	ND		1.0		ug/L		03/13/25 08:50	03/13/25 17:33	1
Chromium	ND		3.0		ug/L		03/13/25 08:50	03/13/25 17:33	1
Lead	ND		1.0		ug/L		03/13/25 08:50	03/13/25 17:33	1
Molybdenum	ND		2.0		ug/L		03/13/25 08:50	03/13/25 17:33	1
Selenium	ND		2.0		ug/L		03/13/25 08:50	03/13/25 17:33	1
Thallium	ND		1.0		ug/L		03/13/25 08:50	03/13/25 17:33	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (TDS) (SM 2540C)	ND		10		mg/L			03/13/25 08:58	1

QC Sample Results

Client: Colorado Springs Utilities
Project/Site: CCR Landfill Day 1

Job ID: 280-204242-1

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 280-687489/1-A

Matrix: Water

Analysis Batch: 687731

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 687489

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0		ug/L		03/13/25 08:50	03/13/25 16:51	1
Arsenic	ND		2.0		ug/L		03/13/25 08:50	03/13/25 16:51	1
Barium	ND		2.0		ug/L		03/13/25 08:50	03/13/25 16:51	1
Cadmium	ND		1.0		ug/L		03/13/25 08:50	03/13/25 16:51	1
Chromium	ND		3.0		ug/L		03/13/25 08:50	03/13/25 16:51	1
Lead	ND		1.0		ug/L		03/13/25 08:50	03/13/25 16:51	1
Molybdenum	ND		2.0		ug/L		03/13/25 08:50	03/13/25 16:51	1
Selenium	ND		2.0		ug/L		03/13/25 08:50	03/13/25 16:51	1
Thallium	ND		1.0		ug/L		03/13/25 08:50	03/13/25 16:51	1

Lab Sample ID: MB 280-687489/1-A

Matrix: Water

Analysis Batch: 687779

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 687489

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND		1.0		ug/L		03/13/25 08:50	03/14/25 11:34	1

Lab Sample ID: LCS 280-687489/2-A

Matrix: Water

Analysis Batch: 687731

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 687489

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	40.0	42.4		ug/L		106	85 - 115
Arsenic	40.0	39.9		ug/L		100	85 - 115
Barium	40.0	40.8		ug/L		102	85 - 115
Cadmium	40.0	40.9		ug/L		102	85 - 115
Chromium	40.0	38.4		ug/L		96	85 - 115
Lead	40.0	40.5		ug/L		101	85 - 115
Molybdenum	40.0	39.3		ug/L		98	85 - 115
Selenium	40.0	42.4		ug/L		106	85 - 115
Thallium	40.0	40.3		ug/L		101	85 - 115

Lab Sample ID: LCS 280-687489/2-A

Matrix: Water

Analysis Batch: 687779

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 687489

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Beryllium	40.0	39.4		ug/L		99	85 - 115

Lab Sample ID: 280-204242-1 MS

Matrix: Water

Analysis Batch: 687731

Client Sample ID: 516541 CC_1

Prep Type: Total/NA

Prep Batch: 687489

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	ND		40.0	41.5		ug/L		104	75 - 125
Arsenic	ND		40.0	40.7		ug/L		102	75 - 125
Barium	5.4		40.0	46.5		ug/L		103	75 - 125
Cadmium	ND		40.0	37.6		ug/L		94	75 - 125
Chromium	ND		40.0	39.2		ug/L		98	75 - 125

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QC Sample Results

Client: Colorado Springs Utilities
Project/Site: CCR Landfill Day 1

Job ID: 280-204242-1

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: 280-204242-1 MS

Matrix: Water

Analysis Batch: 687731

Client Sample ID: 516541 CC_1

Prep Type: Total/NA

Prep Batch: 687489

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Lead	ND		40.0	41.1		ug/L		103	75 - 125
Molybdenum	ND		40.0	41.1		ug/L		100	75 - 125
Selenium	190		40.0	236	4	ug/L		103	75 - 125
Thallium	ND		40.0	41.5		ug/L		103	75 - 125

Lab Sample ID: 280-204242-1 MS

Matrix: Water

Analysis Batch: 687779

Client Sample ID: 516541 CC_1

Prep Type: Total/NA

Prep Batch: 687489

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Beryllium	ND		40.0	41.4		ug/L		104	75 - 125

Lab Sample ID: 280-204242-1 MSD

Matrix: Water

Analysis Batch: 687731

Client Sample ID: 516541 CC_1

Prep Type: Total/NA

Prep Batch: 687489

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Antimony	ND		40.0	41.6		ug/L		104	75 - 125	0	20
Arsenic	ND		40.0	41.1		ug/L		103	75 - 125	1	20
Barium	5.4		40.0	53.9		ug/L		121	75 - 125	15	20
Cadmium	ND		40.0	36.6		ug/L		92	75 - 125	3	20
Chromium	ND		40.0	40.8		ug/L		102	75 - 125	4	20
Lead	ND		40.0	39.6		ug/L		99	75 - 125	4	20
Molybdenum	ND		40.0	41.8		ug/L		102	75 - 125	2	20
Selenium	190		40.0	234	4	ug/L		97	75 - 125	1	20
Thallium	ND		40.0	39.8		ug/L		99	75 - 125	4	20

Lab Sample ID: 280-204242-1 MSD

Matrix: Water

Analysis Batch: 687779

Client Sample ID: 516541 CC_1

Prep Type: Total/NA

Prep Batch: 687489

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Beryllium	ND		40.0	38.8		ug/L		97	75 - 125	6	20

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 280-687550/1

Matrix: Water

Analysis Batch: 687550

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (TDS)	ND		10		mg/L			03/13/25 08:58	1

Lab Sample ID: LCS 280-687550/2

Matrix: Water

Analysis Batch: 687550

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids (TDS)	502	488		mg/L		97	88 - 114

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QC Sample Results

Client: Colorado Springs Utilities
Project/Site: CCR Landfill Day 1

Job ID: 280-204242-1

Method: SM 2540C - Solids, Total Dissolved (TDS) (Continued)

Lab Sample ID: LCSD 280-687550/3

Matrix: Water

Analysis Batch: 687550

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Dissolved Solids (TDS)	502	483		mg/L		96	88 - 114	1	20

Lab Sample ID: 280-204293-C-1 DU

Matrix: Water

Analysis Batch: 687550

Client Sample ID: Duplicate

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids (TDS)	1500		1480		mg/L		1	10

Lab Sample ID: MB 280-687722/1

Matrix: Water

Analysis Batch: 687722

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (TDS)	ND		10		mg/L			03/14/25 09:00	1

Lab Sample ID: LCS 280-687722/2

Matrix: Water

Analysis Batch: 687722

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Total Dissolved Solids (TDS)	502	487		mg/L		97	88 - 114		

Lab Sample ID: 280-204242-1 DU

Matrix: Water

Analysis Batch: 687722

Client Sample ID: 516541 CC_1

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids (TDS)	35000		34300		mg/L		3	10

QC Association Summary

Client: Colorado Springs Utilities
Project/Site: CCR Landfill Day 1

Job ID: 280-204242-1

Metals

Prep Batch: 687489

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-204242-1	516541 CC_1	Total/NA	Water	3005A	
280-204242-2	516542 FC_1	Total/NA	Water	3005A	
280-204242-3	516543 FC_2	Total/NA	Water	3005A	
280-204242-4	516544 FC_3A	Total/NA	Water	3005A	
280-204242-5	516545 FC_3B	Total/NA	Water	3005A	
280-204242-6	EQUIP_BLK	Total/NA	Water	3005A	
MB 280-687489/1-A	Method Blank	Total/NA	Water	3005A	
LCS 280-687489/2-A	Lab Control Sample	Total/NA	Water	3005A	
280-204242-1 MS	516541 CC_1	Total/NA	Water	3005A	
280-204242-1 MSD	516541 CC_1	Total/NA	Water	3005A	

Analysis Batch: 687731

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-204242-1	516541 CC_1	Total/NA	Water	6020B	687489
280-204242-2	516542 FC_1	Total/NA	Water	6020B	687489
280-204242-3	516543 FC_2	Total/NA	Water	6020B	687489
280-204242-4	516544 FC_3A	Total/NA	Water	6020B	687489
280-204242-5	516545 FC_3B	Total/NA	Water	6020B	687489
280-204242-6	EQUIP_BLK	Total/NA	Water	6020B	687489
MB 280-687489/1-A	Method Blank	Total/NA	Water	6020B	687489
LCS 280-687489/2-A	Lab Control Sample	Total/NA	Water	6020B	687489
280-204242-1 MS	516541 CC_1	Total/NA	Water	6020B	687489
280-204242-1 MSD	516541 CC_1	Total/NA	Water	6020B	687489

Analysis Batch: 687779

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-204242-1	516541 CC_1	Total/NA	Water	6020B	687489
280-204242-2	516542 FC_1	Total/NA	Water	6020B	687489
280-204242-3	516543 FC_2	Total/NA	Water	6020B	687489
280-204242-4	516544 FC_3A	Total/NA	Water	6020B	687489
280-204242-5	516545 FC_3B	Total/NA	Water	6020B	687489
280-204242-6	EQUIP_BLK	Total/NA	Water	6020B	687489
MB 280-687489/1-A	Method Blank	Total/NA	Water	6020B	687489
LCS 280-687489/2-A	Lab Control Sample	Total/NA	Water	6020B	687489
280-204242-1 MS	516541 CC_1	Total/NA	Water	6020B	687489
280-204242-1 MSD	516541 CC_1	Total/NA	Water	6020B	687489

General Chemistry

Analysis Batch: 687550

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-204242-1	516541 CC_1	Total/NA	Water	SM 2540C	
280-204242-2	516542 FC_1	Total/NA	Water	SM 2540C	
280-204242-3	516543 FC_2	Total/NA	Water	SM 2540C	
280-204242-4	516544 FC_3A	Total/NA	Water	SM 2540C	
280-204242-5	516545 FC_3B	Total/NA	Water	SM 2540C	
280-204242-6	EQUIP_BLK	Total/NA	Water	SM 2540C	
MB 280-687550/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 280-687550/2	Lab Control Sample	Total/NA	Water	SM 2540C	
LCSD 280-687550/3	Lab Control Sample Dup	Total/NA	Water	SM 2540C	
280-204293-C-1 DU	Duplicate	Total/NA	Water	SM 2540C	

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QC Association Summary

Client: Colorado Springs Utilities
Project/Site: CCR Landfill Day 1

Job ID: 280-204242-1

General Chemistry

Analysis Batch: 687722

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 280-687722/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 280-687722/2	Lab Control Sample	Total/NA	Water	SM 2540C	
280-204242-1 DU	516541 CC_1	Total/NA	Water	SM 2540C	

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Lab Chronicle

Client: Colorado Springs Utilities
Project/Site: CCR Landfill Day 1

Job ID: 280-204242-1

Client Sample ID: 516541 CC_1

Lab Sample ID: 280-204242-1

Date Collected: 03/10/25 14:02

Matrix: Water

Date Received: 03/12/25 09:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3005A			50 mL	50 mL	687489	03/13/25 08:50	AMH	EET DEN
Total/NA	Analysis	6020B		1			687731	03/13/25 17:17	LMT	EET DEN
Total/NA	Prep	3005A			50 mL	50 mL	687489	03/13/25 08:50	AMH	EET DEN
Total/NA	Analysis	6020B		1			687779	03/14/25 11:38	LMT	EET DEN
Total/NA	Analysis	SM 2540C		1	1 mL	100 mL	687550	03/13/25 08:58	BRD	EET DEN

Client Sample ID: 516542 FC_1

Lab Sample ID: 280-204242-2

Date Collected: 03/10/25 07:58

Matrix: Water

Date Received: 03/12/25 09:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3005A			50 mL	50 mL	687489	03/13/25 08:50	AMH	EET DEN
Total/NA	Analysis	6020B		1			687731	03/13/25 17:24	LMT	EET DEN
Total/NA	Prep	3005A			50 mL	50 mL	687489	03/13/25 08:50	AMH	EET DEN
Total/NA	Analysis	6020B		1			687779	03/14/25 11:46	LMT	EET DEN
Total/NA	Analysis	SM 2540C		1	1 mL	100 mL	687550	03/13/25 08:58	BRD	EET DEN

Client Sample ID: 516543 FC_2

Lab Sample ID: 280-204242-3

Date Collected: 03/10/25 09:05

Matrix: Water

Date Received: 03/12/25 09:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3005A			50 mL	50 mL	687489	03/13/25 08:50	AMH	EET DEN
Total/NA	Analysis	6020B		1			687731	03/13/25 17:26	LMT	EET DEN
Total/NA	Prep	3005A			50 mL	50 mL	687489	03/13/25 08:50	AMH	EET DEN
Total/NA	Analysis	6020B		1			687779	03/14/25 11:48	LMT	EET DEN
Total/NA	Analysis	SM 2540C		1	10 mL	100 mL	687550	03/13/25 08:58	BRD	EET DEN

Client Sample ID: 516544 FC_3A

Lab Sample ID: 280-204242-4

Date Collected: 03/10/25 11:03

Matrix: Water

Date Received: 03/12/25 09:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3005A			50 mL	50 mL	687489	03/13/25 08:50	AMH	EET DEN
Total/NA	Analysis	6020B		1			687731	03/13/25 17:28	LMT	EET DEN
Total/NA	Prep	3005A			50 mL	50 mL	687489	03/13/25 08:50	AMH	EET DEN
Total/NA	Analysis	6020B		1			687779	03/14/25 11:50	LMT	EET DEN
Total/NA	Analysis	SM 2540C		1	10 mL	100 mL	687550	03/13/25 08:58	BRD	EET DEN

Lab Chronicle

Client: Colorado Springs Utilities
Project/Site: CCR Landfill Day 1

Job ID: 280-204242-1

Client Sample ID: 516545 FC_3B

Lab Sample ID: 280-204242-5

Date Collected: 03/10/25 12:40

Matrix: Water

Date Received: 03/12/25 09:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3005A			50 mL	50 mL	687489	03/13/25 08:50	AMH	EET DEN
Total/NA	Analysis	6020B		1			687731	03/13/25 17:31	LMT	EET DEN
Total/NA	Prep	3005A			50 mL	50 mL	687489	03/13/25 08:50	AMH	EET DEN
Total/NA	Analysis	6020B		1			687779	03/14/25 11:53	LMT	EET DEN
Total/NA	Analysis	SM 2540C		1	10 mL	100 mL	687550	03/13/25 08:58	BRD	EET DEN

Client Sample ID: EQUIP_BLK

Lab Sample ID: 280-204242-6

Date Collected: 03/10/25 11:40

Matrix: Water

Date Received: 03/12/25 09:20

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3005A			50 mL	50 mL	687489	03/13/25 08:50	AMH	EET DEN
Total/NA	Analysis	6020B		1			687731	03/13/25 17:33	LMT	EET DEN
Total/NA	Prep	3005A			50 mL	50 mL	687489	03/13/25 08:50	AMH	EET DEN
Total/NA	Analysis	6020B		1			687779	03/14/25 11:55	LMT	EET DEN
Total/NA	Analysis	SM 2540C		1	100 mL	100 mL	687550	03/13/25 08:58	BRD	EET DEN

Laboratory References:

EET DEN = Eurofins Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

Login Sample Receipt Checklist

Client: Colorado Springs Utilities

Job Number: 280-204242-1

Login Number: 204242

List Source: Eurofins Denver

List Number: 1

Creator: Roehsner, Karen P

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Eurofins Environment Testing America

[illegible]

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ANALYTICAL REPORT

PREPARED FOR

Attn: Ms. Wendy Asay
Colorado Springs Utilities
Laboratory Services Section
701 E. Las Vegas St., MC 1465
Colorado Springs, Colorado 80903

Generated 6/10/2025 12:16:31 PM Revision 1

JOB DESCRIPTION

CCR Landfill Day 2

JOB NUMBER

280-204513-1

Eurofins Denver

Job Notes

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The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins TestAmerica Project Manager.

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Authorized for release by
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(303)736-0165

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Revision 1



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Case Narrative

Client: Colorado Springs Utilities
Project: CCR Landfill Day 2

Job ID: 280-204513-1

Job ID: 280-204513-1

Eurofins Denver

Job Narrative 280-204513-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

REVISION 1 - CREATED 6/10/25

This report has been revised. Details are as follows: The reporting format for TDS required re-calculation to match the reporting format of 6020B Metals.

Receipt

The samples were received on 3/14/2025 9:25 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.8°C.

Method 6020B - Metals (ICP/MS)

Samples 516547 SC_10 (280-204513-1), 516548 SC_11 (280-204513-2), 516549 SC_12 (280-204513-3), 516549 SC_12 (280-204513-3MS), 516549 SC_12 (280-204513-3MSD), 516550 SC_13 (280-204513-4), 516551 SC_14 (280-204513-5) and 516552 FIELD_DUP (280-204513-6) were analyzed for Metals (ICP/MS). The samples were prepared and analyzed on 3/18/2025.

Method SM 2540C - Solids, Total Dissolved (TDS)

Samples 516547 SC_10 (280-204513-1), 516548 SC_11 (280-204513-2), 516549 SC_12 (280-204513-3), 516549 SC_12 (280-204513-3DU), 516550 SC_13 (280-204513-4), 516551 SC_14 (280-204513-5) and 516552 FIELD_DUP (280-204513-6) were analyzed for Solids, Total Dissolved (TDS). The samples were analyzed on 3/17/2025 and 3/18/2025.

The analysis volume selected for the following sample produced a base result greater than 200mg before calculation of the final result: 516547 SC_10 (280-204513-1). Reanalysis was performed at a dilution and the final result confirmed the initial analysis.

Eurofins Denver

Definitions/Glossary

Client: Colorado Springs Utilities
Project/Site: CCR Landfill Day 2

Job ID: 280-204513-1

Qualifiers

General Chemistry

Qualifier	Qualifier Description
E	Result exceeded calibration range.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Detection Summary

Client: Colorado Springs Utilities
Project/Site: CCR Landfill Day 2

Job ID: 280-204513-1

Client Sample ID: 516547 SC_10

Lab Sample ID: 280-204513-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	9.6		2.0		ug/L	1		6020B	Total/NA
Molybdenum	4.7		2.0		ug/L	1		6020B	Total/NA
Selenium	170		2.0		ug/L	1		6020B	Total/NA
Total Dissolved Solids (TDS)	17000	E	40		mg/L	1		SM 2540C	Total/NA

Client Sample ID: 516548 SC_11

Lab Sample ID: 280-204513-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	7.7		2.0		ug/L	1		6020B	Total/NA
Molybdenum	3.2		2.0		ug/L	1		6020B	Total/NA
Selenium	300		2.0		ug/L	1		6020B	Total/NA
Total Dissolved Solids (TDS)	17000		1000		mg/L	1		SM 2540C	Total/NA

Client Sample ID: 516549 SC_12

Lab Sample ID: 280-204513-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	6.4		2.0		ug/L	1		6020B	Total/NA
Molybdenum	4.8		2.0		ug/L	1		6020B	Total/NA
Selenium	12		2.0		ug/L	1		6020B	Total/NA
Total Dissolved Solids (TDS)	13000		1000		mg/L	1		SM 2540C	Total/NA

Client Sample ID: 516550 SC_13

Lab Sample ID: 280-204513-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	7.5		2.0		ug/L	1		6020B	Total/NA
Molybdenum	4.2		2.0		ug/L	1		6020B	Total/NA
Selenium	24		2.0		ug/L	1		6020B	Total/NA
Total Dissolved Solids (TDS)	11000		1000		mg/L	1		SM 2540C	Total/NA

Client Sample ID: 516551 SC_14

Lab Sample ID: 280-204513-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	5.4		2.0		ug/L	1		6020B	Total/NA
Molybdenum	11		2.0		ug/L	1		6020B	Total/NA
Selenium	5.6		2.0		ug/L	1		6020B	Total/NA
Total Dissolved Solids (TDS)	11000		1000		mg/L	1		SM 2540C	Total/NA

Client Sample ID: 516552 FIELD_DUP

Lab Sample ID: 280-204513-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	7.2		2.0		ug/L	1		6020B	Total/NA
Molybdenum	3.1		2.0		ug/L	1		6020B	Total/NA
Selenium	310		2.0		ug/L	1		6020B	Total/NA
Total Dissolved Solids (TDS)	16000		1000		mg/L	1		SM 2540C	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Denver

Method Summary

Client: Colorado Springs Utilities
Project/Site: CCR Landfill Day 2

Job ID: 280-204513-1

Method	Method Description	Protocol	Laboratory
6020B	Metals (ICP/MS)	SW846	EET DEN
SM 2540C	Solids, Total Dissolved (TDS)	SM	EET DEN
3005A	Preparation, Total Metals	SW846	EET DEN

Protocol References:

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET DEN = Eurofins Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

Sample Summary

Client: Colorado Springs Utilities
Project/Site: CCR Landfill Day 2

Job ID: 280-204513-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
280-204513-1	516547 SC_10	Water	03/11/25 14:00	03/14/25 09:25
280-204513-2	516548 SC_11	Water	03/11/25 12:44	03/14/25 09:25
280-204513-3	516549 SC_12	Water	03/11/25 11:12	03/14/25 09:25
280-204513-4	516550 SC_13	Water	03/11/25 09:33	03/14/25 09:25
280-204513-5	516551 SC_14	Water	03/11/25 08:21	03/14/25 09:25
280-204513-6	516552 FIELD_DUP	Water	03/11/25 00:00	03/14/25 09:25

Client Sample Results

Client: Colorado Springs Utilities
Project/Site: CCR Landfill Day 2

Job ID: 280-204513-1

Client Sample ID: 516547 SC_10

Lab Sample ID: 280-204513-1

Date Collected: 03/11/25 14:00

Matrix: Water

Date Received: 03/14/25 09:25

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0		ug/L		03/18/25 08:22	03/18/25 17:31	1
Arsenic	ND		2.0		ug/L		03/18/25 08:22	03/18/25 17:31	1
Barium	9.6		2.0		ug/L		03/18/25 08:22	03/18/25 17:31	1
Beryllium	ND		1.0		ug/L		03/18/25 08:22	03/18/25 17:31	1
Cadmium	ND		1.0		ug/L		03/18/25 08:22	03/18/25 17:31	1
Chromium	ND		3.0		ug/L		03/18/25 08:22	03/18/25 17:31	1
Lead	ND		1.0		ug/L		03/18/25 08:22	03/18/25 17:31	1
Molybdenum	4.7		2.0		ug/L		03/18/25 08:22	03/18/25 17:31	1
Selenium	170		2.0		ug/L		03/18/25 08:22	03/18/25 17:31	1
Thallium	ND		1.0		ug/L		03/18/25 08:22	03/18/25 17:31	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (TDS) (SM 2540C)	17000	E	40		mg/L			03/17/25 09:01	1

Client Sample Results

Client: Colorado Springs Utilities
Project/Site: CCR Landfill Day 2

Job ID: 280-204513-1

Client Sample ID: 516548 SC_11

Lab Sample ID: 280-204513-2

Date Collected: 03/11/25 12:44

Matrix: Water

Date Received: 03/14/25 09:25

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0		ug/L		03/18/25 08:22	03/18/25 17:33	1
Arsenic	ND		2.0		ug/L		03/18/25 08:22	03/18/25 17:33	1
Barium	7.7		2.0		ug/L		03/18/25 08:22	03/18/25 17:33	1
Beryllium	ND		1.0		ug/L		03/18/25 08:22	03/18/25 17:33	1
Cadmium	ND		1.0		ug/L		03/18/25 08:22	03/18/25 17:33	1
Chromium	ND		3.0		ug/L		03/18/25 08:22	03/18/25 17:33	1
Lead	ND		1.0		ug/L		03/18/25 08:22	03/18/25 17:33	1
Molybdenum	3.2		2.0		ug/L		03/18/25 08:22	03/18/25 17:33	1
Selenium	300		2.0		ug/L		03/18/25 08:22	03/18/25 17:33	1
Thallium	ND		1.0		ug/L		03/18/25 08:22	03/18/25 17:33	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (TDS) (SM 2540C)	17000		1000		mg/L			03/17/25 09:01	1

Client Sample Results

Client: Colorado Springs Utilities
Project/Site: CCR Landfill Day 2

Job ID: 280-204513-1

Client Sample ID: 516549 SC_12

Lab Sample ID: 280-204513-3

Date Collected: 03/11/25 11:12

Matrix: Water

Date Received: 03/14/25 09:25

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0		ug/L		03/18/25 08:22	03/18/25 17:40	1
Arsenic	ND		2.0		ug/L		03/18/25 08:22	03/18/25 17:40	1
Barium	6.4		2.0		ug/L		03/18/25 08:22	03/18/25 17:40	1
Beryllium	ND		1.0		ug/L		03/18/25 08:22	03/18/25 17:40	1
Cadmium	ND		1.0		ug/L		03/18/25 08:22	03/18/25 17:40	1
Chromium	ND		3.0		ug/L		03/18/25 08:22	03/18/25 17:40	1
Lead	ND		1.0		ug/L		03/18/25 08:22	03/18/25 17:40	1
Molybdenum	4.8		2.0		ug/L		03/18/25 08:22	03/18/25 17:40	1
Selenium	12		2.0		ug/L		03/18/25 08:22	03/18/25 17:40	1
Thallium	ND		1.0		ug/L		03/18/25 08:22	03/18/25 17:40	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (TDS) (SM 2540C)	13000		1000		mg/L			03/18/25 09:07	1

Client Sample Results

Client: Colorado Springs Utilities
Project/Site: CCR Landfill Day 2

Job ID: 280-204513-1

Client Sample ID: 516550 SC_13

Lab Sample ID: 280-204513-4

Date Collected: 03/11/25 09:33

Matrix: Water

Date Received: 03/14/25 09:25

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0		ug/L		03/18/25 08:22	03/18/25 17:52	1
Arsenic	ND		2.0		ug/L		03/18/25 08:22	03/18/25 17:52	1
Barium	7.5		2.0		ug/L		03/18/25 08:22	03/18/25 17:52	1
Beryllium	ND		1.0		ug/L		03/18/25 08:22	03/18/25 17:52	1
Cadmium	ND		1.0		ug/L		03/18/25 08:22	03/18/25 17:52	1
Chromium	ND		3.0		ug/L		03/18/25 08:22	03/18/25 17:52	1
Lead	ND		1.0		ug/L		03/18/25 08:22	03/18/25 17:52	1
Molybdenum	4.2		2.0		ug/L		03/18/25 08:22	03/18/25 17:52	1
Selenium	24		2.0		ug/L		03/18/25 08:22	03/18/25 17:52	1
Thallium	ND		1.0		ug/L		03/18/25 08:22	03/18/25 17:52	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (TDS) (SM 2540C)	11000		1000		mg/L			03/17/25 09:01	1

Client Sample Results

Client: Colorado Springs Utilities
Project/Site: CCR Landfill Day 2

Job ID: 280-204513-1

Client Sample ID: 516551 SC_14

Lab Sample ID: 280-204513-5

Date Collected: 03/11/25 08:21

Matrix: Water

Date Received: 03/14/25 09:25

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0		ug/L		03/18/25 08:22	03/18/25 17:54	1
Arsenic	ND		2.0		ug/L		03/18/25 08:22	03/18/25 17:54	1
Barium	5.4		2.0		ug/L		03/18/25 08:22	03/18/25 17:54	1
Beryllium	ND		1.0		ug/L		03/18/25 08:22	03/18/25 17:54	1
Cadmium	ND		1.0		ug/L		03/18/25 08:22	03/18/25 17:54	1
Chromium	ND		3.0		ug/L		03/18/25 08:22	03/18/25 17:54	1
Lead	ND		1.0		ug/L		03/18/25 08:22	03/18/25 17:54	1
Molybdenum	11		2.0		ug/L		03/18/25 08:22	03/18/25 17:54	1
Selenium	5.6		2.0		ug/L		03/18/25 08:22	03/18/25 17:54	1
Thallium	ND		1.0		ug/L		03/18/25 08:22	03/18/25 17:54	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (TDS) (SM 2540C)	11000		1000		mg/L			03/17/25 09:01	1

Client Sample Results

Client: Colorado Springs Utilities
Project/Site: CCR Landfill Day 2

Job ID: 280-204513-1

Client Sample ID: 516552 FIELD_DUP

Lab Sample ID: 280-204513-6

Date Collected: 03/11/25 00:00

Matrix: Water

Date Received: 03/14/25 09:25

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0		ug/L		03/18/25 08:22	03/18/25 17:56	1
Arsenic	ND		2.0		ug/L		03/18/25 08:22	03/18/25 17:56	1
Barium	7.2		2.0		ug/L		03/18/25 08:22	03/18/25 17:56	1
Beryllium	ND		1.0		ug/L		03/18/25 08:22	03/18/25 17:56	1
Cadmium	ND		1.0		ug/L		03/18/25 08:22	03/18/25 17:56	1
Chromium	ND		3.0		ug/L		03/18/25 08:22	03/18/25 17:56	1
Lead	ND		1.0		ug/L		03/18/25 08:22	03/18/25 17:56	1
Molybdenum	3.1		2.0		ug/L		03/18/25 08:22	03/18/25 17:56	1
Selenium	310		2.0		ug/L		03/18/25 08:22	03/18/25 17:56	1
Thallium	ND		1.0		ug/L		03/18/25 08:22	03/18/25 17:56	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (TDS) (SM 2540C)	16000		1000		mg/L			03/17/25 09:01	1

QC Sample Results

Client: Colorado Springs Utilities
Project/Site: CCR Landfill Day 2

Job ID: 280-204513-1

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 280-687979/1-A

Matrix: Water

Analysis Batch: 688231

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 687979

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0		ug/L		03/18/25 08:22	03/18/25 16:53	1
Arsenic	ND		2.0		ug/L		03/18/25 08:22	03/18/25 16:53	1
Barium	ND		2.0		ug/L		03/18/25 08:22	03/18/25 16:53	1
Beryllium	ND		1.0		ug/L		03/18/25 08:22	03/18/25 16:53	1
Cadmium	ND		1.0		ug/L		03/18/25 08:22	03/18/25 16:53	1
Chromium	ND		3.0		ug/L		03/18/25 08:22	03/18/25 16:53	1
Lead	ND		1.0		ug/L		03/18/25 08:22	03/18/25 16:53	1
Molybdenum	ND		2.0		ug/L		03/18/25 08:22	03/18/25 16:53	1
Selenium	ND		2.0		ug/L		03/18/25 08:22	03/18/25 16:53	1
Thallium	ND		1.0		ug/L		03/18/25 08:22	03/18/25 16:53	1

Lab Sample ID: LCS 280-687979/2-A

Matrix: Water

Analysis Batch: 688231

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 687979

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	40.0	40.7		ug/L		102	85 - 115
Arsenic	40.0	38.9		ug/L		97	85 - 115
Barium	40.0	39.6		ug/L		99	85 - 115
Beryllium	40.0	38.6		ug/L		96	85 - 115
Cadmium	40.0	40.4		ug/L		101	85 - 115
Chromium	40.0	39.0		ug/L		97	85 - 115
Lead	40.0	38.0		ug/L		95	85 - 115
Molybdenum	40.0	39.1		ug/L		98	85 - 115
Selenium	40.0	38.0		ug/L		95	85 - 115
Thallium	40.0	37.4		ug/L		93	85 - 115

Lab Sample ID: 280-204513-3 MS

Matrix: Water

Analysis Batch: 688231

Client Sample ID: 516549 SC_12

Prep Type: Total/NA

Prep Batch: 687979

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	ND		40.0	41.6		ug/L		104	75 - 125
Arsenic	ND		40.0	39.4		ug/L		98	75 - 125
Barium	6.4		40.0	46.0		ug/L		99	75 - 125
Beryllium	ND		40.0	38.5		ug/L		96	75 - 125
Cadmium	ND		40.0	39.5		ug/L		99	75 - 125
Chromium	ND		40.0	39.4		ug/L		99	75 - 125
Lead	ND		40.0	37.7		ug/L		94	75 - 125
Molybdenum	4.8		40.0	46.7		ug/L		105	75 - 125
Selenium	12		40.0	48.0		ug/L		89	75 - 125
Thallium	ND		40.0	37.1		ug/L		93	75 - 125

Lab Sample ID: 280-204513-3 MSD

Matrix: Water

Analysis Batch: 688231

Client Sample ID: 516549 SC_12

Prep Type: Total/NA

Prep Batch: 687979

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Antimony	ND		40.0	40.5		ug/L		101	75 - 125	3	20

Eurofins Denver

QC Sample Results

Client: Colorado Springs Utilities
Project/Site: CCR Landfill Day 2

Job ID: 280-204513-1

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: 280-204513-3 MSD

Matrix: Water

Analysis Batch: 688231

Client Sample ID: 516549 SC_12

Prep Type: Total/NA

Prep Batch: 687979

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Arsenic	ND		40.0	41.2		ug/L		103	75 - 125	5	20
Barium	6.4		40.0	45.3		ug/L		97	75 - 125	2	20
Beryllium	ND		40.0	38.3		ug/L		96	75 - 125	0	20
Cadmium	ND		40.0	38.2		ug/L		96	75 - 125	3	20
Chromium	ND		40.0	39.3		ug/L		98	75 - 125	0	20
Lead	ND		40.0	37.4		ug/L		94	75 - 125	1	20
Molybdenum	4.8		40.0	44.7		ug/L		100	75 - 125	4	20
Selenium	12		40.0	48.3		ug/L		90	75 - 125	1	20
Thallium	ND		40.0	36.8		ug/L		92	75 - 125	1	20

Method: SM 2540C - Solids, Total Dissolved (TDS)

Lab Sample ID: MB 280-687908/1

Matrix: Water

Analysis Batch: 687908

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (TDS)	ND		10		mg/L			03/17/25 09:01	1

Lab Sample ID: LCS 280-687908/2

Matrix: Water

Analysis Batch: 687908

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids (TDS)	502	491		mg/L		98	88 - 114

Lab Sample ID: 280-204517-A-4 DU

Matrix: Water

Analysis Batch: 687908

Client Sample ID: Duplicate

Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Dissolved Solids (TDS)	4300		4100		mg/L		5	10

Lab Sample ID: MB 280-688074/1

Matrix: Water

Analysis Batch: 688074

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Dissolved Solids (TDS)	ND		10		mg/L			03/18/25 09:07	1

Lab Sample ID: LCS 280-688074/2

Matrix: Water

Analysis Batch: 688074

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Total Dissolved Solids (TDS)	502	470		mg/L		94	88 - 114

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QC Sample Results

Client: Colorado Springs Utilities
Project/Site: CCR Landfill Day 2

Job ID: 280-204513-1

Method: SM 2540C - Solids, Total Dissolved (TDS) (Continued)

Lab Sample ID: 280-204513-3 DU				Client Sample ID: 516549 SC_12			
Matrix: Water				Prep Type: Total/NA			
Analysis Batch: 688074							
Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD Limit
Total Dissolved Solids (TDS)	13000		11900		mg/L		7 10

QC Association Summary

Client: Colorado Springs Utilities
Project/Site: CCR Landfill Day 2

Job ID: 280-204513-1

Metals

Prep Batch: 687979

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-204513-1	516547 SC_10	Total/NA	Water	3005A	
280-204513-2	516548 SC_11	Total/NA	Water	3005A	
280-204513-3	516549 SC_12	Total/NA	Water	3005A	
280-204513-4	516550 SC_13	Total/NA	Water	3005A	
280-204513-5	516551 SC_14	Total/NA	Water	3005A	
280-204513-6	516552 FIELD_DUP	Total/NA	Water	3005A	
MB 280-687979/1-A	Method Blank	Total/NA	Water	3005A	
LCS 280-687979/2-A	Lab Control Sample	Total/NA	Water	3005A	
280-204513-3 MS	516549 SC_12	Total/NA	Water	3005A	
280-204513-3 MSD	516549 SC_12	Total/NA	Water	3005A	

Analysis Batch: 688231

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-204513-1	516547 SC_10	Total/NA	Water	6020B	687979
280-204513-2	516548 SC_11	Total/NA	Water	6020B	687979
280-204513-3	516549 SC_12	Total/NA	Water	6020B	687979
280-204513-4	516550 SC_13	Total/NA	Water	6020B	687979
280-204513-5	516551 SC_14	Total/NA	Water	6020B	687979
280-204513-6	516552 FIELD_DUP	Total/NA	Water	6020B	687979
MB 280-687979/1-A	Method Blank	Total/NA	Water	6020B	687979
LCS 280-687979/2-A	Lab Control Sample	Total/NA	Water	6020B	687979
280-204513-3 MS	516549 SC_12	Total/NA	Water	6020B	687979
280-204513-3 MSD	516549 SC_12	Total/NA	Water	6020B	687979

General Chemistry

Analysis Batch: 687908

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-204513-1	516547 SC_10	Total/NA	Water	SM 2540C	
280-204513-2	516548 SC_11	Total/NA	Water	SM 2540C	
280-204513-4	516550 SC_13	Total/NA	Water	SM 2540C	
280-204513-5	516551 SC_14	Total/NA	Water	SM 2540C	
280-204513-6	516552 FIELD_DUP	Total/NA	Water	SM 2540C	
MB 280-687908/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 280-687908/2	Lab Control Sample	Total/NA	Water	SM 2540C	
280-204517-A-4 DU	Duplicate	Total/NA	Water	SM 2540C	

Analysis Batch: 688074

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-204513-3	516549 SC_12	Total/NA	Water	SM 2540C	
MB 280-688074/1	Method Blank	Total/NA	Water	SM 2540C	
LCS 280-688074/2	Lab Control Sample	Total/NA	Water	SM 2540C	
280-204513-3 DU	516549 SC_12	Total/NA	Water	SM 2540C	

Lab Chronicle

Client: Colorado Springs Utilities
Project/Site: CCR Landfill Day 2

Job ID: 280-204513-1

Client Sample ID: 516547 SC_10

Lab Sample ID: 280-204513-1

Date Collected: 03/11/25 14:00

Matrix: Water

Date Received: 03/14/25 09:25

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3005A			50 mL	50 mL	687979	03/18/25 08:22	SLH	EET DEN
Total/NA	Analysis	6020B		1			688231	03/18/25 17:31	LMT	EET DEN
Total/NA	Analysis	SM 2540C		1	25 mL	100 mL	687908	03/17/25 09:01	BRD	EET DEN

Client Sample ID: 516548 SC_11

Lab Sample ID: 280-204513-2

Date Collected: 03/11/25 12:44

Matrix: Water

Date Received: 03/14/25 09:25

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3005A			50 mL	50 mL	687979	03/18/25 08:22	SLH	EET DEN
Total/NA	Analysis	6020B		1			688231	03/18/25 17:33	LMT	EET DEN
Total/NA	Analysis	SM 2540C		1	1 mL	100 mL	687908	03/17/25 09:01	BRD	EET DEN

Client Sample ID: 516549 SC_12

Lab Sample ID: 280-204513-3

Date Collected: 03/11/25 11:12

Matrix: Water

Date Received: 03/14/25 09:25

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3005A			50 mL	50 mL	687979	03/18/25 08:22	SLH	EET DEN
Total/NA	Analysis	6020B		1			688231	03/18/25 17:40	LMT	EET DEN
Total/NA	Analysis	SM 2540C		1	1 mL	100 mL	688074	03/18/25 09:07	BRD	EET DEN

Client Sample ID: 516550 SC_13

Lab Sample ID: 280-204513-4

Date Collected: 03/11/25 09:33

Matrix: Water

Date Received: 03/14/25 09:25

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3005A			50 mL	50 mL	687979	03/18/25 08:22	SLH	EET DEN
Total/NA	Analysis	6020B		1			688231	03/18/25 17:52	LMT	EET DEN
Total/NA	Analysis	SM 2540C		1	1 mL	100 mL	687908	03/17/25 09:01	BRD	EET DEN

Client Sample ID: 516551 SC_14

Lab Sample ID: 280-204513-5

Date Collected: 03/11/25 08:21

Matrix: Water

Date Received: 03/14/25 09:25

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3005A			50 mL	50 mL	687979	03/18/25 08:22	SLH	EET DEN
Total/NA	Analysis	6020B		1			688231	03/18/25 17:54	LMT	EET DEN
Total/NA	Analysis	SM 2540C		1	1 mL	100 mL	687908	03/17/25 09:01	BRD	EET DEN

Eurofins Denver

Lab Chronicle

Client: Colorado Springs Utilities
Project/Site: CCR Landfill Day 2

Job ID: 280-204513-1

Client Sample ID: 516552 FIELD_DUP
Date Collected: 03/11/25 00:00
Date Received: 03/14/25 09:25

Lab Sample ID: 280-204513-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3005A			50 mL	50 mL	687979	03/18/25 08:22	SLH	EET DEN
Total/NA	Analysis	6020B		1			688231	03/18/25 17:56	LMT	EET DEN
Total/NA	Analysis	SM 2540C		1	1 mL	100 mL	687908	03/17/25 09:01	BRD	EET DEN

Laboratory References:
EET DEN = Eurofins Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

Login Sample Receipt Checklist

Client: Colorado Springs Utilities

Job Number: 280-204513-1

Login Number: 204513

List Number: 1

Creator: Roehsner, Karen P

List Source: Eurofins Denver

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Eurofins Environment Testing America

[illegible]

ANALYTICAL REPORT

PREPARED FOR

Attn: Mark Christiansen
Colorado Springs Utilities
PO BOX 1103 MC 0940
Colorado Springs, Colorado 80947

Generated 4/16/2025 2:32:02 PM

JOB DESCRIPTION

Radiochemistry Analysis

JOB NUMBER

160-57463-1

Eurofins St. Louis

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins TestAmerica Project Manager.

Authorization



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Case Narrative

Client: Colorado Springs Utilities
Project: Radiochemistry Analysis

Job ID: 160-57463-1

Job ID: 160-57463-1

Eurofins St. Louis

CASE NARRATIVE

Client: Colorado Springs Utilities

Project: Radiochemistry Analysis

Report Number: 160-57463-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition, all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method.

Eurofins Environment Testing attests to the validity of the laboratory data generated by Eurofins facilities reported herein. All analyses performed by Eurofins Environment Testing facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. Eurofins Environment Testing's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report.

Calculations are performed before rounding to avoid round-off errors in calculated results.

Proper preservation was noted for the methods performed on these samples, unless otherwise detailed below.

Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative.

Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date.

This laboratory report is confidential and is intended for the sole use of Eurofins Environment Testing and its client.

No additional analytical or quality issues were noted, other than those described below or in the Definitions/ Glossary page.

Receipt

The samples were received on 3/14/2025 12:20 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved. The temperature of the cooler at receipt time was 17.6°C.

Method 903.0 - Radium-226 (GFPC)

Samples 516541 CC_1 (160-57463-1), 516542 FC_1 (160-57463-2), 516543 FC_2 (160-57463-3), 516544 FC_3A (160-57463-4), 516545 FC_3B (160-57463-5), 516546 EQUIP_BLK (160-57463-6), 516547 SC_10 (160-57463-7), 516548 SC_11 (160-57463-8), 516549 SC_12 (160-57463-9), 516550 SC_13 (160-57463-10), 516551 SC_14 (160-57463-11) and 516552 FIELD_DUP (160-57463-12) were analyzed for Radium-226 (GFPC). The samples were prepared on 3/18/2025 and analyzed on 4/15/2025.

Method 904.0 - Radium-228 (GFPC)

Samples 516541 CC_1 (160-57463-1), 516542 FC_1 (160-57463-2), 516543 FC_2 (160-57463-3), 516544 FC_3A (160-57463-4), 516545 FC_3B (160-57463-5), 516546 EQUIP_BLK (160-57463-6), 516547 SC_10 (160-57463-7), 516548 SC_11 (160-57463-8), 516549 SC_12 (160-57463-9), 516550 SC_13 (160-57463-10), 516551 SC_14 (160-57463-11) and 516552 FIELD_DUP (160-57463-12) were analyzed for Radium-228 (GFPC). The samples were prepared on 3/18/2025 and analyzed on 4/15/2025.

The MDC for the following sample in batch 160-708331 is flagged as failing: 516552 FIELD_DUP (160-57463-12). The laboratory considers the detection goal (requested limit) met when rounding to the appropriate place value.

The detection goal was not met for sample 516547 SC_10 (160-57463-7) in batch 160-708331 due to the reduction of sample size required by the presence of matrix interferences (discoloration, turbidity noted by the prep analyst). Analytical results are reported with the detection limit achieved.

Eurofins St. Louis

Case Narrative

Client: Colorado Springs Utilities
Project: Radiochemistry Analysis

Job ID: 160-57463-1

Job ID: 160-57463-1 (Continued)

Eurofins St. Louis

Method Ra226_Ra228 - Combined Radium-226 and Radium-228

Samples 516541 CC_1 (160-57463-1), 516542 FC_1 (160-57463-2), 516543 FC_2 (160-57463-3), 516544 FC_3A (160-57463-4), 516545 FC_3B (160-57463-5), 516546 EQUIP_BLK (160-57463-6), 516547 SC_10 (160-57463-7), 516548 SC_11 (160-57463-8), 516549 SC_12 (160-57463-9), 516550 SC_13 (160-57463-10), 516551 SC_14 (160-57463-11) and 516552 FIELD_DUP (160-57463-12) were analyzed for Combined Radium-226 and Radium-228. The samples were analyzed on 4/16/2025.

Eurofins St. Louis

Earth City, MO 63045-1205
phone 314.298.8566 fax 314.298.8757

TestAmerica Laboratories, Inc.

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☒ Other: Coal Combustion Rule

Client Contact		Project Manager: Kelly Nelson		Site Contact:		Date:		COC No:	
Colorado Springs Utilities		Tel/Fax: 719-668-3241		Lab Contact: Rhonda Ridenhower		Carrier:		COCs	
701 E. Las Vegas St.		☒ CALENDAR DAYS ☐ WORKING DAYS		Analysis Turnaround Time				Sampler: JDS	
Colorado Springs, CO 80903		TAT if different from Below		2 weeks				For Lab Use Only:	
(719) 668-3241		☒ 1 week		1 week				Walk-in Client:	
(xxx) xxx-xxxx		☐ 2 days		2 days				Lab Sampling:	
Project Name: CCR Landfill Day 1 and 2		☐ 1 day		1 day				Job / SDG No.:	
Site:									
P O #									
Sample Identification		Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Sample Specific Notes:		
516541 CC_1	3/10/25	14:02	G	GW	2	N	Y	X	Combined Ra 226 and Ra 228
516542 FC_1	3/10/25	07:58	G	GW	2	N	X	X	Total Radium 226, EPA 904.0
516543 FC_2	3/10/25	09:05	G	GW	2	N	X	X	Total Radium 226, EPA 903.0
516544 FC_3A	3/10/25	11:03	G	GW	2	N	X	X	Perform MS / MSD (Y / N)
516545 FC_3B	3/10/25	12:40	G	GW	2	N	X	X	Filtered Sample (Y / N)
516546 EQUIP_BLK	3/10/25	11:40	G	GW	2	N	X	X	
516547 SC_10	3/11/25	14:00	G	GW	2	N	X	X	
516548 SC_11	3/11/25	12:44	G	GW	2	N	X	X	
516549 SC_12	3/11/25	11:12	G	GW	2	N	Y	X	
516550 SC_13	3/11/25	09:33	G	GW	2	N	X	X	
516551 SC_14	3/11/25	08:21	G	GW	2	N	X	X	
516552 FIELD_DUP	3/11/25	00:00	G	GW	2	N	X	X	
Preservation Used: 1= Ice, 2= H2SO4, 4=HNO3, 5=NaOH, 6= Other									
Possible Hazard Identification: Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.									
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown									
Special Instructions/QC Requirements & Comments: Please be sure to use the listed method numbers.									
Sampler: JDS									
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)									
☐ Return to Client ☐ Disposal by Lab ☐ Archive for Months									
Therm ID No.:									
Cooler Temp. (°C): Obs'd:									
Corr'd:									
Company: ETAS TL									
Received by: M. Pinette									
Date/Time: 3/12/25									
Received by: Meadow Pinette									
Date/Time:									
Received in Laboratory by:									
Date/Time:									

Login Sample Receipt Checklist

Client: Colorado Springs Utilities

Job Number: 160-57463-1

Login Number: 57463

List Number: 1

Creator: Pinette, Meadow L

List Source: Eurofins St. Louis

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Definitions/Glossary

Client: Colorado Springs Utilities
Project/Site: Radiochemistry Analysis

Job ID: 160-57463-1

Qualifiers

Rad

Qualifier	Qualifier Description
G	The Sample MDC is greater than the requested RL.
U	Result is less than the sample detection limit.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Method Summary

Client: Colorado Springs Utilities
Project/Site: Radiochemistry Analysis

Job ID: 160-57463-1

Method	Method Description	Protocol	Laboratory
903.0	Radium-226 (GFPC)	EPA	EET SL
904.0	Radium-228 (GFPC)	EPA	EET SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	EET SL
PrecSep_0	Preparation, Precipitate Separation	None	EET SL
PrecSep-21	Preparation, Precipitate Separation (21-Day In-Growth)	None	EET SL

Protocol References:

EPA = US Environmental Protection Agency

None = None

TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Sample Summary

Client: Colorado Springs Utilities
Project/Site: Radiochemistry Analysis

Job ID: 160-57463-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
160-57463-1	516541 CC_1	Water	03/10/25 14:02	03/14/25 12:20
160-57463-2	516542 FC_1	Water	03/10/25 07:58	03/14/25 12:20
160-57463-3	516543 FC_2	Water	03/10/25 09:05	03/14/25 12:20
160-57463-4	516544 FC_3A	Water	03/10/25 11:03	03/14/25 12:20
160-57463-5	516545 FC_3B	Water	03/10/25 12:40	03/14/25 12:20
160-57463-6	516546 EQUIP_BLK	Water	03/10/25 11:40	03/14/25 12:20
160-57463-7	516547 SC_10	Water	03/11/25 14:00	03/14/25 12:20
160-57463-8	516548 SC_11	Water	03/11/25 12:44	03/14/25 12:20
160-57463-9	516549 SC_12	Water	03/11/25 11:12	03/14/25 12:20
160-57463-10	516550 SC_13	Water	03/11/25 09:33	03/14/25 12:20
160-57463-11	516551 SC_14	Water	03/11/25 08:21	03/14/25 12:20
160-57463-12	516552 FIELD_DUP	Water	03/11/25 00:00	03/14/25 12:20

Client Sample Results

Client: Colorado Springs Utilities
Project/Site: Radiochemistry Analysis

Job ID: 160-57463-1

Client Sample ID: 516541 CC_1

Lab Sample ID: 160-57463-1

Date Collected: 03/10/25 14:02

Matrix: Water

Date Received: 03/14/25 12:20

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.433	U	0.326	0.328	1.00	0.473	pCi/L	03/18/25 07:31	04/15/25 17:27	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.8		30 - 110					03/18/25 07:31	04/15/25 17:27	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.180	U	0.440	0.441	1.00	0.778	pCi/L	03/18/25 07:33	04/15/25 12:23	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.8		30 - 110					03/18/25 07:33	04/15/25 12:23	1
Y Carrier	82.2		30 - 110					03/18/25 07:33	04/15/25 12:23	1

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.614	U	0.548	0.550	5.00	0.778	pCi/L		04/16/25 12:10	1

Client Sample ID: 516542 FC_1

Lab Sample ID: 160-57463-2

Date Collected: 03/10/25 07:58

Matrix: Water

Date Received: 03/14/25 12:20

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.567		0.372	0.376	1.00	0.534	pCi/L	03/18/25 07:31	04/15/25 17:27	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.3		30 - 110					03/18/25 07:31	04/15/25 17:27	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.61		0.562	0.581	1.00	0.684	pCi/L	03/18/25 07:33	04/15/25 12:23	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.3		30 - 110					03/18/25 07:33	04/15/25 12:23	1
Y Carrier	85.2		30 - 110					03/18/25 07:33	04/15/25 12:23	1

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Client Sample Results

Client: Colorado Springs Utilities
Project/Site: Radiochemistry Analysis

Job ID: 160-57463-1

Client Sample ID: 516542 FC_1

Lab Sample ID: 160-57463-2

Date Collected: 03/10/25 07:58

Matrix: Water

Date Received: 03/14/25 12:20

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	2.17		0.674	0.692	5.00	0.684	pCi/L		04/16/25 12:10	1

Client Sample ID: 516543 FC_2

Lab Sample ID: 160-57463-3

Date Collected: 03/10/25 09:05

Matrix: Water

Date Received: 03/14/25 12:20

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.210	U	0.232	0.233	1.00	0.376	pCi/L	03/18/25 07:31	04/15/25 17:27	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	84.4		30 - 110					03/18/25 07:31	04/15/25 17:27	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.602	U	0.411	0.414	1.00	0.620	pCi/L	03/18/25 07:33	04/15/25 12:23	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	84.4		30 - 110					03/18/25 07:33	04/15/25 12:23	1
Y Carrier	85.6		30 - 110					03/18/25 07:33	04/15/25 12:23	1

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.812		0.472	0.475	5.00	0.620	pCi/L		04/16/25 12:10	1

Client Sample ID: 516544 FC_3A

Lab Sample ID: 160-57463-4

Date Collected: 03/10/25 11:03

Matrix: Water

Date Received: 03/14/25 12:20

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0761	U	0.159	0.160	1.00	0.289	pCi/L	03/18/25 07:31	04/15/25 17:28	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	96.4		30 - 110					03/18/25 07:31	04/15/25 17:28	1

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Client Sample Results

Client: Colorado Springs Utilities
Project/Site: Radiochemistry Analysis

Job ID: 160-57463-1

Client Sample ID: 516544 FC_3A

Lab Sample ID: 160-57463-4

Date Collected: 03/10/25 11:03

Matrix: Water

Date Received: 03/14/25 12:20

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.408	U	0.321	0.324	1.00	0.496	pCi/L	03/18/25 07:33	04/15/25 12:23	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	96.4		30 - 110					03/18/25 07:33	04/15/25 12:23	1
Y Carrier	84.1		30 - 110					03/18/25 07:33	04/15/25 12:23	1

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.484	U	0.358	0.361	5.00	0.496	pCi/L		04/16/25 12:10	1

Client Sample ID: 516545 FC_3B

Lab Sample ID: 160-57463-5

Date Collected: 03/10/25 12:40

Matrix: Water

Date Received: 03/14/25 12:20

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.304		0.195	0.197	1.00	0.239	pCi/L	03/18/25 07:31	04/15/25 17:28	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.0		30 - 110					03/18/25 07:31	04/15/25 17:28	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.441	U	0.358	0.360	1.00	0.554	pCi/L	03/18/25 07:33	04/15/25 12:23	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.0		30 - 110					03/18/25 07:33	04/15/25 12:23	1
Y Carrier	81.9		30 - 110					03/18/25 07:33	04/15/25 12:23	1

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.745		0.408	0.410	5.00	0.554	pCi/L		04/16/25 12:46	1

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Client Sample Results

Client: Colorado Springs Utilities
Project/Site: Radiochemistry Analysis

Job ID: 160-57463-1

Client Sample ID: 516546 EQUIP_BLK

Lab Sample ID: 160-57463-6

Date Collected: 03/10/25 11:40

Matrix: Water

Date Received: 03/14/25 12:20

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0625	U	0.187	0.187	1.00	0.352	pCi/L	03/18/25 07:31	04/15/25 17:28	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	81.0		30 - 110					03/18/25 07:31	04/15/25 17:28	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0433	U	0.287	0.287	1.00	0.536	pCi/L	03/18/25 07:33	04/15/25 12:23	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	81.0		30 - 110					03/18/25 07:33	04/15/25 12:23	1
Y Carrier	83.7		30 - 110					03/18/25 07:33	04/15/25 12:23	1

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.106	U	0.343	0.343	5.00	0.536	pCi/L		04/16/25 12:46	1

Client Sample ID: 516547 SC_10

Lab Sample ID: 160-57463-7

Date Collected: 03/11/25 14:00

Matrix: Water

Date Received: 03/14/25 12:20

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0318	U	0.245	0.245	1.00	0.493	pCi/L	03/18/25 07:31	04/15/25 17:28	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	72.4		30 - 110					03/18/25 07:31	04/15/25 17:28	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0197	U G	0.596	0.596	1.00	1.09	pCi/L	03/18/25 07:33	04/15/25 12:23	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	72.4		30 - 110					03/18/25 07:33	04/15/25 12:23	1
Y Carrier	83.4		30 - 110					03/18/25 07:33	04/15/25 12:23	1

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Client Sample Results

Client: Colorado Springs Utilities
Project/Site: Radiochemistry Analysis

Job ID: 160-57463-1

Client Sample ID: 516547 SC_10

Lab Sample ID: 160-57463-7

Date Collected: 03/11/25 14:00

Matrix: Water

Date Received: 03/14/25 12:20

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.0515	U	0.644	0.644	5.00	1.09	pCi/L		04/16/25 12:46	1

Client Sample ID: 516548 SC_11

Lab Sample ID: 160-57463-8

Date Collected: 03/11/25 12:44

Matrix: Water

Date Received: 03/14/25 12:20

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0678	U	0.180	0.180	1.00	0.339	pCi/L	03/18/25 07:31	04/15/25 17:28	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	74.0		30 - 110					03/18/25 07:31	04/15/25 17:28	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.506	U	0.533	0.535	1.00	0.865	pCi/L	03/18/25 07:33	04/15/25 14:15	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	74.0		30 - 110					03/18/25 07:33	04/15/25 14:15	1
Y Carrier	83.7		30 - 110					03/18/25 07:33	04/15/25 14:15	1

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.574	U	0.563	0.564	5.00	0.865	pCi/L		04/16/25 12:46	1

Client Sample ID: 516549 SC_12

Lab Sample ID: 160-57463-9

Date Collected: 03/11/25 11:12

Matrix: Water

Date Received: 03/14/25 12:20

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.250	U	0.204	0.205	1.00	0.294	pCi/L	03/18/25 07:31	04/15/25 17:29	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.9		30 - 110					03/18/25 07:31	04/15/25 17:29	1

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Client Sample Results

Client: Colorado Springs Utilities
Project/Site: Radiochemistry Analysis

Job ID: 160-57463-1

Client Sample ID: 516549 SC_12

Lab Sample ID: 160-57463-9

Date Collected: 03/11/25 11:12

Matrix: Water

Date Received: 03/14/25 12:20

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.281	U	0.392	0.393	1.00	0.660	pCi/L	03/18/25 07:33	04/15/25 14:15	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.9		30 - 110					03/18/25 07:33	04/15/25 14:15	1
Y Carrier	84.1		30 - 110					03/18/25 07:33	04/15/25 14:15	1

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.531	U	0.442	0.443	5.00	0.660	pCi/L		04/16/25 12:46	1

Client Sample ID: 516550 SC_13

Lab Sample ID: 160-57463-10

Date Collected: 03/11/25 09:33

Matrix: Water

Date Received: 03/14/25 12:20

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.213	U	0.223	0.224	1.00	0.350	pCi/L	03/18/25 07:31	04/15/25 17:29	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	75.0		30 - 110					03/18/25 07:31	04/15/25 17:29	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.573	U	0.567	0.570	1.00	0.912	pCi/L	03/18/25 07:33	04/15/25 14:15	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	75.0		30 - 110					03/18/25 07:33	04/15/25 14:15	1
Y Carrier	77.8		30 - 110					03/18/25 07:33	04/15/25 14:15	1

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.786	U	0.609	0.612	5.00	0.912	pCi/L		04/16/25 12:46	1

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Client Sample Results

Client: Colorado Springs Utilities
Project/Site: Radiochemistry Analysis

Job ID: 160-57463-1

Client Sample ID: 516551 SC_14

Lab Sample ID: 160-57463-11

Date Collected: 03/11/25 08:21

Matrix: Water

Date Received: 03/14/25 12:20

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.326	U	0.246	0.248	1.00	0.351	pCi/L	03/18/25 07:31	04/15/25 17:29	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	80.7		30 - 110					03/18/25 07:31	04/15/25 17:29	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.334	U	0.430	0.431	1.00	0.717	pCi/L	03/18/25 07:33	04/15/25 14:14	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	80.7		30 - 110					03/18/25 07:33	04/15/25 14:14	1
Y Carrier	82.6		30 - 110					03/18/25 07:33	04/15/25 14:14	1

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.660	U	0.495	0.497	5.00	0.717	pCi/L		04/16/25 12:46	1

Client Sample ID: 516552 FIELD_DUP

Lab Sample ID: 160-57463-12

Date Collected: 03/11/25 00:00

Matrix: Water

Date Received: 03/14/25 12:20

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.200	U	0.241	0.242	1.00	0.394	pCi/L	03/18/25 07:31	04/15/25 17:29	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	62.2		30 - 110					03/18/25 07:31	04/15/25 17:29	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.649	U G	0.684	0.687	1.00	1.11	pCi/L	03/18/25 07:33	04/15/25 14:14	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	62.2		30 - 110					03/18/25 07:33	04/15/25 14:14	1
Y Carrier	75.1		30 - 110					03/18/25 07:33	04/15/25 14:14	1

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Client Sample Results

Client: Colorado Springs Utilities
Project/Site: Radiochemistry Analysis

Job ID: 160-57463-1

Client Sample ID: 516552 FIELD_DUP
Date Collected: 03/11/25 00:00
Date Received: 03/14/25 12:20

Lab Sample ID: 160-57463-12
Matrix: Water

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228										
Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.849	U	0.725	0.728	5.00	1.11	pCi/L		04/16/25 12:46	1

QC Sample Results

Client: Colorado Springs Utilities
Project/Site: Radiochemistry Analysis

Job ID: 160-57463-1

Method: 903.0 - Radium-226 (GFPC)

Lab Sample ID: MB 160-708330/1-A
Matrix: Water
Analysis Batch: 712581

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 708330

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.03682	U	0.175	0.175	1.00	0.338	pCi/L	03/18/25 07:31	04/15/25 17:26	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.7		30 - 110					03/18/25 07:31	04/15/25 17:26	1

Lab Sample ID: LCS 160-708330/2-A
Matrix: Water
Analysis Batch: 712586

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 708330

Analyte		Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
Radium-226		9.58	8.209		1.14	1.00	0.313	pCi/L	86	75 - 125
Carrier	LCS %Yield	LCS Qualifier	Limits							
Ba Carrier	87.8		30 - 110							

Lab Sample ID: 160-57463-9 DU
Matrix: Water
Analysis Batch: 712586

Client Sample ID: 516549 SC_12
Prep Type: Total/NA
Prep Batch: 708330

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-226	0.250	U	0.1254	U	0.155	1.00	0.254	pCi/L	0.35	1
Carrier	DU %Yield	DU Qualifier	Limits							
Ba Carrier	95.8		30 - 110							

Method: 904.0 - Radium-228 (GFPC)

Lab Sample ID: MB 160-708331/1-A
Matrix: Water
Analysis Batch: 712581

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 708331

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.3097	U	0.345	0.347	1.00	0.565	pCi/L	03/18/25 07:33	04/15/25 12:22	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.7		30 - 110					03/18/25 07:33	04/15/25 12:22	1
Y Carrier	81.1		30 - 110					03/18/25 07:33	04/15/25 12:22	1

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QC Sample Results

Client: Colorado Springs Utilities
Project/Site: Radiochemistry Analysis

Job ID: 160-57463-1

Method: 904.0 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCS 160-708331/2-A
Matrix: Water
Analysis Batch: 712581

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 708331

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
Radium-228	9.54	9.523		1.34	1.00	0.590	pCi/L	100	75 - 125

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	87.8		30 - 110
Y Carrier	80.7		30 - 110

Lab Sample ID: 160-57463-9 DU
Matrix: Water
Analysis Batch: 712586

Client Sample ID: 516549 SC_12
Prep Type: Total/NA
Prep Batch: 708331

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-228	0.281	U	0.3299	U	0.408	1.00	0.674	pCi/L	0.06	1

Carrier	DU %Yield	DU Qualifier	Limits
Ba Carrier	95.8		30 - 110
Y Carrier	86.4		30 - 110

QC Association Summary

Client: Colorado Springs Utilities
Project/Site: Radiochemistry Analysis

Job ID: 160-57463-1

Rad

Prep Batch: 708330

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-57463-1	516541 CC_1	Total/NA	Water	PrecSep-21	
160-57463-2	516542 FC_1	Total/NA	Water	PrecSep-21	
160-57463-3	516543 FC_2	Total/NA	Water	PrecSep-21	
160-57463-4	516544 FC_3A	Total/NA	Water	PrecSep-21	
160-57463-5	516545 FC_3B	Total/NA	Water	PrecSep-21	
160-57463-6	516546 EQUIP_BLK	Total/NA	Water	PrecSep-21	
160-57463-7	516547 SC_10	Total/NA	Water	PrecSep-21	
160-57463-8	516548 SC_11	Total/NA	Water	PrecSep-21	
160-57463-9	516549 SC_12	Total/NA	Water	PrecSep-21	
160-57463-10	516550 SC_13	Total/NA	Water	PrecSep-21	
160-57463-11	516551 SC_14	Total/NA	Water	PrecSep-21	
160-57463-12	516552 FIELD_DUP	Total/NA	Water	PrecSep-21	
MB 160-708330/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-708330/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
160-57463-9 DU	516549 SC_12	Total/NA	Water	PrecSep-21	

Prep Batch: 708331

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-57463-1	516541 CC_1	Total/NA	Water	PrecSep_0	
160-57463-2	516542 FC_1	Total/NA	Water	PrecSep_0	
160-57463-3	516543 FC_2	Total/NA	Water	PrecSep_0	
160-57463-4	516544 FC_3A	Total/NA	Water	PrecSep_0	
160-57463-5	516545 FC_3B	Total/NA	Water	PrecSep_0	
160-57463-6	516546 EQUIP_BLK	Total/NA	Water	PrecSep_0	
160-57463-7	516547 SC_10	Total/NA	Water	PrecSep_0	
160-57463-8	516548 SC_11	Total/NA	Water	PrecSep_0	
160-57463-9	516549 SC_12	Total/NA	Water	PrecSep_0	
160-57463-10	516550 SC_13	Total/NA	Water	PrecSep_0	
160-57463-11	516551 SC_14	Total/NA	Water	PrecSep_0	
160-57463-12	516552 FIELD_DUP	Total/NA	Water	PrecSep_0	
MB 160-708331/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-708331/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
160-57463-9 DU	516549 SC_12	Total/NA	Water	PrecSep_0	

Tracer/Carrier Summary

Client: Colorado Springs Utilities
Project/Site: Radiochemistry Analysis

Job ID: 160-57463-1

Method: 903.0 - Radium-226 (GFPC)

Matrix: Water

Prep Type: Total/NA

		Percent Yield (Acceptance Limits)					
		Ba					
Lab Sample ID	Client Sample ID	(30-110)					
160-57463-1	516541 CC_1	87.8					
160-57463-2	516542 FC_1	94.3					
160-57463-3	516543 FC_2	84.4					
160-57463-4	516544 FC_3A	96.4					
160-57463-5	516545 FC_3B	88.0					
160-57463-6	516546 EQUIP_BLK	81.0					
160-57463-7	516547 SC_10	72.4					
160-57463-8	516548 SC_11	74.0					
160-57463-9	516549 SC_12	85.9					
160-57463-9 DU	516549 SC_12	95.8					
160-57463-10	516550 SC_13	75.0					
160-57463-11	516551 SC_14	80.7					
160-57463-12	516552 FIELD_DUP	62.2					
LCS 160-708330/2-A	Lab Control Sample	87.8					
MB 160-708330/1-A	Method Blank	92.7					
Tracer/Carrier Legend							
Ba = Ba Carrier							

Method: 904.0 - Radium-228 (GFPC)

Matrix: Water

Prep Type: Total/NA

		Percent Yield (Acceptance Limits)					
		Ba	Y				
Lab Sample ID	Client Sample ID	(30-110)	(30-110)				
160-57463-1	516541 CC_1	87.8	82.2				
160-57463-2	516542 FC_1	94.3	85.2				
160-57463-3	516543 FC_2	84.4	85.6				
160-57463-4	516544 FC_3A	96.4	84.1				
160-57463-5	516545 FC_3B	88.0	81.9				
160-57463-6	516546 EQUIP_BLK	81.0	83.7				
160-57463-7	516547 SC_10	72.4	83.4				
160-57463-8	516548 SC_11	74.0	83.7				
160-57463-9	516549 SC_12	85.9	84.1				
160-57463-9 DU	516549 SC_12	95.8	86.4				
160-57463-10	516550 SC_13	75.0	77.8				
160-57463-11	516551 SC_14	80.7	82.6				
160-57463-12	516552 FIELD_DUP	62.2	75.1				
LCS 160-708331/2-A	Lab Control Sample	87.8	80.7				
MB 160-708331/1-A	Method Blank	92.7	81.1				
Tracer/Carrier Legend							
Ba = Ba Carrier							
Y = Y Carrier							



Colorado Springs Utilities

It's how we're all connected



Laboratory Report For:

Coal Combustion Residuals - Landfill

Colorado Springs Utilities Environmental Services

Report Authorized by: *Kelly Nelson*

Title: Environmental Specialist

Report Date: October 28, 2025

Report generated by: Kelly A. Nelson

Colorado Springs Utilities Laboratory Services Section certifies that the test results meet all approved method and Laboratory Quality Assurance Plan requirements unless otherwise noted

Samples

528165	22-Sep-2025 13:08	Crooked Canyon Well #1
528166	22-Sep-2025 09:28	Fort Carson Well #1
528167	22-Sep-2025 10:32	Fort Carson Well #2
528168	22-Sep-2025 14:45	Fort Carson Well #3A
528169	22-Sep-2025 15:55	Fort Carson Well #3B
528170	22-Sep-2025 16:20	Equipment Blank
528171	24-Sep-2025 13:29	Sand Canyon Well #10
528172	24-Sep-2025 12:16	Sand Canyon Well #11
528173	24-Sep-2025 11:05	Sand Canyon Well #12
528174	24-Sep-2025 09:18	Sand Canyon Well #13
528175	24-Sep-2025 08:23	Sand Canyon Well #14
528176	24-Sep-2025 00:00	Field Duplicate sample

LIMS #: 528165

Sample Date: 9/22/2025 1:08:25 PM

Sample Point: CC_1

Sample Point Description: Crooked Canyon Well #1

Collection Comments:

Sample Type: GRAB

Sampler Initials: JDC

Flag	Method	Analyte	Result	Units	RL	Data Qualifiers	Analyzed On	Dilution Factor
+	SM_4500HB	pH	6.9	SU	2.0			1
+	SM_2550_B	Temperature Centigrade (Field)	14.0	degrees C	0.000			1
+	SM_2510_B	Conductivity	30500	umhos/cm	1			1
+	SM_2580_B	Oxidation-Reduction Potential	327	mV	0			1
+	SM_4500_OG	Dissolved Oxygen	<1.0	mg/L	1.0			1
+	SM_2130_B	Turbidity	4.8	NTU	0.05			1
	NA	Depth to Water	13.00	ft.	0.000			1
	SM_2540_C	Total Dissolved Solids	37600	mg/L	10			1
	SM_4500_FC	Fluoride (Total)	0.62	mg/L	0.10		10/03/2025	1
	EPA_300_0	Chloride	1740	mg/L	25.0	D	09/26/2025	50
		Sulfate	22100	mg/L	500	D	09/26/2025	1000
	EPA_200_7	Boron (Total)	1010	ug/L	80.0	D		10
		Calcium (Total)	399000	ug/L	500	D	10/08/2025	10
		Cobalt (Total)	<2.00	ug/L	2.00	J/F	10/08/2025	1
		Lithium (Total)	702	ug/L	10.0		10/08/2025	1
*	EPA_6020_B	Antimony (Total)	<2.0	ug/L	2.0		10/02/2025	1
		Arsenic (Total)	<2.0	ug/L	2.0		10/02/2025	1
		Barium (Total)	5.6	ug/L	2.0		10/02/2025	1
		Beryllium (Total)	<1.0	ug/L	1.0		10/02/2025	1
		Cadmium (Total)	<1.0	ug/L	1.0		10/02/2025	1
		Chromium (Total)	<3.0	ug/L	3.0		10/02/2025	1
		Lead (Total)	<1.0	ug/L	1.0		10/02/2025	1
		Molybdenum (Total)	<2.0	ug/L	2.0		10/02/2025	1
		Selenium (Total)	260	ug/L	2.0		10/02/2025	1
		Thallium (Total)	<1.0	ug/L	1.0		10/02/2025	1
*	EPA_1631	Mercury (Total)	0.00527	ug/L	0.00100		10/10/2025	1

LIMS #: 528166

Sample Date: 9/22/2025 9:28:25 AM

Sample Point: FC_1

Sample Point Description: Fort Carson Well #1

Collection Comments:

Sample Type: GRAB

Sampler Initials: JDC

Flag	Method	Analyte	Result	Units	RL	Data Qualifiers	Analyzed On	Dilution Factor
+	SM_4500HB	pH	7.0	SU	2.0			1
+	SM_2550_B	Temperature Centigrade (Field)	14.0	degrees C	0.000			1
+	SM_2510_B	Conductivity	22200	umhos/cm	1			1
+	SM_2580_B	Oxidation-Reduction Potential	360	mV	0			1
+	SM_4500_OG	Dissolved Oxygen	<1.0	mg/L	1.0			1
+	SM_2130_B	Turbidity	1.2	NTU	0.05			1
	NA	Depth to Water	16.99	ft.	0.000			1
	SM_2540_C	Total Dissolved Solids	22000	mg/L	10			1
	SM_4500_FC	Fluoride (Total)	0.19	mg/L	0.10		10/03/2025	1
	EPA_300_0	Chloride	808	mg/L	25.0	D	09/26/2025	50
		Sulfate	13200	mg/L	500	D	09/26/2025	1000
	EPA_200_7	Boron (Total)	996	ug/L	80.0	D		10
		Calcium (Total)	372000	ug/L	500	D	10/08/2025	10
		Cobalt (Total)	<2.00	ug/L	2.00	U/F	10/08/2025	1
		Lithium (Total)	924	ug/L	100	D	10/08/2025	10
*	EPA_6020_B	Antimony (Total)	<2.0	ug/L	2.0		10/02/2025	1
		Arsenic (Total)	<2.0	ug/L	2.0		10/02/2025	1
		Barium (Total)	8.8	ug/L	2.0		10/02/2025	1
		Beryllium (Total)	<1.0	ug/L	1.0		10/02/2025	1
		Cadmium (Total)	<1.0	ug/L	1.0		10/02/2025	1
		Chromium (Total)	<3.0	ug/L	3.0		10/02/2025	1
		Lead (Total)	<1.0	ug/L	1.0		10/02/2025	1
		Molybdenum (Total)	<2.0	ug/L	2.0		10/02/2025	1
		Selenium (Total)	2.9	ug/L	2.0		10/02/2025	1
		Thallium (Total)	<1.0	ug/L	1.0		10/02/2025	1
*	EPA_1631	Mercury (Total)	0.00175	ug/L	0.00100		10/10/2025	1

LIMS #: 528167

Sample Date: 9/22/2025 10:32:25 AM

Sample Point: FC_2

Sample Point Description: Fort Carson Well #2

Collection Comments: Perform matrix QC

Sample Type: GRAB

Sampler Initials: JDC

Flag	Method	Analyte	Result	Units	RL	Data Qualifiers	Analyzed On	Dilution Factor
+	SM_4500HB	pH	7.2	SU	2.0			1
+	SM_2550_B	Temperature Centigrade (Field)	14.0	degrees C	0.000			1
+	SM_2510_B	Conductivity	10000	umhos/cm	1			1
+	SM_2580_B	Oxidation-Reduction Potential	300	mV	0			1
+	SM_4500_OG	Dissolved Oxygen	<1.0	mg/L	1.0			1
+	SM_2130_B	Turbidity	3.7	NTU	0.05			1
	NA	Depth to Water	15.02	ft.	0.000			1
	SM_2540_C	Total Dissolved Solids	10400	mg/L	10			1
	SM_4500_FC	Fluoride (Total)	0.69	mg/L	0.10		10/03/2025	1
	EPA_300_0	Chloride	120	mg/L	2.50	D	09/26/2025	5
		Sulfate	6530	mg/L	250	D	09/26/2025	500
	EPA_200_7	Boron (Total)	906	ug/L	80.0	D		10
		Calcium (Total)	368000	ug/L	500	D/T1	10/08/2025	10
		Cobalt (Total)	<2.00	ug/L	2.00	U/F	10/08/2025	1
		Lithium (Total)	260	ug/L	100	D	10/08/2025	10
*	EPA_6020_B	Antimony (Total)	<2.0	ug/L	2.0		10/02/2025	1
		Arsenic (Total)	<2.0	ug/L	2.0		10/02/2025	1
		Barium (Total)	6.1	ug/L	2.0		10/02/2025	1
		Beryllium (Total)	<1.0	ug/L	1.0		10/02/2025	1
		Cadmium (Total)	<1.0	ug/L	1.0		10/02/2025	1
		Chromium (Total)	<3.0	ug/L	3.0		10/02/2025	1
		Lead (Total)	<1.0	ug/L	1.0		10/02/2025	1
		Molybdenum (Total)	2.8	ug/L	2.0		10/02/2025	1
		Selenium (Total)	42	ug/L	2.0		10/02/2025	1
		Thallium (Total)	<1.0	ug/L	1.0		10/02/2025	1
*	EPA_1631	Mercury (Total)	0.00225	ug/L	0.00100		10/10/2025	1

LIMS #: 528168

Sample Date: 9/22/2025 2:45:25 PM

Sample Point: FC_3A

Sample Point Description: Fort Carson Well #3A

Collection Comments:

Sample Type: GRAB

Sampler Initials: JDC

Flag	Method	Analyte	Result	Units	RL	Data Qualifiers	Analyzed On	Dilution Factor
+	SM_4500HB	pH	7.3	SU	2.0			1
+	SM_2550_B	Temperature Centigrade (Field)	13.5	degrees C	0.000			1
+	SM_2510_B	Conductivity	9080	umhos/cm	1			1
+	SM_2580_B	Oxidation-Reduction Potential	296	mV	0			1
+	SM_4500_OG	Dissolved Oxygen	<1.0	mg/L	1.0			1
+	SM_2130_B	Turbidity	7.1	NTU	0.05			1
	NA	Depth to Water	19.58	ft.	0.000			1
	SM_2540_C	Total Dissolved Solids	9300	mg/L	10			1
	SM_4500_FC	Fluoride (Total)	0.64	mg/L	0.10		10/03/2025	1
	EPA_300_0	Chloride	153	mg/L	2.50	D	09/26/2025	5
		Sulfate	5740	mg/L	250	D	09/26/2025	500
	EPA_200_7	Boron (Total)	995	ug/L	80.0	D		10
		Calcium (Total)	404000	ug/L	500	D	10/08/2025	10
		Cobalt (Total)	<2.00	ug/L	2.00	U/F	10/08/2025	1
		Lithium (Total)	285	ug/L	100	D	10/08/2025	10
*	EPA_6020_B	Antimony (Total)	<2.0	ug/L	2.0			1
		Arsenic (Total)	<2.0	ug/L	2.0		10/02/2025	1
		Barium (Total)	11	ug/L	2.0		10/02/2025	1
		Beryllium (Total)	<1.0	ug/L	1.0		10/02/2025	1
		Cadmium (Total)	<1.0	ug/L	1.0		10/02/2025	1
		Chromium (Total)	<3.0	ug/L	3.0		10/02/2025	1
		Lead (Total)	<1.0	ug/L	1.0		10/02/2025	1
		Molybdenum (Total)	8.6	ug/L	2.0		10/02/2025	1
		Selenium (Total)	49	ug/L	2.0		10/02/2025	1
		Thallium (Total)	<1.0	ug/L	1.0		10/02/2025	1
*	EPA_1631	Mercury (Total)	0.00147	ug/L	0.00100		10/10/2025	1

LIMS #: 528169

Sample Date: 9/22/2025 3:55:25 PM

Sample Point: FC_3B

Sample Point Description: Fort Carson Well #3B

Collection Comments:

Sample Type: GRAB

Sampler Initials: JDC

Flag	Method	Analyte	Result	Units	RL	Data Qualifiers	Analyzed On	Dilution Factor
+	SM_4500HB	pH	7.4	SU	2.0			1
+	SM_2550_B	Temperature Centigrade (Field)	14.0	degrees C	0.000			1
+	SM_2510_B	Conductivity	8720	umhos/cm	1			1
+	SM_2580_B	Oxidation-Reduction Potential	10	mV	0			1
+	SM_4500_OG	Dissolved Oxygen	<1.0	mg/L	1.0			1
+	SM_2130_B	Turbidity	3.2	NTU	0.05			1
	NA	Depth to Water	18.95	ft.	0.000			1
	SM_2540_C	Total Dissolved Solids	7540	mg/L	10			1
	SM_4500_FC	Fluoride (Total)	0.72	mg/L	0.10		10/03/2025	1
	EPA_300_0	Chloride	197	mg/L	2.50	D	09/26/2025	5
		Sulfate	4370	mg/L	250	D	09/26/2025	500
	EPA_200_7	Boron (Total)	1090	ug/L	80.0	D	10/08/2025	10
		Calcium (Total)	259000	ug/L	500	D	10/08/2025	10
		Cobalt (Total)	<2.00	ug/L	2.00	U/F	10/08/2025	1
		Lithium (Total)	256	ug/L	100	D	10/08/2025	10
*	EPA_6020_B	Antimony (Total)	<2.0	ug/L	2.0		10/02/2025	1
		Arsenic (Total)	<2.0	ug/L	2.0		10/02/2025	1
		Barium (Total)	10	ug/L	2.0		10/02/2025	1
		Beryllium (Total)	<1.0	ug/L	1.0		10/02/2025	1
		Cadmium (Total)	<1.0	ug/L	1.0		10/02/2025	1
		Chromium (Total)	<3.0	ug/L	3.0		10/02/2025	1
		Lead (Total)	<1.0	ug/L	1.0		10/02/2025	1
		Molybdenum (Total)	4.8	ug/L	2.0		10/02/2025	1
		Selenium (Total)	<2.0	ug/L	2.0		10/02/2025	1
		Thallium (Total)	<1.0	ug/L	1.0		10/02/2025	1
*	EPA_1631	Mercury (Total)	0.00395	ug/L	0.00100		10/10/2025	1

LIMS #: 528170

Sample Date: 9/22/2025 4:20:25 PM

Sample Point: EQUIP_BLK

Sample Point Description: Equipment Blank

Collection Comments:

Sample Type: GRAB

Sampler Initials: JDC

Flag	Method	Analyte	Result	Units	RL	Data Qualifiers	Analyzed On	Dilution Factor
	SM_2540_C	Total Dissolved Solids	<10	mg/L	10			1
	SM_4500_FC	Fluoride (Total)	<0.10	mg/L	0.10	J		1
	EPA_300_0	Chloride	<0.50	mg/L	0.50	J	09/26/2025	1
		Sulfate	<0.50	mg/L	0.50	J	09/26/2025	1
	EPA_200_7	Boron (Total)	<8.00	ug/L	8.00	U		1
		Calcium (Total)	<50.0	ug/L	50.0	U	10/08/2025	1
		Cobalt (Total)	<2.00	ug/L	2.00	U	10/08/2025	1
		Lithium (Total)	<10.0	ug/L	10.0	U	10/08/2025	1
*	EPA_6020_B	Antimony (Total)	<2.0	ug/L	2.0		10/02/2025	1
		Arsenic (Total)	<2.0	ug/L	2.0		10/02/2025	1
		Barium (Total)	<2.0	ug/L	2.0		10/02/2025	1
		Beryllium (Total)	<1.0	ug/L	1.0		10/02/2025	1
		Cadmium (Total)	<1.0	ug/L	1.0		10/02/2025	1
		Chromium (Total)	<3.0	ug/L	3.0		10/02/2025	1
		Lead (Total)	<1.0	ug/L	1.0		10/02/2025	1
		Molybdenum (Total)	<2.0	ug/L	2.0		10/02/2025	1
		Selenium (Total)	<2.0	ug/L	2.0		10/02/2025	1
		Thallium (Total)	<1.0	ug/L	1.0		10/01/2025	1
*	EPA_1631	Mercury (Total)	<0.00100	ug/L	0.00100	U	10/10/2025	1

LIMS #: 528171

Sample Date: 9/24/2025 1:29:56 PM

Sample Point: SC_10

Sample Point Description: Sand Canyon Well #10

Collection Comments: Perform matrix QC

Sample Type: GRAB

Sampler Initials: JDC

Flag	Method	Analyte	Result	Units	RL	Data Qualifiers	Analyzed On	Dilution Factor
+	SM_4500HB	pH	7.2	SU	2.0			1
+	SM_2550_B	Temperature Centigrade (Field)	14.2	degrees C	0.000			1
+	SM_2510_B	Conductivity	18000	umhos/cm	1			1
+	SM_2580_B	Oxidation-Reduction Potential	299	mV	0			1
+	SM_4500_OG	Dissolved Oxygen	<1.0	mg/L	1.0			1
+	SM_2130_B	Turbidity	6.6	NTU	0.05			1
	NA	Depth to Water	13.33	ft.	0.000			1
	SM_2540_C	Total Dissolved Solids	17200	mg/L	10			1
	SM_4500_FC	Fluoride (Total)	0.76	mg/L	0.10		10/03/2025	1
	EPA_300_0	Chloride	1110	mg/L	25.0	D	09/26/2025	50
		Sulfate	9660	mg/L	500	D	09/26/2025	1000
	EPA_200_7	Boron (Total)	1160	ug/L	80.0	D		10
		Calcium (Total)	377000	ug/L	500	D	10/08/2025	10
		Cobalt (Total)	<2.00	ug/L	2.00	J/F	10/08/2025	1
		Lithium (Total)	635	ug/L	100	D	10/08/2025	10
*	EPA_6020_B	Antimony (Total)	<2.0	ug/L	2.0		10/02/2025	1
		Arsenic (Total)	<2.0	ug/L	2.0		10/02/2025	1
		Barium (Total)	9.5	ug/L	2.0		10/02/2025	1
		Beryllium (Total)	<1.0	ug/L	1.0		10/02/2025	1
		Cadmium (Total)	<1.0	ug/L	1.0		10/02/2025	1
		Chromium (Total)	<3.0	ug/L	3.0		10/02/2025	1
		Lead (Total)	<1.0	ug/L	1.0		10/02/2025	1
		Molybdenum (Total)	4.8	ug/L	2.0		10/02/2025	1
		Selenium (Total)	210	ug/L	2.0		10/02/2025	1
		Thallium (Total)	<1.0	ug/L	1.0		10/02/2025	1
*	EPA_1631	Mercury (Total)	0.00597	ug/L	0.00100		10/10/2025	1

LIMS #: 528172

Sample Date: 9/24/2025 12:16:56 PM

Sample Point: SC_11

Sample Point Description: Sand Canyon Well #11

Collection Comments:

Sample Type: GRAB

Sampler Initials: JDC

Flag	Method	Analyte	Result	Units	RL	Data Qualifiers	Analyzed On	Dilution Factor
+	SM_4500HB	pH	7.1	SU	2.0			1
+	SM_2550_B	Temperature Centigrade (Field)	15.3	degrees C	0.000			1
+	SM_2510_B	Conductivity	17400	umhos/cm	1			1
+	SM_2580_B	Oxidation-Reduction Potential	286	mV	0			1
+	SM_4500_OG	Dissolved Oxygen	<1.0	mg/L	1.0			1
+	SM_2130_B	Turbidity	5.8	NTU	0.05			1
	NA	Depth to Water	10.39	ft.	0.000			1
	SM_2540_C	Total Dissolved Solids	16200	mg/L	10			1
	SM_4500_FC	Fluoride (Total)	0.92	mg/L	0.10		10/03/2025	1
	EPA_300_0	Chloride	1320	mg/L	25.0	D	09/27/2025	50
		Sulfate	8520	mg/L	500	D	09/26/2025	1000
	EPA_200_7	Boron (Total)	2500	ug/L	80.0	D		10
		Calcium (Total)	434000	ug/L	500	D	10/08/2025	10
		Cobalt (Total)	<2.00	ug/L	2.00	U/F	10/08/2025	1
		Lithium (Total)	569	ug/L	100	D	10/08/2025	10
*	EPA_6020_B	Antimony (Total)	<2.0	ug/L	2.0		10/01/2025	1
		Arsenic (Total)	<2.0	ug/L	2.0		10/01/2025	1
		Barium (Total)	7.7	ug/L	2.0		10/01/2025	1
		Beryllium (Total)	<1.0	ug/L	1.0		10/02/2025	1
		Cadmium (Total)	<1.0	ug/L	1.0		10/01/2025	1
		Chromium (Total)	<3.0	ug/L	3.0		10/01/2025	1
		Lead (Total)	<1.0	ug/L	1.0		10/01/2025	1
		Molybdenum (Total)	3.6	ug/L	2.0		10/01/2025	1
		Selenium (Total)	390	ug/L	2.0		10/02/2025	1
		Thallium (Total)	<1.0	ug/L	1.0		10/01/2025	1
*	EPA_1631	Mercury (Total)	0.00772	ug/L	0.00100		10/10/2025	1

LIMS #: 528173

Sample Date: 9/24/2025 11:05:56 AM

Sample Point: SC_12

Sample Point Description: Sand Canyon Well #12

Collection Comments:

Sample Type: GRAB

Sampler Initials: JDC

Flag	Method	Analyte	Result	Units	RL	Data Qualifiers	Analyzed On	Dilution Factor
+	SM_4500HB	pH	7.2	SU	2.0			1
+	SM_2550_B	Temperature Centigrade (Field)	15.4	degrees C	0.000			1
+	SM_2510_B	Conductivity	13100	umhos/cm	1			1
+	SM_2580_B	Oxidation-Reduction Potential	354	mV	0			1
+	SM_4500_OG	Dissolved Oxygen	<1.0	mg/L	1.0			1
+	SM_2130_B	Turbidity	0.46	NTU	0.05			1
	NA	Depth to Water	11.20	ft.	0.000			1
	SM_2540_C	Total Dissolved Solids	13300	mg/L	10			1
	SM_4500_FC	Fluoride (Total)	1.28	mg/L	0.10		10/03/2025	1
	EPA_300_0	Chloride	356	mg/L	5.00	D	09/27/2025	10
		Sulfate	7920	mg/L	500	D	09/27/2025	1000
	EPA_200_7	Boron (Total)	3950	ug/L	8.00			1
		Calcium (Total)	357000	ug/L	500	D	10/08/2025	10
		Cobalt (Total)	<2.00	ug/L	2.00	U	10/08/2025	1
		Lithium (Total)	440	ug/L	10.0		10/08/2025	1
*	EPA_6020_B	Antimony (Total)	<2.0	ug/L	2.0		10/01/2025	1
		Arsenic (Total)	<2.0	ug/L	2.0		10/01/2025	1
		Barium (Total)	6.2	ug/L	2.0		10/01/2025	1
		Beryllium (Total)	<1.0	ug/L	1.0		10/02/2025	1
		Cadmium (Total)	<1.0	ug/L	1.0		10/01/2025	1
		Chromium (Total)	<3.0	ug/L	3.0		10/01/2025	1
		Lead (Total)	<1.0	ug/L	1.0		10/01/2025	1
		Molybdenum (Total)	4.8	ug/L	2.0		10/01/2025	1
		Selenium (Total)	14	ug/L	2.0		10/02/2025	1
		Thallium (Total)	<1.0	ug/L	1.0		10/01/2025	1
*	EPA_1631	Mercury (Total)	0.00198	ug/L	0.00100		10/10/2025	1

LIMS #: 528174

Sample Date: 9/24/2025 9:18:56 AM

Sample Point: SC_13

Sample Point Description: Sand Canyon Well #13

Collection Comments:

Sample Type: GRAB

Sampler Initials: JDC

Flag	Method	Analyte	Result	Units	RL	Data Qualifiers	Analyzed On	Dilution Factor
+	SM_4500HB	pH	7.1	SU	2.0			1
+	SM_2550_B	Temperature Centigrade (Field)	12.9	degrees C	0.000			1
+	SM_2510_B	Conductivity	11200	umhos/cm	1			1
+	SM_2580_B	Oxidation-Reduction Potential	391	mV	0			1
+	SM_4500_OG	Dissolved Oxygen	<1.0	mg/L	1.0			1
+	SM_2130_B	Turbidity	4.3	NTU	0.05			1
	NA	Depth to Water	11.62	ft.	0.000			1
	SM_2540_C	Total Dissolved Solids	11600	mg/L	10			1
	SM_4500_FC	Fluoride (Total)	1.10	mg/L	0.10		10/03/2025	1
	EPA_300_0	Chloride	176	mg/L	2.50	D	09/27/2025	5
		Sulfate	7250	mg/L	250	D	09/27/2025	500
	EPA_200_7	Boron (Total)	1360	ug/L	8.00			1
		Calcium (Total)	355000	ug/L	500	D	10/08/2025	10
		Cobalt (Total)	<2.00	ug/L	2.00	U	10/08/2025	1
		Lithium (Total)	340	ug/L	10.0		10/08/2025	1
*	EPA_6020_B	Antimony (Total)	<2.0	ug/L	2.0		10/01/2025	1
		Arsenic (Total)	<2.0	ug/L	2.0		10/01/2025	1
		Barium (Total)	6.7	ug/L	2.0		10/01/2025	1
		Beryllium (Total)	<1.0	ug/L	1.0		10/02/2025	1
		Cadmium (Total)	<1.0	ug/L	1.0		10/01/2025	1
		Chromium (Total)	<3.0	ug/L	3.0		10/01/2025	1
		Lead (Total)	<1.0	ug/L	1.0		10/01/2025	1
		Molybdenum (Total)	3.8	ug/L	2.0		10/01/2025	1
		Selenium (Total)	29	ug/L	2.0		10/02/2025	1
		Thallium (Total)	<1.0	ug/L	1.0		10/01/2025	1
*	EPA_1631	Mercury (Total)	0.00149	ug/L	0.00100		10/10/2025	1

LIMS #: 528175

Sample Date: 9/24/2025 8:23:56 AM

Sample Point: SC_14

Sample Point Description: Sand Canyon Well #14

Collection Comments:

Sample Type: GRAB

Sampler Initials: JDC

Flag	Method	Analyte	Result	Units	RL	Data Qualifiers	Analyzed On	Dilution Factor
+	SM_4500HB	pH	7.2	SU	2.0			1
+	SM_2550_B	Temperature Centigrade (Field)	11.6	degrees C	0.000			1
+	SM_2510_B	Conductivity	10800	umhos/cm	1			1
+	SM_2580_B	Oxidation-Reduction Potential	444	mV	0			1
+	SM_4500_OG	Dissolved Oxygen	<1.0	mg/L	1.0			1
+	SM_2130_B	Turbidity	0.40	NTU	0.05			1
	NA	Depth to Water	12.04	ft.	0.000			1
	SM_2540_C	Total Dissolved Solids	10400	mg/L	10			1
	SM_4500_FC	Fluoride (Total)	1.11	mg/L	0.10		10/03/2025	1
	EPA_300_0	Chloride	160	mg/L	2.50	D	09/27/2025	5
		Sulfate	6850	mg/L	250	D	09/27/2025	500
	EPA_200_7	Boron (Total)	1260	ug/L	8.00			1
		Calcium (Total)	363000	ug/L	500	D	10/08/2025	10
		Cobalt (Total)	<2.00	ug/L	2.00	U	10/08/2025	1
		Lithium (Total)	332	ug/L	10.0		10/08/2025	1
*	EPA_6020_B	Antimony (Total)	<2.0	ug/L	2.0		10/01/2025	1
		Arsenic (Total)	<2.0	ug/L	2.0		10/01/2025	1
		Barium (Total)	5.3	ug/L	2.0		10/01/2025	1
		Beryllium (Total)	<1.0	ug/L	1.0		10/02/2025	1
		Cadmium (Total)	<1.0	ug/L	1.0		10/01/2025	1
		Chromium (Total)	<3.0	ug/L	3.0		10/01/2025	1
		Lead (Total)	<1.0	ug/L	1.0		10/01/2025	1
		Molybdenum (Total)	12	ug/L	2.0		10/01/2025	1
		Selenium (Total)	7.9	ug/L	2.0		10/02/2025	1
		Thallium (Total)	<1.0	ug/L	1.0		10/01/2025	1
*	EPA_1631	Mercury (Total)	0.00140	ug/L	0.00100		10/10/2025	1

LIMS #: 528176

Sample Date: 9/24/2025 12:00:56 AM

Sample Point: FIELD_DUP

Sample Point Description: Field Duplicate sample

Collection Comments:

Sample Type: GRAB

Sampler Initials: JDC

Flag	Method	Analyte	Result	Units	RL	Data Qualifiers	Analyzed On	Dilution Factor
	SM_2540_C	Total Dissolved Solids	11300	mg/L	10			1
	SM_4500_FC	Fluoride (Total)	1.05	mg/L	0.10		10/03/2025	1
	EPA_300_0	Chloride	181	mg/L	2.50	D	09/27/2025	5
		Sulfate	7430	mg/L	250	D	09/27/2025	500
	EPA_200_7	Boron (Total)	1360	ug/L	8.00			1
		Calcium (Total)	360000	ug/L	500	D	10/08/2025	10
		Cobalt (Total)	<2.00	ug/L	2.00	U	10/08/2025	1
		Lithium (Total)	342	ug/L	10.0		10/08/2025	1
*	EPA_6020_B	Antimony (Total)	<2.0	ug/L	2.0		10/01/2025	1
		Arsenic (Total)	<2.0	ug/L	2.0		10/01/2025	1
		Barium (Total)	5.7	ug/L	2.0		10/01/2025	1
		Beryllium (Total)	<1.0	ug/L	1.0		10/02/2025	1
		Cadmium (Total)	<1.0	ug/L	1.0		10/01/2025	1
		Chromium (Total)	<3.0	ug/L	3.0		10/01/2025	1
		Lead (Total)	<1.0	ug/L	1.0		10/01/2025	1
		Molybdenum (Total)	3.8	ug/L	2.0		10/01/2025	1
		Selenium (Total)	29	ug/L	2.0		10/02/2025	1
		Thallium (Total)	<1.0	ug/L	1.0		10/01/2025	1
*	EPA_1631	Mercury (Total)	0.00151	ug/L	0.00100		10/10/2025	1

Flags

- * Analysis performed by an external contract laboratory.
- + Analysis performed in the field.

Data Qualifiers

D - Value reported is multiplied by a dilution factor.

F - Customer/Project data quality requirements met. There are deviations from the reference method or the SOP.

J - Analysis confirms the presence of the analyte at a concentration which is less than the established RL, but greater than the MDL. The associated concentration value reported is approximate.

T1 - The analyte concentration is disproportionate to the spike level and is outside the established range.

U - Data result less than the method detection limit.

Glossary

DQ - Data Qualifier

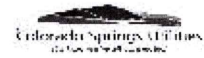
RL – Reporting Limit

MDL – Method Detection Limit

Dil Fac – Dilution Factor

Case Narrative

On several samples, Cobalt has an F qualifier. This is due to Strontium, an interferant, being over-range in those samples. The impact was deemed minimal, and those data are reported at the 1x dilution so that the laboratory is not diluting low/nondetect samples.



CCR Landfill Groundwater Assessment Upgradient Wells

Sample Date: 9/22/2025

QC Report Needed

LSS WO# 4260715

Sampler: J. Suslow

LOCATION	# Bottles	LIMS #	Sample Time	Please mark boxes that apply.							Check, which sample should have MSMSD performed on it	Fluoride, SM 4500 F C (analyzed using Standard Addition)	Total Dissolved Solids, SM 2540 C	Chloride, Sulfate EPA 300.0	EPA 200.7 (B, Ca, Co & Li - Total)	EPA 6020 B (Sb, As, Ba, Be, Cd, Cr, Pb, Mo, Se & Ti - Total) Sent to Eurofins TA Denver	Mercury, EPA 1631 (Sent to ACZ)	Total Radium 226 & Radium 228 (Sent to Test America St. Louis)	Comments
				pH, Field (su) SM 4500 H	Temperature, SM 2530 B	Conductivity, Field (umhos/cm) SM 2510 B	Oxidation Reduction Potential, Field (mV)	Dissolved Oxygen (mg/L)	Turbidity, Field (NTU), SM 2130 B	Depth to Water (feet)									
CC_1	8	528165	13:08	6.88	13.9	30521	326.9	0.18	4.76	13.00		X	X	X	X	X	X	X	
FC_1	8	528166	9:28	7.01	13.8	22241	360.3	0.21	1.21	16.99		X	X	X	X	X	X	X	
FC_2	8	528167	10:32	7.15	13.6	10028	300.1	0.11	3.73	15.02	X	X	X	X	X	X	X	X	
FC_3A	8	528168	14:45	7.30	13.5	9083	296.4	0.15	7.08	19.58		X	X	X	X	X	X	X	
FC_3B	8	528169	15:55	7.36	14.0	8725	10.4	0.07	3.20	18.95		X	X	X	X	X	X	X	
EQUIP_BLK	8	528170	16:20									X	X	X	X	X	X	X	
Total # of Bottles	48																		

☒ Check if samples left in walk-in overnight

Signature/Print last name: [Signature] Date/Time: 17:18 @ 9-22-25

Relinquished by: [Signature]

Received by: [Signature] ENORES 9/23/25 @ 0710

Temperature Blank (deg C): 9/23/25 1.5 °C CME

Date: 9/23

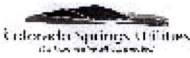
Notify Amber Holmberg if the temperature is >4 deg C

1- 250 mL GP	1- 250 mL GP	1-250 mL GP	1-500 mL New Certified plastic	1-250 mL bottles provided by external lab (pre-preserved with HNO3)	1-250 mL glass acid-rinsed	2-1000 mL plastic
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Additional Comments / Sample Rejections/ Actions

Workflow: CCR LANDFILL
Project ID: CCR LAND
Test Schedule: CCR LAND

Samples are NOT filtered in the field.



CCR Landfill Groundwater Assessment Downgradient and Cross Gradient Wells

Sample Date: 9/24/2025

QC Report Needed

Sampler: J. S. Slaw

				pH, Field (su) SM 4500 H	Temperature SM 2550 B	Conductivity, Field (umhos/cm) SM 2510 B	Oxidation Reduction Potential, Field (mV)	Dissolved Oxygen (mg/L)	Turbidity, Field (NTU), SM 2130 B	Depth to Water (feet)	Check which sample should have MS/MSD performed on it	Fluoride, SM 4500 F C (analyzed using Standard Addition)	Total Dissolved Solids, SM 2540 C (Sent to TA Denver)	Chloride, Sulfate EPA 300.0	EPA 200.7 (B, Ca, Co & Li - Total)	EPA 6020 B (Sb, As, Ba, Be, Cd, Cr, Pb, Mo, Se & Tl - Total) Sent to Eurofins TA Denver	Mercury, EPA 1631 (Sent to ACZ)	Total Radium 226 & Radium 228 (Sent to Test America St Louis)	Comments
LOCATION	# Bottles	LIMS #	Sample Time	Please mark boxes that apply.															
SC_10	8	528171	13:29	7.17	14.2	17957	298.8	0.10	6.64	13.33	X	X	X	X	X	X	X		
SC_11	8	528172	12:16	7.11	15.3	17357	286.0	0.12	5.75	10.39		X	X	X	X	X	X		
SC_12	8	528173	11:05	7.16	15.4	13144	353.5	0.17	0.46	11.20		X	X	X	X	X	X		
SC_13	8	528174	9:18	7.13	12.9	11244	390.9	0.13	4.30	11.62		X	X	X	X	X	X		
SC_14	8	528175	8:23	7.20	11.6	10801	443.5	0.23	0.40	12.04		X	X	X	X	X	X		
FIELD_DUP	8	528176	0:00									X	X	X	X	X	X		
Total # of Bottles	48																		

☐ Check if samples left in walk-in overnight

1-500 mL GP 1 - 500mL GP 1-250 mL GP 1-500 mL New Certified plastic 1-250 mL bottles provided by external lab (pre-preserved with HNO3) 1-250 mL glass acid-rinsed 2-1000 mL plastic

Relinquished by Signature/Print last name Date/Time 9-24-25 @ 14:45

Check if samples left in walk-in overnight

Received by ENKAS Date 9/24/25 @ 1445
Temperature Blank (deg C): 0.9°C
Date: 09/24/2025

Additional Comments / Sample Rejections/
Actions
Workflow: CCR LANDFILL
Project ID: CCR LAND
Test Schedule: CCR LAND
Samples are NOT filtered in the field.



Colorado Springs Utilities

It's how we're all connected

**Laboratory Services Section
QC Report**

**CCR Landfill Wells
September 2025**

Quality Assurance Approval: Lesley Pearce

Date: 10/27/2025

QC Narrative

This report is for sample numbers 528165 – 528176.

Fluoride by Standard Methods 4500 F C (by Standard Addition)

No anomalies to report.

Total Dissolved Solids SM 2540 C

No anomalies to report.

Anions by EPA Method 300.0

There are no anomalies to report.

EPA 200.7

The calcium concentrations are disproportionate to the spike level and are outside the established range. Associated data are T1 qualified.

Method: Fluoride by Standard Methods 4500 F C (using Standard Addition)

Batch Analysis date: 10/3/2025

Sampled date: 9/22/2025 for 528165, 528166, 528167, 528168, 528169, 528170

Sampled date: 9/24/2025 for 528171, 528172, 528173, 528174, 528175, 528176

Matrix QC performed on samples 528167, 528171

QC Type	Analyte	Recovery (%)	Acceptable Range (%)	RPD (%)	RPD Limit (%)
MRL	Fluoride (Total)	119	50 - 150		
QCS	Fluoride (Total)	91	90 - 110		
MS	Fluoride (Total) (528167)	90	80 - 120		
MSD	Fluoride (Total) (528167)			4	<20
MS	Fluoride (Total) (528171)	92	80 - 120		
MSD	Fluoride (Total) (528171)			3	<20
QC Type	Analyte	Concentration	Limit		
LRB	Fluoride (Total)	<0.05 mg/L	0.05 mg/L		

Method: Total Dissolved Solids by Standard Methods 2540 C

Batch Analysis date: 9/26/2025

Sampled date: 9/22/2025 for 528165, 528166, 528167, 528168, 528169, 528170

Sampled date: 9/24/2025 for 528171, 528172, 528173, 528174, 528175, 528176

Matrix QC performed on samples 528167, 528171

QC Type	Analyte	Recovery (%)	Acceptable Range (%)	RPD (%)	RPD Limit (%)
QCS	Total Dissolved Solids	103	91 - 118		
Duplicate	Total Dissolved Solids (528167)			0	<10
Duplicate	Total Dissolved Solids (528171)			2	<10
QC Type	Analyte	Concentration	Limit		
LRB	Total Dissolved Solids	<10 mg/L	10 mg/L		

Method: Anions by EPA Method 300.0

Batch Name: ANIONS000092

Batch Analysis Date: 9/25/2025

Sample Date: 9/22/2025 for 528165, 528166, 528167, 528168, 528169, 528170

Sample Date: 9/24/2025 for 528171, 528172, 528173, 528174, 528175, 528176

Matrix QC performed on 528167, 528171

Component Name	Result	Units
Chloride (Duplicate) 528167	0	RPD
Chloride (Duplicate) 528171	0	RPD
Chloride (LFB)	100	%REC
Chloride (LFB) (Duplicate)	0	RPD
Chloride (LRB)	<0.17	mg/L
Chloride (MRL)	109	%REC

Chloride (MS) 528167	97	%REC
Chloride (MS) 528171	98	%REC
Sulfate (Duplicate) 528167	1	RPD
Sulfate (Duplicate) 528171	2	RPD
Sulfate (LFB)	99	%REC
Sulfate (LFB) (Duplicate)	1	RPD
Sulfate (LRB)	<0.17	mg/L
Sulfate (MRL)	105	%REC
Sulfate (MS) 528167	106	%REC
Sulfate (MS) 528171	107	%REC

EPA 300.0 QC Acceptance Limits

Analyte	LRB Limit (mg/L)	MRL Acceptable Range (%)	LFB Acceptable Range (%)	LFB Duplicate RPD Limit (%)	MS Acceptable Range (%)	LD RPD Limit (%)
Chloride	0.17	50-150	90-110	<20	80-120	<20
Sulfate	0.17	50-150	90-110	<20	80-120	<20

Method: EPA 200.7

Batch Name: OES_TOT000089

Batch Digestion Date: 9/29/2025

Batch Analysis Date: 10/8/2025

Sample Date: 9/22/2025 for 528170, 528165, 528166, 528168, 528169, 528167

Matrix QC performed on 528167

Component Name	Result	Units
Boron (Total) (LFB)	98	%REC
Boron (Total) (LRB)	<8.00	ug/L
Boron (Total) (MRL)	102	%REC
Boron (Total) (MS)	110	%REC
Boron (Total) (RPD)	1	RPD
Calcium (Total) (LFB)	100	%REC
Calcium (Total) (LRB)	<50.0	ug/L
Calcium (Total) (MRL)	121	%REC
Calcium (Total) (MS)	251*	%REC
Calcium (Total) (RPD)	2	RPD
Cobalt (Total) (LFB)	99	%REC
Cobalt (Total) (LRB)	<0.569	ug/L
Cobalt (Total) (MRL)	95	%REC
Cobalt (Total) (MS)	87	%REC
Cobalt (Total) (RPD)	2	RPD
Lithium (Total) (LFB)	100	%REC
Lithium (Total) (LRB)	<7.98	ug/L
Lithium (Total) (MRL)	97	%REC

Lithium (Total) (MS)	99	%REC
Lithium (Total) (RPD)	5	RPD

***See narrative**

EPA 200.7 QC Acceptable Limits

Analyte	LRB Limit (ug/L)	MRL Acceptable Range (%)	LFB Acceptable Range (%)	MS Acceptable Range (%)	MSD RPD Limit (%)
Boron (Total)	8.00	50-150	85-115	70-130	<20
Calcium (Total)	50.0	50-150	85-115	70-130	<20
Cobalt (Total)	0.569	50-150	85-115	70-130	<20
Lithium (Total)	7.98	50-150	50-150	70-130	<20

Method: EPA 200.7

Batch Name: OES_TOT000089

Batch Digestion Date: 10/3/2025

Batch Analysis Date: 10/8/2025

Sample Date: 9/24/2025 for 528172, 528173, 528174, 528175, 528176, 528171

Matrix QC performed on 528171

Component Name	Result	Units
Boron (Total) (LFB)	97	%REC
Boron (Total) (LRB)	<8.00	ug/L
Boron (Total) (MRL)	100	%REC
Boron (Total) (MS)	89	%REC
Boron (Total) (RPD)	1	RPD
Calcium (Total) (LFB)	98	%REC
Calcium (Total) (LRB)	<50.0	ug/L
Calcium (Total) (MRL)	107	%REC
Calcium (Total) (MS)	79	%REC
Calcium (Total) (RPD)	1	RPD
Cobalt (Total) (LFB)	95	%REC
Cobalt (Total) (LRB)	<0.569	ug/L
Cobalt (Total) (MRL)	92	%REC
Cobalt (Total) (MS)	79	%REC
Cobalt (Total) (RPD)	1	RPD
Lithium (Total) (LFB)	102	%REC
Lithium (Total) (LRB)	<7.98	ug/L
Lithium (Total) (MRL)	83	%REC
Lithium (Total) (MS)	104	%REC
Lithium (Total) (RPD)	2	RPD

EPA 200.7 QC Acceptable Limits

Analyte	LRB Limit (ug/L)	MRL Acceptable Range (%)	LFB Acceptable Range (%)	MS Acceptable Range (%)	MSD RPD Limit (%)
Boron (Total)	8.00	50-150	85-115	70-130	<20
Calcium (Total)	50.0	50-150	85-115	70-130	<20
Cobalt (Total)	0.569	50-150	85-115	70-130	<20
Lithium (Total)	7.98	50-150	50-150	70-130	<20

LD – Field Duplicate

LFB – Laboratory Fortified Blank

LRB – Laboratory Reagent Blank (Method Blank)

QCS – Quality Control Sample

MRL – Minimum Reporting Limit (Verification)

MS – Matrix Spike

MSD – Matrix Spike Duplicate

Underline – Data was outside the limit

ANALYTICAL REPORT

PREPARED FOR

Attn: Kelly Nelson
Colorado Springs Utilities
Laboratory Services Section
701 E. Las Vegas St., MC 1465
Colorado Springs, Colorado 80903

Generated 10/5/2025 11:22:50 PM

JOB DESCRIPTION

CCR Landfill Day 1 and 2

JOB NUMBER

280-214035-1

Eurofins Denver

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

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Authorization



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Authorized for release by
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Case Narrative

Client: Colorado Springs Utilities
Project: CCR Landfill Day 1 and 2

Job ID: 280-214035-1

Job ID: 280-214035-1

Eurofins Denver

Job Narrative 280-214035-1

The analytical test results presented in this report meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page, unless otherwise noted. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable. Regulated compliance samples (e.g. SDWA, NPDES) must comply with associated agency requirements/permits.

- Matrix-specific batch QC (e.g., MS, MSD, SD) may not be reported when insufficient sample volume is available or when site-specific QC samples are not submitted. In such cases, a Laboratory Control Sample Duplicate (LCSD) may be analyzed to provide precision data for the batch.
- For samples analyzed using surrogate and/or isotope dilution analytes, any recoveries falling outside of established acceptance criteria are re-prepared and/or re-analyzed to confirm results, unless the deviation is due to sample dilution or otherwise explained in the case narrative.

Receipt

The samples were received on 9/26/2025 10:00 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 4.8°C.

Method 6020B - Metals (ICP/MS)

Samples 528165 CC_1 (280-214035-1), 528166 FC_1 (280-214035-2), 528167 FC_2 (280-214035-3), 528167 FC_2 (280-214035-3MS), 528167 FC_2 (280-214035-3MSD), 528168 FC_3A (280-214035-4), 528169 FC_3B (280-214035-5), 528170 EQUIP_BLK (280-214035-6), 528171 SC_10 (280-214035-7), 528171 SC_10 (280-214035-7MS), 528171 SC_10 (280-214035-7MSD), 528172 SC_11 (280-214035-8), 528173 SC_12 (280-214035-9), 528174 SC_13 (280-214035-10), 528175 SC_14 (280-214035-11) and 528176 FIELD_DUP (280-214035-12) were analyzed for Metals (ICP/MS). The samples were prepared on 9/29/2025 and analyzed on 10/1/2025 and 10/2/2025.

Eurofins Denver

Definitions/Glossary

Client: Colorado Springs Utilities
Project/Site: CCR Landfill Day 1 and 2

Job ID: 280-214035-1

Qualifiers

Metals

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Detection Summary

Client: Colorado Springs Utilities
Project/Site: CCR Landfill Day 1 and 2

Job ID: 280-214035-1

Client Sample ID: 528165 CC_1

Lab Sample ID: 280-214035-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Barium	5.6		2.0		ug/L		1		6020B	Total/NA
Selenium	260		2.0		ug/L		1		6020B	Total/NA

Client Sample ID: 528166 FC_1

Lab Sample ID: 280-214035-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Barium	8.8		2.0		ug/L		1		6020B	Total/NA
Selenium	2.9		2.0		ug/L		1		6020B	Total/NA

Client Sample ID: 528167 FC_2

Lab Sample ID: 280-214035-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Barium	6.1		2.0		ug/L		1		6020B	Total/NA
Molybdenum	2.8		2.0		ug/L		1		6020B	Total/NA
Selenium	42		2.0		ug/L		1		6020B	Total/NA

Client Sample ID: 528168 FC_3A

Lab Sample ID: 280-214035-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Barium	11		2.0		ug/L		1		6020B	Total/NA
Molybdenum	8.6		2.0		ug/L		1		6020B	Total/NA
Selenium	49		2.0		ug/L		1		6020B	Total/NA

Client Sample ID: 528169 FC_3B

Lab Sample ID: 280-214035-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Barium	10		2.0		ug/L		1		6020B	Total/NA
Molybdenum	4.8		2.0		ug/L		1		6020B	Total/NA

Client Sample ID: 528170 EQUIP_BLK

Lab Sample ID: 280-214035-6

No Detections.

Client Sample ID: 528171 SC_10

Lab Sample ID: 280-214035-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Barium	9.5		2.0		ug/L		1		6020B	Total/NA
Molybdenum	4.8		2.0		ug/L		1		6020B	Total/NA
Selenium	210		2.0		ug/L		1		6020B	Total/NA

Client Sample ID: 528172 SC_11

Lab Sample ID: 280-214035-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Barium	7.7		2.0		ug/L		1		6020B	Total/NA
Molybdenum	3.6		2.0		ug/L		1		6020B	Total/NA
Selenium	390		2.0		ug/L		1		6020B	Total/NA

Client Sample ID: 528173 SC_12

Lab Sample ID: 280-214035-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Barium	6.2		2.0		ug/L		1		6020B	Total/NA
Molybdenum	4.8		2.0		ug/L		1		6020B	Total/NA
Selenium	14		2.0		ug/L		1		6020B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Denver

Detection Summary

Client: Colorado Springs Utilities
Project/Site: CCR Landfill Day 1 and 2

Job ID: 280-214035-1

Client Sample ID: 528174 SC_13

Lab Sample ID: 280-214035-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	6.7		2.0		ug/L	1		6020B	Total/NA
Molybdenum	3.8		2.0		ug/L	1		6020B	Total/NA
Selenium	29		2.0		ug/L	1		6020B	Total/NA

Client Sample ID: 528175 SC_14

Lab Sample ID: 280-214035-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	5.3		2.0		ug/L	1		6020B	Total/NA
Molybdenum	12		2.0		ug/L	1		6020B	Total/NA
Selenium	7.9		2.0		ug/L	1		6020B	Total/NA

Client Sample ID: 528176 FIELD_DUP

Lab Sample ID: 280-214035-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	5.7		2.0		ug/L	1		6020B	Total/NA
Molybdenum	3.8		2.0		ug/L	1		6020B	Total/NA
Selenium	29		2.0		ug/L	1		6020B	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Denver

Method Summary

Client: Colorado Springs Utilities
Project/Site: CCR Landfill Day 1 and 2

Job ID: 280-214035-1

Method	Method Description	Protocol	Laboratory
6020B	Metals (ICP/MS)	SW846	EET DEN
3005A	Preparation, Total Metals	SW846	EET DEN

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

EET DEN = Eurofins Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

Sample Summary

Client: Colorado Springs Utilities
Project/Site: CCR Landfill Day 1 and 2

Job ID: 280-214035-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Sample Origin
280-214035-1	528165 CC_1	Water	09/22/25 13:08	09/26/25 10:00	Colorado
280-214035-2	528166 FC_1	Water	09/22/25 09:28	09/26/25 10:00	Colorado
280-214035-3	528167 FC_2	Water	09/22/25 10:32	09/26/25 10:00	Colorado
280-214035-4	528168 FC_3A	Water	09/22/25 14:45	09/26/25 10:00	Colorado
280-214035-5	528169 FC_3B	Water	09/22/25 15:55	09/26/25 10:00	Colorado
280-214035-6	528170 EQUIP_BLK	Water	09/22/25 16:20	09/26/25 10:00	Colorado
280-214035-7	528171 SC_10	Water	09/24/25 13:29	09/26/25 10:00	Colorado
280-214035-8	528172 SC_11	Water	09/24/25 12:16	09/26/25 10:00	Colorado
280-214035-9	528173 SC_12	Water	09/24/25 11:05	09/26/25 10:00	Colorado
280-214035-10	528174 SC_13	Water	09/24/25 09:18	09/26/25 10:00	Colorado
280-214035-11	528175 SC_14	Water	09/24/25 08:23	09/26/25 10:00	Colorado
280-214035-12	528176 FIELD_DUP	Water	09/24/25 00:00	09/26/25 10:00	Colorado

Client Sample Results

Client: Colorado Springs Utilities
Project/Site: CCR Landfill Day 1 and 2

Job ID: 280-214035-1

Client Sample ID: 528165 CC_1

Lab Sample ID: 280-214035-1

Date Collected: 09/22/25 13:08

Matrix: Water

Date Received: 09/26/25 10:00

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0		ug/L		09/29/25 09:58	10/02/25 13:53	1
Arsenic	ND		2.0		ug/L		09/29/25 09:58	10/02/25 13:53	1
Barium	5.6		2.0		ug/L		09/29/25 09:58	10/02/25 13:53	1
Beryllium	ND		1.0		ug/L		09/29/25 09:58	10/02/25 13:53	1
Cadmium	ND		1.0		ug/L		09/29/25 09:58	10/02/25 13:53	1
Chromium	ND		3.0		ug/L		09/29/25 09:58	10/02/25 13:53	1
Lead	ND		1.0		ug/L		09/29/25 09:58	10/02/25 13:53	1
Molybdenum	ND		2.0		ug/L		09/29/25 09:58	10/02/25 13:53	1
Selenium	260		2.0		ug/L		09/29/25 09:58	10/02/25 13:53	1
Thallium	ND		1.0		ug/L		09/29/25 09:58	10/02/25 13:53	1

Client Sample Results

Client: Colorado Springs Utilities
Project/Site: CCR Landfill Day 1 and 2

Job ID: 280-214035-1

Client Sample ID: 528166 FC_1

Lab Sample ID: 280-214035-2

Date Collected: 09/22/25 09:28

Matrix: Water

Date Received: 09/26/25 10:00

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0		ug/L		09/29/25 09:58	10/02/25 13:56	1
Arsenic	ND		2.0		ug/L		09/29/25 09:58	10/02/25 13:56	1
Barium	8.8		2.0		ug/L		09/29/25 09:58	10/02/25 13:56	1
Beryllium	ND		1.0		ug/L		09/29/25 09:58	10/02/25 13:56	1
Cadmium	ND		1.0		ug/L		09/29/25 09:58	10/02/25 13:56	1
Chromium	ND		3.0		ug/L		09/29/25 09:58	10/02/25 13:56	1
Lead	ND		1.0		ug/L		09/29/25 09:58	10/02/25 13:56	1
Molybdenum	ND		2.0		ug/L		09/29/25 09:58	10/02/25 13:56	1
Selenium	2.9		2.0		ug/L		09/29/25 09:58	10/02/25 13:56	1
Thallium	ND		1.0		ug/L		09/29/25 09:58	10/02/25 13:56	1

Client Sample Results

Client: Colorado Springs Utilities
Project/Site: CCR Landfill Day 1 and 2

Job ID: 280-214035-1

Client Sample ID: 528167 FC_2

Lab Sample ID: 280-214035-3

Date Collected: 09/22/25 10:32

Matrix: Water

Date Received: 09/26/25 10:00

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0		ug/L		09/29/25 09:58	10/02/25 15:24	1
Arsenic	ND		2.0		ug/L		09/29/25 09:58	10/02/25 15:24	1
Barium	6.1		2.0		ug/L		09/29/25 09:58	10/02/25 15:24	1
Beryllium	ND		1.0		ug/L		09/29/25 09:58	10/02/25 15:24	1
Cadmium	ND		1.0		ug/L		09/29/25 09:58	10/02/25 15:24	1
Chromium	ND		3.0		ug/L		09/29/25 09:58	10/02/25 15:24	1
Lead	ND		1.0		ug/L		09/29/25 09:58	10/02/25 15:24	1
Molybdenum	2.8		2.0		ug/L		09/29/25 09:58	10/02/25 15:24	1
Selenium	42		2.0		ug/L		09/29/25 09:58	10/02/25 15:24	1
Thallium	ND		1.0		ug/L		09/29/25 09:58	10/02/25 15:24	1

Client Sample Results

Client: Colorado Springs Utilities
Project/Site: CCR Landfill Day 1 and 2

Job ID: 280-214035-1

Client Sample ID: 528168 FC_3A

Lab Sample ID: 280-214035-4

Date Collected: 09/22/25 14:45

Matrix: Water

Date Received: 09/26/25 10:00

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0		ug/L		09/29/25 09:58	10/02/25 15:43	1
Arsenic	ND		2.0		ug/L		09/29/25 09:58	10/02/25 15:43	1
Barium	11		2.0		ug/L		09/29/25 09:58	10/02/25 15:43	1
Beryllium	ND		1.0		ug/L		09/29/25 09:58	10/02/25 15:43	1
Cadmium	ND		1.0		ug/L		09/29/25 09:58	10/02/25 15:43	1
Chromium	ND		3.0		ug/L		09/29/25 09:58	10/02/25 15:43	1
Lead	ND		1.0		ug/L		09/29/25 09:58	10/02/25 15:43	1
Molybdenum	8.6		2.0		ug/L		09/29/25 09:58	10/02/25 15:43	1
Selenium	49		2.0		ug/L		09/29/25 09:58	10/02/25 15:43	1
Thallium	ND		1.0		ug/L		09/29/25 09:58	10/02/25 15:43	1

Client Sample Results

Client: Colorado Springs Utilities
Project/Site: CCR Landfill Day 1 and 2

Job ID: 280-214035-1

Client Sample ID: 528169 FC_3B

Lab Sample ID: 280-214035-5

Date Collected: 09/22/25 15:55

Matrix: Water

Date Received: 09/26/25 10:00

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0		ug/L		09/29/25 09:58	10/02/25 15:47	1
Arsenic	ND		2.0		ug/L		09/29/25 09:58	10/02/25 15:47	1
Barium	10		2.0		ug/L		09/29/25 09:58	10/02/25 15:47	1
Beryllium	ND		1.0		ug/L		09/29/25 09:58	10/02/25 15:47	1
Cadmium	ND		1.0		ug/L		09/29/25 09:58	10/02/25 15:47	1
Chromium	ND		3.0		ug/L		09/29/25 09:58	10/02/25 15:47	1
Lead	ND		1.0		ug/L		09/29/25 09:58	10/02/25 15:47	1
Molybdenum	4.8		2.0		ug/L		09/29/25 09:58	10/02/25 15:47	1
Selenium	ND		2.0		ug/L		09/29/25 09:58	10/02/25 15:47	1
Thallium	ND		1.0		ug/L		09/29/25 09:58	10/02/25 15:47	1

Client Sample Results

Client: Colorado Springs Utilities
Project/Site: CCR Landfill Day 1 and 2

Job ID: 280-214035-1

Client Sample ID: 528170 EQUIP_BLK

Lab Sample ID: 280-214035-6

Date Collected: 09/22/25 16:20

Matrix: Water

Date Received: 09/26/25 10:00

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0		ug/L		09/29/25 09:58	10/02/25 15:58	1
Arsenic	ND		2.0		ug/L		09/29/25 09:58	10/02/25 15:58	1
Barium	ND		2.0		ug/L		09/29/25 09:58	10/02/25 15:58	1
Beryllium	ND		1.0		ug/L		09/29/25 09:58	10/02/25 15:58	1
Cadmium	ND		1.0		ug/L		09/29/25 09:58	10/02/25 15:58	1
Chromium	ND		3.0		ug/L		09/29/25 09:58	10/02/25 15:58	1
Lead	ND		1.0		ug/L		09/29/25 09:58	10/02/25 15:58	1
Molybdenum	ND		2.0		ug/L		09/29/25 09:58	10/02/25 15:58	1
Selenium	ND		2.0		ug/L		09/29/25 09:58	10/02/25 15:58	1
Thallium	ND		1.0		ug/L		09/29/25 09:58	10/01/25 21:31	1

Client Sample Results

Client: Colorado Springs Utilities
Project/Site: CCR Landfill Day 1 and 2

Job ID: 280-214035-1

Client Sample ID: 528171 SC_10

Lab Sample ID: 280-214035-7

Date Collected: 09/24/25 13:29

Matrix: Water

Date Received: 09/26/25 10:00

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0		ug/L		09/29/25 09:58	10/02/25 14:00	1
Arsenic	ND		2.0		ug/L		09/29/25 09:58	10/02/25 14:00	1
Barium	9.5		2.0		ug/L		09/29/25 09:58	10/02/25 14:00	1
Beryllium	ND		1.0		ug/L		09/29/25 09:58	10/02/25 14:00	1
Cadmium	ND		1.0		ug/L		09/29/25 09:58	10/02/25 14:00	1
Chromium	ND		3.0		ug/L		09/29/25 09:58	10/02/25 14:00	1
Lead	ND		1.0		ug/L		09/29/25 09:58	10/02/25 14:00	1
Molybdenum	4.8		2.0		ug/L		09/29/25 09:58	10/02/25 14:00	1
Selenium	210		2.0		ug/L		09/29/25 09:58	10/02/25 14:00	1
Thallium	ND		1.0		ug/L		09/29/25 09:58	10/02/25 14:00	1

Client Sample Results

Client: Colorado Springs Utilities
Project/Site: CCR Landfill Day 1 and 2

Job ID: 280-214035-1

Client Sample ID: 528172 SC_11

Lab Sample ID: 280-214035-8

Date Collected: 09/24/25 12:16

Matrix: Water

Date Received: 09/26/25 10:00

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0		ug/L		09/29/25 09:58	10/01/25 21:42	1
Arsenic	ND		2.0		ug/L		09/29/25 09:58	10/01/25 21:42	1
Barium	7.7		2.0		ug/L		09/29/25 09:58	10/01/25 21:42	1
Beryllium	ND		1.0		ug/L		09/29/25 09:58	10/02/25 16:02	1
Cadmium	ND		1.0		ug/L		09/29/25 09:58	10/01/25 21:42	1
Chromium	ND		3.0		ug/L		09/29/25 09:58	10/01/25 21:42	1
Lead	ND		1.0		ug/L		09/29/25 09:58	10/01/25 21:42	1
Molybdenum	3.6		2.0		ug/L		09/29/25 09:58	10/01/25 21:42	1
Selenium	390		2.0		ug/L		09/29/25 09:58	10/02/25 16:02	1
Thallium	ND		1.0		ug/L		09/29/25 09:58	10/01/25 21:42	1

Client Sample Results

Client: Colorado Springs Utilities
Project/Site: CCR Landfill Day 1 and 2

Job ID: 280-214035-1

Client Sample ID: 528173 SC_12

Lab Sample ID: 280-214035-9

Date Collected: 09/24/25 11:05

Matrix: Water

Date Received: 09/26/25 10:00

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0		ug/L		09/29/25 09:58	10/01/25 21:46	1
Arsenic	ND		2.0		ug/L		09/29/25 09:58	10/01/25 21:46	1
Barium	6.2		2.0		ug/L		09/29/25 09:58	10/01/25 21:46	1
Beryllium	ND		1.0		ug/L		09/29/25 09:58	10/02/25 16:06	1
Cadmium	ND		1.0		ug/L		09/29/25 09:58	10/01/25 21:46	1
Chromium	ND		3.0		ug/L		09/29/25 09:58	10/01/25 21:46	1
Lead	ND		1.0		ug/L		09/29/25 09:58	10/01/25 21:46	1
Molybdenum	4.8		2.0		ug/L		09/29/25 09:58	10/01/25 21:46	1
Selenium	14		2.0		ug/L		09/29/25 09:58	10/02/25 16:06	1
Thallium	ND		1.0		ug/L		09/29/25 09:58	10/01/25 21:46	1

Client Sample Results

Client: Colorado Springs Utilities
Project/Site: CCR Landfill Day 1 and 2

Job ID: 280-214035-1

Client Sample ID: 528174 SC_13

Lab Sample ID: 280-214035-10

Date Collected: 09/24/25 09:18

Matrix: Water

Date Received: 09/26/25 10:00

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0		ug/L		09/29/25 09:58	10/01/25 21:50	1
Arsenic	ND		2.0		ug/L		09/29/25 09:58	10/01/25 21:50	1
Barium	6.7		2.0		ug/L		09/29/25 09:58	10/01/25 21:50	1
Beryllium	ND		1.0		ug/L		09/29/25 09:58	10/02/25 16:10	1
Cadmium	ND		1.0		ug/L		09/29/25 09:58	10/01/25 21:50	1
Chromium	ND		3.0		ug/L		09/29/25 09:58	10/01/25 21:50	1
Lead	ND		1.0		ug/L		09/29/25 09:58	10/01/25 21:50	1
Molybdenum	3.8		2.0		ug/L		09/29/25 09:58	10/01/25 21:50	1
Selenium	29		2.0		ug/L		09/29/25 09:58	10/02/25 16:10	1
Thallium	ND		1.0		ug/L		09/29/25 09:58	10/01/25 21:50	1

Client Sample Results

Client: Colorado Springs Utilities
Project/Site: CCR Landfill Day 1 and 2

Job ID: 280-214035-1

Client Sample ID: 528175 SC_14

Lab Sample ID: 280-214035-11

Date Collected: 09/24/25 08:23

Matrix: Water

Date Received: 09/26/25 10:00

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0		ug/L		09/29/25 09:58	10/01/25 21:53	1
Arsenic	ND		2.0		ug/L		09/29/25 09:58	10/01/25 21:53	1
Barium	5.3		2.0		ug/L		09/29/25 09:58	10/01/25 21:53	1
Beryllium	ND		1.0		ug/L		09/29/25 09:58	10/02/25 16:14	1
Cadmium	ND		1.0		ug/L		09/29/25 09:58	10/01/25 21:53	1
Chromium	ND		3.0		ug/L		09/29/25 09:58	10/01/25 21:53	1
Lead	ND		1.0		ug/L		09/29/25 09:58	10/01/25 21:53	1
Molybdenum	12		2.0		ug/L		09/29/25 09:58	10/01/25 21:53	1
Selenium	7.9		2.0		ug/L		09/29/25 09:58	10/02/25 16:14	1
Thallium	ND		1.0		ug/L		09/29/25 09:58	10/01/25 21:53	1

Client Sample Results

Client: Colorado Springs Utilities
Project/Site: CCR Landfill Day 1 and 2

Job ID: 280-214035-1

Client Sample ID: 528176 FIELD_DUP

Lab Sample ID: 280-214035-12

Date Collected: 09/24/25 00:00

Matrix: Water

Date Received: 09/26/25 10:00

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0		ug/L		09/29/25 09:58	10/01/25 21:57	1
Arsenic	ND		2.0		ug/L		09/29/25 09:58	10/01/25 21:57	1
Barium	5.7		2.0		ug/L		09/29/25 09:58	10/01/25 21:57	1
Beryllium	ND		1.0		ug/L		09/29/25 09:58	10/02/25 16:17	1
Cadmium	ND		1.0		ug/L		09/29/25 09:58	10/01/25 21:57	1
Chromium	ND		3.0		ug/L		09/29/25 09:58	10/01/25 21:57	1
Lead	ND		1.0		ug/L		09/29/25 09:58	10/01/25 21:57	1
Molybdenum	3.8		2.0		ug/L		09/29/25 09:58	10/01/25 21:57	1
Selenium	29		2.0		ug/L		09/29/25 09:58	10/02/25 16:17	1
Thallium	ND		1.0		ug/L		09/29/25 09:58	10/01/25 21:57	1

QC Sample Results

Client: Colorado Springs Utilities
Project/Site: CCR Landfill Day 1 and 2

Job ID: 280-214035-1

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 280-715280/1-A

Matrix: Water

Analysis Batch: 715953

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 715280

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		2.0		ug/L		09/29/25 09:58	10/02/25 15:13	1
Arsenic	ND		2.0		ug/L		09/29/25 09:58	10/02/25 15:13	1
Barium	ND		2.0		ug/L		09/29/25 09:58	10/02/25 15:13	1
Beryllium	ND		1.0		ug/L		09/29/25 09:58	10/02/25 15:13	1
Cadmium	ND		1.0		ug/L		09/29/25 09:58	10/02/25 15:13	1
Chromium	ND		3.0		ug/L		09/29/25 09:58	10/02/25 15:13	1
Lead	ND		1.0		ug/L		09/29/25 09:58	10/02/25 15:13	1
Molybdenum	ND		2.0		ug/L		09/29/25 09:58	10/02/25 15:13	1
Selenium	ND		2.0		ug/L		09/29/25 09:58	10/02/25 15:13	1
Thallium	ND		1.0		ug/L		09/29/25 09:58	10/02/25 15:13	1

Lab Sample ID: LCS 280-715280/2-A

Matrix: Water

Analysis Batch: 715953

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 715280

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	40.0	41.3		ug/L		103	85 - 115
Arsenic	40.0	42.2		ug/L		106	85 - 115
Barium	40.0	42.7		ug/L		107	85 - 115
Beryllium	40.0	41.3		ug/L		103	85 - 115
Cadmium	40.0	39.7		ug/L		99	85 - 115
Chromium	40.0	39.7		ug/L		99	85 - 115
Lead	40.0	39.0		ug/L		98	85 - 115
Molybdenum	40.0	40.1		ug/L		100	85 - 115
Selenium	40.0	42.6		ug/L		107	85 - 115
Thallium	40.0	38.7		ug/L		97	85 - 115

Lab Sample ID: 280-214035-3 MS

Matrix: Water

Analysis Batch: 715953

Client Sample ID: 528167 FC_2

Prep Type: Total/NA

Prep Batch: 715280

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	ND		40.0	40.5		ug/L		101	75 - 125
Arsenic	ND		40.0	42.2		ug/L		106	75 - 125
Barium	6.1		40.0	47.3		ug/L		103	75 - 125
Beryllium	ND		40.0	46.1		ug/L		115	75 - 125
Cadmium	ND		40.0	37.4		ug/L		94	75 - 125
Chromium	ND		40.0	39.7		ug/L		99	75 - 125
Lead	ND		40.0	35.9		ug/L		90	75 - 125
Molybdenum	2.8		40.0	44.2		ug/L		103	75 - 125
Selenium	42		40.0	84.8		ug/L		108	75 - 125
Thallium	ND		40.0	35.6		ug/L		89	75 - 125

Lab Sample ID: 280-214035-3 MSD

Matrix: Water

Analysis Batch: 715953

Client Sample ID: 528167 FC_2

Prep Type: Total/NA

Prep Batch: 715280

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Antimony	ND		40.0	40.4		ug/L		101	75 - 125	0	20

Eurofins Denver

QC Sample Results

Client: Colorado Springs Utilities
Project/Site: CCR Landfill Day 1 and 2

Job ID: 280-214035-1

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: 280-214035-3 MSD

Matrix: Water

Analysis Batch: 715953

Client Sample ID: 528167 FC_2

Prep Type: Total/NA

Prep Batch: 715280

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Arsenic	ND		40.0	42.9		ug/L		107	75 - 125	2	20
Barium	6.1		40.0	46.7		ug/L		101	75 - 125	1	20
Beryllium	ND		40.0	46.8		ug/L		117	75 - 125	1	20
Cadmium	ND		40.0	37.3		ug/L		93	75 - 125	0	20
Chromium	ND		40.0	39.7		ug/L		99	75 - 125	0	20
Lead	ND		40.0	35.3		ug/L		88	75 - 125	2	20
Molybdenum	2.8		40.0	44.1		ug/L		103	75 - 125	0	20
Selenium	42		40.0	85.0		ug/L		108	75 - 125	0	20
Thallium	ND		40.0	35.2		ug/L		88	75 - 125	1	20

Lab Sample ID: 280-214035-7 MS

Matrix: Water

Analysis Batch: 715953

Client Sample ID: 528171 SC_10

Prep Type: Total/NA

Prep Batch: 715280

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Antimony	ND		40.0	42.1		ug/L		105	75 - 125		
Arsenic	ND		40.0	41.7		ug/L		103	75 - 125		
Barium	9.5		40.0	50.1		ug/L		101	75 - 125		
Beryllium	ND		40.0	46.2		ug/L		116	75 - 125		
Cadmium	ND		40.0	36.3		ug/L		91	75 - 125		
Chromium	ND		40.0	36.8		ug/L		92	75 - 125		
Lead	ND		40.0	35.9		ug/L		89	75 - 125		
Molybdenum	4.8		40.0	44.0		ug/L		98	75 - 125		
Selenium	210		40.0	255	4	ug/L		99	75 - 125		
Thallium	ND		40.0	35.0		ug/L		88	75 - 125		

Lab Sample ID: 280-214035-7 MSD

Matrix: Water

Analysis Batch: 715953

Client Sample ID: 528171 SC_10

Prep Type: Total/NA

Prep Batch: 715280

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Antimony	ND		40.0	42.7		ug/L		107	75 - 125	1	20
Arsenic	ND		40.0	41.6		ug/L		103	75 - 125	0	20
Barium	9.5		40.0	51.0		ug/L		104	75 - 125	2	20
Beryllium	ND		40.0	46.9		ug/L		117	75 - 125	2	20
Cadmium	ND		40.0	37.2		ug/L		93	75 - 125	2	20
Chromium	ND		40.0	37.5		ug/L		94	75 - 125	2	20
Lead	ND		40.0	36.3		ug/L		89	75 - 125	1	20
Molybdenum	4.8		40.0	44.9		ug/L		100	75 - 125	2	20
Selenium	210		40.0	257	4	ug/L		104	75 - 125	1	20
Thallium	ND		40.0	35.8		ug/L		90	75 - 125	2	20

QC Association Summary

Client: Colorado Springs Utilities
Project/Site: CCR Landfill Day 1 and 2

Job ID: 280-214035-1

Metals

Prep Batch: 715280

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-214035-1	528165 CC_1	Total/NA	Water	3005A	
280-214035-2	528166 FC_1	Total/NA	Water	3005A	
280-214035-3	528167 FC_2	Total/NA	Water	3005A	
280-214035-4	528168 FC_3A	Total/NA	Water	3005A	
280-214035-5	528169 FC_3B	Total/NA	Water	3005A	
280-214035-6	528170 EQUIP_BLK	Total/NA	Water	3005A	
280-214035-7	528171 SC_10	Total/NA	Water	3005A	
280-214035-8	528172 SC_11	Total/NA	Water	3005A	
280-214035-9	528173 SC_12	Total/NA	Water	3005A	
280-214035-10	528174 SC_13	Total/NA	Water	3005A	
280-214035-11	528175 SC_14	Total/NA	Water	3005A	
280-214035-12	528176 FIELD_DUP	Total/NA	Water	3005A	
MB 280-715280/1-A	Method Blank	Total/NA	Water	3005A	
LCS 280-715280/2-A	Lab Control Sample	Total/NA	Water	3005A	
280-214035-3 MS	528167 FC_2	Total/NA	Water	3005A	
280-214035-3 MSD	528167 FC_2	Total/NA	Water	3005A	
280-214035-7 MS	528171 SC_10	Total/NA	Water	3005A	
280-214035-7 MSD	528171 SC_10	Total/NA	Water	3005A	

Analysis Batch: 715807

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-214035-6	528170 EQUIP_BLK	Total/NA	Water	6020B	715280
280-214035-8	528172 SC_11	Total/NA	Water	6020B	715280
280-214035-9	528173 SC_12	Total/NA	Water	6020B	715280
280-214035-10	528174 SC_13	Total/NA	Water	6020B	715280
280-214035-11	528175 SC_14	Total/NA	Water	6020B	715280
280-214035-12	528176 FIELD_DUP	Total/NA	Water	6020B	715280

Analysis Batch: 715953

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-214035-1	528165 CC_1	Total/NA	Water	6020B	715280
280-214035-2	528166 FC_1	Total/NA	Water	6020B	715280
280-214035-3	528167 FC_2	Total/NA	Water	6020B	715280
280-214035-4	528168 FC_3A	Total/NA	Water	6020B	715280
280-214035-5	528169 FC_3B	Total/NA	Water	6020B	715280
280-214035-6	528170 EQUIP_BLK	Total/NA	Water	6020B	715280
280-214035-7	528171 SC_10	Total/NA	Water	6020B	715280
280-214035-8	528172 SC_11	Total/NA	Water	6020B	715280
280-214035-9	528173 SC_12	Total/NA	Water	6020B	715280
280-214035-10	528174 SC_13	Total/NA	Water	6020B	715280
280-214035-11	528175 SC_14	Total/NA	Water	6020B	715280
280-214035-12	528176 FIELD_DUP	Total/NA	Water	6020B	715280
MB 280-715280/1-A	Method Blank	Total/NA	Water	6020B	715280
LCS 280-715280/2-A	Lab Control Sample	Total/NA	Water	6020B	715280
280-214035-3 MS	528167 FC_2	Total/NA	Water	6020B	715280
280-214035-3 MSD	528167 FC_2	Total/NA	Water	6020B	715280
280-214035-7 MS	528171 SC_10	Total/NA	Water	6020B	715280
280-214035-7 MSD	528171 SC_10	Total/NA	Water	6020B	715280

Lab Chronicle

Client: Colorado Springs Utilities
Project/Site: CCR Landfill Day 1 and 2

Job ID: 280-214035-1

Client Sample ID: 528165 CC_1

Lab Sample ID: 280-214035-1

Date Collected: 09/22/25 13:08

Matrix: Water

Date Received: 09/26/25 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3005A			50 mL	50 mL	715280	09/29/25 09:58	TR	EET DEN
Total/NA	Analysis	6020B		1			715953	10/02/25 13:53	LMT	EET DEN

Client Sample ID: 528166 FC_1

Lab Sample ID: 280-214035-2

Date Collected: 09/22/25 09:28

Matrix: Water

Date Received: 09/26/25 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3005A			50 mL	50 mL	715280	09/29/25 09:58	TR	EET DEN
Total/NA	Analysis	6020B		1			715953	10/02/25 13:56	LMT	EET DEN

Client Sample ID: 528167 FC_2

Lab Sample ID: 280-214035-3

Date Collected: 09/22/25 10:32

Matrix: Water

Date Received: 09/26/25 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3005A			50 mL	50 mL	715280	09/29/25 09:58	TR	EET DEN
Total/NA	Analysis	6020B		1			715953	10/02/25 15:24	LMT	EET DEN

Client Sample ID: 528168 FC_3A

Lab Sample ID: 280-214035-4

Date Collected: 09/22/25 14:45

Matrix: Water

Date Received: 09/26/25 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3005A			50 mL	50 mL	715280	09/29/25 09:58	TR	EET DEN
Total/NA	Analysis	6020B		1			715953	10/02/25 15:43	LMT	EET DEN

Client Sample ID: 528169 FC_3B

Lab Sample ID: 280-214035-5

Date Collected: 09/22/25 15:55

Matrix: Water

Date Received: 09/26/25 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3005A			50 mL	50 mL	715280	09/29/25 09:58	TR	EET DEN
Total/NA	Analysis	6020B		1			715953	10/02/25 15:47	LMT	EET DEN

Client Sample ID: 528170 EQUIP_BLK

Lab Sample ID: 280-214035-6

Date Collected: 09/22/25 16:20

Matrix: Water

Date Received: 09/26/25 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3005A			50 mL	50 mL	715280	09/29/25 09:58	TR	EET DEN
Total/NA	Analysis	6020B		1			715807	10/01/25 21:31	LMT	EET DEN
Total/NA	Prep	3005A			50 mL	50 mL	715280	09/29/25 09:58	TR	EET DEN
Total/NA	Analysis	6020B		1			715953	10/02/25 15:58	LMT	EET DEN

Eurofins Denver

Lab Chronicle

Client: Colorado Springs Utilities
Project/Site: CCR Landfill Day 1 and 2

Job ID: 280-214035-1

Client Sample ID: 528171 SC_10

Date Collected: 09/24/25 13:29

Date Received: 09/26/25 10:00

Lab Sample ID: 280-214035-7

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3005A			50 mL	50 mL	715280	09/29/25 09:58	TR	EET DEN
Total/NA	Analysis	6020B		1			715953	10/02/25 14:00	LMT	EET DEN

Client Sample ID: 528172 SC_11

Date Collected: 09/24/25 12:16

Date Received: 09/26/25 10:00

Lab Sample ID: 280-214035-8

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3005A			50 mL	50 mL	715280	09/29/25 09:58	TR	EET DEN
Total/NA	Analysis	6020B		1			715807	10/01/25 21:42	LMT	EET DEN
Total/NA	Prep	3005A			50 mL	50 mL	715280	09/29/25 09:58	TR	EET DEN
Total/NA	Analysis	6020B		1			715953	10/02/25 16:02	LMT	EET DEN

Client Sample ID: 528173 SC_12

Date Collected: 09/24/25 11:05

Date Received: 09/26/25 10:00

Lab Sample ID: 280-214035-9

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3005A			50 mL	50 mL	715280	09/29/25 09:58	TR	EET DEN
Total/NA	Analysis	6020B		1			715807	10/01/25 21:46	LMT	EET DEN
Total/NA	Prep	3005A			50 mL	50 mL	715280	09/29/25 09:58	TR	EET DEN
Total/NA	Analysis	6020B		1			715953	10/02/25 16:06	LMT	EET DEN

Client Sample ID: 528174 SC_13

Date Collected: 09/24/25 09:18

Date Received: 09/26/25 10:00

Lab Sample ID: 280-214035-10

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3005A			50 mL	50 mL	715280	09/29/25 09:58	TR	EET DEN
Total/NA	Analysis	6020B		1			715807	10/01/25 21:50	LMT	EET DEN
Total/NA	Prep	3005A			50 mL	50 mL	715280	09/29/25 09:58	TR	EET DEN
Total/NA	Analysis	6020B		1			715953	10/02/25 16:10	LMT	EET DEN

Client Sample ID: 528175 SC_14

Date Collected: 09/24/25 08:23

Date Received: 09/26/25 10:00

Lab Sample ID: 280-214035-11

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3005A			50 mL	50 mL	715280	09/29/25 09:58	TR	EET DEN
Total/NA	Analysis	6020B		1			715807	10/01/25 21:53	LMT	EET DEN
Total/NA	Prep	3005A			50 mL	50 mL	715280	09/29/25 09:58	TR	EET DEN
Total/NA	Analysis	6020B		1			715953	10/02/25 16:14	LMT	EET DEN

Lab Chronicle

Client: Colorado Springs Utilities
Project/Site: CCR Landfill Day 1 and 2

Job ID: 280-214035-1

Client Sample ID: 528176 FIELD_DUP

Lab Sample ID: 280-214035-12

Date Collected: 09/24/25 00:00

Matrix: Water

Date Received: 09/26/25 10:00

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3005A			50 mL	50 mL	715280	09/29/25 09:58	TR	EET DEN
Total/NA	Analysis	6020B		1			715807	10/01/25 21:57	LMT	EET DEN
Total/NA	Prep	3005A			50 mL	50 mL	715280	09/29/25 09:58	TR	EET DEN
Total/NA	Analysis	6020B		1			715953	10/02/25 16:17	LMT	EET DEN

Laboratory References:
EET DEN = Eurofins Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

Login Sample Receipt Checklist

Client: Colorado Springs Utilities

Job Number: 280-214035-1

Login Number: 214035

List Source: Eurofins Denver

List Number: 1

Creator: Roehsner, Karen P

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Anvada, CO 80002-4517
phone 303.736.0100 fax 303.431.7171

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Eurofins Environment Testing America

Client Contact		Project Manager: Kelly Nelson		Site Contact: Kelly Nelson		Date:		COC No:	
Colorado Springs Utilities		Email: kanelson@csu.org		Lab Contact: Shelby Turner		Carrier:		TALS Project #:	
701 E. Las Vegas St.		Tel/Fax: 719-668-3241		Analysis Turnaround Time		Sample: JDS		For Lab Use Only:	
Colorado Springs, CO 80903		☐ CALENDAR DAYS ☒ WORKING DAYS		TAT if different from Below		Walk-in Client:		Lab Sampling:	
719-668-3241		☒ 2 weeks		☐ 1 week		Job / SDG No.:			
(xxx) xxx-xxxx FAX		☐ 2 days		☐ 1 day					
Project Name: CCR Landfill Day 1 and 2									
Site:									
PO #									
Sample Identification		Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Sample Specific Notes:		
528165 CC_1		9/22/2025	13:08	G	GW	1			
528166 FC_1		9/22/2025	09:28	G	GW	1			
528167 FC_2		9/22/2025	10:32	G	GW	1			
528168 FC_3A		9/22/2025	14:45	G	GW	1			
528169 FC_3B		9/22/2025	15:55	G	GW	1			
528170 EQUIP_BLK		9/22/2025	16:20	G	GW	1			
528171 SC_10		9/24/2025	13:29	G	GW	1			
528172 SC_11		9/24/2025	12:16	G	GW	1			
528173 SC_12		9/24/2025	11:05	G	GW	1			
528174 SC_13		9/24/2025	09:18	G	GW	1			
528175 SC_14		9/24/2025	08:23	G	GW	1			
528176 FIELD_DUP		9/24/2025	00:00	G	GW	1			
Preservation Used: 1= Ice, 2= H2SO4; 3= HCl; 4=HNO3; 5=NaOH; 6= Other									
Possible Hazard Identification:									
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.									
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown									
Special Instructions/QC Requirements & Comments: Use lowest dilution possible if dilution is needed. RL reporting only.									
Custody Seals Intact: ☐ Yes ☐ No									
Relinquished by: <i>[Signature]</i>		Custody Seal No.:						Therm ID No.: 2624	
Relinquished by: <i>[Signature]</i>		Company: COLORADO SPRINGS UTILITIES						Date/Time: 09/23/25	
Relinquished by:		Company:						Date/Time:	
Relinquished by:		Company:						Date/Time:	

December 04, 2025

Report to:

Kelly Nelson

Colorado Springs Utilities

701 E. Las Vegas

Colorado Springs, CO 80903

Bill to:

Kelly Nelson

Colorado Springs Utilities

701 E. Las Vegas

Colorado Springs, CO 80903

Project ID:

ACZ Project ID: L97442

Kelly Nelson:

Enclosed are revised analytical results for sample(s) submitted to ACZ Laboratories, Inc. (ACZ) on October 01, 2025 and originally reported on October 13, 2025. Refer to the case narrative for an explanation of the changes. This project was assigned to ACZ's project number, L97442. Please reference this number in all future inquiries.

All analyses were performed according to ACZ's Quality Assurance Plan. The enclosed results relate only to the samples received under L97442. Each section of this report has been reviewed and approved by the appropriate Laboratory Supervisor, or a qualified substitute.

Except as noted, the test results for the methods and parameters listed on ACZ's current NELAC certificate letter (#ACZ) meet all requirements of NELAC.

This report shall be used or copied only in its entirety. ACZ is not responsible for the consequences arising from the use of a partial report.

All samples and sub-samples associated with this project will be disposed of after November 12, 2025. If the samples are determined to be hazardous, additional charges apply for disposal (typically less than \$10/sample). If you would like the samples to be held longer than ACZ's stated policy or to be returned, please contact your Project Manager or Customer Service Representative for further details and associated costs. ACZ retains analytical reports for five years.

If you have any questions or other needs, please contact your Project Manager.

Madeleine Murray

Madeleine Murray has reviewed
and approved this report.



Colorado Springs Utilities

December 04, 2025

Project ID:

ACZ Project ID: L97442

Sample Receipt

ACZ Laboratories, Inc. (ACZ) received 12 groundwater samples from Colorado Springs Utilities on October 1, 2025. The samples were received in good condition. Upon receipt, the sample custodian removed the samples from the cooler, inspected the contents, and logged the samples into ACZ's computerized Laboratory Information Management System (LIMS). The samples were assigned ACZ LIMS project number L97442. The custodian verified the sample information entered into the computer against the chain of custody (COC) forms and sample bottle labels.

Holding Times

All analyses were performed within EPA recommended holding times.

Sample Analysis

These samples were analyzed for inorganic parameters. The individual methods are referenced on both, the ACZ invoice and the analytical reports.

This report was revised on 12/2/25 to report results to the PQL. This change was made at the client's request. No other changes were made.

The report was revised further on 12/4/25 to update the undetected result for L97442-06 to reflect the PQL value. No other changes were made.

Colorado Springs Utilities

Project ID:

Sample ID: 528165 CC_1

ACZ Sample ID: **L97442-01**

Date Sampled: 09/22/25 13:08

Date Received: 10/01/25

Sample Matrix: Groundwater

Metals Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	PQL	Date	Analyst
Mercury, total	EPA 1631E	1	5.27			ng/L	1	10/10/25 11:31	scp

Colorado Springs Utilities

Project ID:

Sample ID: 528166 FC_1

ACZ Sample ID: **L97442-02**

Date Sampled: 09/22/25 09:28

Date Received: 10/01/25

Sample Matrix: Groundwater

Metals Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	PQL	Date	Analyst
Mercury, total	EPA 1631E	1	1.75			ng/L	1	10/10/25 11:35	scp

Colorado Springs Utilities

Project ID:

Sample ID: 528167 FC_2

ACZ Sample ID: **L97442-03**

Date Sampled: 09/22/25 10:32

Date Received: 10/01/25

Sample Matrix: Groundwater

Metals Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	PQL	Date	Analyst
Mercury, total	EPA 1631E	1	2.25			ng/L	1	10/10/25 11:40	scp

Colorado Springs Utilities

Project ID:

Sample ID: 528168 FC_3A

ACZ Sample ID: **L97442-04**

Date Sampled: 09/22/25 14:45

Date Received: 10/01/25

Sample Matrix: Groundwater

Metals Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	PQL	Date	Analyst
Mercury, total	EPA 1631E	1	1.47			ng/L	1	10/10/25 11:54	scp

Colorado Springs Utilities

Project ID:

Sample ID: 528169 FC_3B

ACZ Sample ID: **L97442-05**

Date Sampled: 09/22/25 15:55

Date Received: 10/01/25

Sample Matrix: Groundwater

Metals Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	PQL	Date	Analyst
Mercury, total	EPA 1631E	1	3.95		*	ng/L	1	10/10/25 12:03	scp

Colorado Springs Utilities

Project ID:

Sample ID: 528170 EQUIP_BLK

ACZ Sample ID: **L97442-06**

Date Sampled: 09/22/25 16:20

Date Received: 10/01/25

Sample Matrix: Groundwater

Metals Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	PQL	Date	Analyst
Mercury, total	EPA 1631E	1	<1	U	*	ng/L	1	10/10/25 12:08	scp

Colorado Springs Utilities

Project ID:

Sample ID: 528171 SC_10

ACZ Sample ID: **L97442-07**

Date Sampled: 09/24/25 13:29

Date Received: 10/01/25

Sample Matrix: Groundwater

Metals Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	PQL	Date	Analyst
Mercury, total	EPA 1631E	1	5.97		*	ng/L	1	10/10/25 12:12	scp

Colorado Springs Utilities

Project ID:

Sample ID: 528172 SC_11

ACZ Sample ID: **L97442-08**

Date Sampled: 09/24/25 12:16

Date Received: 10/01/25

Sample Matrix: Groundwater

Metals Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	PQL	Date	Analyst
Mercury, total	EPA 1631E	1	7.72		*	ng/L	1	10/10/25 12:35	scp

Colorado Springs Utilities

Project ID:

Sample ID: 528173 SC_12

ACZ Sample ID: **L97442-09**

Date Sampled: 09/24/25 11:05

Date Received: 10/01/25

Sample Matrix: Groundwater

Metals Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	PQL	Date	Analyst
Mercury, total	EPA 1631E	1	1.98		*	ng/L	1	10/10/25 12:40	scp

Colorado Springs Utilities

Project ID:

Sample ID: 528174 SC_13

ACZ Sample ID: **L97442-10**

Date Sampled: 09/24/25 09:18

Date Received: 10/01/25

Sample Matrix: Groundwater

Metals Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	PQL	Date	Analyst
Mercury, total	EPA 1631E	1	1.49		*	ng/L	1	10/10/25 12:44	scp

Colorado Springs Utilities

Project ID:

Sample ID: 528175 SC_14

ACZ Sample ID: **L97442-11**

Date Sampled: 09/24/25 08:23

Date Received: 10/01/25

Sample Matrix: Groundwater

Metals Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	PQL	Date	Analyst
Mercury, total	EPA 1631E	1	1.40		*	ng/L	1	10/10/25 12:49	scp

Colorado Springs Utilities

Project ID:

Sample ID: 528176 FIELD_DUP

ACZ Sample ID: **L97442-12**

Date Sampled: 09/24/25 00:00

Date Received: 10/01/25

Sample Matrix: Groundwater

Metals Analysis

Parameter	EPA Method	Dilution	Result	Qual	XQ	Units	PQL	Date	Analyst
Mercury, total	EPA 1631E	1	1.51		*	ng/L	1	10/10/25 12:53	scp



Report Header Explanations

<i>Batch</i>	A distinct set of samples analyzed at a specific time
<i>Found</i>	Value of the QC Type of interest
<i>Limit</i>	Upper limit for RPD, in %.
<i>Lower</i>	Lower Recovery Limit, in % (except for LCSS, mg/Kg)
<i>MDL</i>	Method Detection Limit. Same as Minimum Reporting Limit unless omitted or equal to the PQL (see comment #5). Allows for instrument and annual fluctuations.
<i>PCN/SCN</i>	A number assigned to reagents/standards to trace to the manufacturer's certificate of analysis
<i>PQL</i>	Practical Quantitation Limit. Synonymous with the EPA term "minimum level".
<i>QC</i>	True Value of the Control Sample or the amount added to the Spike
<i>Rec</i>	Recovered amount of the true value or spike added, in % (except for LCSS, mg/Kg)
<i>RPD</i>	Relative Percent Difference, calculation used for Duplicate QC Types
<i>Upper</i>	Upper Recovery Limit, in % (except for LCSS, mg/Kg)
<i>Sample</i>	Value of the Sample of interest

QC Sample Types

<i>AS</i>	Analytical Spike (Post Digestion)	<i>LCSWD</i>	Laboratory Control Sample - Water Duplicate
<i>ASD</i>	Analytical Spike (Post Digestion) Duplicate	<i>LFB</i>	Laboratory Fortified Blank
<i>CCB</i>	Continuing Calibration Blank	<i>LFM</i>	Laboratory Fortified Matrix
<i>CCV</i>	Continuing Calibration Verification standard	<i>LFMD</i>	Laboratory Fortified Matrix Duplicate
<i>DUP</i>	Sample Duplicate	<i>LRB</i>	Laboratory Reagent Blank
<i>ICB</i>	Initial Calibration Blank	<i>MS</i>	Matrix Spike
<i>ICV</i>	Initial Calibration Verification standard	<i>MSD</i>	Matrix Spike Duplicate
<i>ICSAB</i>	Inter-element Correction Standard - A plus B solutions	<i>PBS</i>	Prep Blank - Soil
<i>LCSS</i>	Laboratory Control Sample - Soil	<i>PBW</i>	Prep Blank - Water
<i>LCSSD</i>	Laboratory Control Sample - Soil Duplicate	<i>PQV</i>	Practical Quantitation Verification standard
<i>LCSW</i>	Laboratory Control Sample - Water	<i>SDL</i>	Serial Dilution

QC Sample Type Explanations

Blanks	Verifies that there is no or minimal contamination in the prep method or calibration procedure.
Control Samples	Verifies the accuracy of the method, including the prep procedure.
Duplicates	Verifies the precision of the instrument and/or method.
Spikes/Fortified Matrix	Determines sample matrix interferences, if any.
Standard	Verifies the validity of the calibration.

ACZ Qualifiers (Qual)

B	Analyte concentration detected at a value between MDL and PQL. The associated value is an estimated quantity.
H	Analysis exceeded method hold time. pH is a field test with an immediate hold time.
L	Target analyte response was below the laboratory defined negative threshold.
U	The material was analyzed for, but was not detected above the level of the associated value. The associated value is either the sample quantitation limit or the sample detection limit.

Method References

- (1) EPA 600/4-83-020. Methods for Chemical Analysis of Water and Wastes, March 1983.
- (2) EPA 600/R-93-100. Methods for the Determination of Inorganic Substances in Environmental Samples, August 1993.
- (3) EPA 600/R-94-111. Methods for the Determination of Metals in Environmental Samples - Supplement I, May 1994.
- (4) EPA SW-846. Test Methods for Evaluating Solid Waste.
- (5) Standard Methods for the Examination of Water and Wastewater.

Comments

- (1) QC results calculated from raw data. Results may vary slightly if the rounded values are used in the calculations.
- (2) Soil, Sludge, and Plant matrices for Inorganic analyses are reported on a dry weight basis.
- (3) Animal matrices for Inorganic analyses are reported on an "as received" basis.
- (4) An asterisk in the "XQ" column indicates there is an extended qualifier and/or certification qualifier associated with the result.
- (5) If the MDL equals the PQL or the MDL column is omitted, the PQL is the reporting limit.

For a complete list of ACZ's Extended Qualifiers, please click:

<https://acz.com/wp-content/uploads/2019/04/Ext-Qual-List.pdf>

Colorado Springs Utilities

ACZ Project ID: **L97442**

NOTE: If the Rec% column is null, the high/low limits are in the same units as the result. If the Rec% column is not null, then the high/low limits are in % Rec.

Mercury, total

EPA 1631E

ACZ ID	Type	Analyzed	PCN/SCN	QC	Sample	Found	Units	Rec%	Lower	Upper	RPD	Limit	Qual
WG621422													
WG621422ICV	ICV	10/06/25 13:12	HG250911-4	10		10.4	ng/L	104	79	121			
WG621422ICB	ICB	10/06/25 13:17				U	ng/L		-0.501	0.501			
WG621621													
WG621621CCV1	CCV	10/10/25 9:32	HG250911-4	10		9.71	ng/L	97	76.5	123.4			
WG621621CCB1	CCB	10/10/25 9:37				U	ng/L		-0.501	0.501			
WG621621PQV	PQV	10/10/25 9:42	HG250911-6	1		1.01	ng/L	101	70	130			
WG621621LFB1	LFB	10/10/25 9:46	HG250911-5	2		2.12	ng/L	106	71	125			
WG621621CCV2	CCV	10/10/25 10:27	HG250911-4	10		10.9	ng/L	109	76.5	123.4			
WG621621CCB2	CCB	10/10/25 10:32				U	ng/L		-0.501	0.501			
WG621621CCV3	CCV	10/10/25 11:22	HG250911-4	10		11.1	ng/L	111	76.5	123.4			
WG621621CCB3	CCB	10/10/25 11:26				U	ng/L		-0.501	0.501			
L97442-03MS	MS	10/10/25 11:45	HG250911-5	2	2.25	4.4	ng/L	108	71	125			
L97442-03MSD	MSD	10/10/25 11:49	HG250911-5	2	2.25	4.19	ng/L	97	71	125	5	24	
WG621621LFB2	LFB	10/10/25 11:59	HG250911-5	2		2.2	ng/L	110	71	125			
WG621621CCV4	CCV	10/10/25 12:17	HG250911-4	10		10.6	ng/L	106	76.5	123.4			
WG621621CCB4	CCB	10/10/25 12:21				U	ng/L		-0.501	0.501			
L97442-07MS	MS	10/10/25 12:26	HG250911-5	2	5.97	8.55	ng/L	129	71	125			MA
L97442-07MSD	MSD	10/10/25 12:30	HG250911-5	2	5.97	7.93	ng/L	98	71	125	8	24	
WG621621CCV5	CCV	10/10/25 13:11	HG250911-4	10		10.6	ng/L	106	76.5	123.4			
WG621621CCB5	CCB	10/10/25 13:16				U	ng/L		-0.501	0.501			

Colorado Springs Utilities

ACZ Project ID: **L97442**

ACZ ID	WORKNUM	PARAMETER	METHOD	QUAL	DESCRIPTION
L97442-05	WG621621	Mercury, total	EPA 1631E	MA	Recovery for either the spike or spike duplicate was outside of the acceptance limits; the RPD was within the acceptance limits.
L97442-06	WG621621	Mercury, total	EPA 1631E	MA	Recovery for either the spike or spike duplicate was outside of the acceptance limits; the RPD was within the acceptance limits.
L97442-07	WG621621	Mercury, total	EPA 1631E	MA	Recovery for either the spike or spike duplicate was outside of the acceptance limits; the RPD was within the acceptance limits.
L97442-08	WG621621	Mercury, total	EPA 1631E	MA	Recovery for either the spike or spike duplicate was outside of the acceptance limits; the RPD was within the acceptance limits.
L97442-09	WG621621	Mercury, total	EPA 1631E	MA	Recovery for either the spike or spike duplicate was outside of the acceptance limits; the RPD was within the acceptance limits.
L97442-10	WG621621	Mercury, total	EPA 1631E	MA	Recovery for either the spike or spike duplicate was outside of the acceptance limits; the RPD was within the acceptance limits.
L97442-11	WG621621	Mercury, total	EPA 1631E	MA	Recovery for either the spike or spike duplicate was outside of the acceptance limits; the RPD was within the acceptance limits.
L97442-12	WG621621	Mercury, total	EPA 1631E	MA	Recovery for either the spike or spike duplicate was outside of the acceptance limits; the RPD was within the acceptance limits.

Colorado Springs Utilities

ACZ Project ID: **L97442**

No certification qualifiers associated with this analysis

Colorado Springs Utilities

ACZ Project ID: L97442

Date Received: 10/01/2025 11:44

Received By:

Date Printed: 10/2/2025

Receipt Verification

	YES	NO	NA
1) Is a foreign soil permit included for applicable samples?	☐	☐	☒
2) Is the Chain of Custody form or other directive shipping papers present?	☒	☐	☐
3) Does this project require special handling procedures such as CLP protocol?	☐	☒	☐
4) Are any samples NRC licensable material?	☐	☐	☒
5) If samples are received past hold time, proceed with requested short hold time analyses?	☒	☐	☐
6) Is the Chain of Custody form complete and accurate?	☒	☐	☐
7) Were any changes made to the Chain of Custody form prior to ACZ receiving the samples?	☐	☒	☐

Samples/Containers

	YES	NO	NA
8) Are all containers intact and with no leaks?	☒	☐	☐
9) Are all labels on containers and are they intact and legible?	☒	☐	☐
10) Do the sample labels and Chain of Custody form match for Sample ID, Date, and Time?	☒	☐	☐
11) For preserved bottle types, was the pH checked and within limits? ¹	☐	☐	☒
12) Is there sufficient sample volume to perform all requested work?	☒	☐	☐
13) Is the custody seal intact on all containers?	☐	☐	☒
14) Are samples that require zero headspace acceptable?	☐	☐	☒
15) Are all sample containers appropriate for analytical requirements?	☒	☐	☐
16) Is there an Hg-1631 trip blank present?	☐	☒	☐
17) Is there a VOA trip blank present?	☐	☐	☒
18) Were all samples received within hold time?	☒	☐	☐

NA indicates Not Applicable

Chain of Custody Related Remarks

Client Contact Remarks

Shipping Containers

Cooler Id	Temp (°C)	Temp Criteria (°C)	Rad (µR/Hr)	Custody Seal Intact?
NA46333	18.7	NA	15	Yes
Ice Present? No - Wet or gel ice was not present in the shipment container(s).				

Was this a domestic shipment?

Yes - This is a domestic shipment.

Colorado Springs Utilities

ACZ Project ID: L97442

Date Received: 10/01/2025 11:44

Received By:

Date Printed: 10/2/2025

Client must contact an ACZ Project Manager if analysis should not proceed for samples received outside of their thermal preservation acceptance criteria.

¹ The preservation of the following bottle types is not checked at sample receipt: Orange (oil and grease), Purple (total cyanide), Pink (dissolved cyanide), Brown (arsenic speciation), Sterile (fecal coliform), EDTA (sulfite), HCl preserved vial (organics), Na₂S₂O₃ preserved vial (organics), and HG-1631 (total/dissolved mercury by method 1631).



Accredited
Environmental
Testing

2773 Downhill Drive
Steamboat Springs, CO 80487
(970) 879-6590

L97442

CHAIN of CUSTODY

Report to:

Name: Kelly Nelson

Company: Colorado Springs Utilities

E-mail: kanelson@csu.org

Address: 701 E. Las Vegas St.

Colorado Springs, CO 80903

Telephone: 719-668-3241

Copy of Report to:

Name: Kelly Nelson

Company: Colorado Springs Utilities

E-mail: kanelson@csu.org

Telephone: 719-668-3241

Invoice to:

Name: Kelly Nelson

Company: Colorado Springs Utilities

E-mail: kanelson@csu.org

Address: 701 E. Las Vegas St.

Colorado Springs, CO 80903

Telephone: 719-668-3241

Copy of Invoice to:

Name: Kelly Nelson

Company: Colorado Springs Utilities

E-mail: kanelson@csu.org

Address: 701 E. Las Vegas St.

Colorado Springs, CO 80903

Telephone: 719-668-3241

If sample(s) received past holding time (HT), or if insufficient HT remains to complete analysis before expiration, shall ACZ proceed with requested short HT analyses?

YES

NO



If "NO" then ACZ will contact client for further instruction. If neither "YES" nor "NO" is indicated, ACZ will proceed with the requested analyses, even if HT is expired, and data will be qualified.

Are samples for SDWA Compliance Monitoring?

Yes

No



If yes, please include state forms. Results will be reported to PQL for Colorado.

Sampler's Name: J. Suslow

Sampler's Site Information

State CO

Zip code

Time Zone

*Sampler's Signature:

I attest to the authenticity and validity of this sample. I understand that intentionally mislabeling the time/date/location or tampering with the sample in anyway, is considered fraud and punishable by State Law.

PROJECT INFORMATION

ANALYSES REQUESTED (Add rows for additional analyses)

Quote #:

PO#:

Reporting state for compliance testing:

Check box if samples include NRC licensed material?

SAMPLE IDENTIFICATION

DATE/TIME

Matrix

of Containers

Mercury (EPA 1631)

528165 CC_1

9/22/2025 13:08

GW

1

✓

528166 FC_1

9/22/2025 09:28

GW

1

✓

528167 FC_2

9/22/2025 10:32

GW

1

✓

528168 FC_3A

9/22/2025 14:45

GW

1

✓

528169 FC_3B

9/22/2025 15:55

GW

1

✓

528170 EQUIP_BLK

9/22/2025 16:20

GW

1

✓

Matrix

SW (Surface Water) · GW (Ground Water) · WW (Waste Water) · DW (Drinking Water) · SL (Sludge) · SO (Soil) · OL (Oil) · Other (Specify)

REMARKS

Past data on most sites between ND and 20ng/L.

Perform MS/MSD on sample 528167 FC_2

Please refer to ACZ's terms & conditions located on the reverse side of this COC.

RELINQUISHED BY:

DATE/TIME

RECEIVED BY:

DATE/TIME

[Signature]

09/25/25 CARD

[Signature]

10/1/25 1025

Qualtrax ID: 1984

Revision #: 2

White - Return with sample.

Yellow - Retain for your records.

1/2

L97442 Chain of Custody

COPY

pH < 2 VERIFICATION

TIME: 0956

INITIALS: *YD*

DATE: 09/24/2025

TIME: 09260

INITIALS: TOS

Colorado Springs Utilities
Laboratory Services
Grate Baskets

SECRET

Sample Date: 9/22/2025

Sample Date: 9/22/2025

LS9 WO# 4280715

Sample: J. Susan

LOCATION	# Bottles	LIMS #	Sample Time	OR, Fluid (mL) SM 4500 H	SM 4500 B	Conductivity, Field (microhm/cm) SM 2510 B	Oxidation Reduction Potential, Field (mV)	Dissolved Oxygen (mg/L)	Temperature, Field (mV) SM 2130 B	Depth to Water (ft)	performed on	Notes, SM 4500 F C (analyzed using Standard Addition)	Total Dissolved Solids, SM 2540 C	Chloride, Sulfate EPA 300.0	EPA 200.7 (B, Ca, Co, Cu & Li - Total)	EPA 8030 B (As, Ba, Bi, Br, Cd, Cr, Pb, Hg, Mn, Se & 11 - Total)	State to Bureau TA Denver	Agency, EPA 1631 (Sent to ACD)	Total Residues 220 & Residue 229 (Sent to Test)	Comments
OC_1	8		13:08	6.88	13.9	30521	326.4	0.18	40.76	13.00										
FC_1	8		9:28	7.01	13.8	22241	360.3	0.21	1.21	16.99										
FC_2	8		10:32	7.15	13.6	10028	300.1	0.11	3.73	15.02										
FC_3A	8		14:45	7.30	13.5	9083	246.4	0.15	7.08	19.58										
FC_3B	8		15:55	7.36	14.0	8725	10.4	0.07	3.20	18.95										
EQUIP_BULK	8		16:20																	
Total # of Bottles	48																			

Signature/Print last name

[Signature] SUSLOW

9/23/25 0710

Check if samples left in walk-in overnight ☒

Additional Comments / Sample Rejection/ Action

Window: COR LANDFILL
Project ID: COR LAND
Test Schedule: COR LAND

Samples are NOT stored in the field.

Check if samples left in walk-in overnight

Signature/Print last name

Reproduced by

Received by _____
Temperature Blank (deg C): 15.0 C

Date: 9/23
Notify Amber Holmberg if the temperature is >4 deg C

Notify Amber Holmberg if the temperature is >4 deg C

Notify Amber Holmberg if the temperature is >4 deg C

Notify Amber Holmberg if the temperature is >4 deg C

79 COPY

CCR Landfill Groundwater Assessment Downgradient and Cross Gradient Wells
Sample Date: 9/24/2025

1 Laboratory Analysis, 15% from
CCR Landfill Groundwater Assessment

Colorado Springs Utilities
Laboratory Services
Crab Samples

Sample: J. S. SUSTOW

LOCATION	#	Lot #	Sample Time	MC, Field (u)	MC, Lab (u)	Conductivity, Field (umhos/cm)	Conductivity, Lab (umhos/cm)	Oxidation Reduction Potential, Field (mV)	Dissolved Oxygen (mg/L)	Turbidity, Field (NTU, 9130 B)	Depth to Water (ft)	Check when sample should have been analyzed performed on 8	Fluoride, 841 4500 F C (analyzed using Standard Addition)	Chloride, 8414 EPA 300.0	EPA 200.7 (B, C, D, 4 U, 7000)	EPA 8220 B (B, C, D, 4 U, 7000)	Fluoride, EPA 1631 (B, C, D, 4 U, 7000)	Total Fluoride 228 & Fluorine 228 (Send to Test America B)	Comments
SC_10	8		13:29	7.17	14.2	1757	298.8	0.10	6.64	13.33	X								
SC_11	8		12:16	7.11	15.3	17357	286.0	0.12	5.75	10.31									
SC_12	8		11:05	7.16	15.4	13144	353.5	0.17	0.46	11.20									
SC_13	8		9:18	7.13	12.9	11244	390.9	0.13	4.30	11.62									
SC_14	8		8:23	7.20	11.6	10821	443.5	0.23	0.40	12.04									
FIELD_OUP	8		0:00																
Total # of Bottles	48																		

Check if sample left in well-to overnight

Signature of Analyst

Suslow 9-24-25 14:45

Receiving by

Received by

Temperature Blank (deg C): 0.9°C one
Date 09/24/2025

Check if sample left in well-to overnight

Additional Comments / Sample Preparation / Analysis
Workbox: CCR LANDFILL
Project ID: CCR LAND
Test Substance: CCR LAND
Samples are NOT filtered in the field.

SAMPLE PRESERVATION

DATE: 9/25/25
TIME: 1042
INITIALS: JMD

pH < 2 VERIFICATION

DATE: 9/25/25
TIME: 0910
INITIALS: JMD

ANALYTICAL REPORT

PREPARED FOR

Attn: Kelly Nelson
Colorado Springs Utilities
Laboratory Services Section
701 E. Las Vegas St., MC 1465
Colorado Springs, Colorado 80903

Generated 10/31/2025 4:24:54 PM

JOB DESCRIPTION

CCR Landfill Day 1 and 2

JOB NUMBER

160-59744-1

Eurofins St. Louis

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins TestAmerica Project Manager.

Authorization



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Case Narrative

Client: Colorado Springs Utilities
Project: CCR Landfill Day 1 and 2

Job ID: 160-59744-1

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Eurofins St. Louis

Job Narrative 160-59744-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition, all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method.

Eurofins Environment Testing attests to the validity of the laboratory data generated by Eurofins facilities reported herein. All analyses performed by Eurofins Environment Testing facilities were done using established laboratory SOPs that incorporate QA/QC procedures described in the application methods. Eurofins Environment Testing's operations groups have reviewed the data for compliance with the laboratory QA/QC plan, and data have been found to be compliant with laboratory protocols unless otherwise noted below.

The test results in this report meet all NELAP requirements for parameters for which accreditation is required or available. Any exceptions to NELAP requirements are noted in this report.

Calculations are performed before rounding to avoid round-off errors in calculated results.

Proper preservation was noted for the methods performed on these samples, unless otherwise detailed below.

All soil/sediment sample results for radiochemistry analyses are based upon sample as dried and disaggregated with the exception of tritium, carbon-14, and iodine-129 by gamma spectroscopy unless requested as wet weight by the client.

Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative.

Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date.

This laboratory report is confidential and is intended for the sole use of Eurofins TestAmerica and its client.

No additional analytical or quality issues were noted, other than those described below or in the Definitions/ Glossary page.

Receipt

The samples were received on 9/26/2025 8:40 AM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved. The temperature of the cooler at receipt time was 17.0°C.

Method 903.0 - Radium-226 (GFPC)

Samples 528165 CC_1 (160-59744-1), 528166 FC_1 (160-59744-2), 528167 FC_2 (160-59744-3), 528168 FC_3A (160-59744-4), 528169 FC_3B (160-59744-5), 528170 EQUIP_BLK (160-59744-6), 528171 SC_10 (160-59744-7), 528172 SC_11 (160-59744-8), 528173 SC_12 (160-59744-9), 528174 SC_13 (160-59744-10), 528175 SC_14 (160-59744-11) and 528176 FIELD_DUP (160-59744-12) were analyzed for Radium-226 (GFPC). The samples were prepared on 9/30/2025 and analyzed on 10/26/2025.

Method 904.0 - Radium-228 (GFPC)

Samples 528165 CC_1 (160-59744-1), 528166 FC_1 (160-59744-2), 528167 FC_2 (160-59744-3), 528168 FC_3A (160-59744-4), 528169 FC_3B (160-59744-5), 528170 EQUIP_BLK (160-59744-6), 528171 SC_10 (160-59744-7), 528172 SC_11 (160-59744-8), 528173 SC_12 (160-59744-9), 528174 SC_13 (160-59744-10), 528175 SC_14 (160-59744-11) and 528176 FIELD_DUP (160-59744-12) were analyzed for Radium-228 (GFPC). The samples were prepared on 9/30/2025 and 10/27/2025 and analyzed on 10/26/2025 and 10/31/2025.

The MDC for the following samples in batch 160-738367 is flagged as failing; The laboratory considers the detection goal (requested limit) met when rounding to the appropriate place value. 528169 FC_3B (160-59744-5), 528174 SC_13 (160-59744-10) and (160-59744-B-3-B DU)

The detection goal was not met for the following samples in batch 160-738367 due to a reduced sample volume used in prep attributed to the presence of matrix interferences. 528165 CC_1 (160-59744-1), 528166 FC_1 (160-59744-2) and 528168 FC_3A (160-59744-4)

Insufficient sample volume was available to perform a sample duplicate for the following in batch 160-742464: 528172 SC_11 (160-59744-8) and 528176 FIELD_DUP (160-59744-12). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision.

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Case Narrative

Client: Colorado Springs Utilities
Project: CCR Landfill Day 1 and 2

Job ID: 160-59744-1

Job ID: 160-59744-1 (Continued)

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The Laboratory Control Sample Duplicate (LCSD 160-742464/3-A) for batch 160-742464 recovered at (126%). The limits in our LIMS system at 75-125 reflect the requirements of a regulatory agency that represents a large amount of our work. However the samples associated with this LCSD are not from this agency and are therefore held to our in-house statistical limits of (68%-154%) per method requirements. The LCSD passes, no further action is required

The method blank (MB) associated with batch 160-742464 has activity above the MDC and RL. The following associated samples exhibit activity below the RL therefore, re-analysis is not required: 528172 SC_11 (160-59744-8), 528176 FIELD_DUP (160-59744-12) and (MB 160-742464/1-A). The data have been reported.

Method Ra226_Ra228 - Combined Radium-226 and Radium-228

Samples 528165 CC_1 (160-59744-1), 528166 FC_1 (160-59744-2), 528167 FC_2 (160-59744-3), 528168 FC_3A (160-59744-4), 528169 FC_3B (160-59744-5), 528170 EQUIP_BLK (160-59744-6), 528171 SC_10 (160-59744-7), 528172 SC_11 (160-59744-8), 528173 SC_12 (160-59744-9), 528174 SC_13 (160-59744-10), 528175 SC_14 (160-59744-11) and 528176 FIELD_DUP (160-59744-12) were analyzed for Combined Radium-226 and Radium-228. The samples were analyzed on 10/27/2025 and 10/31/2025.

Eurofins St. Louis

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TestAmerica Laboratories, Inc.

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☒ Other: Coal Combustion Rule

Client Contact		Project Manager: Kelly Nelson Tel/Fax: 719-668-3241		Site Contact: Rhonda Ridenhower		Date: _____		COC No: _____ of _____ COCs	
Colorado Springs Utilities		Analysis Turnaround Time		Lab Contact: Rhonda Ridenhower		Carrier: _____		Sampler: _____	
701 E. Las Vegas St.		☒ CALENDAR DAYS ☐ WORKING DAYS		Total Radium 226, EPA 903.0		Total Radium 228, EPA 904.0		Combined Ra 226 and Ra 228	
Colorado Springs, CO 80903		TAT # different from Below _____		Perform MS / MSD (Y / N)		Filtered Sample (Y / N)		Sample Specific Notes:	
(719) 668-3241 Phone		2 weeks		2		2		For Lab Use Only:	
(xxx) xxx-xxxx FAX		1 week		2		2		Walk-in Client:	
Project Name: CCR Landfill Day 1 and 2		2 days		2		2		Lab Sampling:	
Site:		1 day		2		2		Job / SDG No.:	
P O #				2		2			
Sample Identification		Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.			
528165 CC_1	09/22/2025	13:08	G	GW	2				
528166 FC_1	09/22/2025	09:28	G	GW	2				
528167 FC_2	09/22/2025	10:32	G	GW	2				
528168 FC_3A	09/22/2025	14:45	G	GW	2				
528169 FC_3B	09/22/2025	15:55	G	GW	2				
528170 EQUIP_BLK	09/22/2025	16:20	G	GW	2				
528171 SC_10	09/24/2025	13:29	G	GW	2				
528172 SC_11	09/24/2025	12:16	G	GW	2				
528173 SC_12	09/24/2025	11:05	G	GW	2				
528174 SC_13	09/24/2025	09:18	G	GW	2				
528175 SC_14	09/24/2025	08:23	G	GW	2				
528176 FIELD_DUP	09/24/2025	00:00	G	GW	2				
Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4= HNO3; 5= NaOH; 6= Other									
Possible Hazard Identification: Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.									
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown							Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months		
Special Instructions/QC Requirements & Comments: Please be sure to use the listed method numbers. Sampler: J. Suslow									
Custody Seals Intact: ☐ Yes ☐ No		Custody Seal No.:		Cooler Temp. (°C):		Obs'd:		Corr'd:	
Relinquished by: <i>[Signature]</i>		Company: COLORADO SPRINGS UTILITIES		Date/Time: 9/25/25		Received by: <i>[Signature]</i>		Company: <i>[Signature]</i>	
Relinquished by:		Company:		Date/Time:		Received by:		Company:	
Relinquished by:		Company:		Date/Time:		Received in Laboratory by:		Company:	

Login Sample Receipt Checklist

Client: Colorado Springs Utilities

Job Number: 160-59744-1

Login Number: 59744

List Number: 1

Creator: Worthington, Sierra M

List Source: Eurofins St. Louis

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Definitions/Glossary

Client: Colorado Springs Utilities
Project/Site: CCR Landfill Day 1 and 2

Job ID: 160-59744-1

Qualifiers

Rad

Qualifier	Qualifier Description
G	The Sample MDC is greater than the requested RL.
U	Result is less than the sample detection limit.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Method Summary

Client: Colorado Springs Utilities
Project/Site: CCR Landfill Day 1 and 2

Job ID: 160-59744-1

Method	Method Description	Protocol	Laboratory
903.0	Radium-226 (GFPC)	EPA	EET SL
904.0	Radium-228 (GFPC)	EPA	EET SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	EET SL
PrecSep_0	Preparation, Precipitate Separation	None	EET SL
PrecSep-21	Preparation, Precipitate Separation (21-Day In-Growth)	None	EET SL

Protocol References:

EPA = US Environmental Protection Agency

None = None

TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

EET SL = Eurofins St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Sample Summary

Client: Colorado Springs Utilities
Project/Site: CCR Landfill Day 1 and 2

Job ID: 160-59744-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Sample Origin
160-59744-1	528165 CC_1	Water	09/22/25 13:08	09/26/25 08:40	Colorado
160-59744-2	528166 FC_1	Water	09/22/25 09:28	09/26/25 08:40	Colorado
160-59744-3	528167 FC_2	Water	09/22/25 10:32	09/26/25 08:40	Colorado
160-59744-4	528168 FC_3A	Water	09/22/25 14:45	09/26/25 08:40	Colorado
160-59744-5	528169 FC_3B	Water	09/22/25 15:55	09/26/25 08:40	Colorado
160-59744-6	528170 EQUIP_BLK	Water	09/22/25 16:20	09/26/25 08:40	Colorado
160-59744-7	528171 SC_10	Water	09/24/25 13:29	09/26/25 08:40	Colorado
160-59744-8	528172 SC_11	Water	09/24/25 12:16	09/26/25 08:40	Colorado
160-59744-9	528173 SC_12	Water	09/24/25 11:05	09/26/25 08:40	Colorado
160-59744-10	528174 SC_13	Water	09/24/25 09:18	09/26/25 08:40	Colorado
160-59744-11	528175 SC_14	Water	09/24/25 08:23	09/26/25 08:40	Colorado
160-59744-12	528176 FIELD_DUP	Water	09/24/25 00:00	09/26/25 08:40	Colorado

Client Sample Results

Client: Colorado Springs Utilities
Project/Site: CCR Landfill Day 1 and 2

Job ID: 160-59744-1

Client Sample ID: 528165 CC_1

Lab Sample ID: 160-59744-1

Date Collected: 09/22/25 13:08

Matrix: Water

Date Received: 09/26/25 08:40

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.440	U	0.432	0.434	1.00	0.683	pCi/L	09/30/25 07:58	10/26/25 19:16	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	70.6		30 - 110					09/30/25 07:58	10/26/25 19:16	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.627	U G	0.841	0.843	1.00	1.41	pCi/L	09/30/25 08:02	10/26/25 13:40	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	70.6		30 - 110					09/30/25 08:02	10/26/25 13:40	1
Y Carrier	80.4		30 - 110					09/30/25 08:02	10/26/25 13:40	1

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.07	U	0.945	0.948	5.00	1.41	pCi/L		10/27/25 13:24	1

Client Sample ID: 528166 FC_1

Lab Sample ID: 160-59744-2

Date Collected: 09/22/25 09:28

Matrix: Water

Date Received: 09/26/25 08:40

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.463	U	0.374	0.377	1.00	0.551	pCi/L	09/30/25 07:58	10/26/25 19:16	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	62.7		30 - 110					09/30/25 07:58	10/26/25 19:16	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	2.35	G	1.08	1.10	1.00	1.45	pCi/L	09/30/25 08:02	10/26/25 13:42	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	62.7		30 - 110					09/30/25 08:02	10/26/25 13:42	1
Y Carrier	78.9		30 - 110					09/30/25 08:02	10/26/25 13:42	1

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Client Sample Results

Client: Colorado Springs Utilities
Project/Site: CCR Landfill Day 1 and 2

Job ID: 160-59744-1

Client Sample ID: 528166 FC_1

Lab Sample ID: 160-59744-2

Date Collected: 09/22/25 09:28

Matrix: Water

Date Received: 09/26/25 08:40

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	2.81		1.14	1.16	5.00	1.45	pCi/L		10/27/25 13:24	1

Client Sample ID: 528167 FC_2

Lab Sample ID: 160-59744-3

Date Collected: 09/22/25 10:32

Matrix: Water

Date Received: 09/26/25 08:40

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0295	U	0.254	0.254	1.00	0.496	pCi/L	09/30/25 07:58	10/26/25 19:16	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	66.7		30 - 110					09/30/25 07:58	10/26/25 19:16	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.540	U	0.548	0.550	1.00	0.880	pCi/L	09/30/25 08:02	10/26/25 13:43	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	66.7		30 - 110					09/30/25 08:02	10/26/25 13:43	1
Y Carrier	82.6		30 - 110					09/30/25 08:02	10/26/25 13:43	1

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.569	U	0.604	0.606	5.00	0.880	pCi/L		10/27/25 13:24	1

Client Sample ID: 528168 FC_3A

Lab Sample ID: 160-59744-4

Date Collected: 09/22/25 14:45

Matrix: Water

Date Received: 09/26/25 08:40

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.203	U	0.399	0.399	1.00	0.701	pCi/L	09/30/25 07:58	10/26/25 19:14	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	66.7		30 - 110					09/30/25 07:58	10/26/25 19:14	1

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Client Sample Results

Client: Colorado Springs Utilities
Project/Site: CCR Landfill Day 1 and 2

Job ID: 160-59744-1

Client Sample ID: 528168 FC_3A

Lab Sample ID: 160-59744-4

Date Collected: 09/22/25 14:45

Matrix: Water

Date Received: 09/26/25 08:40

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.898	U G	0.783	0.787	1.00	1.23	pCi/L	09/30/25 08:02	10/26/25 13:43	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	66.7		30 - 110					09/30/25 08:02	10/26/25 13:43	1
Y Carrier	84.5		30 - 110					09/30/25 08:02	10/26/25 13:43	1

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.10	U	0.879	0.882	5.00	1.23	pCi/L		10/27/25 13:24	1

Client Sample ID: 528169 FC_3B

Lab Sample ID: 160-59744-5

Date Collected: 09/22/25 15:55

Matrix: Water

Date Received: 09/26/25 08:40

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0308	U	0.214	0.214	1.00	0.417	pCi/L	09/30/25 07:58	10/26/25 19:14	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	69.9		30 - 110					09/30/25 07:58	10/26/25 19:14	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.839	U G	0.660	0.664	1.00	1.02	pCi/L	09/30/25 08:02	10/26/25 13:43	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	69.9		30 - 110					09/30/25 08:02	10/26/25 13:43	1
Y Carrier	80.4		30 - 110					09/30/25 08:02	10/26/25 13:43	1

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.870	U	0.694	0.698	5.00	1.02	pCi/L		10/27/25 13:24	1

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Client Sample Results

Client: Colorado Springs Utilities
Project/Site: CCR Landfill Day 1 and 2

Job ID: 160-59744-1

Client Sample ID: 528170 EQUIP_BLK

Lab Sample ID: 160-59744-6

Date Collected: 09/22/25 16:20

Matrix: Water

Date Received: 09/26/25 08:40

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.115	U	0.187	0.187	1.00	0.325	pCi/L	09/30/25 07:58	10/26/25 19:16	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	79.9		30 - 110					09/30/25 07:58	10/26/25 19:16	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.173	U	0.413	0.413	1.00	0.839	pCi/L	09/30/25 08:02	10/26/25 13:43	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	79.9		30 - 110					09/30/25 08:02	10/26/25 13:43	1
Y Carrier	76.6		30 - 110					09/30/25 08:02	10/26/25 13:43	1

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	-0.0581	U	0.453	0.453	5.00	0.839	pCi/L		10/27/25 13:24	1

Client Sample ID: 528171 SC_10

Lab Sample ID: 160-59744-7

Date Collected: 09/24/25 13:29

Matrix: Water

Date Received: 09/26/25 08:40

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.173	U	0.209	0.210	1.00	0.343	pCi/L	09/30/25 07:58	10/26/25 19:16	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	69.9		30 - 110					09/30/25 07:58	10/26/25 19:16	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.539	U	0.543	0.545	1.00	0.871	pCi/L	09/30/25 08:02	10/26/25 13:43	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	69.9		30 - 110					09/30/25 08:02	10/26/25 13:43	1
Y Carrier	79.6		30 - 110					09/30/25 08:02	10/26/25 13:43	1

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Client Sample Results

Client: Colorado Springs Utilities
Project/Site: CCR Landfill Day 1 and 2

Job ID: 160-59744-1

Client Sample ID: 528171 SC_10

Lab Sample ID: 160-59744-7

Date Collected: 09/24/25 13:29

Matrix: Water

Date Received: 09/26/25 08:40

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.712	U	0.582	0.584	5.00	0.871	pCi/L		10/27/25 13:24	1

Client Sample ID: 528172 SC_11

Lab Sample ID: 160-59744-8

Date Collected: 09/24/25 12:16

Matrix: Water

Date Received: 09/26/25 08:40

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0703	U	0.189	0.189	1.00	0.351	pCi/L	09/30/25 07:58	10/26/25 19:16	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	79.4		30 - 110					09/30/25 07:58	10/26/25 19:16	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.959		0.598	0.604	1.00	0.895	pCi/L	10/27/25 14:13	10/31/25 11:45	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	68.9		30 - 110					10/27/25 14:13	10/31/25 11:45	1
Y Carrier	81.1		30 - 110					10/27/25 14:13	10/31/25 11:45	1

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.03		0.627	0.633	5.00	0.895	pCi/L		10/31/25 15:29	1

Client Sample ID: 528173 SC_12

Lab Sample ID: 160-59744-9

Date Collected: 09/24/25 11:05

Matrix: Water

Date Received: 09/26/25 08:40

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.163	U	0.216	0.216	1.00	0.361	pCi/L	09/30/25 07:58	10/26/25 19:16	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	76.9		30 - 110					09/30/25 07:58	10/26/25 19:16	1

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Client Sample Results

Client: Colorado Springs Utilities
Project/Site: CCR Landfill Day 1 and 2

Job ID: 160-59744-1

Client Sample ID: 528173 SC_12

Lab Sample ID: 160-59744-9

Date Collected: 09/24/25 11:05

Matrix: Water

Date Received: 09/26/25 08:40

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.08	G	0.677	0.684	1.00	1.00	pCi/L	09/30/25 08:02	10/26/25 13:45	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	76.9		30 - 110					09/30/25 08:02	10/26/25 13:45	1
Y Carrier	83.0		30 - 110					09/30/25 08:02	10/26/25 13:45	1

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.25		0.711	0.717	5.00	1.00	pCi/L		10/27/25 13:24	1

Client Sample ID: 528174 SC_13

Lab Sample ID: 160-59744-10

Date Collected: 09/24/25 09:18

Matrix: Water

Date Received: 09/26/25 08:40

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.00246	U	0.171	0.171	1.00	0.353	pCi/L	09/30/25 07:58	10/26/25 19:17	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	76.6		30 - 110					09/30/25 07:58	10/26/25 19:17	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.379	U G	0.596	0.597	1.00	1.01	pCi/L	09/30/25 08:02	10/26/25 14:40	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	76.6		30 - 110					09/30/25 08:02	10/26/25 14:40	1
Y Carrier	85.2		30 - 110					09/30/25 08:02	10/26/25 14:40	1

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.382	U	0.620	0.621	5.00	1.01	pCi/L		10/27/25 13:24	1

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Client Sample Results

Client: Colorado Springs Utilities
Project/Site: CCR Landfill Day 1 and 2

Job ID: 160-59744-1

Client Sample ID: 528175 SC_14

Lab Sample ID: 160-59744-11

Date Collected: 09/24/25 08:23

Matrix: Water

Date Received: 09/26/25 08:40

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.159	U	0.217	0.218	1.00	0.366	pCi/L	09/30/25 07:58	10/26/25 19:18	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	74.4		30 - 110					09/30/25 07:58	10/26/25 19:18	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.252	U	0.563	0.563	1.00	0.989	pCi/L	09/30/25 08:02	10/26/25 14:40	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	74.4		30 - 110					09/30/25 08:02	10/26/25 14:40	1
Y Carrier	79.3		30 - 110					09/30/25 08:02	10/26/25 14:40	1

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.411	U	0.603	0.604	5.00	0.989	pCi/L		10/27/25 13:24	1

Client Sample ID: 528176 FIELD_DUP

Lab Sample ID: 160-59744-12

Date Collected: 09/24/25 00:00

Matrix: Water

Date Received: 09/26/25 08:40

Method: EPA 903.0 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.220	U	0.207	0.208	1.00	0.309	pCi/L	09/30/25 07:58	10/26/25 19:18	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	68.2		30 - 110					09/30/25 07:58	10/26/25 19:18	1

Method: EPA 904.0 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.558	U	0.451	0.454	1.00	0.704	pCi/L	10/27/25 14:13	10/31/25 11:43	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	75.5		30 - 110					10/27/25 14:13	10/31/25 11:43	1
Y Carrier	85.2		30 - 110					10/27/25 14:13	10/31/25 11:43	1

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Client Sample Results

Client: Colorado Springs Utilities
Project/Site: CCR Landfill Day 1 and 2

Job ID: 160-59744-1

Client Sample ID: 528176 FIELD_DUP
Date Collected: 09/24/25 00:00
Date Received: 09/26/25 08:40

Lab Sample ID: 160-59744-12
Matrix: Water

Method: TAL-STL Ra226_Ra228 - Combined Radium-226 and Radium-228										
Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.778		0.496	0.499	5.00	0.704	pCi/L		10/31/25 15:29	1

QC Sample Results

Client: Colorado Springs Utilities
Project/Site: CCR Landfill Day 1 and 2

Job ID: 160-59744-1

Method: 903.0 - Radium-226 (GFPC)

Lab Sample ID: MB 160-738366/1-A
Matrix: Water
Analysis Batch: 742159

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 738366

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.3001	U	0.237	0.238	1.00	0.345	pCi/L	09/30/25 07:58	10/26/25 19:16	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	80.3		30 - 110					09/30/25 07:58	10/26/25 19:16	1

Lab Sample ID: LCS 160-738366/2-A
Matrix: Water
Analysis Batch: 742159

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 738366

Analyte		Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
Radium-226		9.57	9.063		1.25	1.00	0.407	pCi/L	95	75 - 125
Carrier	LCS %Yield	LCS Qualifier	Limits							
Ba Carrier	81.6		30 - 110							

Lab Sample ID: 160-59744-3 DU
Matrix: Water
Analysis Batch: 742149

Client Sample ID: 528167 FC_2
Prep Type: Total/NA
Prep Batch: 738366

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-226	0.0295	U	0.1520	U	0.243	1.00	0.420	pCi/L	0.25	1
Carrier	DU %Yield	DU Qualifier	Limits							
Ba Carrier	64.9		30 - 110							

Lab Sample ID: 160-59744-7 DU
Matrix: Water
Analysis Batch: 742149

Client Sample ID: 528171 SC_10
Prep Type: Total/NA
Prep Batch: 738366

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-226	0.173	U	-0.1318	U	0.125	1.00	0.355	pCi/L	0.91	1
Carrier	DU %Yield	DU Qualifier	Limits							
Ba Carrier	72.4		30 - 110							

Method: 904.0 - Radium-228 (GFPC)

Lab Sample ID: MB 160-738367/1-A
Matrix: Water
Analysis Batch: 742149

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 738367

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.1261	U	0.474	0.474	1.00	0.854	pCi/L	09/30/25 08:02	10/26/25 13:40	1

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QC Sample Results

Client: Colorado Springs Utilities
Project/Site: CCR Landfill Day 1 and 2

Job ID: 160-59744-1

Method: 904.0 - Radium-228 (GFPC) (Continued)

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	80.3		30 - 110	09/30/25 08:02	10/26/25 13:40	1
Y Carrier	80.7		30 - 110	09/30/25 08:02	10/26/25 13:40	1

Lab Sample ID: LCS 160-738367/2-A
Matrix: Water
Analysis Batch: 742149

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 738367

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
Radium-228	7.98	9.493		1.35	1.00	0.628	pCi/L	119	75 - 125

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	81.6		30 - 110
Y Carrier	81.5		30 - 110

Lab Sample ID: 160-59744-3 DU
Matrix: Water
Analysis Batch: 742149

Client Sample ID: 528167 FC_2
Prep Type: Total/NA
Prep Batch: 738367

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-228	0.540	U	0.1522	U G	0.560	1.00	1.01	pCi/L	0.35	1

Carrier	DU %Yield	DU Qualifier	Limits
Ba Carrier	64.9		30 - 110
Y Carrier	80.7		30 - 110

Lab Sample ID: 160-59744-7 DU
Matrix: Water
Analysis Batch: 742149

Client Sample ID: 528171 SC_10
Prep Type: Total/NA
Prep Batch: 738367

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-228	0.539	U	0.5939	U	0.570	1.00	0.905	pCi/L	0.05	1

Carrier	DU %Yield	DU Qualifier	Limits
Ba Carrier	72.4		30 - 110
Y Carrier	81.5		30 - 110

Lab Sample ID: MB 160-742464/1-A
Matrix: Water
Analysis Batch: 743237

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 742464

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.594		0.568	0.587	1.00	0.724	pCi/L	10/27/25 14:13	10/31/25 11:44	1

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	79.2		30 - 110	10/27/25 14:13	10/31/25 11:44	1
Y Carrier	84.1		30 - 110	10/27/25 14:13	10/31/25 11:44	1

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QC Sample Results

Client: Colorado Springs Utilities
Project/Site: CCR Landfill Day 1 and 2

Job ID: 160-59744-1

Method: 904.0 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCS 160-742464/2-A
Matrix: Water
Analysis Batch: 743237

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 742464

Analyte		Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits		
Radium-228		7.97	9.748		1.41	1.00	0.695	pCi/L	122	75 - 125		
	LCS	LCS										
Carrier	%Yield	Qualifier	Limits									
Ba Carrier	80.6		30 - 110									
Y Carrier	80.4		30 - 110									

Lab Sample ID: LCSD 160-742464/3-A
Matrix: Water
Analysis Batch: 743237

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 742464

Analyte		Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits	RER	RER Limit
Radium-228		7.97	10.03		1.44	1.00	0.724	pCi/L	126	75 - 125	0.1	1
	LCSD	LCSD										
Carrier	%Yield	Qualifier	Limits									
Ba Carrier	80.6		30 - 110									
Y Carrier	81.9		30 - 110									

QC Association Summary

Client: Colorado Springs Utilities
Project/Site: CCR Landfill Day 1 and 2

Job ID: 160-59744-1

Rad

Prep Batch: 738366

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-59744-1	528165 CC_1	Total/NA	Water	PrecSep-21	
160-59744-2	528166 FC_1	Total/NA	Water	PrecSep-21	
160-59744-3	528167 FC_2	Total/NA	Water	PrecSep-21	
160-59744-4	528168 FC_3A	Total/NA	Water	PrecSep-21	
160-59744-5	528169 FC_3B	Total/NA	Water	PrecSep-21	
160-59744-6	528170 EQUIP_BLK	Total/NA	Water	PrecSep-21	
160-59744-7	528171 SC_10	Total/NA	Water	PrecSep-21	
160-59744-8	528172 SC_11	Total/NA	Water	PrecSep-21	
160-59744-9	528173 SC_12	Total/NA	Water	PrecSep-21	
160-59744-10	528174 SC_13	Total/NA	Water	PrecSep-21	
160-59744-11	528175 SC_14	Total/NA	Water	PrecSep-21	
160-59744-12	528176 FIELD_DUP	Total/NA	Water	PrecSep-21	
MB 160-738366/1-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-738366/2-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
160-59744-3 DU	528167 FC_2	Total/NA	Water	PrecSep-21	
160-59744-7 DU	528171 SC_10	Total/NA	Water	PrecSep-21	

Prep Batch: 738367

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-59744-1	528165 CC_1	Total/NA	Water	PrecSep_0	
160-59744-2	528166 FC_1	Total/NA	Water	PrecSep_0	
160-59744-3	528167 FC_2	Total/NA	Water	PrecSep_0	
160-59744-4	528168 FC_3A	Total/NA	Water	PrecSep_0	
160-59744-5	528169 FC_3B	Total/NA	Water	PrecSep_0	
160-59744-6	528170 EQUIP_BLK	Total/NA	Water	PrecSep_0	
160-59744-7	528171 SC_10	Total/NA	Water	PrecSep_0	
160-59744-9	528173 SC_12	Total/NA	Water	PrecSep_0	
160-59744-10	528174 SC_13	Total/NA	Water	PrecSep_0	
160-59744-11	528175 SC_14	Total/NA	Water	PrecSep_0	
MB 160-738367/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-738367/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
160-59744-3 DU	528167 FC_2	Total/NA	Water	PrecSep_0	
160-59744-7 DU	528171 SC_10	Total/NA	Water	PrecSep_0	

Prep Batch: 742464

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
160-59744-8	528172 SC_11	Total/NA	Water	PrecSep_0	
160-59744-12	528176 FIELD_DUP	Total/NA	Water	PrecSep_0	
MB 160-742464/1-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-742464/2-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
LCSD 160-742464/3-A	Lab Control Sample Dup	Total/NA	Water	PrecSep_0	

Tracer/Carrier Summary

Client: Colorado Springs Utilities
Project/Site: CCR Landfill Day 1 and 2

Job ID: 160-59744-1

Method: 903.0 - Radium-226 (GFPC)

Matrix: Water

Prep Type: Total/NA

		Percent Yield (Acceptance Limits)							
		Ba							
Lab Sample ID	Client Sample ID	(30-110)							
160-59744-1	528165 CC_1	70.6							
160-59744-2	528166 FC_1	62.7							
160-59744-3	528167 FC_2	66.7							
160-59744-3 DU	528167 FC_2	64.9							
160-59744-4	528168 FC_3A	66.7							
160-59744-5	528169 FC_3B	69.9							
160-59744-6	528170 EQUIP_BLK	79.9							
160-59744-7	528171 SC_10	69.9							
160-59744-7 DU	528171 SC_10	72.4							
160-59744-8	528172 SC_11	79.4							
160-59744-9	528173 SC_12	76.9							
160-59744-10	528174 SC_13	76.6							
160-59744-11	528175 SC_14	74.4							
160-59744-12	528176 FIELD_DUP	68.2							
LCS 160-738366/2-A	Lab Control Sample	81.6							
MB 160-738366/1-A	Method Blank	80.3							

Tracer/Carrier Legend

Ba = Ba Carrier

Method: 904.0 - Radium-228 (GFPC)

Matrix: Water

Prep Type: Total/NA

		Percent Yield (Acceptance Limits)							
		Ba				Y			
Lab Sample ID	Client Sample ID	(30-110)	(30-110)			(30-110)	(30-110)		
160-59744-1	528165 CC_1	70.6	80.4						
160-59744-2	528166 FC_1	62.7	78.9						
160-59744-3	528167 FC_2	66.7	82.6						
160-59744-3 DU	528167 FC_2	64.9	80.7						
160-59744-4	528168 FC_3A	66.7	84.5						
160-59744-5	528169 FC_3B	69.9	80.4						
160-59744-6	528170 EQUIP_BLK	79.9	76.6						
160-59744-7	528171 SC_10	69.9	79.6						
160-59744-7 DU	528171 SC_10	72.4	81.5						
160-59744-8	528172 SC_11	68.9	81.1						
160-59744-9	528173 SC_12	76.9	83.0						
160-59744-10	528174 SC_13	76.6	85.2						
160-59744-11	528175 SC_14	74.4	79.3						
160-59744-12	528176 FIELD_DUP	75.5	85.2						
LCS 160-738367/2-A	Lab Control Sample	81.6	81.5						
LCS 160-742464/2-A	Lab Control Sample	80.6	80.4						
LCSD 160-742464/3-A	Lab Control Sample Dup	80.6	81.9						
MB 160-738367/1-A	Method Blank	80.3	80.7						
MB 160-742464/1-A	Method Blank	79.2	84.1						

Tracer/Carrier Legend

Ba = Ba Carrier

Y = Y Carrier

Eurofins St. Louis

APPENDIX E

Statistical Analysis Report

Statistical Analysis Report for CSU Clear Spring Ranch

2025 CCR Program, Annual Update, Ash Landfill Network

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1 Introduction

This report summarizes the statistical analysis performed on groundwater quality constituents monitored during 2025 of the Coal Combustion Residuals (CCR) Rule's groundwater monitoring program at the Colorado Springs Utilities (CSU) Clear Spring Ranch Ash Landfill (CSR).

The Clear Spring Ranch Ash Landfill CCR unit is currently in Assessment Monitoring, necessitating monitoring of both the Appendix III and IV constituents listed in **Table 2**. As part of this year's efforts (i.e., 2025), the baseline data sets collected since the first year of the CCR-Rule Program were evaluated in order to establish updated groundwater protection standards (GWPS) on upgradient background data representing Appendix IV constituents, and then to compare 2025 compliance measurements against these statistical limits to assess any statistically significant increases (SSI) above the GWPS. The analysis also established updated prediction limits on upgradient background data for Appendix III constituents, and compared 2025 compliance measurements against these statistical limits to assess any SSIs above background. Summaries of all the statistical test results are provided in subsequent sections of this report.

At the Clear Spring Ranch Ash Landfill network, the sampling results used to compute the background statistics and to identify potential SSIs were obtained from a set of designated background wells (CC-1, FC-1, FC-2, FC-3A, FC-3B, SC-15, SC-18, SC-19) using data collected from June 2016 until September 2025.

As required by the USEPA's Coal Combustion Residuals (CCR) Rule section describing the Assessment Monitoring Program (§257.95), test results for the 2025 Appendix IV Assessment Monitoring events were compared to the GWPS for determination of any exceedances. Also, test results for the Appendix III parameters were compared against the updated background prediction limits.

Due to changes in the conceptual site model, there are now two separate groundwater flow channels at this site, necessitating a change in the statistical approach. Compliance wells in what is called the South Paleo Channel (SPC, i.e., SC-12, SC-13) are compared strictly against background wells: CC-1, FC-1, FC-2, FC-3A, FC-3B, while compliance wells in the North Paleo Channel (NPC, i.e., SC-10, SC-11) are now compared strictly against newer background wells: SC-15, SC-18, SC-19. All background statistical limits are therefore computed separately using the two distinct groups of background wells, and noted as such in this report.

Included in this report are 'Traffic Light' matrices to facilitate an at-a-glance identification of any statistically significant exceedances and to promote intra-company follow-up assessments of the possible causes and to plan for mitigation actions, whenever warranted. Sample analytical results of CCR-Rule Appendix III and Appendix IV constituents obtained from each of the monitoring wells and events were used to perform the statistical analysis and generate the graphs shown in this report. The current CCR Rule groundwater monitoring network, as Certified by a Professional Engineer, is presented in **Table 1**.

The 'R' Statistical Analysis package (www.r-project.org) in conjunction with R-Studio (www.rstudio.com), both popular public domain software products, were used in the production of the statistical values and graphs. Data dumps from CSU's Database were used to populate the R-based statistical analyses.

For this year's efforts, the baseline datasets of the CCR-Rule groundwater monitoring program were augmented with routine monitoring samples in order to update the background data set. The

Table 1: CCR Rule Monitoring Network

Background.SPC	Background.NPC	Downgradient.SPC	Downgradient.NPC
CC-1	SC-15	SC-12	SC-10
FC-1	SC-18	SC-13	SC-11
FC-2	SC-19		
FC-3A			
FC-3B			

background data were then utilized to develop both updated prediction limits and statistically-derived GWPS in those cases where site-specific background levels naturally exceed published regulatory limits. Finally, data from the compliance wells were statistically compared either to prediction limits for Appendix III parameters or to the GWPS for Appendix IV parameters to determine whether any statistical limits or standards were exceeded.

At the Clear Spring Ranch Ash Landfill CCR network, the sampling results used to compute the background statistics were obtained only from designated background wells using historical data that were first screened for possible trends or shifts in concentration levels over time. Any early data exhibiting a substantially different pattern or average concentration level than more recent data were excluded from the calculations. The cutoff date used for selecting background data was determined on a constituent by constituent basis, but was designed to include as much data as possible reflecting current groundwater conditions (see **Table 2**).

As summarized in **Attachment A**, this screening process was applied both to the background and downgradient data. Visual checks of the time series plots were made for possible seasonality. In addition, possible trends were also tested using weighted linear regression. Cases with statistically significant slopes (i.e., ‘Up’ or ‘Down’) are listed in **Attachment A**. Note that the presence of a statistically significant trend does not always indicate that the data need to be truncated. In some instances, the slope may be significant but of small magnitude, thus suggesting modest change over time. Also, with multiple background wells, the grouped background data may not be trending as a whole or in the same direction, even when individual background wells are trending.

Groundwater samples were analyzed for 21 distinct constituents as required under Appendix III and Appendix IV of the CCR Rule (listed in **Table 2**). Fluoride is monitored under both Appendices. Descriptive graphical summaries of all the data are presented in **Appendix A**. Time series plots of each well-constituent pair display the individual measurement results, while side-by-side boxplots, colored by gradient, allow visual comparisons between upgradient or background wells versus downgradient locations. In addition, ‘stacked’ time series plots, with all network wells graphed on the same set of axes for each constituent, offer another visual summary of the same data.

USEPA’s *Unified Guidance* document on the statistical analysis of groundwater monitoring data (USEPA, 2009) discusses recommended strategies for statistical evaluations during Detection and Assessment Monitoring. Of note, it is a ‘best-practice’ when using prediction limits to always implement some form of retesting, in order to avoid potential false positive results and to confirm real changes in groundwater quality. Under this framework, a statistically significant increase (SSI) is identified only when both the routine observation and any resamples exceed the prediction limit.

Table 2: CCR Rule Monitored Constituents

Constituent	Begin Date	End Date	Appendix
Antimony	2016-06-22	2025-09-24	IV
Arsenic	2016-06-22	2025-09-24	IV
Barium	2016-06-22	2025-09-24	IV
Beryllium	2016-06-22	2025-09-24	IV
Boron	2016-06-22	2025-09-24	III
Cadmium	2016-06-22	2025-09-24	IV
Calcium	2016-06-22	2025-09-24	III
Chloride	2016-06-22	2025-09-24	III
Chromium	2016-06-22	2025-09-24	IV
Cobalt	2016-06-22	2025-09-24	IV
Fluoride	2016-06-22	2025-09-24	III, IV
Lead	2016-06-22	2025-09-24	IV
Lithium	2016-06-22	2025-09-24	IV
Mercury	2016-06-22	2025-09-24	IV
Molybdenum	2016-06-22	2025-09-24	IV
pH	2016-06-22	2025-09-24	III
Rad226+228	2016-06-22	2025-09-24	IV
Selenium	2016-06-22	2025-09-24	IV
Sulfate	2016-06-22	2025-09-24	III
TDS	2016-06-22	2025-09-24	III
Thallium	2016-06-22	2025-09-24	IV

In Assessment Monitoring, confidence-interval (CI) bands are a recommended technique for performing statistical comparisons to GWPS. In particular, trends at downgradient wells in analytical concentrations of required parameters can be plotted and used to estimate CI bands, which in turn can be compared against their respective GWPS. A statistically significant increase (SSI) is found if and only if the lower limit of the CI band exceeds the GWPS for the most recent Assessment Monitoring sampling event.

2 Statistical Analysis Approach: Appendix III Parameters

CSU has established a statistical testing approach within its CCR detection monitoring program using the following decision logic:

1. For each Appendix III parameter and compliance well location, a comparison is made between each routinely collected sample and a site-specific upper prediction limit (UPL) computed from upgradient background data (or for pH, against a site-specific prediction interval).
2. If the routine observation exceeds the upper prediction limit (or for pH, is lower than the lower prediction limit), a potential SSI is identified. If the routine observation is within the bounds of the UPL or prediction interval, the test passes.

-
3. In the event of a potential SSI, one resample is compared against the UPL or prediction interval. If the resample falls within the bounds of prediction limit/interval, the test passes. If instead the resample exceeds the bounds of the limit/interval, an SSI is confirmed for that well and constituent.

2.1 Background Statistical Models and Prediction Limits

When computing each prediction limit (UPL) or prediction interval, the following steps were conducted:

1. All baseline data from designated upgradient or background wells collected through September 2025 were grouped and initially screened for possible outliers. This outlier screening was performed visually on time series plots of the data, as well as systematically via the following procedure:

Probable outliers were flagged by first fitting a broad, non-linear, spline trend to each COC-well pair (Cameron, 2024). By taking the standard error (SE) from each trend, computed from the mean square of the residuals:

$$s_e^2 = \sum_{i=1}^n e_i^2 / (n - 2) = \sum_{i=1}^n (y_i - \hat{y}_i)^2 / (n - 2)$$

the internally studentized residual (Draper & Smith, 1998) distance (i.e., gap) between each reported value and its trend estimate was computed with the formula:

$$t_i = (y_i - \hat{y}) / s_e (1 - h_{ii})^{1/2}$$

where h_{ii} is the i th diagonal element of the ‘hat’ matrix H in regression theory. The studentized residuals t_i thus account for the typical variation exhibited by the observed data as well as the leverage (i.e., x -position) of the point being estimated.

These studentized residuals follow a standard scale similar to a standard logistic distribution (see Cameron, 2024). As a consequence, any studentized residual larger than 5 may be deemed a probable outlier, and residuals larger than 8 may be deemed extreme outliers (relative to the local trend).

Any flagged outliers were then *down-weighted* using a tri-cube weighting function, such that the further the point from its trend estimate, the smaller its statistical weight (w_i). Outlier residuals furthest from the trend thus received the smallest weights, while those closer to the trend were given larger weights. Further, any observations not classified as residual outliers were given the maximum weight of 1.

Handling outliers in this manner is beneficial, especially since flagging outliers always involves a mixture of art (i.e., professional judgment) and statistical science. In some cases, disputes can arise among stakeholders as to whether specific values ought to be treated as outliers and/or eliminated from statistical analysis. This can especially be true when there is no known physical cause of the apparent outliers (e.g., laboratory or sampling error). Down-weighting in this manner

is consistent, non-subjective, and does not exclude any data; yet minimizes the impact of true outliers on subsequent UPL estimates.

At the Clear Spring Ranch Ash Landfill network, 16 extreme outliers were flagged in the background data, along with 29 probable outliers. Further, 8 extreme outliers were were flagged at downgradient wells, along with 32 probable outliers.

Any extreme background outliers are listed in **Table 3**. These values were down-weighted using the values shown in the Weight column. Note that non-outliers have weights equal to 1. Extreme downgradient outliers are listed in **Table 4**.

Table 3: Down-Weighted Extreme Background Outliers

COC	Well	Result	ND.Flag	Date	Outlier	Weight
Barium	FC-3B	65.2	0	2016-11-15	OUT	0.00251
Barium	SC-15	45	0	2023-09-27	OUT	0.01
Boron	SC-15	325	0	2024-07-22	OUT	0.01
Boron	SC-18	2710	0	2024-09-16	OUT	0.01
Calcium	FC-2	678000	0	2020-04-06	OUT	0.0018
Calcium	FC-3A	711000	0	2020-04-06	OUT	0.000775
Calcium	FC-3B	398000	0	2020-04-06	OUT	0.00212
Calcium	SC-15	108000	0	2024-07-22	OUT	0.01
Chloride	FC-3B	1210	0	2018-09-25	OUT	0.000798
Lead	SC-15	5.8	0	2023-09-27	OUT	0.01
Lithium	SC-15	190	0	2024-07-22	OUT	0.01
Selenium	FC-1	55.1	0	2023-03-13	OUT	0.00249
Selenium	FC-2	1	1	2016-10-12	OUT	0.00235
Sulfate	CC-1	29000	0	2023-09-25	OUT	0.000377
TDS	FC-2	12000	0	2025-03-10	OUT	0.00356
TDS	FC-3B	7770	0	2016-06-27	OUT	0.000926

Table 4: Down-Weighted Extreme Downgradient Outliers

COC	Well	Result	ND.Flag	Date	Outlier	Weight
Antimony	SC-11	15	1	2023-09-26	OUT	0.00172
Barium	SC-11	40.5	0	2022-09-26	OUT	0.00248
Chloride	SC-10	790	0	2023-09-26	OUT	0.00184
Chromium	SC-11	25.2	1	2021-03-24	OUT	0.000114
Mercury	SC-10	0.036	0	2016-06-22	OUT	0.000342
Mercury	SC-11	0.067	0	2016-06-22	OUT	7.68e-05
Rad226+228	SC-12	3.79	0	2022-09-26	OUT	0.00114
TDS	SC-13	6040	0	2018-02-15	OUT	0.000785

2. The grouped baseline data were analyzed to determine whether they could be fit to a known statistical model. If so, a parametric prediction limit/interval was computed; if not, a non-parametric prediction limit/interval was constructed.

Any possible outliers, as described above, were down-weighted. Any observations not classified as outliers were given the maximum weight of 1. These weights (w_i) were subsequently utilized in computing each prediction limit/interval (or tolerance limit below).

To account for non-normal data, a range of possible mathematical transformations was applied to each background dataset, in order to identify the statistical model that maximized the weighted

correlation between the observed values and normal z-scores on a probability plot. The final statistical model for each parameter was used to compute a bootstrap-t background prediction limit, if appropriate.

3. The best-fitting statistical model for each COC was used to compute a prediction limit or interval.

When a parametric model is appropriate, on the normalized scale, a prediction interval is computed using the standard normal theory equation:

$$PL = \bar{x} \pm \kappa s$$

where $\bar{x}$ and s represent the mean and standard deviation of the (transformed) observations, and κ is a prediction limit multiplier. If the data have been transformed, the final prediction limit/interval is derived by back-transforming the scaled limit/interval. The prediction limit multiplier is computed as function of several inputs, including the background sample size, the targeted site-wide false positive risk (SWFPR), the configuration of the monitoring network (i.e., number of wells and number of COIs per well), and the retesting strategy implemented at the site (e.g., 1-of-2, etc.).

To account for possible outliers and the statistical weighting described above, a weighted mean and weighted standard deviation were computed to form a prediction limit/interval as:

$$UTL = \bar{x}_w \pm \kappa_w s_w$$

in which the factor κ_w denotes the normal theory multiplier adjusted for the effective sample size (n_w), computed using the weights (w_i) as:

$$n_w = \frac{(\sum_i w_i)^2}{\sum_i w_i^2}$$

When all the weights are equal to 1 (e.g., no outliers in background), the effective sample size reduces to the observed sample size, $n_w = n$. Outliers and downweighting force a lower effective sample size, resulting in greater overall uncertainty, and leading to slightly larger κ multipliers.

The UPLs computed under this methodology utilize all the data, including any possible extreme values, and are reasonably robust (i.e., minimally impacted) in the presence of actual outliers. As parametric estimates, they tend to provide an accurate UPL only when the bulk of the background data can be closely fit to a known statistical model. In cases where an adequate model cannot be identified, a bootstrap nonparametric UPL was computed instead.

An empirical cutoff value of 0.95 was used for deciding when a parametric model could be applied. Correlations of 0.95 and above led to use of the parametric method, while correlations below this cutoff led to calculation of a nonparametric prediction limit.

In the case of a nonparametric model, a weighted percentile bootstrap method was employed to compute the UPL. This method often results in a UPL set to the largest observed background value. However, in cases with apparent outliers, the data weighting helps to avoid selecting a probable outlier as the UPL.

Table 5: Clear Spring Ranch Ash Landfill Interwell Prediction Limits

Channel	COI	N	ND.Pct	Model	1-of-m	FPR	Units	LPL	UPL
SPC	Boron	125	0	BOOT	2	0.0149	ug/L	NA	1618
SPC	Calcium	112	0	BOOT	2	0.0149	ug/L	NA	464600
SPC	Chloride	120	0	BOOT	2	0.0149	mg/L	NA	1747
SPC	Fluoride	125	0	Normal	2	0.0149	mg/L	NA	0.812
SPC	pH	125	0	Log	2	0.0149	SU	6.78	7.69
SPC	Sulfate	115	0	BOOT	2	0.0149	mg/L	NA	21060
SPC	TDS	120	0	BOOT	2	0.0149	mg/L	NA	35210
NPC	Boron	24	0	BOOT	2	0.0149	ug/L	NA	1583
NPC	Calcium	24	0	BOOT	2	0.0149	ug/L	NA	711400
NPC	Chloride	24	0	BOOT	2	0.0149	mg/L	NA	676
NPC	Fluoride	24	8.3	BOOT	2	0.0149	mg/L	NA	0.197
NPC	pH	24	0	Eighth Power	2	0.0149	SU	6.38	7.38
NPC	Sulfate	24	0	BOOT	2	0.0149	mg/L	NA	12590
NPC	TDS	24	0	Cube	2	0.0149	mg/L	NA	18920

For the Clear Spring Ranch Ash Landfill CCR network, **Table 5** lists the calculated UPLs (and LPL for pH) established for this particular Unit.

2.2 Comparing Compliance Data Against Prediction Limits

To assess whether any SSIs occurred during 2025 Detection Monitoring at the Clear Spring Ranch Ash Landfill CCR site, the first routine sampling event from each parameter-well pair was compared against its respective prediction limit. Under a 1-of-2 retesting strategy, the next consecutive sampling round was reserved as a possible resample. This enabled sufficient lag time between any of the routine and resample measurements to assume approximate statistical independence.

If the routine observation exceeded the upper prediction limit (UPL), or for pH, was outside the bounds of the prediction interval on either side, a potential SSI was flagged. Then the reserved resample associated with the routine event was compared against the same limit or interval (when available). Only if the routine observation and its associated resample both were outside the bounds of the prediction limit/interval was a confirmed SSI identified.

Table 6 summarizes any confirmed or potential SSIs that occurred at the Clear Spring Ranch Ash Landfill CCR unit in 2025. Plots of the 2025 sampling data overlaid with the constituent-specific prediction limits are shown in **Appendix B**. In these figures, any confirmed SSIs are shown by coloring the routine measurement exceedance in orange and the resample confirmatory exceedance in purple. Potential SSIs (i.e., initial exceedances without an associated resample) are shown by coloring the routine measurement in yellow.

Table 6: 2025 Confirmed or Potential Prediction Limit SSIs at Clear Spring Ranch Ash Landfill CCR Site

COC	Well	Date	Result	Units	Stage	LPL	UPL	SSI
Boron	SC-12	2025-03-11	4840	ug/L	Sample	NA	1618	YES

(continued)

COC	Well	Date	Result	Units	Stage	LPL	UPL	SSI
Boron	SC-12	2025-09-24	3950	ug/L	Resample	NA	1618	YES
Fluoride	SC-12	2025-03-11	0.95	mg/L	Sample	NA	0.812	YES
Fluoride	SC-12	2025-09-24	1.28	mg/L	Resample	NA	0.812	YES
Boron	SC-11	2025-03-11	2780	ug/L	Sample	NA	1583	YES
Boron	SC-11	2025-09-24	2500	ug/L	Resample	NA	1583	YES
Chloride	SC-10	2025-03-11	1030	mg/L	Sample	NA	676	YES
Chloride	SC-10	2025-09-24	1110	mg/L	Resample	NA	676	YES
Chloride	SC-11	2025-03-11	1310	mg/L	Sample	NA	676	YES
Chloride	SC-11	2025-09-24	1320	mg/L	Resample	NA	676	YES
Fluoride	SC-10	2025-03-11	0.53	mg/L	Sample	NA	0.197	YES
Fluoride	SC-10	2025-09-24	0.76	mg/L	Resample	NA	0.197	YES
Fluoride	SC-11	2025-03-11	0.64	mg/L	Sample	NA	0.197	YES
Fluoride	SC-11	2025-09-24	0.92	mg/L	Resample	NA	0.197	YES

2.3 Summary of Appendix III Statistical Analysis

To facilitate an ‘at-a-glance’ summary of the prediction limit statistical comparison results, **Table 7** is a ‘traffic light’ matrix, showing a compact representation of each well location matched against each constituent in Appendix III. This summary is useful in planning for mitigation actions. Green cells indicate that no SSI was observed in 2025. Red cells indicate the opposite: an SSI was flagged during 2025. Yellow cells indicate *potential* SSIs, pending confirmatory resamples.

At the Clear Spring Ranch Ash Landfill CCR network in 2025, a total of 7 confirmed Appendix III SSIs were identified at Program network wells, along with 0 *potential* Appendix III SSIs.

Table 7: Appendix III Traffic Light Matrix for Clear Spring Ranch Ash Landfill CCR Site

COC	Well Locations			
	SC-10	SC-11	SC-12	SC-13
Boron	GRN	RED	RED	GRN
Calcium	GRN	GRN	GRN	GRN
Chloride	RED	RED	GRN	GRN
Fluoride	RED	RED	RED	GRN
pH	GRN	GRN	GRN	GRN
Sulfate	GRN	GRN	GRN	GRN
TDS	GRN	GRN	GRN	GRN

Color-Coding Key:

RED = Results outside prediction limit bounds;

GRN = Results within prediction limit bounds;

YLW = Initial results outside bounds (potential SSI)

3 Statistical Analysis Approach: Appendix IV Parameters

The basic steps in the Assessment Monitoring analysis included the following:

1. Developing groundwater protection standards (GWPS) for each Appendix IV constituent, using published MCLs and/or water quality limits, along with baseline data from upgradient and background well locations at each CCR site;
2. Computing trends and associated confidence interval (CI) bands for each well location and Appendix IV constituent (i.e., for each well-constituent pair); and
3. Comparing each CI band against its respective GWPS to assess whether or not a statistically significant level (SSL) occurred.

To accomplish these steps, the background data were first summarized and modeled, as described in **Section 2**.

3.1 Developing and Computing Groundwater Protection Standards (GWPS)

USEPA has published maximum contaminant limits (MCL) or alternate regulatory limits for each of the Appendix IV constituents. Consequently, in most cases the Groundwater Protection Standard (GWPS) is equal to the MCL. However, there may be cases where background levels of a constituent exceed the MCL. In these instances, an alternate GWPS must be derived from on-site background levels.

CSU has established GWPS across its CCR program using the following decision logic:

- For each Appendix IV parameter where a GWPS must be established, a comparison is made between the promulgated regulatory limit and a site-specific limit computed from background data.
- If the background-based limit is larger than the promulgated limit, the GWPS is set to the background limit. If the promulgated limit is larger, the GWPS is set to the published value.

In cases where a background limit must be computed, USEPA's *Unified Guidance* recommends different strategies for computing a background-based GWPS (USEPA, 2009, sec. 7.5). One of these strategies — a 95% confidence, 95% coverage upper tolerance limit (UTL) on background — was selected and used to compute the UTL on site-specific background data for each Appendix IV parameter. Then these UTLs were compared against the promulgated regulatory limits to determine the site-specific GWPS.

Each tolerance limit (UTL) was computed in the following manner, using steps similar to those applied in computing the prediction limits for Appendix III parameters:

1. All baseline data from designated upgradient or background wells collected through September 2025 were grouped and initially screened for possible outliers. This outlier screening was performed as described in **Section 2.1**. Apparent outliers were not formally tested or removed from the data analysis, but instead were *down-weighted* in the statistical calculations, in order to minimize the impact of such values on the UTL estimates.

-
2. The grouped baseline data were analyzed to determine whether they could be fit to a known statistical model. If so, a parametric UTL was computed; if not, a nonparametric UTL was constructed. Datasets which could not be sufficiently normalized were therefore analyzed by nonparametric means.

To account for non-normal data, a range of possible mathematical transformations was applied to each background dataset, in order to identify the statistical model that maximized the weighted correlation between pairs on the probability plot. The statistical weights described earlier were utilized to not only fit the best models, but also to compute the UTLs.

3. The best-fitting statistical model for each COI was used to compute an upper tolerance limit (UTL) with 95% coverage and 95% confidence.

When a parametric model is appropriate, on the normalized scale, a UTL is often computed using the standard normal theory equation:

$$UTL = \bar{x} + \kappa s$$

where $\bar{x}$ and s represent the mean and standard deviation of the (transformed) observations, and κ is a tolerance limit multiplier. If the data have been transformed, the final UTL is derived by back-transforming the scaled UTL. The tolerance limit multiplier (or *tolerance factor*) is drawn from a standard table of such values.

To account for possible outliers and the statistical weighting described above, a weighted mean and weighted standard deviation were computed to form an upper tolerance limit as:

$$UTL = \bar{x}_w + \kappa_w s_w$$

in which the factor κ_w denotes the normal theory multiplier adjusted for the effective sample size (n_w), computed using the weights (w_i) as:

$$n_w = \frac{(\sum_i w_i)^2}{\sum_i w_i^2}$$

When all the weights are equal to 1 (e.g., no outliers in background), the effective sample size reduces to the observed sample size, $n_w = n$. Outliers and downweighting force a lower effective sample size, resulting in greater overall uncertainty, and leading to slightly larger κ multipliers.

The UTLs computed under this methodology utilize all the data, including any possible extreme values, and are reasonably robust (i.e., minimally impacted) in the presence of actual outliers. As parametric estimates, they tend to provide an accurate UTL only when the bulk of the background data can be closely fit to a known statistical model. In cases where an adequate model cannot be identified, a bootstrap nonparametric UTL was computed instead.

An empirical cutoff value of 0.95 was used for deciding when a parametric model could be applied. The method may also have trouble when the dataset is multi-modal (i.e., it has multiple peaks or ‘humps’), for instance when multiple background wells are grouped together but have substantially different average concentration levels (perhaps due to a heterogeneous aquifer). If a test for unimodality (i.e., single peak like the normal distribution) passed, then correlations of 0.95 and above

Table 8: 2025 Clear Spring Ranch Ash Landfill CCR Unit GWPS Limits

Channel	COI	Model	N	Coverage	Confidence	UTL	RegLimit	GWPS	Units
SPC	Antimony	NP	125	0.95	0.985	10.4	6	10.4	ug/L
SPC	Arsenic	Cube Root	125	0.95	0.95	13.4	10	13.4	ug/L
SPC	Barium	Log	125	0.95	0.95	27.5	2000	2000	ug/L
SPC	Beryllium	NP	125	0.95	0.952	4	4	4	ug/L
SPC	Cadmium	NP	125	0.95	0.952	9.8	5	9.8	ug/L
SPC	Chromium	NP	125	0.95	0.952	18.9	100	100	ug/L
SPC	Cobalt	NP	125	0.95	0.952	10.8	6	10.8	ug/L
SPC	Fluoride	BOOT	125	0.95	0.95	0.855	4	4	mg/L
SPC	Lead	Eighth Root	125	0.95	0.95	11.2	15	15	ug/L
SPC	Lithium	BOOT	125	0.95	0.95	1132	40	1130	ug/L
SPC	Mercury	BOOT	125	0.95	0.95	0.00993	2	2	ug/L
SPC	Molybdenum	Sixth Root	125	0.95	0.95	11.9	100	100	ug/L
SPC	Rad226+228	Cube Root	125	0.95	0.95	4.49	5	5	pCi/L
SPC	Selenium	BOOT	125	0.95	0.95	224	50	224	ug/L
SPC	Thallium	NP	125	0.95	0.952	9.63	2	9.63	ug/L
NPC	Antimony	NP	24	0.95	0.708	2	6	6	ug/L
NPC	Arsenic	NP	24	0.95	0.708	5	10	10	ug/L
NPC	Barium	Log	24	0.95	0.95	22.5	2000	2000	ug/L
NPC	Beryllium	NP	24	0.95	0.708	1	4	4	ug/L
NPC	Cadmium	NP	24	0.95	0.708	1	5	5	ug/L
NPC	Chromium	NP	24	0.95	0.693	3	100	100	ug/L
NPC	Cobalt	NP	24	0.95	0.708	5	6	6	ug/L
NPC	Fluoride	BOOT	24	0.95	0.95	0.369	4	4	mg/L
NPC	Lead	NP	24	0.95	0.693	1	15	15	ug/L
NPC	Lithium	BOOT	24	0.95	0.95	978	40	978	ug/L
NPC	Mercury	Square Root	24	0.95	0.95	0.0247	2	2	ug/L
NPC	Molybdenum	Square Root	24	0.95	0.95	2.48	100	100	ug/L
NPC	Rad226+228	Normal	24	0.95	0.95	2.73	5	5	pCi/L
NPC	Selenium	BOOT	24	0.95	0.95	340	50	340	ug/L
NPC	Thallium	NP	24	0.95	0.708	1	2	2	ug/L

led to use of the parametric method, while multi-modality or correlations below this cutoff led to calculation of a nonparametric tolerance limit.

In the case of a nonparametric model, a weighted percentile bootstrap method was employed to compute the UTL. This method often results in a UTL set to the largest observed background value. However, in cases with apparent outliers, the data weighting helps to avoid selecting a probable outlier as the UTL.

For the Clear Spring Ranch Ash Landfill CCR unit, **Table 8** lists the calculated GWPS limits established for this monitoring network.

3.2 Computing Trend Lines and Confidence Interval Bands

USEPA's *Unified Guidance* recommends comparing some type of confidence interval (CI) against a groundwater protection standard (GWPS) in order to assess whether or not the limit has been exceeded with statistical significance. If the entire interval exceeds the GWPS, a statistically significant level (SSL) is identified. If none of the interval, or only part, exceeds the GWPS, no SSL is recorded.

Since groundwater data are collected over time, and not all at once, some or most of the variation in the measurements may be due to a trend. To better account for this possibility, USEPA also recommends a variation on the confidence interval method known as a confidence interval band around a trend line. In this case, a (linear) trend line is first fit to the data, then a confidence band is constructed around the trend line. The confidence interval band can be compared against a GWPS in much the same fashion as a confidence interval, only now a comparison can be made at different points in time by comparing the ‘cross-section’ of the band for a given sampling date. If the interval represented by the confidence band cross-section fully exceeds the GWPS, an SSL is identified for that sampling event.

At the CSU CCR site, CI bands were constructed for each well-constituent pair using the weighted sample data. Cross-sections of each band were then compared to the GWPS for the most recent Assessment Monitoring event for the purpose of identifying any SSLs.

3.2.1 Trend Lines Using Linear Regression

Unless there are extreme outliers and/or curvature in the data, linear regression provides a standard and well-tested method for estimating the linear portion of a trend. The slope of the regression line points to the magnitude and direction of the trend. There is also a standard method for computing a confidence band around a linear regression trend line. For instance, equations [21.24] and [21.25] of Section 21.3 in the *Unified Guidance* can be compactly written as

$$CB_{1-\alpha} = \hat{x}_0 \pm \sqrt{2s_e^2 F_{1-\alpha, n-2} \left[\frac{1}{n} + \frac{(t_0 - \bar{t})^2}{(n-1)s_t^2} \right]}$$

where CB = confidence band, $\hat{x}_0$ is the regression line estimate at time t_0 , s_e^2 is the mean squared error of the regression line, F is a quantile from the F -distribution with 2 and $n - 2$ degrees of freedom, and $\bar{t}$ and s_t^2 represent the mean and standard deviation of the sampling dates.

For well-constituent pairs with no non-detects, linear regression and the formula above were used to construct each confidence band with 98% overall confidence, corresponding to a lower confidence limit with 99% confidence. For pairs with any non-detects, Monte Carlo imputation was used to substitute a random value between 0 and the reporting limit (RL) for each non-detect prior to computing the linear regression and confidence band. Then this process was repeated many times and the results averaged to determine the final regression and confidence band estimates.

3.3 Comparing Confidence Interval Bands Against GWPS

To assess whether any SSLs have occurred during the 2025 Assessment Monitoring at the CSU CCR site, the confidence interval (CI) bands described in **Section 3.2** were compared against the constituent-specific groundwater protection standards (GWPS) described in **Section 3.1**. Of note, an SSL was identified if and only if the CI band fully exceeded the GWPS at the most recent sampling event.

Plots of the CI band comparisons for each well-constituent pair are presented in **Appendix B**.

3.4 Summary of Appendix IV Statistical Analysis

To facilitate an ‘at-a-glance’ summary of the statistical comparison results, **Table 9** is a ‘traffic light’ matrix, showing a compact representation of each well location matched against each constituent in Appendix IV. This summary is useful in planning for mitigation actions. Green cells indicate that no SSL was observed. Red cells indicate the opposite: an SSL was flagged at the most recent sampling event. Yellow cells are warnings which indicate that a well-constituent pair should be watched. These cases have a CI band whose lower limit is at least two-thirds of the GWPS, or the CI band cross-section straddles the GWPS.

At the Clear Spring Ranch Ash Landfill CCR unit, a total of 0 SSL(s) were identified during the 2025 annual Assessment Monitoring analysis.

Table 9: Appendix IV Traffic Light Matrix for Clear Spring Ranch Ash Landfill CCR Unit

COC	Well Locations			
	SC-10	SC-11	SC-12	SC-13
Antimony	GRN	GRN	GRN	GRN
Arsenic	GRN	GRN	GRN	GRN
Barium	GRN	GRN	GRN	GRN
Beryllium	GRN	GRN	GRN	GRN
Cadmium	GRN	GRN	GRN	GRN
Chromium	GRN	GRN	GRN	GRN
Cobalt	GRN	GRN	GRN	GRN
Fluoride	GRN	GRN	GRN	GRN
Lead	GRN	GRN	GRN	GRN
Lithium	YLW	GRN	GRN	GRN
Mercury	GRN	GRN	GRN	GRN
Molybdenum	GRN	GRN	GRN	GRN
Rad226+228	GRN	GRN	GRN	GRN
Selenium	GRN	YLW	GRN	GRN
Thallium	GRN	YLW	GRN	GRN

Color-Coding Key:

RED = CI Band above GWPS;

GRN = CI Band below GWPS;

YLW = CI Straddles GWPS or Lwr Bnd > 2/3 of GWPS

4 References

- Cameron, K. (2024). Outlier accommodation in censored time series. *2024 JSM Proceedings*.
[https://doi.org/https://doi.org/10.5281/zenodo.13994247](https://doi.org/10.5281/zenodo.13994247)
- Draper, N. R., & Smith, H. (1998). *Applied regression analysis, 3rd edition*. Wiley: NY.
- USEPA. (2009). *Statistical analysis of groundwater monitoring data at RCRA facilities: Unified guidance*. USEPA: Office of Resource Conservation & Recovery, EPA 530-R-09-007.

Appendix A: Exploratory Plots

1. Time Series Plots of Each Parameter
2. Box Plots of Each Parameter
3. Stacked Time Series Plots of Each Parameter

Time Series Plots

2025 Time Series Plots for Antimony

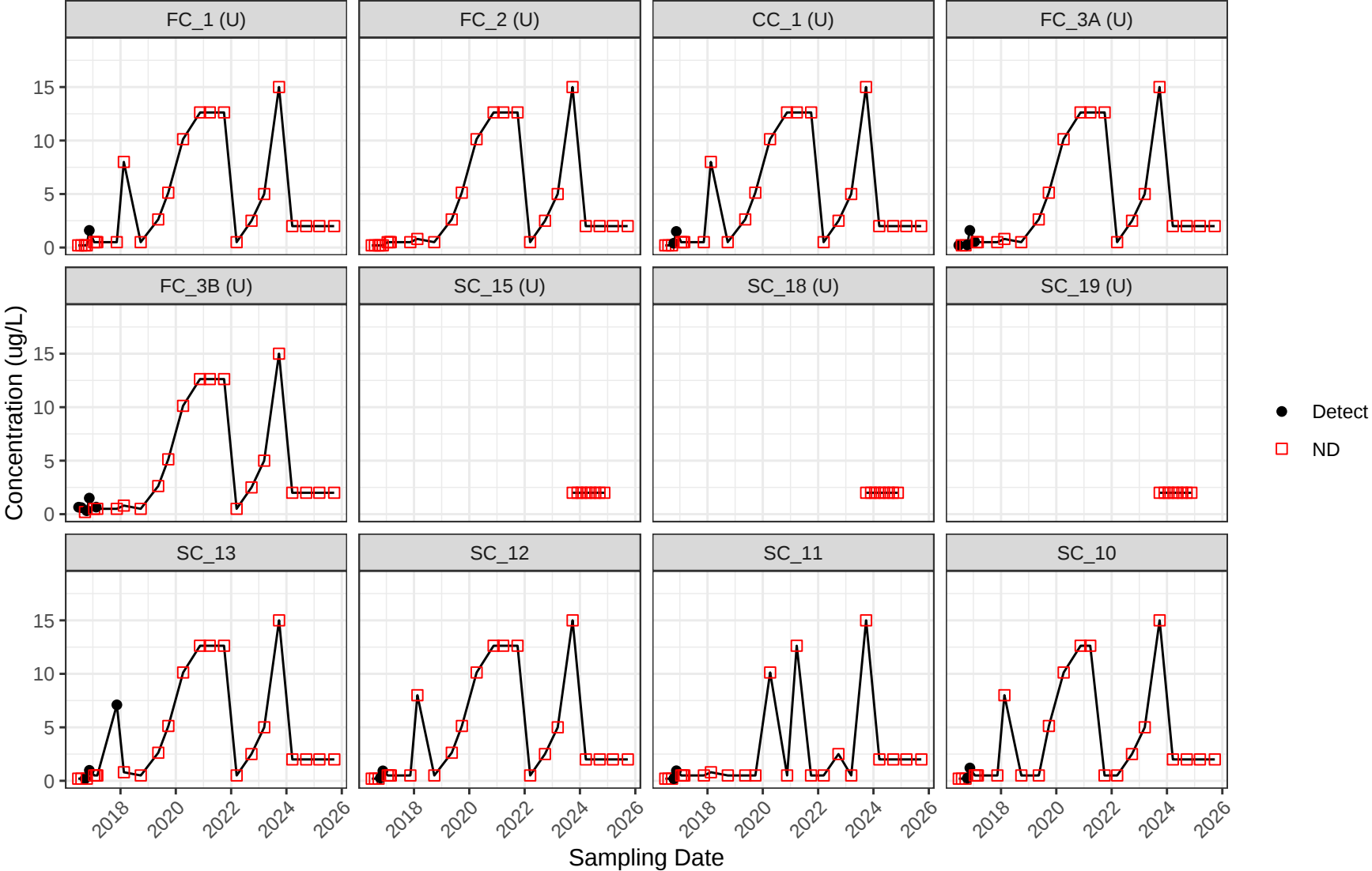


Figure 1: Time Series Plots

2025 Time Series Plots for Arsenic

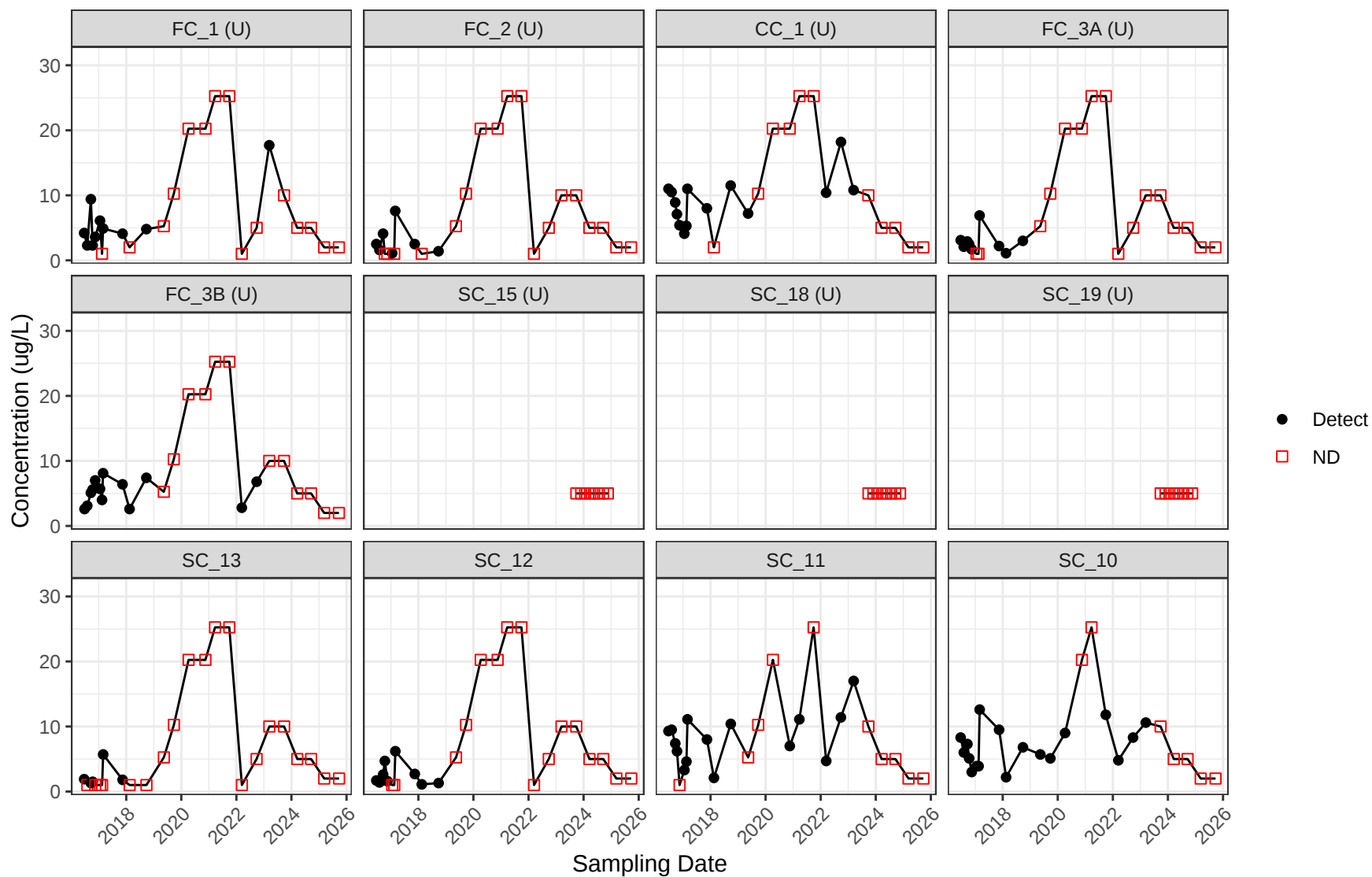


Figure 2: Time Series Plots

2025 Time Series Plots for Barium

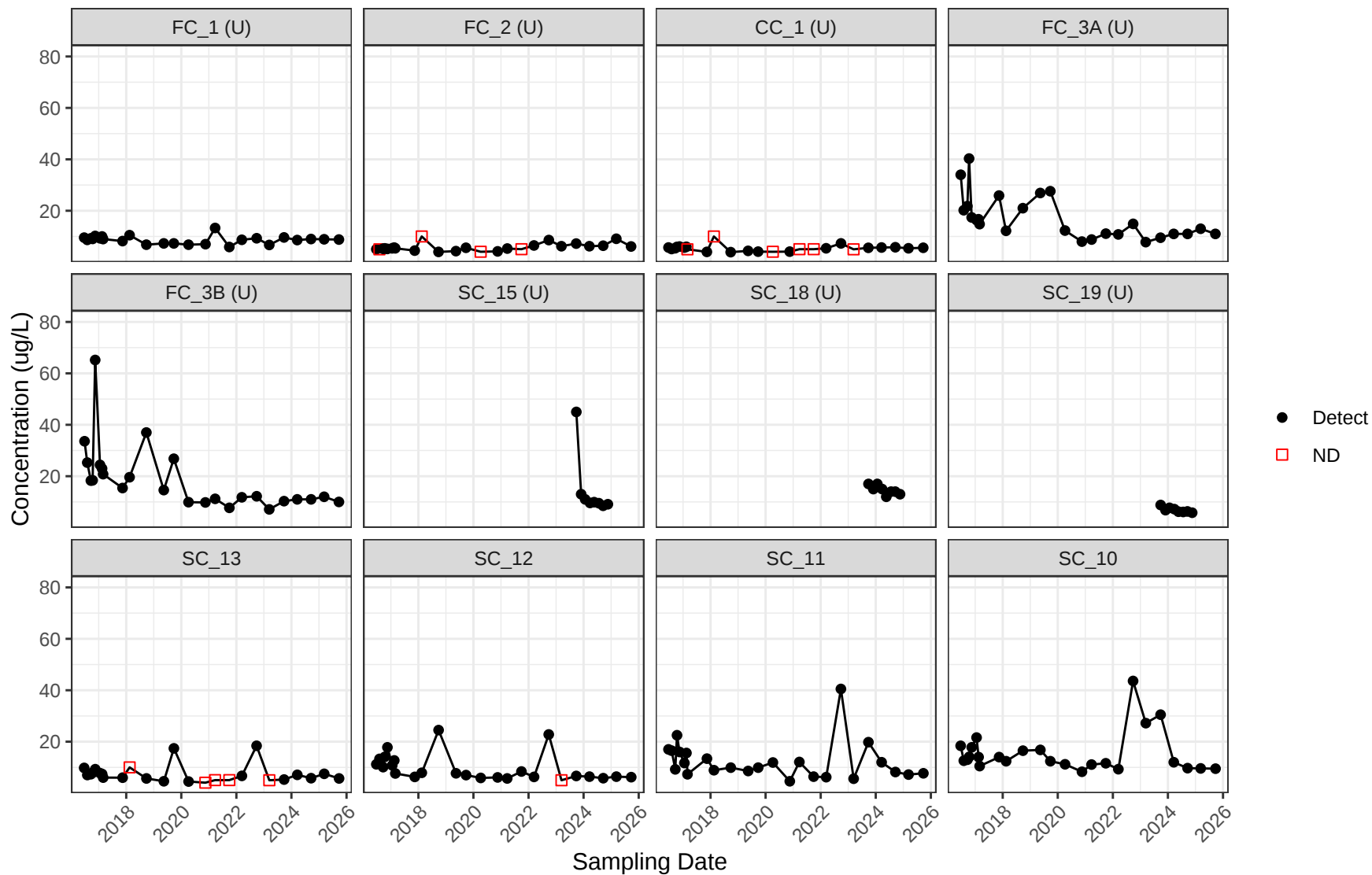


Figure 3: Time Series Plots

2025 Time Series Plots for Beryllium

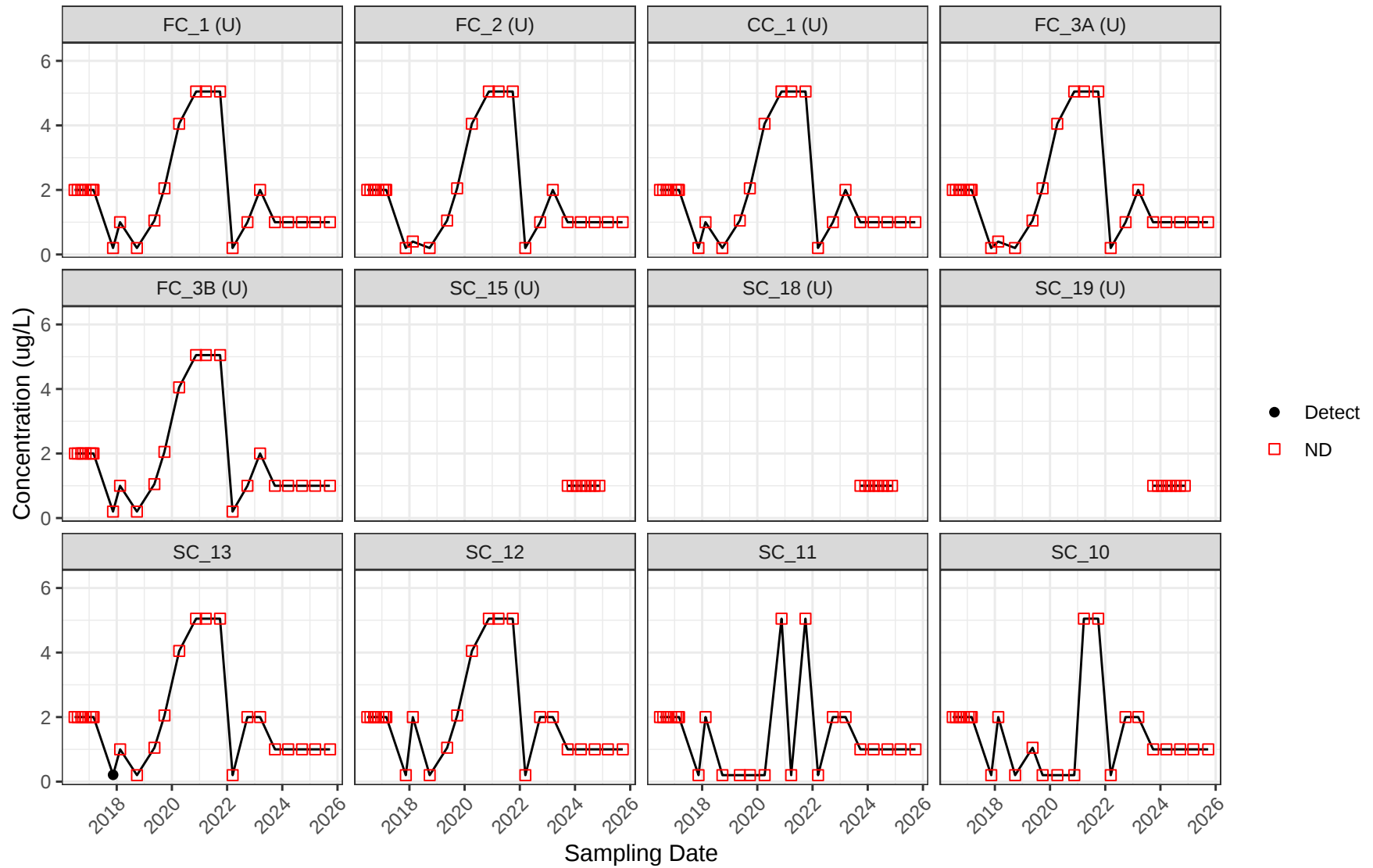


Figure 4: Time Series Plots

2025 Time Series Plots for Boron

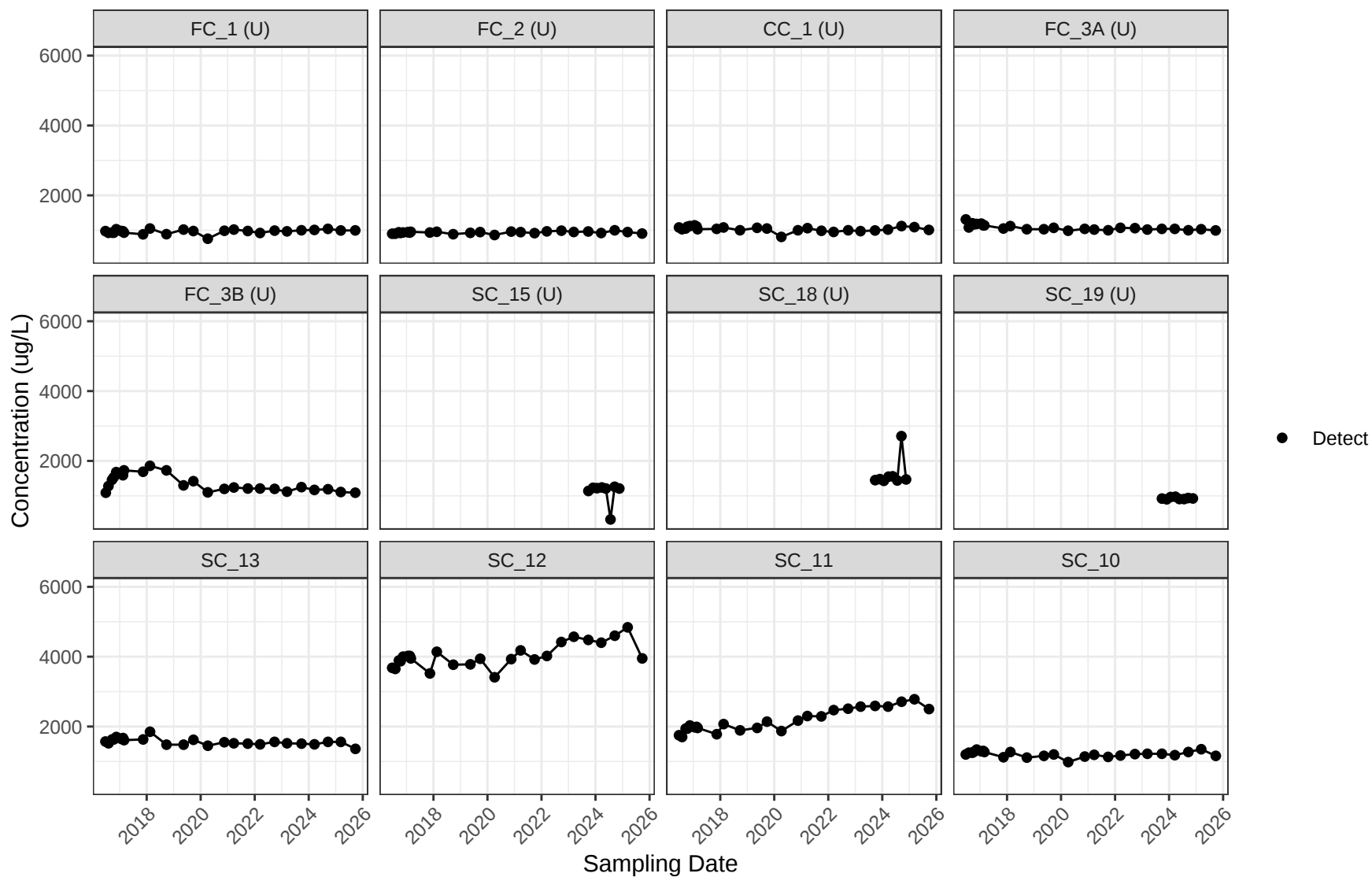


Figure 5: Time Series Plots

2025 Time Series Plots for Cadmium

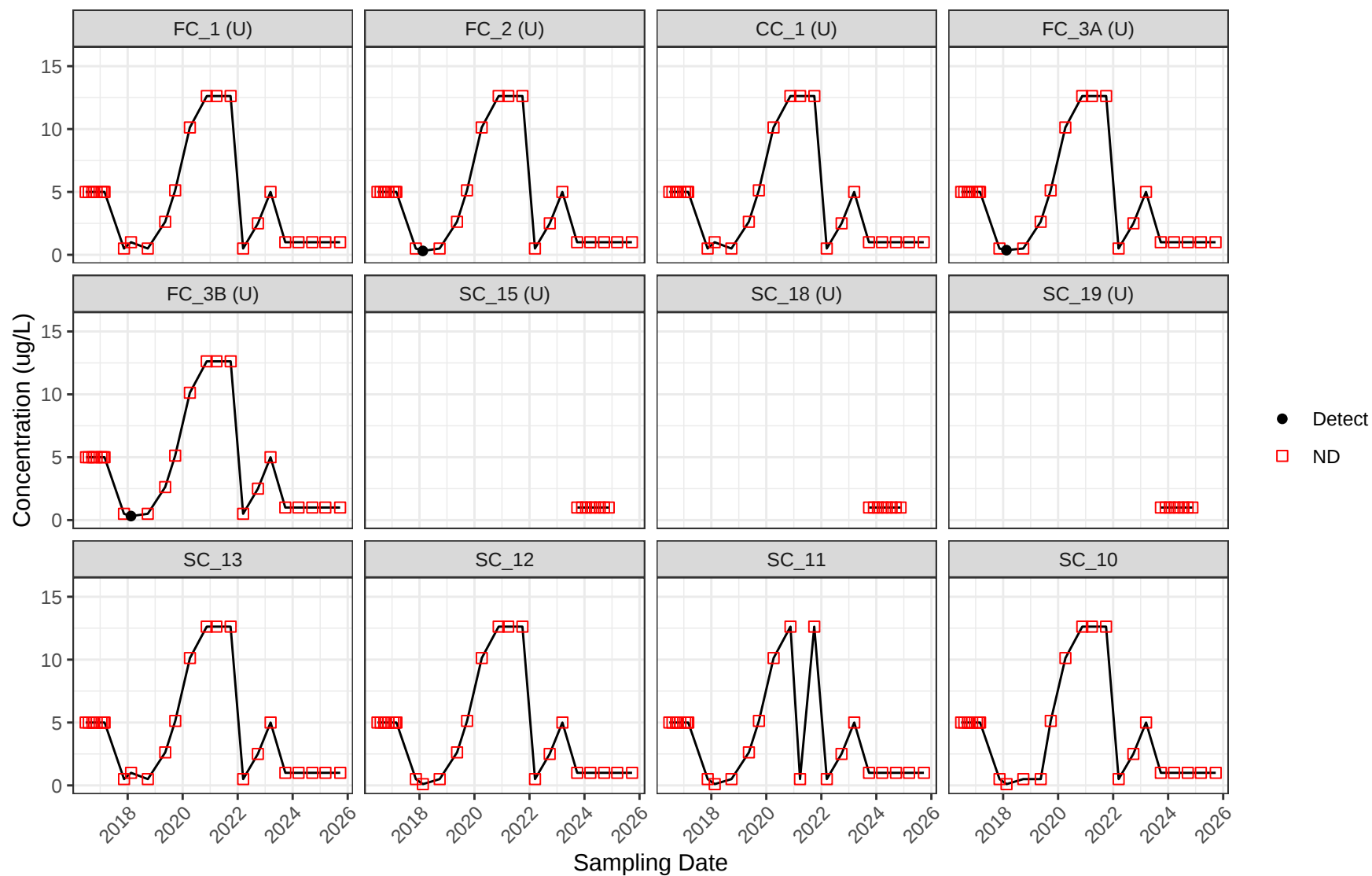


Figure 6: Time Series Plots

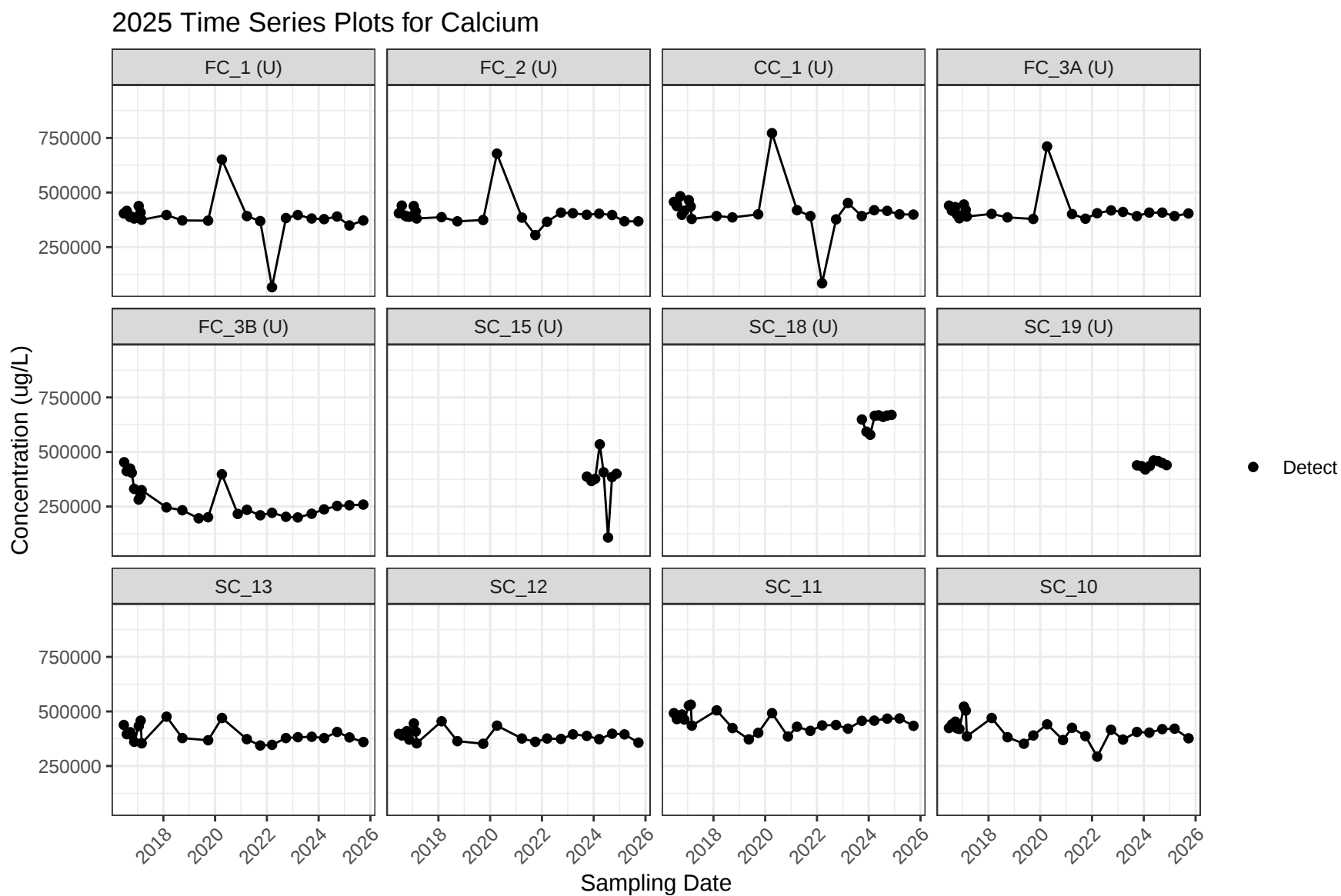


Figure 7: Time Series Plots

2025 Time Series Plots for Chloride

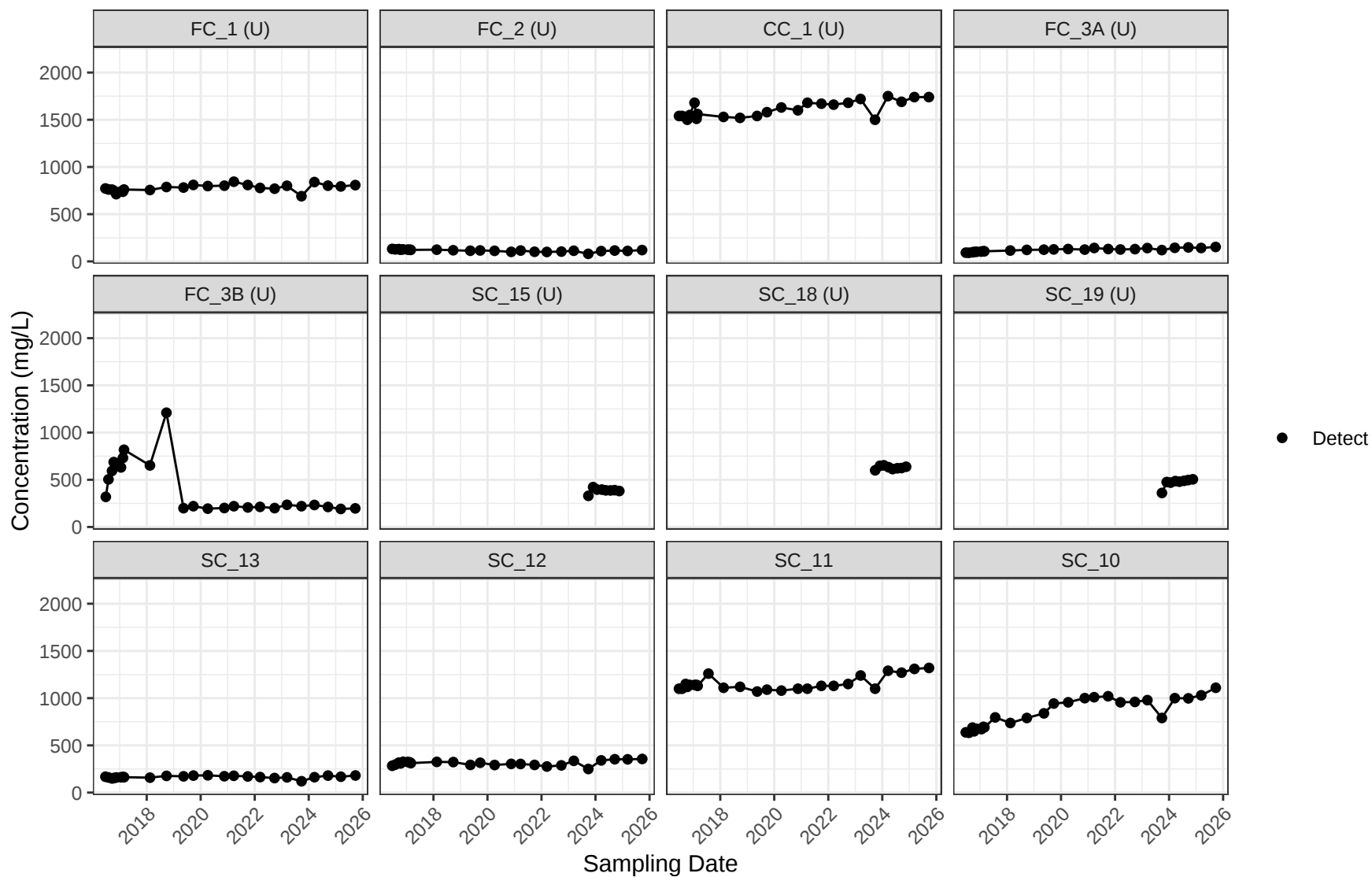


Figure 8: Time Series Plots

2025 Time Series Plots for Chromium

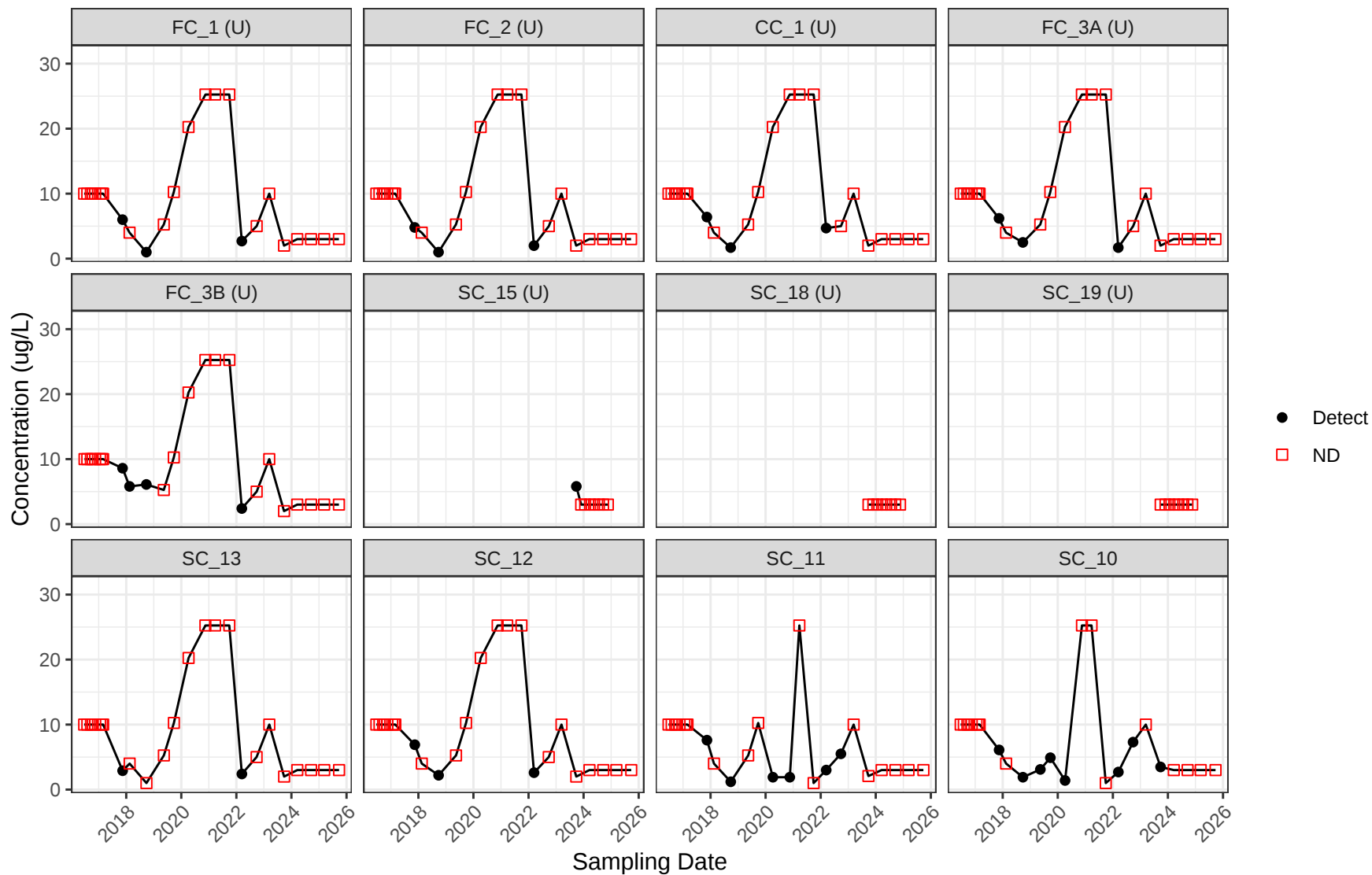


Figure 9: Time Series Plots

2025 Time Series Plots for Cobalt

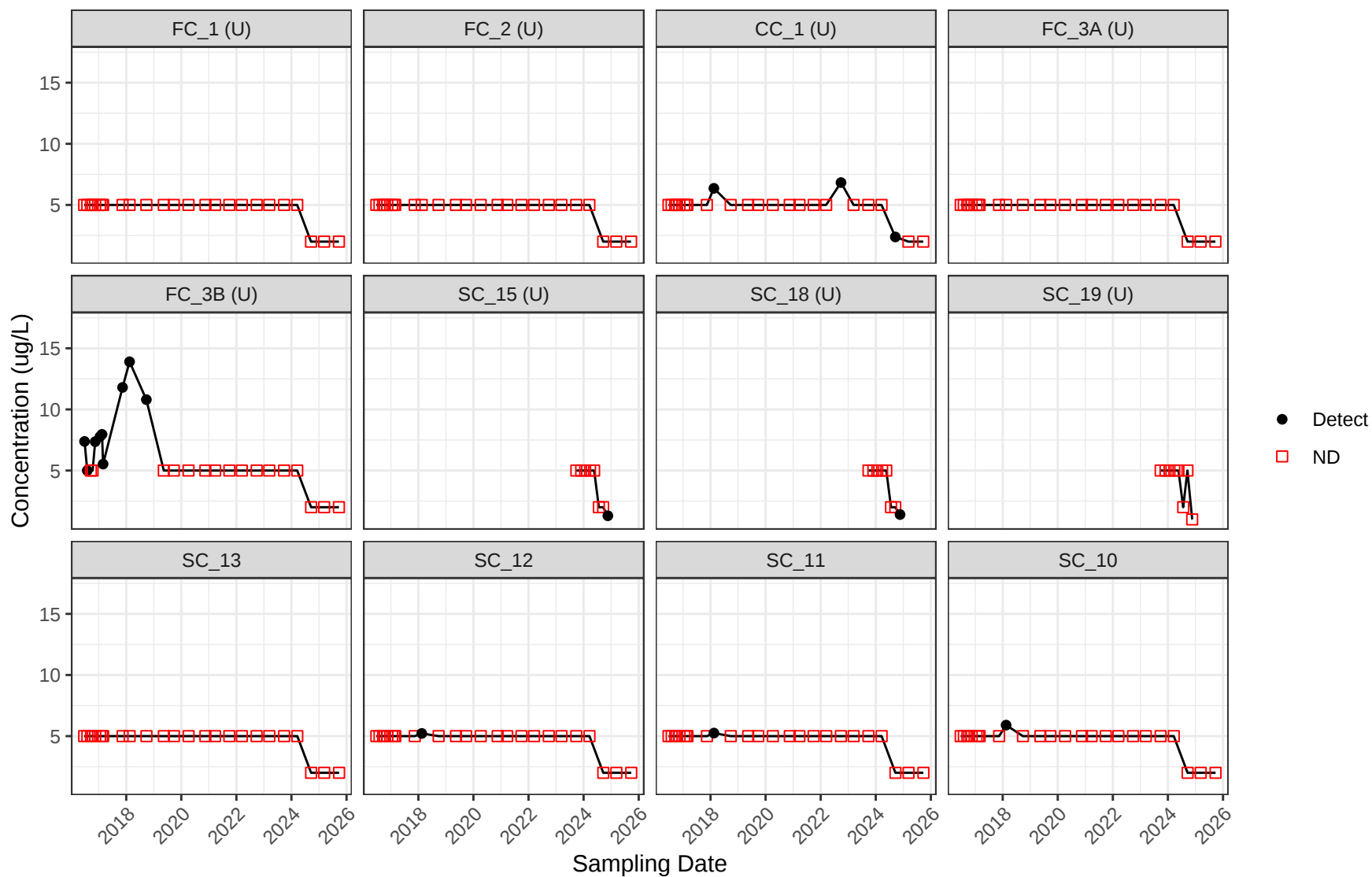


Figure 10: Time Series Plots

2025 Time Series Plots for Fluoride

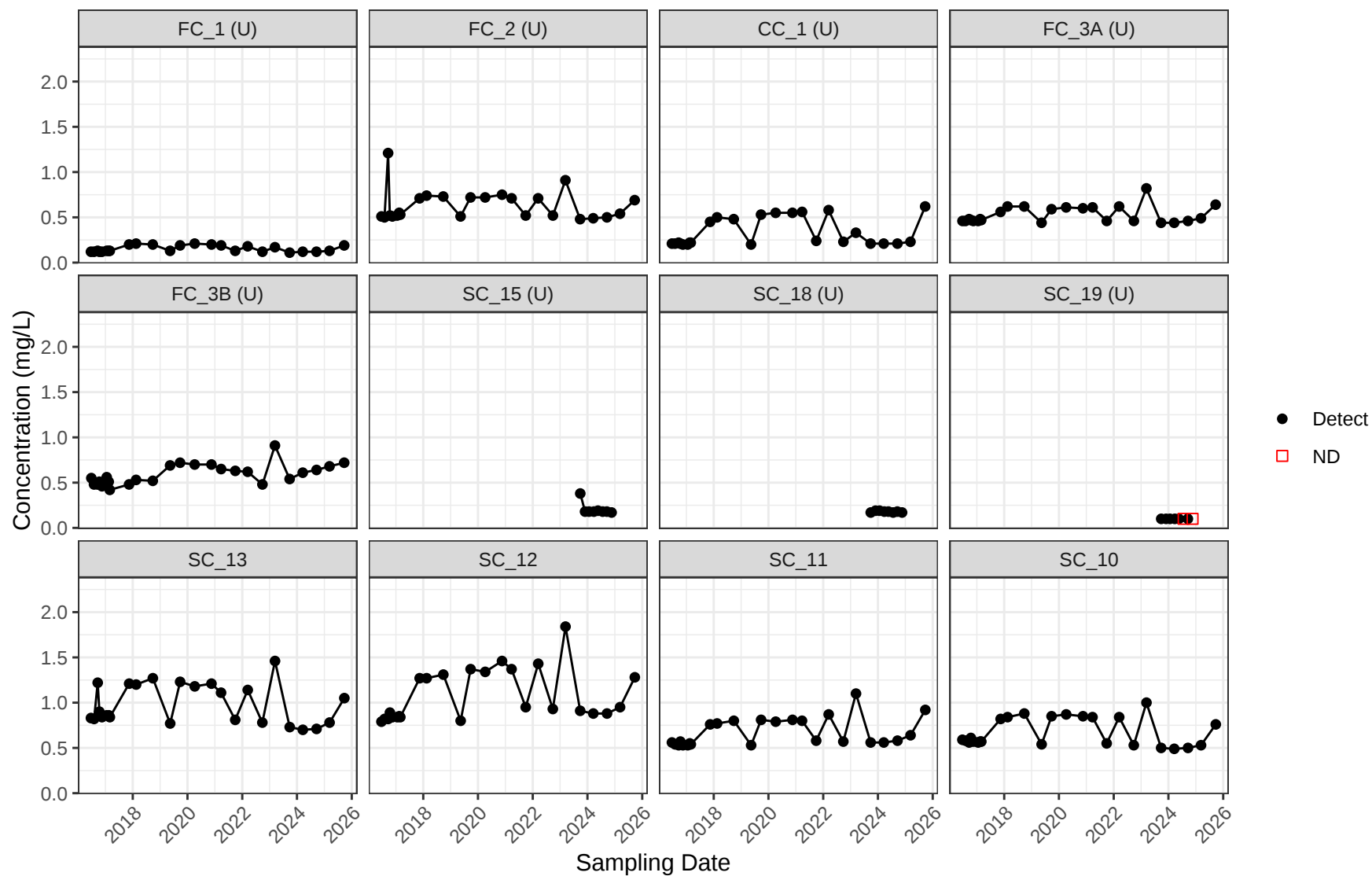


Figure 11: Time Series Plots

2025 Time Series Plots for Lead

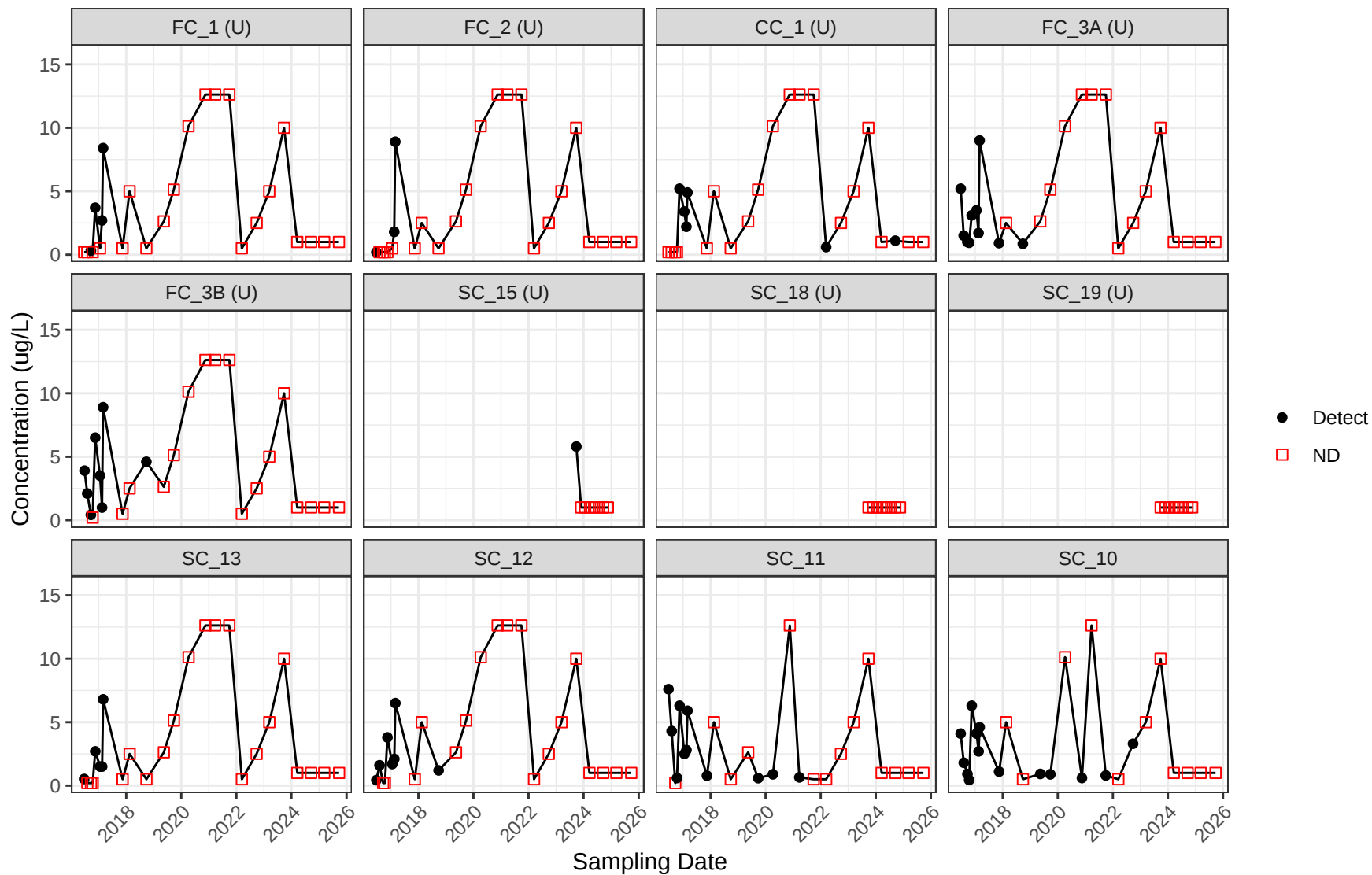


Figure 12: Time Series Plots

2025 Time Series Plots for Lithium

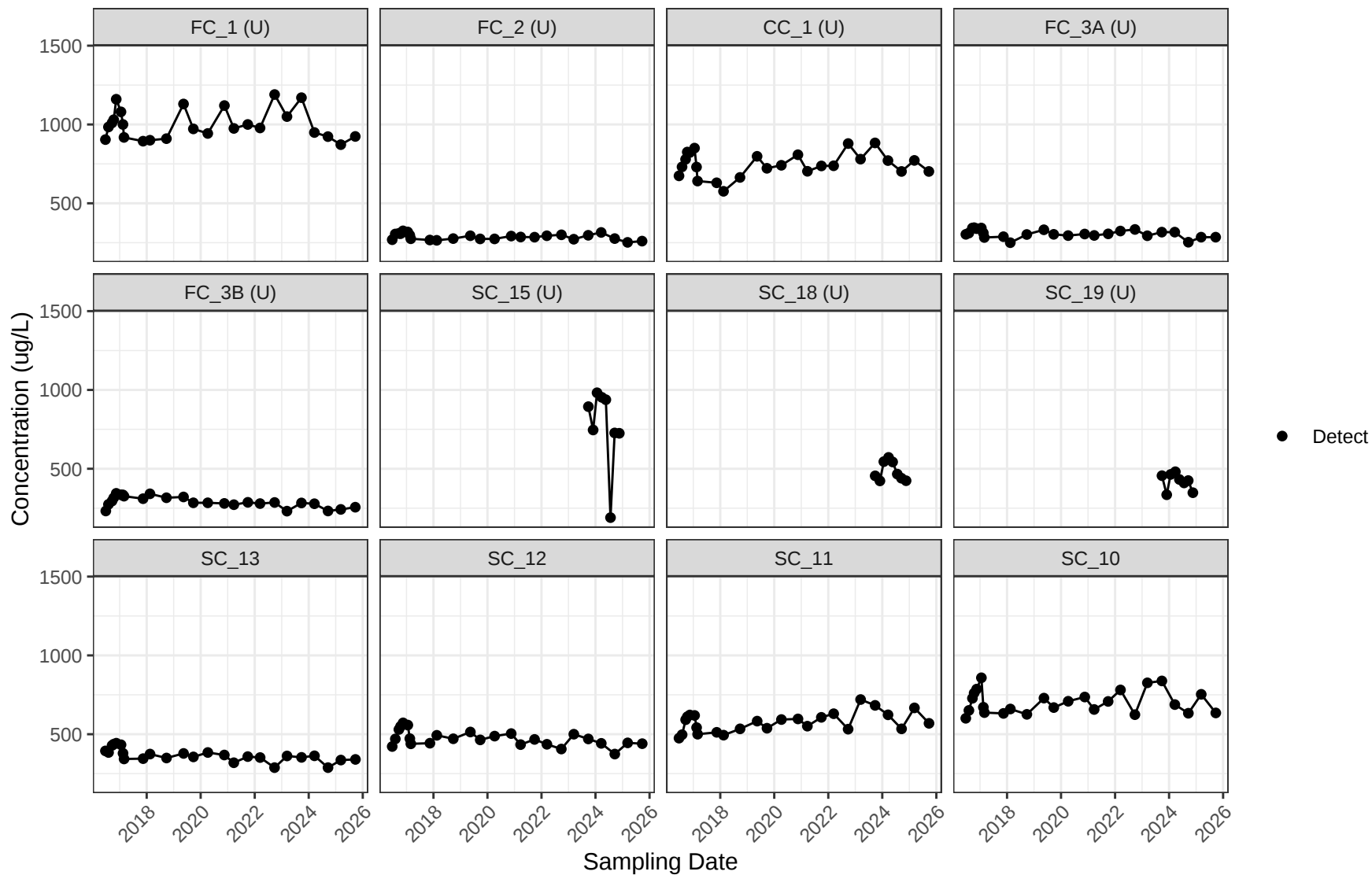


Figure 13: Time Series Plots

2025 Time Series Plots for Mercury

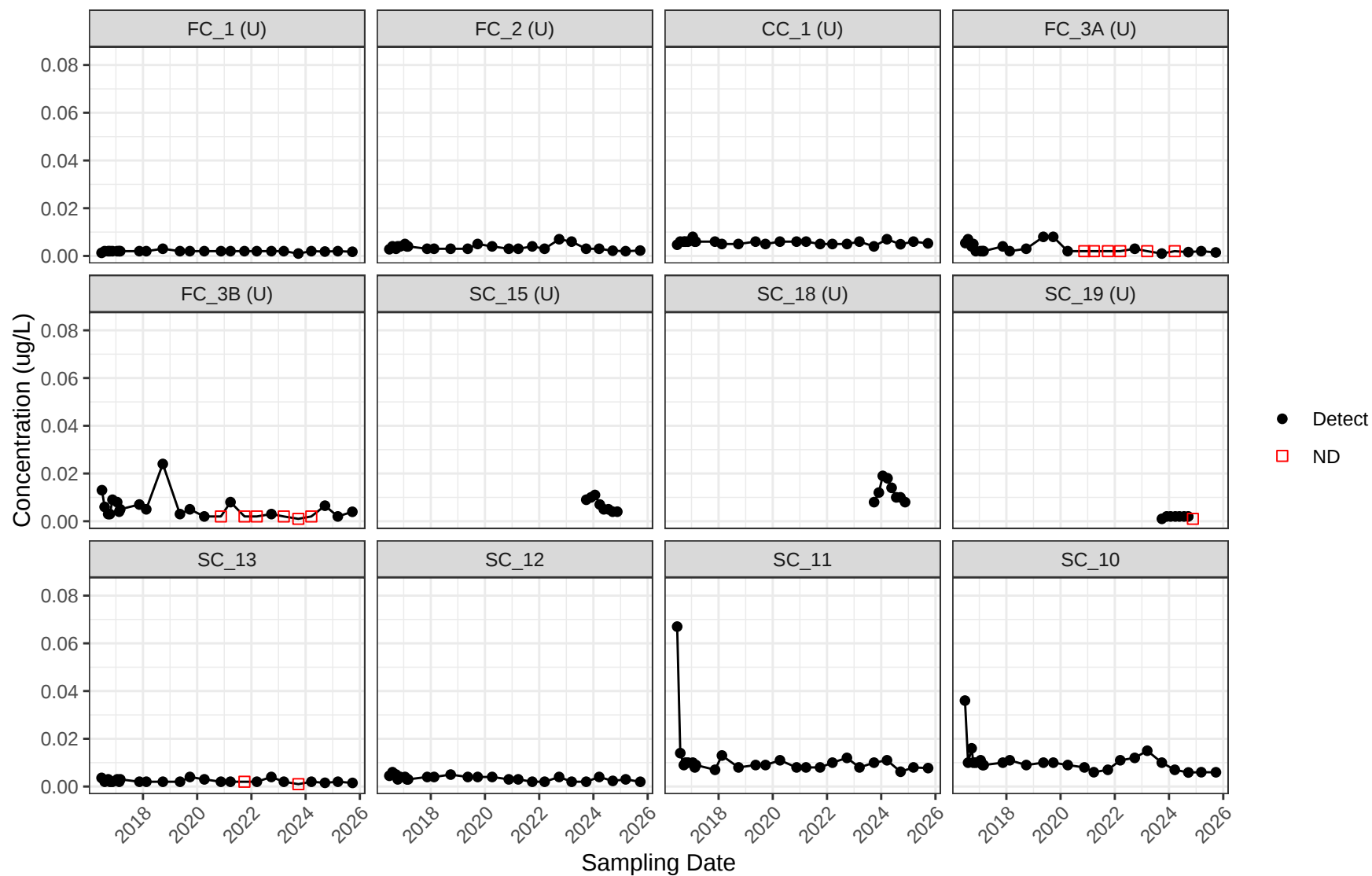


Figure 14: Time Series Plots

2025 Time Series Plots for Molybdenum

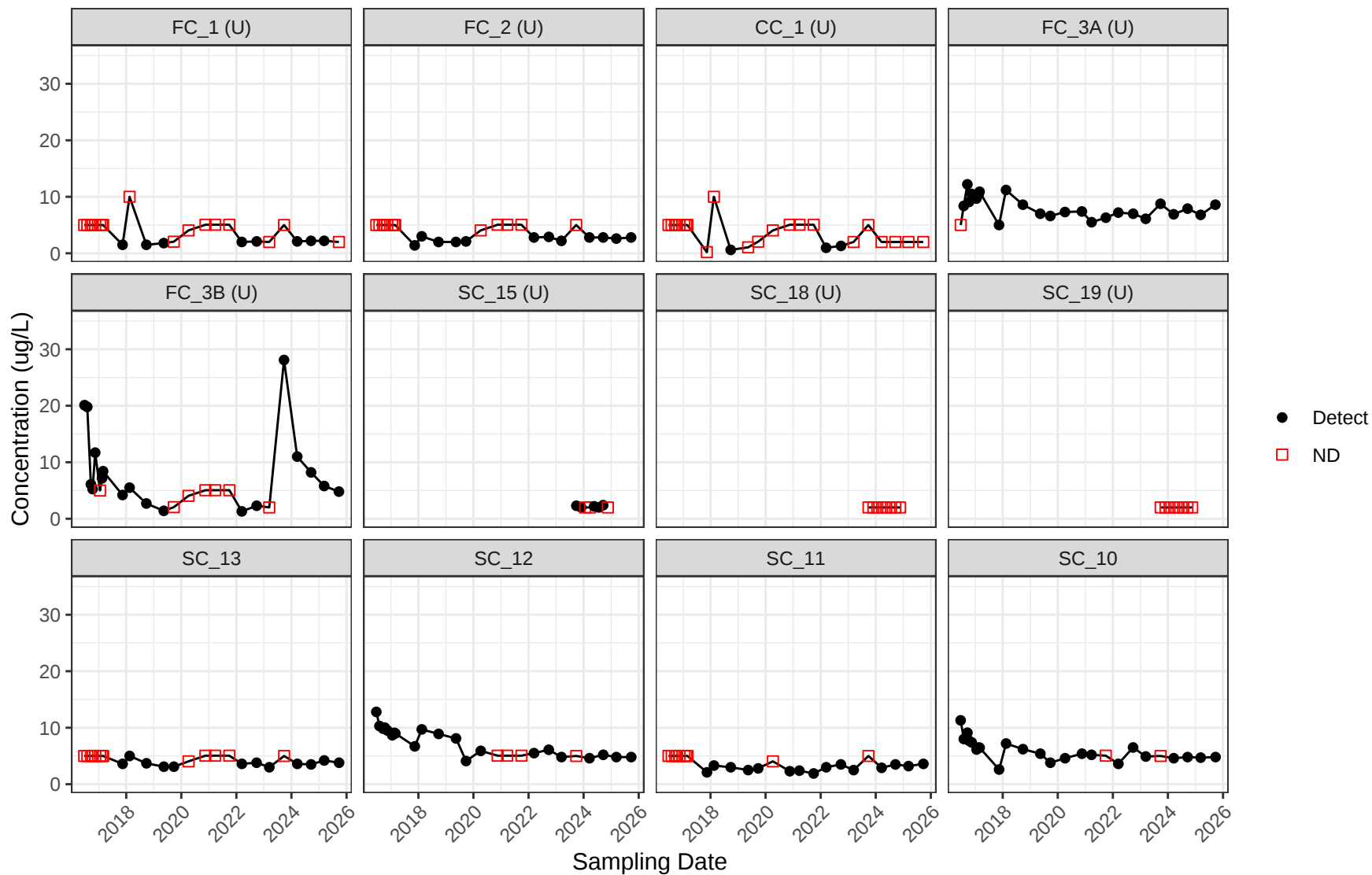


Figure 15: Time Series Plots

2025 Time Series Plots for pH

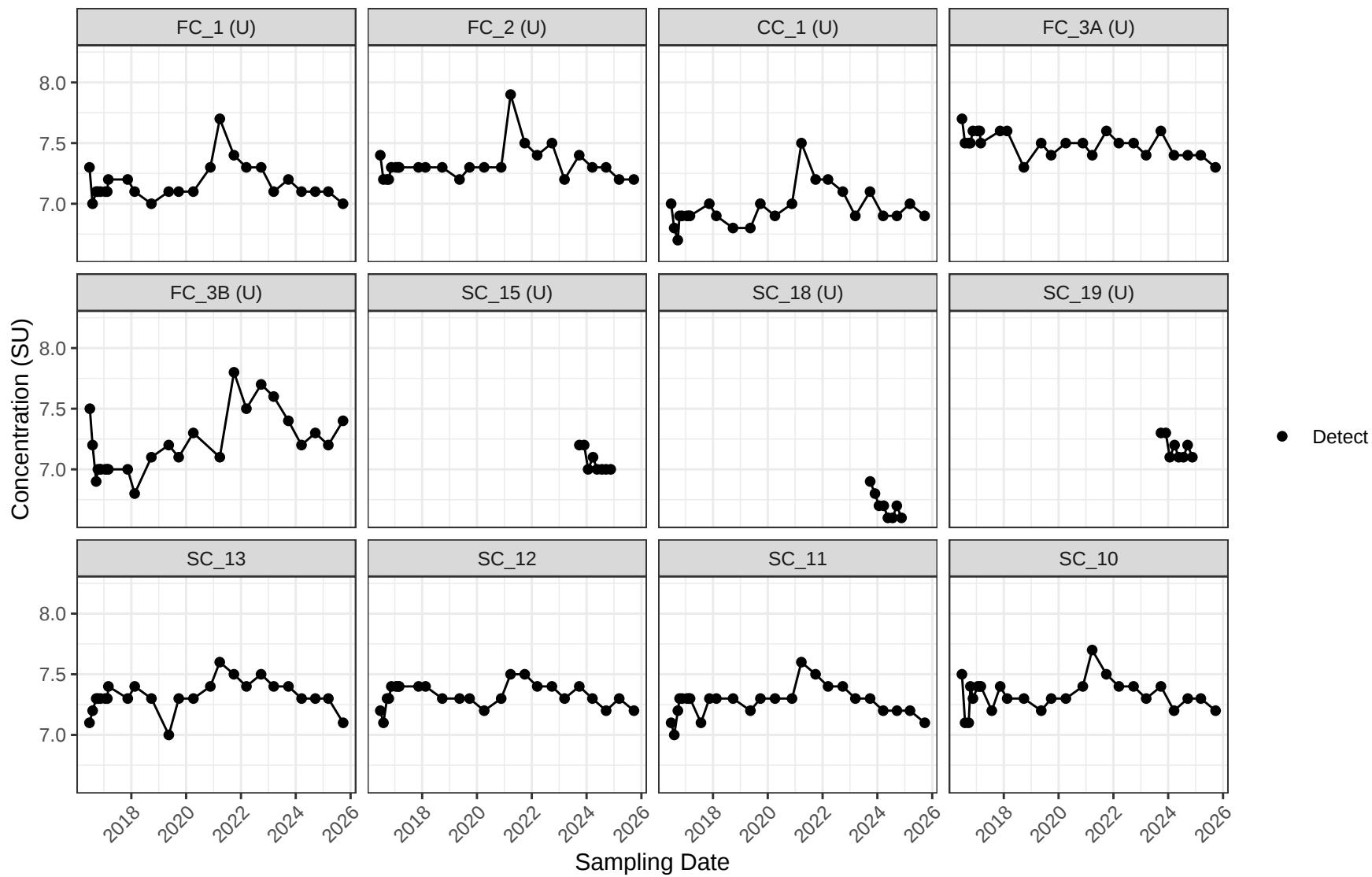


Figure 16: Time Series Plots

2025 Time Series Plots for Rad226+228

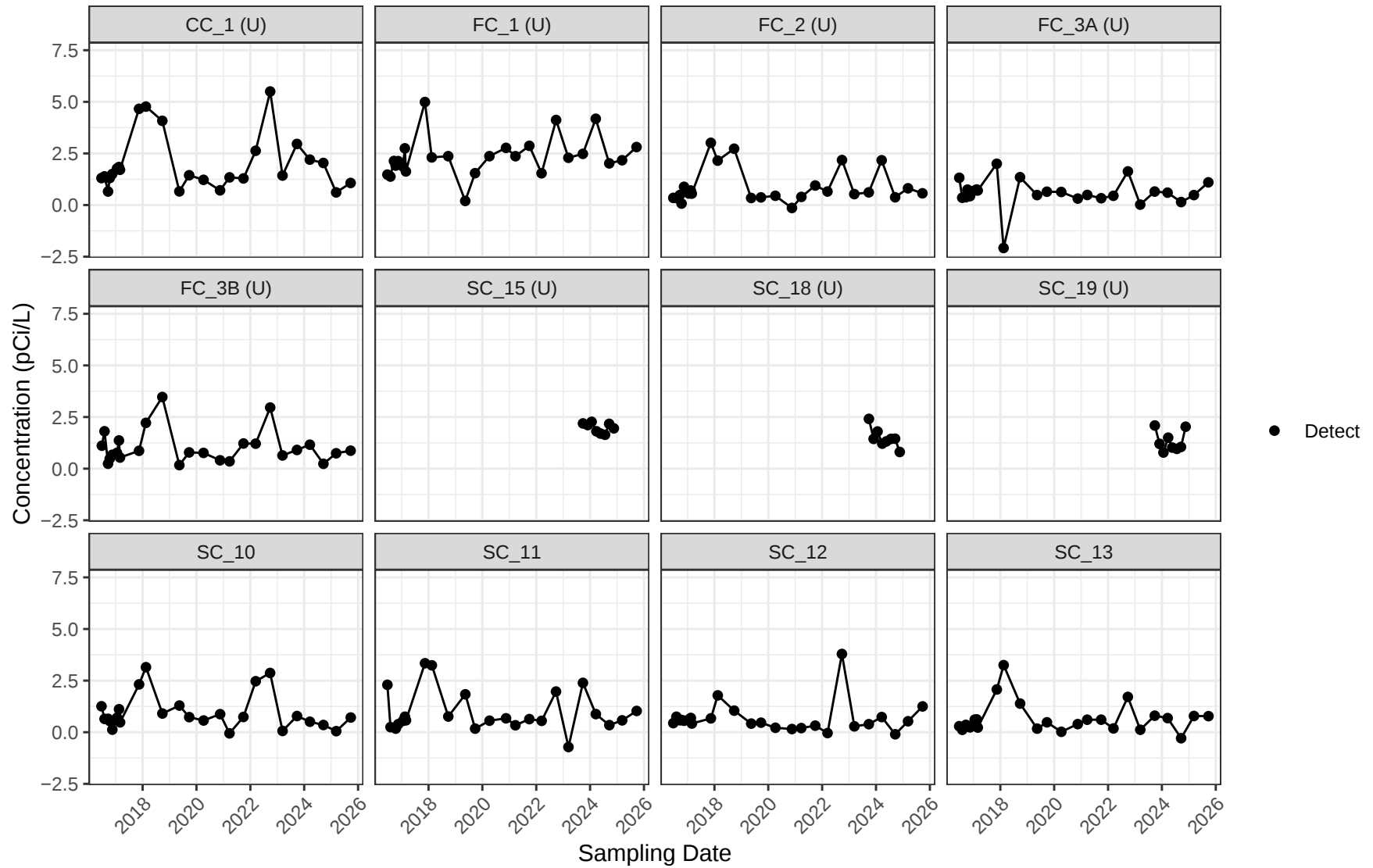


Figure 17: Time Series Plots

2025 Time Series Plots for Selenium

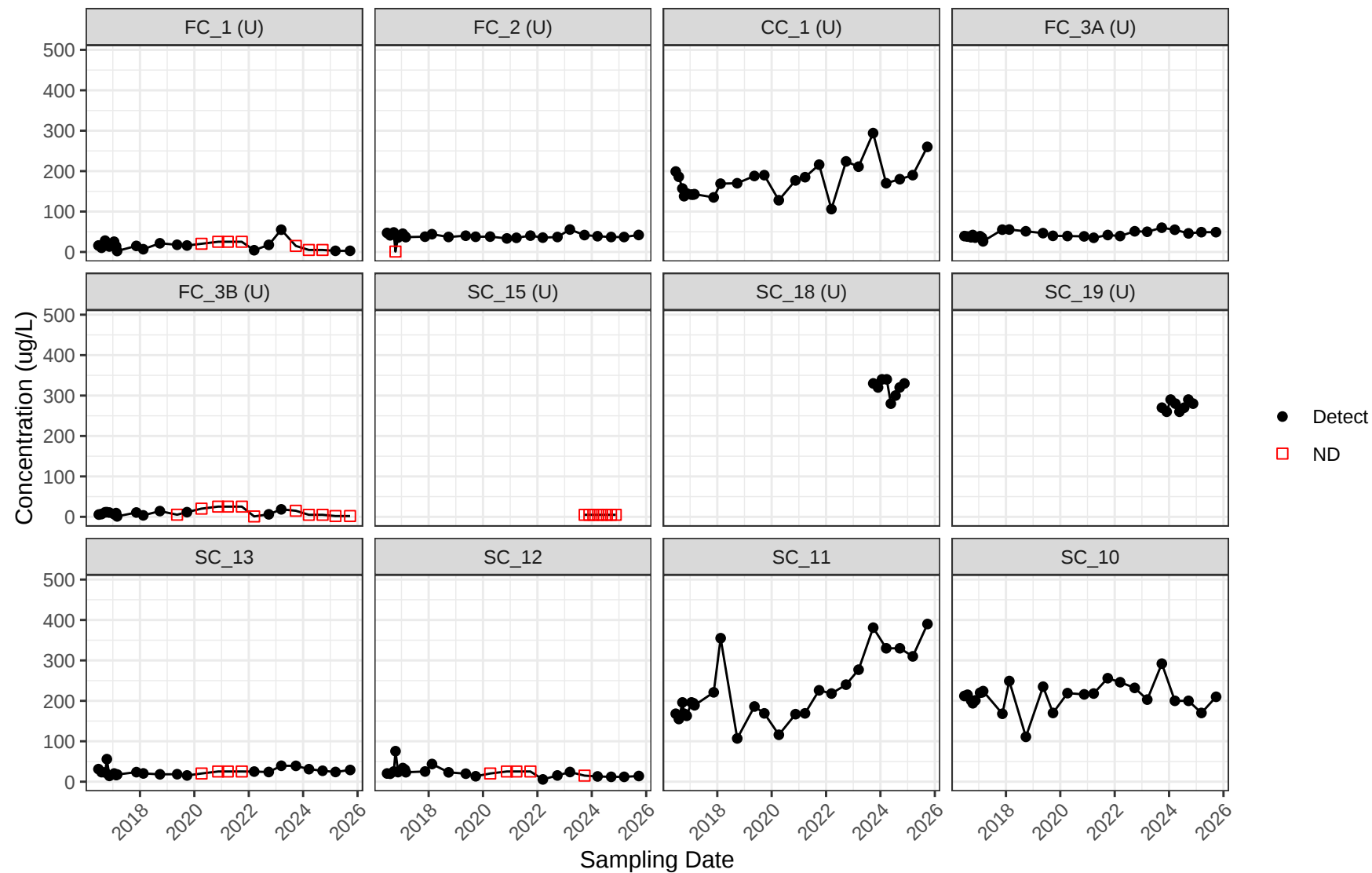


Figure 18: Time Series Plots

2025 Time Series Plots for Sulfate

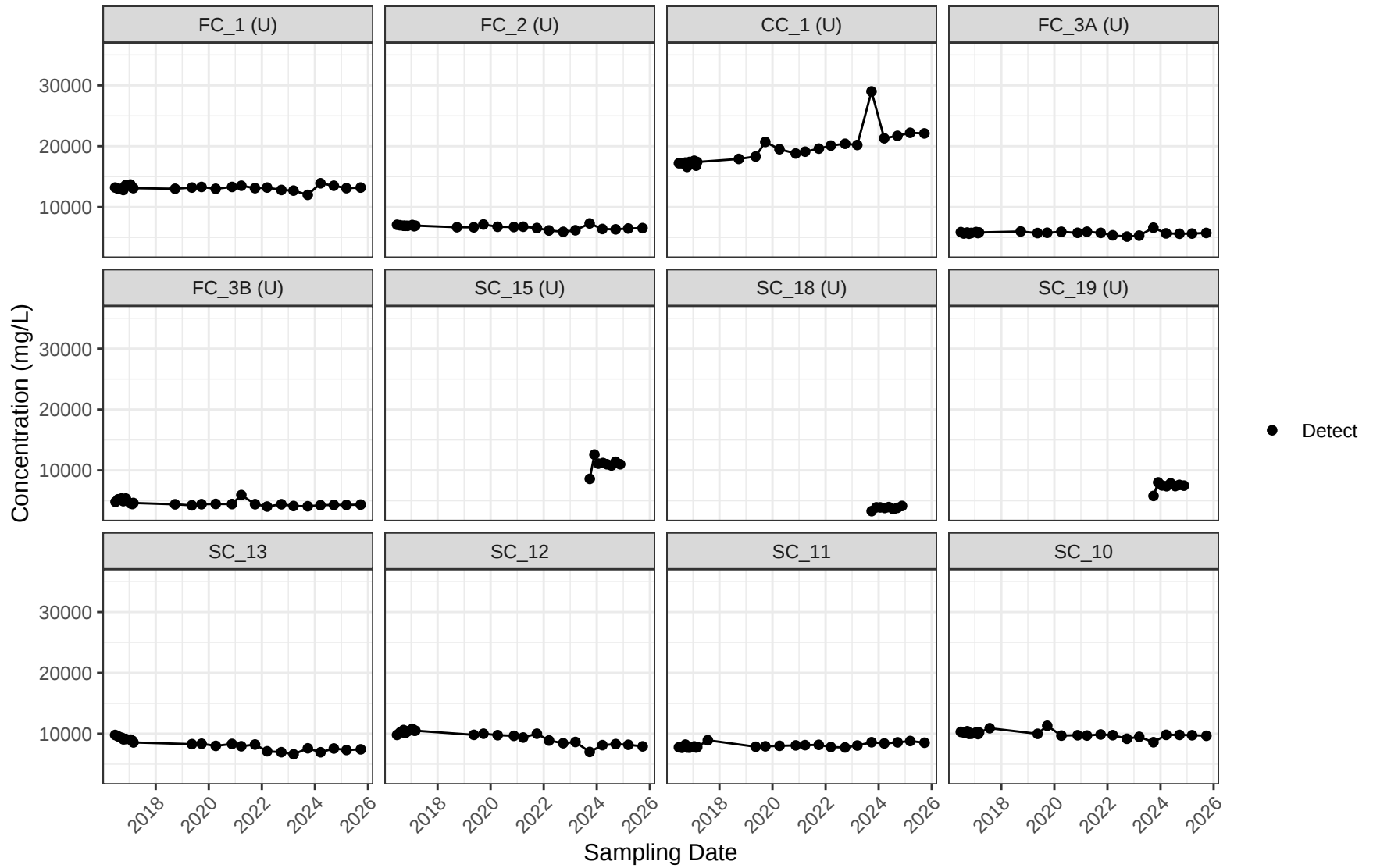


Figure 19: Time Series Plots

2025 Time Series Plots for TDS

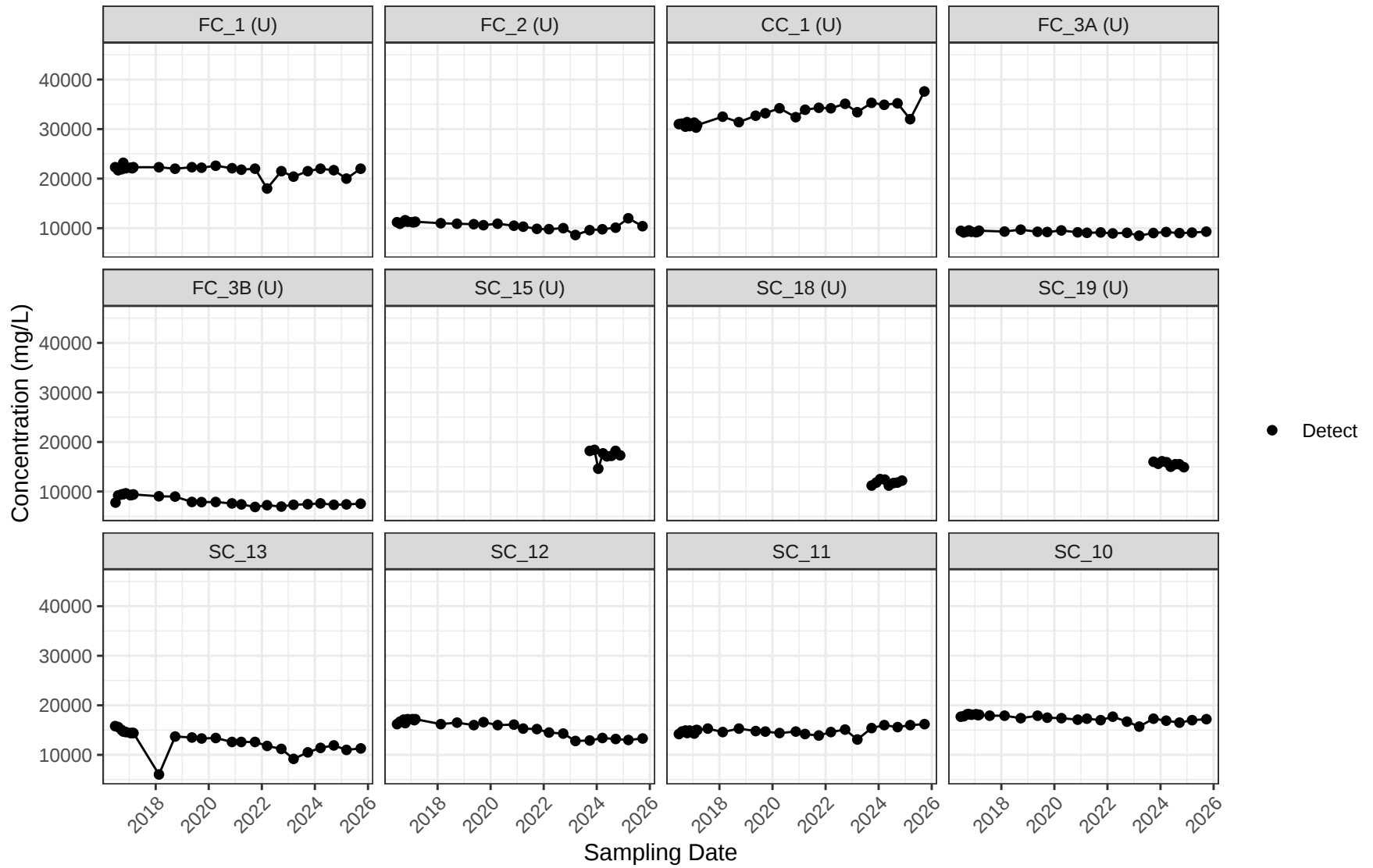


Figure 20: Time Series Plots

2025 Time Series Plots for Thallium

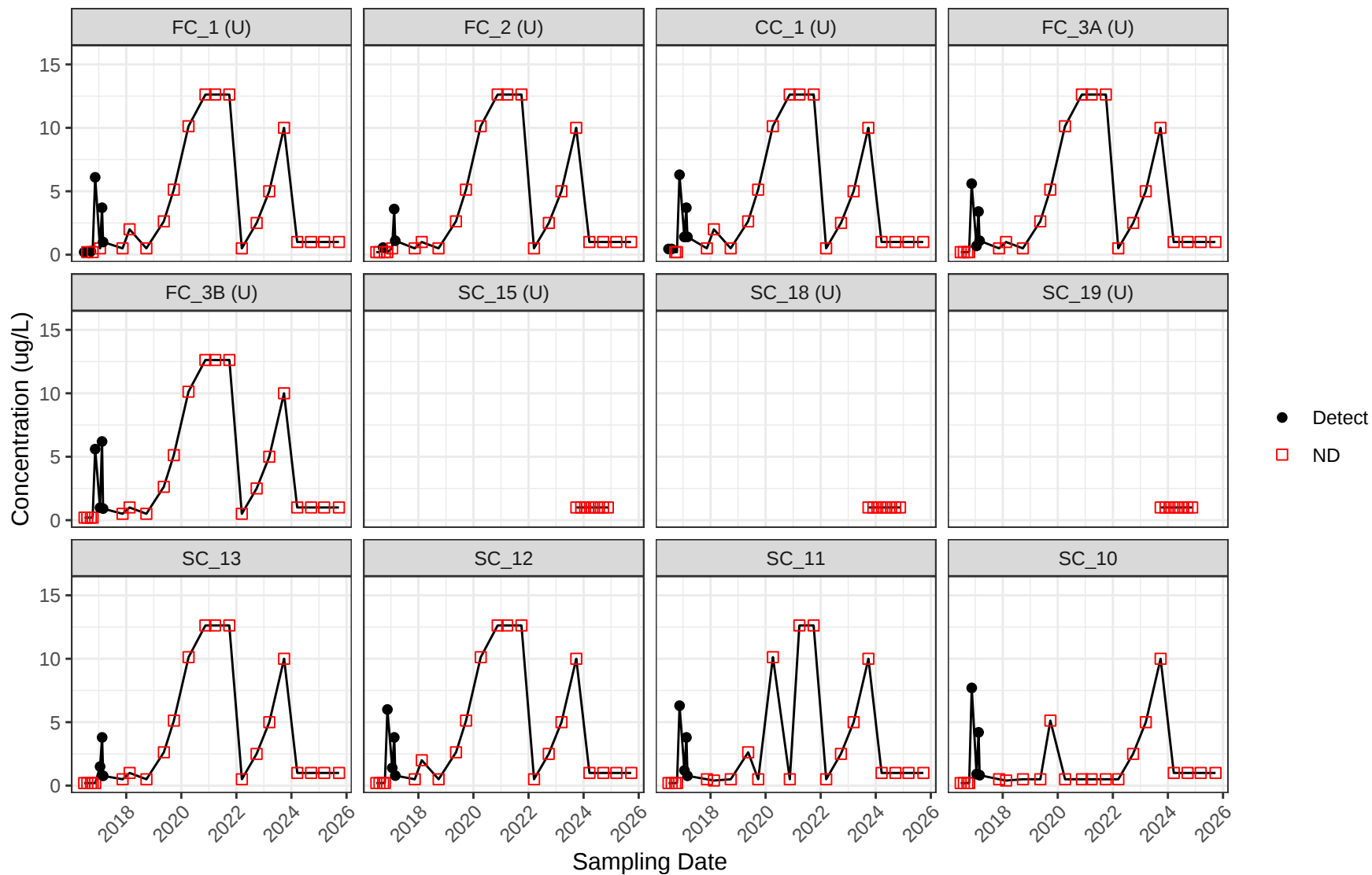


Figure 21: Time Series Plots

Box Plots

2025 Box Plots for Antimony Grouped by Gradient

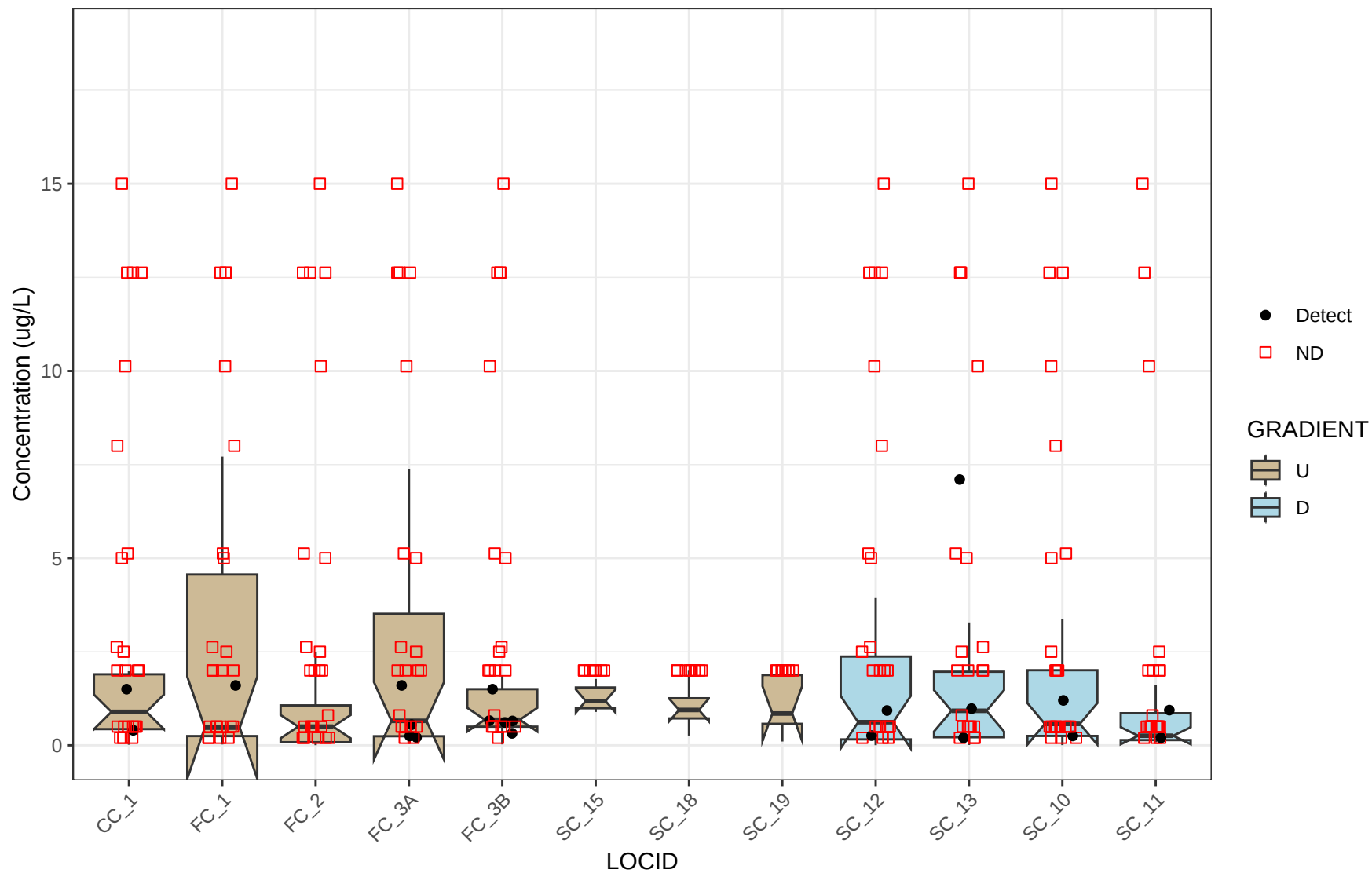


Figure 22: Box Plots

2025 Box Plots for Arsenic Grouped by Gradient

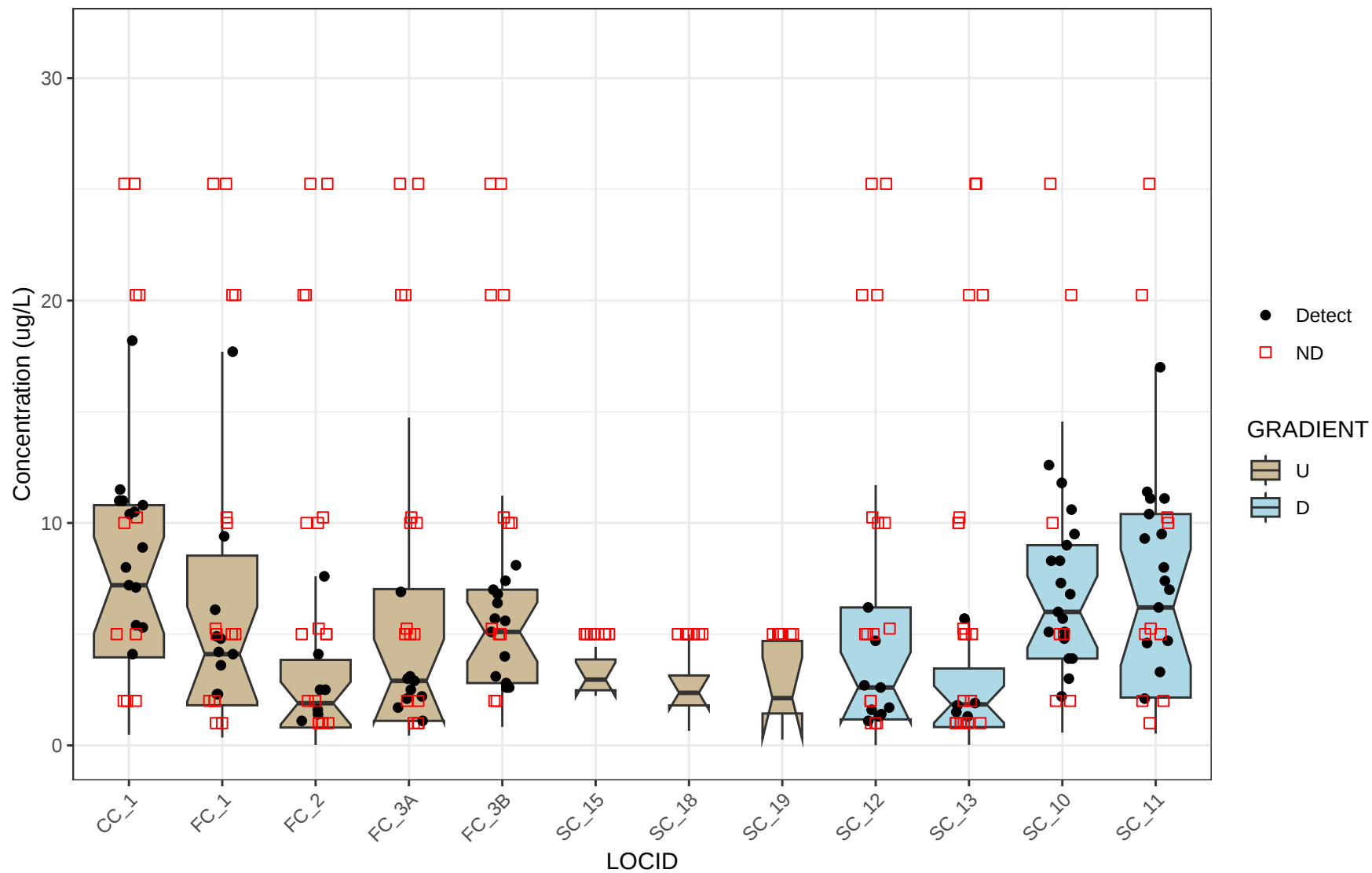


Figure 23: Box Plots

2025 Box Plots for Barium Grouped by Gradient

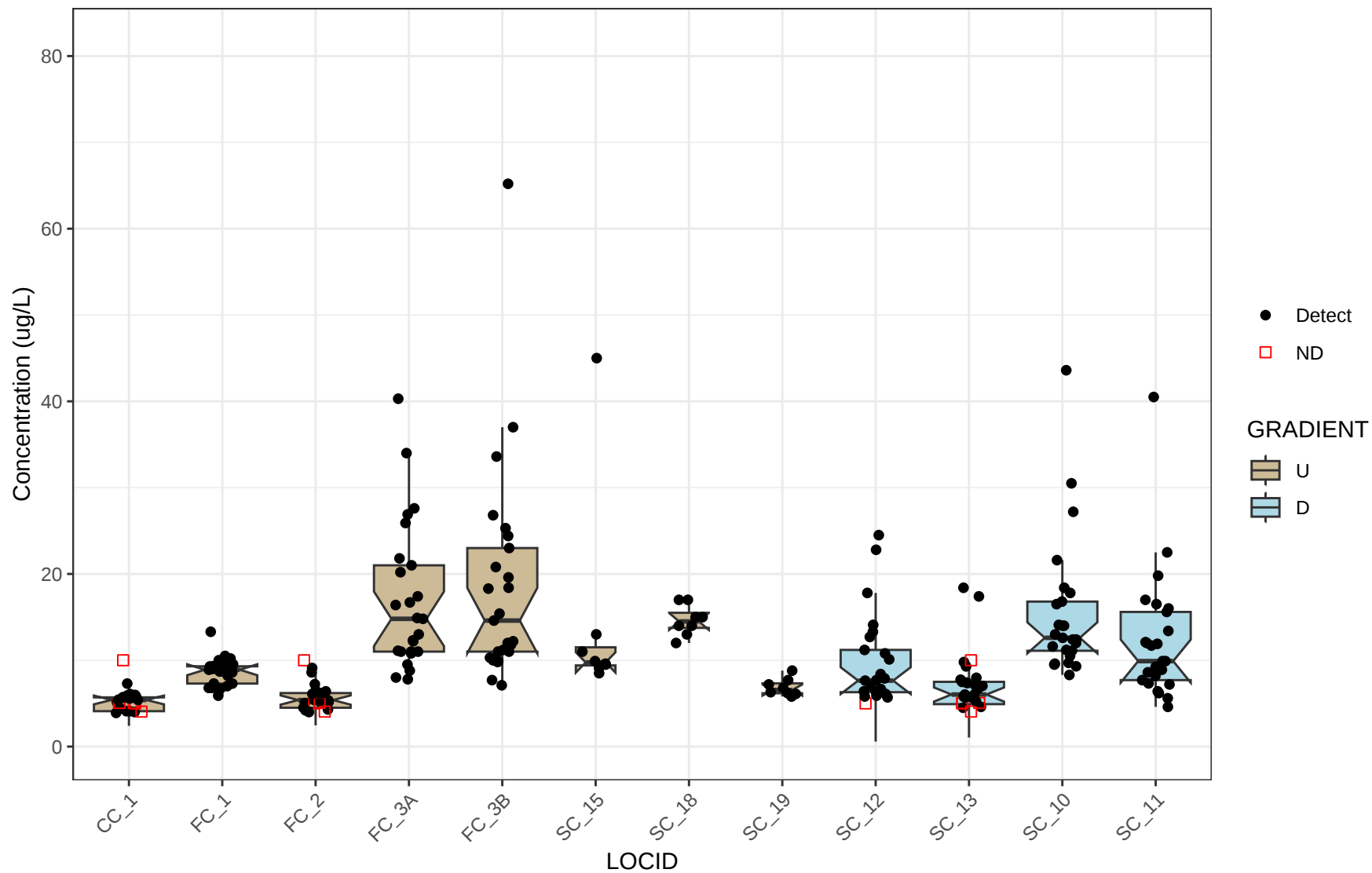


Figure 24: Box Plots

2025 Box Plots for Beryllium Grouped by Gradient

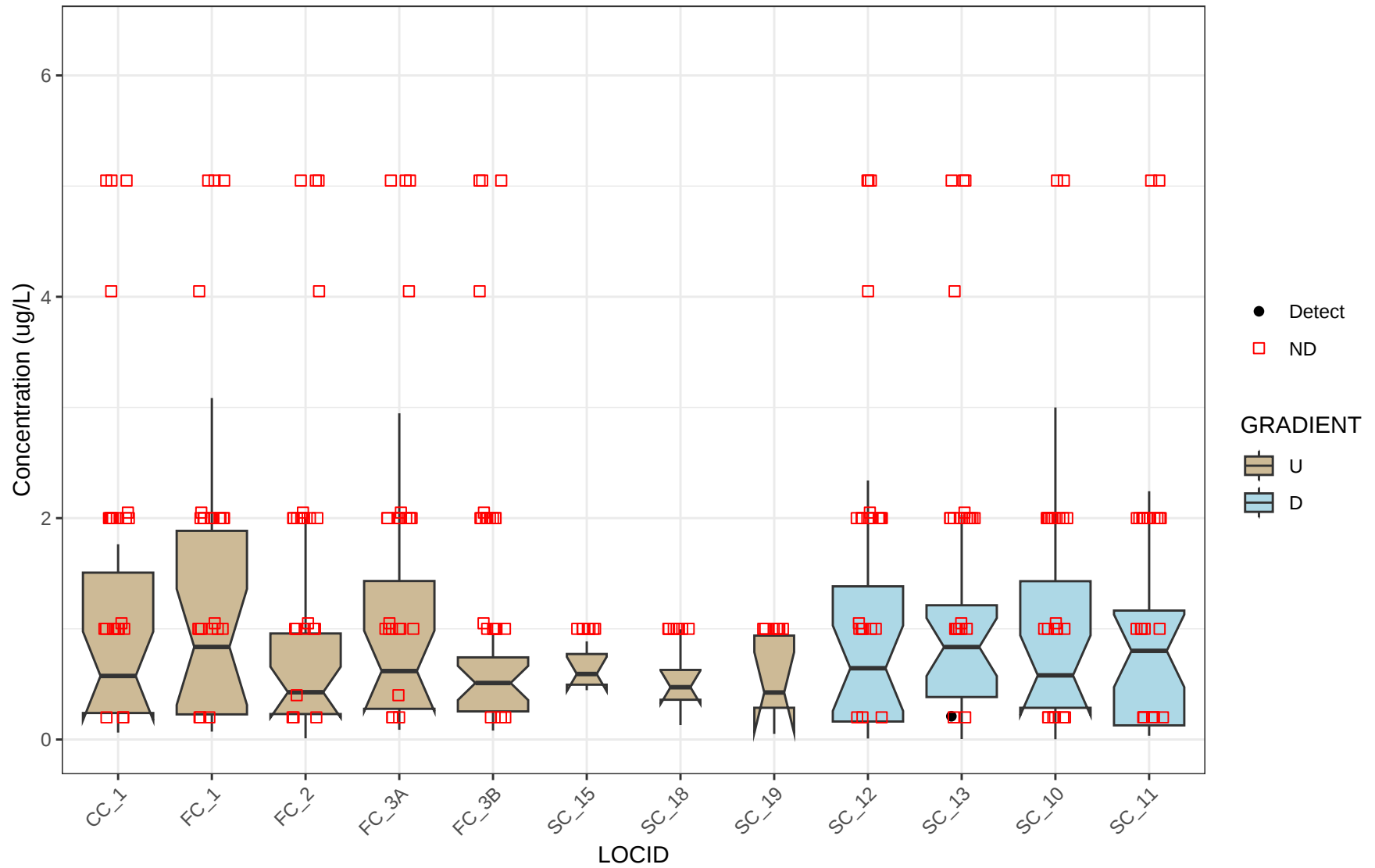


Figure 25: Box Plots

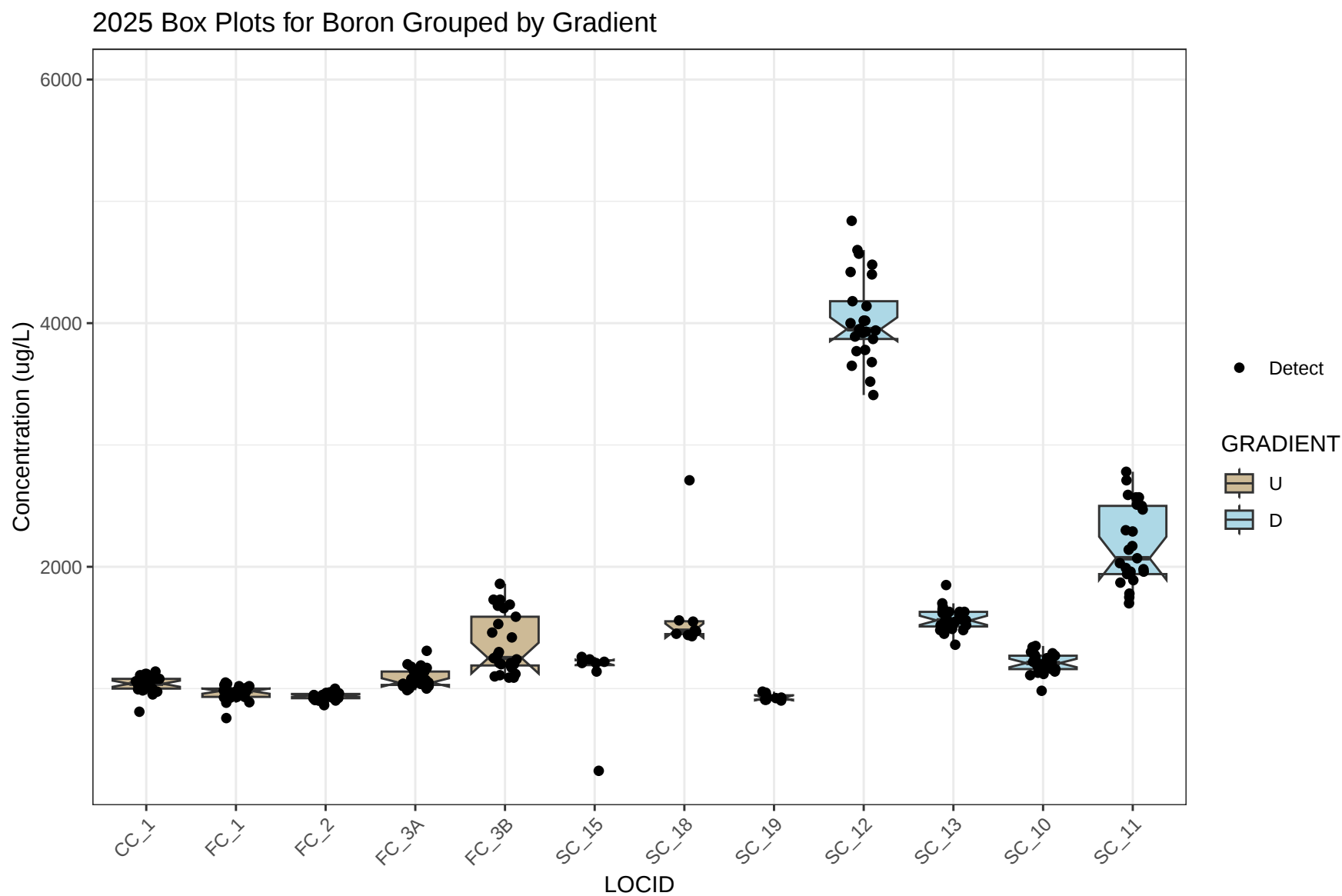


Figure 26: Box Plots

2025 Box Plots for Cadmium Grouped by Gradient

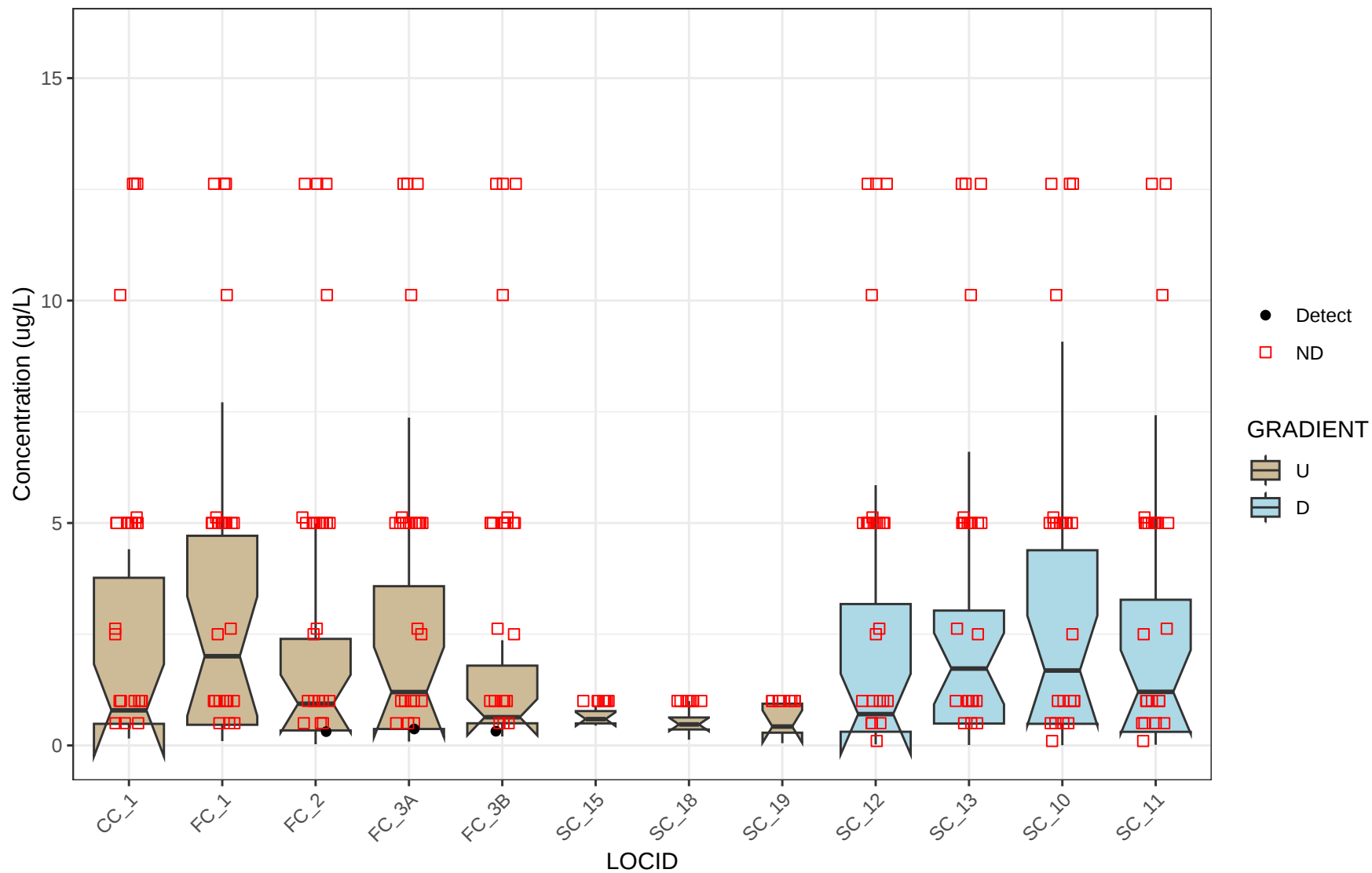


Figure 27: Box Plots

2025 Box Plots for Calcium Grouped by Gradient

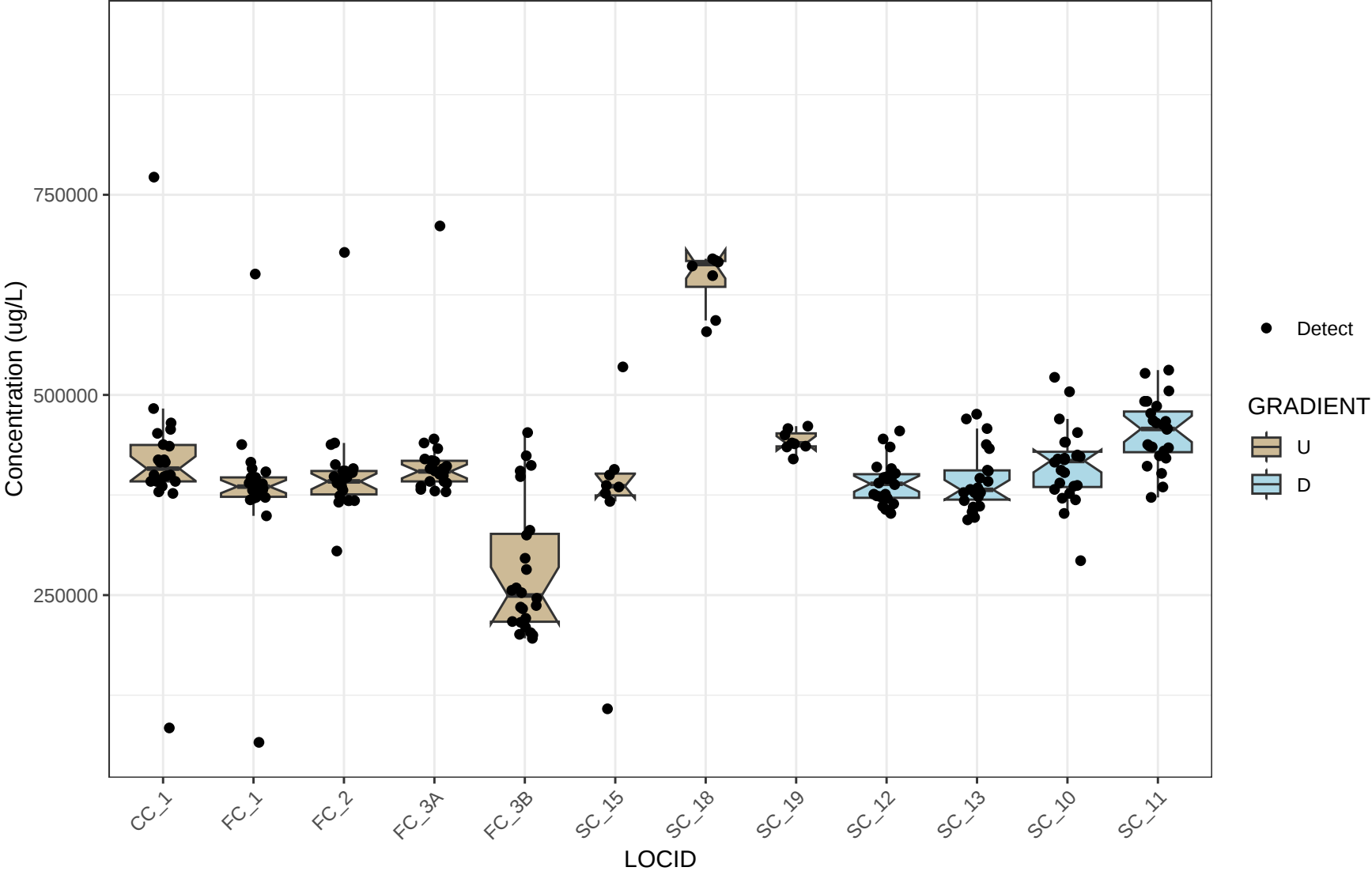


Figure 28: Box Plots

2025 Box Plots for Chloride Grouped by Gradient

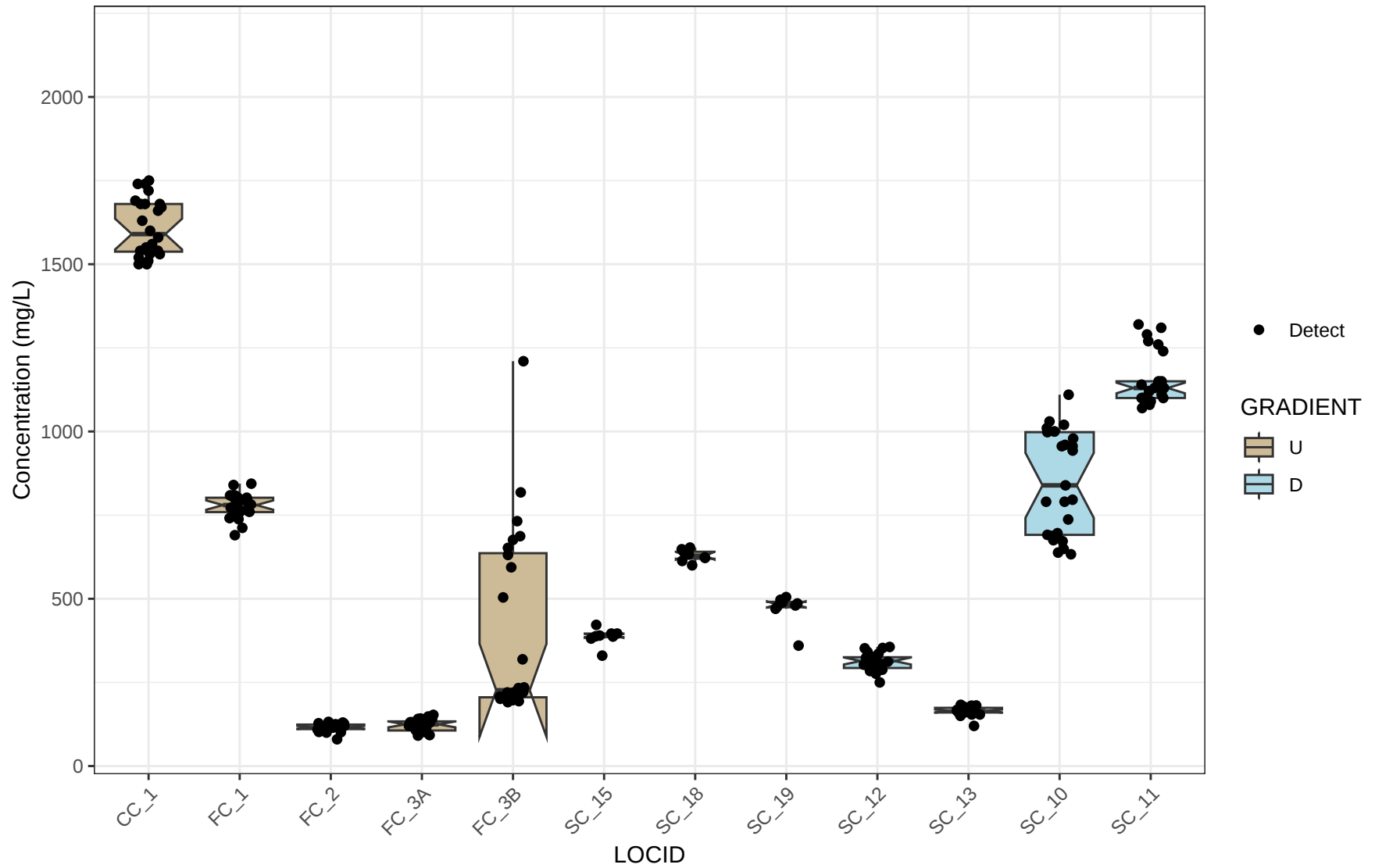


Figure 29: Box Plots

2025 Box Plots for Chromium Grouped by Gradient

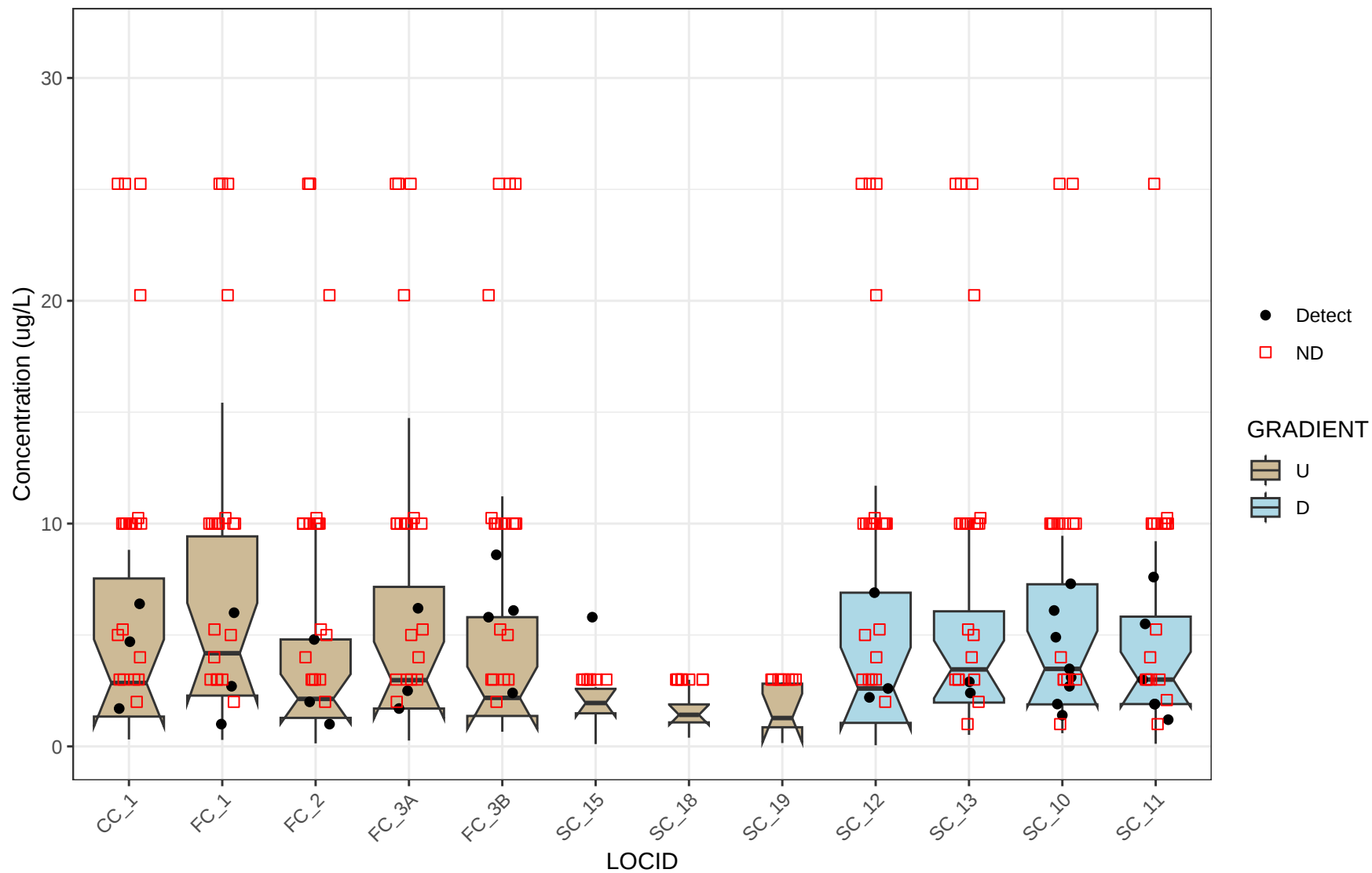


Figure 30: Box Plots

2025 Box Plots for Cobalt Grouped by Gradient

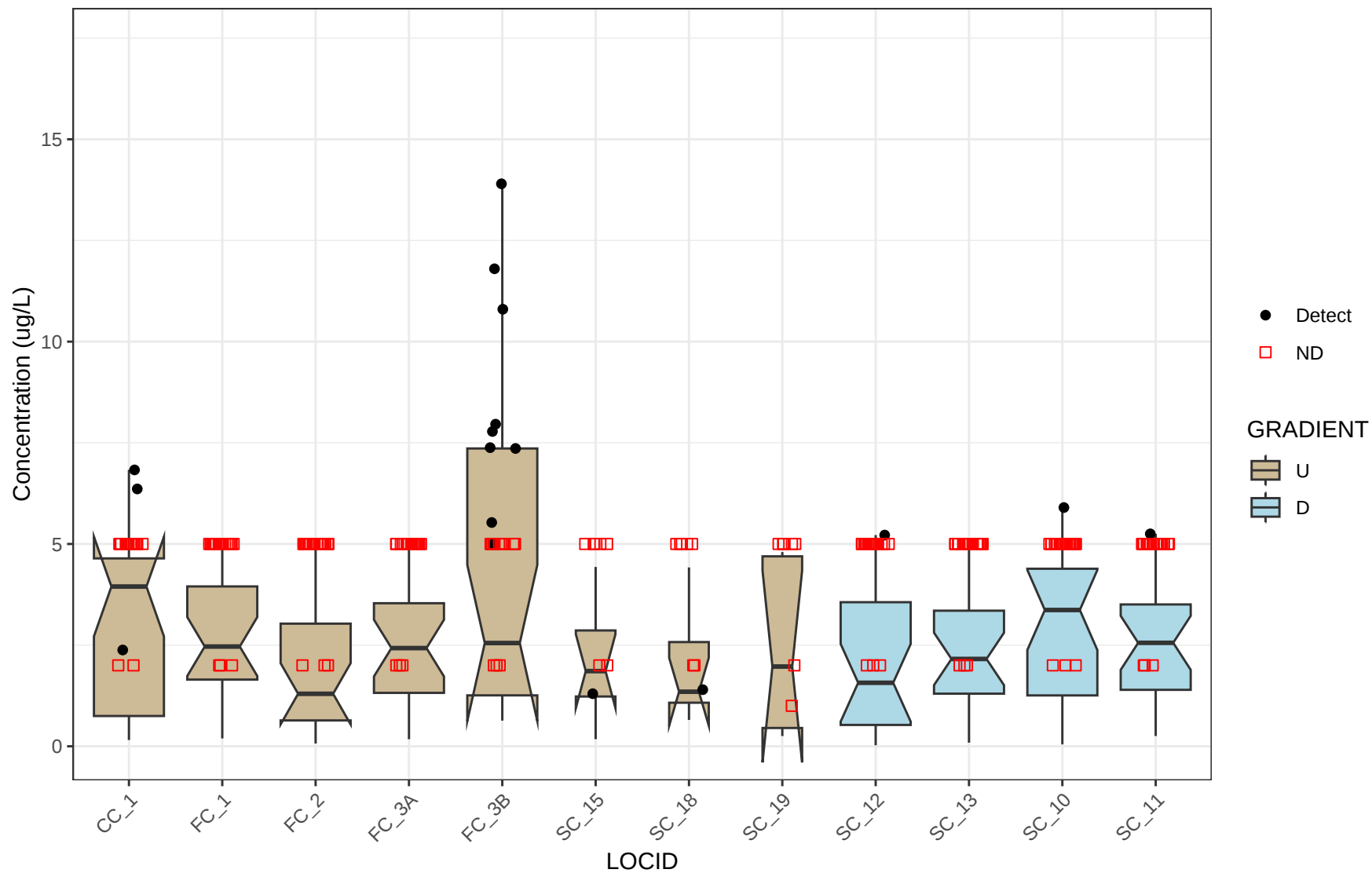


Figure 31: Box Plots

2025 Box Plots for Fluoride Grouped by Gradient

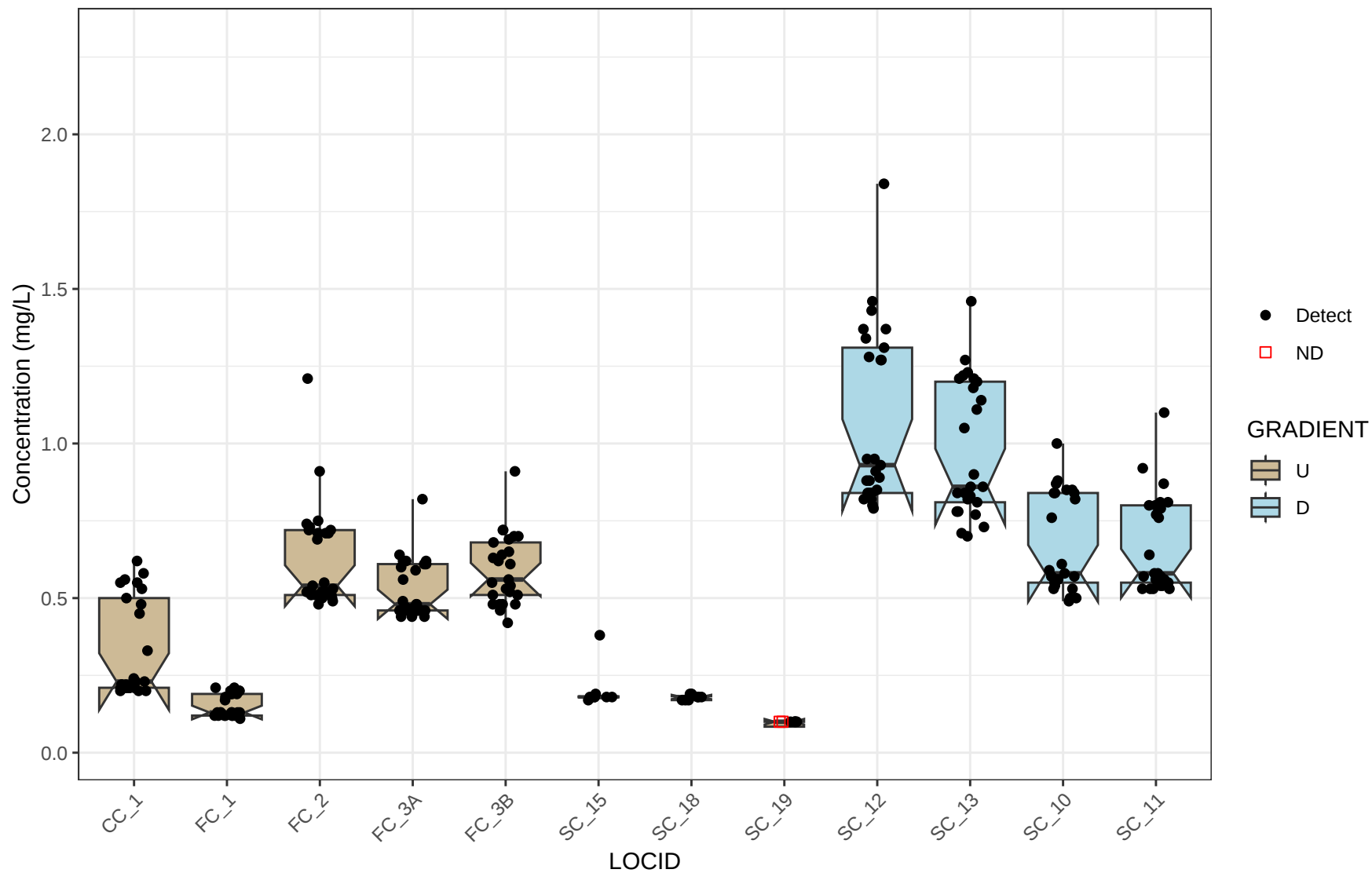


Figure 32: Box Plots

2025 Box Plots for Lead Grouped by Gradient

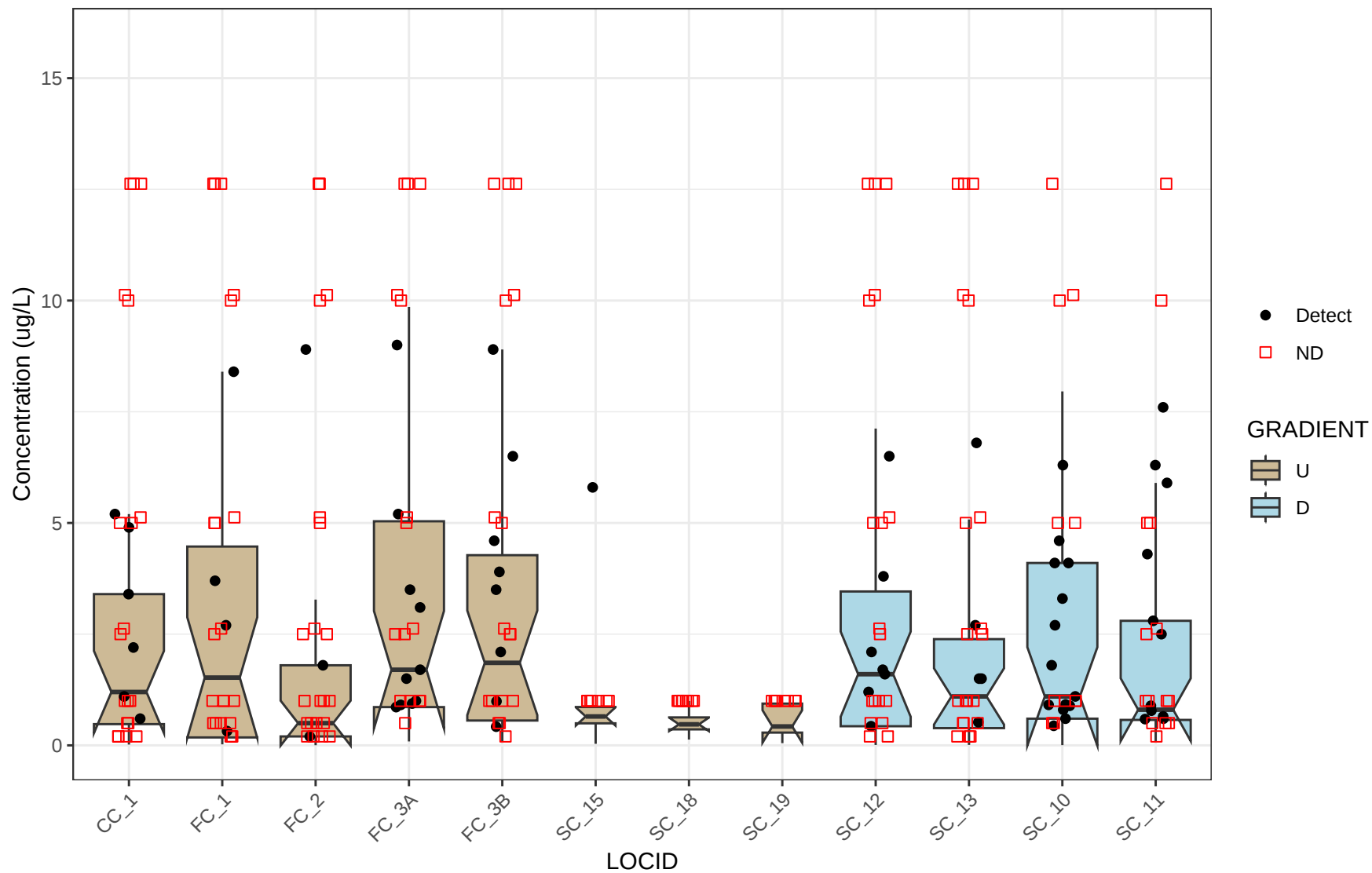


Figure 33: Box Plots

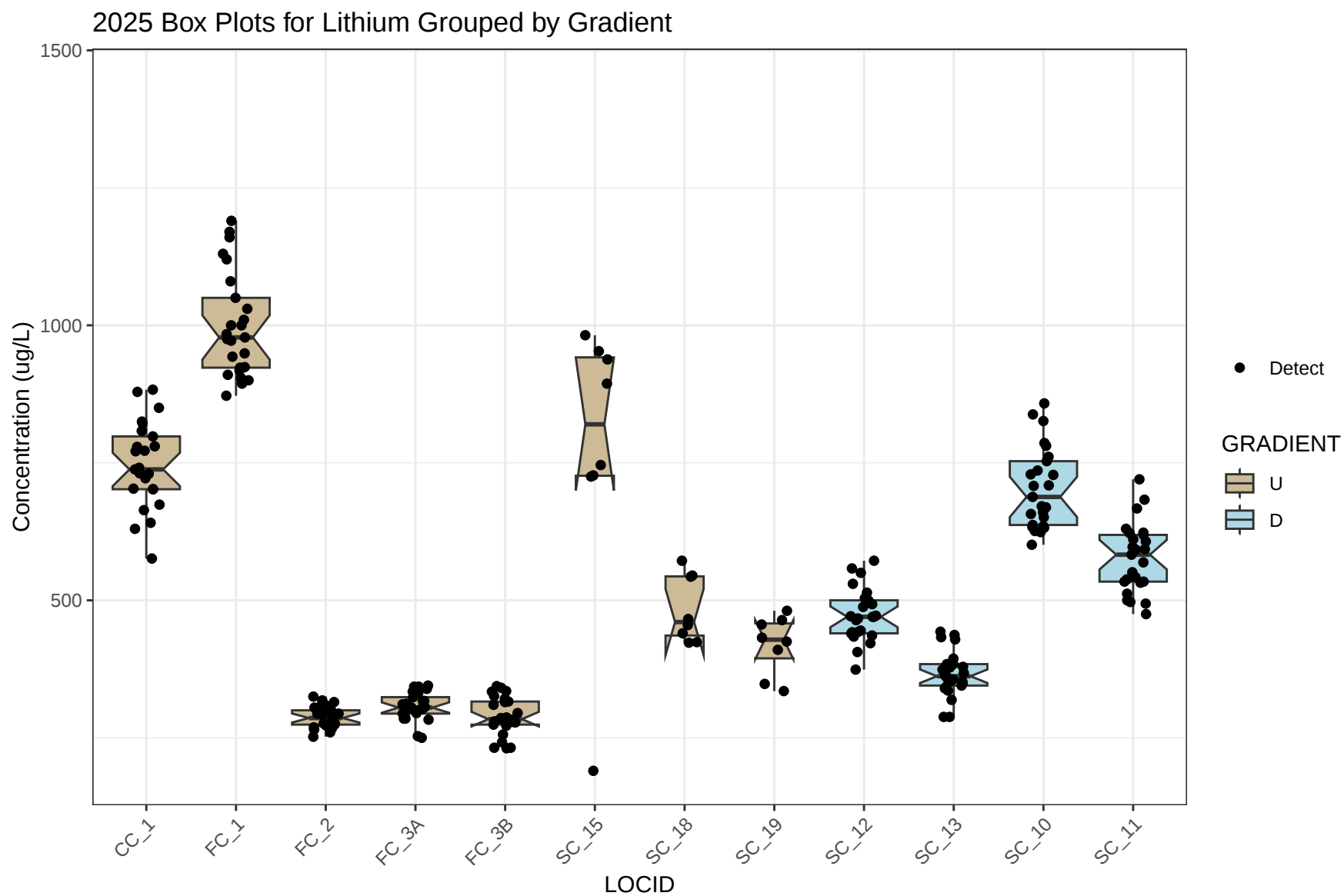


Figure 34: Box Plots

2025 Box Plots for Mercury Grouped by Gradient

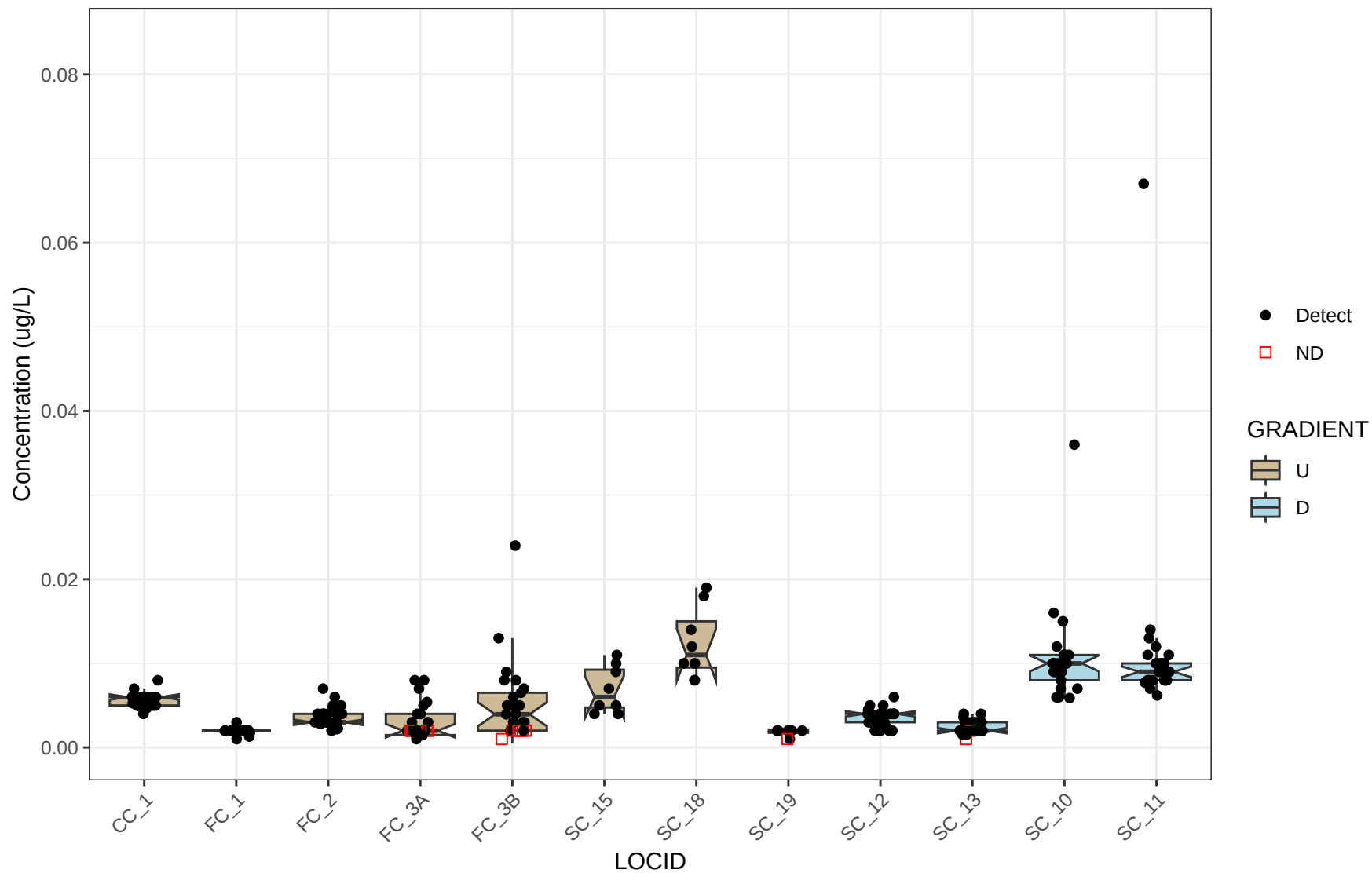


Figure 35: Box Plots

2025 Box Plots for Molybdenum Grouped by Gradient

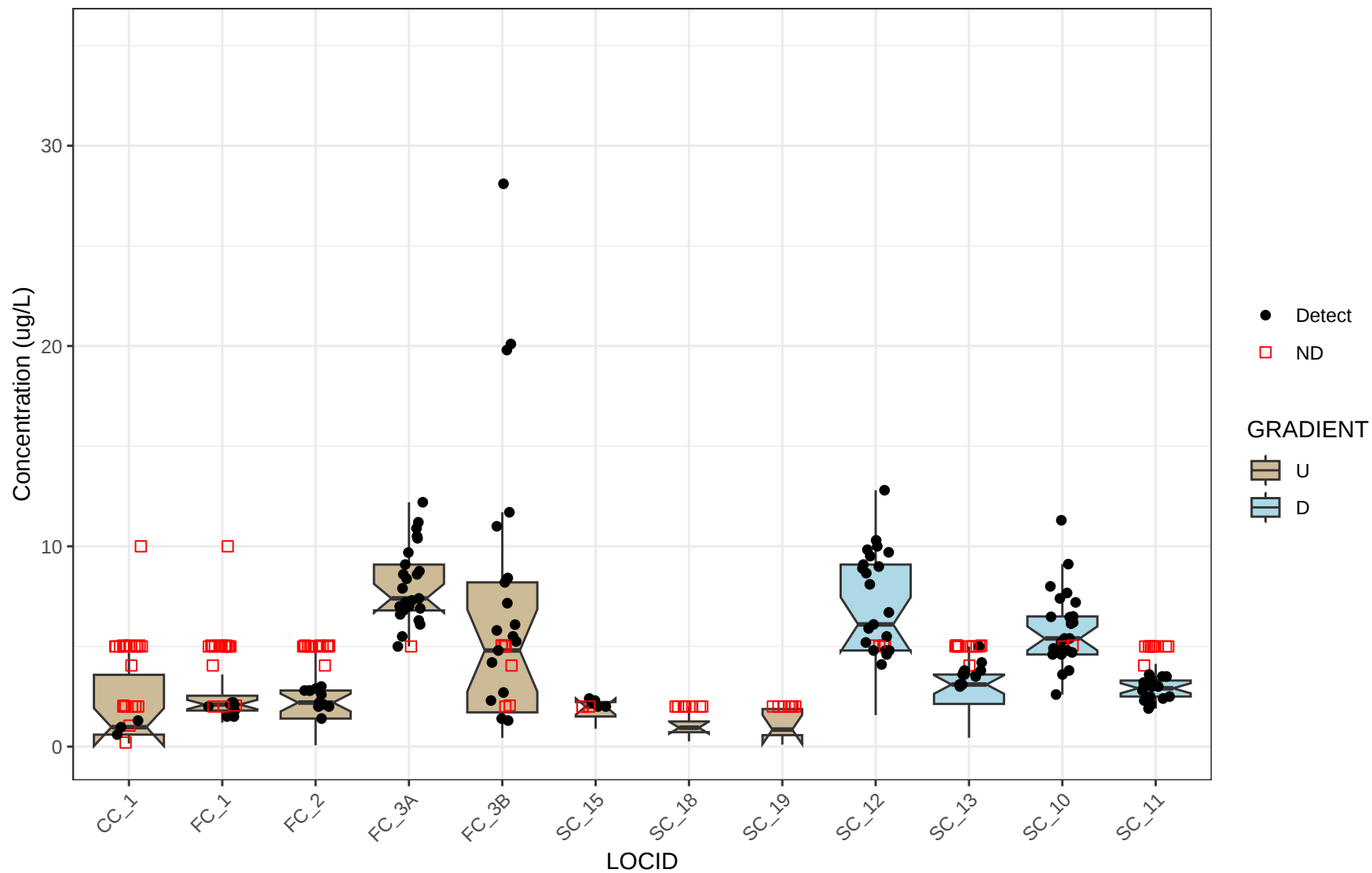


Figure 36: Box Plots

2025 Box Plots for pH Grouped by Gradient

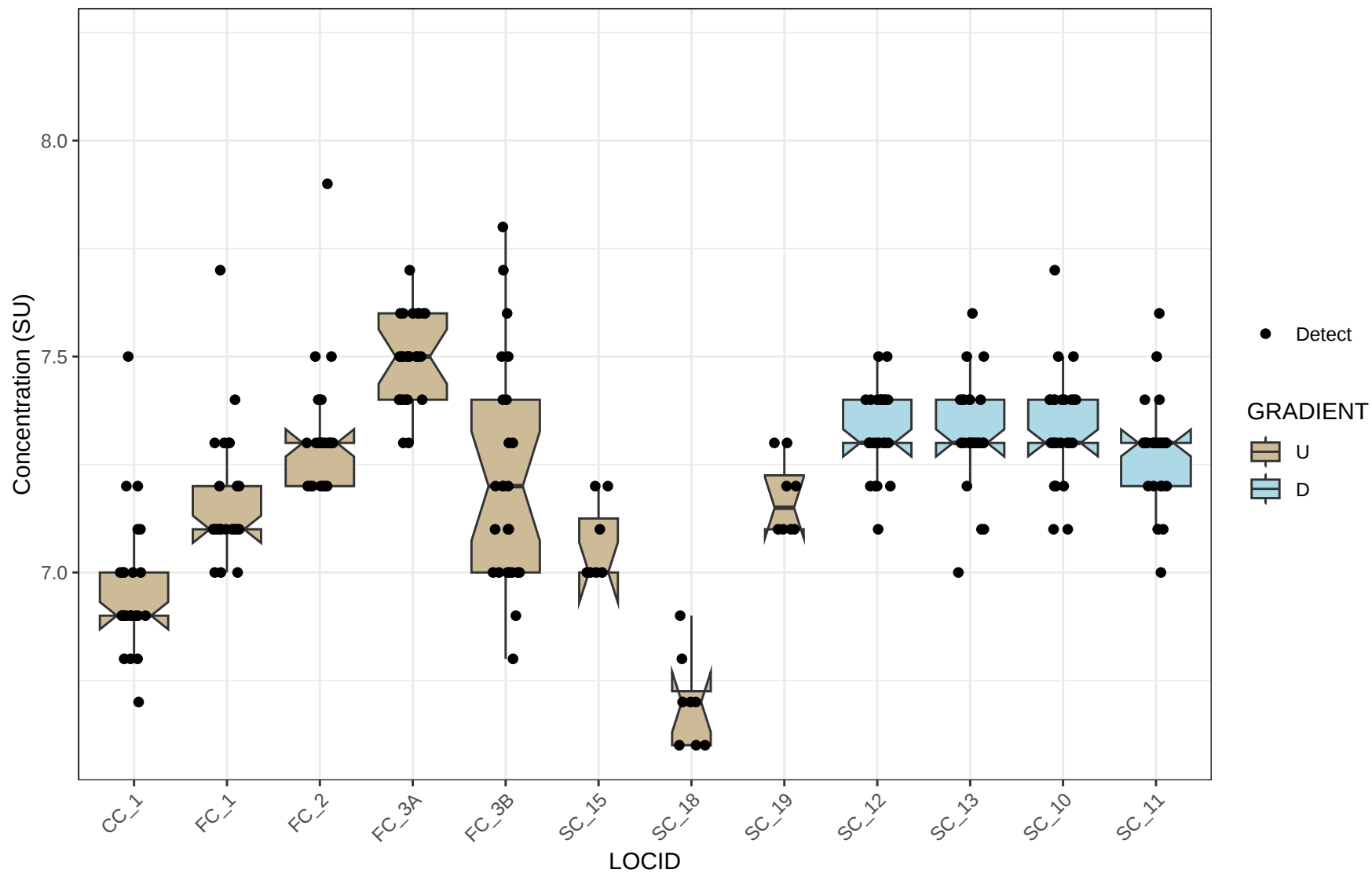


Figure 37: Box Plots

2025 Box Plots for Rad226+228 Grouped by Gradient

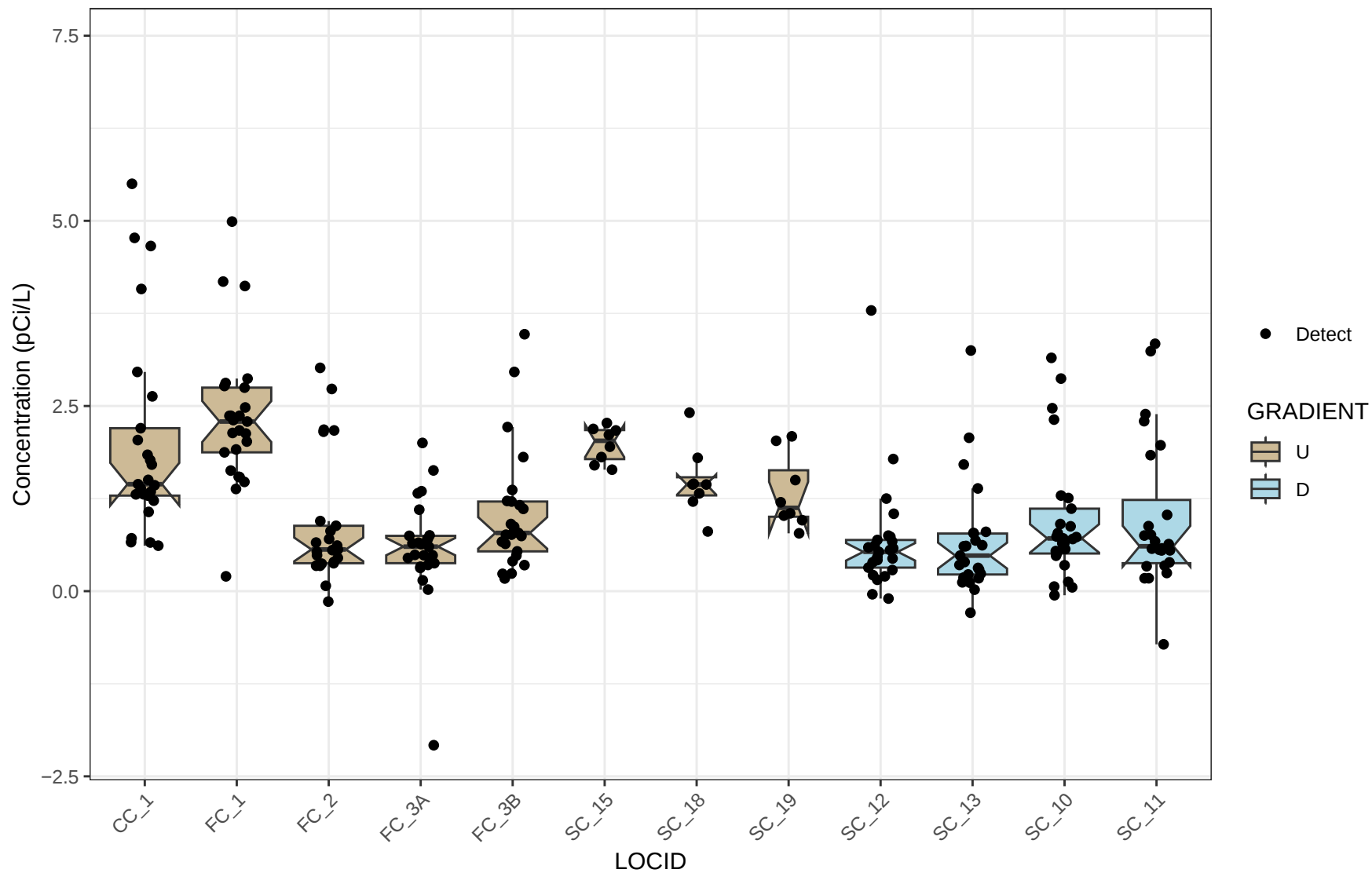


Figure 38: Box Plots

2025 Box Plots for Selenium Grouped by Gradient

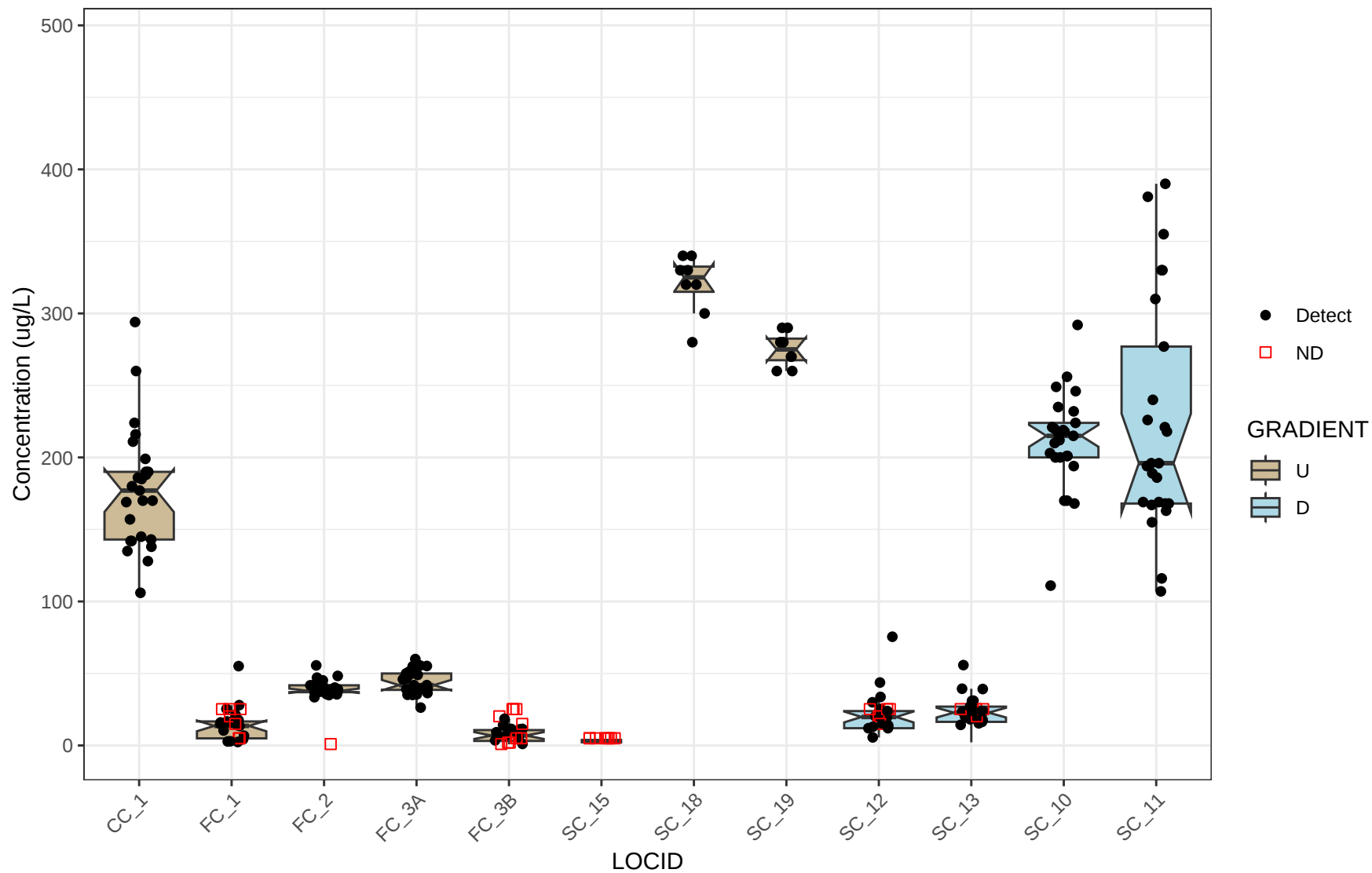


Figure 39: Box Plots

2025 Box Plots for Sulfate Grouped by Gradient

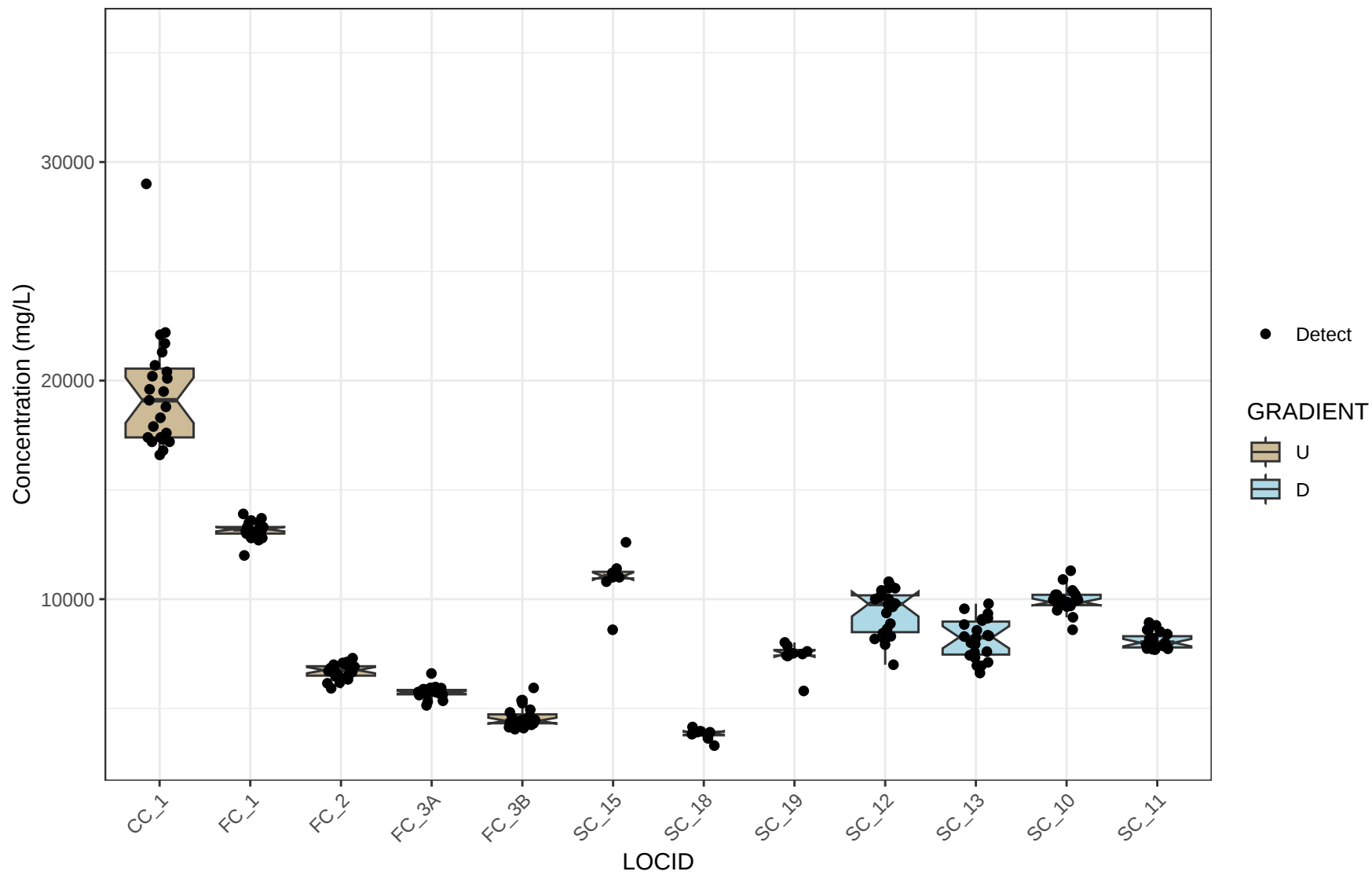


Figure 40: Box Plots

2025 Box Plots for TDS Grouped by Gradient

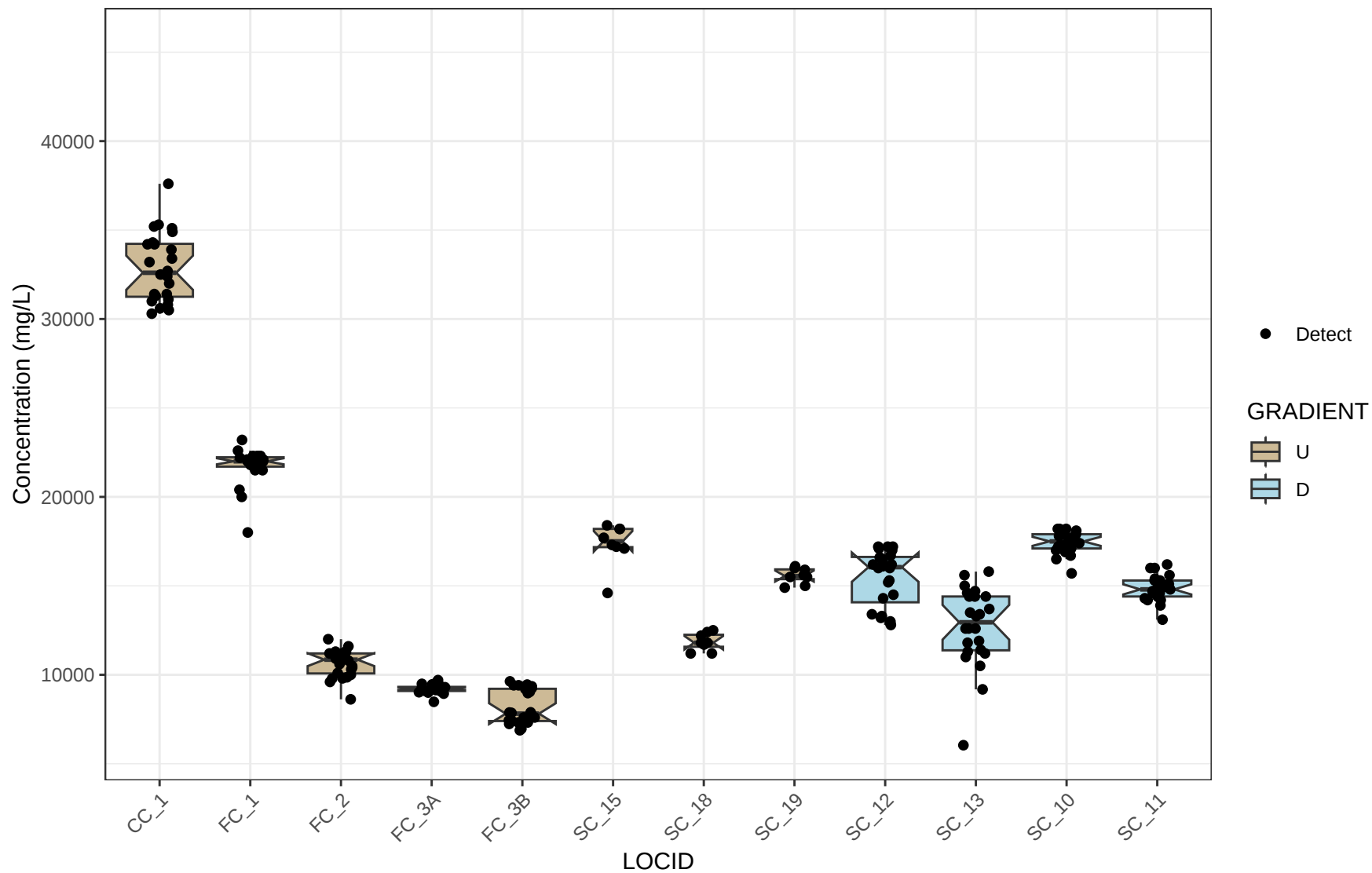


Figure 41: Box Plots

2025 Box Plots for Thallium Grouped by Gradient

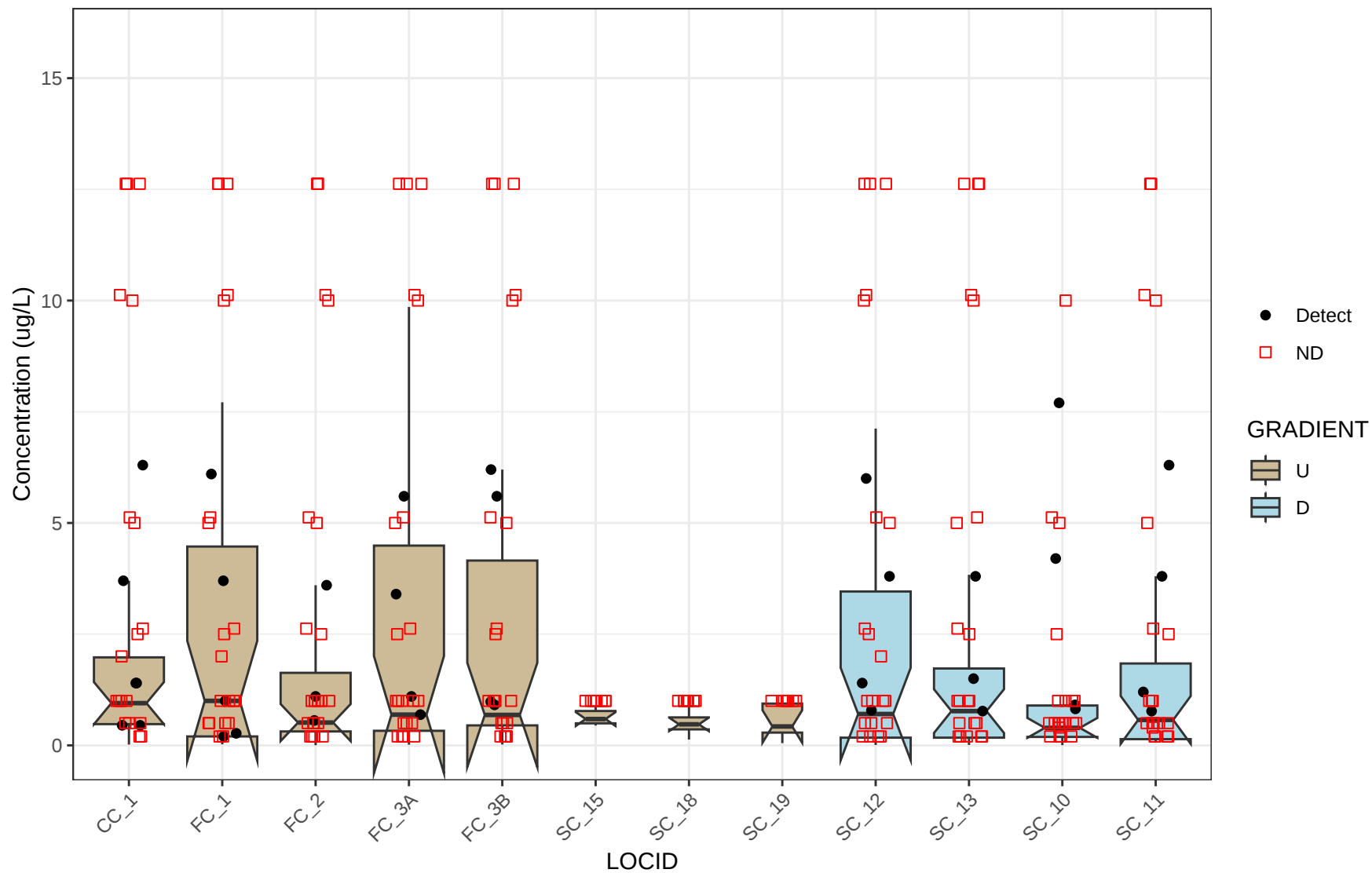


Figure 42: Box Plots

Stacked Time Series Plots

2025 Stacked Time Series Plots for Antimony

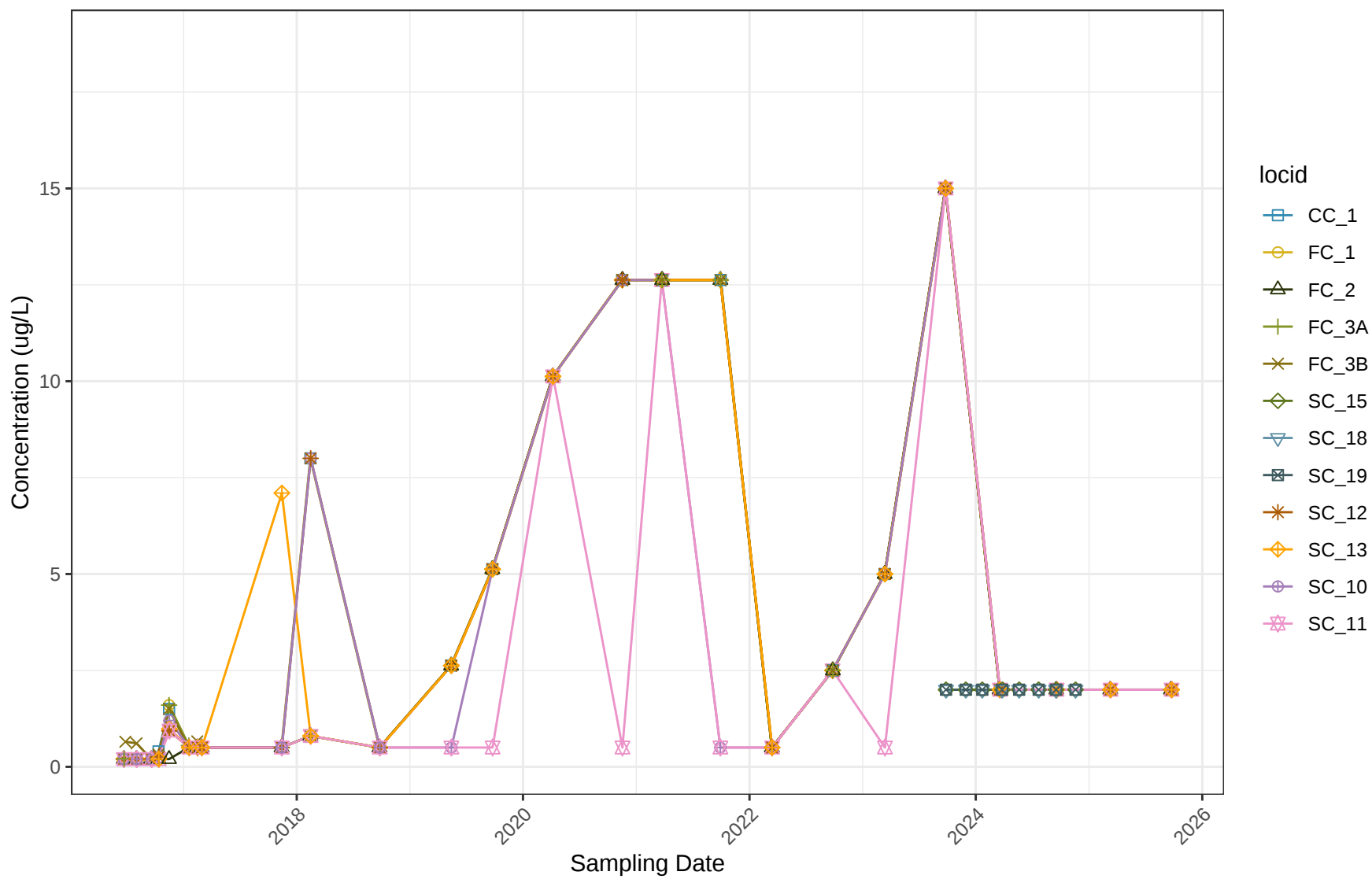


Figure 43: Stacked Time Series Plots

2025 Stacked Time Series Plots for Arsenic

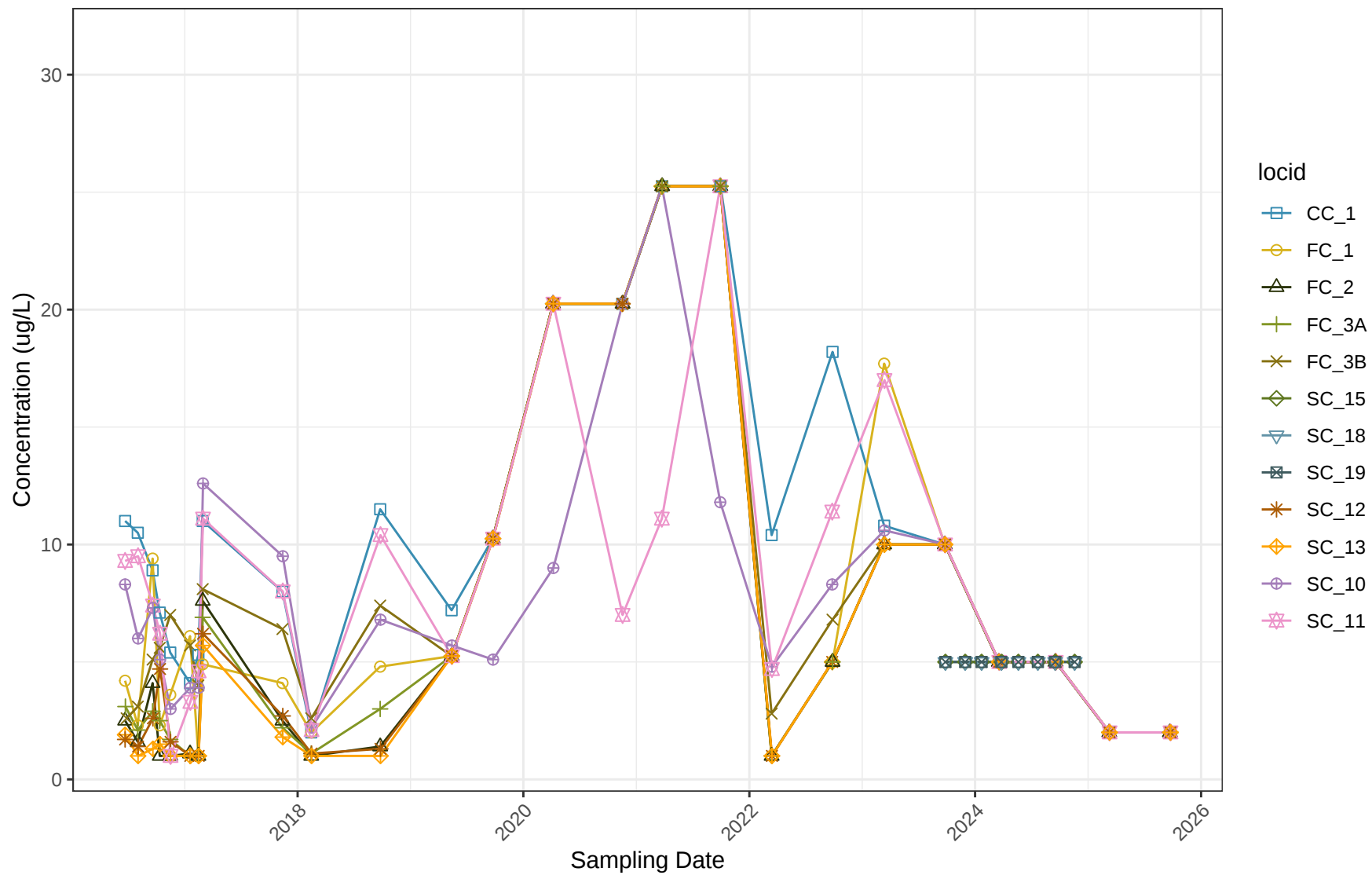


Figure 44: Stacked Time Series Plots

2025 Stacked Time Series Plots for Barium

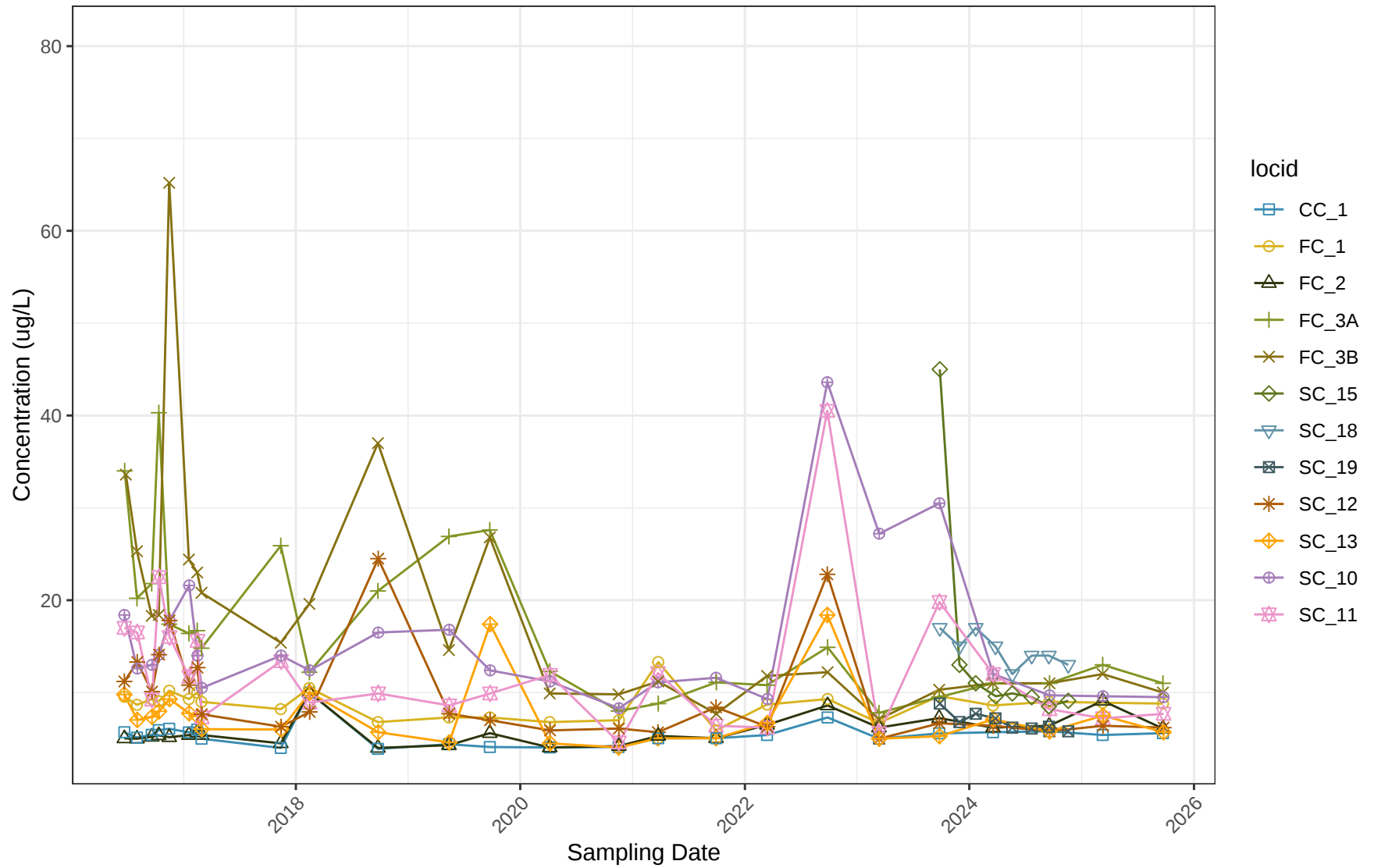


Figure 45: Stacked Time Series Plots

2025 Stacked Time Series Plots for Beryllium

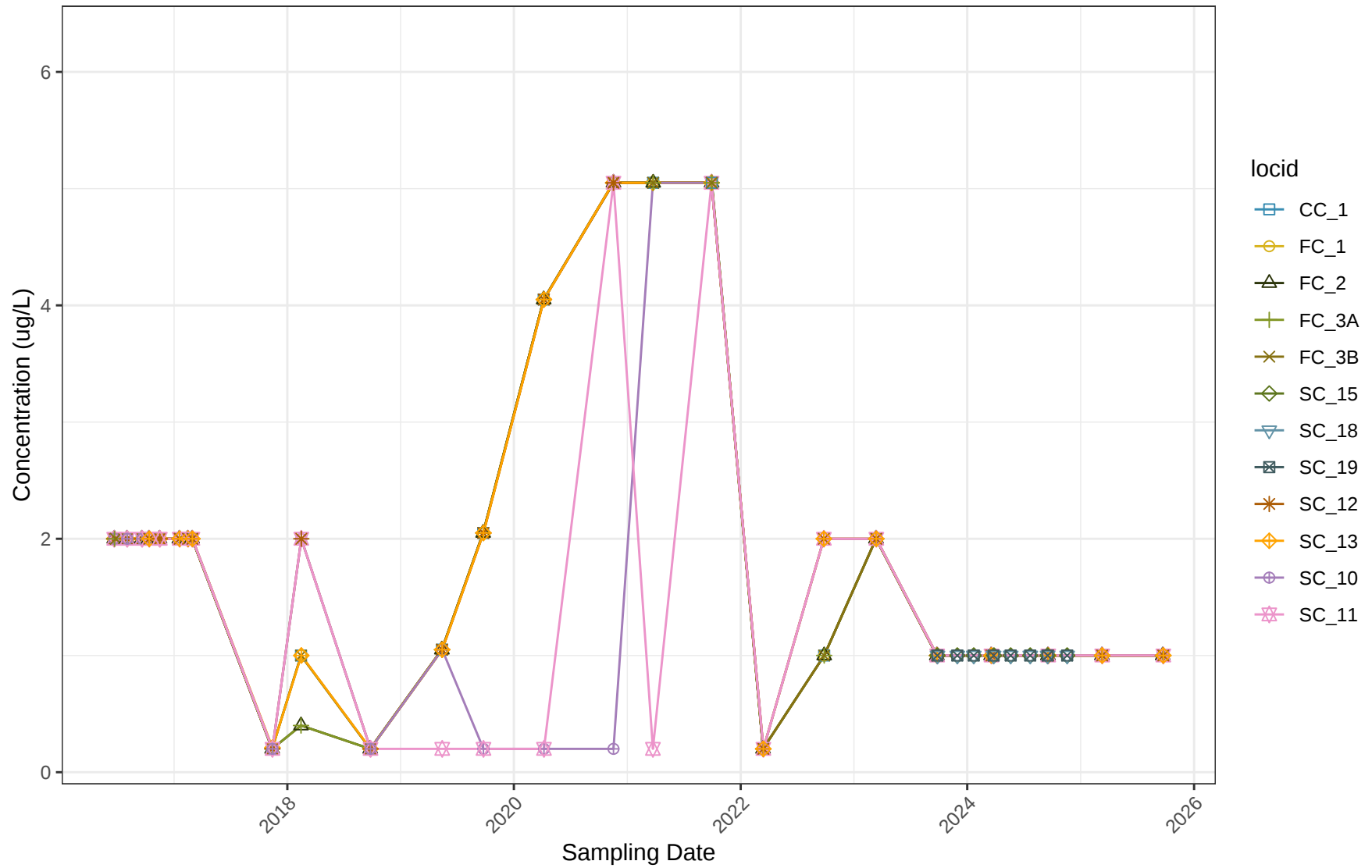


Figure 46: Stacked Time Series Plots

2025 Stacked Time Series Plots for Boron

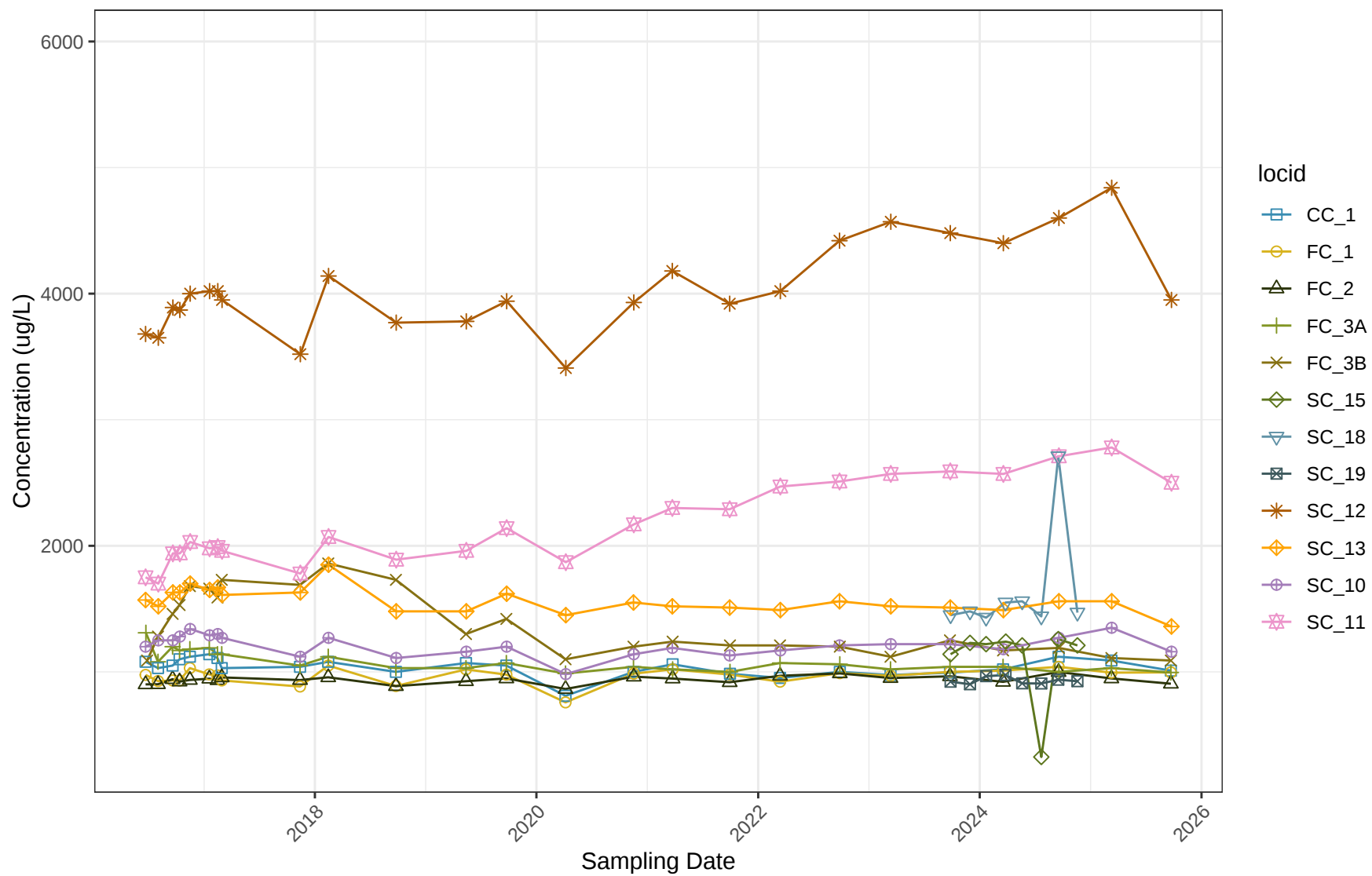


Figure 47: Stacked Time Series Plots

2025 Stacked Time Series Plots for Cadmium

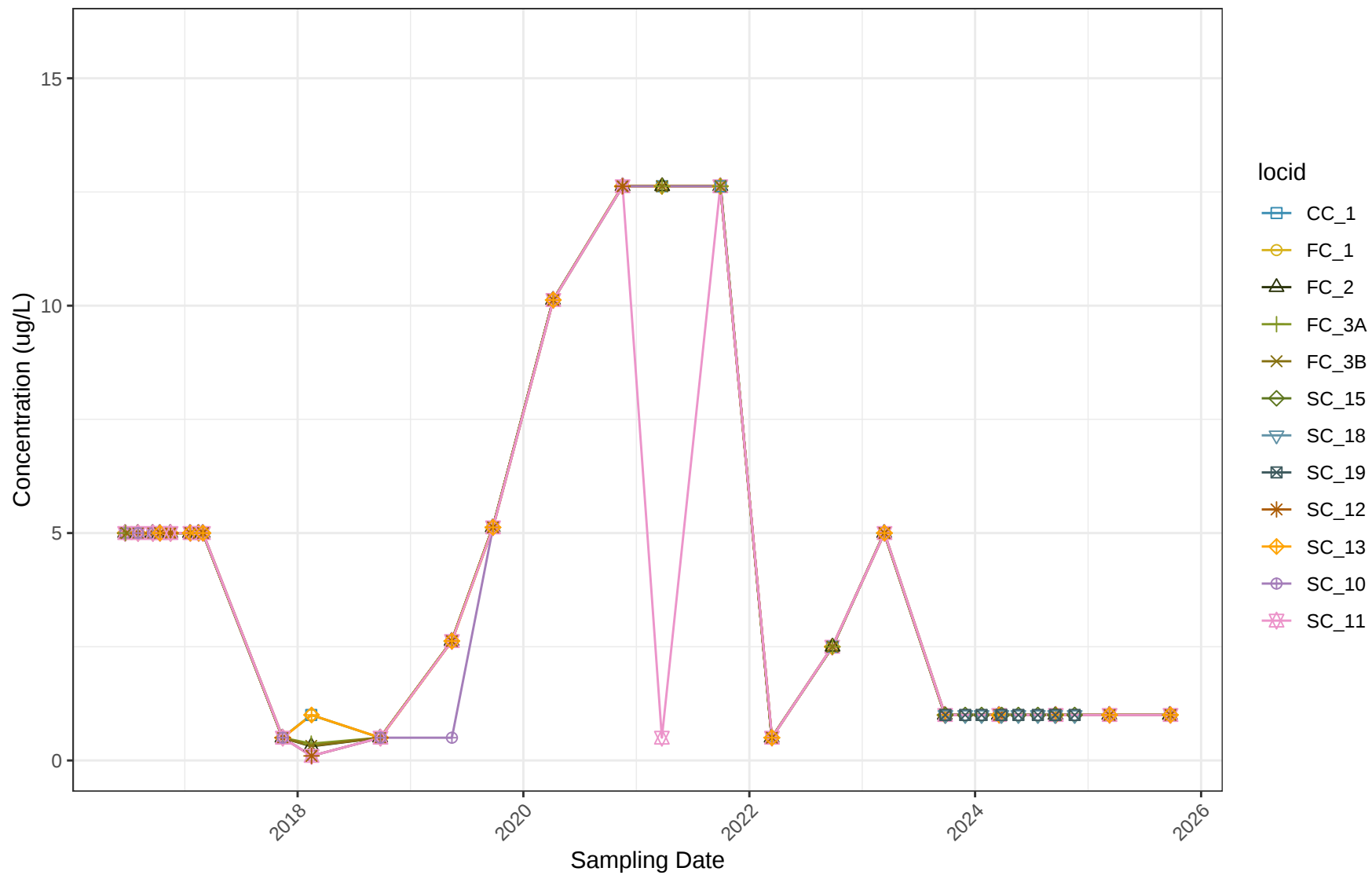


Figure 48: Stacked Time Series Plots

2025 Stacked Time Series Plots for Calcium

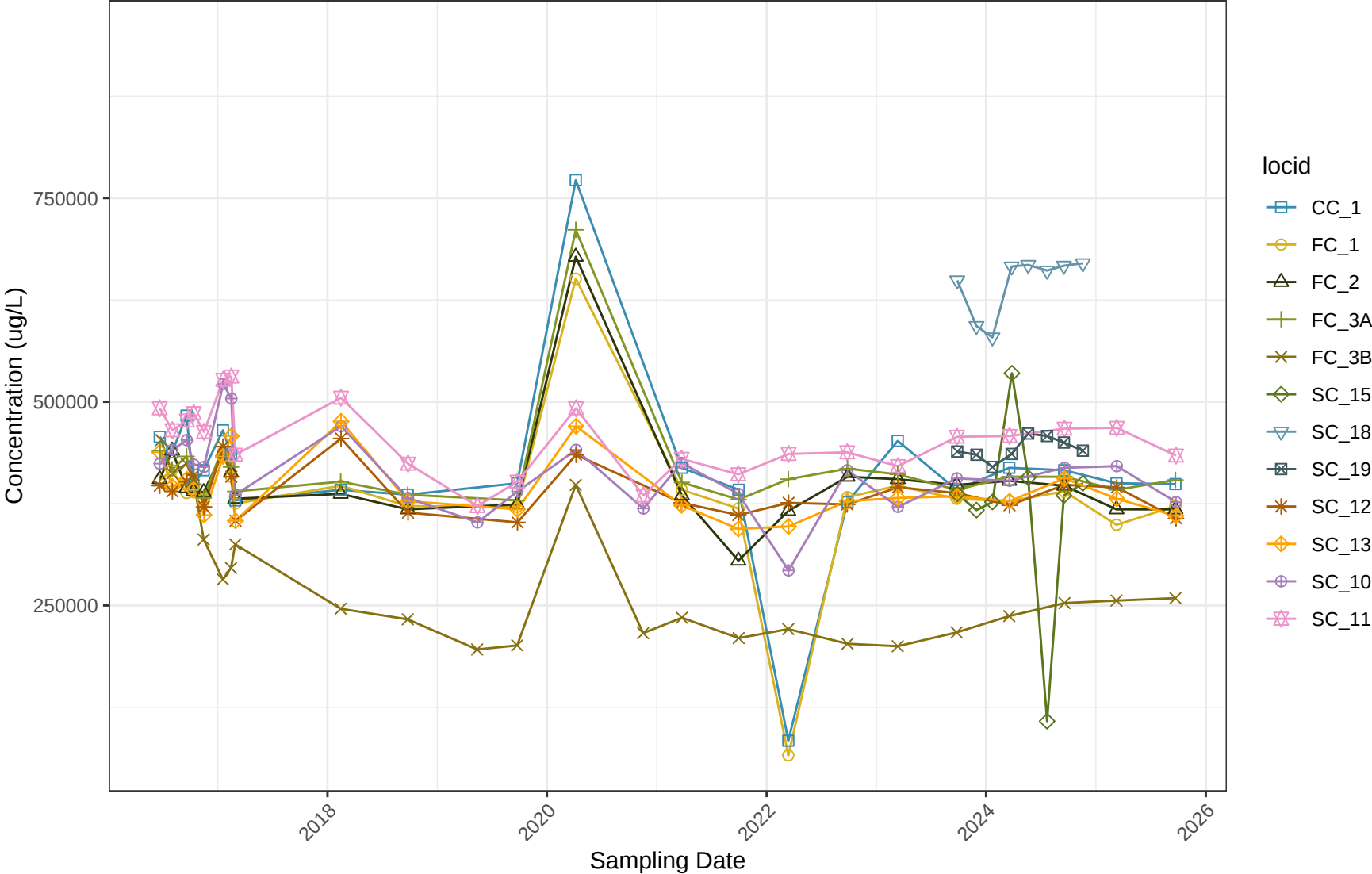


Figure 49: Stacked Time Series Plots

2025 Stacked Time Series Plots for Chloride

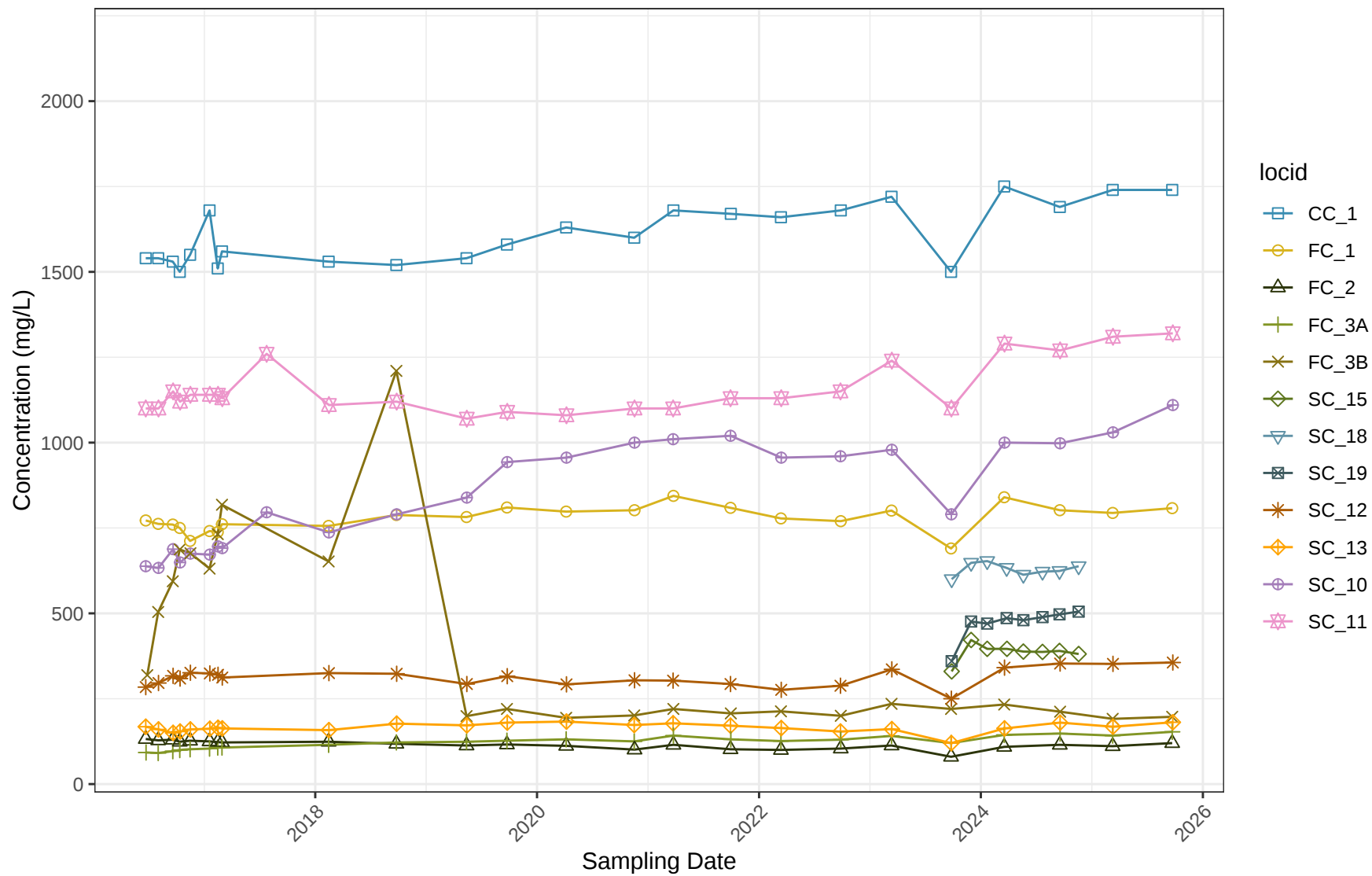


Figure 50: Stacked Time Series Plots

2025 Stacked Time Series Plots for Chromium

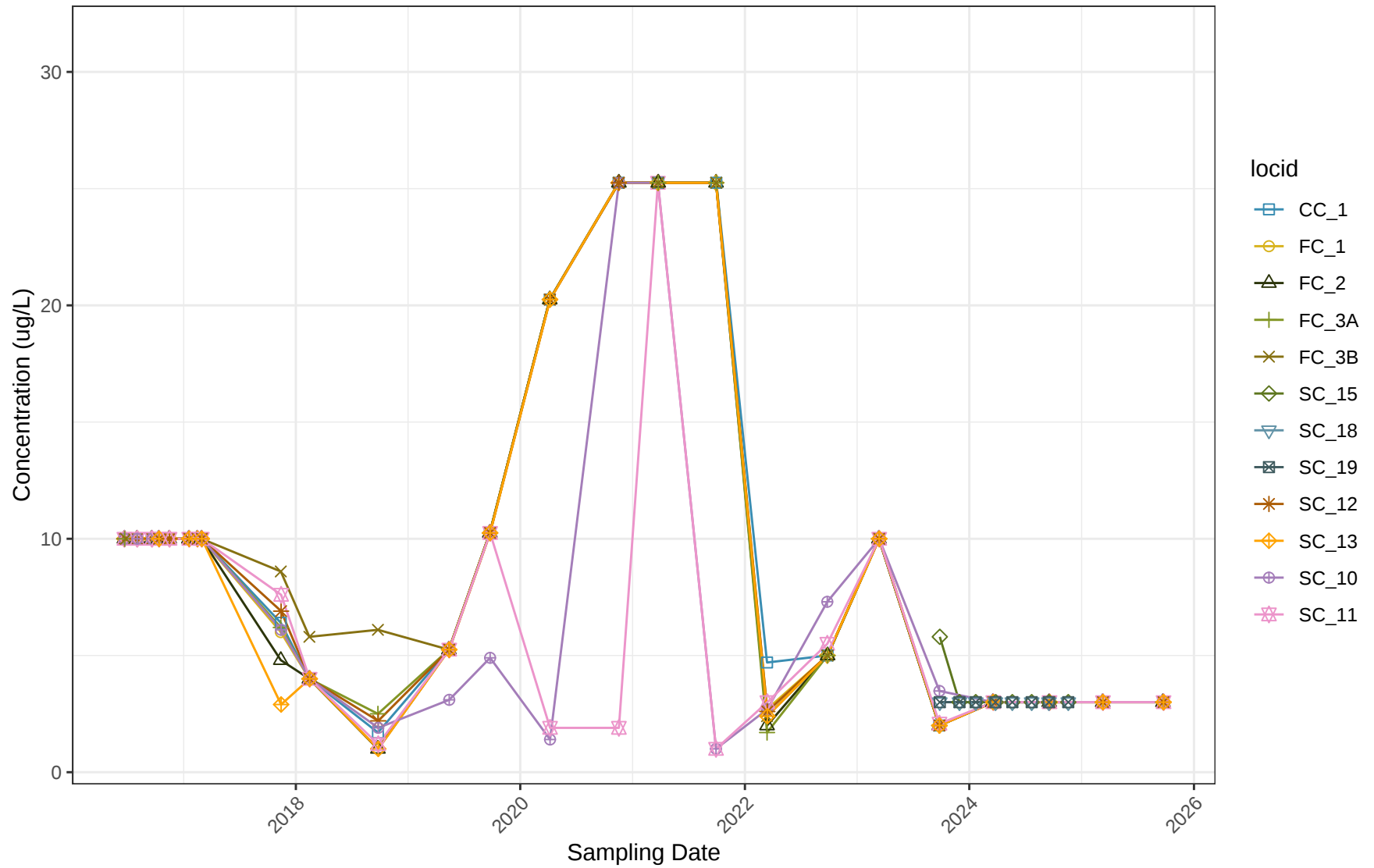


Figure 51: Stacked Time Series Plots

2025 Stacked Time Series Plots for Cobalt

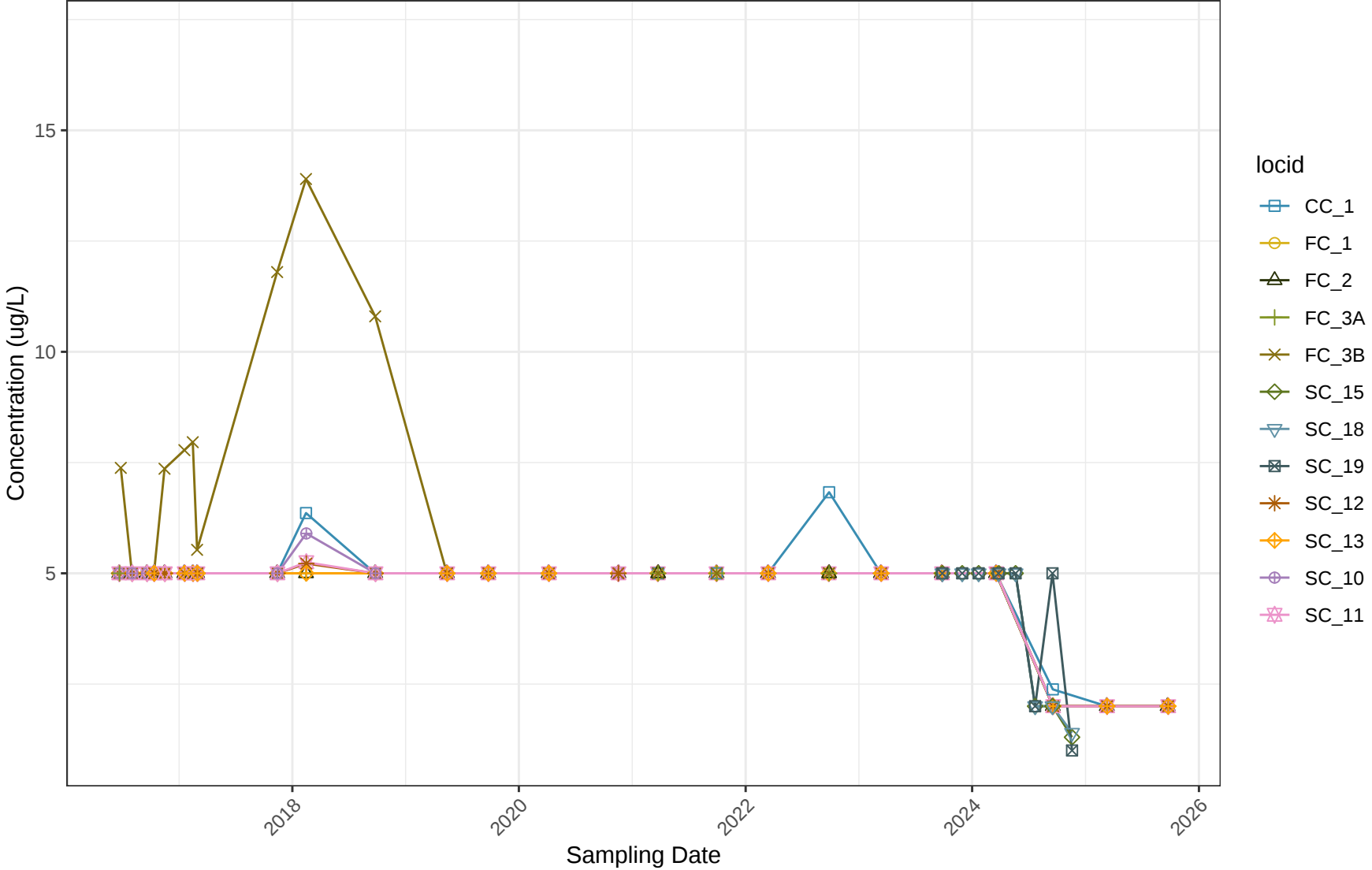


Figure 52: Stacked Time Series Plots

2025 Stacked Time Series Plots for Fluoride

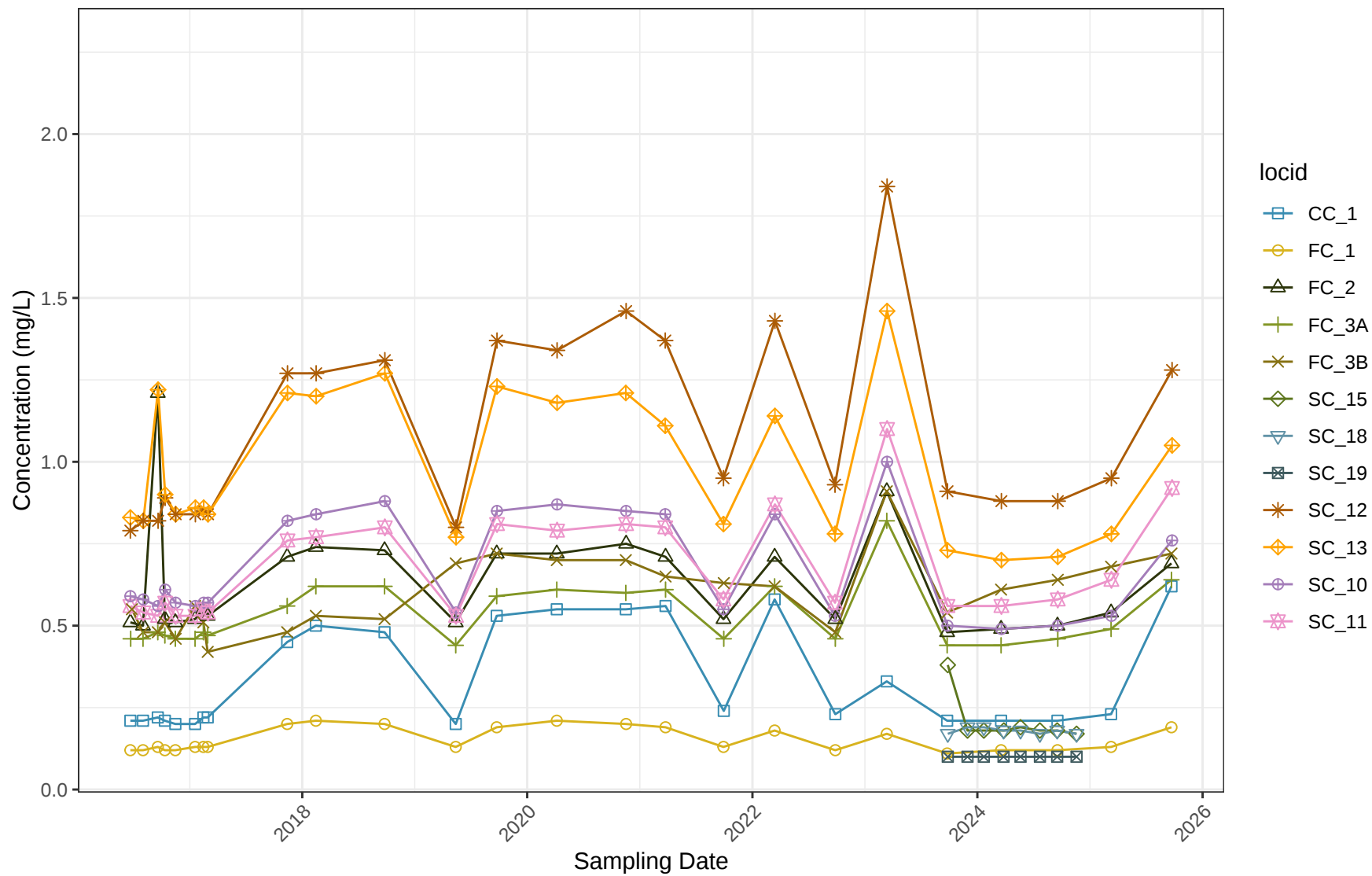


Figure 53: Stacked Time Series Plots

2025 Stacked Time Series Plots for Lead

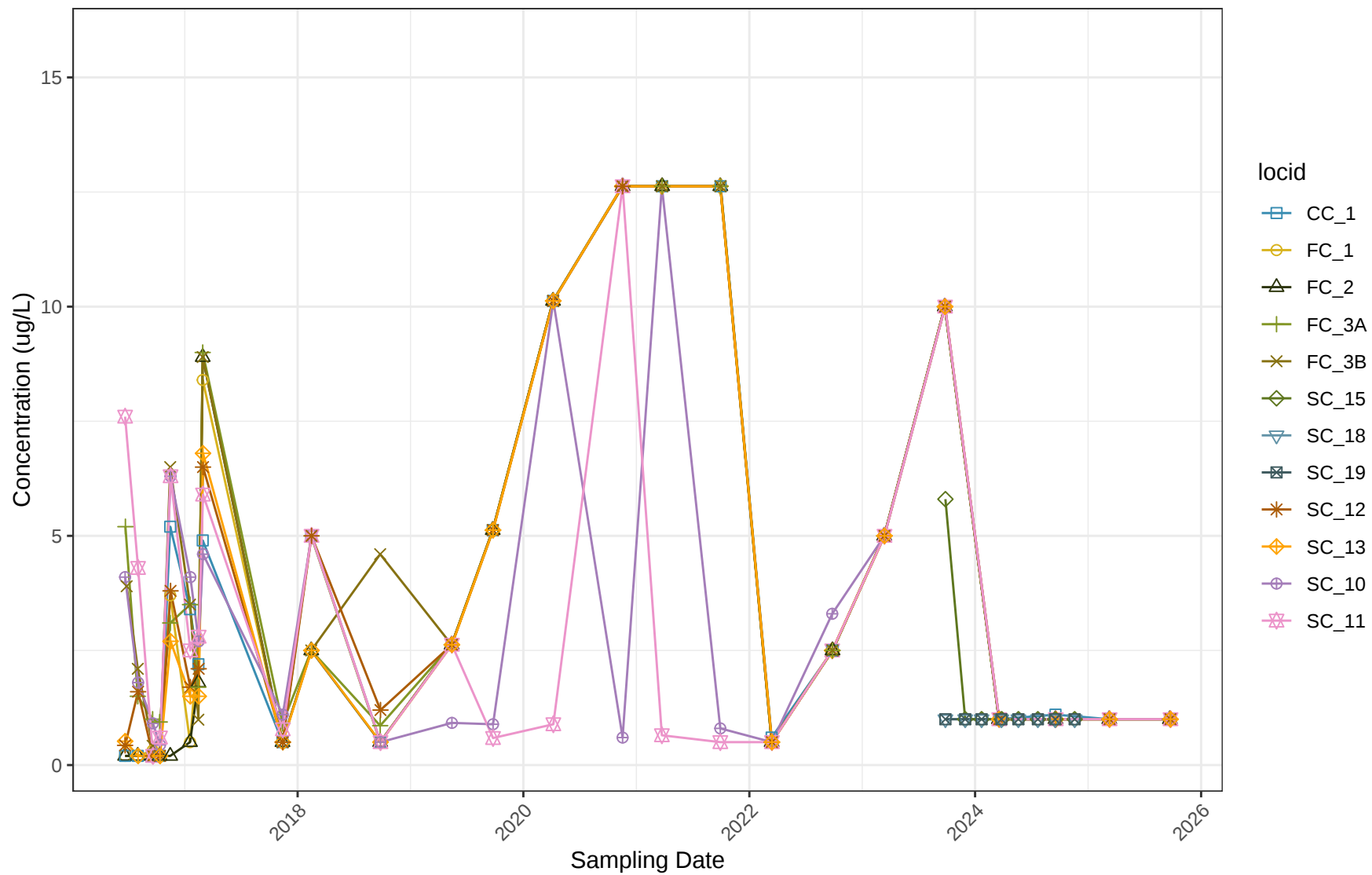


Figure 54: Stacked Time Series Plots

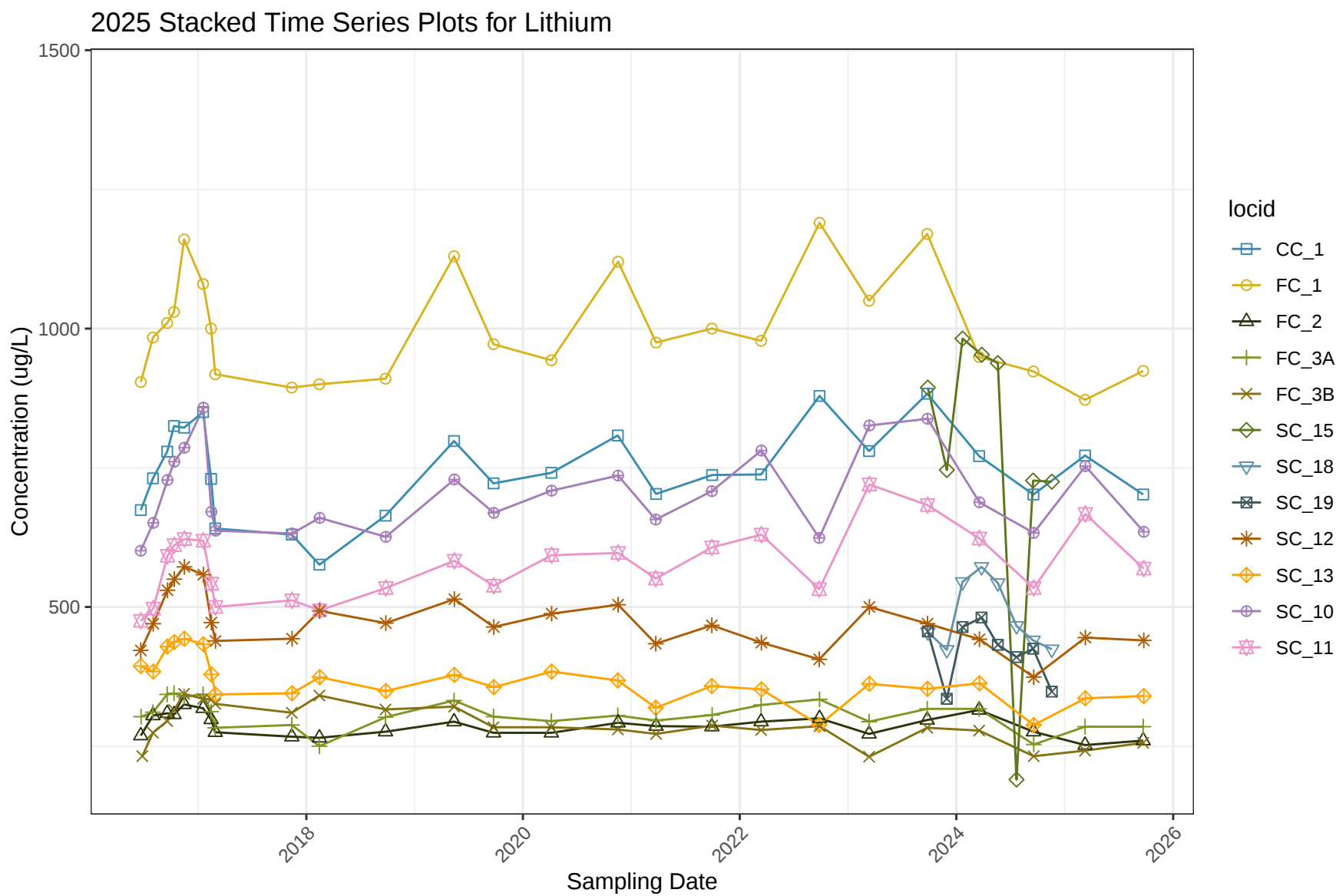


Figure 55: Stacked Time Series Plots

2025 Stacked Time Series Plots for Mercury

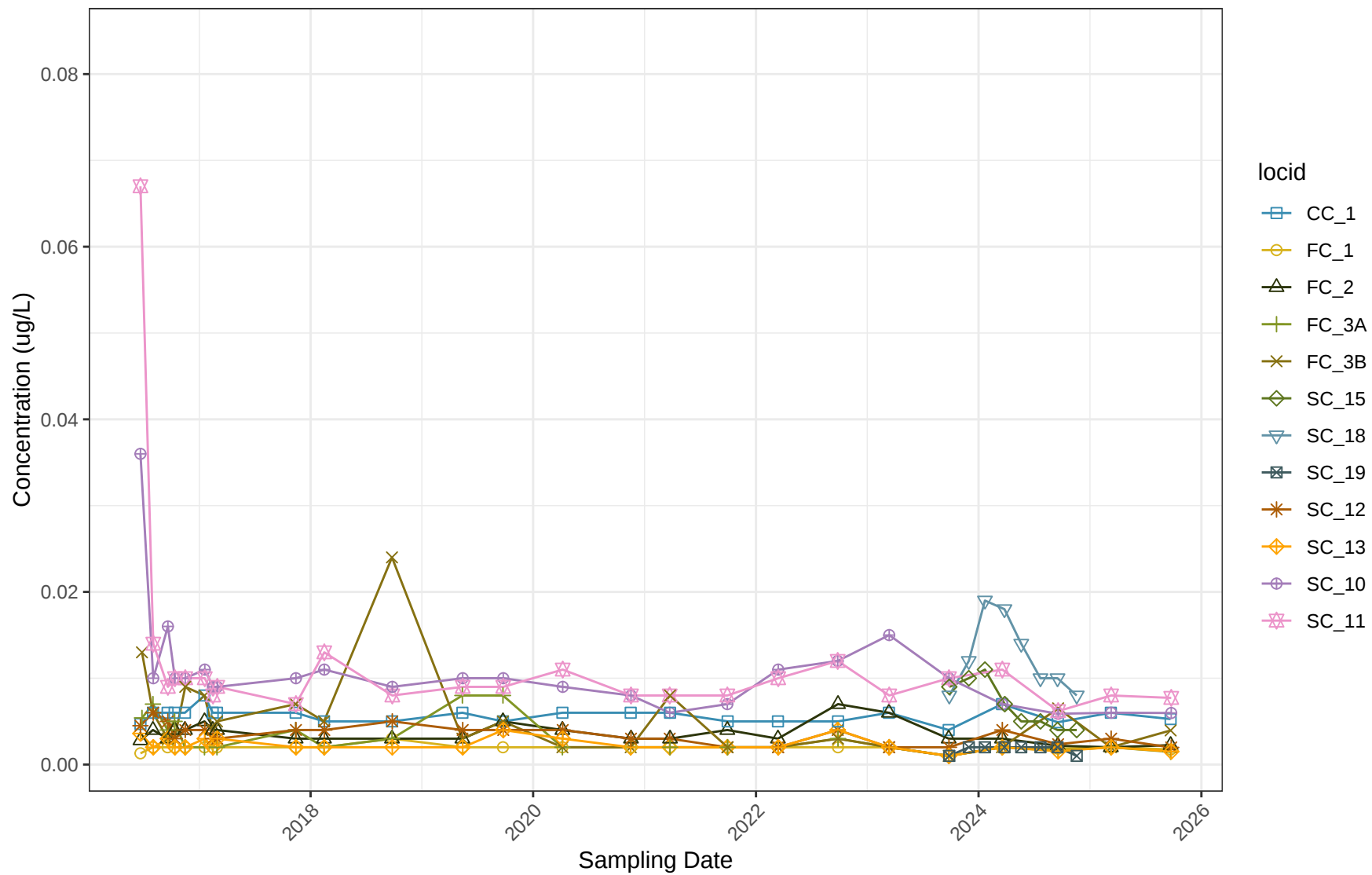


Figure 56: Stacked Time Series Plots

2025 Stacked Time Series Plots for Molybdenum

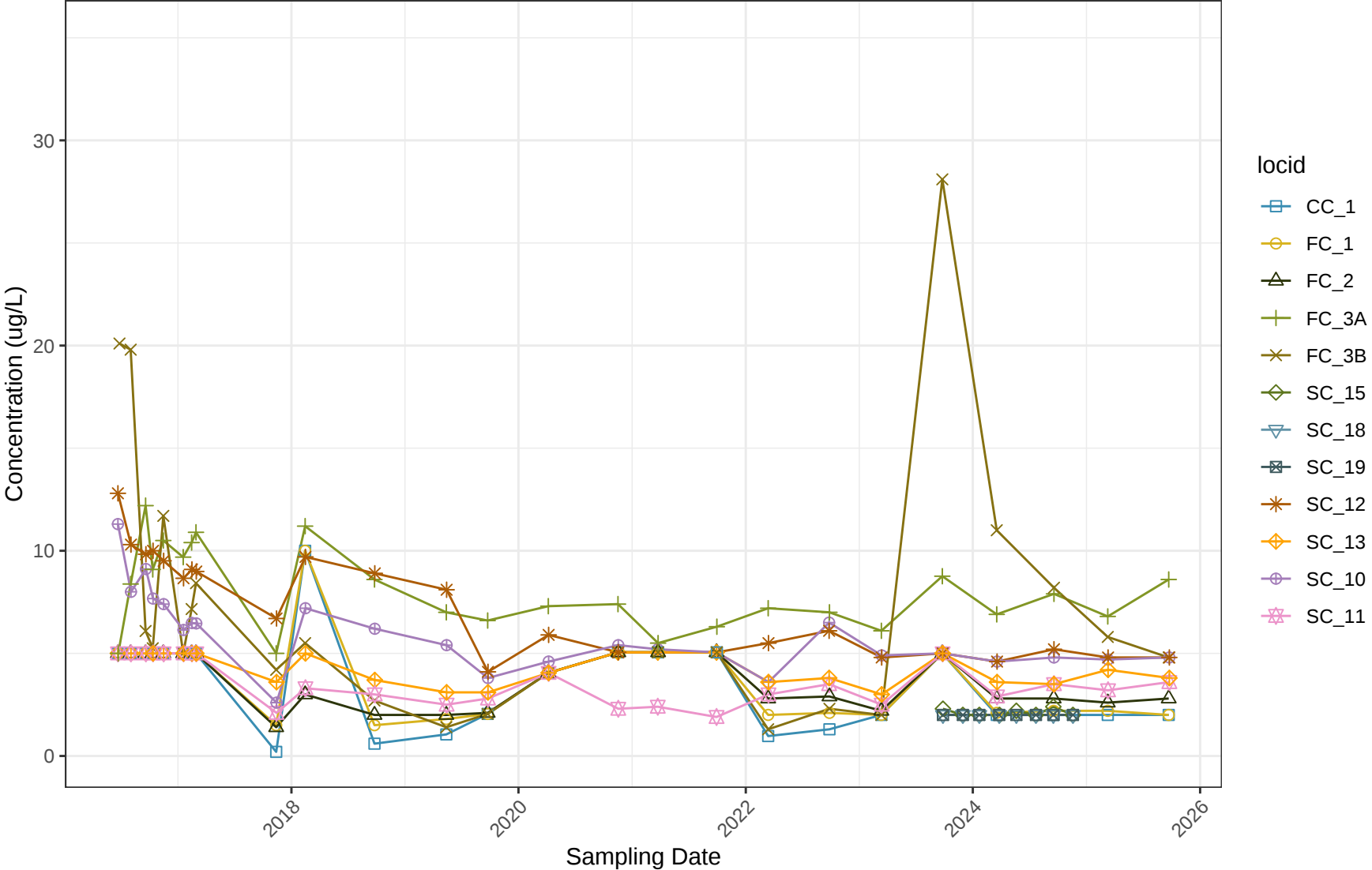


Figure 57: Stacked Time Series Plots

2025 Stacked Time Series Plots for pH

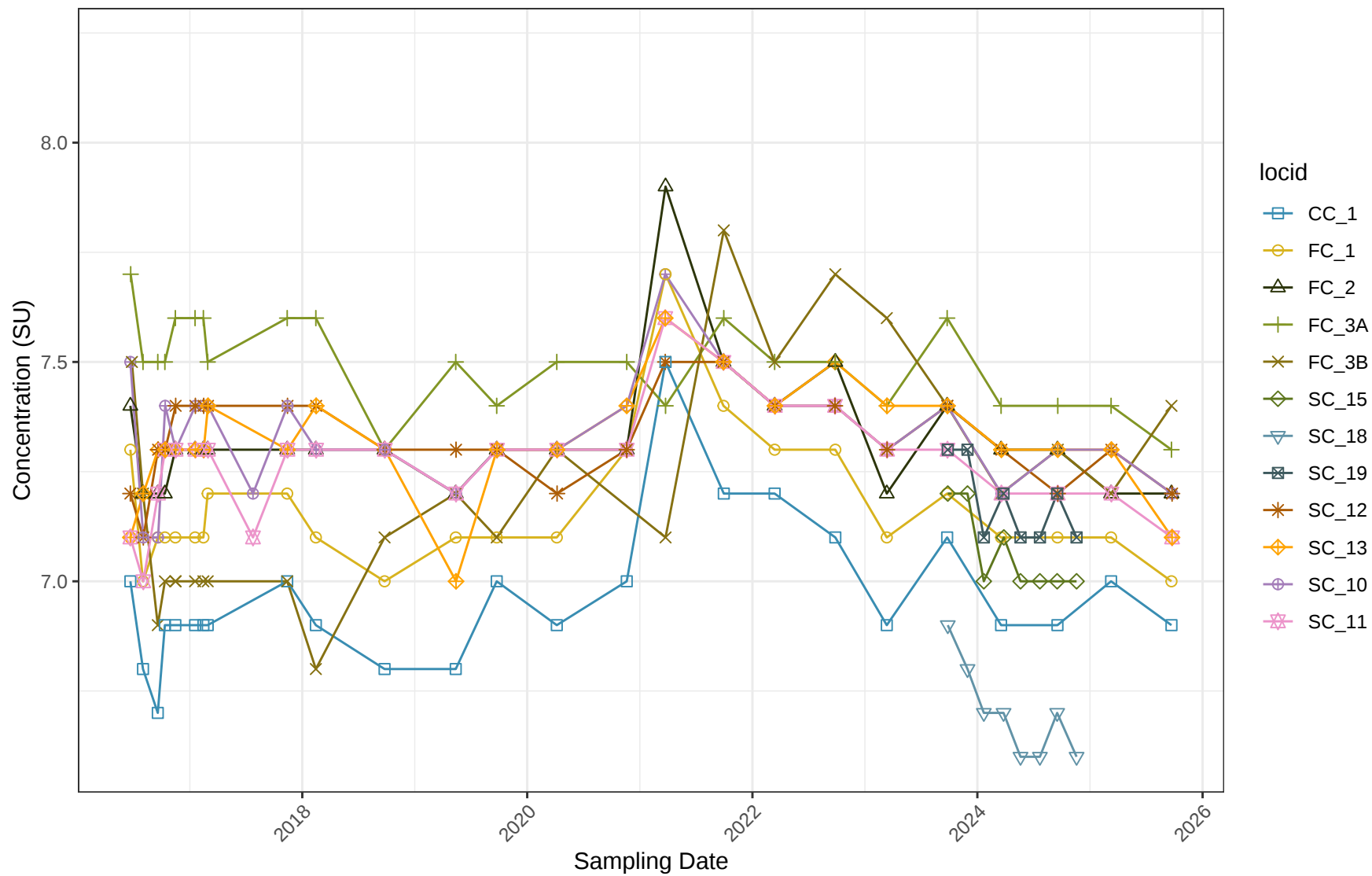


Figure 58: Stacked Time Series Plots

2025 Stacked Time Series Plots for Rad226+228

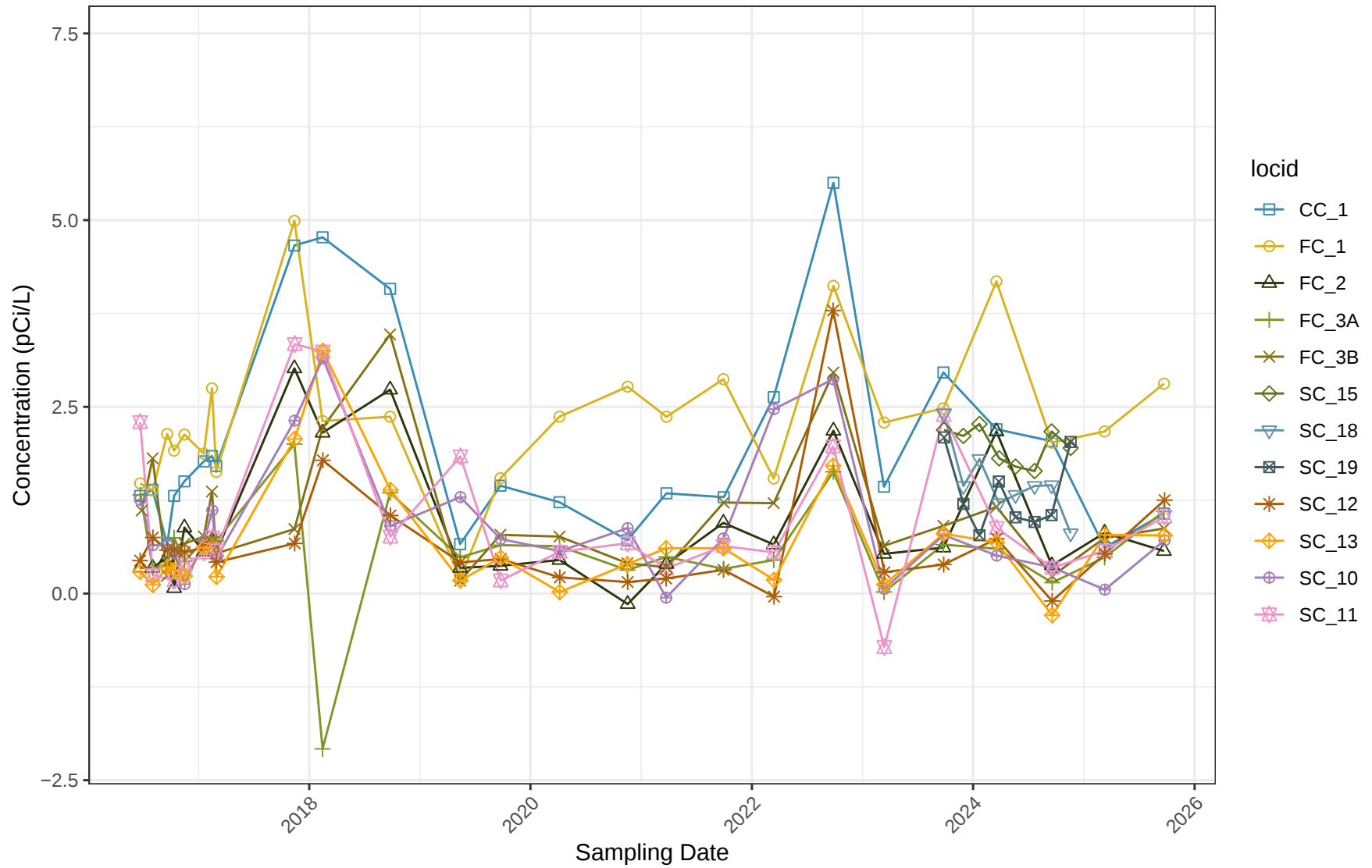


Figure 59: Stacked Time Series Plots

2025 Stacked Time Series Plots for Selenium

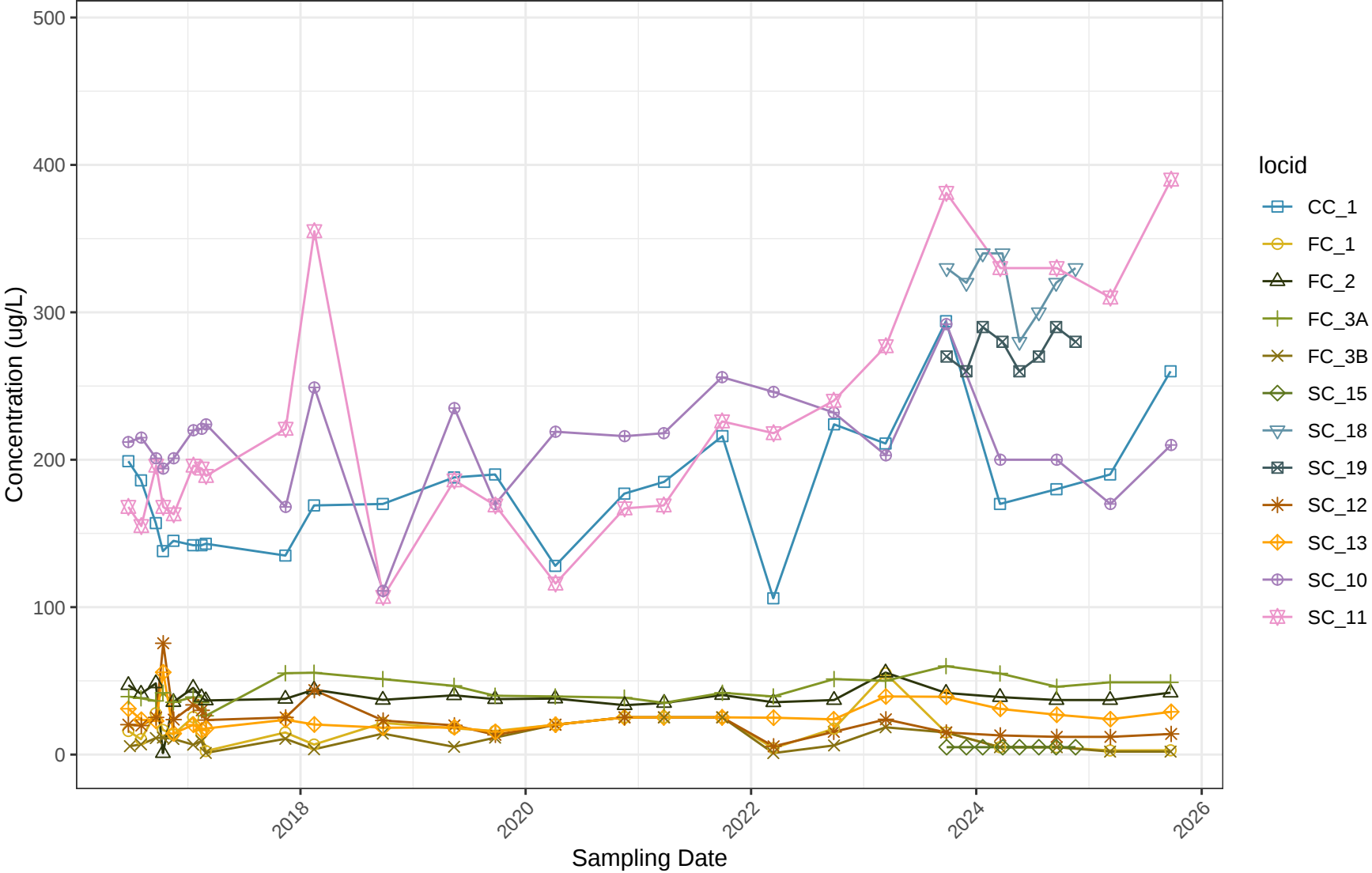


Figure 60: Stacked Time Series Plots

2025 Stacked Time Series Plots for Sulfate

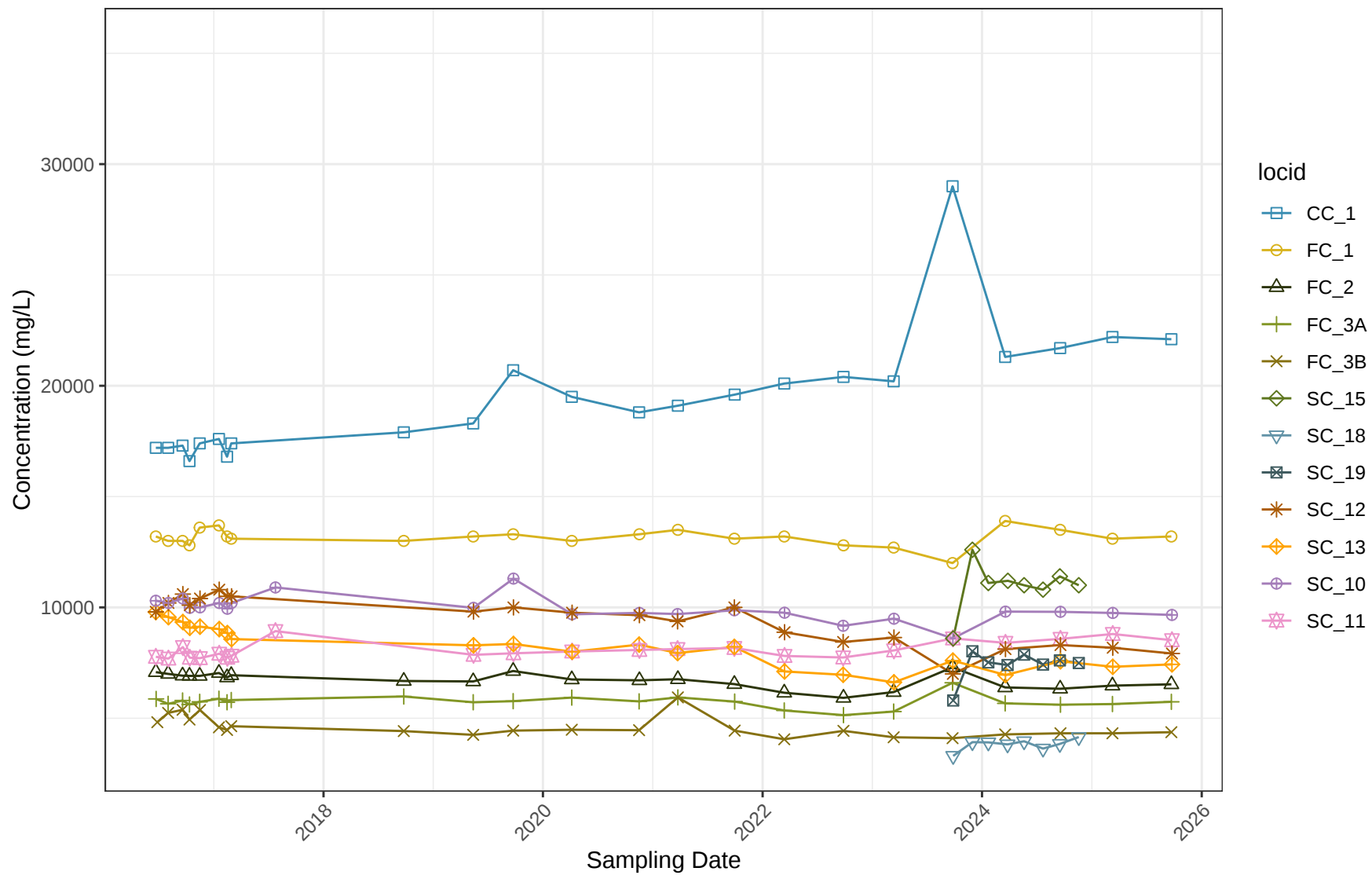


Figure 61: Stacked Time Series Plots

2025 Stacked Time Series Plots for TDS

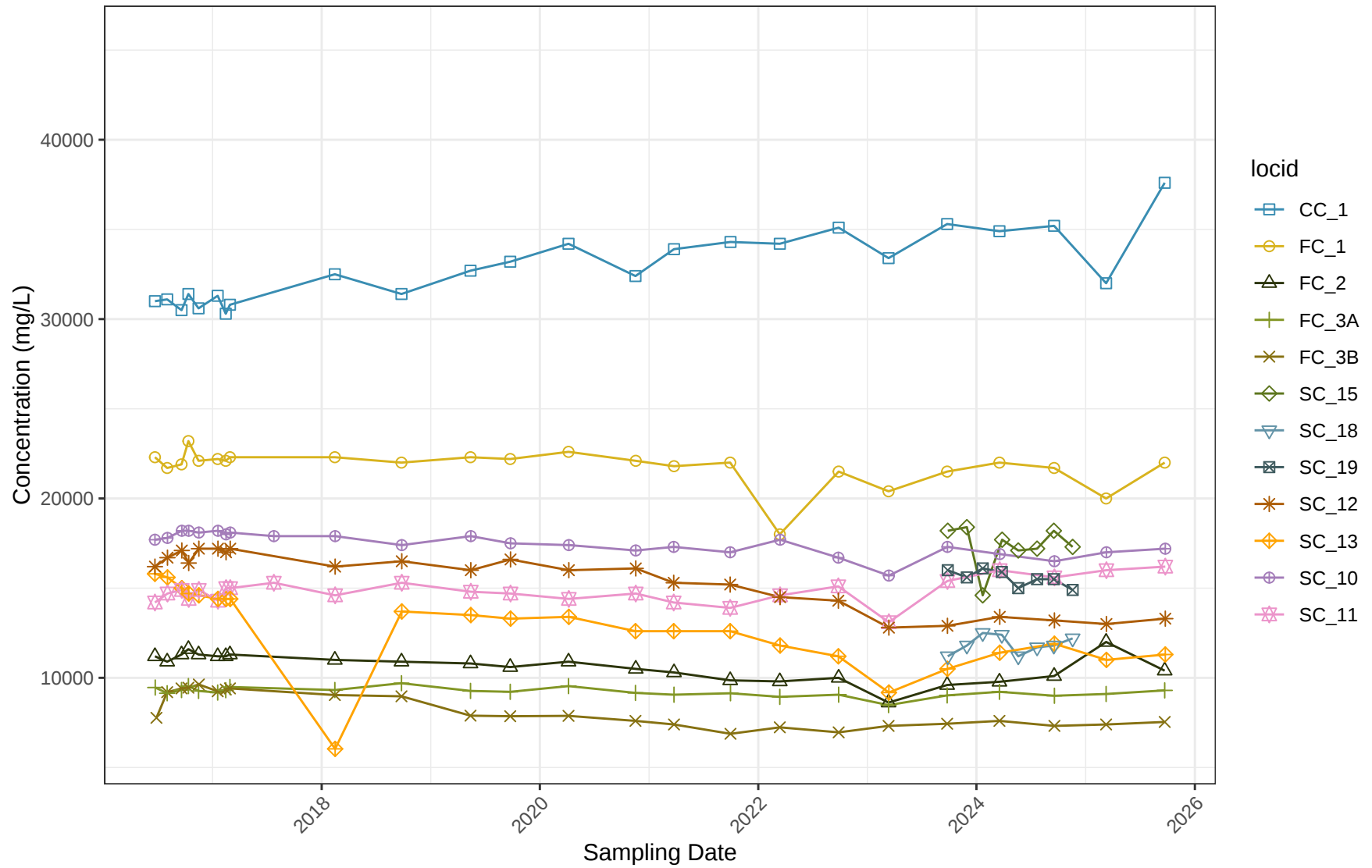


Figure 62: Stacked Time Series Plots

2025 Stacked Time Series Plots for Thallium

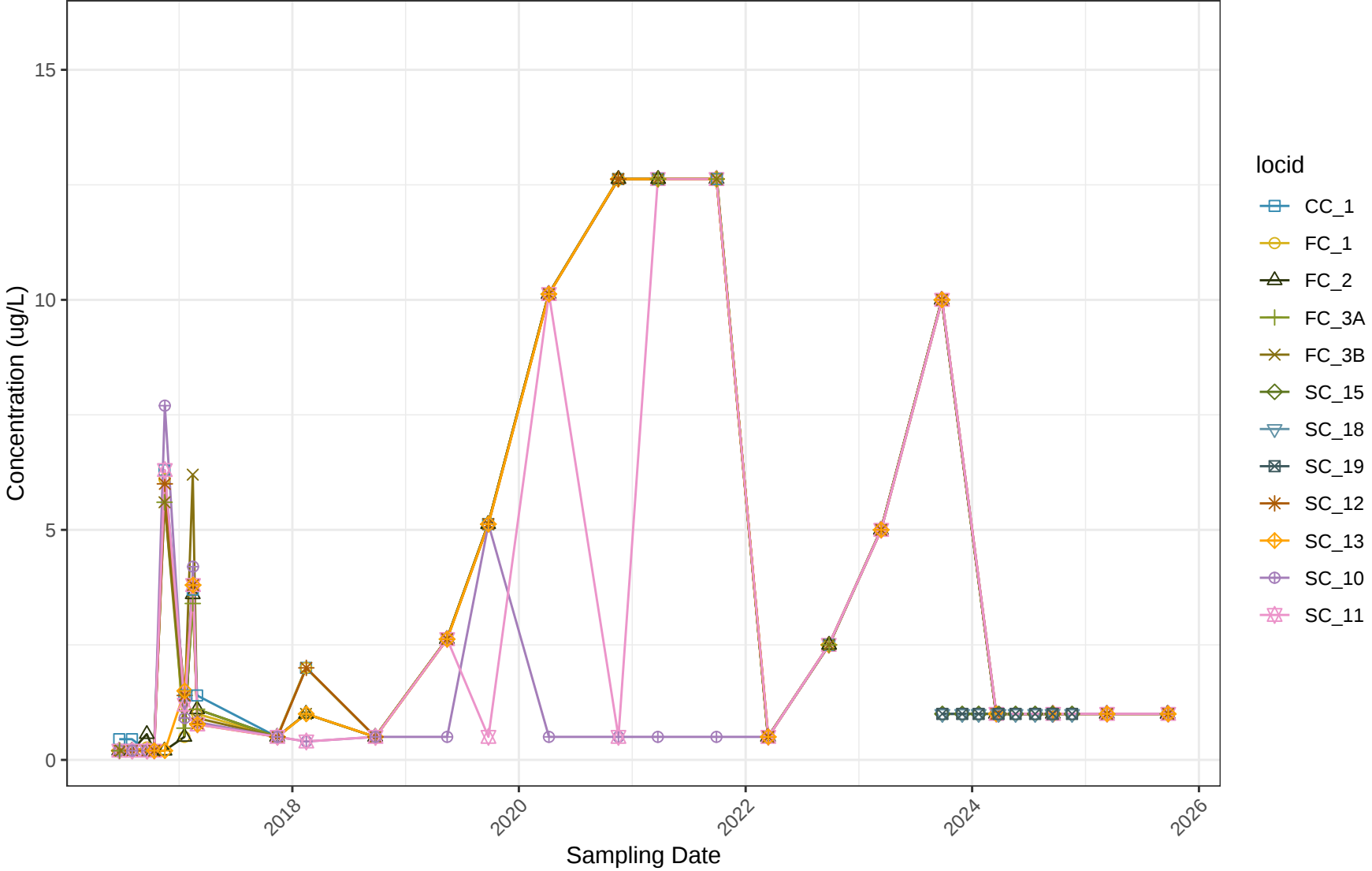


Figure 63: Stacked Time Series Plots

Appendix B: Supporting Graphics

1. Appendix III Prediction Limit Outcome Plots
2. Confidence Interval Band Plots for Appendix IV Parameters

Prediction Limit Outcome Plots, Appendix III Parameters

2025 Interwell Prediction Limit SSIs for Boron

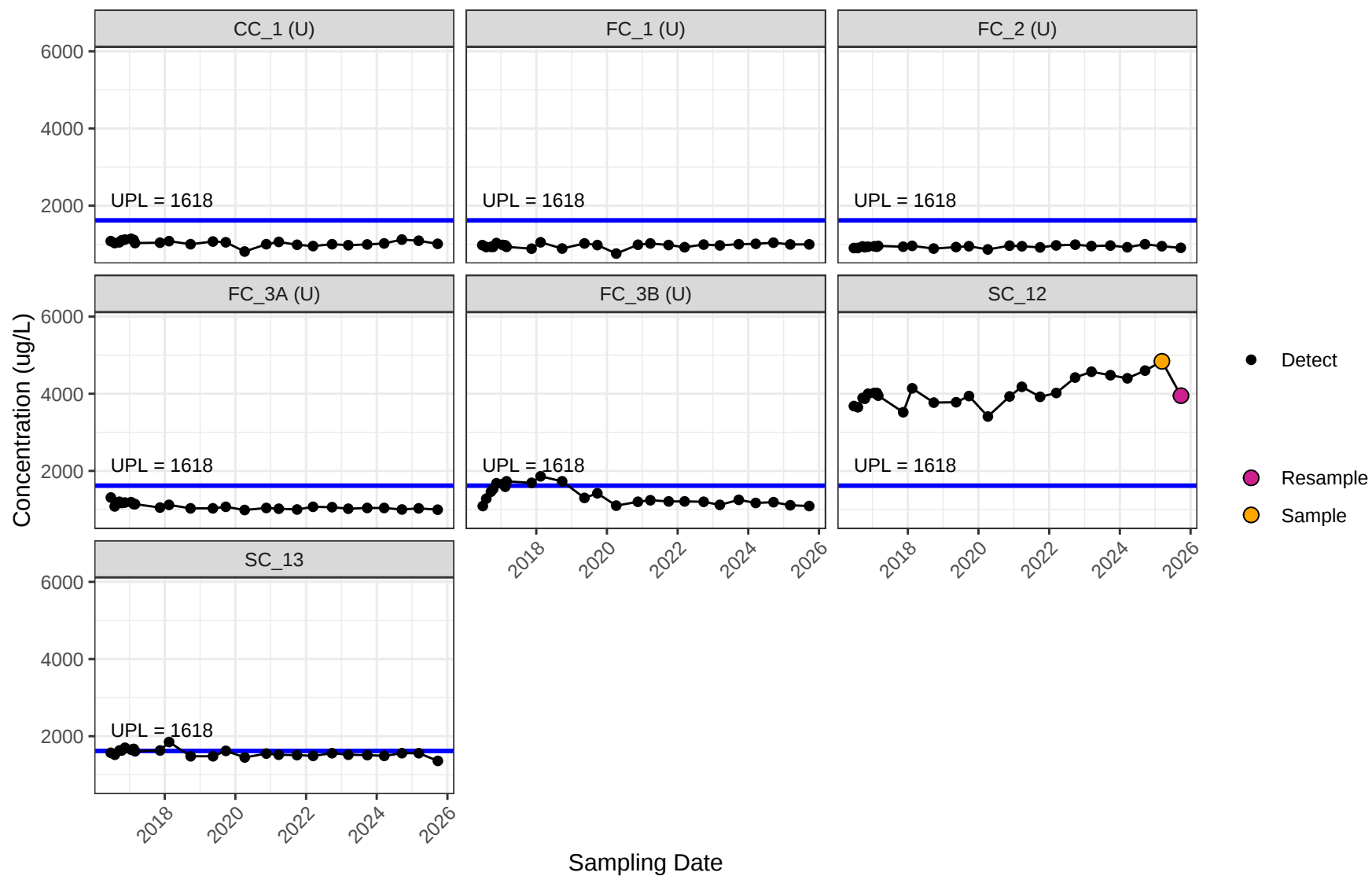


Figure 64: Prediction Limit Outcome Plots: SPC

2025 Interwell Prediction Limit SSIs for Calcium

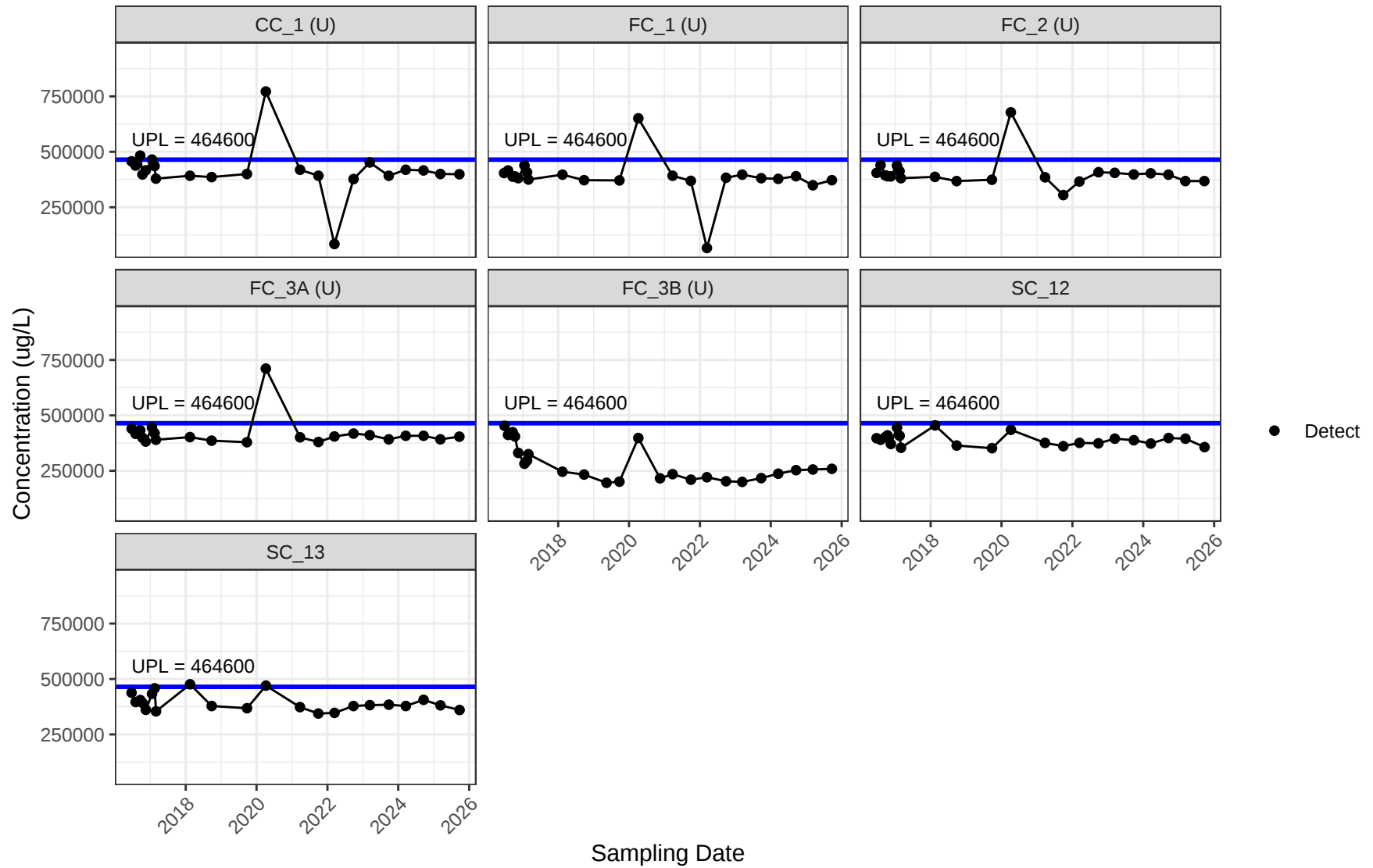


Figure 65: Prediction Limit Outcome Plots: SPC

2025 Interwell Prediction Limit SSIs for Chloride

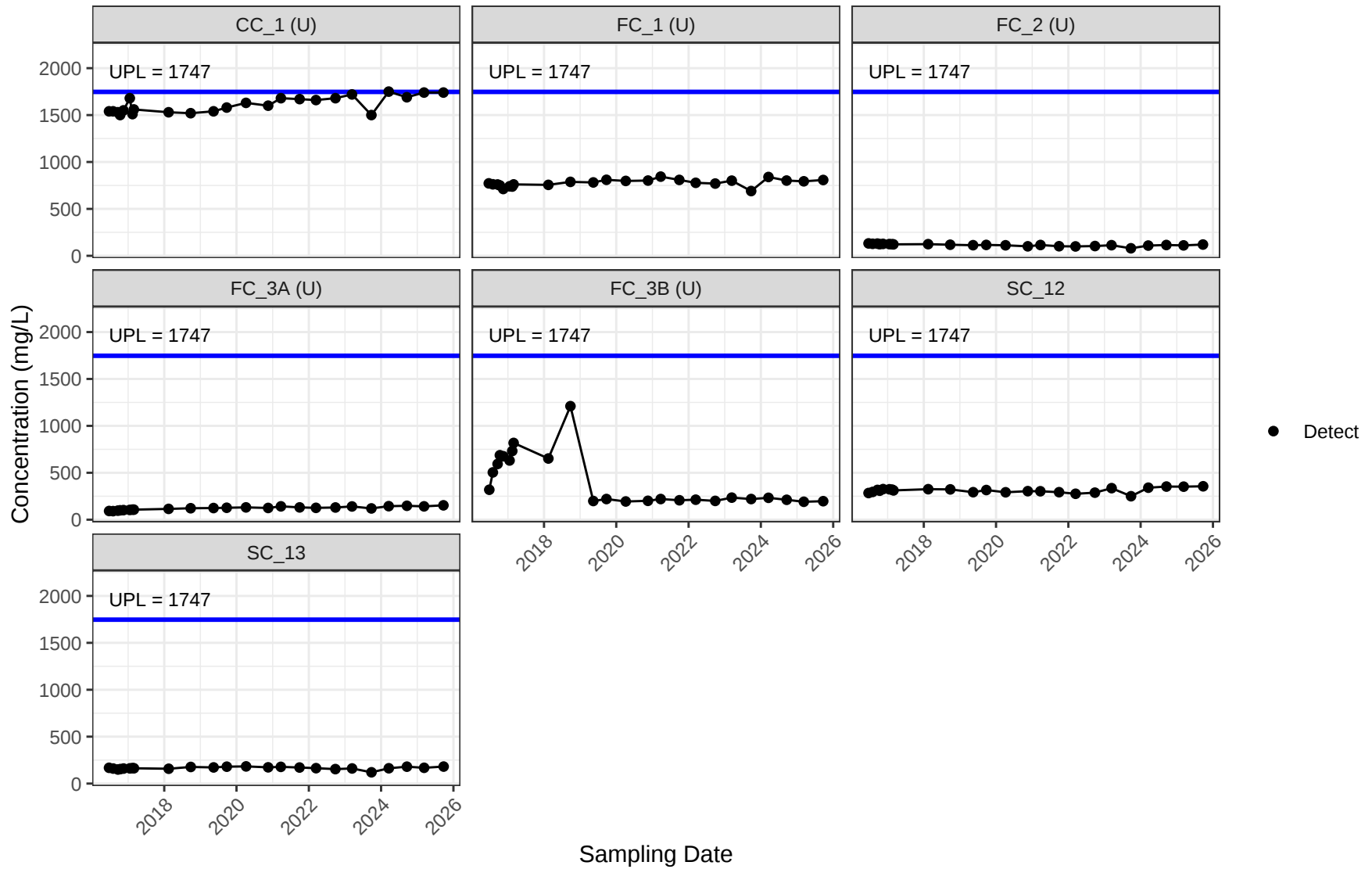


Figure 66: Prediction Limit Outcome Plots: SPC

2025 Interwell Prediction Limit SSIs for Fluoride

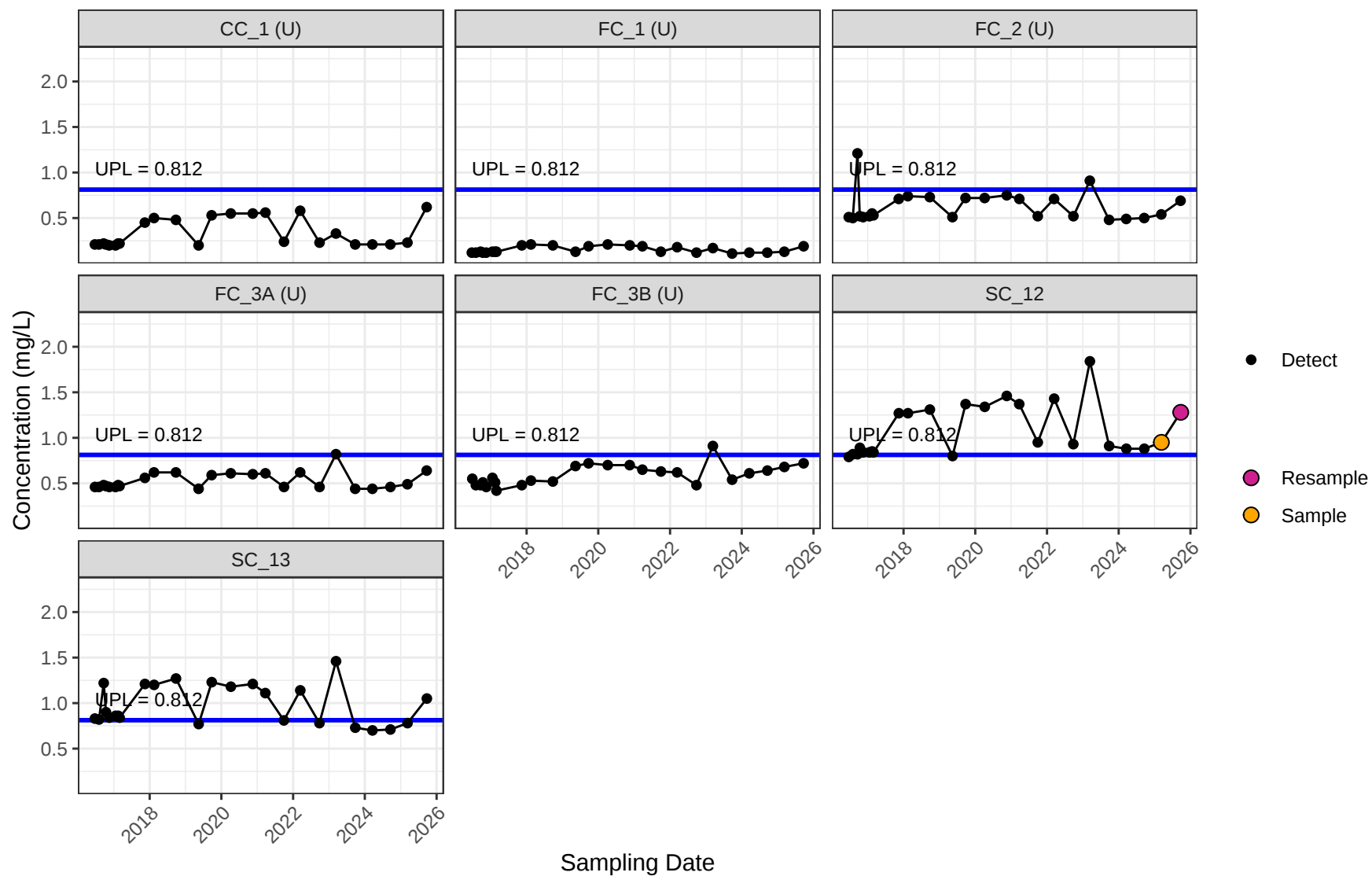


Figure 67: Prediction Limit Outcome Plots: SPC

2025 Interwell Prediction Limit SSIs for pH

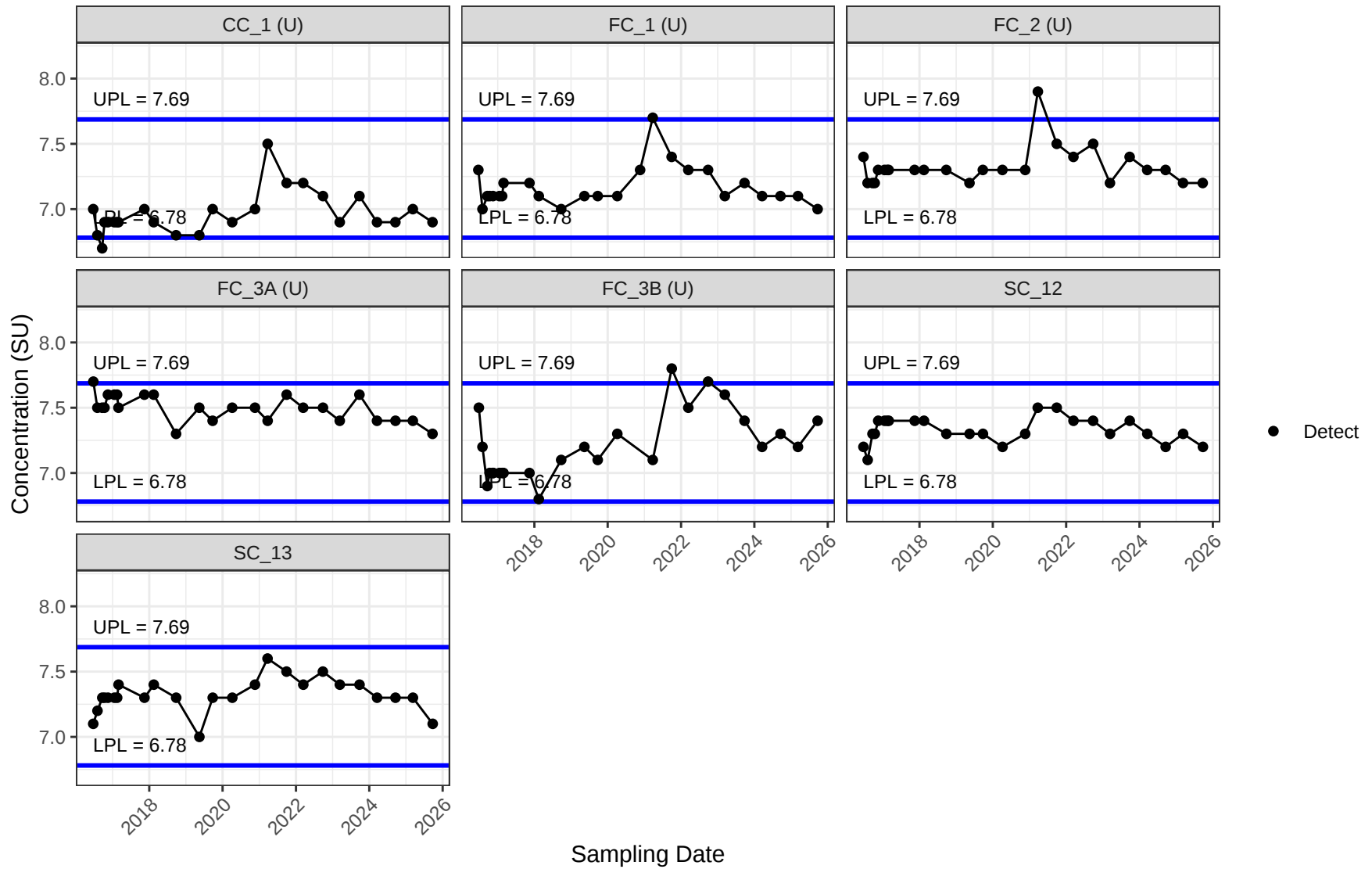


Figure 68: Prediction Limit Outcome Plots: SPC

2025 Interwell Prediction Limit SSIs for Sulfate

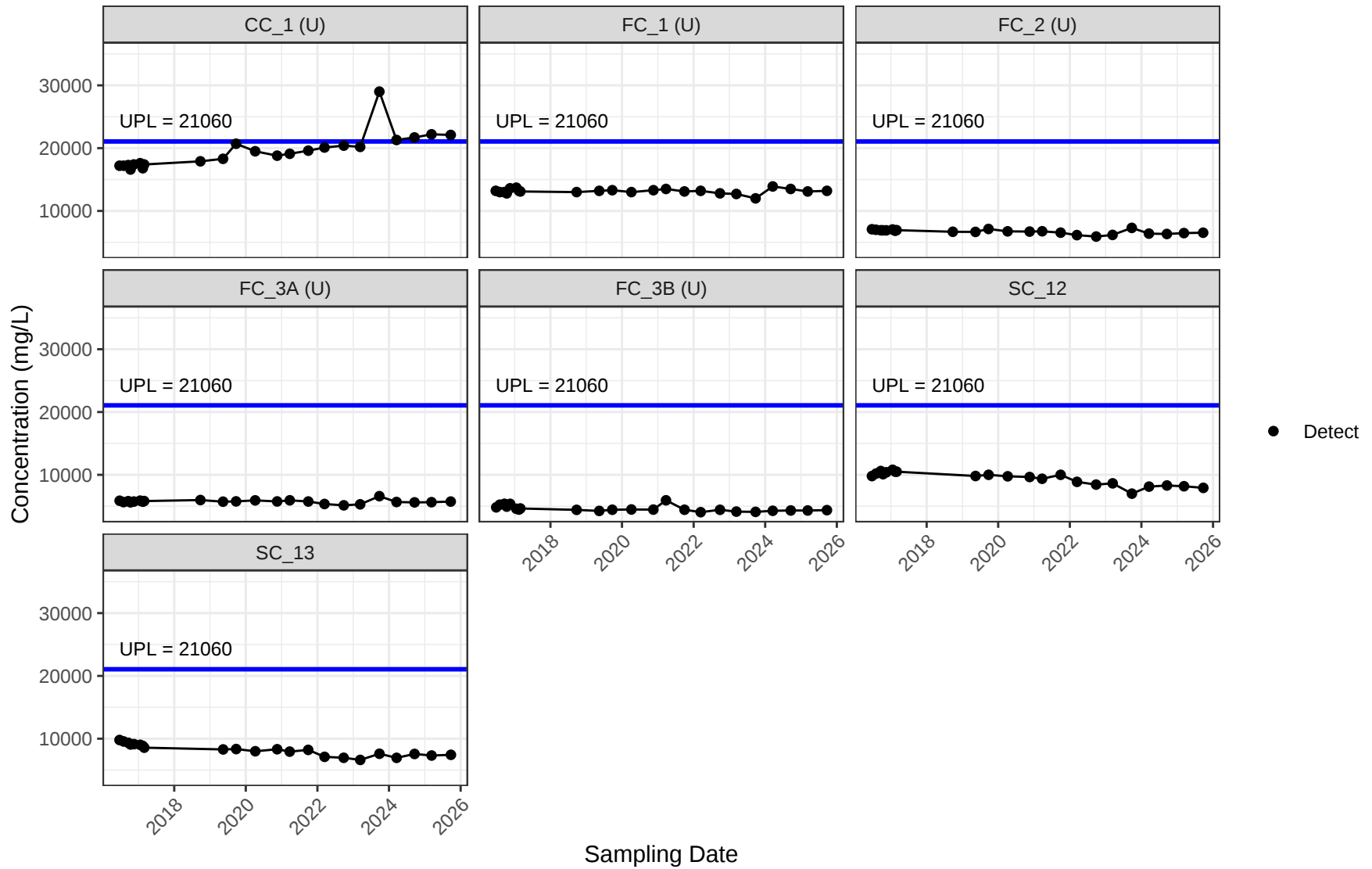


Figure 69: Prediction Limit Outcome Plots: SPC

2025 Interwell Prediction Limit SSIs for TDS

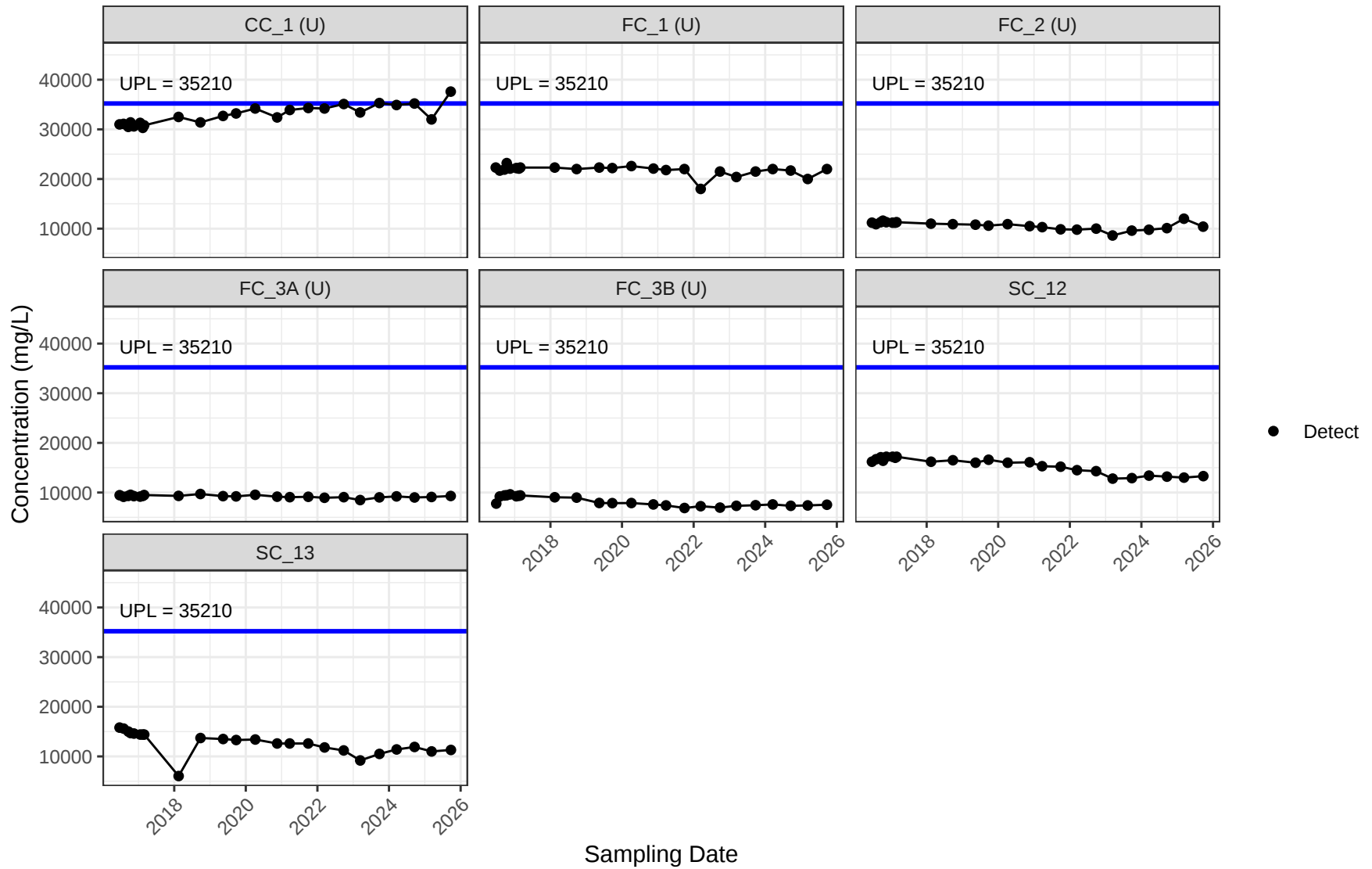


Figure 70: Prediction Limit Outcome Plots: SPC

2025 Interwell Prediction Limit SSIs for Boron

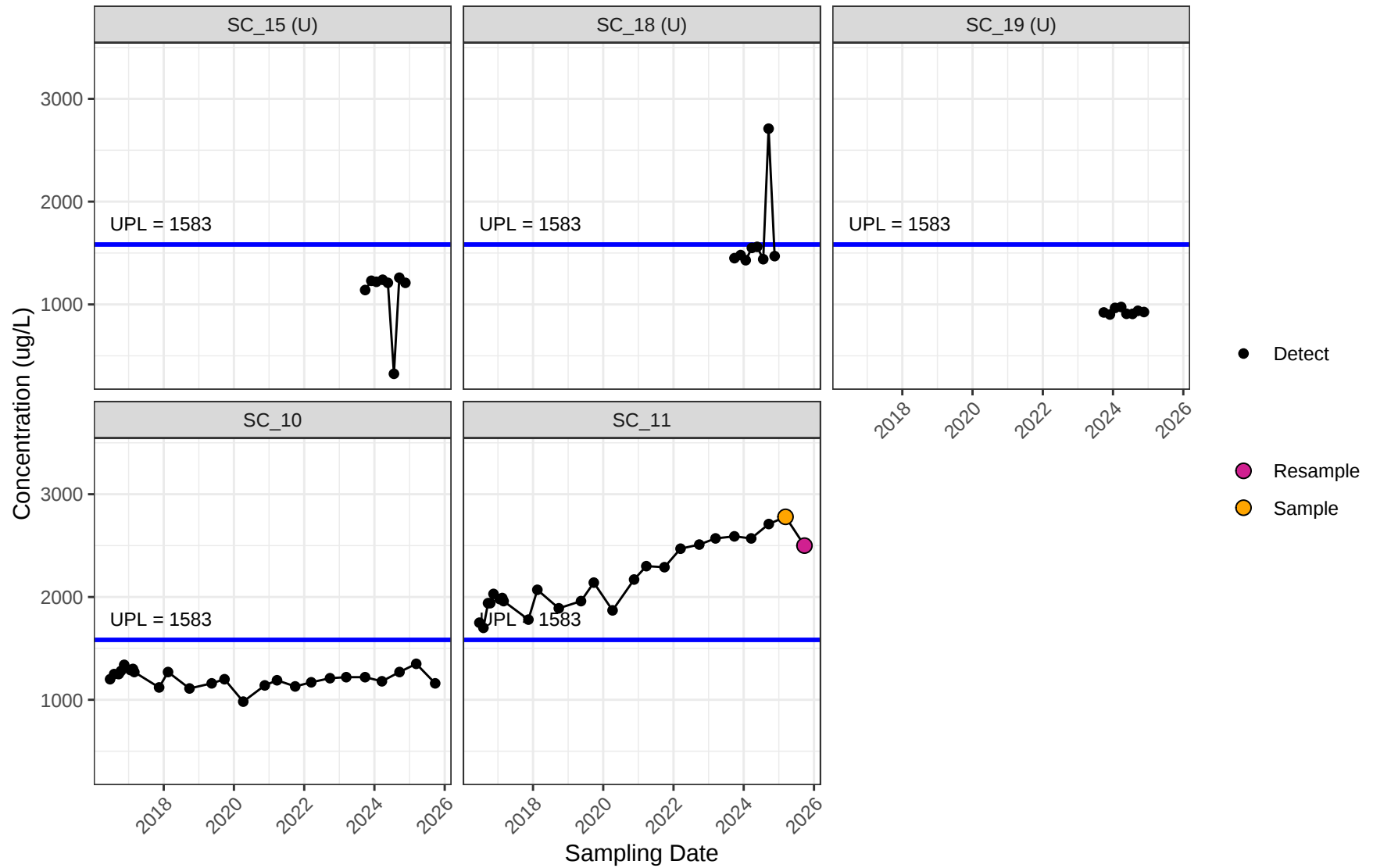


Figure 71: Prediction Limit Outcome Plots: NPC

2025 Interwell Prediction Limit SSIs for Calcium

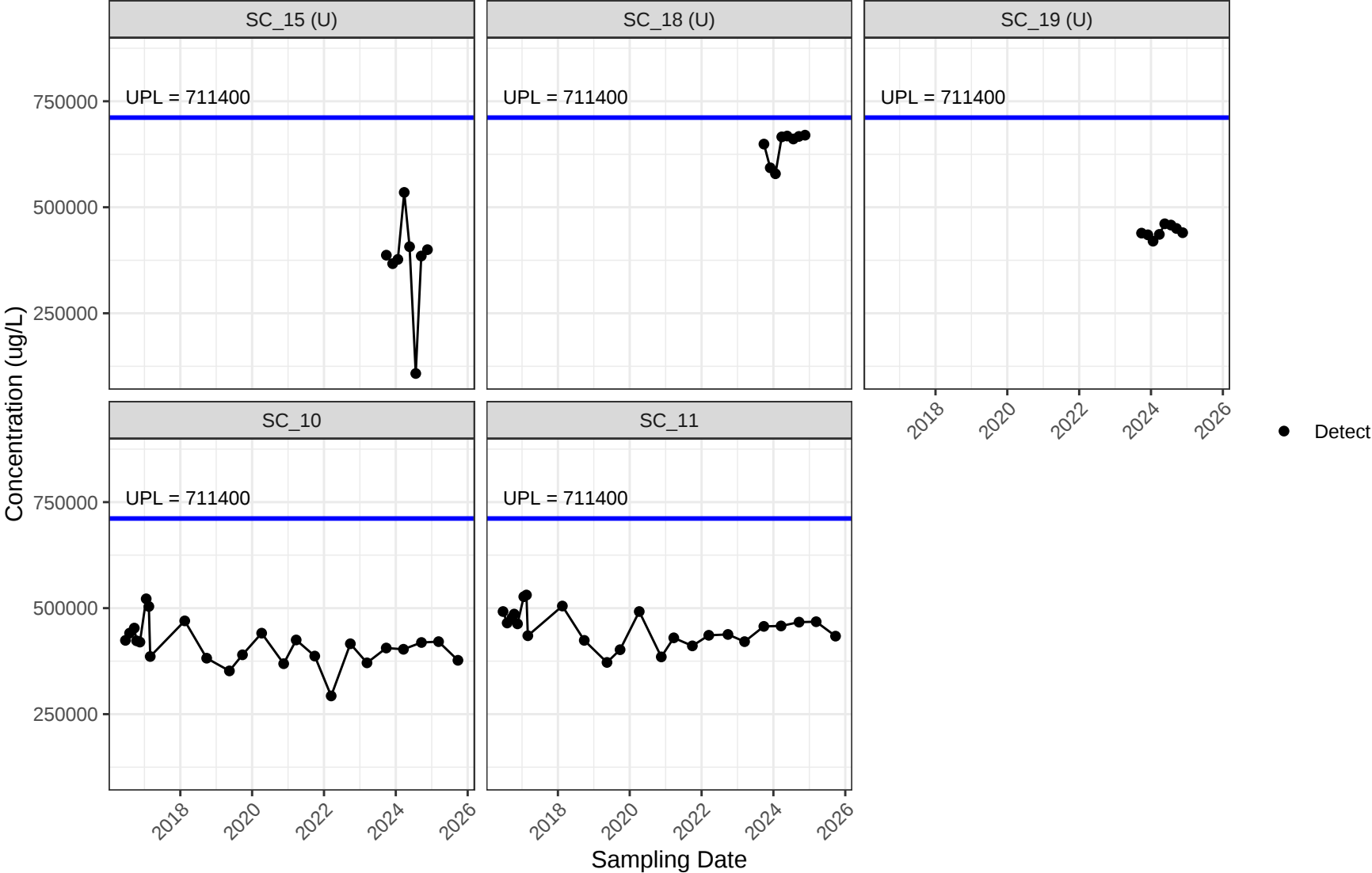


Figure 72: Prediction Limit Outcome Plots: NPC

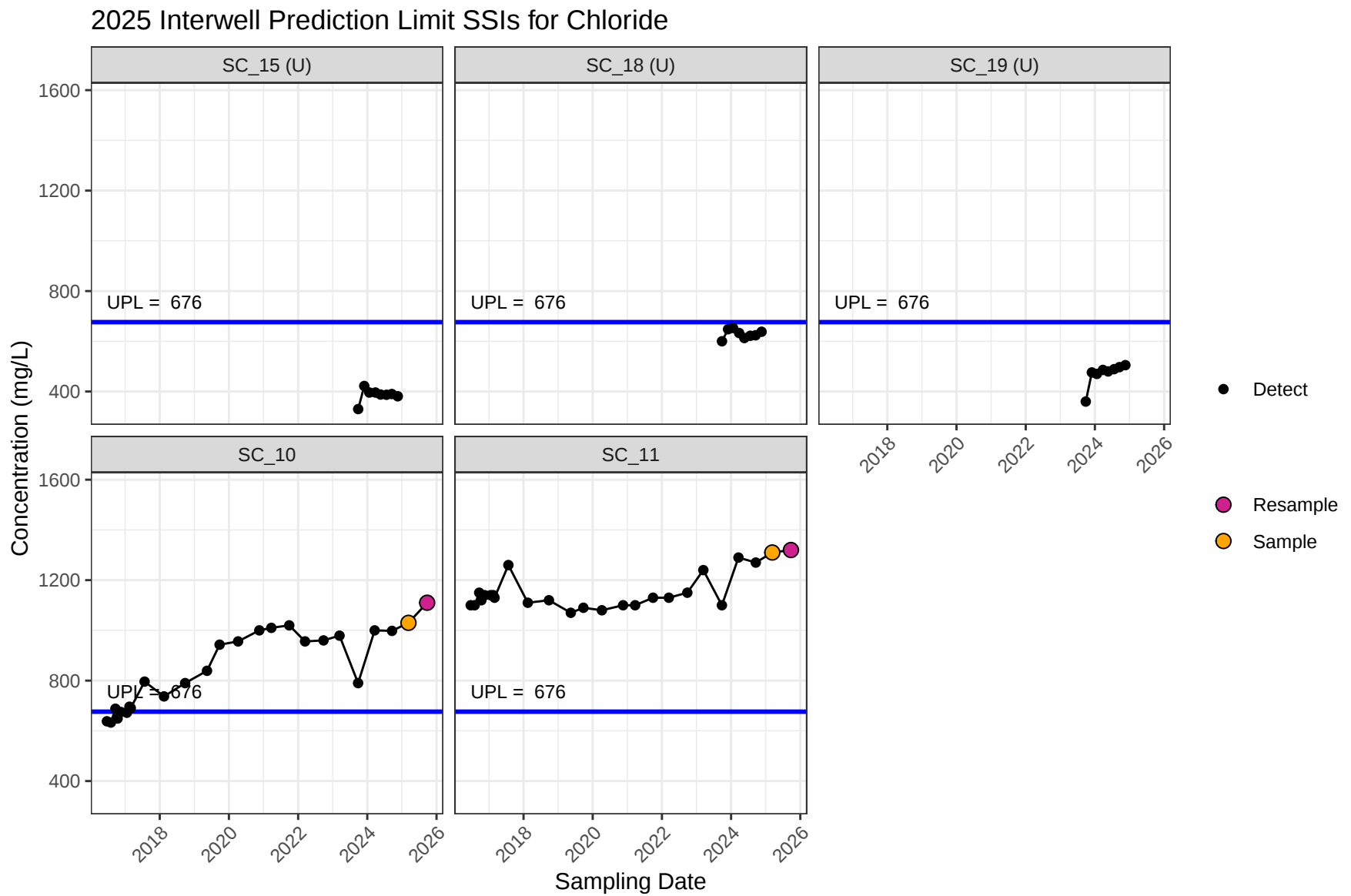


Figure 73: Prediction Limit Outcome Plots: NPC

2025 Interwell Prediction Limit SSIs for Fluoride

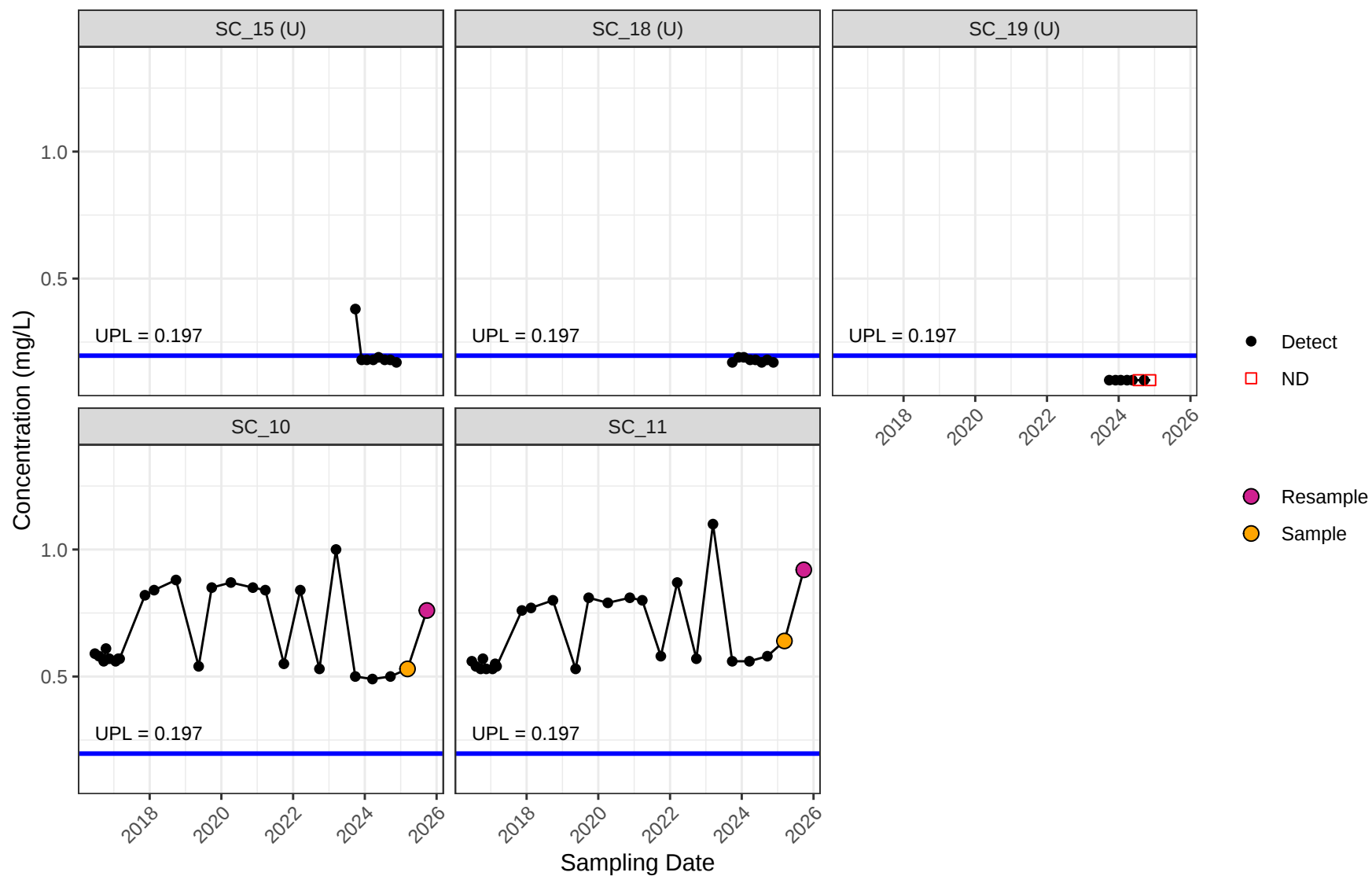


Figure 74: Prediction Limit Outcome Plots: NPC

2025 Interwell Prediction Limit SSIs for pH

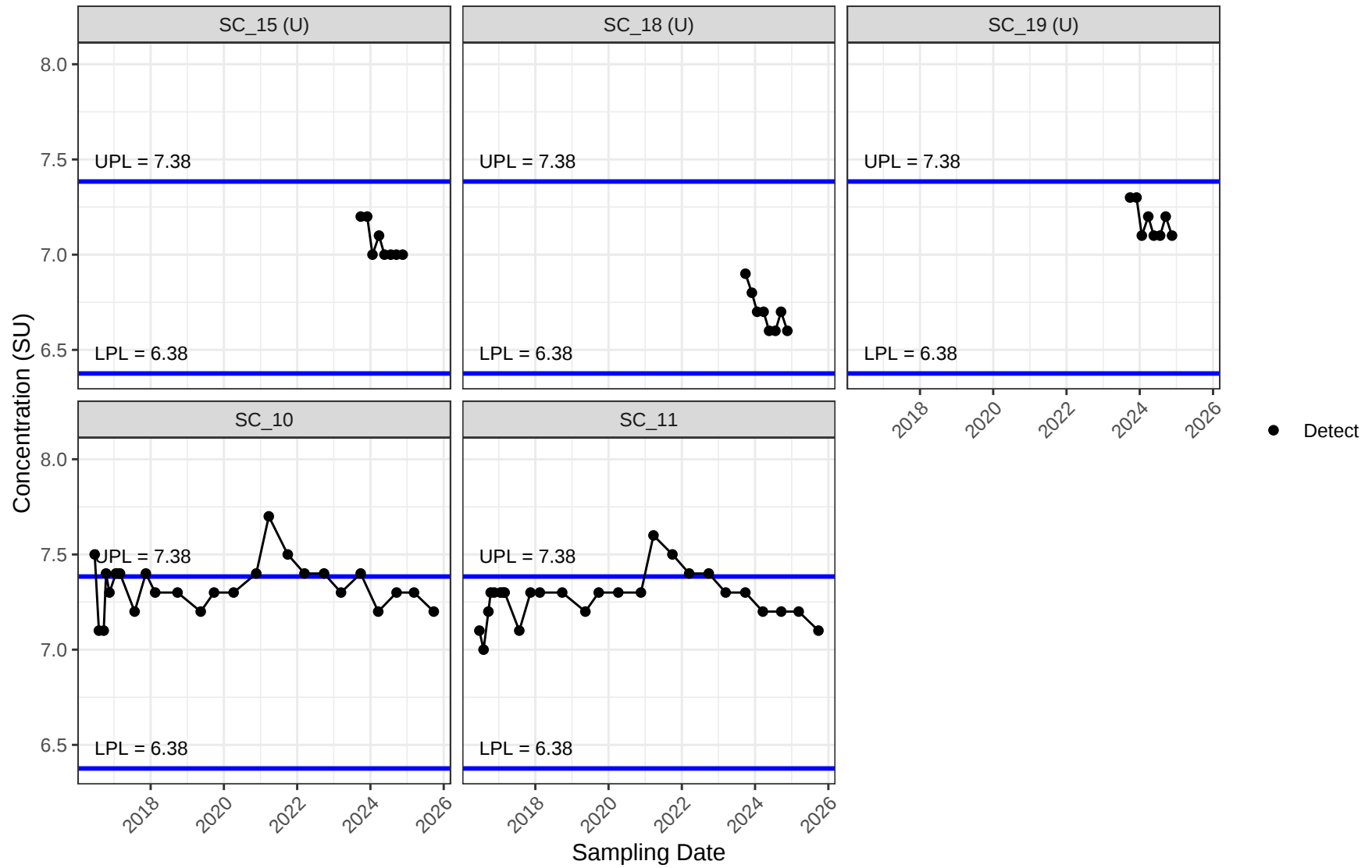


Figure 75: Prediction Limit Outcome Plots: NPC

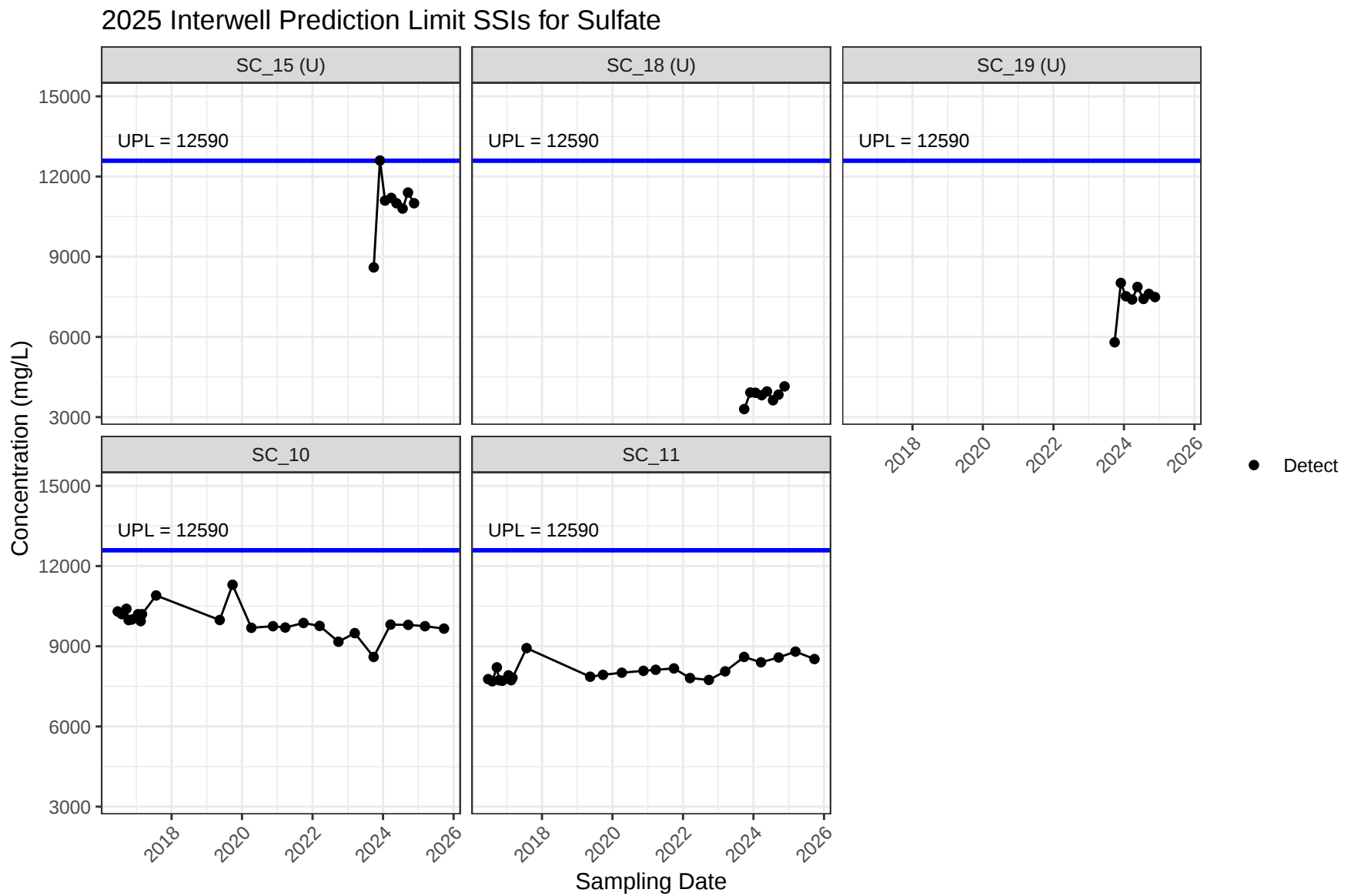


Figure 76: Prediction Limit Outcome Plots: NPC

2025 Interwell Prediction Limit SSIs for TDS

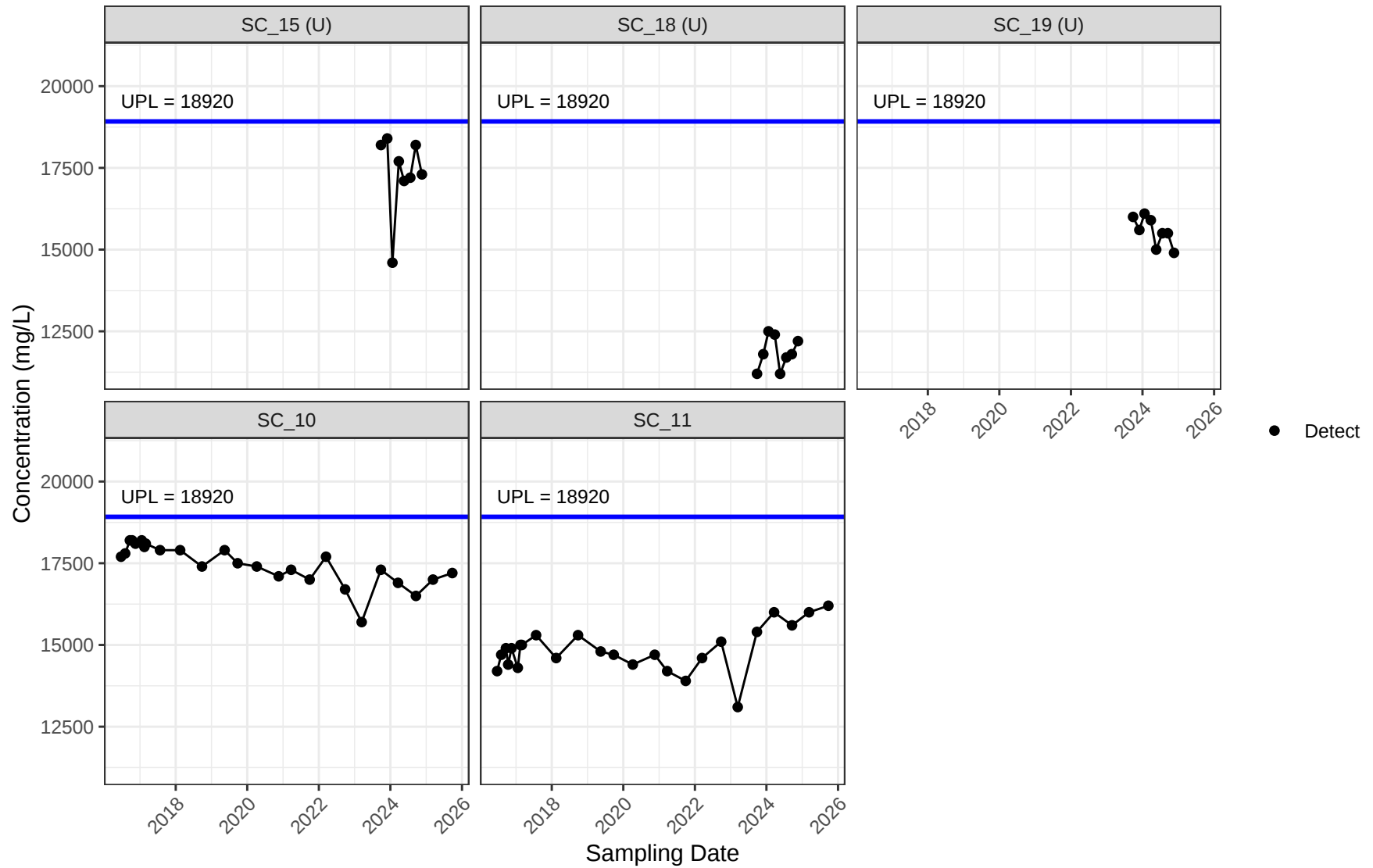


Figure 77: Prediction Limit Outcome Plots: NPC

Confidence Interval Band Plots, Appendix IV Parameters

Confidence Bands for Antimony: Target One-Sided 99% Confidence

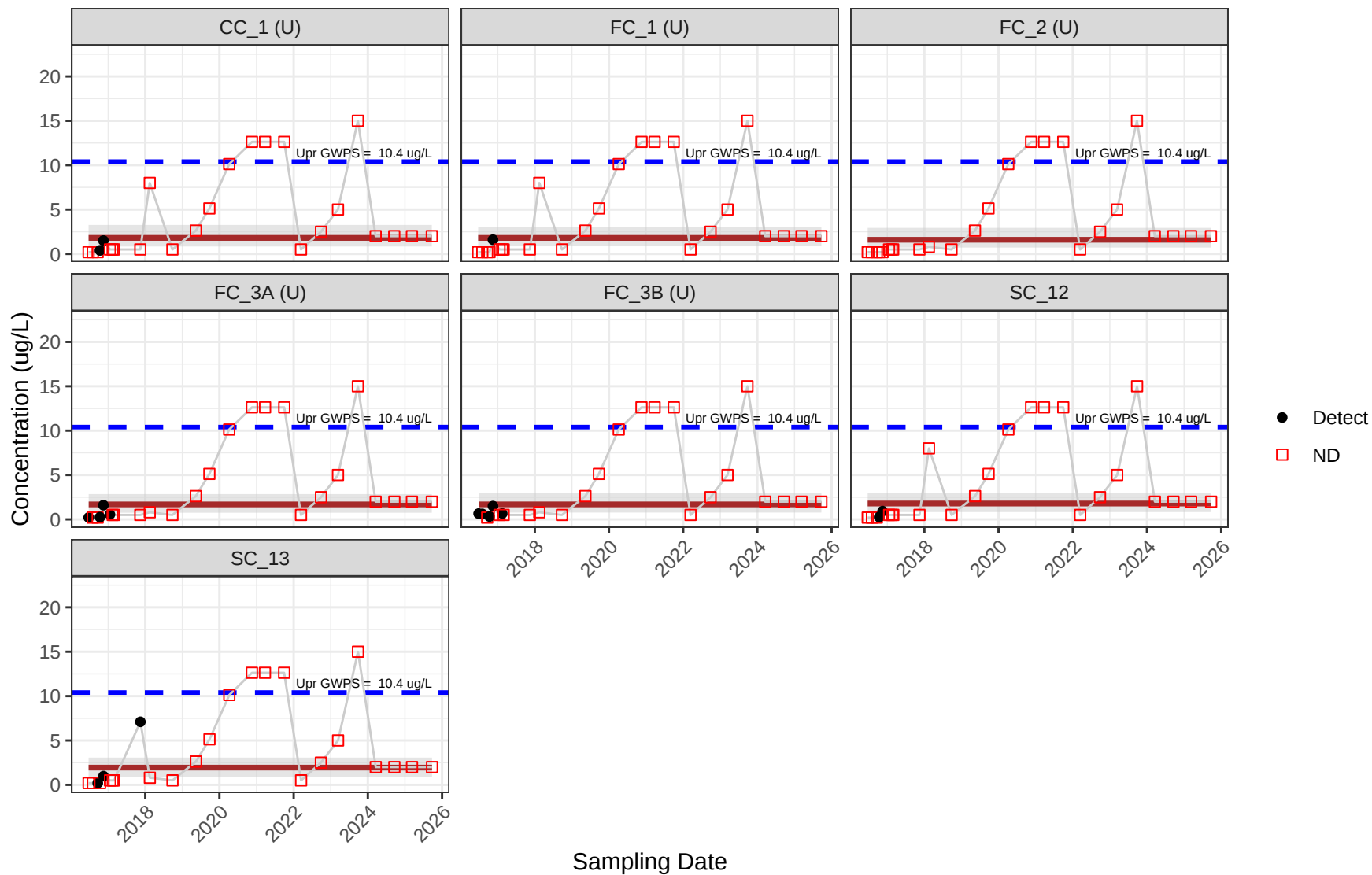


Figure 78: Confidence Band Plots: SPC

Confidence Bands for Arsenic: Target One-Sided 99% Confidence

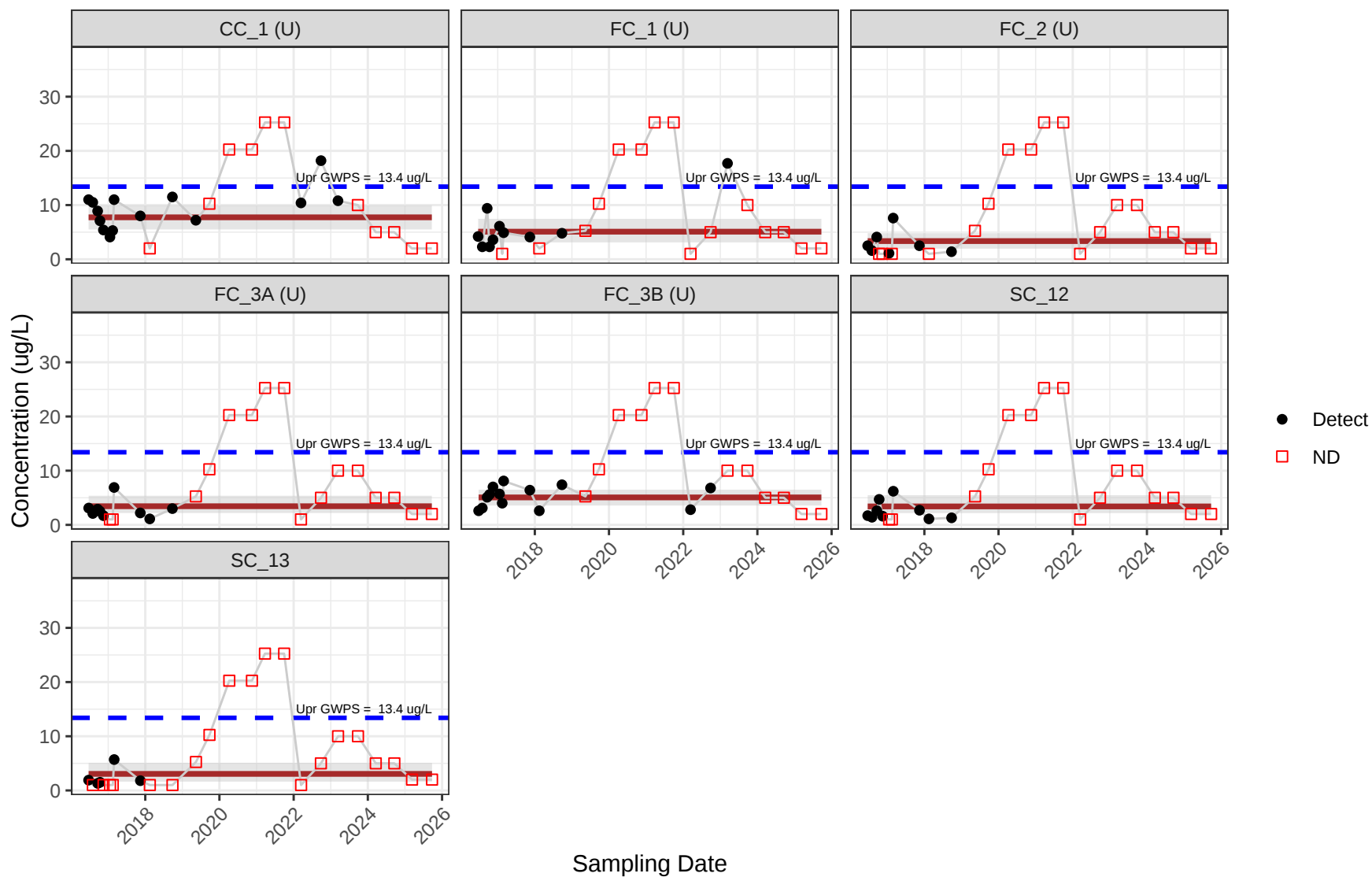


Figure 79: Confidence Band Plots: SPC

Confidence Bands for Barium: Target One-Sided 99% Confidence

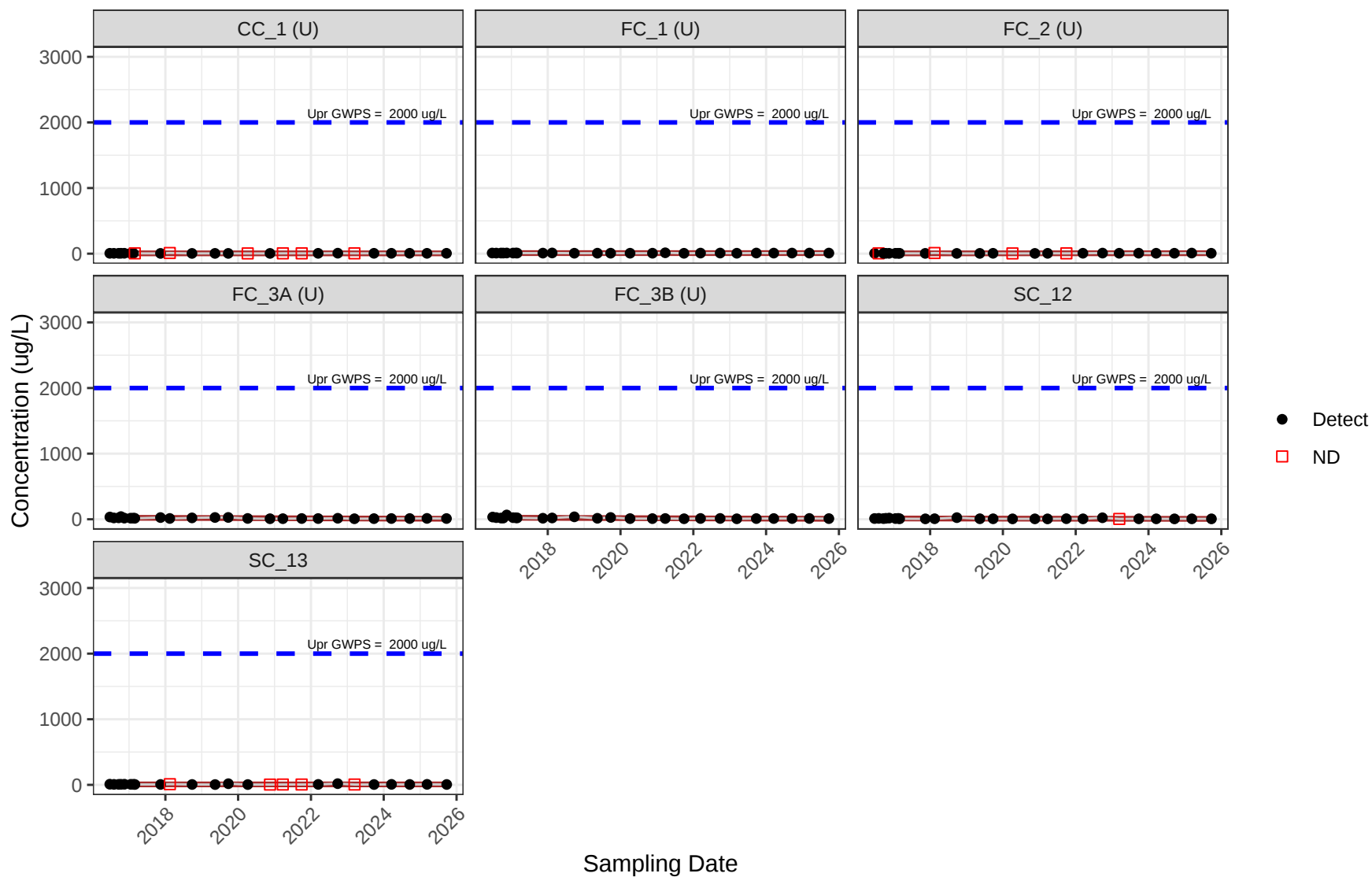


Figure 80: Confidence Band Plots: SPC

Confidence Bands for Beryllium: Target One-Sided 99% Confidence

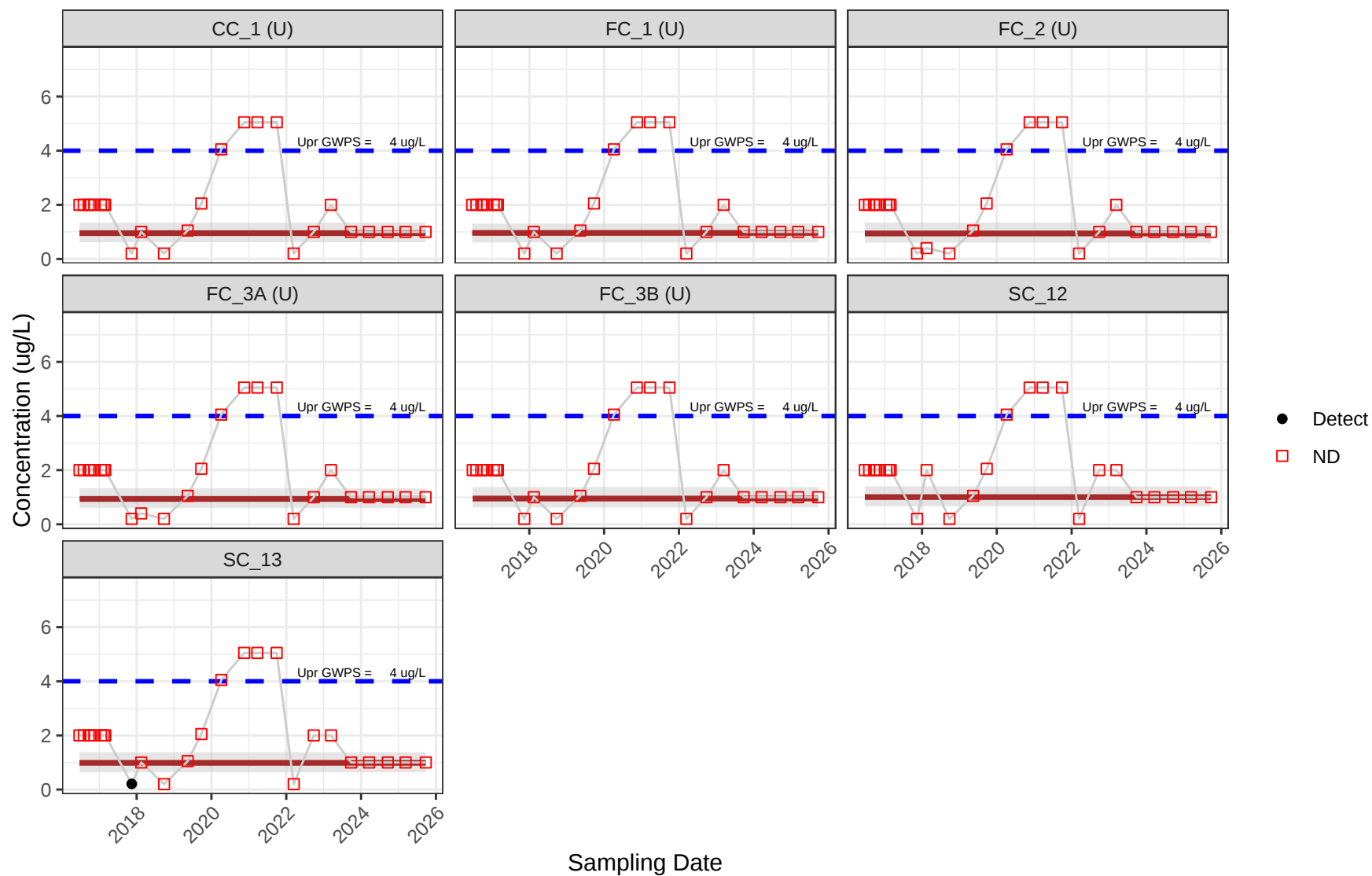


Figure 81: Confidence Band Plots: SPC

Confidence Bands for Cadmium: Target One-Sided 99% Confidence

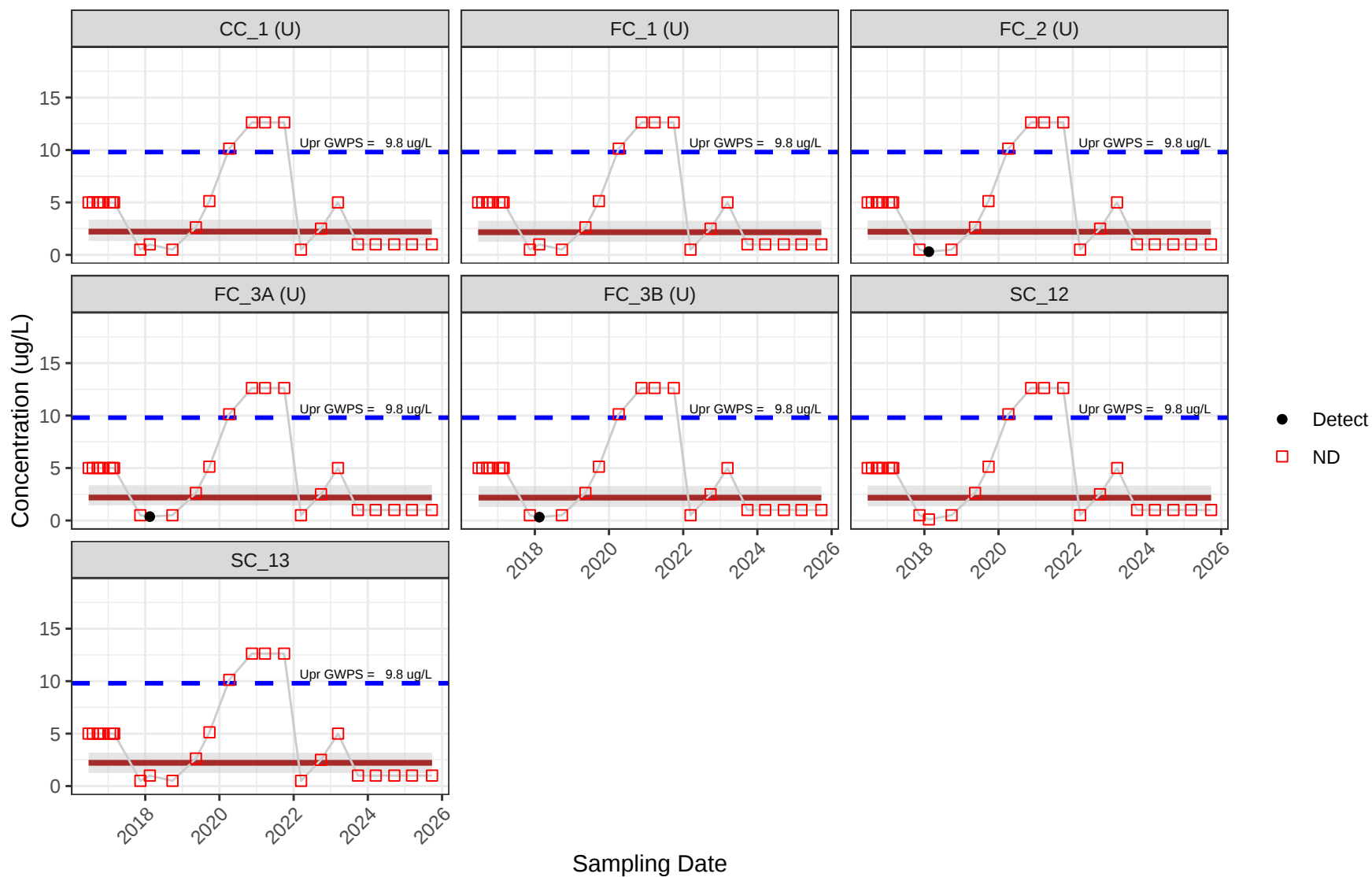


Figure 82: Confidence Band Plots: SPC

Confidence Bands for Chromium: Target One-Sided 99% Confidence

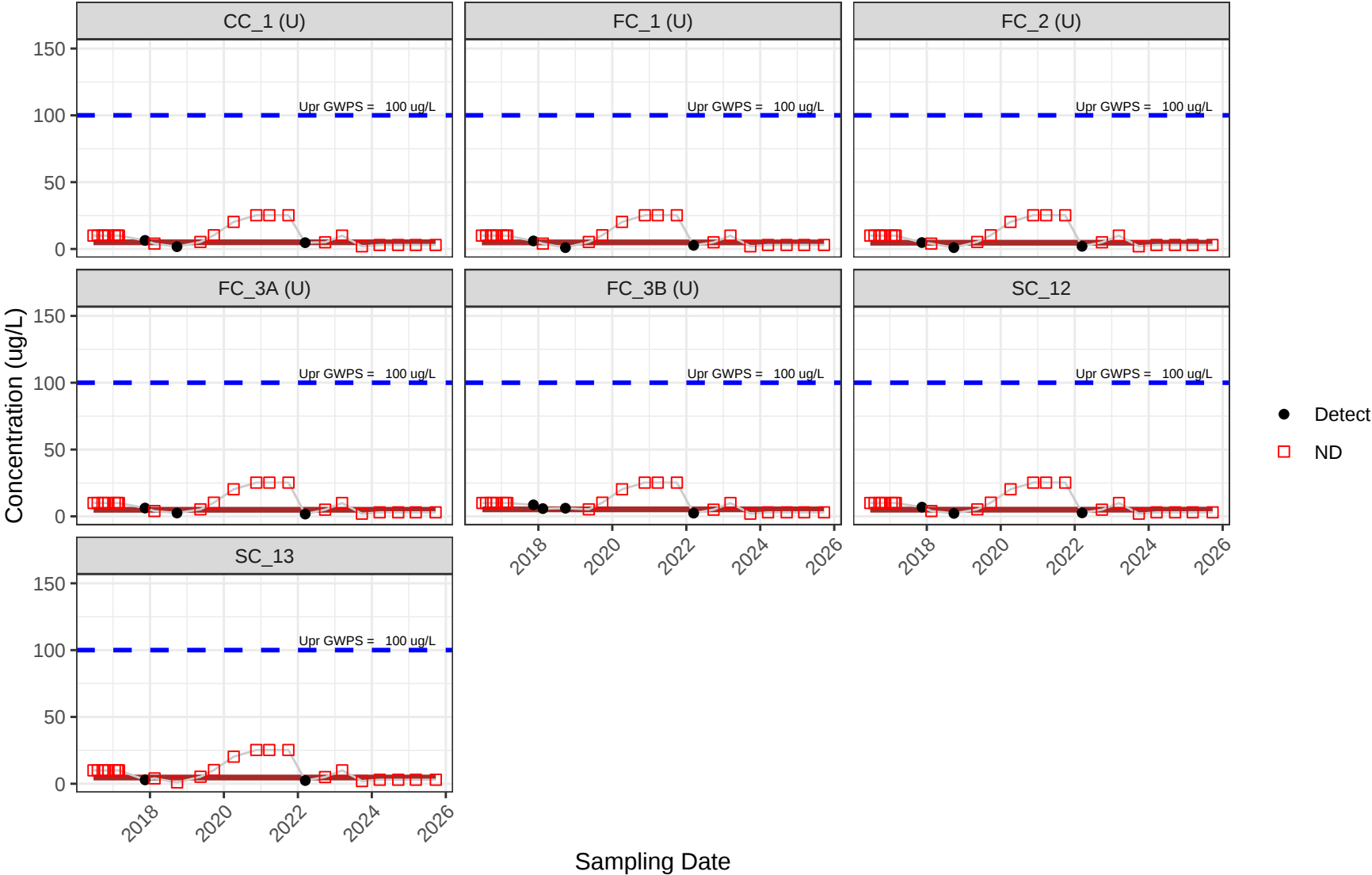


Figure 83: Confidence Band Plots: SPC

Confidence Bands for Cobalt: Target One-Sided 99% Confidence

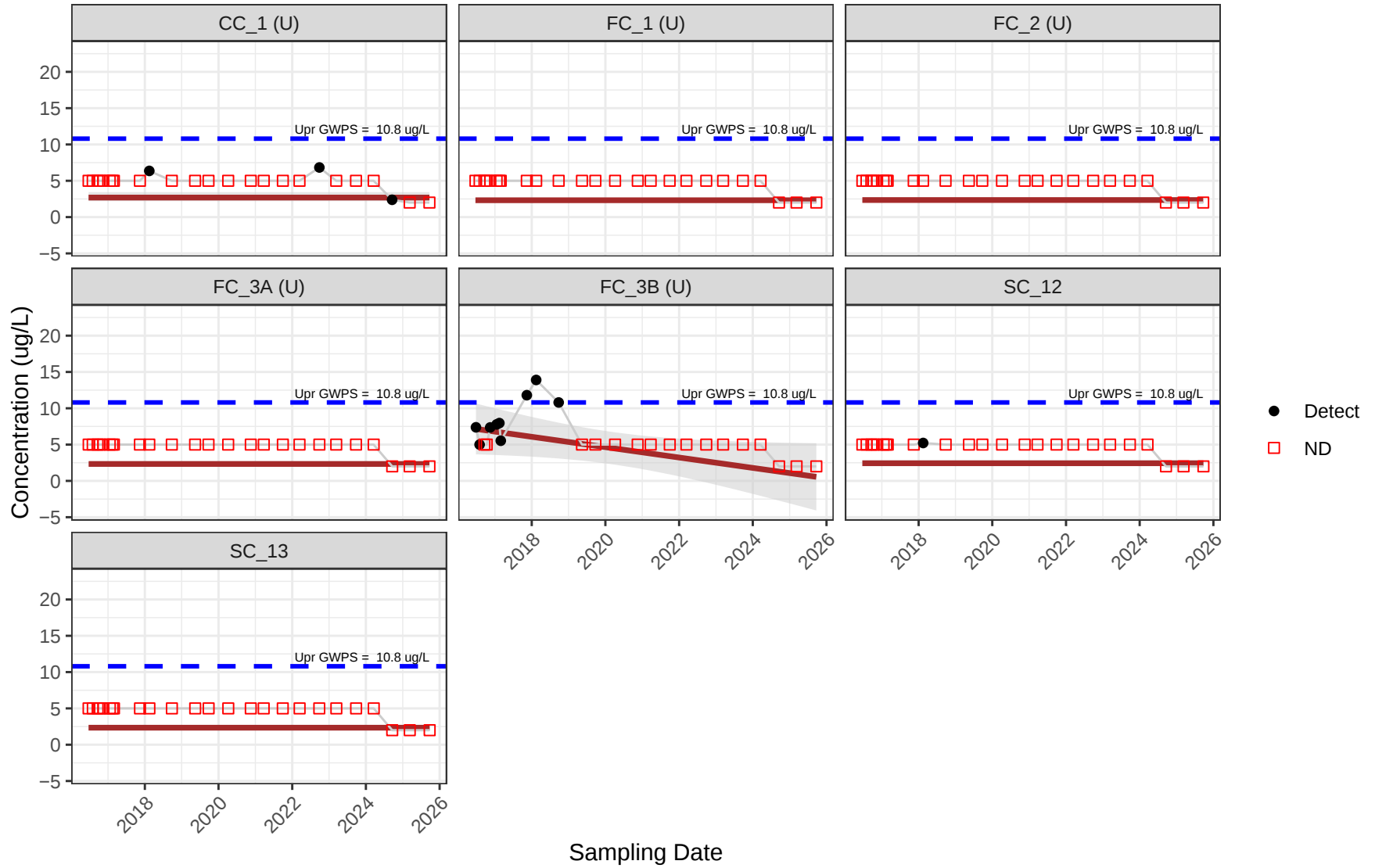


Figure 84: Confidence Band Plots: SPC

Confidence Bands for Fluoride: Target One-Sided 99% Confidence

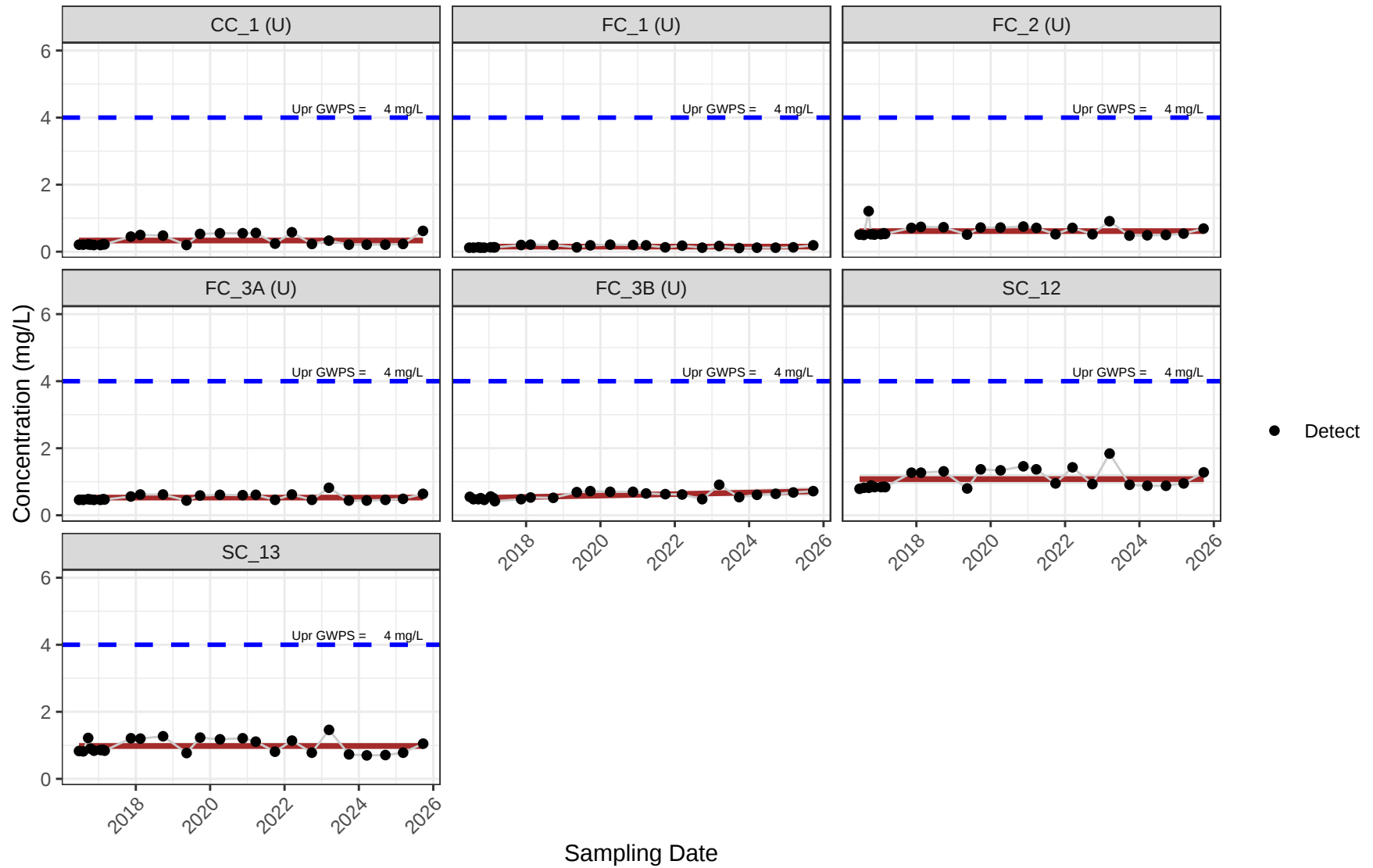


Figure 85: Confidence Band Plots: SPC

Confidence Bands for Lead: Target One-Sided 99% Confidence

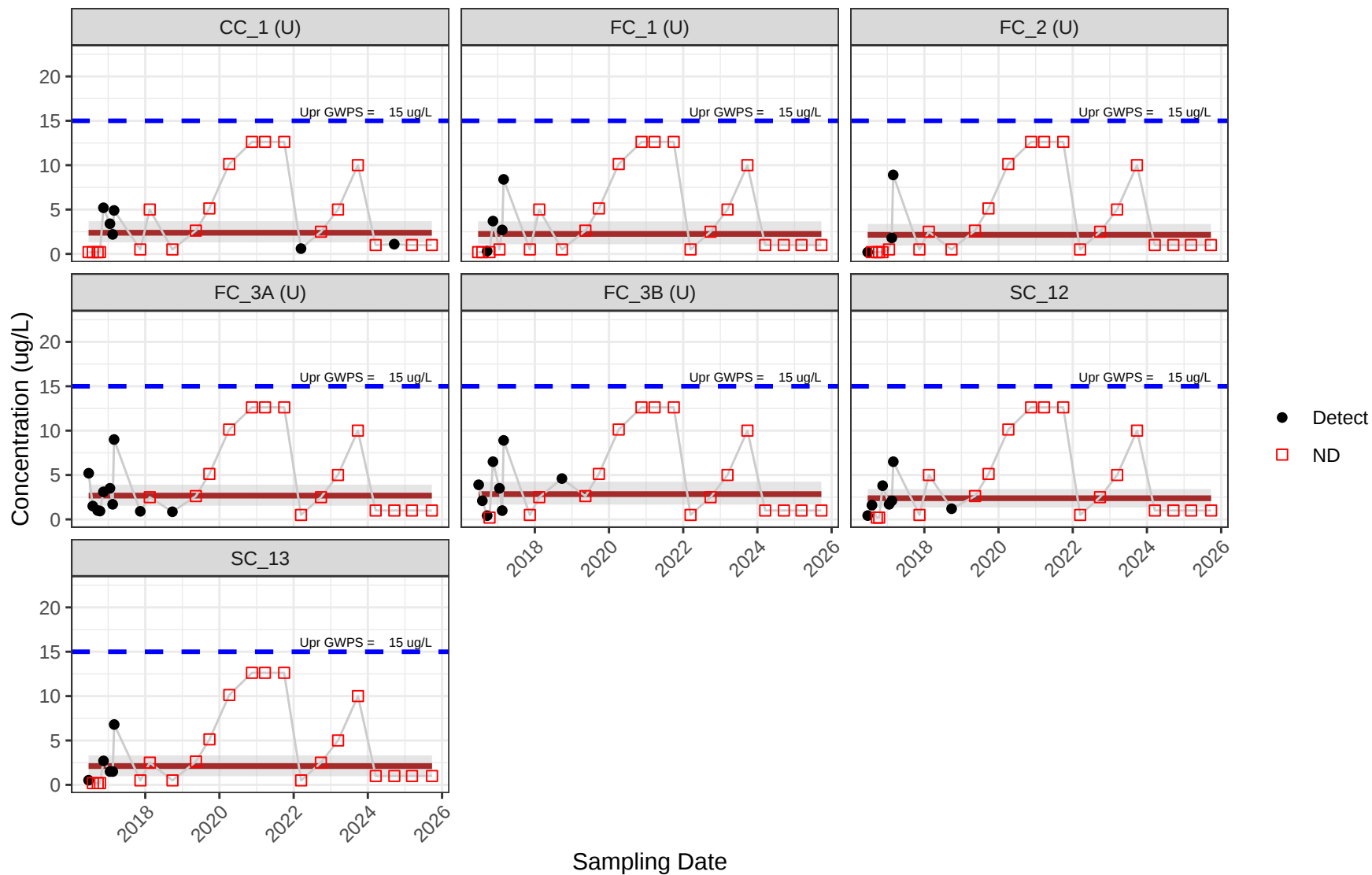


Figure 86: Confidence Band Plots: SPC

Confidence Bands for Lithium: Target One-Sided 99% Confidence

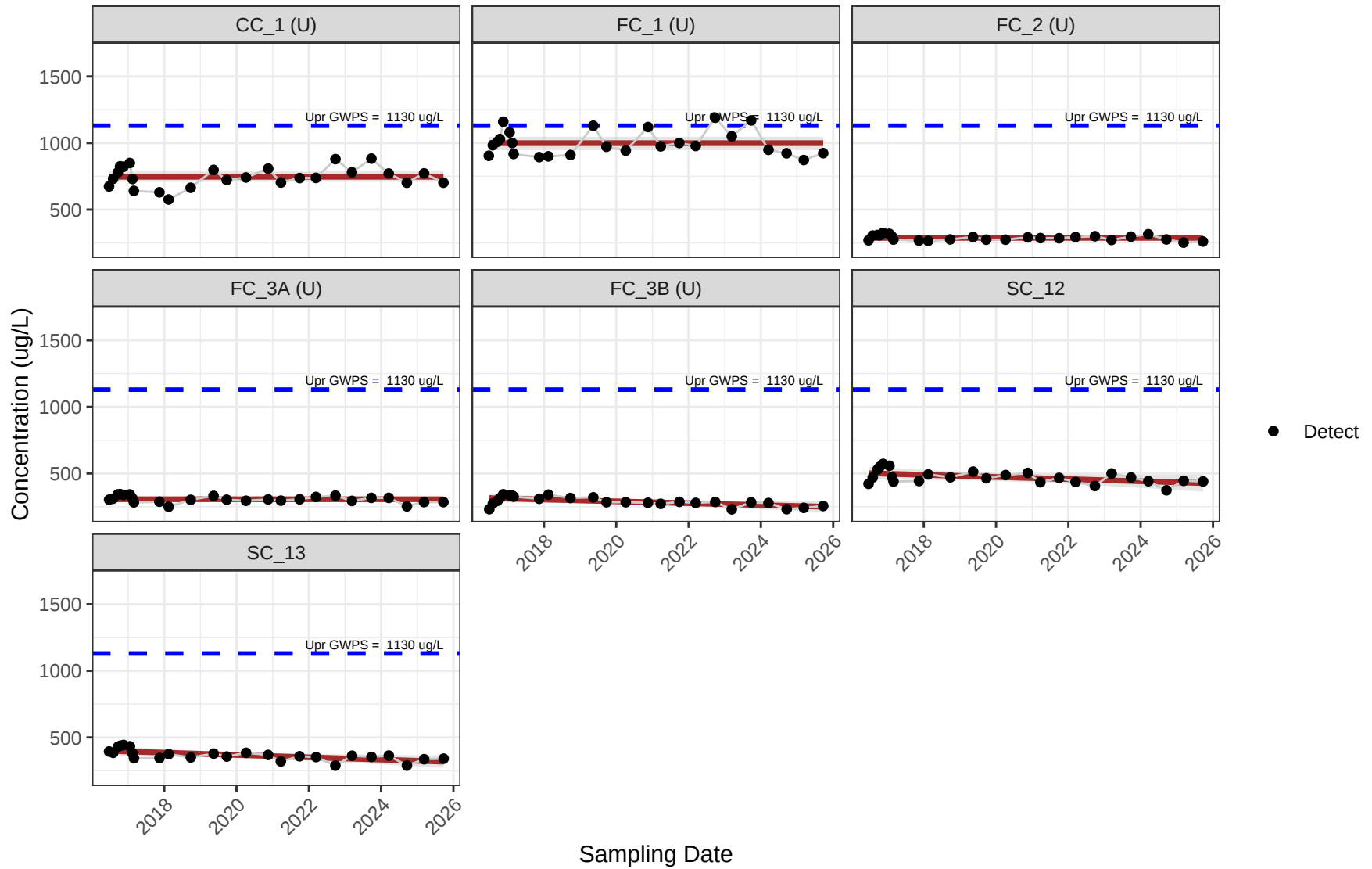


Figure 87: Confidence Band Plots: SPC

Confidence Bands for Mercury: Target One-Sided 99% Confidence

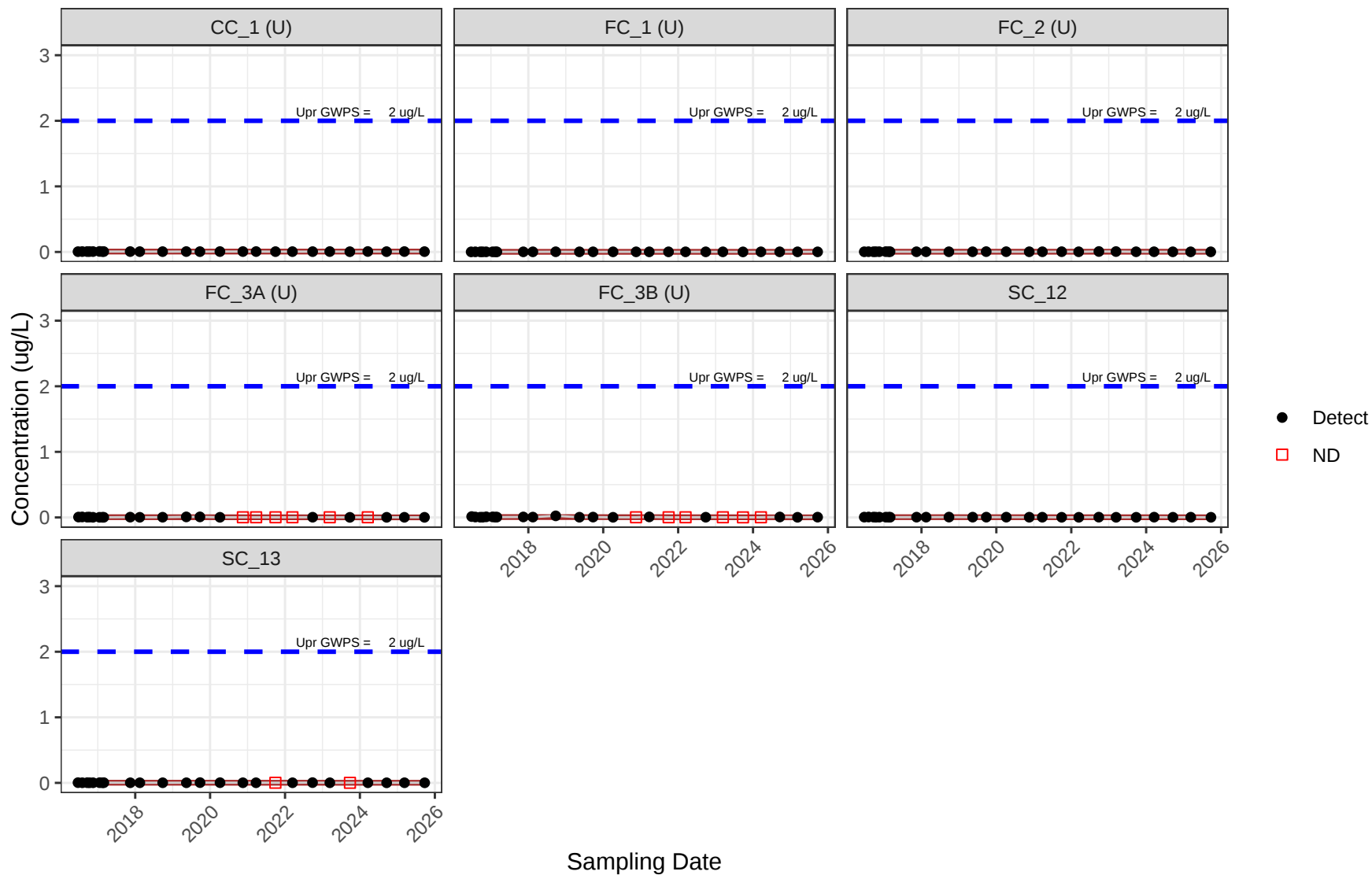


Figure 88: Confidence Band Plots: SPC

Confidence Bands for Molybdenum: Target One-Sided 99% Confidence

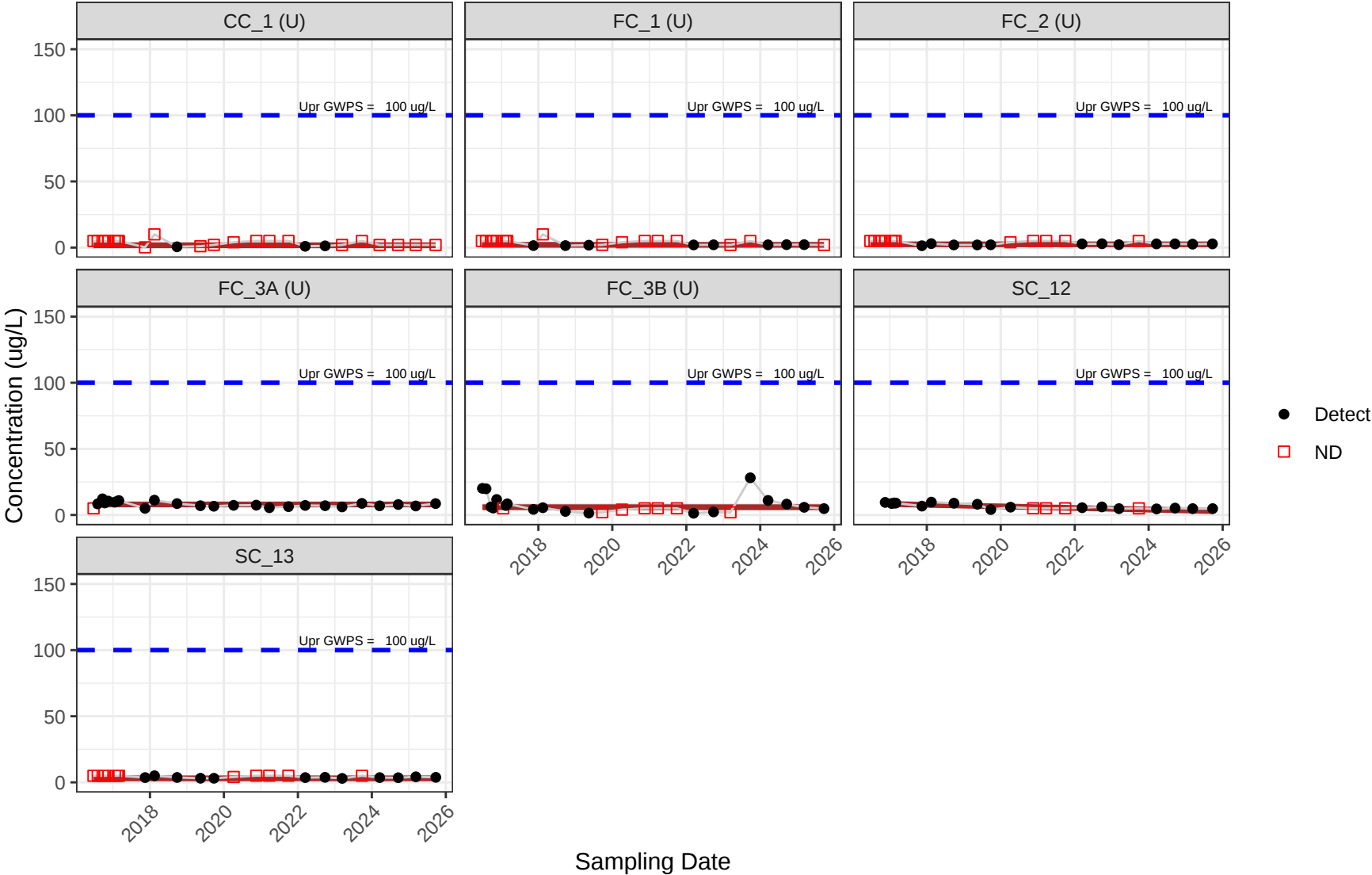


Figure 89: Confidence Band Plots: SPC

Confidence Bands for Rad226+228: Target One-Sided 99% Confidence

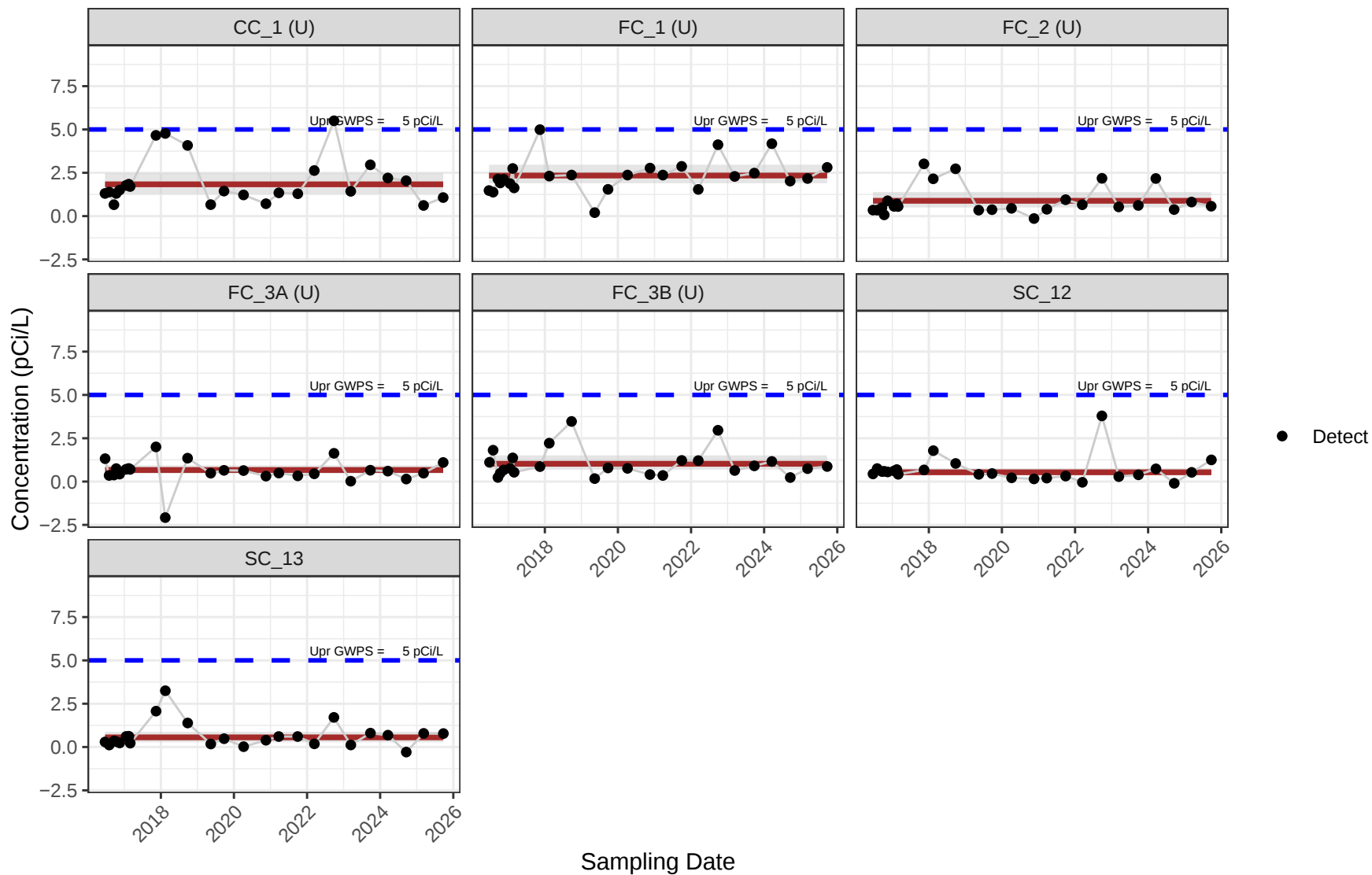


Figure 90: Confidence Band Plots: SPC

Confidence Bands for Selenium: Target One-Sided 99% Confidence

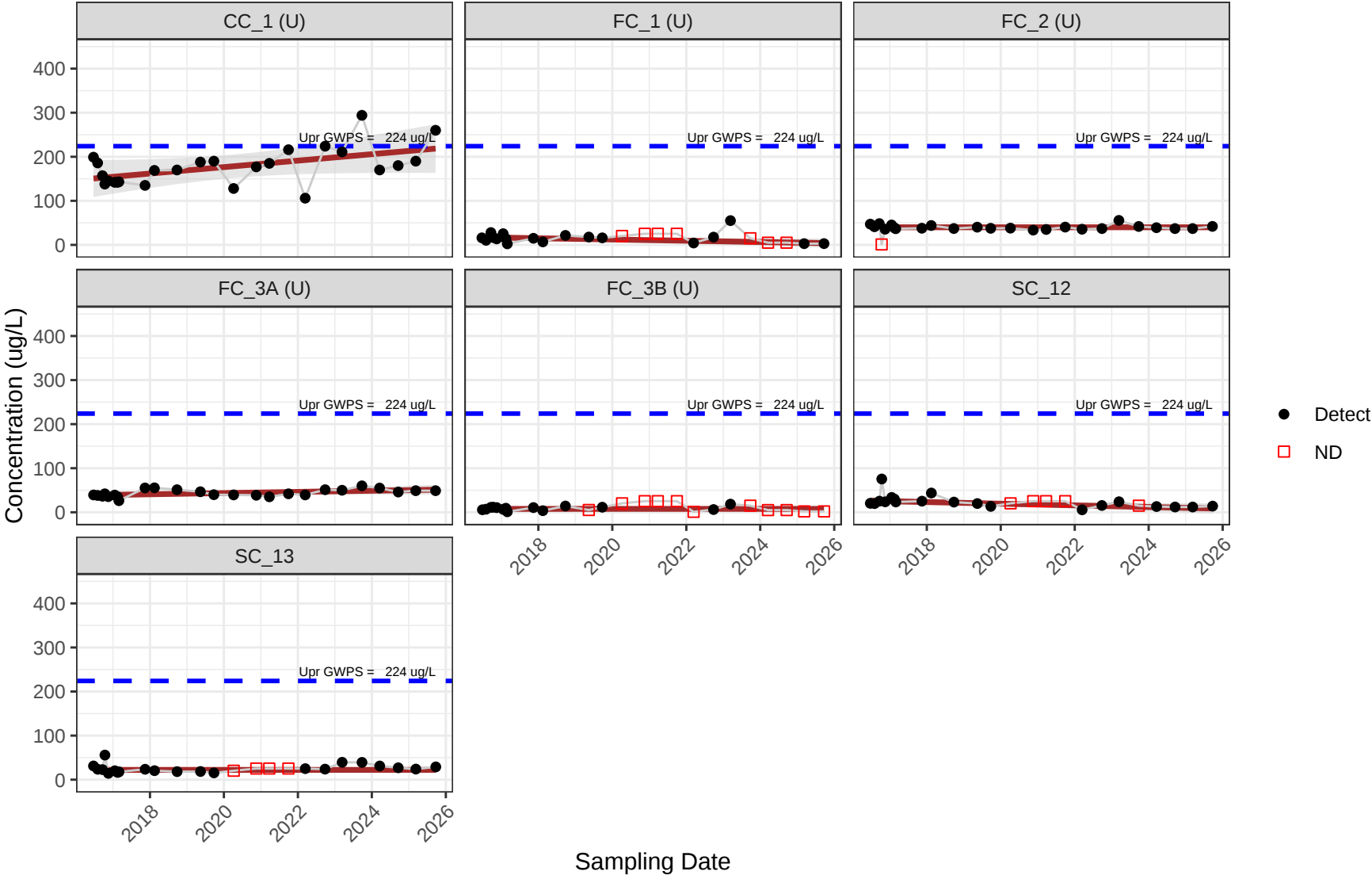


Figure 91: Confidence Band Plots: SPC

Confidence Bands for Thallium: Target One-Sided 99% Confidence

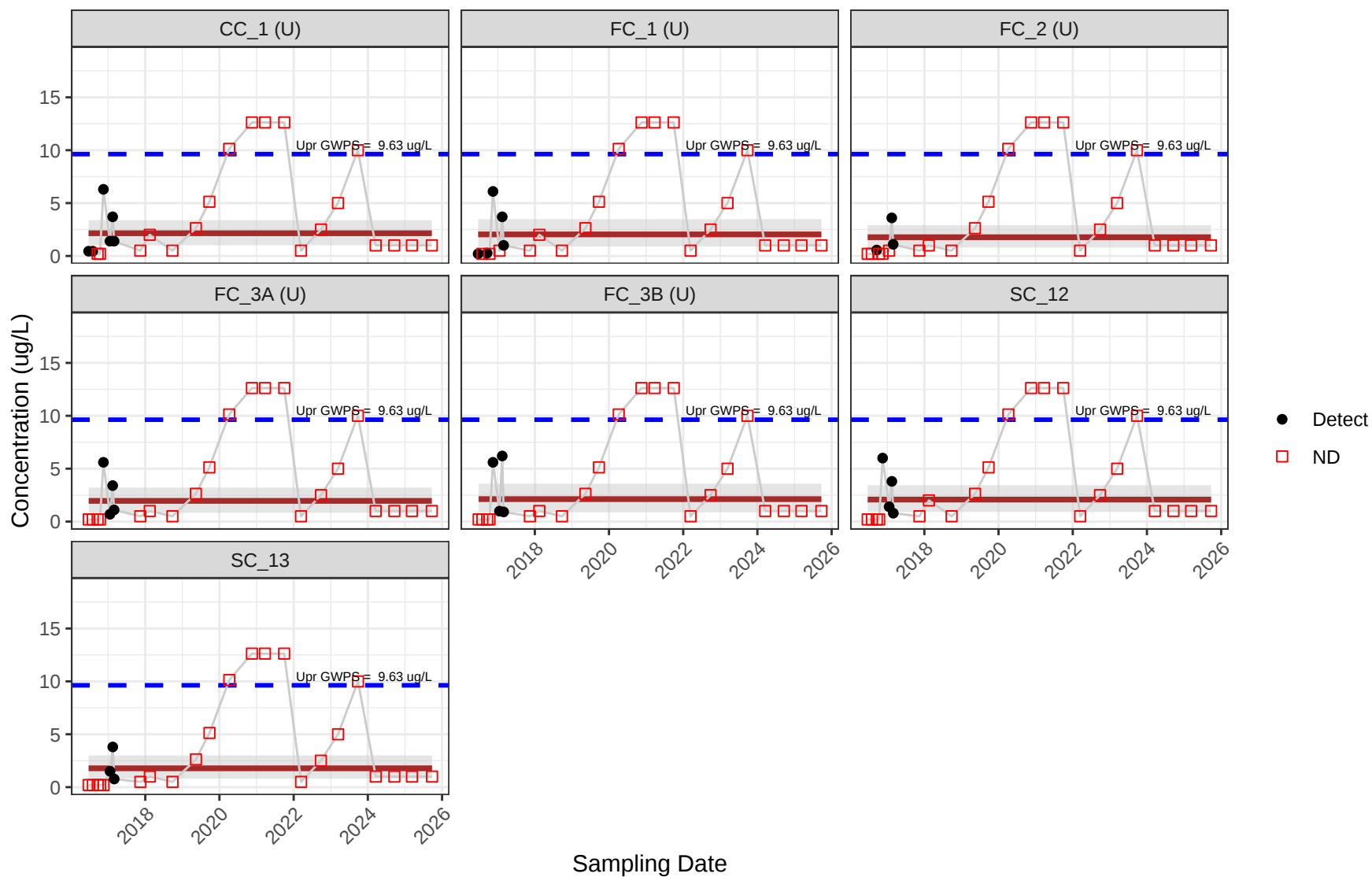


Figure 92: Confidence Band Plots: SPC

Confidence Bands for Antimony: Target One-Sided 99% Confidence

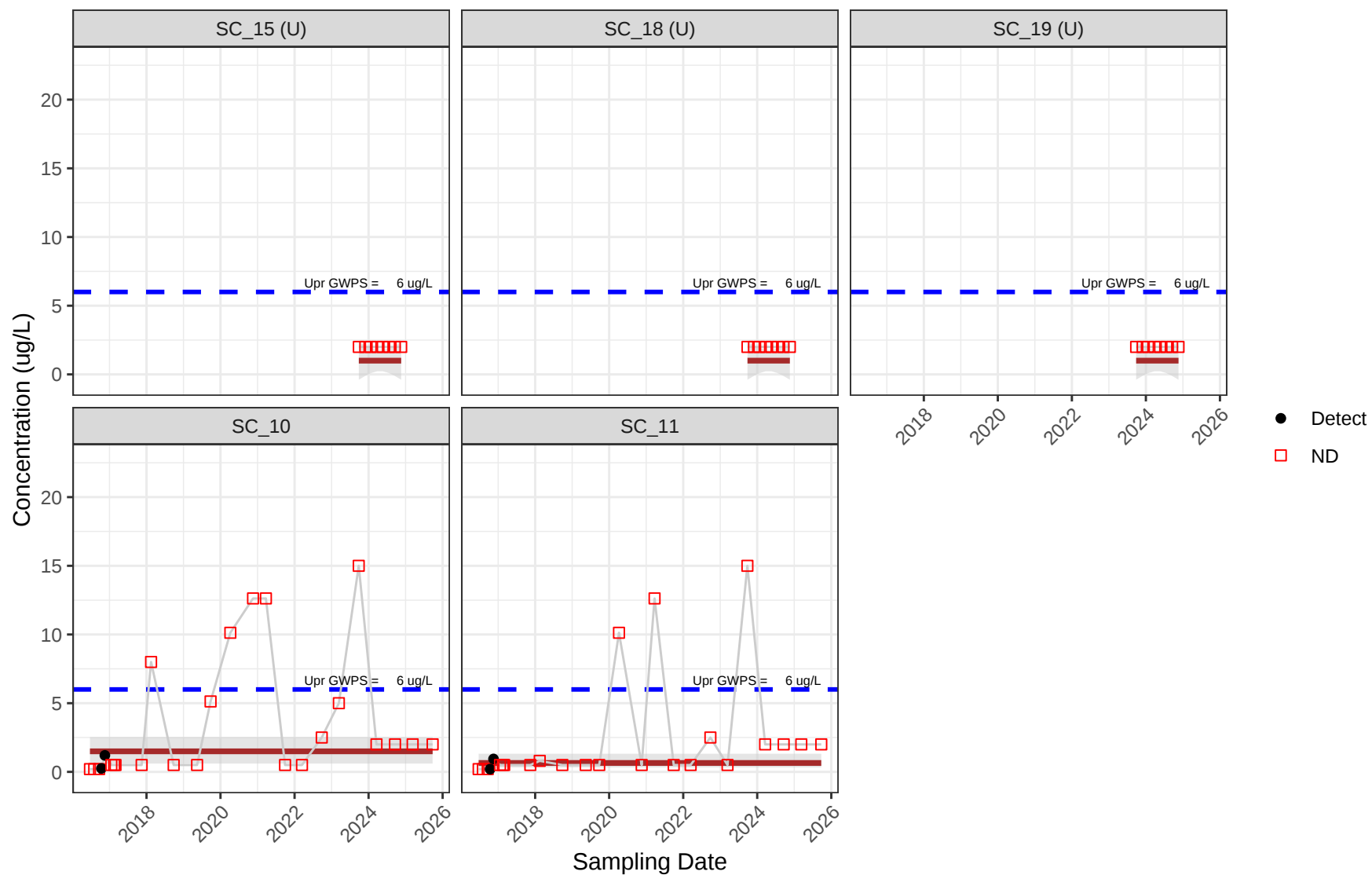


Figure 93: Confidence Band Plots: NPC

Confidence Bands for Arsenic: Target One-Sided 99% Confidence

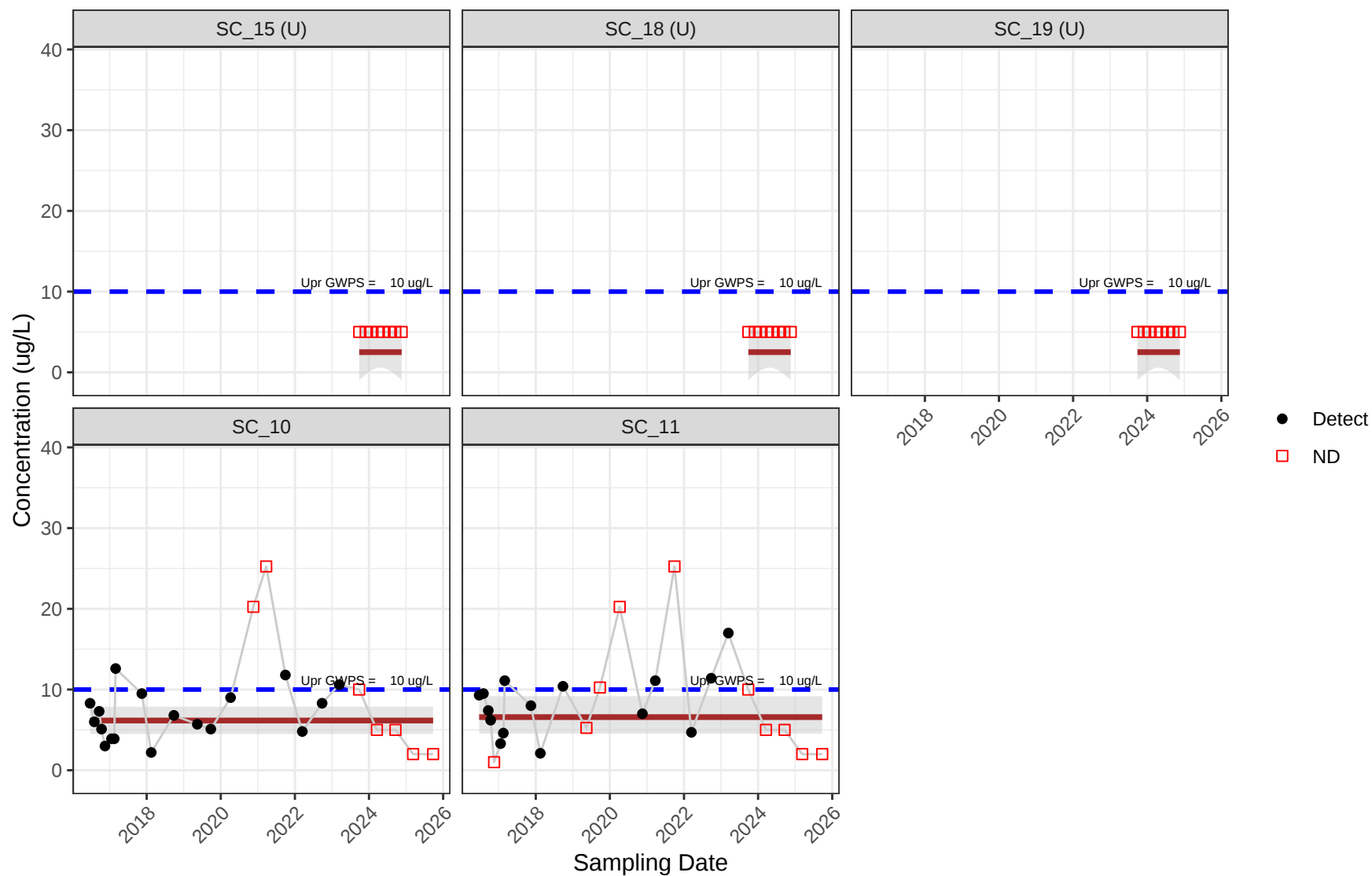


Figure 94: Confidence Band Plots: NPC

Confidence Bands for Barium: Target One-Sided 99% Confidence

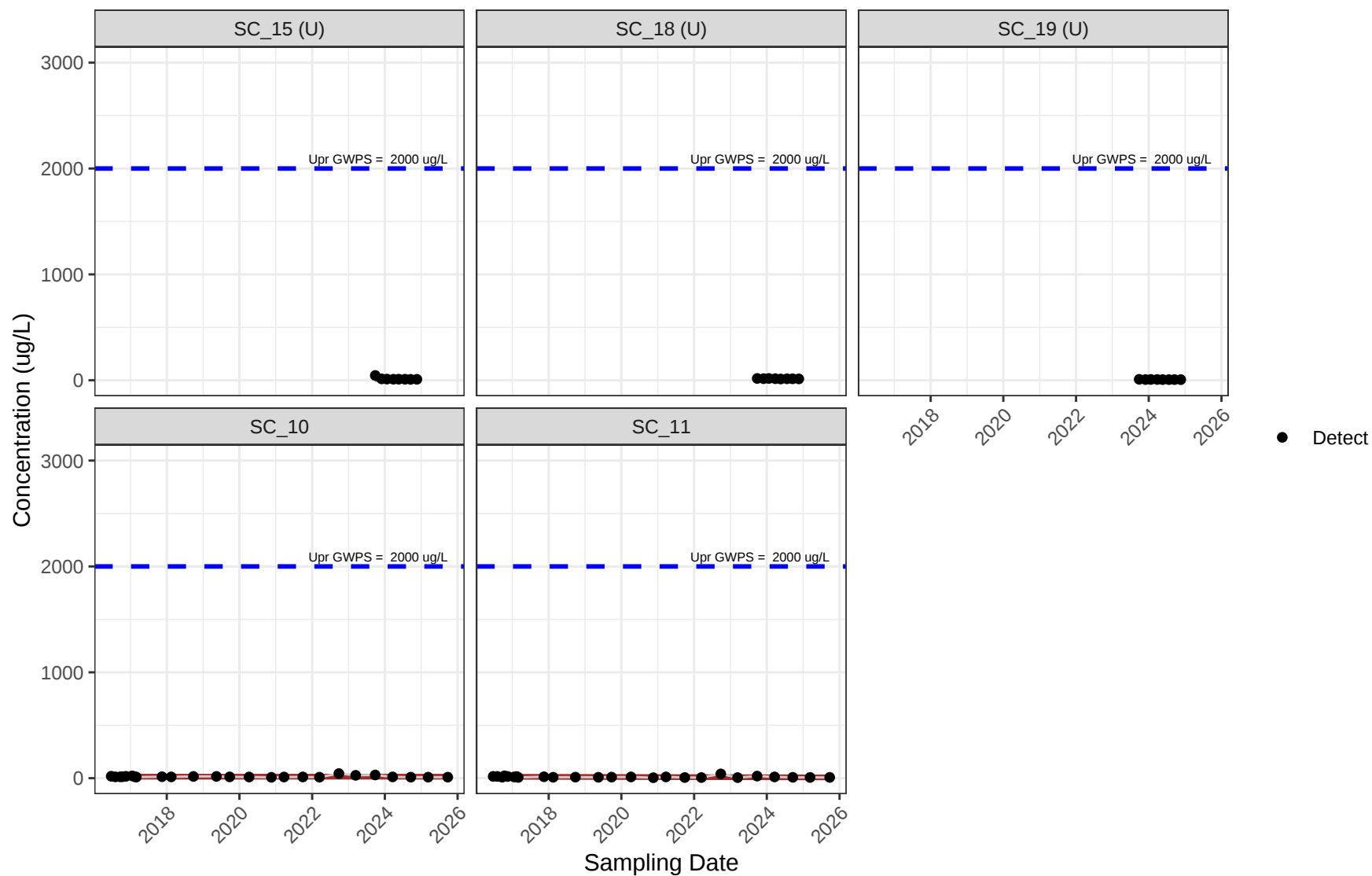


Figure 95: Confidence Band Plots: NPC

Confidence Bands for Beryllium: Target One-Sided 99% Confidence

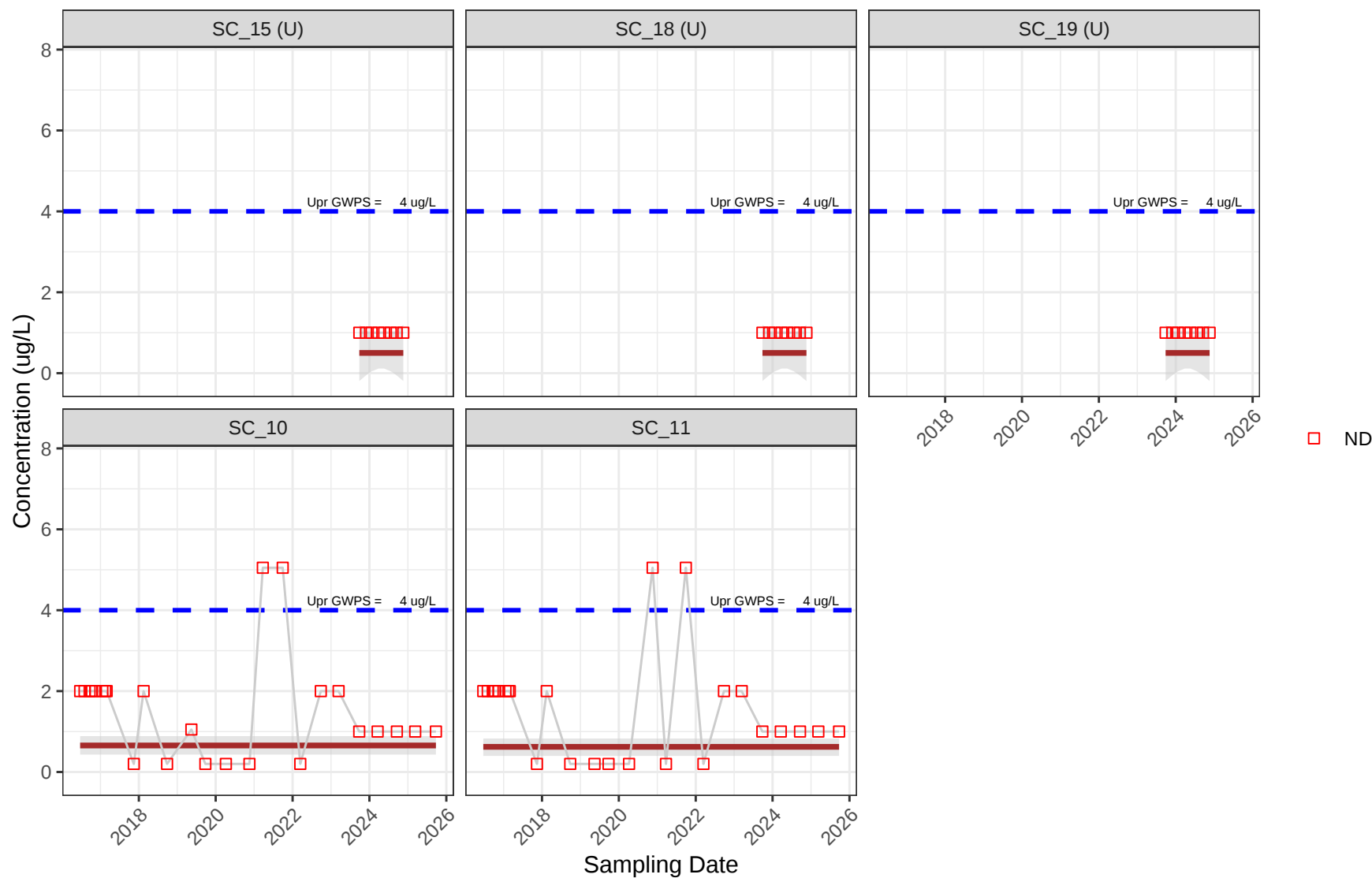


Figure 96: Confidence Band Plots: NPC

Confidence Bands for Cadmium: Target One-Sided 99% Confidence

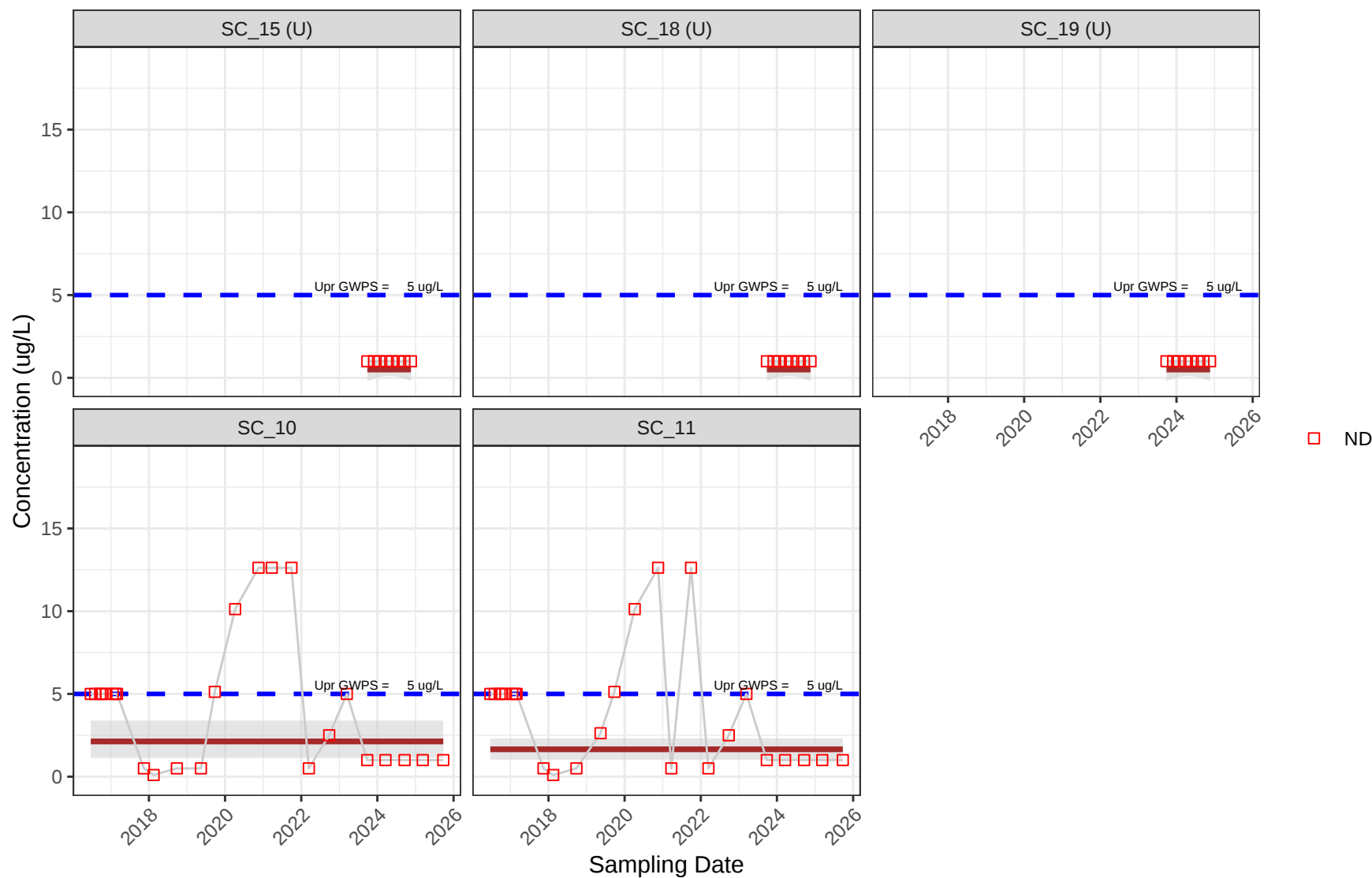


Figure 97: Confidence Band Plots: NPC

Confidence Bands for Chromium: Target One-Sided 99% Confidence

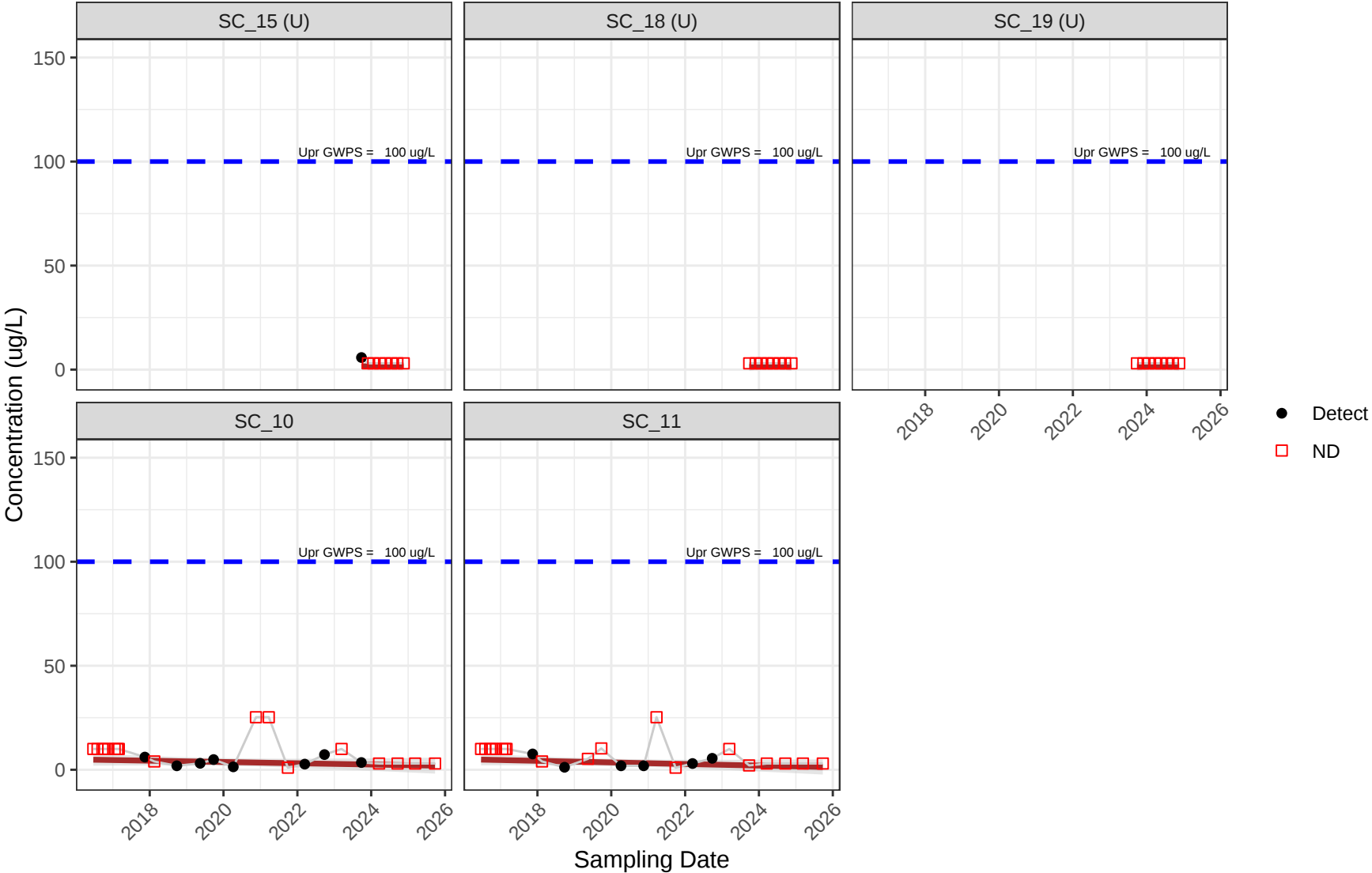


Figure 98: Confidence Band Plots: NPC

Confidence Bands for Cobalt: Target One-Sided 99% Confidence

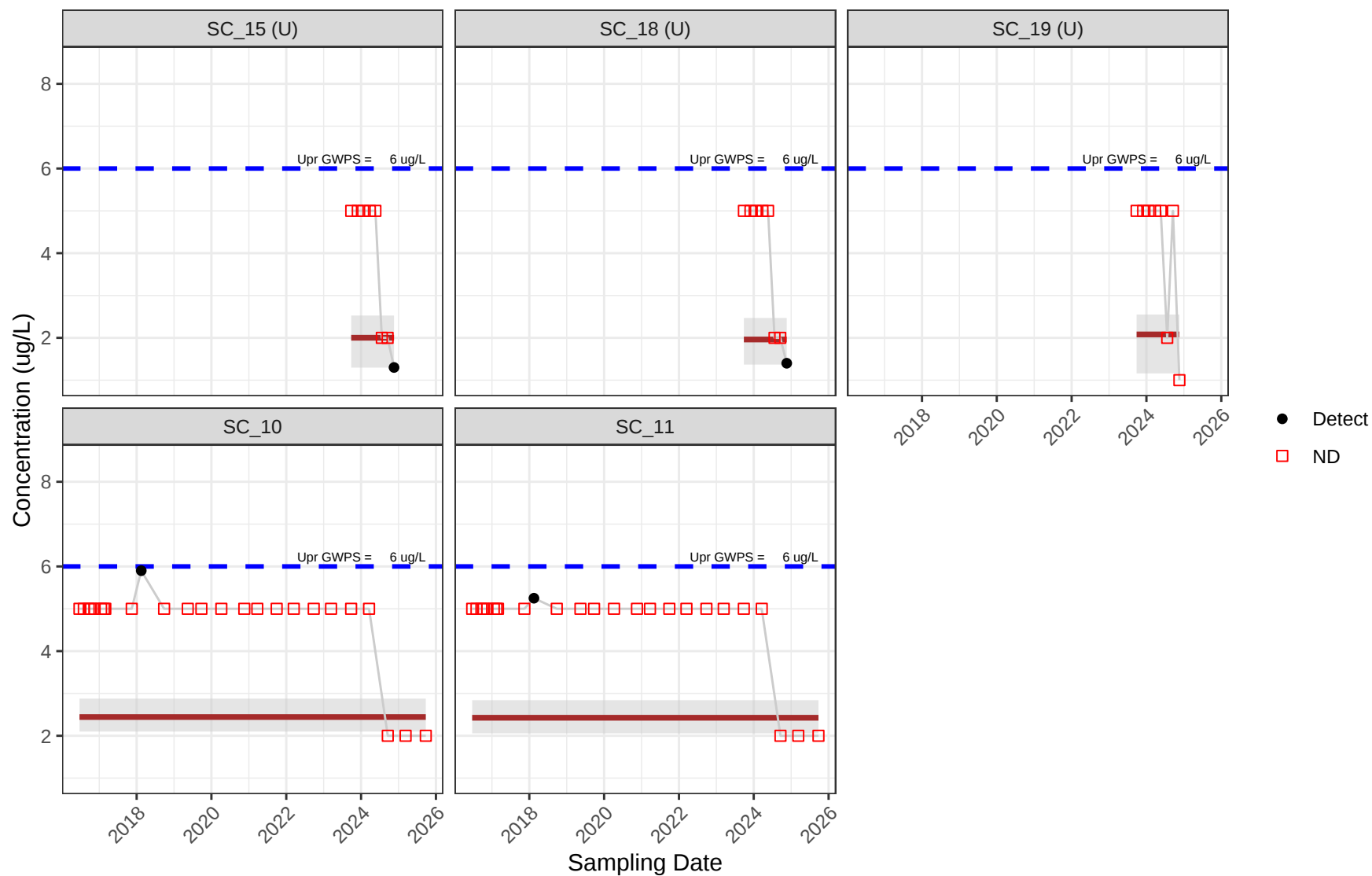


Figure 99: Confidence Band Plots: NPC

Confidence Bands for Fluoride: Target One-Sided 99% Confidence

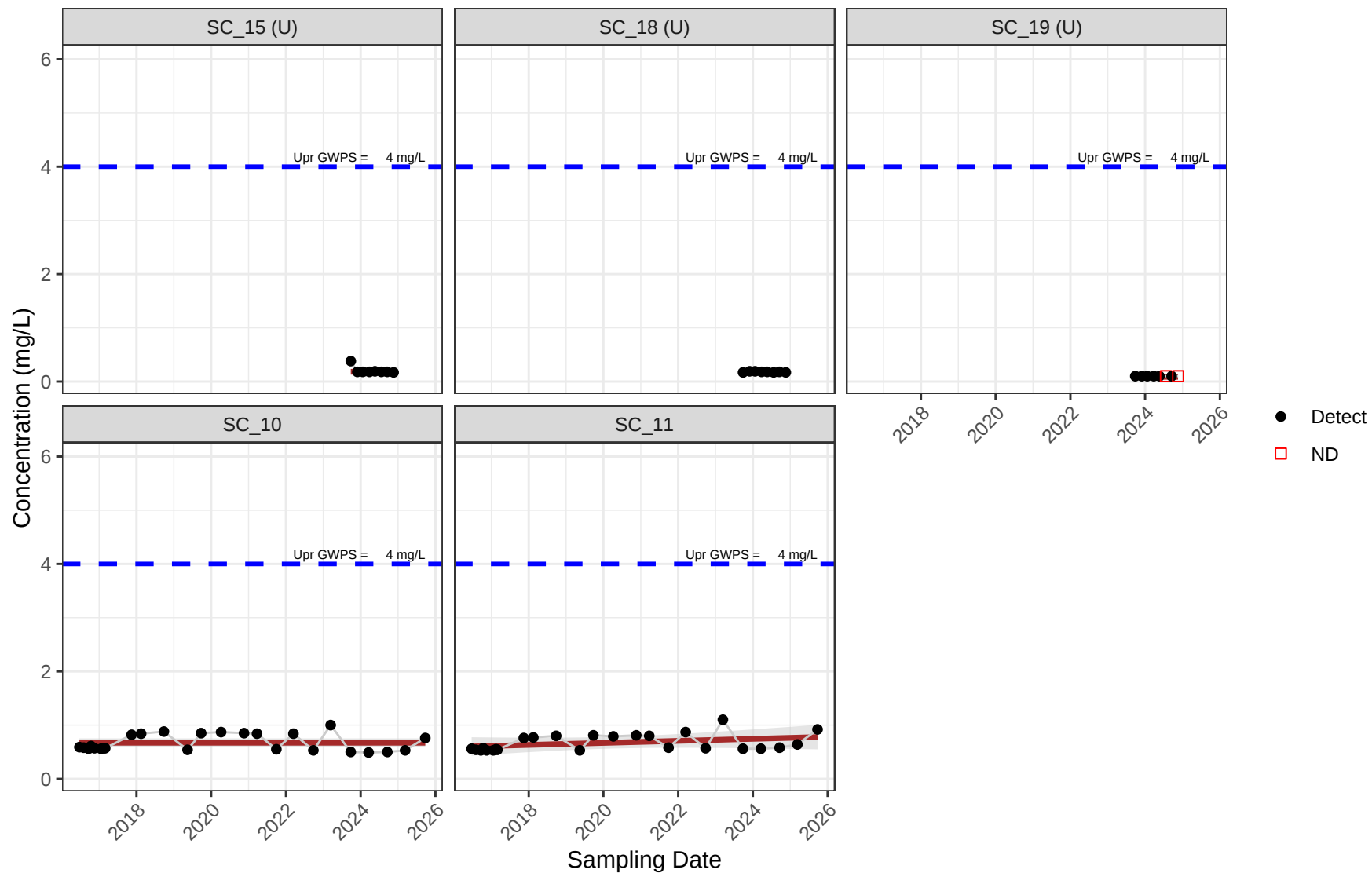


Figure 100: Confidence Band Plots: NPC

Confidence Bands for Lead: Target One-Sided 99% Confidence

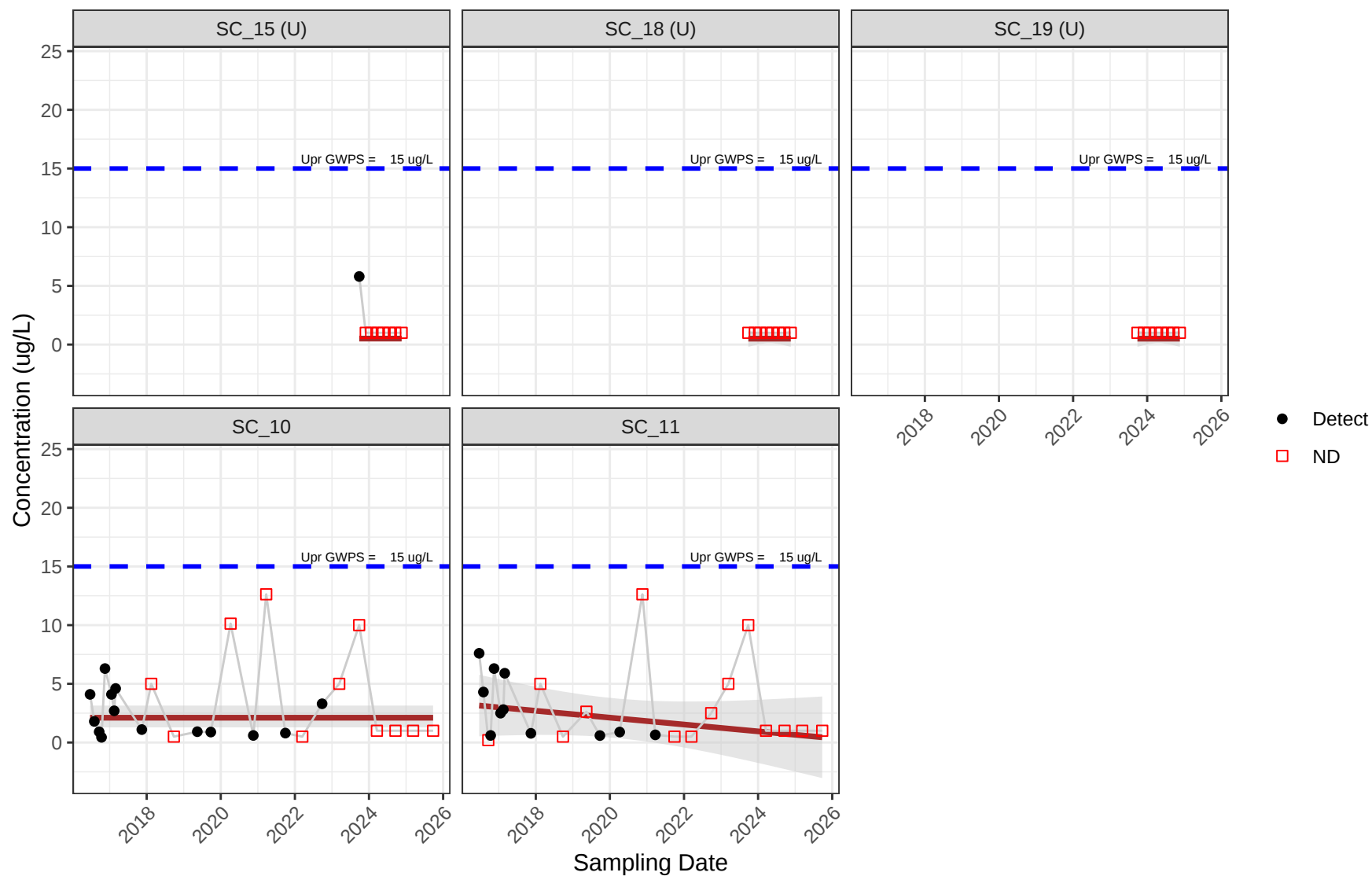


Figure 101: Confidence Band Plots: NPC

Confidence Bands for Lithium: Target One-Sided 99% Confidence

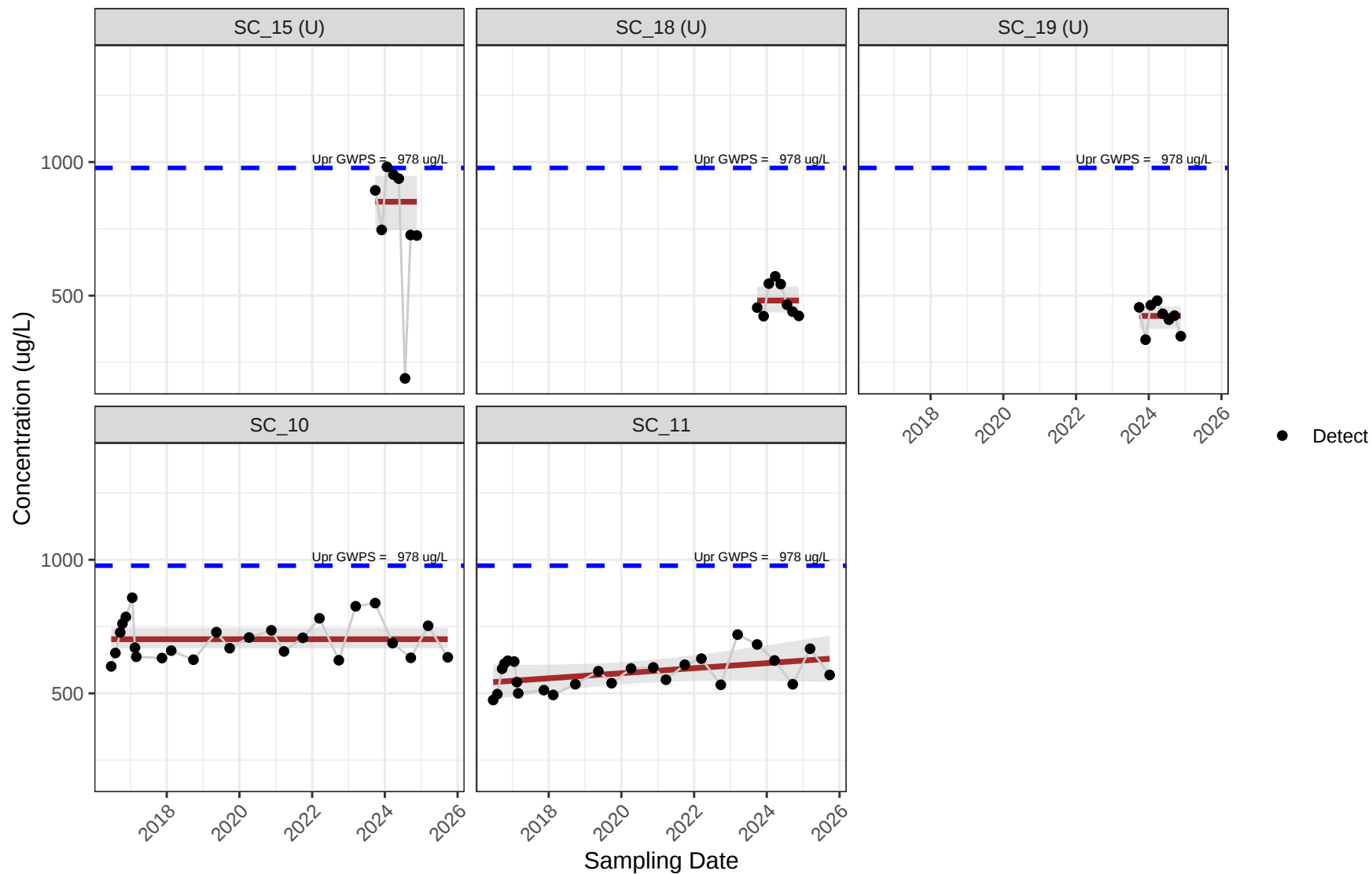


Figure 102: Confidence Band Plots: NPC

Confidence Bands for Mercury: Target One-Sided 99% Confidence

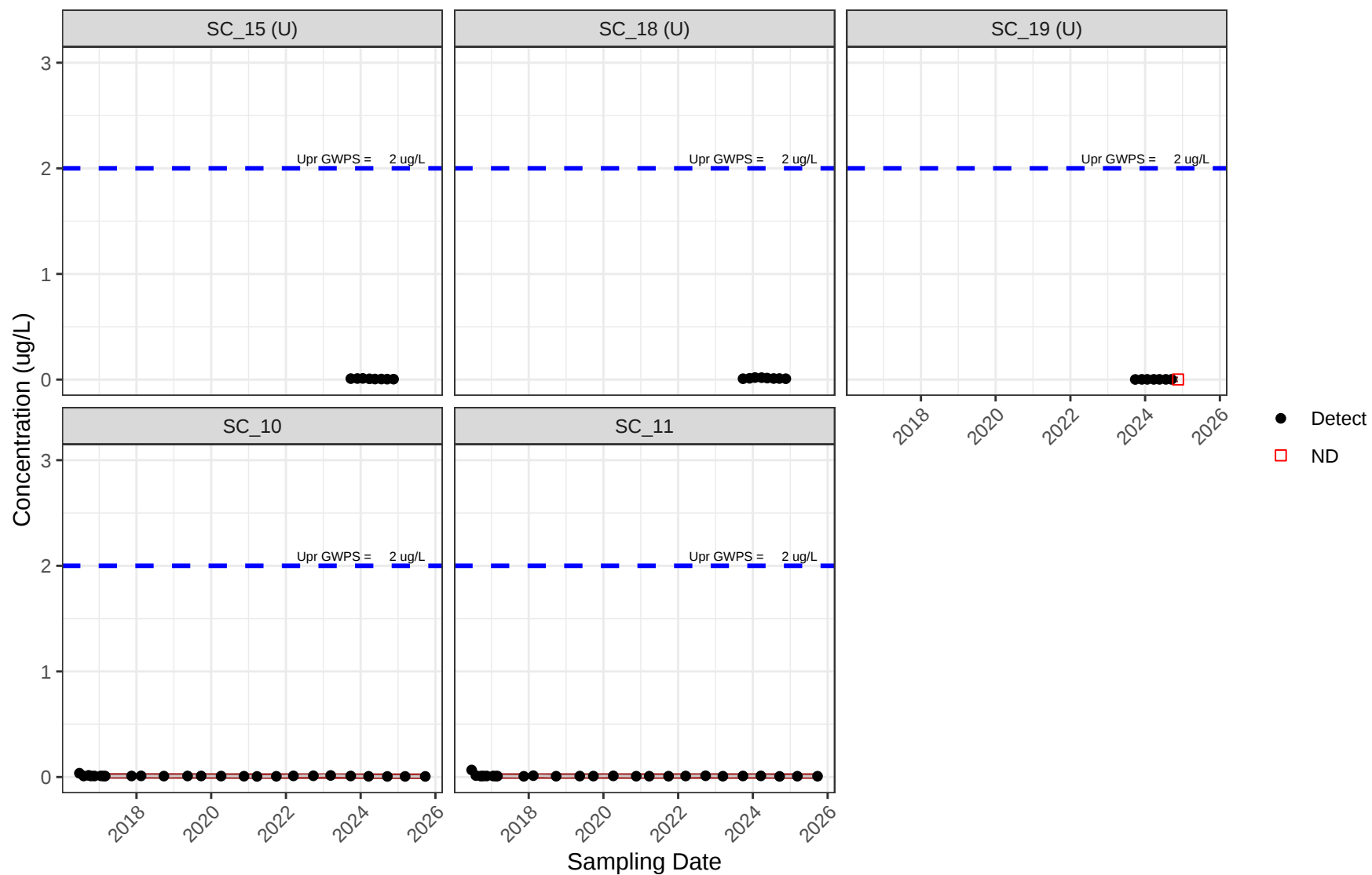


Figure 103: Confidence Band Plots: NPC

Confidence Bands for Molybdenum: Target One-Sided 99% Confidence

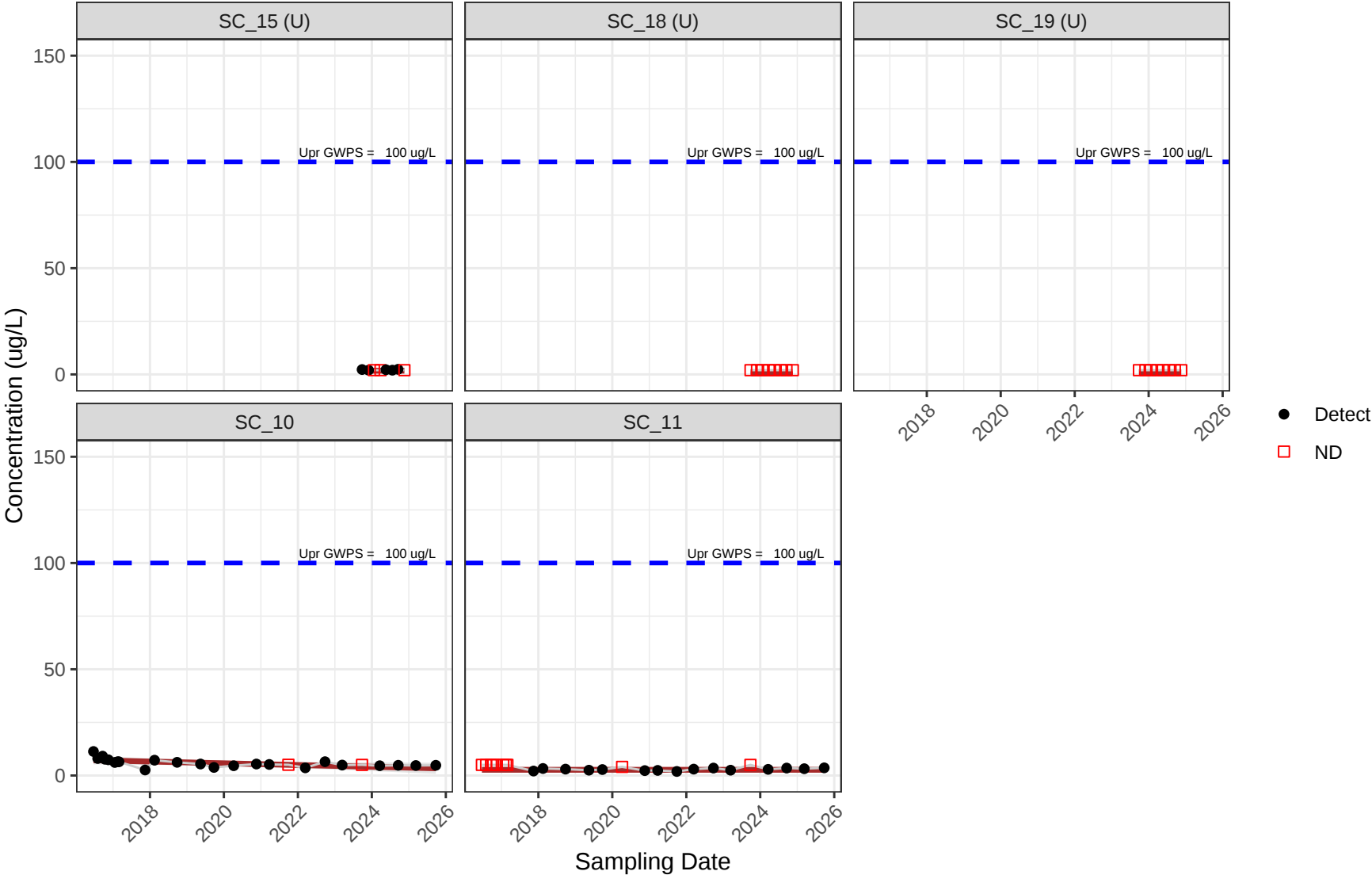


Figure 104: Confidence Band Plots: NPC

Confidence Bands for Rad226+228: Target One-Sided 99% Confidence

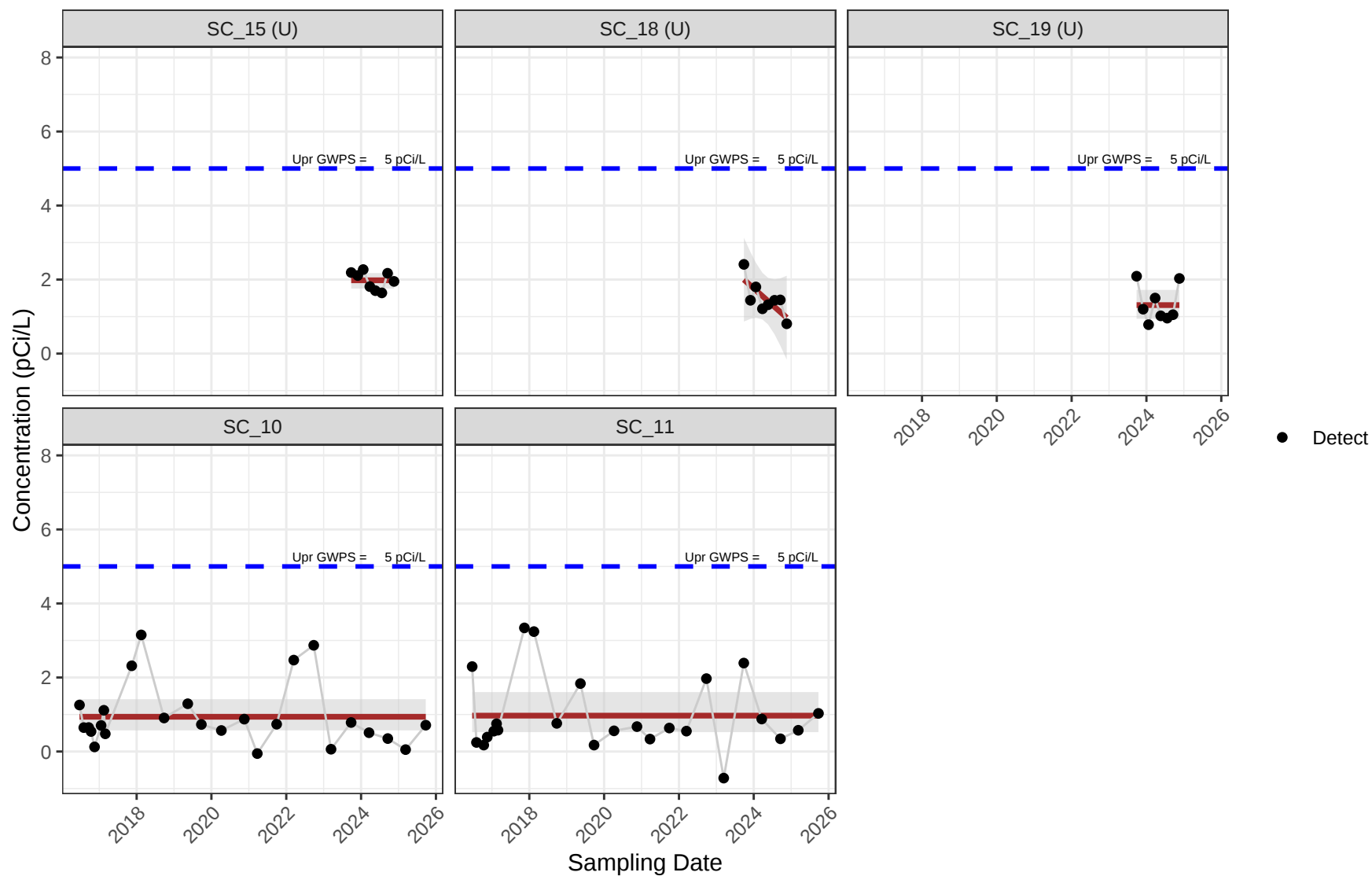


Figure 105: Confidence Band Plots: NPC

Confidence Bands for Selenium: Target One-Sided 99% Confidence

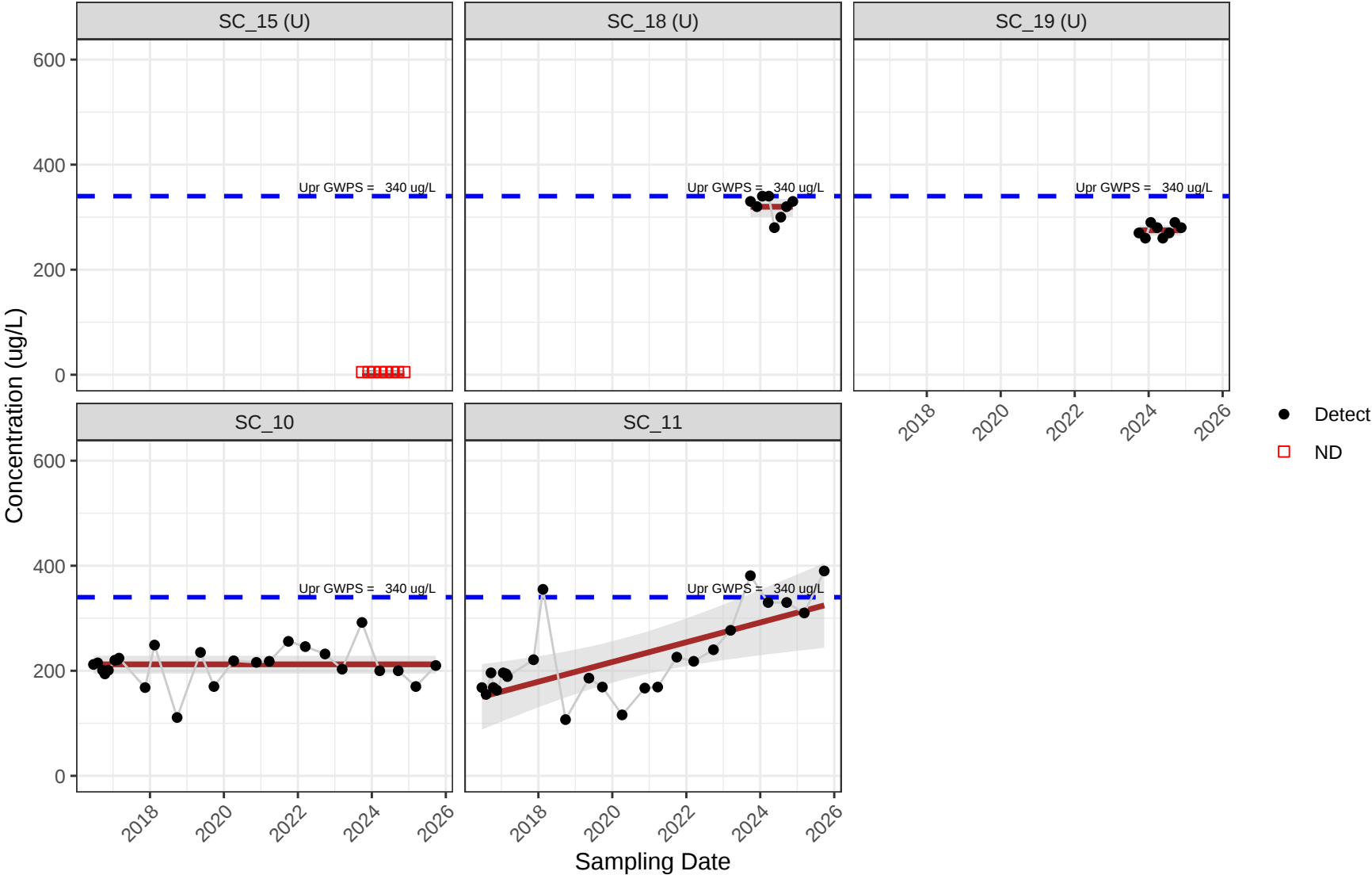


Figure 106: Confidence Band Plots: NPC

Confidence Bands for Thallium: Target One-Sided 99% Confidence

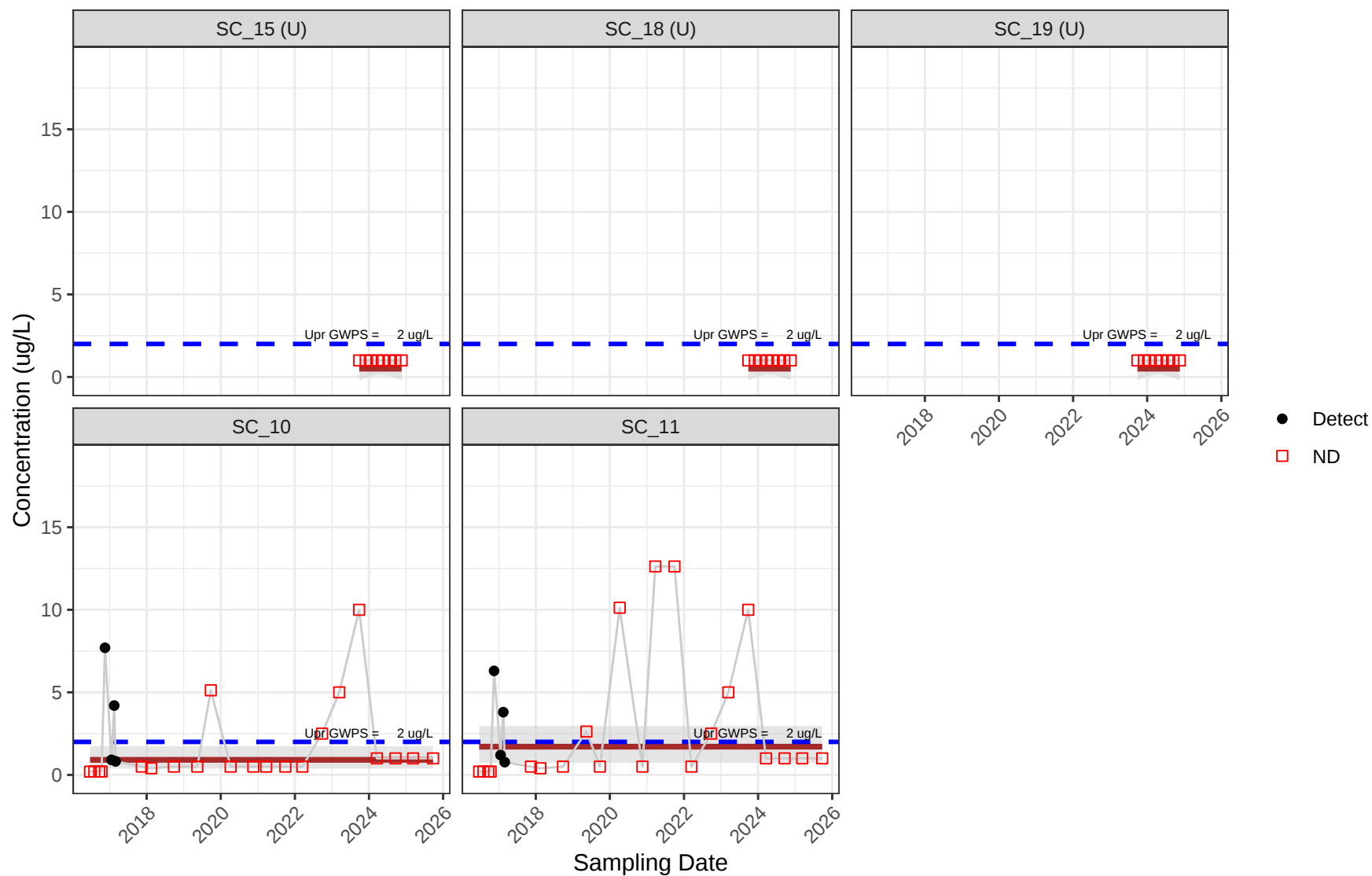


Figure 107: Confidence Band Plots: NPC

Attachment A: Statistical Summary

Attachment A - 2025 End-Year CCR Ash Landfill Statistical Summary

	Background Wells								Downgradient Wells			
Statistical Method/Test	CC_1	FC_1	FC_2	FC_3A	FC_3B	SC_15	SC_18	SC_19	SC_10	SC_11	SC_12	SC_13
Down-weighted Extreme Outliers	1	1	3	1	4	6	0	0	2	4	2	1
Seasonality	None	None	None	None	None	None	None	None	None	None	None	None
Trends/Time Series - Appendix III	Chloride - U; Sulfate - U; TDS - U	Chloride - U; TDS - D	Chloride - D; Sulfate - D; TDS - D	Boron - D; Chloride - U; pH - D; TDS - D	Boron - D; Calcium - D; Chloride - D; Fluoride - U; pH - U; Sulfate - D; TDS - D	pH - D	Fluoride - D; pH - D	Chloride - U; TDS - D	Calcium - D; Chloride - U; Sulfate - D; TDS - D	Boron - U; Chloride - U; Sulfate - U; TDS - U	Boron - U; Sulfate - D; TDS - D	Boron - D; Chloride - U; Sulfate - D; TDS - D
Trends/Time Series - Appendix IV	Selenium - U	Selenium - D	Barium - U	Barium - D; Mercury - D; Selenium - U	Barium - D; Cobalt - D; Fluoride - U; Lithium - D; Mercury - D	Mercury - D	Barium - D; Fluoride - D; Radium - D	Barium - D	Mercury - D; Molybdenum - D	Barium - D; Chromium - D; Lithium - U; Selenium - U	Lithium - D; Mercury - D; Molybdenum - D; Selenium - D	Lithium - D
Prediction Limit Apx III SSLs	NA	NA	NA	NA	NA	NA	NA	NA	2	3	2	0
Confidence Band Apx IV SSLs	NA	NA	NA	NA	NA	NA	NA	NA	0	0	0	0

Note: U = increasing; D = decreasing

Note: Trends are estimated using a version of linear regression with two modifications: (1) any outliers are downweighted to minimize their influence on the trend estimate; (2) any non-detects are handled using repeated Monte Carlo imputation to more realistically account for their uncertainty and impact on the slope and statistical significance of the trend.

Note: Trends are classified as statistically significant (U or D) if the p-value of the trend estimate is less than 0.01