Department of Energy
Savannah River Operations Office
P.O. Box A
Aiken. South Carolina 29802

JAN 2 8 2026

Ms. Susan B. Fulmer, P. G., Manager
Federal Remediation Section
Division of Site Assessment, Remediation and Revitalization
Bureau of Land and Waste Management
South Carolina Department of Environmental Services
2600 Bull Street
Columbia, South Carolina 29201

Mr. Jon Richards
Savannah River Site Remedial Project Manager
Superfund and Emergency Management Division
U. S. Environmental Protection Agency, Region 4
61 Forsyth Street, SW
Atlanta, Georgia 30303

Dear Ms. Fulmer and Mr. Richards:

SUBJECT: Savannah River Site's Responses to the Regulatory Comments on the Biennial Effectiveness Monitoring Report (EMR) for Monitored Natural Attenuation (MNA) at the C-Area Burning/Rubble Pit (131-C) and Old C-Area Burning/Rubble Pit (NBN) Operable Unit (U) January 2023 through December 2024 (SRNS-RP-2025-00608, Revision 0, June 2025) SEMS Number: 31

In accordance with the terms of the Federal Facility Agreement (FFA), the U.S. Department of Energy (DOE) is submitting the subject comment responses for your review. The South Carolina Department of Environmental Services' (SCDES) and U.S. Environmental Protection Agency's (EPA) comments were received on October 21, 2025, and October 23, 2025, respectively. This report will not be revised; however, all comment responses will be included in the next report, as applicable. Please review the enclosures and provide your approval within thirty (30) days of receipt. The effort and time that the EPA and the SCDES have provided on this operable unit are greatly appreciated.

Comments or questions from you or your staff may be directed to me at (803) 522-6427.

Sincerely,

MATTHEW BAKER
Digitally signed by MATTHEW BAKER
Date: 2026.01.27 16:18:54 -05'00'

Matthew R. Baker
Acting FFA Remedial Project Manager
DOE-Savannah River Operations Office
Remediation, Deactivation, and Decommissioning Division

RDDD-26-125

JAN 2 8 2026

Ms. Susan Fulmer
Mr. Jon Richards 2

Enclosures:
1. SRS Responses to the South Carolina Department of Environmental Services' Comments on the Biennial Effectiveness Monitoring Report (EMR) for Monitored Natural Attenuation (MNA) at the C-Area Burning/Rubble Pit (131-C) and Old C-Area Burning/Rubble Pit (NBN) Operable Unit (U) January 2023 through December 2024 (SRNS-RP-2025-00608, Revision 0, June 2025) SEMS Number: 31
2. SRS Responses to the U.S. Environmental Protection Agency's Comments on the Biennial Effectiveness Monitoring Report (EMR) for Monitored Natural Attenuation (MNA) at the C-Area Burning/Rubble Pit (131-C) and Old C-Area Burning/Rubble Pit (NBN) Operable Unit (U) January 2023 through December 2024 (SRNS-RP-2025-00608, Revision 0, June 2025) SEMS Number: 31

c w/o encl:
M. Reece, SCDES-Columbia
H. J. Porter, SCDES-Columbia
J. Blalock, SCDES-Columbia
S. French, SCDES-Columbia
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H. H. Cathcart, SCDES-Columbia
M. McRae, TechLaw, Inc.

SRS Responses to USEPA Comments on the Biennial Effectiveness Monitoring Report (EMR) for Monitored Natural Attenuation (MNA) at the C-Area Burning/Rubble Pit (131-C) and Old C-Area Burning/Rubble Pit (NBN) Operable Unit (U), January 2023 through December 2024, SEMS Number: 31, SRNS-RP-2025-00608, Revision 0, June 2025

Received 10/23/2025

GENERAL COMMENTS

1. The EMR discusses an uncontaminated area between the southwest boundary of the C-Area Burning/Rubble Pit (CBRP) plume and the C-Area Groundwater (CAGW) Operable Unit (OU) plume, but the monitoring wells used to characterize this area are screened in the Upper Aquifer Zone (UAZ) (i.e., well CRP 6DR is screened from 47.3 to 67.3 feet below ground surface [ft bgs] and CRP 8D is screened from 35 to 55 ft bgs). The trichloroethylene (TCE) contamination noted at the CRW 10 well cluster is in the Lower Aquifer Zone (LAZ) (i.e., CRW 10C is screened from 111.6 to 117.3 ft bgs and CRW010CU is screened from 90 to 100 ft bgs). Since a strong downward gradient is noted at the source area, it is unclear if contamination may be found in the LAZ between the CBRP plume and the CRW 10 well cluster. In addition, there appears to be a data gap in the TCE plume in the LAZ, as there are no wells located between the CRPB plume wells (i.e., CRP 18C) and the CRW 10 well cluster (see Appendix D, Figure D-2, 2023 TCE Concentrations in the Middle/Lower Aquifer Zone [MAZ] of the Upper Three Runs Aquifer [UTRA]). Therefore, LAZ wells CRW010CU and CRW 10C and Gordon Aquifer (GA) well CRW 10A cannot be replaced by UAZ wells CRP 6DR and CRP 8D as boundary wells in the CBRP monitoring well network as recommended in Section 5 (Summary). *Please revise the text to discuss the delineation of the TCE plume in the MAZ and LAZ, including the uncontaminated area between the CBRP and CAGW plumes. Please also remove the recommendation to replace LAZ/GA wells CRW010CU, CRW 10C, and CRW 10A with UAZ wells CRP 6DR and CRP 8D as boundary wells to delineate the plume.*

   Response: Clarification.

   It is correct that there is not a Lower Aquifer Zone (LAZ) well between well cluster CRP 18 (C and D) and well cluster CRW010 (CU, C and A), and there is not an LAZ well collocated with CRP 8D. However, based on groundwater model flow paths (EMR Figures 6 and 12) and observed TCE transport in the subsurface (EMR Figures 8, 9 and 10), SRS does not believe there is a viable pathway from the CBRP OU former pit to well cluster CRW010 for the following reasons:

   - **If a contaminant transport pathway existed between the CBRP OU former pit and well cluster CRW010, TCE would have first been detected at well CRP 8D, because the screen zones for wells CRP 3D and CRP 8D have the same elevation, 214.3-194.3 ft-msl and 211.0-191.0 ft-msl, respectively. If TCE transport occurred between CRP 3D and CRP 8D, it would be analogous to the observed TCE transport between CRP 3D and CRP 18D (EMR Figures 8 and 11). However, TCE was not observed at well CRP 8D.**
   - **There is a chemical signature difference between the CBRP OU VOC plume and the CAGW OU VOC plume in the northern part of the plume: PCE and tritium are present in the CAGW OU plume but are not present in the CBRP OU plume. This is most notable in CBRP OU upgradient wells, where tritium and PCE are present in the LAZ CRP 5C well but not present in the UAZ CRP 5D well (CR Figure 1 and EMR Figure 5), indicating an upgradient source (i.e., CAGW OU).**
   - **The soil vapor extraction data also demonstrates the lack of PCE, relative to the TCE, in the vadose zone of the former CBRP OU Pit (EMR Appendix F). The lack of PCE and tritium is also notable in UAZ well CRP 3D, which is the nearest downgradient well**

cluster to the former CBRP OU pit, relative to LAZ well CRP 3C (CR Figure 2). Well cluster CRW010 (CU, C and A) has detectable levels of PCE and tritium present, indicating CAGW OU as the VOC source (EMR Figure 5).

Groundwater flow paths and groundwater data indicate that the CAGW OU TCE plume from the reactor area impacts well CRW010CU, not the CBRP OU TCE plume. In addition, groundwater monitoring wells CRP 6DR and CRP 8D are monitored to help delineate and differentiate the CBRP OU TCE plume from the CAGW OU TCE plume. For this reason, SRS continues to recommend that wells CRW010CU, CRW 10A, and CRW 10C be removed from the CBRP monitoring program and replaced by wells CRP 6DR and CRP 8D as LUC boundary wells. No changes are proposed to the existing report.

Responsible Party: Heath McGregor, (803) 952-6043, heath.mcgregor@srs.gov

2. The EMR presents inconsistent information for the vertical flow of the TCE plume. Section 4.2 (Groundwater Monitoring Well Network) and Section 4.6.7 (MNA [Monitored Natural Attenuation] Summary) state that the conceptual site model (CSM) predicts there will be higher concentrations of TCE in the lower wells and higher concentrations of degradation products in the upper wells due to biodegradation occurring as the TCE groundwater plume discharges upward to surface water. However, Section 4.3 (Groundwater Elevation Measurements and Groundwater Flow Direction) discusses downward gradients across the majority of the plume, including slight downward vertical gradients in the distal portion of the plume, with occasional reversals such as the one at MNA monitoring stations CRP 48A and B. Section 4.6.7 identifies station CRP 45 as the only MNA monitoring point where the lower well (i.e., CRP 45B) has a lower TCE concentration, which correlates to the downward gradient; however, this correlation suggests that the other stations with downward gradients (i.e., except CRP 48A and B) should also show this reversal in TCE concentrations. Further, while degradation products are noted in the wells located along the Twin Lakes and Four Mile Branch (see Figure 5, Station VOCs Concentrations Above Detection Limit Pie Chart 4Q24), only one MNA monitoring station has higher cis-1,2-dichloroethylene (DCE) in the upper well (i.e., CRP 45A in 2024), and it is unclear if TCE is flowing downward where biodegradation does not occur based on the downward gradients. *Please revise the EMR to discuss the vertical flow of contaminants in the plume with respect to the current downward gradients determined for the monitoring wells and how this impacts the CSM.*

Response: Agree.

In Section 4.6.7 MNA Summary, it should have stated, as indicated in the above comment, that higher concentrations of TCE biodegradation products at the "B" wells relative to the paired "A" wells is the reverse of the CSM.

It is likely, that the above average rainfalls in 2023 and 2024 temporarily altered the flow paths for many of the wells near the Twin Lakes and FMB. In future CAGW OU EMRs, if the condition still exists, SRS will note increased rainfall over an extended period can raise the potentiometric surfaces of the shallowest MNA wells (i.e., CRP 50A). This condition can

temporarily slow the groundwater discharge rate in the wetland areas and allow for greater biodegradation in the deeper zone. The increased rainfall would also likely dilute all VOCs present in the shallowest wells. No changes are proposed to the existing report.

Responsible Party: Heath McGregor, (803) 952-6043, heath.mcgregor@srs.gov

3. The EMR does not provide a figure that reports all detections of site constituents of concern (COCs). Although Appendix D (TCE Plume Maps) depicts the TCE plumes for different aquifer zones, it would be useful to also include a figure depicting all COC detections in support of the CSM. In addition, it is unclear why plume maps for cis-1,2-DCE and vinyl chloride (VC) are not provided to show where there are exceedances of degradation products to illustrate where degradation is occurring. Although Figure 5 (Station VOCs Concentrations Above Detection Limit Pie Chart 4Q24) shows percentages of COCs at each well, plume maps of the degradation products for each aquifer zone should be provided to support the CSM. *Please revise the EMR to include a figure with all detections of COCs and plume maps for degradation products in each aquifer zone to support the CSM.*

Response: Agree.

Figure 5 shows all the locations with TCE biodegradation VOCs (cis-1,2-dichloroethylene [c12DCE] and vinyl chloride [VC]) above detection, which indicates that essentially all of the biodegradation VOCs occur along Twin Lakes within the TCCZ and over-lying organic rich alluvium (Figure 4). No stations exceeded the cis-1,2-DCE MCL (70 ug/L) in 2023 or 2024. Only 1 station (CRP 50B) exceeded the VC MCL (2 ug/L) in 2024, and only 3 stations (CRP 50A, CRP 50B and CRP 48A) exceeded the VC MCL (2 ug/L) in 2023. Due to no cis-1,2 DCE exceedances above MCLs and few VC exceedances, plume maps for 2023-2024 were not provided. To better illustrate where degradation is occurring, future CBRP OU EMRs will include plume maps for VOCs exceeding their MCLs in the appropriate aquifers. No changes are proposed to the existing report.

Responsible Party: Heath McGregor, (803) 952-6043, heath.mcgregor@srs.gov

4. It is unclear whether any monitoring wells have been analyzed for emerging contaminant, 1,4-dioxane. 1,4-dioxane was used as a solvent stabilizer and is frequently associated with TCE; as such, any site with significant TCE releases should also be analyzed for 1,4-dioxane. Section 4.4 (Groundwater and Surface Water Compliance) indicates well samples are analyzed for seven constituents, including 1,1-dichloroethylene (1,1-DCE), cis-1,2-DCE, trans-1,2-dichloroethylene (trans-1,2-DCE), VC, tetrachloroethylene (PCE), TCE, and dichloromethane (DCM); however, the text does not indicate whether 1,4-dioxane has been investigated. 1,4-Dioxane can pose an unacceptable human health risk at certain concentrations, is recalcitrant, difficult to remediate and will likely remain after TCE has been remediated. *Please clarify whether the site has been investigated for 1,4-dioxane.*

Response: Clarification.

1,4-Dioxane has been analyzed 1082 times at 108 different stations in of C Area between 2006 and 2024. There were only 11 results above detection at five different stations (CC-03, CC-04, CRW 1A, CSB 12D and TL 03) ranging from 1.88 ug/L to 10.0 ug/L. Three of the stations (CC-03, CC-04, and TL 03) are located in Fourmile Branch which had the 1,4-Dioxane highest concentration (10 ug/L), and two stations (CRW 1A and CSB 12D) are CAGW OU wells. Eight stations (CRP 5C, CRP 5D, CRP 6DR, CRW 10A, CRW 10C, CRW010CU, TL-01 and TL 03) located in the CBRP OU monitoring network were sampled for 1,4-dioxane with no results above detection. In 4Q26, SRNS proposes to analyze 1,4-dioxane in the core of the TCE plume at the following CBRP monitoring network wells: CRP 3D, CRP 18C, CRP 18D, CRP 20CL, CRP 20CU, CRP 22CL, CRP 22CU, CRP 48A, CRP 48B, CRP 50A, and CRP 50B. No changes are proposed to the existing report.

Responsible Party: Heath McGregor, (803) 952-6043, heath.mcgregor@srs.gov

SPECIFIC COMMENTS

1. **Section 2.2, Land Use Control Boundary and Monitoring Network, Page 4 of 48:** This section indicates that the 30-acre land use control (LUC) boundary is based on the groundwater that exceeded the maximum contaminant level (MCL); however, the text should clarify whether this LUC boundary includes the contaminated surface and vadose zone soils or if there is a separate LUC boundary that restricts on-site worker access and unauthorized contact to surface and vadose zone soils. In addition, the text states that groundwater use restrictions will be enforced as long as groundwater contaminant levels exceed MCLs, but the other LUC objectives listed in Section 2.1 (Remedial Action Requirements and Objectives) are not discussed. For example, it is unclear how it is ensured that the integrity of the soil cover is maintained. *Please revise this section to discuss the LUC boundary for all LUC objectives (i.e., for soils, the monitoring systems, surface water, and indoor air).*

Response: Clarification.

As presented in the *Land Use Control Implementation Plan (LUCIP) for the C-Area Burning/Rubble Pit (131-C) and Old C-Area Burning/Rubble Pit (NBN) OU* (WSRC 2009b), the LUC boundary includes the contaminated CBRP OU surface and vadose zone soils in addition to groundwater exceeding MCLs. The LUCs that are in place include physical access controls to prevent unauthorized entry to SRS (fences, guards, security patrols, etc.), use restrictions to prevent unauthorized contact, removal or excavation of contaminated soils, restrictions to prevent unauthorized access to or use of groundwater until cleanup levels are met, and restrictions to prevent disturbance of the soil cover system. Site inspections and site maintenance (repair of erosion damage, cover system maintenance, and maintenance of warning signs are conducted annually. LUCs will be enforced until contaminants at the CBRP OU are at levels that allow for unlimited use and unrestricted exposure. The purpose of this report is to focus on the monitoring data collected to evaluate the SVE and MNA remedies. Evaluation of LUC

effectiveness for CBRP is conducted as part of the most recent *Five-Year Remedy Review Report for Savannah River Site Operable Units with Operating Equipment* that documents annual review of the CBRP OU LUCs and inspection and maintenance of the SVE system and soil cover. No changes are proposed to the existing report.

Responsible Party: Heath McGregor, (803) 952-6043, heath.mcgregor@srs.gov

2. **Section 4.6.1, Trichloroethylene, Page 11 of 48:** The text discusses the continuation of the long-term decline in TCE concentrations at upgradient well CRP-18D, but Figure C-136 (Time Series Plot for Trichloroethylene [TCE] Station for CRP 18) shows that the TCE concentration increased in 2024 compared to recent values. *Please revise the text to discuss this increase as shown on Figure C-136.*

Response: Agree.

The long-term trends observed are more meaningful in evaluating the plume behavior over time. However, SRS will identify any short-term increases as indicated by the results in future reports. No changes are proposed to this report.

Responsible Party: Heath McGregor, (803) 952-6043, heath.mcgregor@srs.gov

3. **Section 4.6.7, MNA Summary, Pages 22 to 24 of 48:** This section does not discuss the results of the MNA parameters in the MNA monitoring stations (e.g., dissolved oxygen [DO], oxidation reduction potential [ORP], pH, and alkalinity). Based on Appendix A Table A-1 (CBRP OU Monitoring Results), many of the MNA stations have DO, ORP, and pH values that are greater than the conditions considered to be favorable for biodegradation (i.e., DO should be <0.5 milligrams/liter, ORP should be <50 millivolts, and pH should be within an optimal range of 6 to 8 or the potential range of 5 to 9). *Please revise the text to summarize the results of MNA parameters, including a discussion of the ranges of MNA parameter monitoring results and any MNA monitoring wells that fall within optimal ranges to evaluate MNA efficacy at the site.*

Response: Agree.

The primary MNA parameters for biodegradation of TCE are oxidation/reduction potential (ORP), oxygen, pH, and total alkalinity. The ranges for these parameters for the 12 MNA wells sampled in 4Q24 are the following:

1) **ORP range is -49 to 196 mV (average = 71.5 mV);**
2) **Oxygen range is 2.13 to 4.85 mg/L (average = 3.82 mg/L);**
3) **pH range is 4.5 to 6.1 SU (average = 5.33); and**
4) **Alkalinity range is 0.00 to 29.0 mg/L (average = 9.33 mg/L).**

Alkalinity is included as it correlates with the wells with pH values 5.0 and higher. It is noted that the parameters for the CBRP MNA wells often fall outside the ranges identified for biodegradation, yet biodegradation compounds (cis-1,2-DCE, VC and ethylene) are detected in these wells, indicating they are in or near zones of anaerobic biodegradation. One study

evaluating treatments with methane and nutrients identified significant rates of biodegradation in treatments with methane augmentation (Szwast, 2021). Similarly, a NTC Removal Action for the CAGW OU found methane production from emulsified oil injections stimulated cometabolic microbial growth with increases in the associated cometabolic enzymes (e.g., methane monooxygenase) in the groundwater (SRNS-RP-2024-01334). In previous sample events, naturally-occurring methane was analyzed for the CBRP OU MNA wells with ranges from 11 ug/L to 18,000 ug/L, which stimulates aerobic (co)metabolism of TCE. Methane production can only occur in the presence of anaerobic conditions, so the MNA wells must be near, or in, zones with anaerobic conditions. In the next EMR, an expanded discussion of the MNA parameters will be provided in section 4.6.7. In addition, SRS will collect of methane samples in the next sample event to verify zones with anaerobic conditions still exist along Twin Lakes and FMB. No changes are proposed to this report.

Szwast 2021. Evaluation of Methanotrophic Biodegradation of TCE at Low pH, Nicholas Anthony Szwast, Clemson University, 8-2021, Clemson University, Tiger Prints, All Theses, 3625. nszwast@g.clemson.edu

Responsible Party: Heath McGregor, (803) 952-6043, heath.mcgregor@srs.gov

4. **Section 5, Summary, Page 24 of 48:** The first sentence states that annual inspection and maintenance of the low permeability soil cover will continue, but the EMR does not indicate where the results of these annual inspections are reported. It is unclear if any maintenance actions were necessary during the reporting period (i.e., in 2023 and 2024). *Please revise the EMR to include a brief summary of any inspection and maintenance activities that took place during the monitoring period or include a reference to where these results can be found.*

Response: Clarification.

Please refer to the response to USEPA Specific Comment #1. A reference to the most recent *Five-Year Remedy Review Report for Savannah River Site Operable Units with Operating Equipment* that documents annual review of the CBRP OU LUCs and inspection and maintenance of the SVE system and soil cover will be included in future EMRs. In May 2023 and May 2024, ant mounds were identified on the CBRP OU soil cover, and the ant mounds were treated with pesticides in both years. There were no other maintenance actions necessary for the low permeability soil cover during this EMR reporting period (i.e., 2023 and 2024). The *Seventh Five-Year Remedy Review Report for Savannah River Site Operable Units with Operating Equipment* will be submitted in December 2027 which includes the 2023 and 2024 maintenance activities. No changes are proposed to this report.

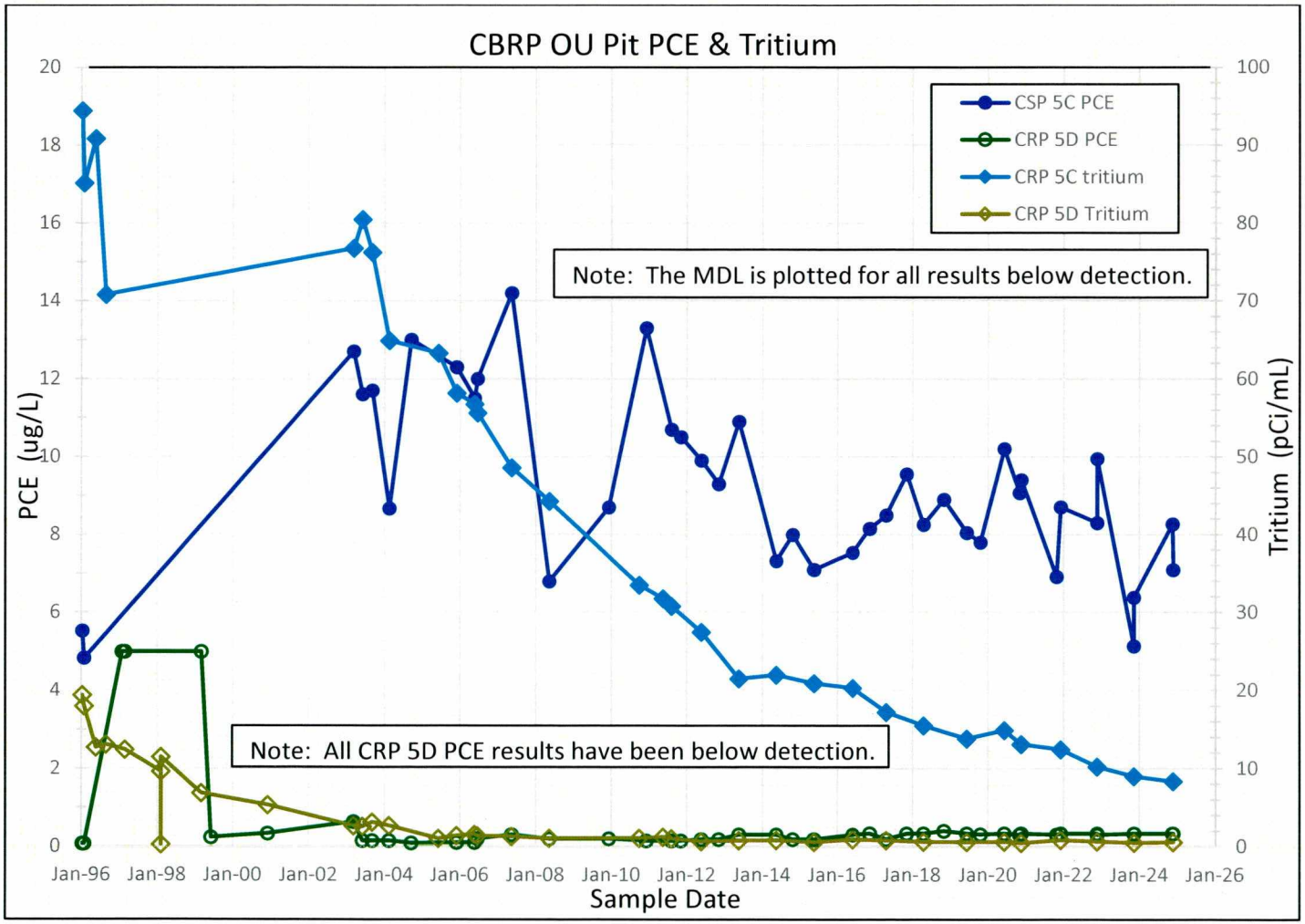
Responsible Party: Heath McGregor, (803) 952-6043, heath.mcgregor@srs.gov

5. **Appendix A, CBRP OU Analytical Data 2023-2024, Page A-3 to A-4 of A-6:** Some of the data in this table are illegible. For example, the results for trichloroethylene are too blurry and not legible. *Please revise this table to ensure all of the data are legible.*

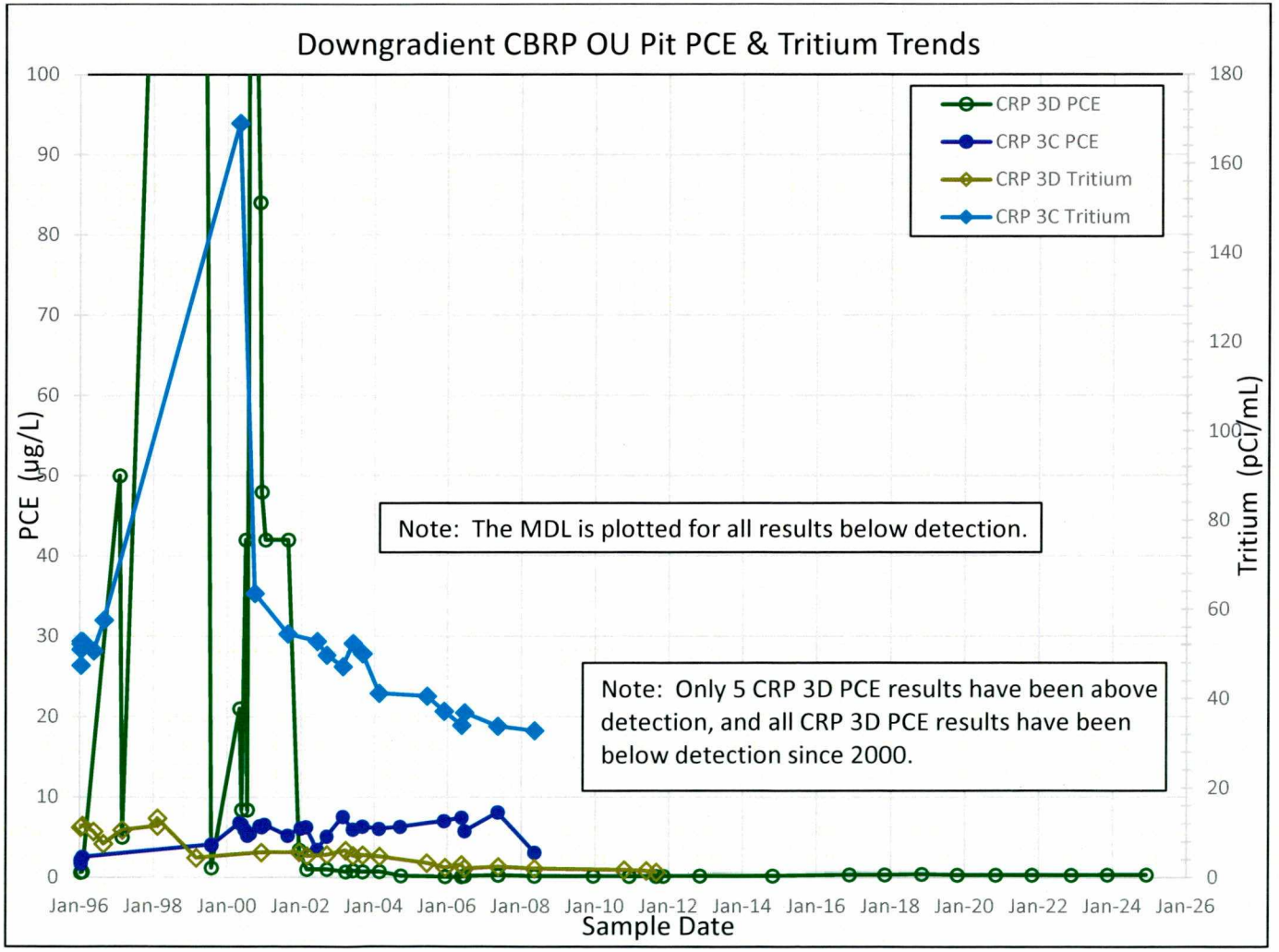
Response: Agree.

In the next EMR, a higher quality reproduction of the monitoring results table will be provided as a separate attachment on the CD. No changes are proposed to this report.

Responsible Party: Heath McGregor, (803) 952-6043, heath.mcgregor@srs.gov



CR Figure 1. Upgradient CRP 5C (LAZ) & CRP 5D (UAZ) PCE & Tritium differences



CR Figure 2. Downgradient CRP 3C (LAZ) & CRP 3D (UAZ) PCE & Tritium differences

SRS Responses to South Carolina Department of Environmental Services Comments on: Biennial Effectiveness Monitoring Report (EMR) for Monitored Natural Attenuation (MNA) at the C-Area Burning/Rubble Pit (131-C) and Old C-Area Burning/Rubble Pit (NBN) Operable Unit (U) – January 2023 through December 2024, (SRNS-RP-2025-00608, Revision 0, June 2025), SEMS Number: 31

Received October 21, 2025

GENERAL COMMENTS

1. Section 4.3, Groundwater Elevation Measurements and Groundwater Flow Direction, page 8. Multiple times in the final paragraph of Section 4.3, the CBRP OU is referred to as the CRPB OU. Please correct the name in this section and throughout the rest of the document, as needed.

   Response: Agree.

   The CBRP OU acronym will be correctly spelled out in future reports. No change to the existing report is proposed.

   Responsible Party: Heath McGregor, (803) 952-6043, heath.mcgregor@srs.gov

SPECIFIC COMMENTS

1. Section 2.1, Remedial Action Requirements and Objectives, page 3. The discussion of RAOs in this section involve all VOCs that contribute to contamination of groundwater at the CBRP OU; however, only TCE is specifically stated as an RCOC. As indicated in Section 4.4, there are a total of six RCOCs associated with this unit. Section 2.1 should mention these other RCOCs as well.

   Response: Agree with Clarification.

   In the next CBRP OU EMR all RCOC VOCs (PCE, TCE, DCE, cis-12-DCE, VC and DCM) will be included throughout the document using the term "VOCs" rather than just "TCE".

   The exception will be for the vadose zone RAO, which will continue to use the term "TCE" for the RGO in vadose zone soils, because only TCE is identified in the CBRP OU ROD. This is also consistent with 2023-2024 data, which indicates only TCE is above MCLs in CRP 3D, which is the downgradient well nearest to the former CBRP OU Pit in the UAZ. No change to the existing report is proposed.

   Responsible Party: Heath McGregor, (803) 952-6043, heath.mcgregor@srs.gov

2. Section 3.2, Hydraulic Setting, page 5. The last paragraph of this page, which discusses water level trends, states a slight water level increasing trend within the UAZ, MAZ, and upper LAZ. These changes are depicted in Figures B-2, -3, -6, -7, -13, -14, and -15. Some of the shallow screened wells' changes have been attributed to rainfall; however, it is not specified what could be causing the water level increasing trend throughout the other, non-shallow monitoring points in the UAZ, MAZ, and LAZ if it is not rainfall related. Please clarify whether these changes are also caused by rainfall or otherwise state the cause.

SRS Responses to South Carolina Department of Environmental Services Comments on: Biennial Effectiveness Monitoring Report (EMR) for Monitored Natural Attenuation (MNA) at the C-Area Burning/Rubble Pit (131-C) and Old C-Area Burning/Rubble Pit (NBN) Operable Unit (U) – January 2023 through December 2024, (SRNS-RP-2025-00608, Revision 0, June 2025), SEMS Number: 31

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Response: Clarification.

The above average rainfall amounts in 2023 and 2024 result in direct increases in the water table (UAZ) wells, but the increased rainfall amounts are also expected to have indirect and smaller increases in the potentiometric heads of the MAZ and LAZ wells over time. The cause of water level changes in all aquifer zones will be provided in future EMRs as appropriate. No change to the existing report is proposed.

Responsible Party: Heath McGregor, (803) 952-6043, heath.mcgregor@srs.gov

3. Section 4.6.1, Trichloroethylene, page 15. The second paragraph of this page discusses groundwater sampling around two distinct plumes and states that groundwater monitoring has ceased at monitoring well CRP 4. This well helps mark the boundary of an uncontaminated zone between the two distinct plumes and serves as a useful data point to map the extent of contamination. Please explain why groundwater monitoring has been stopped at this point, and if there is another point being used as a reference to collect this same data.

Response: Clarification.

Well CRP 4 provided redundant TCE data to well CRP 6DR and sampling was stopped at CRP 4 in 2005. In addition to well CRP 6DR being in a good location for detecting the CBRP OU TCE plume, well CRP 6DR was better positioned to monitor the decreasing northern tritium plume. Results from well CRP 4 will not be discussed in future CBRP OU EMRs. No change to the existing report is proposed.

Responsible Party: Heath McGregor, (803) 952-6043, heath.mcgregor@srs.gov

4. Section 4.6.7, MNA Summary, page 23. The last paragraph of this page, which discusses TCE degradation products, states: "This trend in higher concentrations at the "B" wells relative to the paired "A" wells is consistent with the CSM which predicts increased biodegradation occurring as groundwater migrates upward from the lower screened "B" well elevation through the higher screened "A" well elevation." This statement appears to contradict the following statement from Section 4.2, page 7: "The CSM predicts higher TCE concentrations in the lower wells, but higher concentrations of TCE degradation products in the upper wells, due to biodegradation occurring as the TCE groundwater plume discharges upward to surface water at a given location." Please clarify.

Response: Clarification.

In Section 4.6.7 MNA Summary, it should have stated, as indicated in the above comment, that higher concentrations of TCE biodegradation products at the "B" wells relative to the paired "A" wells <u>is the reverse of</u> the CSM.

SRS Responses to South Carolina Department of Environmental Services Comments on: Biennial Effectiveness Monitoring Report (EMR) for Monitored Natural Attenuation (MNA) at the C-Area Burning/Rubble Pit (131-C) and Old C-Area Burning/Rubble Pit (NBN) Operable Unit (U) – January 2023 through December 2024, (SRNS-RP-2025-00608, Revision 0, June 2025), SEMS Number: 31

Received October 21, 2025

It is likely, that the above average rainfalls in 2023 and 2024 temporarily altered the flow paths for many of the wells near the Twin Lakes and FMB. In future CAGW OU EMRs, if the condition still exists, SRS will note increased rainfall over an extended period can raise the potentiometric surfaces of the shallowest MNA wells (i.e., CRP 50A). This condition can temporarily slow the groundwater discharge rate in the wetland areas and allow for greater biodegradation in the deeper zone. The increased rainfall would also likely dilute all VOCs present in the shallowest wells. No changes are proposed to the existing report.

Responsible Party: Heath McGregor, (803) 952-6043, heath.mcgregor@srs.gov