

Shelia Mcfalls

From: Shelia Mcfalls
Sent: Thursday, October 30, 2025 1:09 PM
To: Jon Richards; Susan Fulmer
Cc: Brianne Martin; Heather Cathcart; Sarah Steeple; Duke Taylor; Joseph Martina; MORROW, KAREN D; BAKER, MATTHEW R; STEPHENS, BRIAN M; HORCHER, ANDY T; JENKINS, BERNICE M; Chris Bergren; Kelsey Holcomb; Thelesia Oliver; Amy Meyer; Regina Marquez; J Ross; Katie Davis; Ryan Mcdaniel; Terry Killeen; Ashley Shull; Bette Ross; Caleb Jones; Shelia Mcfalls; Dena Brett; Mtesa Wright; Gregg O'Quinn; Tabatha Corley; Crystal Robertson; Emma G. Downing ; Hannah Herlong ; Mac McRae
Subject: Submittal of the D-Area Groundwater Operable Unit (OU) Annual Data Summary Report – 2024 Data (U) (SRNS-RP-2025-01191, Revision 0, October 2025) and Savannah River Site's Responses to the Regulatory Comments on the D-Area Groundwater OU Annual Data *
Attachments: SRNS-RP-2025-01191_Revision 0.pdf; SRNS-RP-2025-01191_2024_Data_Tables 3 to 5.xlsx; SRNS-RP-2024-01267_2023_Data_Email_SCDES_RTCs_Final.pdf

* Summary Report – 2023 Data (U) (SRNS-RP-2024-01267, Revision 0, November 2024)

SRNS-J2000-2025-00762

References:

1. Email, Caleb Jones (SRNS) to Jon Richards (EPA) and Susan Fulmer (SCDES), *Submittal of D-Area Groundwater Operable Unit (OU) Annual Data Summary Report – 2023 Data (U) (SRNS-RP-2024-01267, Revision 0, November 2024) and Associated Scoping Summary (ERD-EN-2019-0022, Final, November 2023)*, SRNS-J2000-2024-00855, dated November 20, 2024
2. Email, Heather Cathcart (SCDES) to Caleb Jones (SRNS), Jon Richards (EPA), and Susan Fulmer (SCDES), *Re: Submittal of D-Area Groundwater Operable Unit (OU) Annual Data Summary Report – 2023 Data (U) (SRNS-RP-2024-01267, Revision 0, November 2024) and Associated Scoping Summary (ERD-EN-2019-0022, Final, November 2023)*, dated January 17, 2025 (SRNS-OS-2025-00228)

Jon and Susan,

In accordance with the discussion and agreements reached by the Core Team (U.S. Department of Energy, U.S. Environmental Protection Agency [EPA], and South Carolina Department of Environmental Services [SCDES] personnel) at the November 30, 2023, D-Area Groundwater Operable Unit Post-Characterization Scoping Meeting, Savannah River Site is submitting the *D-Area Groundwater Operable Unit (OU) Annual Data Summary Report – 2024 Data (U) (SRNS-RP-2025-01191, Revision 0, October 2025)* for your review. The Excel file containing Tables 3 to 5 is also attached. PDFs of the tables are included in the 2024 Data Report. As agreed during the meeting, the data summary report will be shared annually via email until submittal of the RCRA Facility Investigation/Remedial Investigation Report with Baseline Risk Assessment currently scheduled for December 2026.

This is the second annual report to be submitted. The Savannah River Site (SRS) submitted the *D-Area Groundwater Operable Unit (OU) Annual Data Summary Report – 2023 Data (U) (SRNS-RP-2024-01267, Revision 0, November 2024)* via email on November 20, 2024 (Reference 1). The SCDES provided comments on the report via email on January 17, 2025 (Reference 2). The SRS responses to SCDES' comments are also attached to this email. The 2023 Data Report was not revised. However, the responses were incorporated into the 2024 Data Report, as applicable.

SRS plans to discuss the attachments at the November 13, 2025, D-Area Groundwater Operable Unit meeting.

Please review the attachments and provide your comments or approval via email within sixty (60) days of receipt. The effort and time that the SCDES and the EPA have given on the subject operable unit are appreciated.

Please contact me if you have any questions, comments, or concerns.

Thanks

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Responses to the South Carolina Department of Environmental Services Comments on the
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General Comments

1. SCDES requests a Core Team meeting to further discuss the rationale for the proposed optimized sampling of PFAS. During this meeting, a Core Team decision should be made that adds all PFAS constituents officially to the DAG monitoring plan.

Response: Agree

A Core Team Meeting has been scheduled for November 13, 2025 and will include discussion and decisions made for adding PFAS constituents officially to the DAG monitoring plan.

Responsible Party: Ashley Shull ashley.shull@srs.gov (803-952-7090)

2. There are a few inconsistencies between Section 2.0 and Tables 1, 2 and 3. The first sentence of Section 2.0 states that 109 groundwater wells and 16 surface water stations are sampled at least annually during either 2Q or 4Q. Table 1 lists a total of 114 wells of various types, and Table 2 lists a total of 18 surface water stations that are actively being sampled, with DSWM-8A being the only well with a designation of not being sampled. It is unclear which 109 groundwater wells and 16 surface water stations are being addressed in this statement. Furthermore, of the 114 wells listed in Table 1, five (5) are designated as piezometers. According to the sampling parameters listed in this table as well as designations provided in Table 3, the following wells appear to be piezometers as well: DBP 1, DCB 1A, DCB 2A, DCB 9, DCB 49 and DCB 50. Please correct the discrepancy between the number of piezometers listed in Tables 1 and 3, and revise Section 2.0 and/or Tables 1 and 2 to clearly indicate the number of groundwater wells and surface water stations that are included in the DAG OU network.

Response: Clarification

Table 3 correctly lists the well use types for the monitoring wells. The text in Section 2.0 incorrectly listed the number of groundwater wells required to be sampled. The following adjustments to the first paragraph of Section 2.0 would be more accurate and clarify what's required to be sampled and what was actually sampled during 2023:

“DAG OU ~~includes the monitoring~~ requires ~~94 of 109~~ groundwater wells to be sampled, 14 wells to have water elevation measurements only, and 16 surface water stations that are to be sampled at least annually during either second quarter (2Q) or fourth quarter (4Q). Table 1 includes the sampling schedule and requirements for the DAG OU groundwater monitoring. Table 2 includes the sampling schedule and requirements for the DAG OU surface water monitoring.”

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In 2023, DAG OU included the sampling of 98 groundwater wells and 17 surface water stations. Four additional wells and four additional surface water stations were sampled for PFAS constituents only. Although sampling for PFAS has occurred at least annually since 2020 as a subset of the D-Area groundwater wells and surface water stations, it has not been officially added to the DAG OU sampling requirements.”

Table 1 will be corrected in future data email reports to be consistent.

Responsible Party: Ashley Shull ashley.shull@srs.gov (803-952-7090)

Specific Comments

1. Section 3.2, Results Above Regulatory Threshold Limits, Page 3 of 41. The first sentence of the paragraph states that analytical results from the 2023 sampling show 13 metals/sulfate constituents. However, the list following the paragraph and Section 3.2.1, Low-pH and Metals Plume, contain 14 instead of 13 metals/sulfate constituents that were detected at concentrations above their applicable regulatory threshold level in at least one monitoring well. Please correct this discrepancy between the list and the number in the first sentence.

Response: Clarification

The first sentence in the first paragraph in Section 3.2 should list 16 metals/sulfate constituents exceeded their applicable regulatory threshold levels. Based on additional exceedances for antimony and hexavalent chromium as identified in SCDES specific comment #2, the total number of metals/sulfate constituents exceeding limits is 16 not 14. Antimony and hexavalent chromium also should have been included in the list in Section 3.2. No changes to the 2023 Data email report are proposed.

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2. Section 3.2, Results Above Regulatory Threshold Limits, Page 3 of 41. Table 3 data shows that antimony (23 µg/L at DCB 080) and hexavalent chromium (3.02 µg/L at DCB 21B) exceeded a regulatory threshold limit and should be included in this section and Section 3.2.1 as well.

Response: Agree

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See response to specific comment #2. No changes to the 2023 Data email report are proposed.

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3. Section 3.2.1, Low-pH and Metals Plume, Page 4 of 41. In the list of maximum concentrations of metals and sulfate that were detected above regulatory limits in groundwater and the associated groundwater wells, the maximum concentration for arsenic is 30.9 µg/L at DCB085A. Upon review of Table 3, DAG OU 2023 Monitoring Results, the highest concentration of arsenic was detected in monitoring well, DWP 8 at 58 µg/L. Please revise the list to reflect the results of the highest concentration of arsenic, as per Table 3.

Response: Agree

The maximum result for arsenic listed in Section 3.2.1 should have listed a concentration of 58 µg/L at well DWP 8. No changes to the 2023 Data email report are proposed.

Responsible Party: Ashley Shull ashley.shull@srs.gov (803-952-7090)

4. Section 3.2.4, PFAS Plume, Page 6 of 41. The fifth sentence of the first paragraph states, “Additionally, some wells (DRW 1, DUT001, DWP003A, and DWP009A) were also sampled via HydraSleeve as a comparison to the normal pumped sample.” However, there is no reasoning stated within the report that explains why these select wells were sampled via HydraSleeve as a comparison to the normal pumped sample. Please elaborate on the reasoning for use of sampling via HydraSleeve on the select wells.

Response: Clarification

HydraSleeves are an industry standard sampling method for monitoring wells. SRS collected additional samples from four wells with HydraSleeves to test the differences in PFAS concentrations versus the normal pumped methodology in case there are issues in the future associated with disposal/treatment of well purge water. HydraSleeves would greatly reduce the amount of water needed to be treated. No changes to the 2023 Data email report are proposed.

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5. Section 3.2.4, PFAS Plume, Page 8 of 41. The list of the maximum PFAS constituent concentrations that were detected above groundwater regulatory limits in surface water and the associated surface water stations shows that the highest concentration of PFOA was 14

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µg/L at DSWM-4. Upon review of Table 4, 4Q23 DAG OU PFAS Results Summary, the highest concentration of PFOA (14 µg/L) was detected at surface sample location DSWM-8 and not DSWM-4. Please revise the list with the correct sampling location for the highest concentration of PFOA, as per Table 4.

Response: Agree

The highest concentration of PFOA identified on page 8 should have listed 14 ng/L at surface water station DSWM-8. No changes to the 2023 Data email report are proposed.

Responsible Party: Ashley Shull ashley.shull@srs.gov (803-952-7090)

6. Section 3.2.4, PFAS Plume, Page 8 of 41. The third paragraph states, “SRS proposes to continue PFAS groundwater and surface water monitoring at an optimized 36 stations.” After review of the proposed listed stations in Table 1 and 2 and Figures 13 and 14, it was observed that monitoring wells DCB 60 and DCB 61 were not on the list. The second paragraph in Section 3.2.4 (PFAS Plume), states, “It is suspected that samples between station DCB 60 (located to the northeast of the FFTA) and DCB 61 (northwest of D Area) were interchanged as 2023 results for DCB 61 show PFAS contamination similar to what the previous concentrations were observed at DCB 60, and results for DCB 60 were mainly all non-detect. These wells will be sampled again in 2024.” While it is suspected that the 2023 sampling results for DCB 61 and DCB 60 were interchanged, additional data would need to be collected to verify the PFAS constituent concentrations at both locations. As stated in the report, both wells will be sampled in 2024. However, until the additional sampling results for these locations are provided and reviewed, DCB 60 and DCB 61 should be included in the list of proposed PFAS sampling locations for 2025. Please revise the list accordingly.

Response: Agree

Continued annual PFAS sampling will be conducted at DCB 60 and DCB 61 until the data can be reviewed by the Core Team and a decision is made on the official PFAS sampling to be included in the DAG OU monitoring plan. PFAS samples are being collected in 4Q2025. Additionally, PFAS sampling across all of D-Area will at a minimum include the monitoring wells and surface water stations sampled in 4Q2023 until final decisions are made by the Core Team.

Responsible Party: Ashley Shull ashley.shull@srs.gov (803-952-7090)

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7. Table 1, Groundwater Samples Analyte List and Sample Frequency, Page 38 of 41. The monitoring well DCB 33D is listed as a UTRA aquifer well. Upon review of Table 3, DAG OU 2023 Monitoring Results, and the GA aquifer associated figures within the report, DCB 33D in Table 1 should be updated to a GA aquifer well. Please revise.

Response: Agree

Well DCB 33D is a GA well, not an UTRA well. Table 3 will be updated in future data email reports to list it as such.

Responsible Party: Ashley Shull ashley.shull@srs.gov (803-952-7090)

8. Table 3, GAG OU 2023 Monitoring Results. In the table, the May 18, 2023, sampling results for monitoring well DCD 080 lists the concentration of antimony as [23] µg/L and highlighted purple. According to the legend provided below Table 3, the value [##] highlighted purple has the following explanation: “EPA Functional Guideline Code of 'J' was applied to the result, indicating an estimated quantity.” The NPDWS (MCL) of antimony provided within the table is 6 µg/L. When comparing the antimony concentration value of [23] µg/L to the MCL, the value exceeds the applicable limit. As per legend, the value should be highlighted red instead of purple. Please revise.

Response: Agree

Any estimated result above applicable limits should be colored red. Tables in future reports will ensure all results, estimated or non-estimated, will be color coded correctly to identify exceedances. No changes to the 2023 Data email report are proposed.

Responsible Party: Ashley Shull ashley.shull@srs.gov (803-952-7090)

1. Based on the antimony concentration results discussed above, the sections Results Above Regulatory Threshold Limits (Section 3.2) and Low-pH and Metals Plume (Section 3.2.1) should be updated to include antimony as one of the metals detected above regulatory limits in groundwater. Please revise.

Response: Agree

As stated in response to SCDES Specific Comment #1, antimony and hexavalent chromium also should have been included in the list and in the count of metals/sulfate constituents exceeding applicable limits in Section 3.2. No changes to the 2023 Data email report are proposed.

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2. The following monitoring wells show estimated results above regulatory threshold limits but were listed in this table with a purple label instead of the more appropriate and applicable red label which indicates an exceedance: DCB 6 (iron), DCB 65A (lead), DCB 080 (antimony, arsenic and beryllium), DCB 082 (arsenic) and DCB 090C (arsenic).

Response: Agree

Any estimated result above applicable limits should be colored red. Tables in future reports will ensure all results, estimated or non-estimated, will be color coded correctly to identify exceedances. No changes to the 2023 Data email report are proposed.

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