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

JAN 16 2025

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 2023 K-Area Burning/Rubble Pit and Rubble Pile (131-K and 631-20G) (KBRP) and P-Area Burning/Rubble Pit (131-P) (PBRP) Operable Units Combined Groundwater Monitoring Report (Sampling Summary), SEMS Numbers: 40 and 59

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) approval and U.S. Environmental Protection Agency's (EPA) comments were received on October 21, 2024, and October 24, 2024, 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 from receipt. The effort and time that the EPA and the SCDES have provided on this operable unit are greatly appreciated.

Questions from you or your staff may be directed to me at (803) 952-7805, or the DOE Operable Unit Manager, Mr. Philip Prater, at (803) 952-9333.

Sincerely,

AVERY HAMMETT

Digitally signed by AVERY HAMMETT
Date: 2025.01.14 07:12:58 -05'00'

Avery G. Hammett
FFA Project Manager, DOE-Savannah River Operations Office
Remediation, Deactivation, and Decommissioning Division

RDDD-25-117

JAN 16 2025

Enclosure:
SRS Responses to the U.S. Environmental Protection Agency's Comments on the 2023 K-Area Burning/Rubble Pit and Rubble Pile (131-K and 631-20G) (KBRP) and P-Area Burning/Rubble Pit (131-P) (PBRP) Operable Units Combined Groundwater Monitoring Report (Sampling Summary), SEMS Numbers: 40 and 59

cc w/o encl:
M. Reece, SCDES-Columbia
H. J. Porter, SCDES-Columbia
J. Blalock, SCDES-Columbia
S. French, SCDES-Columbia
R. G. Stewart, SCDES-Columbia
G. K. Taylor, SCDES-Columbia
T. G. Corley, SCDES-Midlands Aiken Environmental Affairs Office
G. O'Quinn, SCDES-Midlands Aiken Environmental Affairs Office
E. G. Downing, SCDES-Midlands Aiken Environmental Affairs Office
H. L. Herlong, SCDES-Midlands Aiken Environmental Affairs Office

cc w/ encl:
H. Cathcart, SCDES-Columbia
M. McRae, TechLaw, Inc.

2023 K-Area Burning/Rubble Pit and Rubble Pile (131-K and 631-20G) (KBRP) and P-Area Burning/Rubble Pit (131-P) (PBRP) Operable Units Combined Groundwater Monitoring Report (Sampling Summary), SEMS Numbers: 40 and 59, SRNS-J2000-2024-00462, Revision 0, Dated June 2024 Savannah River Site, Aiken, South Carolina

Comments Received October 24, 2024

GENERAL COMMENT

1. The use of sample results from (SW) surface-water station SC-03 is not appropriate for evaluating potential of impacts to Steel Creek from the P-Area Burning/Rubble Pit (PBRP) Operable Unit (OU) trichloroethylene (TCE) plume due to groundwater to surface water discharge. According to the text on page 10, the TCE detections in the P-Area Groundwater (PAGW) OU SW station SC-03 are attributed to the PAGW OU upper aquifer zone (UAZ) TCE plume. According to Figure 6 (TCE Contaminant Distribution), SW station SC-03 is located on the south side of Steel Creek and within the PAGW OU TCE plume; however, a more representative SW sample station located north of and slightly upstream of Steel Creek would be more appropriate for detecting potential impacts to Steel Creek from the PBRP OU. The GW Monitoring Report states that surface water sampling will continue at the current locations to confirm that the recent elevated concentrations of volatile organic compounds (VOCs) have no impact within Steel Creek. As such, *please revise the text to recommend moving SW station SC-03 to the north side of Steel Creek and upstream of the PAGW TCE plume, during future sampling events.*

Response: Clarification.

As stated in the regulatory approved *Savannah River Site's Responses to the Regulatory Comments on the K-Area Burning/Rubble Pit and Rubble Pile (131-K and 631-20G) (KBRP) and P-Area Burning/Rubble Pit (131-P) (PBRP) Operable Units Combined Groundwater Monitoring Report (SRNS-RP-2022-00253, Revision 0, June 2022) SEMS Numbers: 40 and 59 (IACD-23-121, dated January 19, 2023)*, surface-water sampling for 1,1-dichloroethylene, 1,4-dioxane and TCE was conducted at Steel Creek surface-water stations SC-02, SC-03, and SC-04 beginning in the first quarter of 2023. Groundwater contamination contributions from PAGW OU to Steel Creek are primarily TCE and tritium. 1,1-Dichlorothethylene and 1,4-dioxane are not groundwater contaminants associated with the PAGW OU. Any detections of these contaminants would be associated with PBRP OU. Contributions of TCE contamination to Steel Creek can be further evaluated by assessing the data collected from shallow wells that are installed on both sides of Steel Creek. SRS believes the existing impact to surface water is associated with the PAGW OU.

The locations of the surface water stations were selected to observe the impacts of the PAGW plume; however, in an effort to observe the impact of VOCs from PBRP to Steel Creek, the results of the three surface water stations were also included in the PBRP report. Based on the potentiometric surface within the area, SC-03 is located in the flow path of groundwater discharge from the PBRP OU to Steel Creek, see Figure CR-1 below. A location located north and upstream would not capture the impacts from the PBRP OU to Steel Creek, as the location of the surface water station SC-03 is actually located centrally within the Steel Creek. This is because the SC-03 location is not accurately

depicted on the figures within the sampling summary. SRS will make corrections to future reports to accurately depict this location within Steel Creek as shown in Figure CR-1 below.

In 2024, four shallow monitoring wells were installed on the PBRP OU side of Steel Creek to observe any potential contaminant migration from the unit. The wells are in the vicinity of SC-03 along Steel Creek and located on the bank side to PBRP, see Figure CR-1 below. Data collected from these wells will be reported in the 2027 Groundwater Monitoring Report.

No change to the current document is proposed.

Responsible Party: Justin Steadman, (803) 952-7346, justin.steadman@srs.gov

2. It is unclear whether there is potential for groundwater elevations to rise and contact the bottom of the PBRP OU and impact groundwater quality. Figure 14 (PRP 6 Water Elevation vs Concentration Trend Plot) shows concentration values of both TCE and 1,1-dichloroethylene (DCE) increasing slowly after periods of higher water availability in recent years and whether this is the result of groundwater in contact with the waste unit is unclear. The text states, "The recent increase in 1,1-DCE and TCE concentrations in well PRP 6 are believed to be associated with an increase in water elevations that possibly resolubilized contaminants that were entrained in sediments below the unit;" however, this section does not discuss the potential for groundwater contacting the waste unit and contributing to groundwater contamination. *Please revise the GW Monitoring Report to discuss the potential for groundwater elevations to rise and contact the bottom of the PBRP OU and impact groundwater quality.*

Response: Clarification.

The depth of the disposal pit at the PBRP OU is approximately (~) 8 to 11 feet below ground surface (ft bgs). Depth to groundwater at the unit is approximately 30 ft bgs. Based on review of historical water level data from wells at the PBRP, it appears unlikely that groundwater would contact the bottom of the disposal pit.

In future Detailed Groundwater Monitoring Reports this information will be included. The next Detailed Groundwater Monitoring Report will be submitted on or before June 30, 2027. A reference to the last Detailed Ground Water Monitoring Report will be included in future sampling summaries.

No change to the current document is proposed.

Responsible Party: Justin Steadman, (803) 952-7346, justin.steadman@srs.gov

SPECIFIC COMMENTS

1. **Figure 4, PBRP OU Well Network, Page 13 of 25:** The legend for Figure 4 shows that the topographic contour interval is 2 feet (ft); however, according to the figure, the topographic contour interval is 10 ft (see contour intervals near the PBRP OU shown at 260 ft, 270 ft, 280 ft, 290 ft and 300 ft). *Please revise the legend of Figure 4 to show that the topographic contour interval is 10 ft.*

   Response: Agree with Clarification.

   As identified in the legend of Figure 4, topographic contours are symbolized by major and minor contour lines. Major contours are displayed in 10 ft intervals and minor contours are shown in 2 ft intervals. In future reports the legend will be revised to denote the difference in elevation of the two contour intervals.

   No change to the current document is proposed.

   Responsible Party: Justin Steadman, (803) 952-7346, justin.steadman@srs.gov

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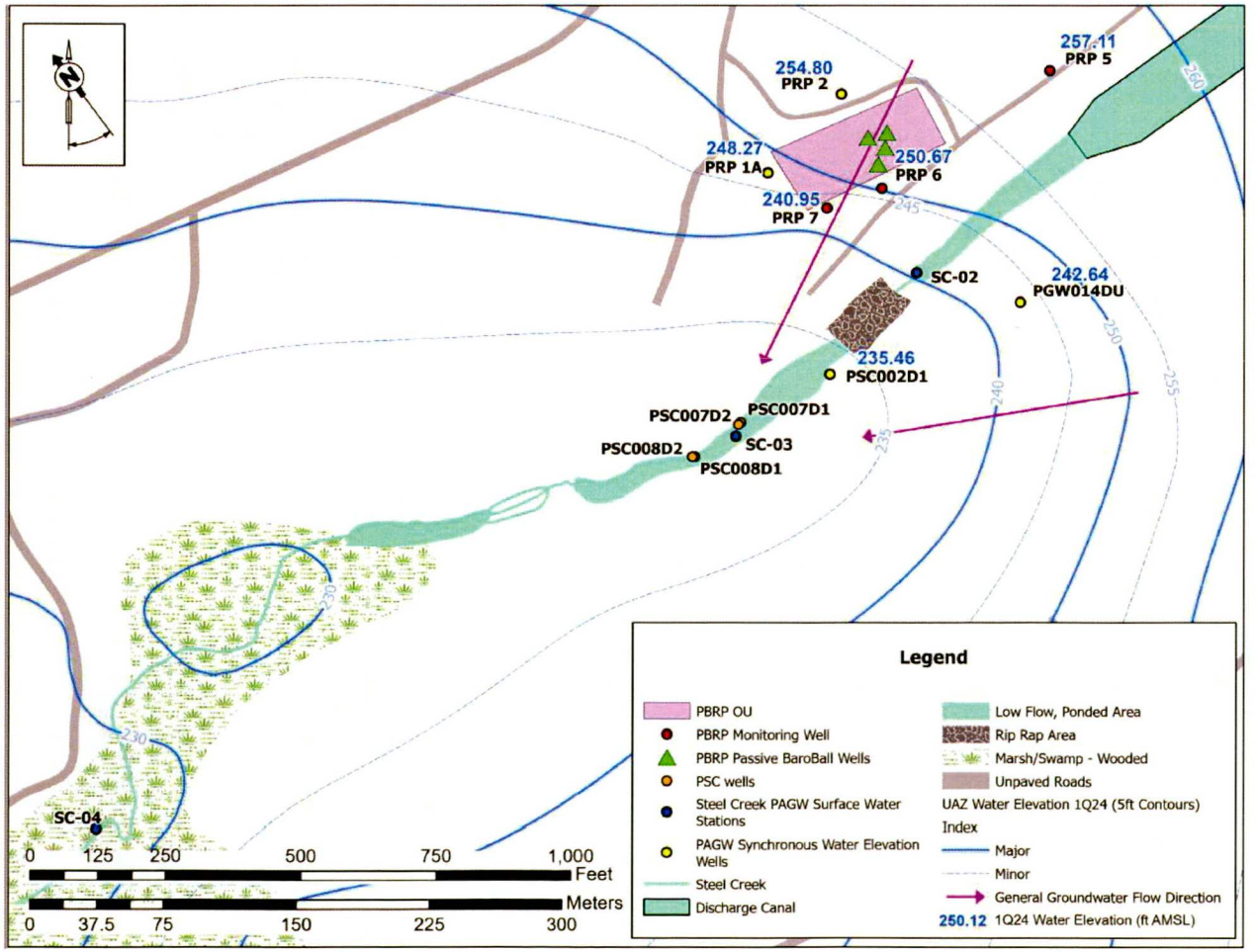

Figure CR-1. PBRP OU Synchronous Water Elevation Map