

**Rocky Flats Site, Colorado,  
Surface Water Configuration  
Adaptive Management Plan  
Quarterly Report**

**Second Quarter Calendar Year 2021**

**July 2021**



U.S. DEPARTMENT OF  
**ENERGY**

Legacy  
Management

This page intentionally left blank

# Contents

Abbreviations .....	ii
1.0 Introduction .....	1
2.0 AMP Highlights: Second Quarter CY 2021 .....	2
3.0 Analytical Data: Second Quarter CY 2021 .....	2
4.0 References .....	2

## Tables

Table 1. Analytical Results for Water Samples .....	At end of report
Table 2. Water Sampling Events: Second Quarter CY 2021 .....	At end of report

## Abbreviations

AMP	Adaptive Management Plan
COU	Central Operable Unit
CY	calendar year
DOE	U.S. Department of Energy
EA	Environmental Assessment
GEMS	Geospatial Environmental Mapping System
POC	Point of Compliance
POE	Point of Evaluation
RFLMA	<i>Rocky Flats Legacy Management Agreement</i>

## 1.0 Introduction

The Proposed Action assessed in the *Rocky Flats Site, Colorado, Surface Water Configuration Environmental Assessment* (DOE 2011), hereafter referred to as the Environmental Assessment (EA), is to breach the remaining retention pond dams at the Rocky Flats Site, Colorado (Site), to allow surface water flow to return to the approximate conditions that prevailed before the retention ponds were constructed. As stated in the EA, based on extensive water quality monitoring data and a thorough environmental review, the U.S. Department of Energy (DOE) Office of Legacy Management has determined that the Proposed Action does not present a significant impact on the environment under the National Environmental Policy Act evaluation criteria.

Some members of the public have commented that additional information should be collected prior to implementing the final steps of the Proposed Action to help reduce uncertainty about whether completion of the Proposed Action will adversely impact the quality of water flowing from the Site into downstream community watersheds. In response to the requests, DOE initiated a cooperative effort with neighboring community representatives and other interested stakeholders to develop and implement an Adaptive Management Plan (AMP) to provide additional information. The AMP group is composed of these representatives and stakeholders. The resulting AMP, *Surface Water Configuration Adaptive Management Plan for the Rocky Flats Site, Colorado* (DOE 2019), first published in 2011, reflects DOE's long-term commitment to implementing the activities that the AMP describes.

The AMP provides for a monitoring and data evaluation program to assist in deciding when to implement the final steps of the Proposed Action, which includes breaching the terminal dams. The terminal dams will be operated in a flow-through condition until the completion of the Proposed Action, which will provide data similar to what can be expected postbreach. In addition to the monitoring program, the AMP identifies certain performance indicators that DOE will consider in deciding whether to adjust the time frame for completing the Proposed Action.

This AMP Quarterly Report for the second quarter of calendar year (CY) 2021 is provided in accordance with Section 5.0, "Reporting," of the AMP. Section 3.0 of this report describes the second quarter data summary tables, which include all validated analytical data for the AMP monitoring objectives that were available as of June 30, 2021. Subsequent AMP reports will include data that were not tabulated in previous AMP reports.

AMP monitoring objectives, locations, and sampling criteria are itemized in Table 2 of the AMP. Additional field implementation for the AMP monitoring objectives can be found in *Additional Field Implementation Detail for Selected Monitoring Objectives at the Rocky Flats Site, Colorado* (DOE 2018).

This report routinely includes analytical data for the following AMP monitoring objectives:

- Predischage sampling (Item 1, AMP Table 2)
- Targeted groundwater monitoring (Item 2, AMP Table 2)
- Monitoring to evaluate flow-through operations at terminal Ponds A-4, B-5, and C-2 (Item 4, AMP Table 2)

- Storm-event monitoring (Item 5, AMP Table 2)
- Continuous flow-paced composite sampling to evaluate uranium transport (Item 6, AMP Table 2)
- Grab sampling for uranium in North and South Walnut Creeks (Item 7, AMP Table 2)
- Grab sampling for nitrate + nitrite as nitrogen in Walnut Creek (Item 8, AMP Table 2)

## 2.0 AMP Highlights: Second Quarter CY 2021

- Seven informal emails were transmitted to AMP participants providing notification that composite samples had been retrieved from the Points of Compliance (POCs): Woman Creek at the Central Operable Unit (COU) boundary and Walnut Creek at the COU boundary.
- Four informal emails were transmitted to AMP participants providing notification that recent analytical data from the POCs had been validated and would soon be available through the Geospatial Environmental Mapping System (GEMS).
- Five informal emails were transmitted to AMP participants providing notification of individual analytical results from POCs and Points of Evaluation (POEs) that were above the applicable surface water standard in Attachment 2, Table 1, in the *Rocky Flats Legacy Management Agreement* (RFLMA), which was revised in 2012 (CDPHE et al. 2007).
- Two notifications were transmitted to AMP participants informing of reportable conditions under the RFLMA, Attachment 2, Section 6.0, “Action Determinations,” at the RFLMA POEs SW027 and GS10.
- During the quarter, 129 samples were collected in support of AMP monitoring objectives.

## 3.0 Analytical Data: Second Quarter CY 2021

Analytical data for the second quarter of CY 2021 are provided in Tables 1 and 2 (at the end of this report). Table 1 provides the analytical results, and Table 2 lists the water sampling events during the quarter.

## 4.0 References

CDPHE (Colorado Department of Public Health and Environment), DOE (U.S. Department of Energy), and EPA (U.S. Environmental Protection Agency), 2007. *Rocky Flats Legacy Management Agreement*, executed on March 14, Attachment 2 updated December 2018.

DOE (U.S. Department of Energy), 2011. *Rocky Flats Site, Colorado, Surface Water Configuration Environmental Assessment*, DOE/EA-1747, LMS/RFS/S06335, Office of Legacy Management, May.

DOE (U.S. Department of Energy), 2018. *Additional Field Implementation Detail for Selected Monitoring Objectives at the Rocky Flats Site, Colorado*, LMS/RFS/S08202, Office of Legacy Management, July.

DOE (U.S. Department of Energy), 2019. *Surface Water Configuration Adaptive Management Plan for the Rocky Flats Site, Colorado*, LMS/RFS/S07698, Office of Legacy Management, July.

This page intentionally left blank



Table 1. Analytical Results for Water Samples

LOCATION CODE	LOCATION TYPE	DATE SAMPLED	SAMPLE CODE	CAS	ANALYTE	FILTRATION STATUS	RESULT	UNITS	LAB QUALIFIERS	SAMPLE TYPE	DETECTION LIMIT	UNCERTAINTY	DATA VALIDATION QUALIFIERS	COLLECTION METHOD	LAB CODE
A1EFF	SL	3/31/2021	RFS01-04.2103061-011	NO3+NO2 AS N	Nitrate + Nitrite as Nitrogen	N	3.8	mg/L		F	0.019			G	STD
A1EFF	SL	3/31/2021	RFS01-04.2103061-011	7440-61-1	Uranium	N	4.7	ug/L		F	0.05			G	STD
A1EFF	SL	4/14/2021	RFS01-04.2104062-011	NO3+NO2 AS N	Nitrate + Nitrite as Nitrogen	N	3.4	mg/L		F	0.019			G	STD
A1EFF	SL	4/14/2021	RFS01-04.2104062-011	7440-61-1	Uranium	N	10	ug/L		F	0.05			G	STD
A2EFF	SL	3/31/2021	RFS01-04.2103061-010	NO3+NO2 AS N	Nitrate + Nitrite as Nitrogen	N	3.5	mg/L		F	0.019			G	STD
A2EFF	SL	3/31/2021	RFS01-04.2103061-010	7440-61-1	Uranium	N	5.5	ug/L		F	0.05			G	STD
A2EFF	SL	4/14/2021	RFS01-04.2104062-010	NO3+NO2 AS N	Nitrate + Nitrite as Nitrogen	N	1.8	mg/L		F	0.019			G	STD
A2EFF	SL	4/14/2021	RFS01-04.2104062-010	7440-61-1	Uranium	N	12	ug/L		F	0.05			G	STD
A3EFF	SL	3/31/2021	RFS01-04.2103061-009	NO3+NO2 AS N	Nitrate + Nitrite as Nitrogen	N	3.2	mg/L		F	0.019			G	STD
A3EFF	SL	3/31/2021	RFS01-04.2103061-009	7440-61-1	Uranium	N	7.7	ug/L		F	0.05			G	STD
A3EFF	SL	4/14/2021	RFS01-04.2104062-009	NO3+NO2 AS N	Nitrate + Nitrite as Nitrogen	N	0.019	mg/L	U	F	0.019			G	STD
A3EFF	SL	4/14/2021	RFS01-04.2104062-009	7440-61-1	Uranium	N	13	ug/L		F	0.05			G	STD
B3OUTFLOW	SL	3/31/2021	RFS01-04.2103061-002	7440-61-1	Uranium	N	23	ug/L		F	0.05			G	STD
B3OUTFLOW	SL	4/14/2021	RFS01-04.2104062-002	7440-61-1	Uranium	N	32	ug/L		F	0.05			G	STD
B5INFLOW	SL	7/7/2020	RFS01-04.2103060-003	7440-61-1	Uranium	N	21.6	ug/L		F	0.067			C	GEN
B5INFLOW	SL	7/7/2020	RFS01-04.2103060-014	7440-61-1	Uranium	N	20.9	ug/L		D	0.067			C	GEN
B5INFLOW	SL	3/25/2021	RFS01-05.2104042-006	7440-61-1	Uranium	N	22.6	ug/L		F	0.067			C	GEN
B5INFLOW	SL	3/31/2021	RFS01-04.2103061-003	7440-61-1	Uranium	N	22	ug/L		F	0.05			G	STD
B5INFLOW	SL	4/1/2021	RFS01-13.2104054-015	7440-61-1	Uranium	N	18.8	ug/L		F	0.067			C	GEN
B5INFLOW	SL	4/14/2021	RFS01-04.2104062-003	7440-61-1	Uranium	N	21	ug/L		F	0.05			G	STD
B5INFLOW	SL	4/26/2021	RFS01-13.2105058-002	7440-61-1	Uranium	N	8.65	ug/L		F	0.067			C	GEN
GS08	SL	4/14/2021	RFS01-04.2104062-012	7440-61-1	Uranium	N	16	ug/L		F	0.05			G	STD
GS08	SL	4/26/2021	RFS01-13.2105058-005	14596-10-2	Americium-241	N	0.0118	pCi/L	U	F				C	GEN
GS08	SL	4/26/2021	RFS01-13.2105058-005	PU-239,240	Plutonium-239, 240	N	0.0366	pCi/L		F			J	C	GEN
GS08	SL	4/26/2021	RFS01-13.2105058-005	7440-61-1	Uranium	N	13.2	ug/L		F	0.067			C	GEN
GS10	SL	3/31/2021	RFS01-04.2103061-001	7440-61-1	Uranium	N	24	ug/L		F	0.05			G	STD
GS10	SL	4/14/2021	RFS01-04.2104062-001	7440-61-1	Uranium	N	28	ug/L		F	0.05			G	STD
GS11	SL	6/1/2020	RFS01-05.2104042-003	14596-10-2	Americium-241	N	0.0142	pCi/L	HU	F				C	GEN
GS11	SL	6/1/2020	RFS01-05.2104042-003	PU-239,240	Plutonium-239, 240	N	0.0159	pCi/L	HU	F				C	GEN
GS11	SL	6/1/2020	RFS01-05.2104042-003	7440-61-1	Uranium	N	9.99	ug/L		F	0.067			C	GEN
GS11	SL	3/29/2021	RFS01-04.2103060-013	NO3+NO2 AS N	Nitrate + Nitrite as Nitrogen	N	2.04	mg/L		F	0.0850			G	GEN
GS11	SL	3/31/2021	RFS01-04.2103061-013	NO3+NO2 AS N	Nitrate + Nitrite as Nitrogen	N	2	mg/L		F	0.019			G	STD
GS11	SL	3/31/2021	RFS01-04.2103061-015	NO3+NO2 AS N	Nitrate + Nitrite as Nitrogen	N	1.8	mg/L		D	0.019			G	STD
GS11	SL	3/31/2021	RFS01-04.2103061-013	7440-61-1	Uranium	N	8.5	ug/L		F	0.05			G	STD
GS11	SL	3/31/2021	RFS01-04.2103061-015	7440-61-1	Uranium	N	8	ug/L		D	0.05			G	STD
GS11	SL	4/1/2021	RFS01-05.2104042-004	NO3+NO2 AS N	Nitrate + Nitrite as Nitrogen	N	1.92	mg/L		F	0.170		J	G	GEN
GS11	SL	4/14/2021	RFS01-04.2104062-013	NO3+NO2 AS N	Nitrate + Nitrite as Nitrogen	N	0.38	mg/L		F	0.019			G	STD
GS11	SL	4/14/2021	RFS01-04.2104062-015	NO3+NO2 AS N	Nitrate + Nitrite as Nitrogen	N	0.4	mg/L		D	0.019			G	STD
GS11	SL	4/14/2021	RFS01-04.2104062-013	7440-61-1	Uranium	N	9.6	ug/L		F	0.05			G	STD
GS11	SL	4/14/2021	RFS01-04.2104062-015	7440-61-1	Uranium	N	9.9	ug/L		D	0.05			G	STD
GS11	SL	4/26/2021	RFS01-13.2105058-021	14596-10-2	Americium-241	N	0.0208	pCi/L		F			J	C	GEN
GS11	SL	4/26/2021	RFS01-13.2105058-021	PU-239,240	Plutonium-239, 240	N	0.0481	pCi/L		F			J	C	GEN
GS11	SL	4/26/2021	RFS01-13.2105058-021	7440-61-1	Uranium	N	8.47	ug/L		F	0.067			C	GEN
GS11	SL	5/3/2021	RFS01-13.2105058-023	NO3+NO2 AS N	Nitrate + Nitrite as Nitrogen	N	2.12	mg/L		F	0.0850			G	GEN
GS12	SL	6/1/2020	RFS01-04.2103060-001	7440-61-1	Uranium	N	8.83	ug/L		F	0.067			C	GEN
GS12	SL	3/25/2021	RFS01-05.2104042-005	7440-61-1	Uranium	N	7.54	ug/L		F	0.067			C	GEN
GS12	SL	4/21/2021	RFS01-13.2105058-019	7440-61-1	Uranium	N	5.75	ug/L		F	0.067			C	GEN
GS13	SL	3/31/2021	RFS01-04.2103061-007	NO3+NO2 AS N	Nitrate + Nitrite as Nitrogen	N	4	mg/L		F	0.019			G	STD
GS13	SL	3/31/2021	RFS01-04.2103061-007	7440-61-1	Uranium	N	4.3	ug/L		F	0.05			G	STD
GS13	SL	4/14/2021	RFS01-04.2104062-007	NO3+NO2 AS N	Nitrate + Nitrite as Nitrogen	N	2.6	mg/L		F	0.019			G	STD
GS13	SL	4/14/2021	RFS01-04.2104062-007	7440-61-1	Uranium	N	5.8	ug/L		F	0.05			G	STD
GS31	SL	4/21/2020	RFS01-01.2103029-009	14596-10-2	Americium-241	N	0.00979	pCi/L	HU	F				C	GEN
GS31	SL	4/21/2020	RFS01-01.2103029-009	PU-239,240	Plutonium-239, 240	N	0.0201	pCi/L	HU	F				C	GEN
GS31	SL	4/21/2020	RFS01-01.2103029-009	7440-61-1	Uranium	N	14.3	ug/L		F	0.067			C	GEN
GS31	SL	3/23/2021	RFS01-05.2104042-001	14596-10-2	Americium-241	N	0.014	pCi/L	U	F				C	GEN
GS31	SL	3/23/2021	RFS01-05.2104042-001	PU-239,240	Plutonium-239, 240	N	0.0126	pCi/L	U	F				C	GEN
GS31	SL	3/23/2021	RFS01-05.2104042-001	7440-61-1	Uranium	N	13.7	ug/L		F	0.067			C	GEN
GS31	SL	4/21/2021	RFS01-13.2105058-020	14596-10-2	Americium-241	N	0.0335	pCi/L		F			J	C	GEN
GS31	SL	4/21/2021	RFS01-13.2105058-020	PU-239,240	Plutonium-239, 240	N	0.14	pCi/L		F				C	GEN
GS31	SL	4/21/2021	RFS01-13.2105058-020	7440-61-1	Uranium	N	8.6	ug/L		F	0.067			C	GEN
GS31	SL	5/3/2021	RFS01-02.2105035-002	TSS	Total Suspended Solids	N	7	mg/L	J	F	2.8			C	STD
GS31	SL	5/3/2021	RFS01-02.2105035-001	TSS	Total Suspended Solids	N	2.8	mg/L	U	F	2.8			C	STD
SPOUT	TS	3/31/2021	RFS01-04.2103061-006	NO3+NO2 AS N	Nitrate + Nitrite as Nitrogen	N	0.019	mg/L	U	F	0.019			G	STD
SPOUT	TS	3/31/2021	RFS01-04.2103061-006	7440-61-1	Uranium	N	28	ug/L		F	0.05			G	STD
SPOUT	TS	4/14/2021	RFS01-04.2104062-006	NO3+NO2 AS N	Nitrate + Nitrite as Nitrogen	N	0.019	mg/L	U	F	0.019			G	STD

Table 1. Analytical Results for Water Samples

LOCATION CODE	LOCATION TYPE	DATE SAMPLED	SAMPLE CODE	CAS	ANALYTE	FILTRATION STATUS	RESULT	UNITS	LAB QUALIFIERS	SAMPLE TYPE	DETECTION LIMIT	UNCERTAINTY	DATA VALIDATION QUALIFIERS	COLLECTION METHOD	LAB CODE
SPOUT	TS	4/14/2021	RFS01-04.2104062-006	7440-61-1	Uranium	N	44	ug/L		F	0.05			G	STD
SW093	SL	3/31/2021	RFS01-04.2103061-004	NO3+NO2 AS N	Nitrate + Nitrite as Nitrogen	N	1.1	mg/L		F	0.019			G	STD
SW093	SL	3/31/2021	RFS01-04.2103061-004	7440-61-1	Uranium	N	1.2	ug/L		F	0.05			G	STD
SW093	SL	4/14/2021	RFS01-04.2104062-004	NO3+NO2 AS N	Nitrate + Nitrite as Nitrogen	N	0.019	mg/L	U	F	0.019			G	STD
SW093	SL	4/14/2021	RFS01-04.2104062-004	7440-61-1	Uranium	N	1.7	ug/L		F	0.05			G	STD
WALPOC	SL	1/6/2021	RFS01-13.2103052-003	14596-10-2	Americium-241	N	0.02	pCi/L	U	F				C	GEN
WALPOC	SL	1/6/2021	RFS01-13.2103052-003	PU-239,240	Plutonium-239, 240	N	0.0182	pCi/L	U	F				C	GEN
WALPOC	SL	1/6/2021	RFS01-13.2103052-003	7440-61-1	Uranium	N	7.39	ug/L		F	0.067			C	GEN
WALPOC	SL	3/23/2021	RFS01-01.2103029-011	NO3+NO2 AS N	Nitrate + Nitrite as Nitrogen	N	0.463	mg/L		F	0.0170			G	GEN
WALPOC	SL	3/29/2021	RFS01-13.2103052-004	NO3+NO2 AS N	Nitrate + Nitrite as Nitrogen	N	1.7	mg/L		F	0.0850			G	GEN
WALPOC	SL	3/29/2021	RFS01-13.2104053-003	14596-10-2	Americium-241	N	0.0156	pCi/L	U	F				C	GEN
WALPOC	SL	3/29/2021	RFS01-13.2104053-003	PU-239,240	Plutonium-239, 240	N	0.00649	pCi/L	U	F				C	GEN
WALPOC	SL	3/29/2021	RFS01-13.2104053-003	7440-61-1	Uranium	N	8.35	ug/L		F	0.067			C	GEN
WALPOC	SL	4/1/2021	RFS01-13.2104053-004	NO3+NO2 AS N	Nitrate + Nitrite as Nitrogen	N	1.95	mg/L		F	0.170			G	GEN
WALPOC	SL	4/1/2021	RFS01-13.2104054-003	14596-10-2	Americium-241	N	0.0215	pCi/L	U	F				C	GEN
WALPOC	SL	4/1/2021	RFS01-13.2104054-003	PU-239,240	Plutonium-239, 240	N	0.017	pCi/L	U	F				C	GEN
WALPOC	SL	4/1/2021	RFS01-13.2104054-003	7440-61-1	Uranium	N	8.83	ug/L		F	0.067			C	GEN
WALPOC	SL	4/12/2021	RFS01-13.2104054-004	NO3+NO2 AS N	Nitrate + Nitrite as Nitrogen	N	0.353	mg/L		F	0.0170			G	GEN
WALPOC	SL	4/12/2021	RFS01-13.2104055-003	14596-10-2	Americium-241	N	0.0225	pCi/L	U	F				C	GEN
WALPOC	SL	4/12/2021	RFS01-13.2104055-003	PU-239,240	Plutonium-239, 240	N	-2.74E-09	pCi/L	U	F				C	GEN
WALPOC	SL	4/12/2021	RFS01-13.2104055-003	7440-61-1	Uranium	N	11.4	ug/L		F	0.067			C	GEN
WALPOC	SL	4/21/2021	RFS01-13.2104055-004	NO3+NO2 AS N	Nitrate + Nitrite as Nitrogen	N	0.567	mg/L		F	0.0170			G	GEN
WALPOC	SL	4/21/2021	RFS01-13.2104056-003	14596-10-2	Americium-241	N	0.0172	pCi/L	U	F				C	GEN
WALPOC	SL	4/21/2021	RFS01-13.2104056-003	PU-239,240	Plutonium-239, 240	N	2.23E-09	pCi/L	U	F				C	GEN
WALPOC	SL	4/21/2021	RFS01-13.2104056-003	7440-61-1	Uranium	N	12.2	ug/L		F	0.067			C	GEN
WALPOC	SL	4/26/2021	RFS01-13.2104056-004	NO3+NO2 AS N	Nitrate + Nitrite as Nitrogen	N	0.885	mg/L		F	0.0170			G	GEN
WALPOC	SL	4/26/2021	RFS01-13.2105057-013	14596-10-2	Americium-241	N	0.00763	pCi/L	U	F				C	GEN
WALPOC	SL	4/26/2021	RFS01-13.2105057-013	PU-239,240	Plutonium-239, 240	N	0.0189	pCi/L	U	F				C	GEN
WALPOC	SL	4/26/2021	RFS01-13.2105057-013	7440-61-1	Uranium	N	10.7	ug/L		F	0.067			C	GEN
WALPOC	SL	4/30/2021	RFS01-13.2105057-016	14596-10-2	Americium-241	N	0.0406	pCi/L		F			J	C	GEN
WALPOC	SL	4/30/2021	RFS01-13.2105057-016	PU-239,240	Plutonium-239, 240	N	0.0388	pCi/L		F			J	C	GEN
WALPOC	SL	4/30/2021	RFS01-13.2105057-016	7440-61-1	Uranium	N	6.34	ug/L		F	0.067			C	GEN
WALPOC	SL	5/3/2021	RFS01-13.2105057-014	NO3+NO2 AS N	Nitrate + Nitrite as Nitrogen	N	1.11	mg/L		F	0.0170			G	GEN
WALPOC	SL	5/4/2021	RFS01-13.2105057-017	NO3+NO2 AS N	Nitrate + Nitrite as Nitrogen	N	0.832	mg/L		F	0.0170			G	GEN
WOMPOC	SL	3/11/2021	RFS01-01.2103029-010	14596-10-2	Americium-241	N	0.0151	pCi/L	U	F				C	GEN
WOMPOC	SL	3/11/2021	RFS01-01.2103029-010	PU-239,240	Plutonium-239, 240	N	0.00877	pCi/L	U	F				C	GEN
WOMPOC	SL	3/11/2021	RFS01-01.2103029-010	7440-61-1	Uranium	N	2.52	ug/L		F	0.067			C	GEN
WOMPOC	SL	3/23/2021	RFS01-13.2104053-002	14596-10-2	Americium-241	N	0.00809	pCi/L	U	F				C	GEN
WOMPOC	SL	3/23/2021	RFS01-13.2104053-005	14596-10-2	Americium-241	N	0.00411	pCi/L	U	D				C	GEN
WOMPOC	SL	3/23/2021	RFS01-13.2104053-002	PU-239,240	Plutonium-239, 240	N	0.00977	pCi/L	U	F				C	GEN
WOMPOC	SL	3/23/2021	RFS01-13.2104053-005	PU-239,240	Plutonium-239, 240	N	0.0121	pCi/L	U	D				C	GEN
WOMPOC	SL	3/23/2021	RFS01-13.2104053-002	7440-61-1	Uranium	N	1.71	ug/L		F	0.067			C	GEN
WOMPOC	SL	3/23/2021	RFS01-13.2104053-005	7440-61-1	Uranium	N	1.65	ug/L		D	0.067			C	GEN
WOMPOC	SL	4/1/2021	RFS01-13.2104054-002	14596-10-2	Americium-241	N	0.0253	pCi/L	U	F				C	GEN
WOMPOC	SL	4/1/2021	RFS01-13.2104054-002	PU-239,240	Plutonium-239, 240	N	0.00632	pCi/L	U	F				C	GEN
WOMPOC	SL	4/1/2021	RFS01-13.2104054-002	7440-61-1	Uranium	N	1.74	ug/L		F	0.067			C	GEN
WOMPOC	SL	4/12/2021	RFS01-13.2104055-002	14596-10-2	Americium-241	N	-0.00253	pCi/L	U	F				C	GEN
WOMPOC	SL	4/12/2021	RFS01-13.2104055-002	PU-239,240	Plutonium-239, 240	N	0.0149	pCi/L	U	F				C	GEN
WOMPOC	SL	4/12/2021	RFS01-13.2104055-002	7440-61-1	Uranium	N	2.18	ug/L		F	0.067			C	GEN
WOMPOC	SL	4/21/2021	RFS01-13.2104056-002	14596-10-2	Americium-241	N	-0.00437	pCi/L	U	F				C	GEN
WOMPOC	SL	4/21/2021	RFS01-13.2104056-002	PU-239,240	Plutonium-239, 240	N	0.00107	pCi/L	U	F				C	GEN
WOMPOC	SL	4/21/2021	RFS01-13.2104056-002	7440-61-1	Uranium	N	1.5	ug/L		F	0.067			C	GEN
WOMPOC	SL	4/26/2021	RFS01-13.2105057-015	14596-10-2	Americium-241	N	0.00845	pCi/L	U	F				C	GEN
WOMPOC	SL	4/26/2021	RFS01-13.2105057-015	PU-239,240	Plutonium-239, 240	N	-0.00328	pCi/L	U	F				C	GEN
WOMPOC	SL	4/26/2021	RFS01-13.2105057-015	7440-61-1	Uranium	N	1.13	ug/L		F	0.067			C	GEN
WOMPOC	SL	4/30/2021	RFS01-13.2105057-018	14596-10-2	Americium-241	N	-0.0113	pCi/L	U	F				C	GEN
WOMPOC	SL	4/30/2021	RFS01-13.2105057-018	PU-239,240	Plutonium-239, 240	N	0.0056	pCi/L	U	F				C	GEN
WOMPOC	SL	4/30/2021	RFS01-13.2105057-018	7440-61-1	Uranium	N	1.04	ug/L		F	0.067			C	GEN

Table 1. Analytical Results for Water Samples

LOCATION CODE	LOCATION TYPE	DATE SAMPLED	SAMPLE CODE	CAS	ANALYTE	FILTRATION STATUS	RESULT	UNITS	LAB QUALIFIERS	SAMPLE TYPE	DETECTION LIMIT	UNCERTAINTY	DATA VALIDATION QUALIFIERS	COLLECTION METHOD	LAB CODE
---------------	---------------	--------------	-------------	-----	---------	-------------------	--------	-------	----------------	-------------	-----------------	-------------	----------------------------	-------------------	----------

**EXPLANATION**

**FILTRATION STATUS**

N = Sample was not filtered.  
Y = Sample was filtered.

**UNITS**

mg/L; ppm = milligrams per liter  
pCi/L = picocuries per liter  
ug/L = micrograms per liter  
C = degrees celsius  
mS/cm = milliSiemens per centimeter  
NTU = normal turbidity units  
s.u. = standard pH units  
uS/cm = microSiemens per centimeter  
umhos/cm = microSiemens per centimeter

**SAMPLE\_TYPE**

F = Field Sample  
D = Duplicate

**DATA\_VALIDATION\_QUALIFIERS**

<blank> No qualifiers needed for result.  
F Low flow sampling method used.  
G Possible grout contamination, pH > 9.  
J Estimated value.  
L Less than 3 bore volumes purged prior to sampling.  
Q Qualitative result due to sampling technique  
R Unusable result.  
U Parameter analyzed for but was not detected.  
X Location is undefined.  
999 Validation not complete

**LAB\_QUALIFIERS**

\* Replicate analysis not within control limits.  
+ Correlation coefficient for MSA < 0.995.  
> Result above upper detection limit.  
A TIC is a suspected aldol-condensation product.  
B Inorganic: Result is between the IDL and CRDL. Organic & Radiochemistry: Analyte also found in method blank.  
C Pesticide result confirmed by GC-MS.  
D Analyte determined in diluted sample.  
E Inorganic: Estimate value because of interference, see case narrative. Organic: Analyte exceeded calibration range of the GC-MS.  
H Holding time expired, value suspect.  
I Increased detection limit due to required dilution.  
J Estimated  
M GFAA duplicate injection precision not met.  
N Inorganic or radiochemical: Spike sample recovery not within control limits. Organic: Tentatively identified compound (TIC).  
P > 25% difference in detected pesticide or Arochlor concentrations between 2 columns.  
S Result determined by method of standard addition (MSA).  
U Analytical result below detection limit.  
W Post-digestion spike outside control limits while sample absorbance < 50% of analytical spike absorbance.  
X Laboratory defined (USEPA CLP organic) qualifier, see case narrative.  
Y Laboratory defined (USEPA CLP organic) qualifier, see case narrative.  
Z Laboratory defined (USEPA CLP organic) qualifier, see case narrative.

**LOCATION\_TYPE**

SL SURFACE LOCATION  
TS TREATMENT SYSTEM  
WL WELL

**LAB\_CODE**

GEN Gel Laboratories  
STD Test America

**COLLECTION\_METHOD**

G Grab  
C Composite

This page intentionally left blank

Table 2. Water Sampling Events: Second Quarter CY 2021

Location Code	Sampling Dates		Sample Info			Analytes					Sample Tracking Info
	Start	End	Collection Method	Type	Filtered	VOC	U	Nitrate	Pu/Am	TSS	Sample ID
WOMPOC	3/23/2021 11:51	4/1/2021 14:06	composite	F	No		X		X		RFS01-13.2104053-002
WOMPOC	3/23/2021 11:51	4/1/2021 14:06	composite	D	No		X		X		RFS01-13.2104053-005
WALPOC	3/29/2021 12:34	4/1/2021 12:05	composite	F	No		X		X		RFS01-13.2104053-003
WALPOC	4/1/2021 11:55	4/1/2021 11:55	grab	F	No			X			RFS01-13.2104053-004
GS08	4/24/2020 11:35	4/26/2021 11:33	composite	F	No		X		X		RFS01-05.2104044-002
GS11	6/1/2020 12:34	4/1/2021 12:24	composite	F	No		X		X		RFS01-05.2104042-003
GS31	3/23/2021 11:36	4/1/2021 14:25	composite	F	No		X		X		RFS01-05.2104042-001
B5INFLOW	3/25/2021 13:28	4/1/2021 12:58	composite	F	No		X				RFS01-05.2104042-006
GS12	3/25/2021 14:11	4/1/2021 12:41	composite	F	No		X				RFS01-05.2104042-005
WALPOC	4/1/2021 12:05	4/12/2021 13:08	composite	F	No		X		X		RFS01-13.2104054-003
GS11	4/1/2021 12:15	4/1/2021 12:15	grab	F	No			X			RFS01-05.2104042-004
GS11	4/1/2021 12:24	4/21/2021 11:35	composite	F	No		X		X		RFS01-05.2104043-003
GS12	4/1/2021 12:41	4/21/2021 12:08	composite	F	No		X				RFS01-05.2104043-005
WOMPOC	4/1/2021 14:06	4/12/2021 15:01	composite	F	No		X		X		RFS01-13.2104054-002
GS31	4/1/2021 14:25	4/21/2021 13:30	composite	F	No		X		X		RFS01-05.2104043-001
WALPOC	4/12/2021 13:05	4/12/2021 13:05	grab	F	No			X			RFS01-13.2104054-004
WALPOC	4/12/2021 13:08	4/21/2021 10:49	composite	F	No		X		X		RFS01-13.2104055-003
B5INFLOW	4/12/2021 14:12	4/26/2021 11:54	composite	F	No		X				RFS01-05.2104044-006
WOMPOC	4/12/2021 15:00	4/21/2021 13:46	composite	F	No		X		X		RFS01-13.2104055-002

This page intentionally left blank