

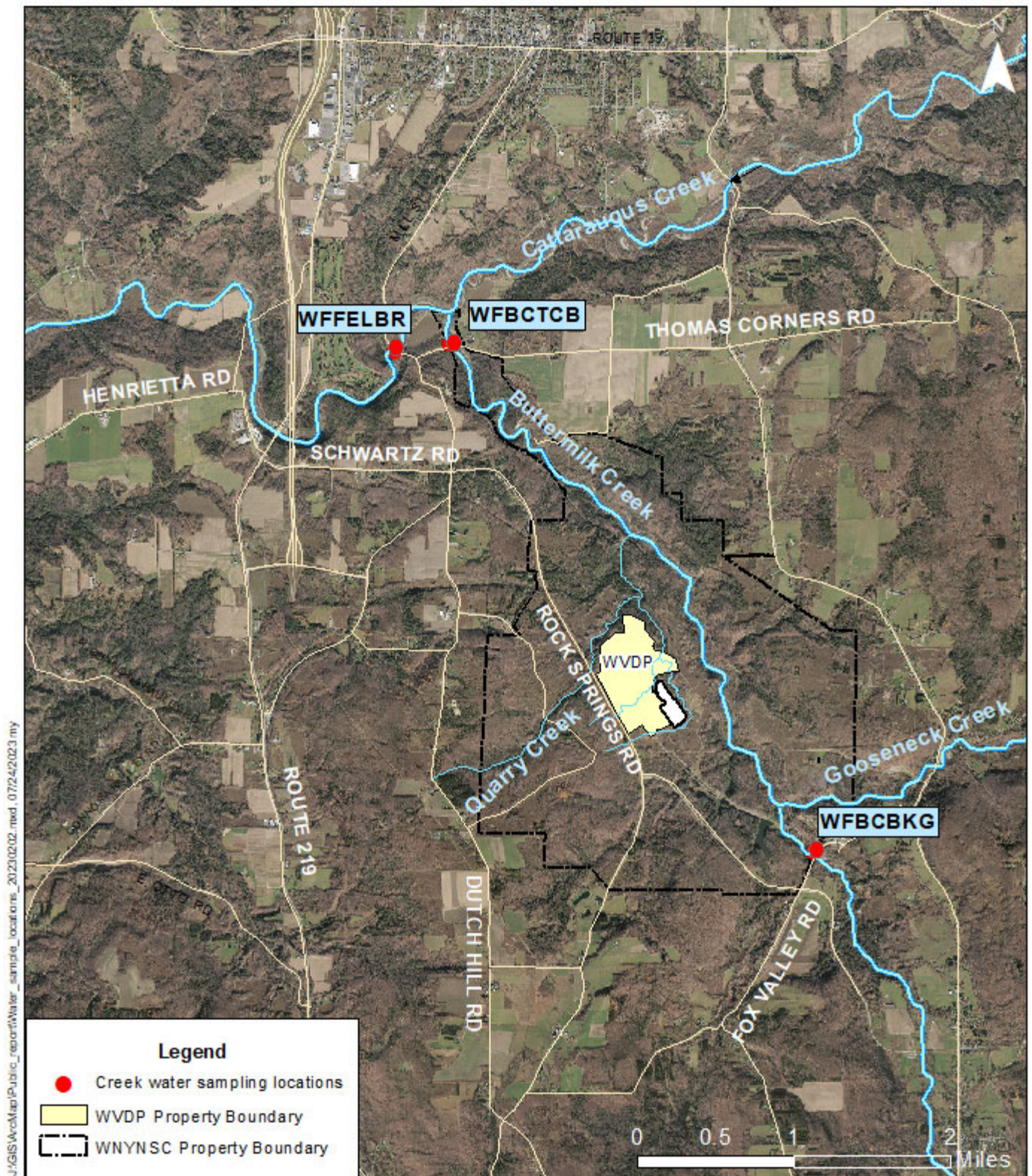
Off-Site Surface Water Concentrations Quarterly Update Fourth Quarter 2024 (October - December 2024)

Notes:

- 1) Off-site surface water is monitored at three stream locations (attached figure). These stream samples are collected with a timed-continuous water sampling system. The members of the public do not have access to the WVDP site or the on-site water. The off-site locations included in this data release are:
 - WFBCBKG– Buttermilk Creek near Fox Valley Road, *upstream* of WVDP.
 - Not impacted by WVDP activities and used as a background sample.
 - Collected biweekly and composited into semiannual samples (June and December).
 - WFBCTCB–Buttermilk Creek at Thomas Corners Road, *downstream* of the WVDP and *upstream* of the confluence with Cattaraugus Creek.
 - Collected biweekly and composited into semiannual samples (June and December).
 - WFFELBR–Cattaraugus Creek at Felton Bridge, *downstream* of the confluence with Buttermilk Creek).
 - The first point of public access to creek water (e.g., fishing) potentially impacted by the site activities.
 - The Cattaraugus Creek water is not a source of public drinking water.
 - Samples collected biweekly and composited into monthly samples.
- 2) Radiological Sampling: Concentrations of Gross Alpha and Beta, tritium (H-3), strontium-90 (Sr-90), cesium-137 (Cs-137), and pH are measured for off-site surface water. Historically, Sr-90 and Cs-137 contribute the majority of radiological dose from surface water discharged or flowing from the WVDP (Sr-90 contributed 78% and Cs-137 contributed 17% in 2023). This data release focuses on those two significant radionuclides.
- 3) Derived Concentration Standards (DCS): The sampling results from these three locations are compared to the DOE's guidelines for ingested water, which are presented in DOE-STD-1196-2022, "Derived Concentration Technical Standard." DCSs are shown on the following graphs to demonstrate that each creek water sample result is significantly below the DCSs.
- 4) Negative results in the data tables represent samples with zero radioactivity present, or where the instrument background slightly exceeds the instrument radioactivity count rate obtained for the sample.

In the fourth quarter of 2024, monthly samples were collected at WFFELBR, and semiannual samples were collected at WFBCBKG and WFBCTCB for analysis. Strontium-90 (Sr-90) was positively detected at WFBCTCB and WFFELBR this quarter. Sr-90 has been detected at these locations in the past and the concentration levels were 0.10% and 0.05% of the DCS, respectively.

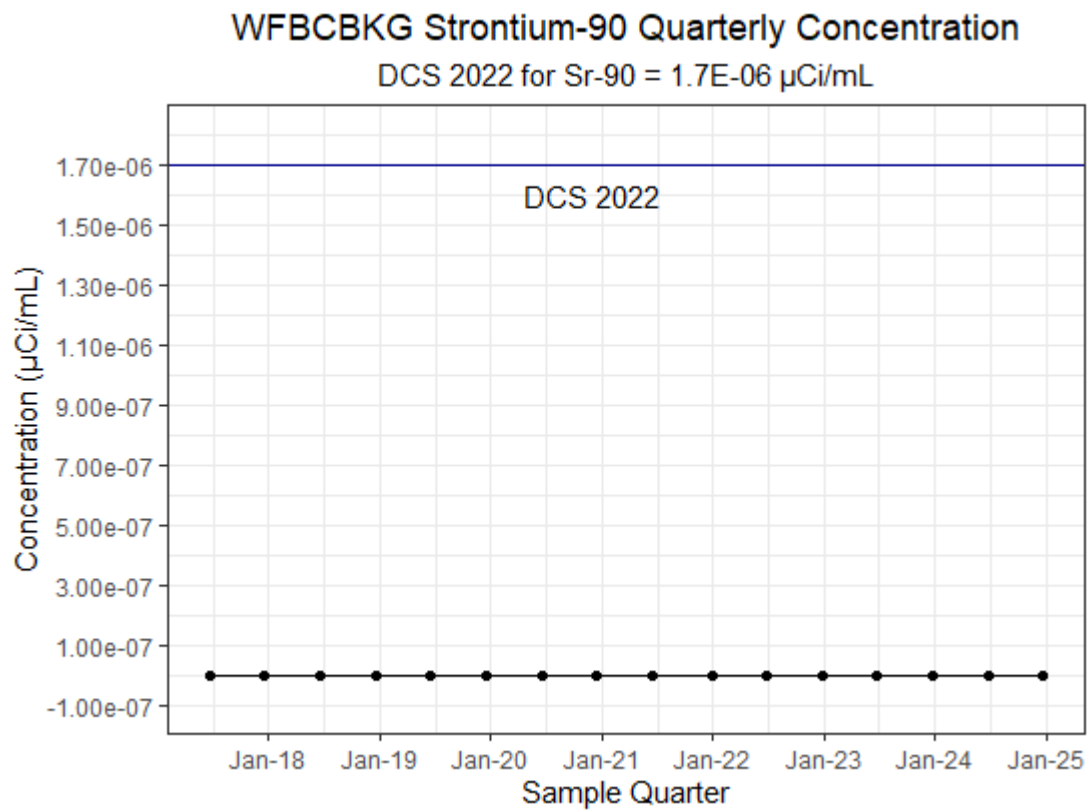
Off-Site Surface Water Monitoring Locations



1. WFBCBKG

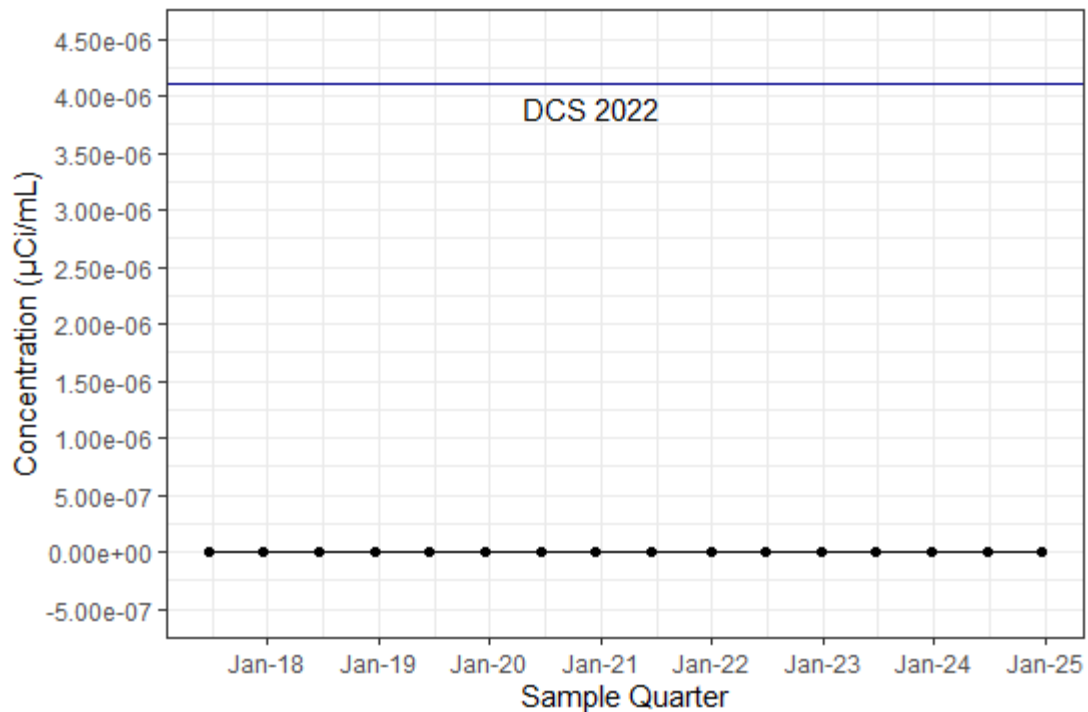
1.1 Strontium-90 (Sr-90)

Isotope	Location	Sample Date	Quarterly Result ($\mu\text{Ci/mL}$)	Quarterly Uncertainty ($\mu\text{Ci/mL}$)	DCS 2022 ($\mu\text{Ci/mL}$)	Concentration (%) of DCS
Strontium-90	WFBCBKG	6/20/2017	3.88E-10	9.42E-10	1.70E-06	0.02%
Strontium-90	WFBCBKG	12/19/2017	-5.16E-10	5.37E-10	1.70E-06	-0.03%
Strontium-90	WFBCBKG	6/19/2018	2.96E-10	1.06E-09	1.70E-06	0.02%
Strontium-90	WFBCBKG	12/18/2018	-1.53E-10	1.02E-09	1.70E-06	-0.01%
Strontium-90	WFBCBKG	6/18/2019	3.92E-10	6.52E-10	1.70E-06	0.02%
Strontium-90	WFBCBKG	12/17/2019	4.53E-10	8.70E-10	1.70E-06	0.03%
Strontium-90	WFBCBKG	6/16/2020	-3.18E-11	9.91E-10	1.70E-06	0.00%
Strontium-90	WFBCBKG	12/15/2020	7.49E-10	1.12E-09	1.70E-06	0.04%
Strontium-90	WFBCBKG	6/15/2021	2.37E-10	4.79E-10	1.70E-06	0.01%
Strontium-90	WFBCBKG	12/28/2021	3.03E-10	1.08E-09	1.70E-06	0.02%
Strontium-90	WFBCBKG	6/28/2022	-1.16E-10	1.00E-09	1.70E-06	-0.01%
Strontium-90	WFBCBKG	12/27/2022	-1.48E-10	7.96E-10	1.70E-06	-0.01%
Strontium-90	WFBCBKG	6/27/2023	3.95E-10	1.06E-09	1.70E-06	0.02%
Strontium-90	WFBCBKG	12/26/2023	8.06E-10	1.10E-09	1.70E-06	0.05%
Strontium-90	WFBCBKG	6/25/2024	-9.98E-10	7.68E-10	1.70E-06	-0.06%
Strontium-90	WFBCBKG	12/24/2024	1.45E-10	5.54E-10	1.70E-06	0.01%



1-2. Cesium-137 (Cs-137)

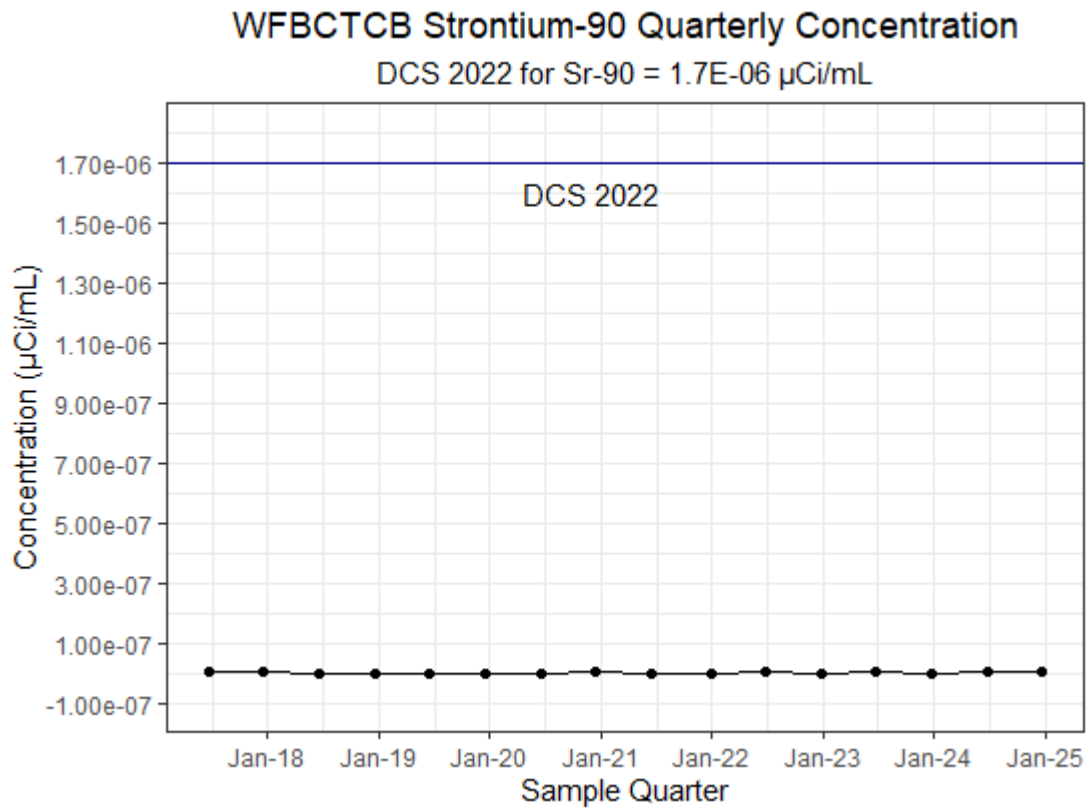
Isotope	Location	Sample Date	Quarterly Result ($\mu\text{Ci/mL}$)	Quarterly Uncertainty ($\mu\text{Ci/mL}$)	DCS 2022 ($\mu\text{Ci/mL}$)	Concentration (%) of DCS
Cesium-137	WFBCBKG	6/20/2017	2.00E-11	3.03E-09	4.10E-06	0.00%
Cesium-137	WFBCBKG	12/19/2017	-1.72E-09	2.32E-09	4.10E-06	-0.04%
Cesium-137	WFBCBKG	6/19/2018	1.30E-09	2.58E-09	4.10E-06	0.03%
Cesium-137	WFBCBKG	12/18/2018	0.00E+00	1.68E-09	4.10E-06	0.00%
Cesium-137	WFBCBKG	6/18/2019	-7.96E-10	2.72E-09	4.10E-06	-0.02%
Cesium-137	WFBCBKG	12/17/2019	1.64E-09	3.65E-09	4.10E-06	0.04%
Cesium-137	WFBCBKG	6/16/2020	2.52E-10	2.54E-09	4.10E-06	0.01%
Cesium-137	WFBCBKG	12/15/2020	-3.69E-10	1.92E-09	4.10E-06	-0.01%
Cesium-137	WFBCBKG	6/15/2021	-1.99E-09	2.11E-09	4.10E-06	-0.05%
Cesium-137	WFBCBKG	12/28/2021	6.83E-10	2.27E-09	4.10E-06	0.02%
Cesium-137	WFBCBKG	6/28/2022	-1.74E-09	2.91E-09	4.10E-06	-0.04%
Cesium-137	WFBCBKG	12/27/2022	3.70E-10	2.06E-09	4.10E-06	0.01%
Cesium-137	WFBCBKG	6/27/2023	1.51E-09	4.20E-09	4.10E-06	0.04%
Cesium-137	WFBCBKG	12/26/2023	-3.09E-10	2.44E-09	4.10E-06	-0.01%
Cesium-137	WFBCBKG	6/25/2024	1.90E-09	4.72E-09	4.10E-06	0.05%
Cesium-137	WFBCBKG	12/24/2024	-4.31E-10	1.83E-09	4.10E-06	-0.01%

WFBCBKG Cesium-137 Quarterly ConcentrationDCS 2022 for Cs-137 = 4.1E-06 $\mu\text{Ci/mL}$ 

2. WFBCTCB

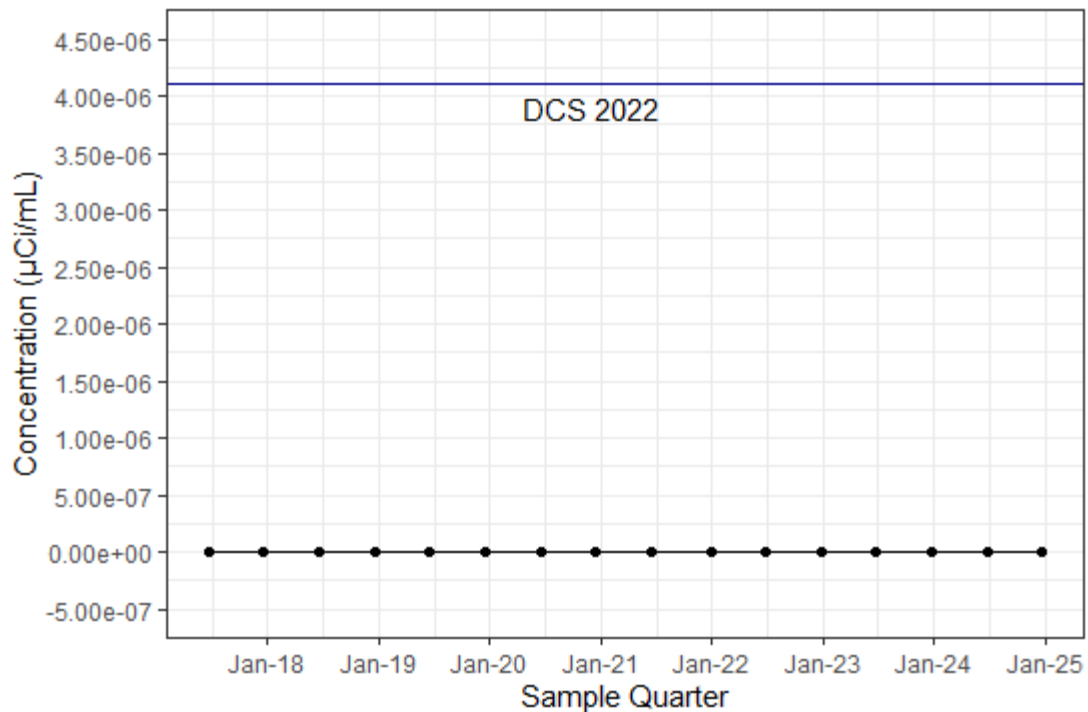
2.1 Strontium-90 (Sr-90)

Isotope	Location	Sample Date	Quarterly Result ($\mu\text{Ci/mL}$)	Quarterly Uncertainty ($\mu\text{Ci/mL}$)	DCS 2022 ($\mu\text{Ci/mL}$)	Concentration (%) of DCS
Strontium-90	WFBCTCB	6/20/2017	2.37E-09	1.02E-09	1.70E-06	0.14%
Strontium-90	WFBCTCB	12/19/2017	1.46E-09	9.44E-10	1.70E-06	0.09%
Strontium-90	WFBCTCB	6/19/2018	1.33E-09	1.14E-09	1.70E-06	0.08%
Strontium-90	WFBCTCB	12/18/2018	1.10E-09	1.08E-09	1.70E-06	0.06%
Strontium-90	WFBCTCB	6/18/2019	1.34E-09	1.18E-09	1.70E-06	0.08%
Strontium-90	WFBCTCB	12/17/2019	1.45E-10	8.83E-10	1.70E-06	0.01%
Strontium-90	WFBCTCB	6/16/2020	4.75E-10	6.35E-10	1.70E-06	0.03%
Strontium-90	WFBCTCB	12/15/2020	1.42E-09	1.23E-09	1.70E-06	0.08%
Strontium-90	WFBCTCB	6/15/2021	1.35E-09	8.13E-10	1.70E-06	0.08%
Strontium-90	WFBCTCB	12/28/2021	1.30E-09	1.16E-09	1.70E-06	0.08%
Strontium-90	WFBCTCB	6/28/2022	1.62E-09	1.21E-09	1.70E-06	0.10%
Strontium-90	WFBCTCB	12/27/2022	5.76E-10	7.52E-10	1.70E-06	0.03%
Strontium-90	WFBCTCB	6/27/2023	3.68E-09	1.21E-09	1.70E-06	0.22%
Strontium-90	WFBCTCB	12/26/2023	3.99E-10	1.10E-09	1.70E-06	0.02%
Strontium-90	WFBCTCB	6/25/2024	1.53E-09	1.14E-09	1.70E-06	0.09%
Strontium-90	WFBCTCB	12/24/2024	1.68E-09	9.28E-10	1.70E-06	0.10%



2-2. Cesium-137 (Cs-137)

Isotope	Location	Sample Date	Quarterly Result ($\mu\text{Ci/mL}$)	Quarterly Uncertainty ($\mu\text{Ci/mL}$)	DCS 2022 ($\mu\text{Ci/mL}$)	Concentration (%) of DCS
Cesium-137	WFBCTCB	6/20/2017	2.28E-09	2.93E-09	4.10E-06	0.06%
Cesium-137	WFBCTCB	12/19/2017	7.95E-10	1.97E-09	4.10E-06	0.02%
Cesium-137	WFBCTCB	6/19/2018	2.47E-09	2.72E-09	4.10E-06	0.06%
Cesium-137	WFBCTCB	12/18/2018	-1.41E-09	2.09E-09	4.10E-06	-0.03%
Cesium-137	WFBCTCB	6/18/2019	8.33E-10	2.38E-09	4.10E-06	0.02%
Cesium-137	WFBCTCB	12/17/2019	-2.46E-10	2.67E-09	4.10E-06	-0.01%
Cesium-137	WFBCTCB	6/16/2020	-1.20E-09	2.69E-09	4.10E-06	-0.03%
Cesium-137	WFBCTCB	12/15/2020	6.05E-10	2.66E-09	4.10E-06	0.01%
Cesium-137	WFBCTCB	6/15/2021	9.17E-10	2.44E-09	4.10E-06	0.02%
Cesium-137	WFBCTCB	12/28/2021	9.03E-10	2.10E-09	4.10E-06	0.02%
Cesium-137	WFBCTCB	6/28/2022	-4.73E-09	5.11E-09	4.10E-06	-0.12%
Cesium-137	WFBCTCB	12/27/2022	-2.36E-09	2.67E-09	4.10E-06	-0.06%
Cesium-137	WFBCTCB	6/27/2023	1.28E-10	1.49E-09	4.10E-06	0.00%
Cesium-137	WFBCTCB	12/26/2023	1.53E-09	2.76E-09	4.10E-06	0.04%
Cesium-137	WFBCTCB	6/25/2024	2.38E-09	4.61E-09	4.10E-06	0.06%
Cesium-137	WFBCTCB	12/24/2024	-5.92E-10	2.53E-09	4.10E-06	-0.01%

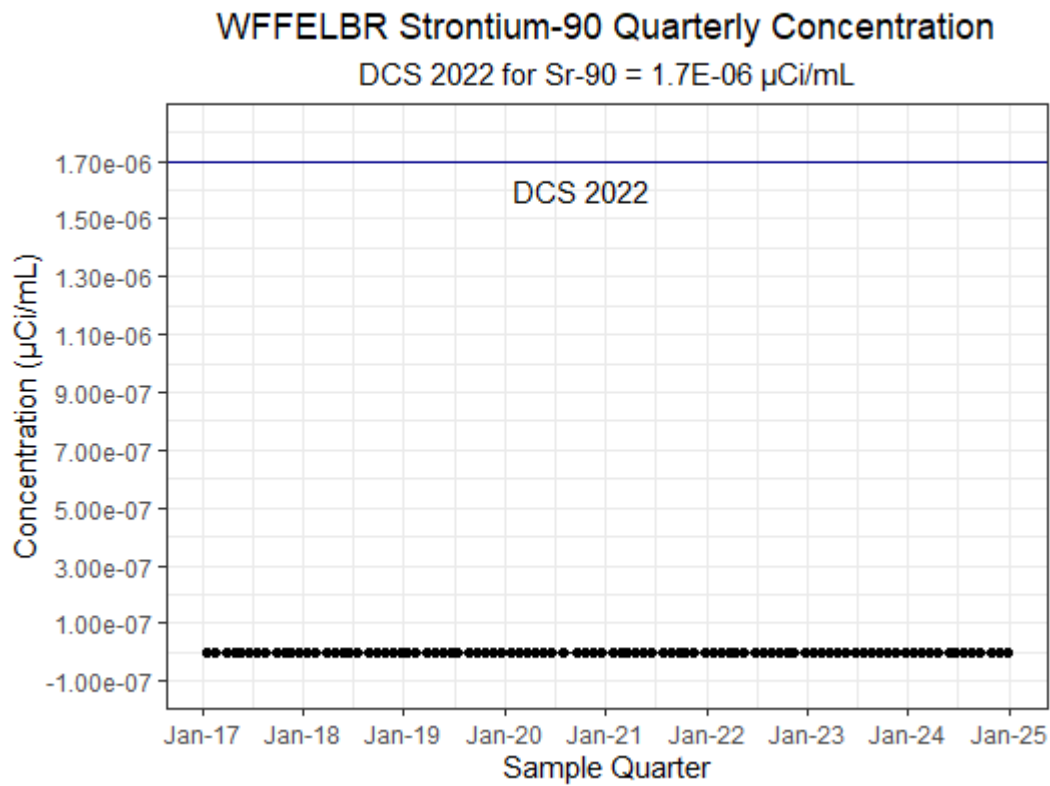
WFBCTCB Cesium-137 Quarterly ConcentrationDCS 2022 for Cs-137 = 4.1E-06 $\mu\text{Ci/mL}$ 

3. WFFELBR**3.1 Strontium-90 (Sr-90)**

Isotope	Location	Sample Date	Quarterly Result (μCi/mL)	Quarterly Uncertainty (μCi/mL)	DCS 2022 (μCi/mL)	Concentration (%) of DCS
Strontium-90	WFFELBR	1/17/2017	-3.79E-10	7.39E-10	1.70E-06	-0.02%
Strontium-90	WFFELBR	2/14/2017	1.92E-10	8.73E-10	1.70E-06	0.01%
Strontium-90	WFFELBR	3/28/2017	3.72E-10	8.57E-10	1.70E-06	0.02%
Strontium-90	WFFELBR	4/25/2017	3.78E-10	6.42E-10	1.70E-06	0.02%
Strontium-90	WFFELBR	5/23/2017	7.41E-10	9.83E-10	1.70E-06	0.04%
Strontium-90	WFFELBR	6/20/2017	3.85E-10	8.74E-10	1.70E-06	0.02%
Strontium-90	WFFELBR	7/18/2017	1.97E-10	8.52E-10	1.70E-06	0.01%
Strontium-90	WFFELBR	8/15/2017	-9.18E-11	6.43E-10	1.70E-06	-0.01%
Strontium-90	WFFELBR	9/26/2017	3.34E-10	8.76E-10	1.70E-06	0.02%
Strontium-90	WFFELBR	10/24/2017	7.34E-11	7.70E-10	1.70E-06	0.00%
Strontium-90	WFFELBR	11/21/2017	-6.73E-10	4.83E-10	1.70E-06	-0.04%
Strontium-90	WFFELBR	12/19/2017	1.13E-12	7.14E-10	1.70E-06	0.00%
Strontium-90	WFFELBR	1/16/2018	-2.28E-10	5.64E-10	1.70E-06	-0.01%
Strontium-90	WFFELBR	2/13/2018	1.33E-10	6.81E-10	1.70E-06	0.01%
Strontium-90	WFFELBR	3/27/2018	-4.09E-10	1.03E-09	1.70E-06	-0.02%
Strontium-90	WFFELBR	4/24/2018	4.23E-10	6.36E-10	1.70E-06	0.02%
Strontium-90	WFFELBR	5/22/2018	1.38E-09	1.14E-09	1.70E-06	0.08%
Strontium-90	WFFELBR	6/19/2018	2.60E-10	1.04E-09	1.70E-06	0.02%
Strontium-90	WFFELBR	7/17/2018	4.73E-10	1.03E-09	1.70E-06	0.03%
Strontium-90	WFFELBR	8/28/2018	-1.07E-10	6.84E-10	1.70E-06	-0.01%
Strontium-90	WFFELBR	9/25/2018	-2.45E-10	4.85E-10	1.70E-06	-0.01%
Strontium-90	WFFELBR	10/23/2018	-1.07E-10	1.03E-09	1.70E-06	-0.01%
Strontium-90	WFFELBR	11/20/2018	-7.81E-10	7.47E-10	1.70E-06	-0.05%
Strontium-90	WFFELBR	12/18/2018	7.74E-10	8.98E-10	1.70E-06	0.05%
Strontium-90	WFFELBR	1/15/2019	-6.15E-10	5.14E-10	1.70E-06	-0.04%
Strontium-90	WFFELBR	2/12/2019	-1.49E-10	8.89E-10	1.70E-06	-0.01%
Strontium-90	WFFELBR	3/26/2019	-1.04E-09	8.95E-10	1.70E-06	-0.06%
Strontium-90	WFFELBR	4/23/2019	5.40E-10	5.81E-10	1.70E-06	0.03%
Strontium-90	WFFELBR	5/21/2019	-5.30E-11	6.29E-10	1.70E-06	0.00%
Strontium-90	WFFELBR	6/18/2019	6.00E-10	7.34E-10	1.70E-06	0.04%
Strontium-90	WFFELBR	7/16/2019	-5.33E-10	7.42E-10	1.70E-06	-0.03%
Strontium-90	WFFELBR	8/27/2019	9.51E-10	8.82E-10	1.70E-06	0.06%
Strontium-90	WFFELBR	9/24/2019	3.01E-12	1.04E-09	1.70E-06	0.00%
Strontium-90	WFFELBR	10/22/2019	4.16E-10	1.03E-09	1.70E-06	0.02%
Strontium-90	WFFELBR	11/19/2019	6.80E-11	8.85E-10	1.70E-06	0.00%
Strontium-90	WFFELBR	12/17/2019	3.56E-10	7.86E-10	1.70E-06	0.02%
Strontium-90	WFFELBR	1/28/2020	-3.11E-10	6.79E-10	1.70E-06	-0.02%
Strontium-90	WFFELBR	2/25/2020	1.51E-09	1.12E-09	1.70E-06	0.09%
Strontium-90	WFFELBR	3/24/2020	7.04E-12	7.24E-10	1.70E-06	0.00%
Strontium-90	WFFELBR	4/21/2020	6.64E-10	8.83E-10	1.70E-06	0.04%

Isotope	Location	Sample Date	Quarterly Result (μCi/mL)	Quarterly Uncertainty (μCi/mL)	DCS 2022 (μCi/mL)	Concentration (%) of DCS
Strontium-90	WFFELBR	5/19/2020	-7.65E-10	8.67E-10	1.70E-06	-0.05%
Strontium-90	WFFELBR	6/16/2020	4.50E-10	9.00E-10	1.70E-06	0.03%
Strontium-90	WFFELBR	7/28/2020	1.18E-10	9.70E-10	1.70E-06	0.01%
Strontium-90	WFFELBR	9/22/2020	-1.01E-09	7.05E-10	1.70E-06	-0.06%
Strontium-90	WFFELBR	10/20/2020	7.50E-10	1.14E-09	1.70E-06	0.04%
Strontium-90	WFFELBR	11/17/2020	-1.86E-10	1.01E-09	1.70E-06	-0.01%
Strontium-90	WFFELBR	12/15/2020	3.63E-10	1.08E-09	1.70E-06	0.02%
Strontium-90	WFFELBR	1/26/2021	5.52E-10	8.66E-10	1.70E-06	0.03%
Strontium-90	WFFELBR	2/23/2021	9.10E-10	1.10E-09	1.70E-06	0.05%
Strontium-90	WFFELBR	3/23/2021	3.84E-10	1.11E-09	1.70E-06	0.02%
Strontium-90	WFFELBR	4/20/2021	8.06E-10	1.01E-09	1.70E-06	0.05%
Strontium-90	WFFELBR	5/18/2021	6.36E-10	1.12E-09	1.70E-06	0.04%
Strontium-90	WFFELBR	6/15/2021	3.93E-10	9.22E-10	1.70E-06	0.02%
Strontium-90	WFFELBR	7/27/2021	1.04E-09	1.02E-09	1.70E-06	0.06%
Strontium-90	WFFELBR	8/24/2021	5.17E-10	1.08E-09	1.70E-06	0.03%
Strontium-90	WFFELBR	9/21/2021	1.98E-10	9.47E-10	1.70E-06	0.01%
Strontium-90	WFFELBR	10/19/2021	9.93E-10	8.32E-10	1.70E-06	0.06%
Strontium-90	WFFELBR	11/16/2021	1.28E-09	1.12E-09	1.70E-06	0.08%
Strontium-90	WFFELBR	12/28/2021	3.90E-10	1.05E-09	1.70E-06	0.02%
Strontium-90	WFFELBR	1/25/2022	-4.17E-10	6.89E-10	1.70E-06	-0.02%
Strontium-90	WFFELBR	2/22/2022	7.88E-10	1.15E-09	1.70E-06	0.05%
Strontium-90	WFFELBR	3/22/2022	9.00E-10	1.15E-09	1.70E-06	0.05%
Strontium-90	WFFELBR	4/19/2022	4.01E-11	1.10E-09	1.70E-06	0.00%
Strontium-90	WFFELBR	5/17/2022	4.43E-10	8.46E-10	1.70E-06	0.03%
Strontium-90	WFFELBR	6/28/2022	4.05E-10	1.06E-09	1.70E-06	0.02%
Strontium-90	WFFELBR	7/26/2022	9.26E-10	7.02E-10	1.70E-06	0.05%
Strontium-90	WFFELBR	8/23/2022	5.47E-10	7.55E-10	1.70E-06	0.03%
Strontium-90	WFFELBR	9/20/2022	-3.85E-10	9.92E-10	1.70E-06	-0.02%
Strontium-90	WFFELBR	10/18/2022	2.08E-09	2.58E-09	1.70E-06	0.12%
Strontium-90	WFFELBR	11/15/2022	-4.35E-10	1.07E-09	1.70E-06	-0.03%
Strontium-90	WFFELBR	12/27/2022	1.18E-09	8.94E-10	1.70E-06	0.07%
Strontium-90	WFFELBR	1/24/2023	2.86E-10	1.03E-09	1.70E-06	0.02%
Strontium-90	WFFELBR	2/21/2023	-6.20E-11	3.73E-10	1.70E-06	0.00%
Strontium-90	WFFELBR	3/21/2023	2.06E-10	5.49E-10	1.70E-06	0.01%
Strontium-90	WFFELBR	4/18/2023	-7.96E-11	3.89E-10	1.70E-06	0.00%
Strontium-90	WFFELBR	5/16/2023	6.68E-10	1.11E-09	1.70E-06	0.04%
Strontium-90	WFFELBR	6/27/2023	7.61E-10	9.27E-10	1.70E-06	0.04%
Strontium-90	WFFELBR	7/25/2023	8.19E-10	8.11E-10	1.70E-06	0.05%
Strontium-90	WFFELBR	8/22/2023	2.23E-10	9.72E-10	1.70E-06	0.01%
Strontium-90	WFFELBR	9/19/2023	3.28E-10	6.28E-10	1.70E-06	0.02%
Strontium-90	WFFELBR	10/17/2023	-4.12E-10	8.87E-10	1.70E-06	-0.02%
Strontium-90	WFFELBR	11/14/2023	7.95E-10	1.06E-09	1.70E-06	0.05%

Isotope	Location	Sample Date	Quarterly Result ($\mu\text{Ci/mL}$)	Quarterly Uncertainty ($\mu\text{Ci/mL}$)	DCS 2022 ($\mu\text{Ci/mL}$)	Concentration (%) of DCS
Strontium-90	WFFELBR	12/26/2023	6.18E-10	1.14E-09	1.70E-06	0.04%
Strontium-90	WFFELBR	1/23/2024	1.64E-10	7.93E-10	1.70E-06	0.01%
Strontium-90	WFFELBR	2/20/2024	5.77E-10	7.47E-10	1.70E-06	0.03%
Strontium-90	WFFELBR	3/19/2024	4.86E-10	8.15E-10	1.70E-06	0.03%
Strontium-90	WFFELBR	4/16/2024	7.85E-10	1.10E-09	1.70E-06	0.05%
Strontium-90	WFFELBR	5/28/2024	4.70E-10	9.77E-10	1.70E-06	0.03%
Strontium-90	WFFELBR	6/25/2024	-3.50E-10	5.92E-10	1.70E-06	-0.02%
Strontium-90	WFFELBR	7/23/2024	-2.39E-10	7.90E-10	1.70E-06	-0.01%
Strontium-90	WFFELBR	8/20/2024	-4.62E-10	7.77E-10	1.70E-06	-0.03%
Strontium-90	WFFELBR	9/17/2024	4.18E-10	8.57E-10	1.70E-06	0.02%
Strontium-90	WFFELBR	10/29/2024	1.88E-10	3.08E-10	1.70E-06	0.01%
Strontium-90	WFFELBR	11/26/2024	8.65E-10	5.11E-10	1.70E-06	0.05%
Strontium-90	WFFELBR	12/24/2024	-1.23E-10	3.47E-10	1.70E-06	-0.01%



3.2 Cesium-137 (Cs-137)

Isotope	Location	Sample Date	Quarterly Result (μCi/mL)	Quarterly Uncertainty (μCi/mL)	DCS 2022 (μCi/mL)	Concentration (%) of DCS
Cesium-137	WFFELBR	1/17/2017	-1.52E-09	2.76E-09	4.10E-06	-0.04%
Cesium-137	WFFELBR	2/14/2017	-1.49E-09	3.37E-09	4.10E-06	-0.04%
Cesium-137	WFFELBR	3/28/2017	-4.70E-10	2.36E-09	4.10E-06	-0.01%
Cesium-137	WFFELBR	4/25/2017	2.93E-10	1.64E-09	4.10E-06	0.01%
Cesium-137	WFFELBR	5/23/2017	-4.87E-11	2.07E-09	4.10E-06	0.00%
Cesium-137	WFFELBR	6/20/2017	-2.24E-12	3.01E-09	4.10E-06	0.00%
Cesium-137	WFFELBR	7/18/2017	5.00E-10	2.43E-09	4.10E-06	0.01%
Cesium-137	WFFELBR	8/15/2017	-4.77E-10	2.88E-09	4.10E-06	-0.01%
Cesium-137	WFFELBR	9/26/2017	-8.17E-10	2.50E-09	4.10E-06	-0.02%
Cesium-137	WFFELBR	10/24/2017	-9.28E-12	2.55E-09	4.10E-06	0.00%
Cesium-137	WFFELBR	11/21/2017	1.84E-09	2.15E-09	4.10E-06	0.04%
Cesium-137	WFFELBR	12/19/2017	9.18E-10	1.66E-09	4.10E-06	0.02%
Cesium-137	WFFELBR	1/16/2018	8.40E-11	2.18E-09	4.10E-06	0.00%
Cesium-137	WFFELBR	2/13/2018	3.80E-11	1.91E-09	4.10E-06	0.00%
Cesium-137	WFFELBR	3/27/2018	5.80E-11	6.01E-09	4.10E-06	0.00%
Cesium-137	WFFELBR	4/24/2018	3.30E-09	1.98E-09	4.10E-06	0.08%
Cesium-137	WFFELBR	5/22/2018	1.09E-09	2.56E-09	4.10E-06	0.03%
Cesium-137	WFFELBR	6/19/2018	4.60E-10	2.08E-09	4.10E-06	0.01%
Cesium-137	WFFELBR	7/17/2018	8.15E-10	2.53E-09	4.10E-06	0.02%
Cesium-137	WFFELBR	8/28/2018	1.01E-09	1.77E-09	4.10E-06	0.02%
Cesium-137	WFFELBR	9/25/2018	-3.33E-10	2.05E-09	4.10E-06	-0.01%
Cesium-137	WFFELBR	10/23/2018	6.68E-10	2.13E-09	4.10E-06	0.02%
Cesium-137	WFFELBR	11/20/2018	2.10E-10	2.14E-09	4.10E-06	0.01%
Cesium-137	WFFELBR	12/18/2018	1.84E-09	2.93E-09	4.10E-06	0.04%
Cesium-137	WFFELBR	1/15/2019	8.92E-10	2.04E-09	4.10E-06	0.02%
Cesium-137	WFFELBR	2/12/2019	-1.30E-09	2.50E-09	4.10E-06	-0.03%
Cesium-137	WFFELBR	3/26/2019	2.60E-09	2.51E-09	4.10E-06	0.06%
Cesium-137	WFFELBR	4/23/2019	2.61E-09	3.73E-09	4.10E-06	0.06%
Cesium-137	WFFELBR	5/21/2019	6.74E-10	1.72E-09	4.10E-06	0.02%
Cesium-137	WFFELBR	6/18/2019	1.91E-09	3.18E-09	4.10E-06	0.05%
Cesium-137	WFFELBR	7/16/2019	1.21E-09	2.55E-09	4.10E-06	0.03%
Cesium-137	WFFELBR	8/27/2019	3.47E-09	2.44E-09	4.10E-06	0.08%
Cesium-137	WFFELBR	9/24/2019	3.50E-10	3.50E-09	4.10E-06	0.01%
Cesium-137	WFFELBR	10/22/2019	6.60E-10	2.34E-09	4.10E-06	0.02%
Cesium-137	WFFELBR	11/19/2019	1.28E-09	3.54E-09	4.10E-06	0.03%
Cesium-137	WFFELBR	12/17/2019	-1.60E-09	2.32E-09	4.10E-06	-0.04%
Cesium-137	WFFELBR	1/28/2020	-8.14E-11	2.11E-09	4.10E-06	0.00%
Cesium-137	WFFELBR	2/25/2020	-3.30E-09	2.21E-09	4.10E-06	-0.08%
Cesium-137	WFFELBR	3/24/2020	6.85E-10	2.15E-09	4.10E-06	0.02%
Cesium-137	WFFELBR	4/21/2020	1.36E-09	1.97E-09	4.10E-06	0.03%
Cesium-137	WFFELBR	5/19/2020	-1.68E-09	2.77E-09	4.10E-06	-0.04%
Cesium-137	WFFELBR	6/16/2020	-1.39E-09	2.47E-09	4.10E-06	-0.03%
Cesium-137	WFFELBR	7/28/2020	2.95E-10	2.19E-09	4.10E-06	0.01%
Cesium-137	WFFELBR	8/25/2020	4.26E-09	4.25E-09	4.10E-06	0.10%
Cesium-137	WFFELBR	9/22/2020	1.94E-09	1.96E-09	4.10E-06	0.05%
Cesium-137	WFFELBR	10/20/2020	-3.78E-09	3.35E-09	4.10E-06	-0.09%

Isotope	Location	Sample Date	Quarterly Result (μCi/mL)	Quarterly Uncertainty (μCi/mL)	DCS 2022 (μCi/mL)	Concentration (%) of DCS
Cesium-137	WFFELBR	11/17/2020	1.13E-09	2.23E-09	4.10E-06	0.03%
Cesium-137	WFFELBR	12/15/2020	2.64E-09	2.27E-09	4.10E-06	0.06%
Cesium-137	WFFELBR	1/26/2021	4.46E-10	2.01E-09	4.10E-06	0.01%
Cesium-137	WFFELBR	2/23/2021	8.35E-10	2.14E-09	4.10E-06	0.02%
Cesium-137	WFFELBR	3/23/2021	0.00E+00	6.76E-09	4.10E-06	0.00%
Cesium-137	WFFELBR	4/20/2021	2.37E-09	3.41E-09	4.10E-06	0.06%
Cesium-137	WFFELBR	5/18/2021	1.81E-10	3.14E-09	4.10E-06	0.00%
Cesium-137	WFFELBR	6/15/2021	1.04E-10	2.05E-09	4.10E-06	0.00%
Cesium-137	WFFELBR	7/27/2021	-5.29E-10	2.46E-09	4.10E-06	-0.01%
Cesium-137	WFFELBR	8/24/2021	-2.11E-09	2.82E-09	4.10E-06	-0.05%
Cesium-137	WFFELBR	9/21/2021	-3.32E-10	1.28E-09	4.10E-06	-0.01%
Cesium-137	WFFELBR	10/19/2021	1.48E-09	2.18E-09	4.10E-06	0.04%
Cesium-137	WFFELBR	11/16/2021	1.45E-09	4.15E-09	4.10E-06	0.04%
Cesium-137	WFFELBR	12/28/2021	-1.84E-09	2.22E-09	4.10E-06	-0.04%
Cesium-137	WFFELBR	1/25/2022	-1.58E-09	3.21E-09	4.10E-06	-0.04%
Cesium-137	WFFELBR	2/22/2022	6.82E-10	2.46E-09	4.10E-06	0.02%
Cesium-137	WFFELBR	3/22/2022	-3.06E-09	2.57E-09	4.10E-06	-0.07%
Cesium-137	WFFELBR	4/19/2022	2.02E-10	2.35E-09	4.10E-06	0.00%
Cesium-137	WFFELBR	5/17/2022	-6.52E-10	1.79E-09	4.10E-06	-0.02%
Cesium-137	WFFELBR	6/28/2022	8.86E-10	1.84E-09	4.10E-06	0.02%
Cesium-137	WFFELBR	7/26/2022	4.63E-10	2.65E-09	4.10E-06	0.01%
Cesium-137	WFFELBR	8/23/2022	-1.32E-09	2.86E-09	4.10E-06	-0.03%
Cesium-137	WFFELBR	9/20/2022	4.46E-09	6.41E-09	4.10E-06	0.11%
Cesium-137	WFFELBR	10/18/2022	5.30E-10	1.68E-09	4.10E-06	0.01%
Cesium-137	WFFELBR	11/15/2022	1.11E-09	1.94E-09	4.10E-06	0.03%
Cesium-137	WFFELBR	12/27/2022	1.19E-09	1.88E-09	4.10E-06	0.03%
Cesium-137	WFFELBR	1/24/2023	1.99E-09	2.01E-09	4.10E-06	0.05%
Cesium-137	WFFELBR	2/21/2023	7.15E-10	3.03E-09	4.10E-06	0.02%
Cesium-137	WFFELBR	3/21/2023	-1.03E-10	2.24E-09	4.10E-06	0.00%
Cesium-137	WFFELBR	4/18/2023	9.47E-10	2.75E-09	4.10E-06	0.02%
Cesium-137	WFFELBR	5/16/2023	2.58E-13	2.08E-12	4.10E-06	0.00%
Cesium-137	WFFELBR	6/27/2023	1.82E-09	3.74E-09	4.10E-06	0.04%
Cesium-137	WFFELBR	7/25/2023	6.17E-10	2.39E-09	4.10E-06	0.02%
Cesium-137	WFFELBR	8/22/2023	-1.03E-09	1.86E-09	4.10E-06	-0.03%
Cesium-137	WFFELBR	9/19/2023	1.93E-09	3.30E-09	4.10E-06	0.05%
Cesium-137	WFFELBR	10/17/2023	-1.26E-09	3.04E-09	4.10E-06	-0.03%
Cesium-137	WFFELBR	11/14/2023	1.41E-09	2.64E-09	4.10E-06	0.03%
Cesium-137	WFFELBR	12/26/2023	-9.58E-10	2.49E-09	4.10E-06	-0.02%
Cesium-137	WFFELBR	1/23/2024	2.18E-09	1.67E-09	4.10E-06	0.05%
Cesium-137	WFFELBR	2/20/2024	4.26E-09	2.62E-09	4.10E-06	0.10%
Cesium-137	WFFELBR	3/19/2024	-7.60E-10	2.46E-09	4.10E-06	-0.02%
Cesium-137	WFFELBR	4/16/2024	2.54E-09	5.25E-09	4.10E-06	0.06%
Cesium-137	WFFELBR	5/28/2024	-2.11E-09	3.30E-09	4.10E-06	-0.05%
Cesium-137	WFFELBR	6/25/2024	1.09E-09	3.52E-09	4.10E-06	0.03%
Cesium-137	WFFELBR	7/23/2024	8.39E-10	3.02E-09	4.10E-06	0.02%
Cesium-137	WFFELBR	8/20/2024	-1.72E-10	2.89E-09	4.10E-06	0.00%
Cesium-137	WFFELBR	9/17/2024	-1.14E-09	1.87E-09	4.10E-06	-0.03%

Isotope	Location	Sample Date	Quarterly Result ($\mu\text{Ci/mL}$)	Quarterly Uncertainty ($\mu\text{Ci/mL}$)	DCS 2022 ($\mu\text{Ci/mL}$)	Concentration (%) of DCS
Cesium-137	WFFELBR	10/30/2024	2.75E-09	6.51E-09	4.10E-06	0.07%
Cesium-137	WFFELBR	11/26/2024	8.94E-10	2.95E-09	4.10E-06	0.02%
Cesium-137	WFFELBR	12/24/2024	-2.12E-09	2.18E-09	4.10E-06	-0.05%

