



CECIL A. FLETCHER II
General Manager (Acting)

**Nuclear Regulatory Affairs, Policy &
Emergency Preparedness**

4800 Concord Rd.
York, SC 29745

704-382-4534
Cecil.Fletcher@duke-energy.com

Serial: RA-23-0047
April 26, 2023

10 CFR 50.4

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, DC 20555-0001

Brunswick Steam Electric Plant, Unit Nos. 1 and 2
Renewed Facility Operating License Nos. DPR-71 and DPR-62
Docket Nos. 50-325 and 50-324

Catawba Nuclear Station, Unit Nos. 1 and 2
Renewed Facility Operating License Nos. NPF-35 and NPF-52
Docket Nos. 50-413 and 50-414

Shearon Harris Nuclear Power Plant, Unit 1
Renewed Facility Operating License No. NPF-63
Docket No. 50-400

McGuire Nuclear Station, Unit Nos. 1 and 2
Renewed Facility Operating License Nos. NPF-9 and NPF-17
Docket Nos. 50-369 and 50-370

Oconee Nuclear Station, Unit Nos. 1, 2 and 3
Renewed Facility Operating License Nos. DPR-38, DPR-47 and DPR-55
Docket Nos. 50-269, 50-270 and 50-287

H. B. Robinson Steam Electric Plant, Unit 2
Renewed Facility Operating License No. DPR-23
Docket No. 50-261

SUBJECT: Annual Radiological Environmental Operating Report - 2022

Ladies and Gentlemen:

Duke Energy Carolinas, LLC and Duke Energy Progress, LLC (collectively referred to as Duke Energy), in accordance with Technical Specification (TS) 5.6.2 for Brunswick Steam Electric Plant Units 1 and 2 (BNP), TS 5.6.2 and Selected Licensing Commitment (SLC) 16.11-16 for Catawba Nuclear Station Units 1 and 2 (CNS), TS 6.9.1.3 for Shearon Harris Nuclear Power Plant Unit 1 (HNP), TS 5.6.2 and SLC 16.11.16 for McGuire Nuclear Station Units 1 and 2 (MNS), TS 5.6.2 and SLC 16.11.10 for Oconee Nuclear Station Units 1, 2, and 3 (ONS), and TS 5.6.2 for H. B. Robinson Steam Electric Plant Unit 2 (RNP), is submitting the Annual Radiological Environmental Operating Reports (AREORs) for the period from January 1, 2022, through December 31, 2022. The AREORs are provided in Enclosures 1 through 6.

No regulatory commitments are contained in this submittal.

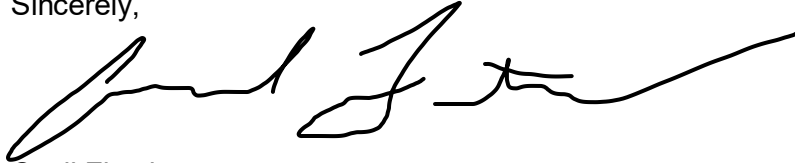
U.S. Nuclear Regulatory Commission

RA-23-0047

Page 2

Please refer any questions concerning this letter and its enclosures to Ryan Treadway, Director, Nuclear Fleet Licensing, at (980) 373-5873..

Sincerely,

A handwritten signature in black ink, appearing to read 'Cecil Fletcher', with a long horizontal flourish extending to the right.

Cecil Fletcher

General Manager (Acting), Nuclear Regulatory Affairs, Policy & Emergency Preparedness

Enclosures:

1. [BNP Annual Radiological Environmental Operating Report](#)
2. [CNS Annual Radiological Environmental Operating Report](#)
3. [HNP Annual Radiological Environmental Operating Report](#)
4. [MNS Annual Radiological Environmental Operating Report](#)
5. [ONS Annual Radiological Environmental Operating Report](#)
6. [RNP Annual Radiological Environmental Operating Report](#)

cc: (all Enclosures unless specified)

L. Dudes, USNRC, Region II Regional Administrator
N. Jordan, USNRC NRR Project Manager for BNP
S. Williams, USNRC NRR Project Manager for CNS/ONS
M. Mahoney, USNRC NRR Project Manager for HNP/RNP
J. Klos, USNRC NRR Project Manager for MNS
G. Smith, USNRC Senior Resident Inspector for BNP
J. Austin, USNRC Senior Resident Inspector for CNS
P. Boguszewski, USNRC Senior Resident Inspector for HNP
C. Safouri, USNRC Senior Resident Inspector for MNS
J. Nadel, USNRC Senior Resident Inspector for ONS
J. Zeiler, USNRC Senior Resident Inspector for RNP

Enclosure 1

General Counsel to Chair of NC Utilities Commission (swatson@ncuc.net)

Enclosure 6

SC Attorney General (HKirkland@scag.gov)

Enclosure 1, 3, and 4

D. Crowley (david.crowley@dhhs.nc.gov), NC DHHS, Radiation Protection Section
P. D. Cox (patrick.cox@dhhs.nc.gov), NC DHHS, Environmental Program

Enclosures 2, 5, and 6

S. Jackson (Jacksosb@dhec.sc.gov), SC DHEC, Division of Analytical and Radiological Environmental Services
R. Brewer (brewerre@dhec.sc.gov), SC DHEC, Division of Analytical and Radiological Environmental Services
L. Berresford (berresjl@dhec.sc.gov), SC DHEC, Site Assessment, Remediation, and Revitalization Division, State Voluntary Cleanup Program
L. Garner (garnerld@dhec.sc.gov), SC DHEC, Division of Waste Management, Radioactive & Infectious Waste Management
A. Nair (naira@dhec.sc.gov), SC DHEC, Division of Environmental Response

Enclosure 1
RA-23-0047

ENCLOSURE 1: [BNP Annual Radiological Environmental Operating Report](#)



ANNUAL RADIOLOGICAL ENVIRONMENTAL OPERATING REPORT

**DUKE ENERGY PROGRESS, LLC
BRUNSWICK STEAM ELECTRIC PLANT**

2022



TABLE OF CONTENTS

1.0 Executive Summary	1-1
2.0 Introduction	2-1
2.1 Site Description and Sample Locations	2-1
2.2 Scope and Requirements of the REMP	2-1
2.3 Statistical and Computational Methodology	2-2
2.3.1 Estimation of the Mean Value	2-2
2.3.2 Lower Limit of Detection and Minimum Detectable Activity	2-3
2.3.3 Trend Identification.	2-3
3.0 Interpretation of Results	3-1
3.1 Airborne Radioiodine and Particulates	3-2
3.2 Surface Water	3-6
3.3 Ground Water	3-8
3.4 Milk	3-10
3.5 Broadleaf Vegetation.	3-11
3.6 Fish and Invertebrates	3-13
3.7 Shoreline Sediment	3-14
3.8 Direct Gamma Radiation	3-16
3.8.1 Environmental TLD	3-16
3.8.2 ISFSI	3-17
3.9 Land Use Census	3-21
4.0 Quality Assurance	4-1
4.1 Sample Collection	4-1
4.2 Sample Analysis	4-1
4.3 Dosimetry Analysis	4-1
4.4 Laboratory Equipment Quality Assurance	4-1
4.4.1 Daily Quality Control	4-1
4.4.2 Calibration Verification	4-1
4.4.3 Batch Processing	4-1
4.5 Duke Energy Interlaboratory Comparison Program	4-2
4.5.1 Eckert & Ziegler Analytics Cross Check Program	4-2
4.6 State of North Carolina Intercomparison Program	4-2
4.7 TLD Intercomparison Program	4-2

APPENDICES

Appendix A: Environmental Sampling and Analysis Procedures	A-1
I. Change of Sampling Procedures	A-2
II. Description of Analysis Procedures	A-2
III. Change of Analysis Procedures	A-3
Appendix B: Radiological Environmental Monitoring Program - Summary of Results	B-1
Air Particulate	B-2
Air Radioiodine.	B-2
Broadleaf Vegetation.	B-2
Fish and Invertebrates	B-2
Shoreline Sediment	B-2
Surface Water	B-3
Ground Water	B-3
Direct Gamma Radiation (TLD)	B-3
Direct Gamma Radiation (TLD) ISFSI	B-3
Footnotes to Appendix B.	B-4

Appendix C: Sampling Deviations & Unavailable Analyses	C-1
C.1 Sampling Deviations	C-2
C.2 Unavailable Analyses	C-3
Appendix D: Analytical Deviations	D-1
Appendix E: Radiological Environmental Monitoring Program Results 2021	E-1
Appendix F: Errata to Previous Reports	F-1

LIST OF FIGURES

2.1-1	BSEP Environmental Sample Locations - One mile radius.	2-4
2.1-2	BSEP Environmental Sample Locations (Ground Water Only)-One mile radius	2-5
2.1-3	BSEP Environmental Sample Locations - Ten mile radius.	2-6
2.1-4	BSEP Environmental Sample Locations – Twenty-Five mile radius.	2-7
3.1	Concentration of Gross Beta in Air Particulate	3-3
3.2	Concentration of Tritium in Surface Water	3-6
3.5	Concentration of Cs-137 in Broadleaf Vegetation	3-11
3.7	Concentration of Cs-137 in Shoreline Sediment.	3-14
3.8	Direct Gamma Radiation (TLD) Results	3-18
3.9	Brunswick Nuclear Plant 2022 Land Use Census Map	3-24

LIST OF TABLES

2.1-A	Radiological Monitoring Program Sampling Locations	2-8
2.1-B	Radiological Monitoring Program Sampling Locations (TLD Sites)	2-10
2.2-A	Reporting Levels for Radioactivity Concentrations in Environmental Samples	2-11
2.2-B	REMP Analysis Frequency	2-11
2.2-C	Detection Capabilities for the <i>A PRIORI</i> Lower Limit of Detection	2-12
3.1-A	Mean Concentration of Gross Beta in Air Particulate	3-4
3.1-B	Mean Concentration of Air Radioiodine (I-131)	3-5
3.2	Mean Concentration of Tritium in Surface Water	3-7
3.3	Mean Concentration of Tritium in Ground Water	3-9
3.5	Mean Concentration of Radionuclides in Broadleaf Vegetation (pCi/kg)	3-12
3.7	Mean Concentration of Radionuclides in Shoreline Sediment	3-15
3.8-A	Direct Gamma Radiation (TLD) Results	3-18
3.8-B	BSEP TLD Results (1972-1994)	3-19
3.8-C	BSEP TLD Results (1995-2022)	3-20
3.8-D	ISFSI TLD Dose	3-20
3.9-A	Land Use Census Comparison (2021-2022).	3-22
3.9-B	BSEP Garden Census (2022)	3-23
4.0-A	Eckert & Ziegler Analytics Cross Check Program	4-3
4.0-B	2022 Environmental Dosimeter Cross-Check Results	4-5

LIST OF ACRONYMS USED IN THIS TEXT *(in alphabetical order)*

A	Annually
AP	Air Particulate
AR	Air Radioiodine = Air Cartridge
AREOR	Annual Radiological Environmental Operating Report
BO	Benthic Organisms
BSEP	Brunswick Steam Electric Plant
C	Control
CM	Community
CR	Condition Report (analogous to Nuclear Condition Report (NCR))
EZA	Eckert & Ziegler Analytics, Inc.
GEL	General Engineering Laboratories, LLC.
GPS	Global Positioning System
GW	Ground water
I	Indicator
IR	Inner Ring - TLDs
ISFSI	Independent Spent Fuel Storage Installation
LLD	Lower Limit of Detection
LUC	Land Use Census
M	Monthly
MAPEP	Department of Energy Mixed Analyte Performance Evaluation Program
MDA	Minimum Detectable Activity
mrem	Millirem
mR/Std Qtr	milliroentgen per standard quarter
MSL	Mean sea level
NIST	National Institute of Standards and Technology
NCR	Nuclear Condition Report (analogous to Condition Report (CR))
NRC	Nuclear Regulatory Commission
OD	Ocean discharge
ODCM	Offsite Dose Calculation Manual
OR	Outer Ring - TLDs
pCi/kg	picocurie per kilogram
pCi/l	picocurie per liter
pCi/m ³	picocurie per cubic meter
PMAC	Projected Maximum Annual Concentration
Q	Quarterly
REMP	Radiological Environmental Monitoring Program
SA	Semiannually
SB	Site Boundary
SDSP	Storm Drain Stabilization Pond
SH	Shellfish
SI	Special Interest - TLDs
SW	Surface Water
TLD	Thermoluminescent Dosimeter
UFSAR	Updated Final Safety Analysis Report
W	Weekly

1.0 EXECUTIVE SUMMARY

This Annual Radiological Environmental Operating Report (AREOR) describes the Brunswick Steam Electric Plant (BSEP) Radiological Environmental Monitoring Program (REMP), and the program results for the calendar year 2022.

Included in the report are the identification of sampling locations, descriptions of environmental sampling and analysis procedures, comparisons of present environmental radioactivity levels, pre-operational environmental data, analysis of trends in environmental radiological data as potentially affected by plant operations, and a summary of environmental radiological sampling results. Quality assurance practices, sampling deviations, unavailable samples, and program changes are also discussed.

Sampling activities were conducted as prescribed by the BSEP Offsite Dose Calculation Manual (ODCM). One-thousand-four-hundred-seven samples were analyzed comprising 1,407 test results to compile data for the 2022 BSEP Annual Radiological Environmental Operating Report. Based on the annual BSEP land use census, there were some additional sampling sites added to the BSEP REMP.

Concentrations observed in the environment in 2022 for station related radionuclides were within the ranges of concentrations observed in the past. Inspection of the data showed that radioactivity concentrations were as expected and positively identified measurements attributable to plant operation were within limits as specified in the BSEP ODCM. Measured concentrations, including tritium, were not higher than expected and all positively identified measurements attributable to station operation were within limits as specified in the BSEP ODCM and regulatory limits. The radiological environmental data for 2022 indicates that radioactivity concentrations and all positively identified measurements attributable to BSEP operations in 2022 were within limits as specified in the BSEP ODCM, thus presenting no significant impact on the environment or public health and safety.

2.0 INTRODUCTION

2.1 SITE DESCRIPTION AND SAMPLE LOCATIONS

Duke Energy's Brunswick Steam Electric Plant (BSEP) is located in Brunswick County, North Carolina, approximately 16 miles south of Wilmington, North Carolina. The site is along state route 87 approximately two and a half miles north of Southport, North Carolina. The community of Boiling Spring Lakes is about three miles northwest of the site. The towns of Caswell Beach and Oak Island are on a barrier island south of the plant.

The Brunswick Steam Electric Plant consists of two boiling water reactors with a design rating of 2923 megawatts thermal. Commercial production was initiated by Unit 2 on November 3, 1975 and by Unit 1 on March 18, 1977.

The Cape Fear River is east of the plant and cooling water is drawn from the river through a canal. The cooling water and plant liquid effluents are both discharged to the Atlantic Ocean through a canal, pumping station, and piping. The discharge point is south of the town of Caswell Beach. The plant site varies in elevation from sea level to 30 feet above mean sea level (MSL) and is surrounded by extensive marshes.

Sampling locations are chosen based upon meteorological factors, preoperational monitoring, and land use surveys. Additional locations were selected and identified as controls because they are unlikely to be affected by plant operations. Figures 2.1-1, 2.1-2, 2.1-3, and 2.1-4 are maps depicting BSEP sampling locations and the Thermoluminescent Dosimeter (TLD) monitoring locations. The location numbers shown on these maps correspond to those listed in Tables 2.1-A and 2.1-B.

The Brunswick centerline waypoint used for GPS measurements in figures 2.1-1, 2.1-2, 2.1-3, and 2.1-4 is latitude: 33°57'24.3" North and longitude: 78°0'33.9" West. Maps and tables were generated using North American Datum (NAD) 27. Data normally reflect accuracy to within one tenth mile from point of measurement. GPS field measurements were taken as close as possible to the item of interest. Distances for the locations are displayed using two significant figures.

2.2 SCOPE AND REQUIREMENTS OF THE REMP

A Radiological Environmental Monitoring Program (REMP) has been in effect at BSEP, and the preoperational program provides data on the existing environmental radioactivity levels for the site and vicinity which may be used to determine whether increases in environmental levels are attributable to the station. The operational program provides surveillance and backup support of detailed effluent monitoring, which is necessary to evaluate the significance, if any, of the contributions to the existing environmental radioactivity levels that result from station operation.

This monitoring program is based on NRC guidance as reflected in the BSEP Offsite Dose Calculation Manual (ODCM), with regards to sample media, sampling locations, sampling frequency and analytical sensitivity requirements. Indicator and control locations were established

for comparison purposes to distinguish radioactivity of plant origin from natural or other “man-made” environmental radioactivity. The environmental monitoring program also verifies projected and anticipated radionuclide concentrations in the environment and related exposures from releases of radionuclides from BSEP. This program satisfies the requirements of Section IV.B.2 of Appendix I to 10CFR50 and provides surveillance of all appropriate critical exposure pathways to man and protects vital interests of the company, public and state and federal agencies concerned with the environment. Reporting levels for activity found in environmental samples are listed in Table 2.2-A. Table 2.2-B lists the REMP analysis and frequency schedule. The Annual Land Use Census, required by the BSEP ODCM, is performed to ensure that changes in the use of areas at or beyond the site boundary are identified and that modifications to the REMP are made if required by changes in land use. This census satisfies the requirements of Section IV.B.3 of Appendix I to 10CFR50. Results are shown in Tables 3.9-A and 3.9-B.

Participation in an interlaboratory comparison program is performed in fulfillment of BSEP ODCM Operational Requirement provides for independent checks on the precision and accuracy of measurements of radioactive material in REMP sample matrices. Such checks are performed as part of the quality assurance program for environmental monitoring in order to demonstrate that the results are valid for the purposes of Section IV.B.2 of Appendix I to 10CFR50. A summary of the results obtained as part of this comparison program are in Section 4 of this annual report.

2.3 STATISTICAL AND CALCULATIONAL METHODOLOGY

2.3.1 ESTIMATION OF THE MEAN VALUE

There was one (1) basic statistical calculation performed on the raw data resulting from the environmental sample analysis program. The calculation involved the determination of the mean value for the indicator and the control samples for each sample medium. The mean is a widely used statistic. This value was used in the reduction of the data generated by the sampling and analysis of the various media in the Radiological Environmental Monitoring Program. “Net activity (or concentration)” is the activity (or concentration) determined to be present in the sample. No “Minimum Detectable Activity”, “Lower Limit of Detection”, “Less Than Level”, or negative activities or concentrations are included in the calculation of the mean. The following equation was used to estimate the mean:

$$\bar{x} = \frac{\sum_{i=1}^N x_i}{N}$$

Where:

\bar{x} = estimate of the mean,

i = individual sample,

N = total number of samples with a net activity (or concentration),

x_i = net activity (or concentration) for sample i.

2.3.2 LOWER LIMIT OF DETECTION AND MINIMUM DETECTABLE ACTIVITY

The Lower Limit of Detection (LLD) and Minimum Detectable Activity (MDA) are used throughout the REMP.

LLD - The LLD, as defined in the Offsite Dose Calculation Manual (ODCM), is the smallest concentration of radioactive material in an unknown sample that will yield a net count, above the system background, that will be detected with 95% probability with a 5% probability of falsely concluding that a blank observation represents a "real" signal. The LLD is an *a priori* (before the fact) lower limit of detection. The actual LLD is dependent upon the standard deviation of the background counting rate, the counting efficiency, the sample size (mass or volume), the radiochemical yield and the radioactive decay of the sample between sample collection and counting. The "required" LLDs for each sample medium and selected radionuclides are given in the ODCMs and are listed in Table 2.2-C.

MDA - The MDA is the net counting rate (sample after subtraction of background) that must be surpassed before a sample is considered to contain a scientifically measurable amount of a radioactive material exceeding background amounts. The MDA is calculated using a sample background and may be thought of as an "actual" LLD for a sample measurement. Certain gross counting measurements display a calculated negative value, indicating background is greater than sample activity.

2.3.3 TREND IDENTIFICATION

One of the purposes of an environmental monitoring program is to determine if there is a buildup of radionuclides in the environment due to the operation of the nuclear station. Visual inspection of tabular or graphical presentations of data (including preoperational) is used to determine if a trend exists. A decrease in a radionuclide's concentration in an environmental medium does not indicate that reactor operations are removing radioactivity from the environment but that reactor operations are not adding that radionuclide to the environment in quantities exceeding the preoperational level and that the normal removal processes (radioactive decay, deposition, resuspension, etc.) are influencing the concentration.

Substantial increases or decreases in the amount of a radionuclide's release from the nuclear plant will greatly affect the resulting environmental levels; therefore, a knowledge of the release of a radionuclide from the nuclear plant is necessary to completely interpret the trends, or lack of trends, determined from the environmental data. Factors that may affect environmental levels of radionuclides include prevailing weather conditions (periods of drought, solar cycles or heavier than normal precipitation), construction in or around either the nuclear plant or the sampling location, and addition or deletion of other sources of radioactive materials (such as the 1986 Chernobyl accident and the 2011 Japan earthquake and tsunami, which triggered the Fukushima Dai-ichi Nuclear Power Plant incident). Some of these factors may be obvious while others are sometimes unknown. Therefore, how trends are identified will include some judgment by plant personnel.

Figure 2.1-1

BSEP Environmental Sampling Locations – One mile radius

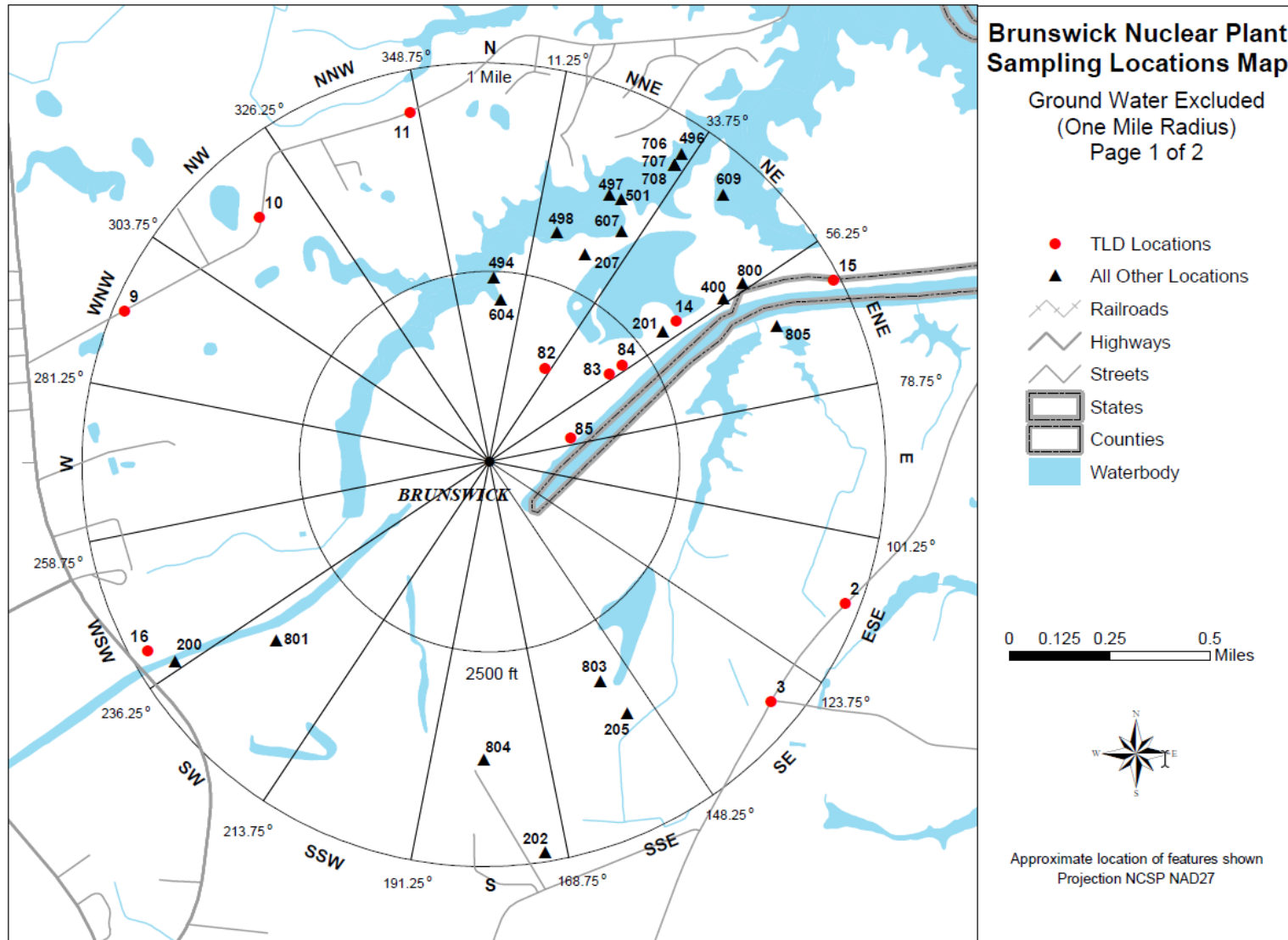


Figure 2.1-2

BSEP Environmental Sampling Locations (Ground Water Only) - One mile radius

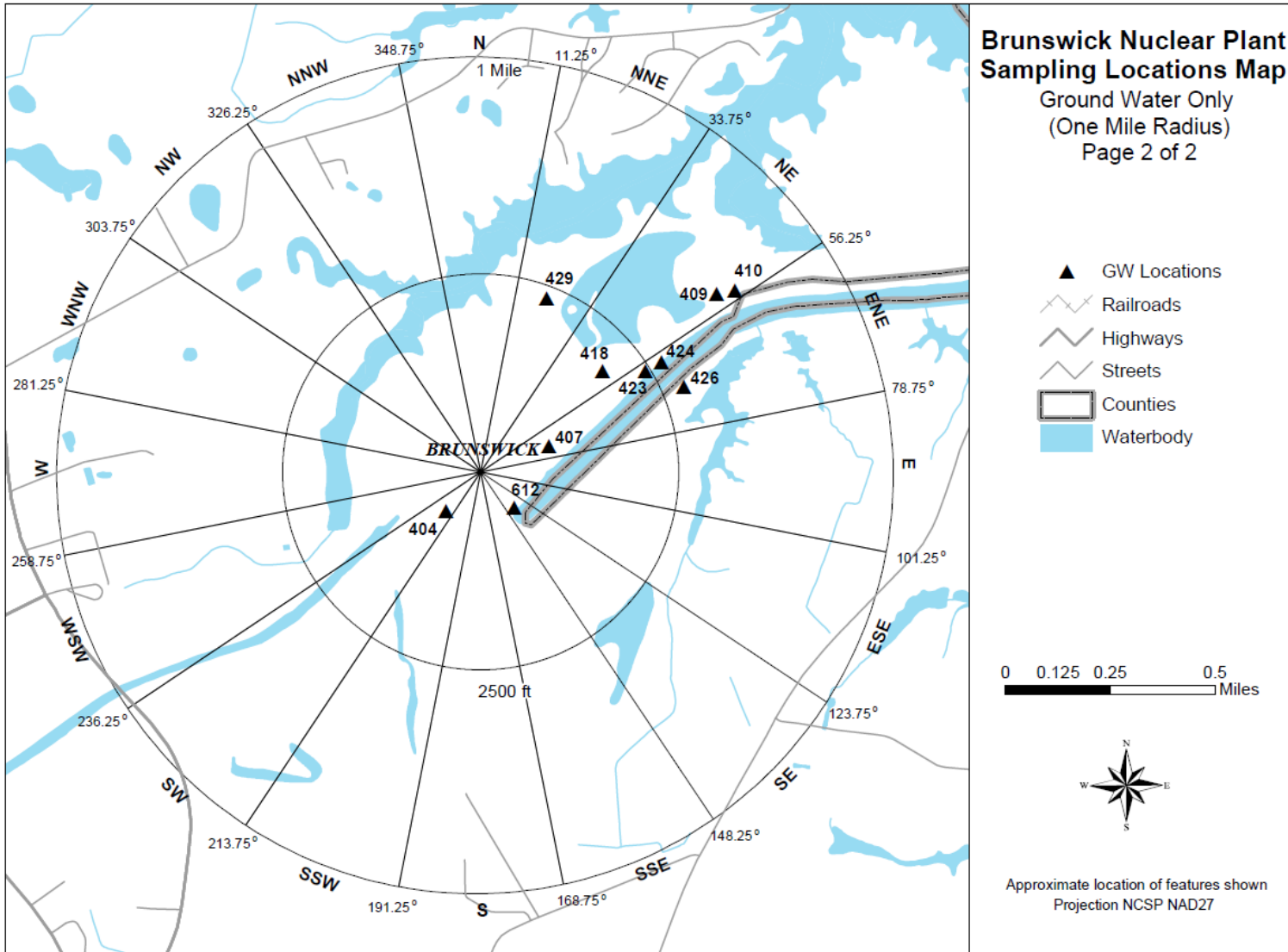


Figure 2.1-3

BSEP Environmental Sample Locations - Ten mile radius

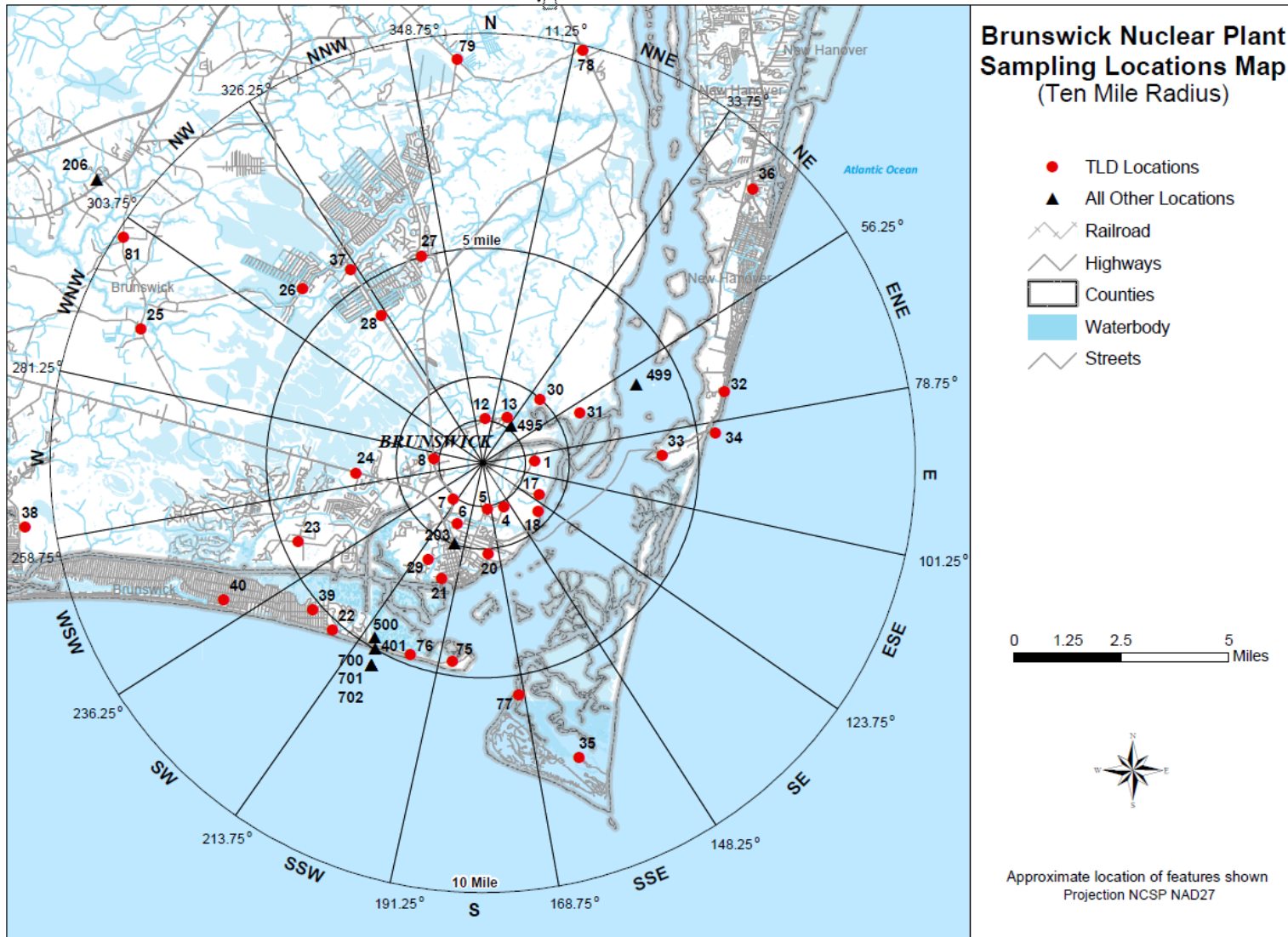


Figure 2.1-4

BSEP Environmental Sample Locations – Twenty-Five mile radius

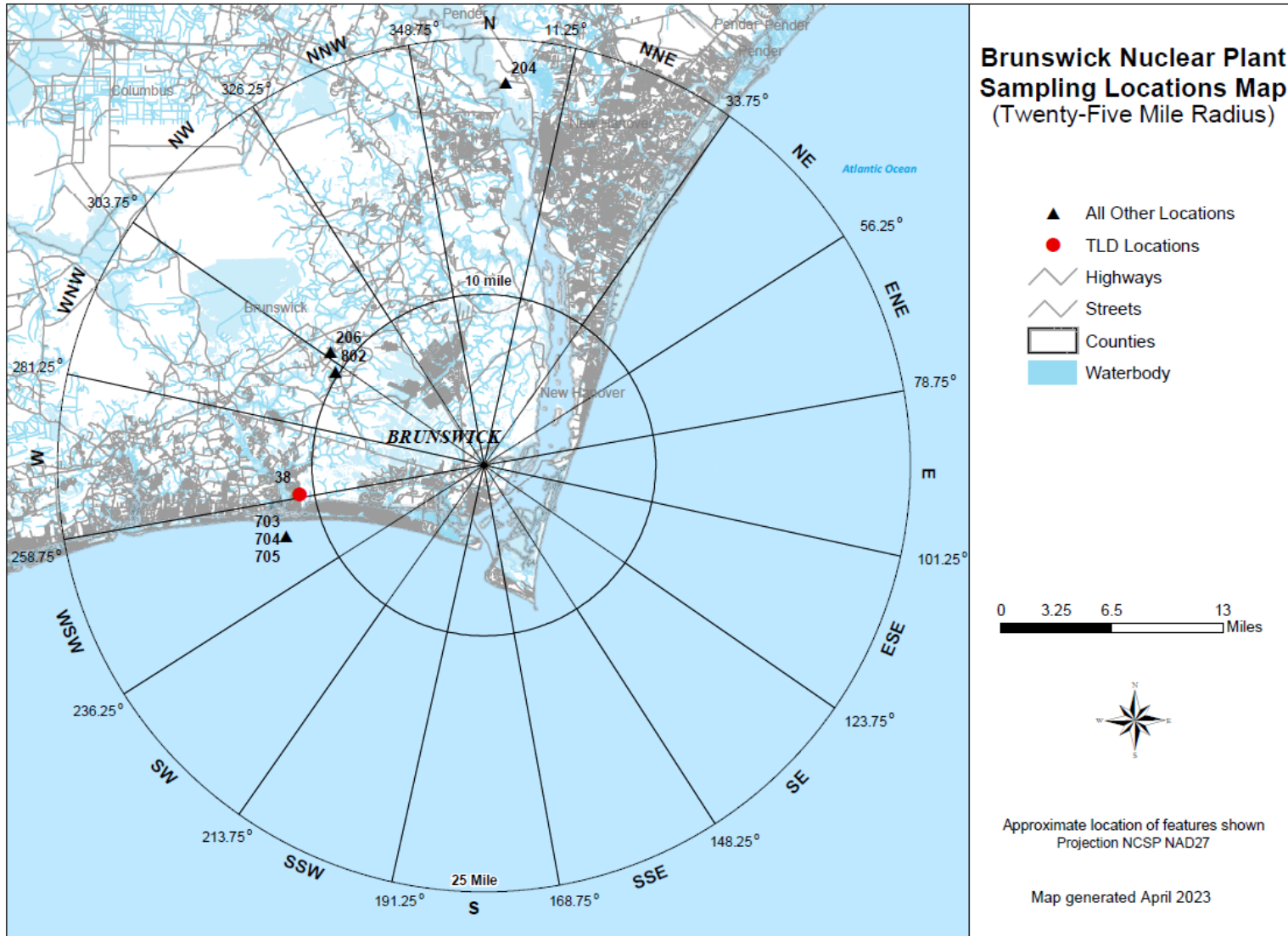


TABLE 2.1-A

RADIOLOGICAL MONITORING PROGRAM SAMPLING LOCATIONS

BRUNSWICK STEAM ELECTRIC PLANT (BSEP) ODCM

Table 2.1-A Codes			
A	Annually	SA	Semiannually
C	Control ^(d)	SB	Site Boundary
CM	Community	SDSP	Storm Drain Stabilization Pond
I	Indicator	W	Weekly
M	Monthly	WP	Waypoint
Q	Quarterly		

Site#	Type	Location Description ^{(h)(k)}	Air Radiiodine & Air Particulate	Surface Water ^(g)	Shoreline Sediment	Fish ^(e)	Broadleaf Vegetation	Ground Water
200	I	1.0 miles WSW – Visitors Center	W/Q, SB					
201	I	0.5 miles NE – Bio Lab Rd. – Projected Maximum Annual Concentration (PMAC)	W/Q, SB					
202	I	1.0 mile S – Substation, Construction Rd.	W/Q, SB					
203	I	2.0 miles SSW – Southport Substation	W/Q, CM					
204 ^(f)	C	22.4 miles N ^(j) – Sutton Plant (Historical Control)	W/Q					
205	I	0.6 miles SSE – Spoil Pond	W/Q, SB					
206 ^(f)	C	11.3 miles NW – Brunswick County Complex	W/Q					
207 ^(f)	I	0.65 miles NNE – GWE Compressor Building	W/Q, SB					
400	C	0.6 miles NE – Intake Canal		M				
401	I	4.9 miles SSW – Discharge Canal @ OD Pumps		M				
404	I	0.16 miles SW, Monitoring Well ESS-1B						Q/SA
407	I	0.06 miles ENE, Monitoring Well ESS-13B						Q/SA
409	I	0.65 miles NE, Monitoring Well ESS-17A						Q/SA
410	I	0.65 miles NE, Monitoring Well ESS-17B						Q/SA
418	I	Monitoring Well ESS-21B, Near SDSP						Q/SA
423	I	Monitoring Well ESS-24A, Near SDSP						Q/SA
424	I	Monitoring Well ESS-24B, Near SDSP						Q/SA
426	I	Monitoring Well ESS-25B, Near SDSP						Q/SA
429	I	Monitoring Well ESS-27A, Near SDSP						Q/SA
494	I	Nancy’s Creek Marsh Area – WP-106		M				
495	I	Nancy’s Creek – WP-52		M				
496	I	Nancy’s Creek – WP-53		M				
497	I	Nancy’s Creek – WP-55		M				
498	I	Nancy’s Creek – WP-57		M				
499	C	Control Station – WP-61		M				
500	I	5.0 miles SSW – Discharge – Beach near OD Pumps			SA			
501	I	Nancy’s Creek, Adjacent to WP-55, Near SDSP			A			
604	I	Nancy’s Creek Marsh Area – WP-92		M				
607	I	Nancy’s Creek Marsh Area – WP-76		M				
609	I	Nancy’s Creek Marsh Area – WP-84		M				
612	I	Monitoring Well ESS MWPA-118B, Near Intake Canal and Plant Stack						Q/SA
700	I	5.5 miles SSW – Atlantic Ocean @ discharge (Free Swimmer)				SA ^{(b)(c)}		
701	I	5.5 miles SSW – Atlantic Ocean @ discharge (Bottom Feeders)				SA ^{(b)(c)}		
702	I	5.5 miles SSW – Atlantic Ocean @ discharge (Shellfish/Invertebrates)				SA ^{(b)(c)}		
703	C	Atlantic Ocean; location not specified (Free Swimmer)				SA ^{(b)(c)}		
704	C	Atlantic Ocean; location not specified (Bottom Feeder)				SA ^{(b)(c)}		
705	C	Atlantic Ocean; location not specified (Shellfish/Invertebrates)				SA ^{(b)(c)}		

TABLE 2.1-A (Continued)

Site#	Type	Location Description ^{(h)(k)}	Air Radioiodine & Air Particulate	Surface Water ^(e)	Shoreline Sediment	Fish ^(c)	Broadleaf Vegetation	Ground Water
706	I	Nancy's Creek; location not specified (Free Swimmer)				A ^(b)		
707	I	Nancy's Creek; location not specified (Bottom Feeder)				A ^(b)		
708	I	Nancy's Creek; location not specified (Shellfish/Invertebrates)				A ^(b)		
800	I	0.7 miles NE – Intake Canal					M ^(a) , SB	
801	I	0.8 miles SW – Discharge Canal					M ^(a) , SB	
802	C	10.1 miles WNW					M ^(a)	
803	I	0.6 miles SSE – Spoil Pond					M ^(a) , SB	
804	I	0.7 miles S – Leonard Street plant exit adjacent to RR tracks					M ^(a) , SB	
805 ^(j)	I	0.8 miles ENE – East Intake Canal					M ^(a) , SB	

(a) When Available

(b) Edible Portions

(c) When in Season

(d) Control Station – These stations are presumed to be outside the influence of plant effluents.

(e) A sample of one free swimmer, one bottom feeder, and one shellfish (shrimp) will be collected if available. A control sample of each species collected will be obtained if available.

(f) The purpose of this sample is to obtain background information. If it is not practical to establish control locations in accordance with the distance and wind direction criteria, other sites that provide valid background data may be substituted.

(g) The “upstream” sample shall be taken at a distance beyond significant influence of the discharge. The “downstream” sample shall be taken in an area beyond but near the mixing zone. “Upstream” samples in an estuary must be taken far enough upstream to be beyond the plant influence. Salt-water shall be sampled only when the receiving water is utilized for recreational activities.

(h) GPS data reflect approximate accuracy to within 2-5 meters. GPS field measurements were taken as close as possible to the item of interest.

(i) Sample site was added to the REMP after LUC in 2022 as a supplemental sampling location.

(j) Sector incorrect in ODCM (NCR# 02467842).

TABLE 2.1-B

RADIOLOGICAL MONITORING PROGRAM SAMPLING LOCATIONS (TLD SITES) ^(b)

BRUNSWICK STEAM ELECTRIC PLANT (BSEP)

Table 2.1-B Codes	
IR	Inner Ring
OR	Outer Ring
C	Control ^(a)
SI	Special Interest
ISFSI	Independent Spent Fuel Storage Installation

Site #	Measure Type	Location ^(c)	Distance (miles)	Sector	Site #	Measure Type	Location ^(c)	Distance (miles)	Sector
1	IR	1.1 miles E	1.1	E	27	OR	5.1 miles NNW	5.1	NNW
2	IR	0.9 miles ESE	0.9	ESE	28	OR	4.2 miles NW	4.2	NW
3	IR	0.9 miles SE	0.9	SE	29	IR	2.6 miles SSW	2.6	SSW
4	IR	1.1 miles SSE	1.1	SSE	30	IR	2.0 miles NE	2.0	NE
5	IR	1.1 miles S	1.1	S	31	IR	2.5 miles ENE	2.5	ENE
6	IR	1.6 miles SSW	1.6	SSW	32	OR	5.8 miles ENE	5.8	ENE
7	IR	1.1 miles SW	1.1	SW	33	OR	4.1 miles E	4.1	E
8	IR	1.2 miles W	1.2	W	34	OR	5.4 miles E	5.4	E
9	IR	1.0 miles WNW	1.0	WNW	35	OR	7.3 miles SSE	7.3	SSE
10	IR	0.8 miles NW	0.8	NW	36	OR	8.9 miles NE	8.9	NE
11	IR	0.9 miles NNW	0.9	NNW	37	OR	5.5 miles NW	5.5	NW
12	IR	1.1 miles N	1.1	N	38	OR	11.0 miles W	11.0	W
13	IR	1.2 miles NNE	1.2	NNE	39	OR	5.3 miles SW	5.3	SW
14	IR	0.5 miles NE	0.5	NE	40	OR	6.9 miles WSW	6.9	WSW
15	IR	0.9 miles ENE	0.9	ENE	75	OR	4.7 miles S	4.7	S
16	IR	1.0 miles WSW	1.0	WSW	76	OR	4.8 miles SSW	4.8	SSW
17	IR	1.4 miles ESE	1.4	ESE	77	OR	5.4 miles S	5.4	S
18	IR	1.7 miles SE	1.7	SE	78	OR	9.9 miles NNE	9.9	NNE
20	IR	2.1 miles S	2.1	S	79	OR	9.5 miles N	9.5	N
21	IR	2.9 miles SSW	2.9	SSW	81	C	9.9 miles WNW	9.9	WNW
22	OR	5.3 miles SW	5.3	SW	82	ISFSI	0.17 miles NNE @ SW corner of ISFSI	0.17	NNE
23	OR	4.6 miles WSW	4.6	WSW	83	ISFSI	0.27 miles NE @ NW corner ISFSI	0.27	NE
24	IR	3.0 miles W	3.0	W	84	ISFSI	0.27 miles NE @ NE corner of ISFSI	0.27	NE
25	OR	8.6 miles WNW	8.6	WNW	85	ISFSI	0.09 miles ENE @ SE corner of ISFSI	0.09	ENE
26	OR	5.9 miles NW	5.9	NW					

(a) Control Station – These stations are presumed to be outside the influence of plant effluents.

(b) One or more instruments such as a pressurized ion chamber, for measuring and recording dose rate continuously may be used in place of, or in addition to, integrating dosimeters. Film badges shall not be used as dosimeters for measuring direct radiation. The frequency of analysis or readout for TLD systems will depend upon the characteristics of the specific system used and should be selected to obtain optimum dose information with minimal fading.

(c) GPS data reflect approximate accuracy to within 2-5 meters. GPS field measurements were taken as close as possible to the item of interest.

TABLE 2.2-A

**REPORTING LEVELS FOR RADIOACTIVITY
CONCENTRATIONS IN ENVIRONMENTAL SAMPLES**

Analysis	Water (pCi/liter)	Airborne Particulate and Gases (pCi/m ³)	Fish (pCi/kg, wet)	Milk (pCi/liter)	Broadleaf Vegetation (pCi/kg)
H-3	30,000				
Mn-54	1,000		30,000		
Fe-59	400		10,000		
Co-58	1,000		30,000		
Co-60	300		10,000		
Zn-65	300		20,000		
Zr-Nb-95	400				
I-131	2	0.9		3	100
Cs-134	30	10	1,000	60	1,000
Cs-137	50	20	2,000	70	2,000
Ba-La-140	200			300	

TABLE 2.2-B

REMP ANALYSIS FREQUENCY

Sample Medium	Analysis Schedule	Gamma Isotopic ^(e)	Tritium	Gross Beta	TLD
Air Radioiodine	Weekly	X			
Air Particulate	Weekly			(c)	
	Quarterly	X			
Direct Radiation (TLD)	Quarterly				X
Surface Water	Monthly Composite (400 & 401) ^{(d)(h)}	X	X		
	Monthly Grab (494 - 499, 604, 607, & 609)	(f)	X		
Ground Water	Quarterly Grab	X	X		
	Semiannual Grab	X			
Shoreline Sediment	Semiannually (500)	X			
	Annually (501) ^(g)	(g)			
Fish and Shellfish/Invertebrates ^(a)	Semiannually (700 – 705) ⁽ⁱ⁾	X			
	Annually (706 – 708)	X			
Broadleaf Vegetation ^(j)	Monthly ^(b)	X			

(a) Edible portions

(b) When available

(c) Airborne particulate samples shall be analyzed for gross beta radioactivity 24 hours or more after sampling to allow for radon and thoron daughter decay. If gross beta activity in air particulate samples is greater than ten times the yearly mean of control samples, gamma isotopic shall be performed on the individual samples.

(d) Composite samples shall be collected by collecting an aliquot at intervals not exceeding 6 hours.

(e) Gamma isotopic analysis means the identification and quantification of gamma-emitting radionuclides that may be attributable to the effluents from the facility.

(f) The samples are to be analyzed for gamma isotopic analyses. If plant activity is detected from the gamma isotopic analysis, Sr-89, 90 and Fe-55 analysis are to be performed.

(g) If plant activity is detected, Sr-89, 90 and Fe-55 analysis are to be performed and frequency will be increased to Semi-Annual.

(h) A composite sample is one in which the quantity (aliquot) of liquid sampled is proportional to the quantity of flowing liquid and in which the method of sampling employed results in a specimen that is representative of the liquid flow. Composite samples shall be collected with equipment that is capable of collecting an aliquot at time intervals that are short (e.g., once per 6 hours) relative to compositing period (e.g., monthly) in order to assure obtaining a representative sample.

(i) When less than three (3) milking animal locations are available for testing within an 8-km distance, sampling of broadleaf vegetation shall be performed as indicated in [BSEOP ODCM] Table 7.3.15-1, 4.c, in lieu of milk sampling.

(j) When in Season.

TABLE 2.2-C**DETECTION CAPABILITIES FOR THE *A PRIORI* LOWER LIMIT OF DETECTION^{(a)(b)(d)}**

Analysis	Water (pCi/liter)	Airborne Particulates or Gases (pCi/m ³)	Fish (pCi/kg, wet)	Milk (pCi/liter)	Broadleaf Vegetation (pCi/kg, wet)	Sediment (pCi/kg, dry)
Gross Beta	4	0.01				
H-3	3000					
Mn-54	15		130			
Fe-59	30		260			
Co-58, 60	15		130			
Zn-65	30		260			
Zr-Nb-95	15					
I-131	1 ^(c)	0.07		1	60	
Cs-134	15	0.05	130	15	60	150
Cs-137	18	0.06	150	18	80	180
Ba-La-140	15			15		

(a) This list does not mean that only these nuclides are to be considered. Other peaks that are identifiable, together with these of the above nuclides, shall be analyzed and reported in the AREOR.

(b) The LLD is defined in the BSEP ODCM.

(c) LLD for drinking water samples. If no drinking water pathway exists, a value of 15 pCi/L may be used.

(d) The LLD for each analysis is specified, with the exception of the Nancy's Creek Marsh Area principal gamma isotopic and I-131. The LLD for the Nancy's Creek Marsh Area gamma isotopic is 5×10^{-7} μ Ci/ml for Principal Gamma Emitters and 1×10^{-9} μ Ci/ml for I-131.

3.0 INTERPRETATION OF RESULTS

Review of 2022 REMP analysis results was performed to detect and identify changes in environmental levels as a result of station operation. The radionuclides with ODCM reporting levels that indicate consistent detectable activity have been historically trended from preoperation to present. Summary tables containing 2022 information required by Technical Specification Administrative Control 5.6.2, BSEP ODCM 7.4.1 are located in Appendix B. Brunswick 2022 REMP results are located in Appendix E.

The highest annual mean concentration of applicable ODCM radionuclides from the indicator locations for each media type was used for trending purposes. Trending was performed by comparing annual mean concentrations to historical results. Factors evaluated include the frequency of detection and the concentration in terms of the percent of the radionuclide's ODCM reporting level (Table 2.2-A). Evaluation for significant trends was performed for radionuclides that are listed as required in the BSEP ODCM. The radionuclides include: H-3, Mn-54, Fe-59, Co-58, Co-60, Zn-65, Zr-95, Nb-95, I-131, Cs-134, Cs-137, Ba-140 and La-140. Gross beta results were trended for air particulate and tritium in surface water samples.

Review of the 2022 data presented in this section supports the conclusion that there were no significant changes in environmental sample radionuclide concentrations of samples collected and analyzed from BSEP and surrounding areas that were attributable to plant operations. The radiological environmental data for 2022 indicates that radioactivity concentrations were not higher than expected and all positively identified measurements attributable to BSEP operations in 2022 were within limits as specified in the BSEP ODCM, thus presenting no significant impact on the environment or public health and safety.

Data presented in Sections 3.1 through 3.8 support the conclusion that there was no significant increase in radioactivity in the environment around Brunswick Steam Electric Plant due to station operations in 2022. Similarly, there was no significant increase in ambient background radiation levels in the surrounding areas. The 2022 land use census data is shown in Section 3.9.

3.1 AIRBORNE RADIOIODINE AND PARTICULATES

Air particulate and radioiodine samples at each of eight locations were composited continuously by means of continuous air samplers. Air particulates were collected on a particulate filter and radioiodine was collected in a charcoal cartridge positioned behind the filter in the sample head. The samplers are designed to operate at a constant flow rate (in order to compensate for any filter loading) and are set to sample approximately 2 cubic foot per minute. Filters and cartridges were collected weekly. A separate weekly gamma analysis was performed on each charcoal cartridge. A weekly gross beta analysis was performed on each filter and then the filters, by location, were composited to produce quarterly filter samples for gamma analysis.

In 2022, 386 radioiodine and particulate samples were analyzed, 282 from six indicator locations and 104 from the two control locations. The air samplers operated for a total of 99.95% availability for the 2022 year.

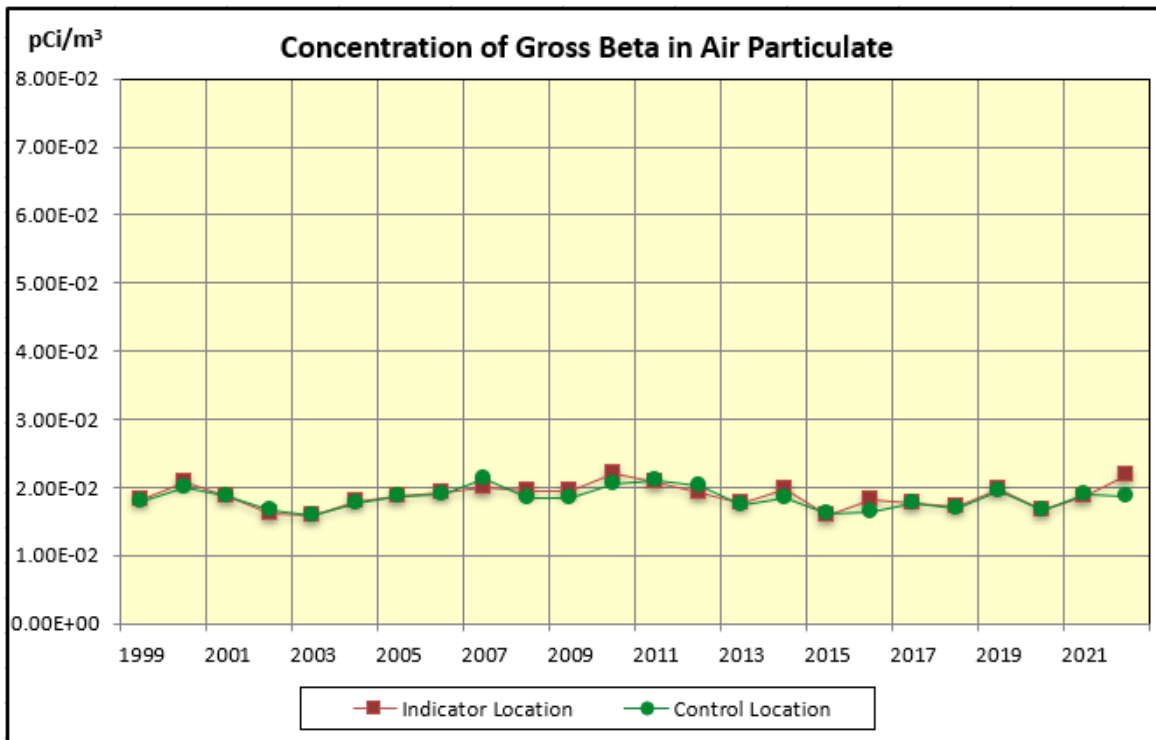
Gross beta analyses indicated $2.17\text{E-}2$ pCi/m³ at the location with the highest annual mean and $1.86\text{E-}2$ pCi/m³ at the two control locations. The preoperational (1973 – 1974) gross beta average concentration was $8.2\text{E-}2$ pCi/m³. No gamma emitting radionuclides attributable to BNP plant operation were detected in any 2022 radioiodine samples.

Figure 3.1 and Table 3.1-A provide individual sample gross beta results for the highest annual mean indicator location and the control locations concentration since 1999. There is no reporting level for gross beta in air particulate.

Table 3.1-B gives indicator location highest annual means and control means since 1999 for I-131. No I-131 activity due to BSEP operation has been detected in any airborne radioiodine samples since 2006. Since no activity was detected in 2022, no reporting levels were approached.

K-40 and Be-7 observed in air samples are naturally occurring radionuclides.

Figure 3.1



There is no reporting level for gross beta in air particulate.

Table 3.1-A Mean Concentration of Gross Beta in Air Particulate

Year	Indicator Location (pCi/m³)	Control Location (pCi/m³)
1999	1.82E-2	1.80E-2
2000	2.08E-2	2.01E-2
2001	1.87E-2	1.87E-2
2002	1.62E-2	1.66E-2
2003	1.59E-2	1.59E-2
2004	1.78E-2	1.77E-2
2005	1.86E-2	1.88E-2
2006	1.92E-2	1.90E-2
2007	2.01E-2	2.13E-2
2008	1.94E-2	1.83E-2
2009	1.95E-2	1.83E-2
2010	2.20E-2	2.06E-2
2011	2.08E-2	2.10E-2
2012	1.93E-2	2.03E-2
2013	1.77E-2	1.74E-2
2014	1.97E-2	1.84E-2
2015	1.58E-2	1.60E-2
2016	1.82E-2	1.63E-2
2017	1.77E-2	1.76E-2
2018	1.72E-2	1.69E-2
2019	1.96E-2	1.95E-2
2020	1.64E-2	1.65E-2
2021	1.88E-2	1.89E-2
2022	2.17E-2	1.86E-2

Table 3.1-B Mean Concentration of Air Radioiodine (I-131)

Year	Indicator Location (pCi/m ³)	Control Location (pCi/m ³)
1999	0.00E+0	0.00E+0
2000	0.00E+0	0.00E+0
2001	0.00E+0	0.00E+0
2002	0.00E+0	0.00E+0
2003	0.00E+0	0.00E+0
2004	0.00E+0	0.00E+0
2005	0.00E+0	0.00E+0
2006 ⁽¹⁾	5.31E-2	0.00E+0
2007	0.00E+0	0.00E+0
2008	0.00E+0	0.00E+0
2009	0.00E+0	0.00E+0
2010	0.00E+0	0.00E+0
2011 ⁽²⁾	1.31E-1	1.00E-1
2012	0.00E+0	0.00E+0
2013	0.00E+0	0.00E+0
2014 ⁽³⁾	0.00E+0	0.00E+0
2015	0.00E+0	0.00E+0
2016	0.00E+0	0.00E+0
2017	0.00E+0	0.00E+0
2018	0.00E+0	0.00E+0
2019	0.00E+0	0.00E+0
2020	0.00E+0	0.00E+0
2021	0.00E+0	0.00E+0
2022	0.00E+0	0.00E+0

0.00E+0 indicates no detectable measurements

(1) 2006 concentration affected by plant conditions (NCR # 0211934).

(2) 2011 concentrations affected by Fukushima Dai-ichi (NCR # 0456564).

(3) 2014 Gamma spectroscopy system was replaced 10JUL2014. Gamma spectroscopy system hardware, detector cooling apparatus, software, electronics, nuclide identification libraries, and analytical test matrix components for test matrices were modified (NCR # 0739995). No analytical changes were noted due to the 2014 gamma spectroscopy system change.

3.2 SURFACE WATER

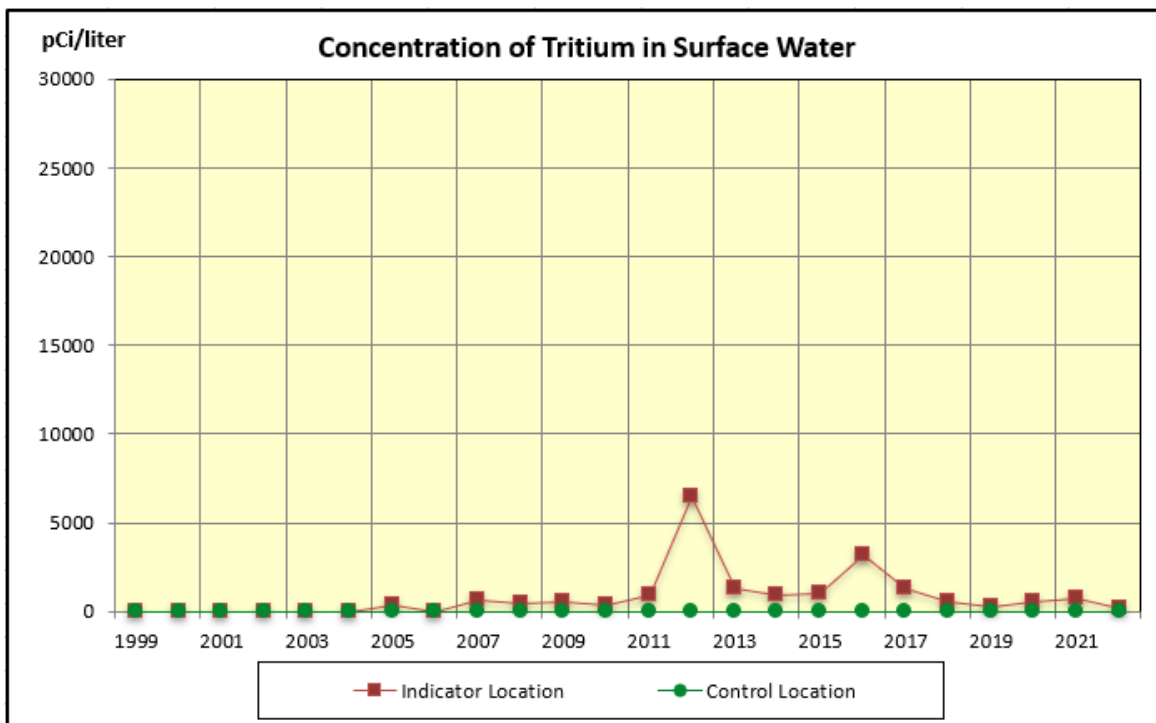
Surface water samples were taken monthly from the intake canal, the discharge canal, five Nancy’s Creek surface water locations, and four Nancy’s Creek Marsh Area surface water locations. Monthly composite samples were collected from locations 400 and 401 and monthly grab samples were collected from locations 494 – 499, 604, 607, and 609.

In 2022, 132 surface water samples were analyzed for gamma emitting radionuclides and tritium. No detectable gamma activity attributable to BSEP operation was found in surface water samples in 2022. K-40 observed in some surface water samples is a naturally occurring radionuclide. Tritium was detected in 3 of the 132 surface water samples taken in 2022. Tritium was not detected in any of the control location samples in 2022.

The predominate indicator location indicating tritium in 2022 was at location 604, Nancy’s Creek Marsh Area (Waypoint-92) with an annual mean concentration of 212 pCi/L as three of the twelve samples from location 604 indicated the presence of tritium. All indicator samples from Nancy’s Creek and Nancy’s Creek Marsh Area had an average tritium concentration of 212 pCi/L. The reporting limit for tritium in environmental surface water samples is 30,000 pCi/L.

Figure 3.2 displays the tritium results for the highest annual mean indicator and control locations concentrations since 1999. Table 3.2 lists the highest annual mean concentrations for indicator and control locations.

Figure 3.2



There is no reporting level for tritium in surface water; however, if no drinking water pathway exists, a value of 30,000 pCi/l may be used.

Table 3.2 Mean Concentration of Tritium in Surface Water

Year	Indicator Location (pCi/l)	Control Location (pCi/l)
1999	0.00E+0	0.00E+0
2000	0.00E+0	0.00E+0
2001	0.00E+0	0.00E+0
2002	0.00E+0	0.00E+0
2003	0.00E+0	0.00E+0
2004	0.00E+0	0.00E+0
2005	3.22E+2	0.00E+0
2006	0.00E+0	0.00E+0
2007	6.30E+2	0.00E+0
2008	4.85E+2	0.00E+0
2009	5.75E+2	0.00E+0
2010	3.39E+2	0.00E+0
2011	9.28E+2	0.00E+0
2012	6.47E+3	0.00E+0
2013	1.29E+3	0.00E+0
2014	8.80E+2	0.00E+0
2015	1.02E+3	0.00E+0
2016	3.18E+3	0.00E+0
2017	1.33E+3	0.00E+0
2018	5.36E+2	0.00E+0
2019	2.51E+2	0.00E+0
2020	5.55E+2	0.00E+0
2021	7.63E+2	0.00E+0
2022	2.12E+2	0.00E+0

0.00E+0 indicates no detectable measurements

3.3 GROUND WATER

In 2022, there were 40 grab samples collected from ten ground water indicator locations and analyzed for gamma emitting radionuclides and/or tritium. The grab samples were collected quarterly for tritium testing and semiannually for gamma spectroscopy testing. There is no ground water control location sampled.

No detectable gamma activity attributable to BSEP operation was found in ground water samples in 2022. K-40 observed in some ground water samples is a naturally occurring radionuclide. Tritium was detected in four of the forty indicator ground water samples taken in 2022 with a mean tritium concentration of 236 pCi/L.

Brunswick county utilizes water from the Cape Fear River, which is processed at the Northwest Water Treatment Plant, and groundwater that is pumped from the Castle Hayne Aquifer, which is processed at the 211 Water Treatment Plant in Southport. The 211 Water Treatment Plant supplies drinking water to Southport, Oak Island, and St. James Plantation. The 211 Water Treatment Plant uses ground water from fourteen wells screened in the Castle Hayne formation approximately 175 feet below the ground's surface and is located approximately 4 miles northwest, up gradient, of the site according to the North Carolina Department of Environmental Quality (NCDEQ) Public Water Supply Section and the Brunswick County Public Utilities Water Distribution Division. The City of Southport has a network of ground water supply wells installed in the Castle Hayne and PeeDee aquifers, within two miles of the BNP Storm Drain Stabilization Pond (SDSP) area; however, these wells are only maintained as emergency or backup supply wells. Between the Ground Water Program at BSEP, the BSEP REMP, the information provided by the Castle Hayne Aquifer/formation, and Silar Services, Inc.; the drinking water source for the public is sufficiently monitored and a control point for sampling drinking water is not needed.

Table 3.3 lists the tritium results for the highest annual mean concentrations for indicator and control locations (if applicable) since 1999.

Table 3.3 Mean Concentration of Tritium in Ground Water

Year	Indicator Location (pCi/l)	Control Location (pCi/l)
1999	N/A	N/A
2000	N/A	N/A
2001	N/A	N/A
2002	N/A	N/A
2003	N/A	N/A
2004	N/A	N/A
2005	N/A	N/A
2006	N/A	N/A
2007	N/A	N/A
2008	1.50E+6	No Control
2009	6.48E+5	No Control
2010	5.66E+5	No Control
2011	3.10E+2	No Control
2012	4.00E+2	No Control
2013	4.66E+2	No Control
2014	6.54E+2	No Control
2015	4.02E+2	No Control
2016	0.00E+0	No Control
2017	3.76E+2	No Control
2018	3.22E+2	No Control
2019	3.34E+2	No Control
2020	2.24E+2	No Control
2021	2.94E+2	No Control
2022	2.36E+2	No Control

0.00E+0 indicates no detectable measurements

N/A indicates that Ground Water samples were not part of the BSEP REMP until 2008.

3.4 MILK

No milk sampling locations are currently identified in BSEP environs, therefore no sampling of this media was available or performed in 2022. No indicator dairies were identified by the 2022 land use census.

3.5 BROADLEAF VEGETATION

In 2022, sixty-seven broadleaf vegetation samples were collected monthly (as available) and analyzed by gamma spectroscopy, 55 at the five indicator locations and twelve at the control location. Sample location 805 was added as a supplemental indicator location as a result of the 2022 Land Use Census.

Gamma spectroscopy analysis did detect Co-60 and I-131 in two indicator samples (NCR# 02428616). The highest Co-60 mean activity was 8.57 pCi/Kg-Wet and the highest I-131 mean activity was 13.0 pCi/Kg-Wet. There is no reporting level for Co-60, and the I-131 activity was 13% of the reporting level. Cesium-137 was detected in one control sample with an activity of 58.1 pCi/Kg-Wet, however it is not unusual for Cs-137 to be present in broadleaf vegetation. The Cs-137 activity was 2.91% of the reporting level. Cs-137 is a constituent of nuclear weapons test fallout and nuclear plant accidents and has been observed in samples from indicator and control locations since the preoperational period. Figure 3.5 displays the highest annual mean indicator and control location concentrations for Cs-137 in broadleaf vegetation since 1999. Table 3.5 lists the highest indicator location annual mean and control location annual means for Cs-134, Cs-137, Co-60, and I-131 since 1999. Visual inspection of the tabular data did see an increase in Cs-137 activity in the control location, but since this is a constituent of nuclear weapons test fallout and nuclear plant accidents and the activity was well below the reporting levels, it is not considered to be significant.

K-40 and Be-7 observed in broadleaf vegetation samples are naturally occurring radionuclides.

Figure 3.5

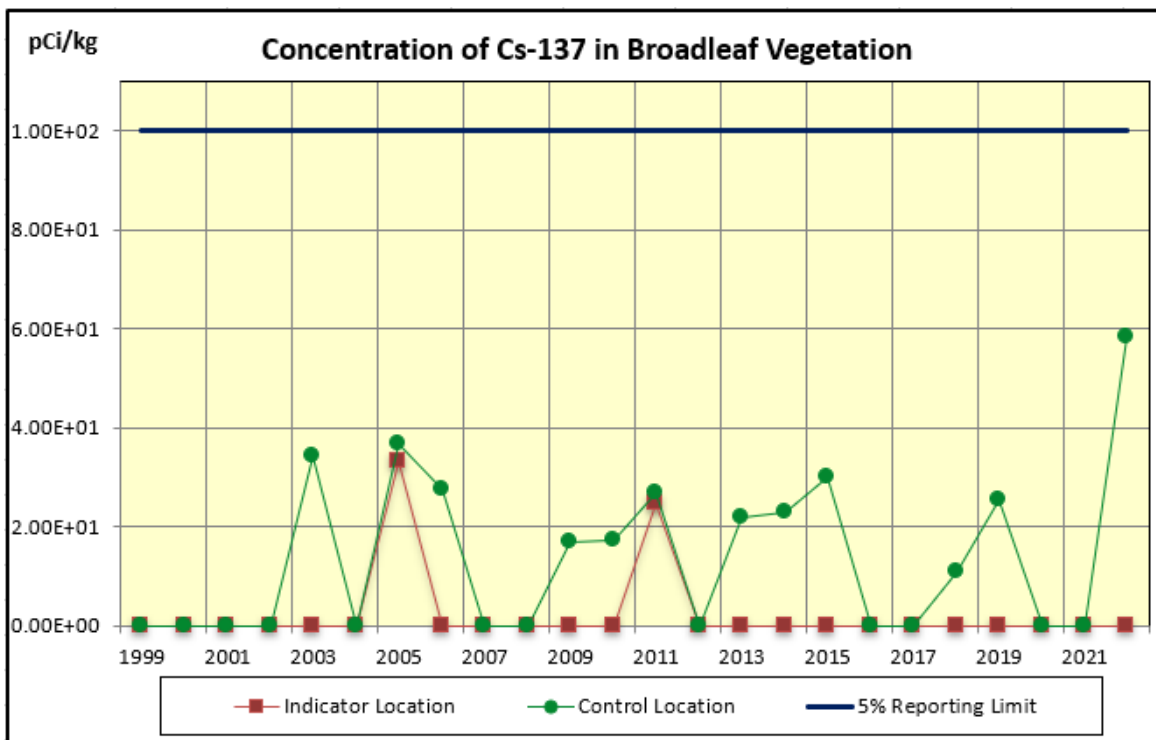


Table 3.5 Mean Concentrations of Radionuclides in Broadleaf Vegetation (pCi/kg)

Year	Cs-134 Indicator	Cs-134 Control	Cs-137 Indicator	Cs-137 Control	Co-60 Indicator	Co-60 Control	I-131 Indicator	I-131 Control
1999	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0
2000	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0
2001	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0
2002	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0
2003	0.00E+0	0.00E+0	0.00E+0	3.42E+1	0.00E+0	0.00E+0	0.00E+0	0.00E+0
2004	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0
2005	0.00E+0	0.00E+0	3.32E+1	3.66E+1	0.00E+0	0.00E+0	0.00E+0	0.00E+0
2006	0.00E+0	0.00E+0	0.00E+0	2.73E+1	0.00E+0	0.00E+0	0.00E+0	0.00E+0
2007	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0
2008	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0
2009	0.00E+0	0.00E+0	0.00E+0	1.69E+1	4.94E+1	0.00E+0	0.00E+0	0.00E+0
2010	0.00E+0	0.00E+0	0.00E+0	1.73E+1	0.00E+0	0.00E+0	0.00E+0	0.00E+0
2011 ⁽¹⁾	2.60E+1	1.64E+1	2.48E+1	2.68E+1	0.00E+0	0.00E+0	2.20E+2	1.48E+2
2012	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0
2013	0.00E+0	0.00E+0	0.00E+0	2.18E+1	0.00E+0	0.00E+0	0.00E+0	0.00E+0
2014 ⁽²⁾	0.00E+0	0.00E+0	0.00E+0	2.29E+1	0.00E+0	0.00E+0	0.00E+0	0.00E+0
2015	0.00E+0	0.00E+0	0.00E+0	2.98E+1	0.00E+0	0.00E+0	0.00E+0	0.00E+0
2016	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0
2017	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0
2018	0.00E+0	0.00E+0	0.00E+0	1.07E+1	0.00E+0	0.00E+0	0.00E+0	0.00E+0
2019	0.00E+0	0.00E+0	0.00E+0	2.55E+1	0.00E+0	0.00E+0	0.00E+0	0.00E+0
2020	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0
2021	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0	0.00E+0
2022 ⁽³⁾	0.00E+0	0.00E+0	0.00E+0	5.81E+1	8.57E+0	0.00E+0	1.30E+1	0.00E+0

0.00E+0 indicates no detectable measurements

(1) 2011 concentration affected by Fukushima Dai-ichi

(2) 2014 Gamma spectroscopy system was replaced 10JUL2014. Gamma spectroscopy system hardware, detector cooling apparatus, software, electronics, nuclide identification libraries, and analytical test matrix components for test matrices were modified (NCR # 0739995). No analytical changes were noted due to the 2014 gamma spectroscopy system change.

(3) NCR# 02428616

3.6 FISH and INVERTEBRATES

In 2022, fifteen fish samples were collected and analyzed for gamma emitting radionuclides, nine at the indicator locations and six at the control locations. Fish (free swimmers and bottom feeders), invertebrate (SH), and benthic organism (BO) samples were collected semiannually. Gamma spectroscopy analysis on the edible portions of each sample indicated no gamma emitting radionuclides attributable to BSEP plant operations in any indicator or control location 2022 fish samples.

K-40 is a naturally occurring radionuclide observed in fish samples.

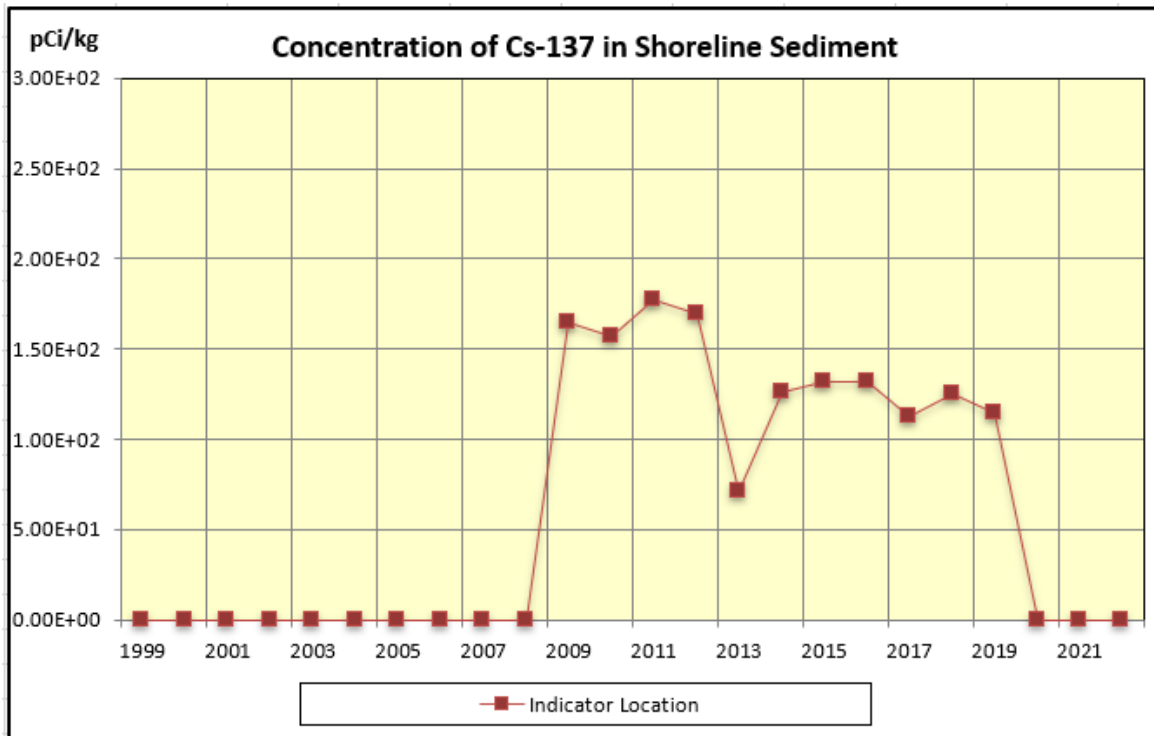
3.7 SHORELINE SEDIMENT

In 2022, four shoreline sediment samples were analyzed from two indicator locations. A gamma analysis was performed on each sample following the drying and removal of rocks and clams. There is no control shoreline sediment location. No detectable gamma activity attributable to BSEP operation was found in shoreline sediment samples in 2022.

Figure 3.7 shows Cs-137 highest annual mean indicator concentrations since 1999. Table 3.7 shows indicator location highest annual means since 1999. There is no reporting level for shoreline sediment.

K-40 observed in shoreline samples is a naturally occurring radionuclide.

Figure 3.7



There is no reporting level for Cs-137 in shoreline sediment

Table 3.7 Mean Concentration of Radionuclides in Shoreline Sediment

YEAR	Cs-137 Indicator (pCi/kg)
1999	0.00E+0
2000	0.00E+0
2001	0.00E+0
2002	0.00E+0
2003	0.00E+0
2004	0.00E+0
2005	0.00E+0
2006	0.00E+0
2007	0.00E+0
2008	0.00E+0
2009	1.65E+2
2010	1.57E+2
2011	1.77E+2
2012	1.69E+2
2013	7.13E+1
2014 ⁽¹⁾	1.26E+2
2015	1.32E+2
2016	1.32E+2
2017	1.13E+2
2018	1.25E+2
2019	1.14E+2
2020	0.00E+0
2021	0.00E+0
2022	0.00E+0

0.00E+0 indicates no detectable measurements

There is no control location for Shoreline Sediment.

(1) 2014 Gamma spectroscopy system was replaced 10JUL2014. Gamma spectroscopy system hardware, detector cooling apparatus, software, electronics, nuclide identification libraries, and analytical test matrix components for test matrices were modified (NCR # 0739995). No analytical changes were noted due to the 2014 gamma spectroscopy system change.

3.8 DIRECT GAMMA RADIATION

3.8.1 ENVIRONMENTAL TLD

The BSEP site is located on land owned entirely by Duke Energy Progress, Inc. BSEP is licensed with an exclusion area boundary defined by UFSAR Section 2.1.2. No permanent public access is permitted within the exclusion area. For the purpose of effluent release calculations, the boundary for atmospheric releases is the site boundary and the boundary for liquid releases is the site boundary or prior to dilution by a natural body of water, whichever occurs first.

In 2022, there were 179 TLDs analyzed, 175 at indicator locations and 4 at the control location. TLDs were collected and analyzed quarterly. Transit TLDs and laboratory background TLDs were used for determining transit and laboratory background dose and were subtracted from gross field readings as required by ANSI N545-1975.

TLD locations designated as "inner ring" are placed in each meteorological sector in the general area of the site boundary as is reasonably accessible and practical and all are used as indicators. Due to close proximity with Brunswick, and most being within the exclusion area boundary, inner ring TLD locations are not good indicators of radiation exposure to a member of the public, but are good at determining nearby environmental effects due to plant operation. Based on their placement, inner ring TLD locations are expected to occasionally be influenced by normal plant operation. TLD locations designated as "outer ring" are placed in each meteorological sector at distances of 8 kilometers or greater from the site as is reasonably accessible and practical. All outer ring TLD locations are used as indicators. The one "control" location is 9.98 miles WNW from station center. This location was chosen to reduce the probability of influence from Brunswick operation on data. The control location is not used as background subtraction in the TLD analysis. Its purpose is to provide a comparison to indicator locations.

The environmental data on external radiation exposure for 2022 was essentially unchanged from 1989-2022, with an average exposure for all of 2022 indicator locations of 10.5 mR per std. quarter. The TLD location with the highest annual mean of 17.3 mR per std. quarter was location 17, located 1.41 miles ESE of the plant. Control TLD location 81 had an annual mean of 10.6 mR per std. quarter.

Figure 3.8 and Table 3.8-A show TLD inner ring, outer ring, and control location annual averages in mR per std. qtr. since 1999. The differences among these locations are attributed to variations in soils, local geology, and are not the result of plant operations. Table 3.8-B shows average TLD results (All Locations) from 1972 to 1994 in mR per week. Table 3.8-C shows TLD results (All Indicator Locations) from 1995 to 2022 in mR per std. quarter.

Quarterly, environmental ODCM TLD results are compared by location to its historical data to evaluate any significant changes. The comparison utilizes the location's average exposure history to determine if quarterly results fall within expected low and high ranges and provides a reliable indication of potential changes occurring at a specific TLD location. The low and high ranges are determined by the historical average \pm two standard deviations. The quarterly TLD evaluation implements portions of American National Standard ANSI/HPS N13.37-

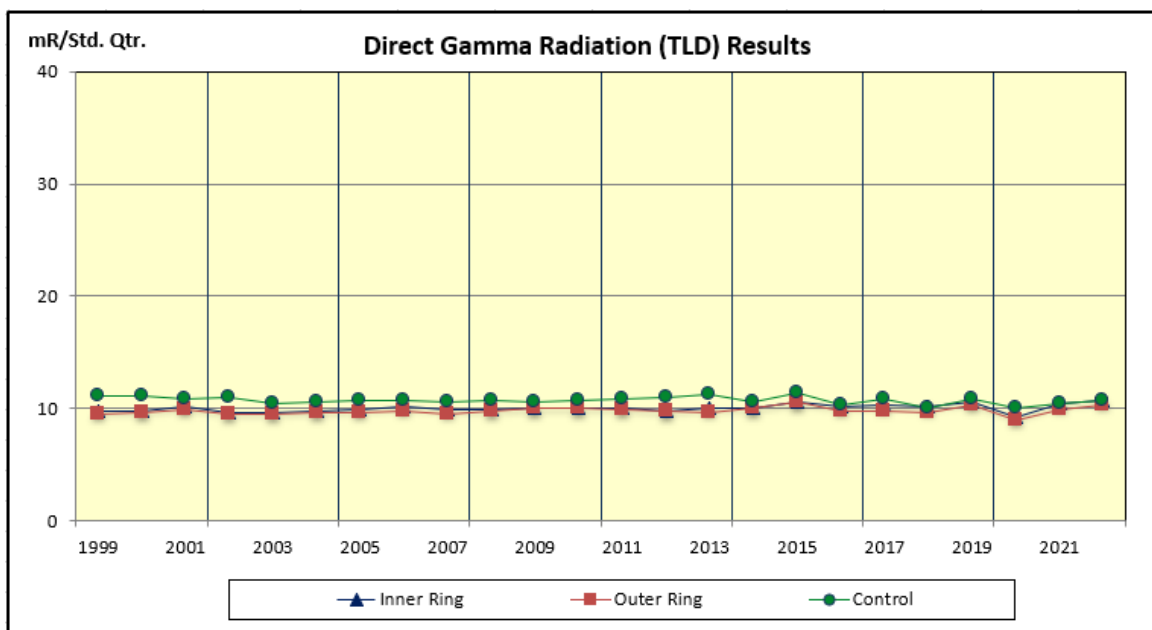
2014, “Environmental Dosimetry – Criteria for System Design and Implementation, for environmental Thermoluminescent Dosimeters (TLD)”. The CSD-RP-ALL-0030 – Updated Radiological Environmental Monitoring Program TLD Analytical Method, describes the process implemented in late 2018 for the fleet TLD programs. TLD values identified as < Low Range or > High Range are evaluated in consideration of factors including possible TLD damage, sampling deviations, glow curve irregularities, and any known environmental location changes which may affect results. TLD results are found in Appendix E. There were no TLDs in 2022 that exceeded the < Low Range or > High Range values.

A TLD Intercomparison Program is conducted as part of the quality assurance program. Results of this program are included in Section 4.7.

3.8.2 ISFSI

BSEP ISFSI TLDs were added to the program in the 3rd quarter of 2010. The ISFSI TLDs are not part of the plant’s environmental TLD monitoring program. Comparison of the 2022 ISFSI TLD data after loaded fuel with preoperational data (2008 – 3rd Quarter 2010) indicates that the average pre-op TLD dose levels were about the same as the average after fuel was loaded (Table 3.8-D). Dry fuel storage radiation measurements have been monitored since 2008 and additional information can be found in the BSEP 2022 Annual Radioactive Effluent Release Report (ARERR).

Figure 3.8



There is no reporting level for Direct Radiation (TLD)

Table 3.8-A Direct Gamma Radiation (TLD) Results

Year	Inner Ring Average (mR/Std. Qtr.)	Outer Ring Average (mR/Std. Qtr.)	Control Average (mR/Std. Qtr.)
1999	9.76E+0	9.53E+0	1.11E+1
2000	9.75E+0	9.61E+0	1.11E+1
2001	1.01E+1	9.88E+0	1.09E+1
2002	9.65E+0	9.45E+0	1.09E+1
2003	9.60E+0	9.51E+0	1.05E+1
2004	9.78E+0	9.68E+0	1.06E+1
2005	9.94E+0	9.64E+0	1.07E+1
2006	1.02E+1	9.80E+0	1.07E+1
2007	9.96E+0	9.55E+0	1.06E+1
2008	9.93E+0	9.83E+0	1.07E+1
2009	1.00E+1	9.98E+0	1.06E+1
2010	1.01E+1	1.01E+1	1.07E+1
2011	1.00E+1	9.86E+0	1.08E+1
2012	9.78E+0	9.79E+0	1.10E+1
2013	9.98E+0	9.61E+0	1.12E+1
2014 ⁽¹⁾	1.01E+1	9.98E+0	1.05E+1
2015	1.06E+1	1.06E+1	1.14E+1
2016	1.01E+1	9.76E+0	1.03E+1
2017	1.03E+1	9.73E+0	1.08E+1
2018	1.02E+1	9.62E+0	1.00E+1
2019	1.06E+1	1.03E+1	1.08E+1
2020 ⁽²⁾	9.18E+0	8.98E+0	1.00E+1
2021	1.04E+1	9.96E+0	1.05E+1
2022	1.07E+1	1.03E+1	1.07E+1

(1) In 1Q2014 Panasonic TLDs were replaced with Harshaw TLDs causing a step change in activity (NCR # 01982479)

(2) Environmental TLD dual placement (Alpha & Bravo) implemented first quarter 2020.

Table 3.8-B
BSEP TLD RESULTS (1972-1994)

Year	Average TLD Exposure All Monitoring Locations (mR per week)*
1972 (4th Qtr.)	8.00E-1
1973	1.25E+0
1974	9.70E-1
1975 (1st, 2nd Qtr)	8.00E-1
1976	9.80E-1
1977	1.32E+0
1978	1.24E+0
1979	9.30E-1
1980	9.00E-1
1981	9.60E-1
1982	1.18E+0
1983	1.21E+0
1984	9.80E-1
1985	1.03E+0
1986	8.90E-1
1987	9.20E-1
1988	8.60E-1
1989	7.50E-1
1990	7.60E-1
1991	7.60E-1
1992	7.50E-1
1993	7.80E-1
1994	7.70E-1

*TLD exposure in mR per quarter beginning in 1995, reference Table 3.8-C.

Table 3.8-C
BSEP TLD RESULTS (1995-2022)

Year	Average TLD Exposure All Indicator Locations mR per standard quarter *
1995	1.01E+1
1996	1.01E+1
1997	1.01E+1
1998	9.70E+0
1999	9.70E+0
2000	9.70E+0
2001	1.00E+1
2002	9.60E+0
2003	9.60E+0
2004	9.70E+0
2005	9.80E+0
2006	1.00E+1
2007	9.80E+0
2008	9.90E+0
2009	1.00E+1
2010	1.01E+1
2011	9.90E+0
2012	9.80E+0
2013	9.80E+0
2014	1.00E+1
2015	1.07E+1
2016	1.00E+1
2017	1.01E+1
2018	1.00E+1
2019	1.05E+1
2020	9.09E+0
2021	1.02E+1
2022	1.05E+1**

* TLD exposure reported in milliroentgen (mR) per standard quarter (91 days), beginning 1995.
** The equivalent 2022 weekly exposure is 8.1E-1 mR.

Table 3.8-D
ISFSI TLD Dose (mR/Std. Qtr.)

Year	TLD # 82	TLD # 83	TLD # 84	TLD # 85
Average Pre-Op (1Q2008 to 3Q2010)	3.01E+1	2.24E+1	1.67E+1	5.32E+1
Average after Fuel Loaded (4Q2010 to 4Q2022)	3.04E+1	2.38E+1	1.97E+1	3.38E+1

3.9 LAND USE CENSUS

The 2022 BSEP Land Use Census (LUC) was initially conducted on 6/6 – 6/7/2022 during the growing season as required by the BSEP ODCM to identify within 8 kilometers (5.0 miles) from the plant the nearest location from the site boundary in each of the sixteen meteorological sectors, the following: nearest residence, nearest garden greater than 50 square meters or 500 square feet, and the nearest milk-giving animal (cow, goat, etc.).

Additionally, the LUC must also identify (for elevated releases) within the three-mile (4.8 kilometer) radius of the plant (garden census) for each of the 16 meteorological sectors the following: all milk animals and all gardens greater in size than 500 square feet (50 square meters).

The primary method of performing the land use census is visual inspection from the roadside within the five (5) mile radius, with the exception of the Sunny Point Military Ocean terminal. This information may be supplemented with data from aerial photographs and a Global Positioning System (GPS) to determine distance and direction from the plant. Distances from the plant are accurate to within one tenth of a mile.

During the evaluation and compilation of the 6/6 - 6/7/2022 LUC results, a discrepancy between the centerlines being used for the BSEP LUC map and the BSEP ODCM maps was discovered (NCR# 02441863). The 2022 BSEP LUC conducted in June used the centerline of the site from the BSEP Updated Final Safety Analysis Report (UFSAR).

The BSEP LUC was reevaluated on 10/10 - 10/13/2022 as a result of using a different centerline from the UFSAR (NCR# 02441863). The 2022 BSEP LUC conducted in October used the reactor centerline of Unit 1 from the BSEP Updated Final Safety Analysis Report (UFSAR).

Table 3.9-A summarizes the land use census results that was conducted within five miles of BSEP. Table 3.9-B summarizes the results of the garden census that was conducted within three miles of BSEP. A map indicating identified locations is shown in Figure 3.9.

During the 2022 census, no milk locations were identified. The nearest residence is located in the West sector at 0.84 miles. Based upon the initial LUC, a supplemental air sampling location in the NNE sector and a supplemental broadleaf vegetation location in the ENE sector were added to the REMP.

Table 3.9-A

Brunswick Steam Electric Plant

Land Use Census Comparison (2021 – 2022)

Performed - June 6-7, 2022 and October 10-13, 2022

Nearest Pathway (Miles)

SECTOR	RESIDENT		GARDEN		MILK ANIMALS	
	2021	2022	2021	2022	2021	2022
N	0.74	0.87**	---	1.11*	---	---
NNE	0.82	0.91*	0.87	0.99*	---	---
NE	---	---	---	---	---	---
ENE	---	---	---	---	---	---
E	---	---	---	---	---	---
ESE	1.37	1.37	---	1.48	---	---
SE	---	---	---	---	---	---
SSE	2.13	1.22**	---	---	---	---
S	1.12	1.02*	2.28	1.50*	---	---
SSW	1.38	1.25*	1.62	1.48*	---	---
SW	1.09	0.97*	1.09	0.97*	---	---
WSW	1.24	1.27**	1.36	1.27*	---	---
W	0.85	0.84*	1.34	0.85*	---	---
WNW	0.93	0.90*	0.98	---^	---	---
NW	0.82	0.95**	4.86	0.98^	---	---
NNW	0.84	0.86**	0.92	1.02*	---	---

* Represents a change from previous year due to NCR#02441863 (Same location as identified in June 2022, but mileage changed).

** Represents a change from June 2022 due to NCR#02441863 (New closer location identified within the sector).

^ Represents a change from June 2022 due to NCR#02441863 (Closer garden identified OR no garden within the sector due to sector change).

--- Indicates no occurrence within 3 or 5 mile radius.

Sector and distance determined by Global Positioning System.

Table 3.9-B
Brunswick Steam Electric Plant
Garden Census – 2022

Performed - June 6-7, 2022 and October 10-13, 2022

SECTOR	Bearing (degrees)	DISTANCE (miles)	SECTOR	Bearing (degrees)	DISTANCE (miles)
N	177*	1.11*^	SSW	013*	2.12*
NNE	199*	0.99*^	SSW	023	2.22*
NE	---	---	SSW	021*	2.30*
ENE	---	---	SSW	025	2.45*
E	---	---	SSW	014*	2.53*
ESE	299*	1.48^	SSW	016	2.57*
SE	---	---	SSW	019*	2.72*
SSE	---	---	SW	055*	0.97*^
S	002*	1.50*^	SW	053*	2.63*
S	004*	2.17*	SW	037*	2.88*
S	003*	2.21*	WSW	078*	1.27*^
S	354*	2.26*	WSW	076*	3.22*
S	004*	2.33*	W	101*	0.85*^
S	005*	2.48*	W	094*	1.28*
S ^s	011*	1.95*	W	091*	4.07*
SSW	032	1.48*^	WNW ^s	---	---
SSW	029	1.72*	NW [#]	127*	0.98^
SSW	025	1.59*	NNW	168*	1.02*^
SSW	029	2.04*	NNW ^s	148*	4.93*

Note: Two geographical descriptors (bearing and mileage) are provided due to multiple gardens occurring in one sector and to show the shifts that occurred within the sector due to NCR#02441863. Sector and distance determined by Global Positioning System

--- Indicates no occurrence within 3 or 5 mile radius.

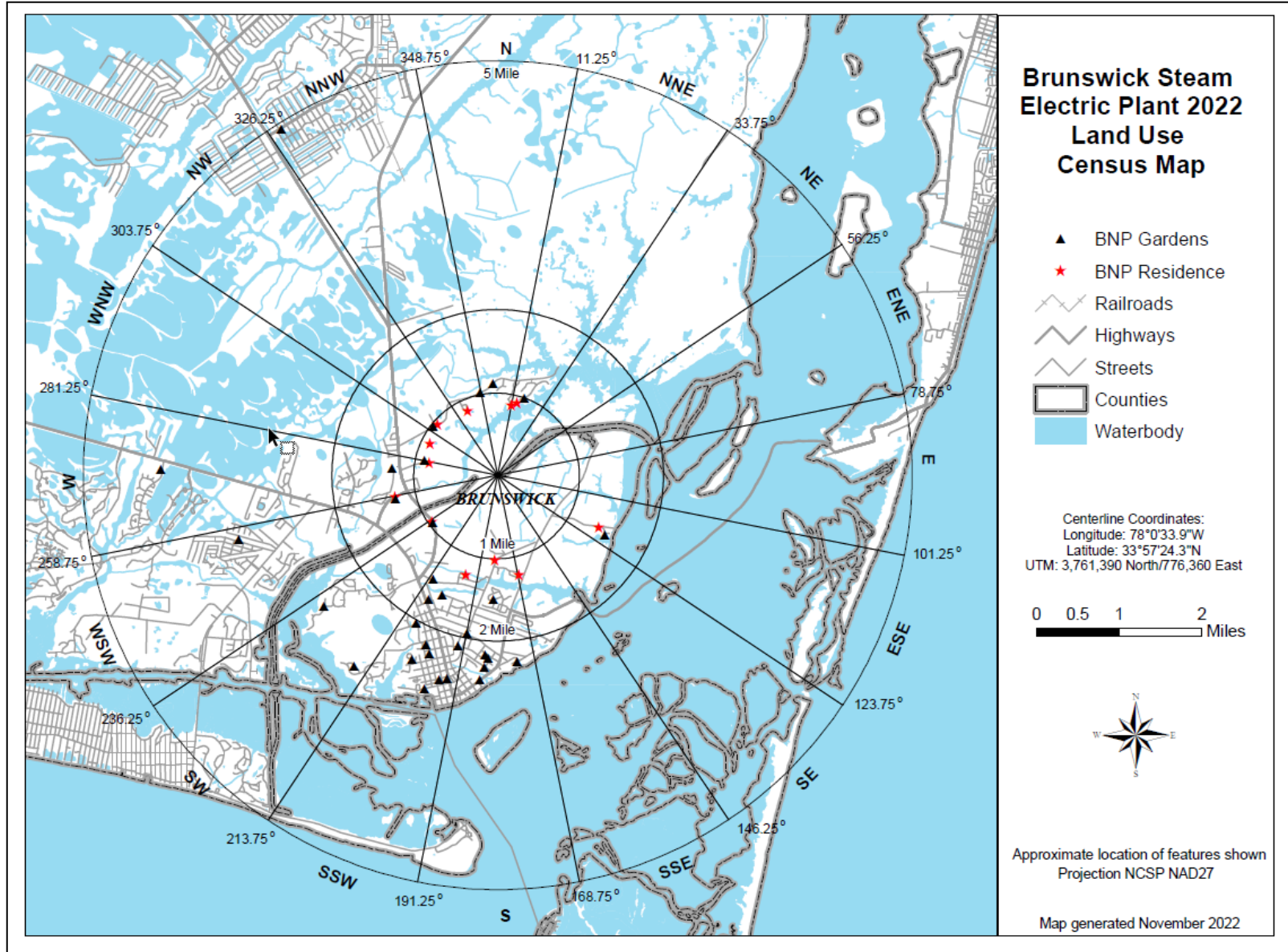
^ Indicates nearest garden in sector.

* Represents a change from previous year due to NCR#02441863 (Same garden as identified in June 2022, but mileage/bearing has changed).

Represents a change from June 2022 due to NCR#02441863 (Closer garden identified within the sector, this is a previously identified garden has changed sectors).

\$ Represents a change from June 2022 due to NCR#02441863 (Sector change, no longer a garden in the sector OR no longer the closest garden in sector).

Figure 3.9



4.0 QUALITY ASSURANCE

4.1 SAMPLE COLLECTION

Environmental sample collection at BSEP was performed by BSEP Station Sciences in 2022 as specified by approved sample collection procedures.

4.2 SAMPLE ANALYSIS

EnRad Laboratories performed the environmental sample analyses as specified by approved analysis procedures. EnRad Laboratories is located in Huntersville, North Carolina, at Duke Energy's Environmental Center.

4.3 DOSIMETRY ANALYSIS

The Dosimetry and Records group performed the environmental dosimetry measurements as specified by approved dosimetry analysis procedures. The Dosimetry and Records Laboratory is in Huntersville, North Carolina, at Duke Energy's Environmental Center.

4.4 LABORATORY EQUIPMENT QUALITY ASSURANCE

4.4.1 DAILY QUALITY CONTROL

EnRad Laboratories has an internal quality assurance program which monitors each type of instrumentation for reliability and accuracy. Daily quality control checks ensure that instruments are in proper working order and these checks are used to monitor instrument performance.

4.4.2 CALIBRATION VERIFICATION

National Institute of Standards and Technology (NIST) standards that represent counting geometries are analyzed as unknowns at various frequencies ranging from weekly to annually to verify that efficiency calibrations are valid. The frequency is dependent upon instrument use and performance. Investigations are performed and documented should calibration verification data fall outside of the acceptable limits.

4.4.3 BATCH PROCESSING

Method quality control samples are analyzed with sample analyses that are processed in batches. These include tritium analyses in surface water and ground water samples.

4.5 DUKE ENERGY INTERLABORATORY COMPARISON PROGRAM

In 2022 Duke Energy Environmental Laboratory (EnRad) participated in interlaboratory programs to satisfy Radiological Environmental Monitoring Program requirements in Duke Energy nuclear plant Offsite Dose Calculation Manuals and Selected Licensee Commitments Manuals, as applicable.

EnRad Laboratory participated in an interlaboratory program with Eckert & Ziegler Analytics (EZA) in 2022. EZA results were evaluated against the NRC Inspection Manual Procedure 84750 (IP 84750) acceptance criteria stated in EnRad Procedure 515, Cross Check Program Administration. All regulatory requirements continue to be met by the EZA Cross Check Program.

4.5.1 ECKERT & ZIEGLER ANALYTICS CROSS CHECK PROGRAM

EZA mixed gamma in liquid, mixed gamma in vegetation, mixed gamma in soil, low-level I-131 in liquid, mixed gamma air filter composites, I-131 air cartridges, gross beta in water, gross beta in filters, and tritium in water were analyzed at various times of the year at EnRad Laboratories. A summary of the applicable REMP EnRad Laboratory program results for 2022 is documented in Table 4.0-A.

Interlaboratory cross check samples from EZA were received and analyzed in two of the four quarters of 2022. Table 4.0-A lists the performance for specific samples. Forty-one nuclide results were reported to EZA of which forty-one (100%) met the acceptance criteria based on IP 84750.

4.6 STATE OF NORTH CAROLINA INTERCOMPARISON PROGRAM

EnRad Laboratories routinely participates with the North Carolina Department of Health and Human Services in an intercomparison program. EnRad Laboratories sends McGuire Nuclear Plant Radiological Environmental Monitoring Program air, drinking water, surface water, milk, fish, food products, and shoreline sediment samples to the North Carolina Department of Health and Human Services, Division of Public Health for intercomparison analysis.

4.7 TLD INTERCOMPARISON PROGRAM

Radiation Dosimetry and Records participates in a quarterly TLD internal comparison program administered internally by the Dosimetry Lab. The Dosimetry Lab Staff irradiates environmental dosimeters quarterly using the NIST-traceable Hopewell and submits them for analysis of the unknown estimated delivered exposure. The TLD results were evaluated against Radiation Dosimetry and Records Procedure RD/0/B/2000/09, Harshaw TLD Dose Algorithm Verification. Forty TLD results were evaluated of which forty (100%) met the acceptance criteria. A summary of the 2022 Internal Cross Check (Duke Energy) Program is documented in Table 4.0-B.

TABLE 4.0-A

ECKERT & ZIEGLER ANALYTICS

CROSS CHECK PROGRAM

2022 Cross Check Results for EnRad Laboratories

Interlaboratory cross check samples from EZA were received and analyzed in two of the four quarters of 2022. Results are reported directly to Eckert & Ziegler Analytics. Environmental cross check samples were analyzed in replicate, and the result closest to the mean is reported to Eckert & Ziegler Analytics. The acceptance criteria for the program was based on the NRC Inspection Manual Procedure 84750 (IP 84750). Table 4.0-A lists the performance for specific samples. Forty-one nuclide results were reported to EZA of which forty-one (100 %) met the acceptance criteria based on IP 84750.

Sample	Sample ID	Nuclide	Quarter	Units	EnRad Value	EZA Value	EnRad/EZA Ratio	Evaluation
Beta Filter in Planchet	E13558	Cs-137	2	pCi	211	223	0.94	Agreement
I-131 in Charcoal Cartridge	E13556	I-131	2	pCi	86.0	84.8	1.01	Agreement
Gamma in Soil	E13557	Ce-141	2	pCi/g	0.198	0.195	1.01	Agreement
		Co-58	2	pCi/g	0.162	0.181	0.90	Agreement
		Co-60	2	pCi/g	0.340	0.340	1.00	Agreement
		Cr-51	2	pCi/g	0.529	0.484	1.09	Agreement
		Cs-134	2	pCi/g	0.258	0.241	1.07	Agreement
		Cs-137	2	pCi/g	0.316	0.360	0.88	Agreement
		Fe-59	2	pCi/g	0.203	0.220	0.92	Agreement
		Mn-54	2	pCi/g	0.349	0.322	1.08	Agreement
		Zn-65	2	pCi/g	0.448	0.417	1.08	Agreement
Gamma in Simulated Vegetation	E13564	Ce-141	3	pCi/g	0.196	0.208	0.94	Agreement
		Co-58	3	pCi/g	0.232	0.244	0.95	Agreement
		Co-60	3	pCi/g	0.305	0.336	0.91	Agreement
		Cr-51	3	pCi/g	0.551	0.590	0.93	Agreement
		Cs-134	3	pCi/g	0.264	0.326	0.81	Agreement
		Cs-137	3	pCi/g	0.261	0.287	0.91	Agreement
		Fe-59	3	pCi/g	0.223	0.224	1.00	Agreement
		Mn-54	3	pCi/g	0.348	0.365	0.95	Agreement
		Zn-65	3	pCi/g	0.477	0.483	0.99	Agreement

TABLE 4.0-A (Cont.)

Sample	Sample ID	Nuclide	Quarter	Units	EnRad Value	EZA Value	EnRad/EZA Ratio	Evaluation
Gamma in Composite Filter	E13562	Ce-141	3	pCi	112	108	1.04	Agreement
		Co-58	3	pCi	130	126	1.03	Agreement
		Co-60	3	pCi	179	174	1.03	Agreement
		Cr-51	3	pCi	309	305	1.01	Agreement
		Cs-134	3	pCi	162	169	0.96	Agreement
		Cs-137	3	pCi	151	148	1.02	Agreement
		Fe-59	3	pCi	126	116	1.09	Agreement
		Mn-54	3	pCi	199	189	1.05	Agreement
		Zn-65	3	pCi	269	250	1.08	Agreement
Gamma in Water	E13563	Ce-141	3	pCi/L	168	157	1.07	Agreement
		Co-58	3	pCi/L	192	184	1.04	Agreement
		Co-60	3	pCi/L	266	253	1.05	Agreement
		Cr-51	3	pCi/L	490	444	1.10	Agreement
		Cs-134	3	pCi/L	233	246	0.95	Agreement
		Cs-137	3	pCi/L	231	216	1.07	Agreement
		Fe-59	3	pCi/L	190	168	1.13	Agreement
		Mn-54	3	pCi/L	297	275	1.08	Agreement
		Zn-65	3	pCi/L	396	364	1.09	Agreement
Milk LLI-131	E13559	I-131	2	pCi/L	100	93.3	1.07	Agreement
Gross Beta in Water	E13561	Cs-137	2	pCi/L	252	279	0.90	Agreement
Tritium in Water	E13565	H-3	3	pCi/L	11600	12500	0.93	Agreement

TABLE 4.0-B

2022 ENVIRONMENTAL DOSIMETER CROSS CHECK RESULTS

Internal Crosscheck (Duke Energy)

Radiation Dosimetry and Records participates in a quarterly TLD internal comparison program administered internally by the Dosimetry Lab. The Dosimetry Lab Staff irradiates environmental dosimetry quarterly and submits them for analysis of the unknown estimated delivered exposure. The TLD results were evaluated against Radiation Dosimetry and Records Procedure RD/0/B/2000/09, Harshaw TLD Dose Algorithm Verification. Forty TLD results were evaluated of which forty (100%) met the acceptance criteria.

1st Quarter 2022						2nd Quarter 2022					
TLD Number	Reported (mR)	Delivered (mR)	Bias (% diff)	Pass/Fail Criteria	Pass/Fail	TLD Number	Reported (mR)	Delivered (mR)	Bias (% diff)	Pass/Fail Criteria	Pass/Fail
103615	59.74	58.21	2.63	<+/-20%	Pass	102931	19.48	18.49	5.35	<+/-20%	Pass
102059	56.77	58.21	-2.47	<+/-20%	Pass	100029	18.10	18.49	-2.11	<+/-20%	Pass
100164	55.78	58.21	-4.17	<+/-20%	Pass	100033	17.98	18.49	-2.76	<+/-20%	Pass
102407	57.37	58.21	-1.44	<+/-20%	Pass	103721	19.90	18.49	7.63	<+/-20%	Pass
103098	60.15	58.21	3.33	<+/-20%	Pass	103212	19.62	18.49	6.11	<+/-20%	Pass
100007	56.16	58.21	-3.52	<+/-20%	Pass	100224	18.18	18.49	-1.68	<+/-20%	Pass
100038	56.16	58.21	-3.52	<+/-20%	Pass	100074	18.32	18.49	-0.92	<+/-20%	Pass
100245	54.99	58.21	-5.53	<+/-20%	Pass	102018	19.49	18.49	5.41	<+/-20%	Pass
102442	55.54	58.21	-4.59	<+/-20%	Pass	100068	18.12	18.49	-2.00	<+/-20%	Pass
100170	55.95	58.21	-3.88	<+/-20%	Pass	100028	18.22	18.49	-1.46	<+/-20%	Pass
Average Bias (B)			-2.32			Average Bias (B)			1.36		
Standard Deviation (S)			3.01			Standard Deviation (S)			4.17		
Measure Performance B +S			5.33	<20%	Pass	Measure Performance B +S			5.53	<20%	Pass
3rd Quarter 2022						4th Quarter 2022					
TLD Number	Reported (mR)	Delivered (mR)	Bias (% diff)	Pass/Fail Criteria	Pass/Fail	TLD Number	Reported (mR)	Delivered (mR)	Bias (% diff)	Pass/Fail Criteria	Pass/Fail
104776	37.17	40.39	-7.97	<+/-20%	Pass	104757	27.93	29.67	-5.86	<+/-20%	Pass
104826	37.06	40.39	-8.24	<+/-20%	Pass	104823	28.05	29.67	-5.46	<+/-20%	Pass
104474	37.27	40.39	-7.72	<+/-20%	Pass	104475	27.76	29.67	-6.44	<+/-20%	Pass
104775	36.47	40.39	-9.71	<+/-20%	Pass	104824	28.14	29.67	-5.16	<+/-20%	Pass
104827	38.17	40.39	-5.50	<+/-20%	Pass	104750	28.20	29.67	-4.95	<+/-20%	Pass
104357	36.64	40.39	-9.28	<+/-20%	Pass	104776	28.03	29.67	-5.53	<+/-20%	Pass
104353	37.42	40.39	-7.35	<+/-20%	Pass	104755	28.25	29.67	-4.79	<+/-20%	Pass
104358	35.99	40.39	-10.89	<+/-20%	Pass	104355	28.04	29.67	-5.49	<+/-20%	Pass
104355	38.17	40.39	-5.50	<+/-20%	Pass	104828	27.20	29.67	-8.32	<+/-20%	Pass
104475	36.55	40.39	-9.51	<+/-20%	Pass	104354	27.63	29.67	-6.88	<+/-20%	Pass
Average Bias (B)			-8.17			Average Bias (B)			-5.89		
Standard Deviation (S)			1.76			Standard Deviation (S)			1.07		
Measure Performance B +S			9.93	<20%	Pass	Measure Performance B +S			6.96	<20%	Pass

APPENDIX A

ENVIRONMENTAL SAMPLING
&
ANALYSIS PROCEDURES

APPENDIX A

ENVIRONMENTAL SAMPLING AND ANALYSIS PROCEDURES

Adherence to established procedures for sampling and analysis of all environmental media at the Brunswick Steam Electric Plant (BSEP) was required to ensure compliance with the BSEP Offsite Dose Calculation Manual (ODCM). Analytical procedures were employed to ensure that the ODCM detection capabilities were achieved.

Environmental sampling was performed by BNP Nuclear Station Sciences. Analyses were performed by EnRad Laboratories and Dosimetry and Records.

This appendix provides a description of the specific analyses performed on samples collected in the field. Changes to the sampling procedures and analyses procedures are also discussed in the section.

I. CHANGE OF SAMPLING PROCEDURES

Air Particulate and Air Radioiodine sampling location 207 was added to REMP on August 2, 2022, following the 2022 Land Use Census evaluation.

Broadleaf Vegetation sampling location 805 was added to REMP on August 2, 2022, following the 2022 Land Use Census evaluation.

II. DESCRIPTION OF ANALYSIS PROCEDURES

Gamma spectroscopy analyses are performed using high purity germanium gamma detectors and Mirion analytical software. Designated sample volumes are transferred to appropriate counting geometries and analyzed by gamma spectroscopy. Perishable samples such as fish and broadleaf vegetation are ground to achieve a homogeneous mixture. Soils and sediments are dried, sifted to remove foreign objects (rocks, clams, glass, etc.) then transferred to appropriate counting geometry.

Low-level iodine analyses are performed by passing a designated sample aliquot through a pre-determined amount of ion exchange resin to remove and concentrate any iodine in the aqueous sample (milk). The resin is then dried and mixed thoroughly before being transferred to appropriate counting geometry and analyzed by gamma spectroscopy.

Tritium analyses are performed by using low-level environmental liquid scintillation analysis technique on a Perkin-Elmer 4910TR liquid scintillation system or Perkin-Elmer 3100TR liquid scintillation system. Tritium samples are distilled and batch processed with a laboratory fortified blank, matrix spike, matrix spike duplicate, and blank to verify instrument performance and sample preparation technique are acceptable.

Gross beta analysis of air filters is performed by analyzing filters on Tennelec XLB Series gas-flow proportional counters. Samples are batch processed with a blank to ensure sample contamination has not occurred.

Gross beta analysis of liquid samples is performed by concentrating a designated aliquot of sample and analyzing by Perkin-Elmer 4910TR liquid scintillation system. Samples are batch processed with a blank to ensure sample contamination has not occurred.

III. CHANGE OF ANALYSIS PROCEDURES

No changes in analysis procedures were implemented during 2022

APPENDIX B

**RADIOLOGICAL
ENVIRONMENTAL MONITORING
PROGRAM**

SUMMARY OF RESULTS

BRUNSWICK STEAM ELECTRIC PLANT
RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM DATA SUMMARY

Brunswick Steam Electric Plant
 Brunswick County, North Carolina

Docket Numbers 50-324, 325
 Calendar Year 2022

Medium or Pathway Sampled or Measured (Unit of Measurement)	Type and Total No. of Measurements Performed	Lower Limit of Detection (LLD) ⁽¹⁾	All Indicator Locations ^{(2) (3)} Mean Range	Location w/Highest Annual Mean		Control Locations Mean Range ^{(2) (3)}	No. of Non-Routine Report Meas.
				Name, Distance, and Direction	Mean Range ^{(2) (3)}		
Air Particulate (pCi/m ³)	Gross Beta 386 ⁽⁴⁾	See Table 2.2-C	1.83E-2 (282/282) 5.77E-3 – 3.72E-2	207 (0.65 mi NNE)	2.17E-2 (22/22) 1.14E-2 – 3.72E-2	204 (22.4 mi NNE) 206 (11.3 mi NW) 1.86E-2 (104/104) 8.47E-3 – 3.33E-2	0
	Gamma 30 ⁽⁴⁾	See Table 2.2-C	All less than LLD	----	----	All less than LLD	0
Air Radioiodine (pCi/m ³)	Gamma 386 ⁽⁴⁾	See Table 2.2-C	All less than LLD	----	----	All less than LLD	0
Broadleaf Vegetation (pCi/kg, wet)	Gamma 67	See Table 2.2-C				All less than LLD	0
	Co-60	----	5.17E+00 (2/55) 1.76E+00 – 8.57E+00	800 (0.7 mi NE)	8.57E+00 (1/14) 8.57E+00 – 8.57E+00	All less than LLD	
	I-131	See Table 2.2-C	1.30E+01 (2/55) 9.58E+00 – 1.64E+01	800 (0.7 mi NE)	1.30E+01 (2/14) 9.58E+00 – 1.64E+01	All less than LLD	
	Cs-137	See Table 2.2-C	----	----	----	802 (10.4 mi WNW) 5.81E+01 (1/12) 5.81E+01 – 5.81E+01	
Fish and Invertebrates (pCi/l)	Gamma 15	See Table 2.2-C	All less than LLD	----	----	All less than LLD	0
Sediment - Shoreline (pCi/kg, dry)	Gamma 4	See Table 2.2-C	All less than LLD	----	----	No Control	0

**BRUNSWICK STEAM ELECTRIC PLANT
RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM DATA SUMMARY**

Brunswick Steam Electric Plant
Brunswick County, North Carolina

Docket Numbers 50-324, 325
Calendar Year 2022

Medium or Pathway Sampled or Measured (Unit of Measurement)	Type and Total No. of Measurements Performed	Lower Limit of Detection (LLD) ⁽¹⁾	All Indicator Locations ^{(2) (3)} Mean Range	Location w/Highest Annual Mean		Control Locations Mean Range ^{(2) (3)}	No. of Non-Routine Report Meas.
				Name, Distance, and Direction	Mean Range ^{(2) (3)}		
Surface Water (pCi/l)	Gamma 132	See Table 2.2-C	All less than LLD	----	----	All less than LLD	0
	Tritium 132	See Table 2.2-C	2.12E+02 (3/108) 2.03E+02 – 2.20E+02	604 Nancy's Creek Marsh Area Waypoint-92	2.12E+02 (3/12) 2.03E+02 – 2.20E+02	All less than LLD	0
Ground Water (pCi/l)	Gamma 20	See Table 2.2-C	All less than LLD	----	----	No Control	0
	Tritium 40	See Table 2.2-C	2.36E+02 (4/40) 2.18E+02 – 2.53E+02	407 Monitoring Well ESS-13B	2.36E+02 (4/4) 2.18E+02 – 2.53E+02	No Control	0
Direct Gamma Radiation (TLD) (mR per Std quarter) ⁽⁵⁾	TLD Readout 179 ⁽⁴⁾	----	1.05E+01 (175/175) 5.50E+00 – 1.92E+01	17 (1.4 mi ESE)	1.73E+01 (4/4) 1.46E+01 – 1.92E+01	81 (9.9 mi WNW) 1.06E+01 (4/4) 8.66E+00 – 1.16E+01	0
				82 SW corner of ISFSI (0.17 mi NNE)	3.59E+01 (4/4) 3.34E+01 – 4.23E+01	No Control	

Footnotes to Appendix B

1. The Lower Limit of Detection (LLD) is the smallest concentration of radioactive material in a sample that will yield a net count above system background which will be detected with 95 percent probability and with only 5 percent probability of falsely concluding that a blank observation represents a "real" signal. Due to counting statistics and varying volumes, occasionally lower LLDs are achieved. Refer to Analytical Procedures Section/Gamma Spectrometry for an explanation of how LLD values were derived.
2. Mean and range are based on detectable measurements only.
3. The fractions of all samples with detectable activities at specific locations are indicated in parentheses.
4. Missing samples or surveillances are discussed in Appendix C or Appendix D.
5. TLD exposure is reported in milliroentgen (mR) per standard quarter (91 days).

APPENDIX C

**SAMPLING DEVIATIONS
&
UNAVAILABLE ANALYSES**

APPENDIX C

BRUNSWICK NUCLEAR PLANT SAMPLING DEVIATIONS & UNAVAILABLE ANALYSES

DEVIATION & UNAVAILABLE REASON CODES			
BF	Blown Fuse	PM	Preventive Maintenance
CN	Construction	PO	Power Outage
FZ	Sample Frozen	PS	Pump out of service / Undergoing repair
IV	Insufficient Volume	SL	Sample Loss/Lost due to Lab Accident
IW	Inclement Weather	SM	Motor / Rotor Seized
LC	Line Clog to Sampler	SU	Seasonally Unavailable
OT	Other	TF	Torn Filter
PI	Power Interrupt	VN	Vandalism

C.1 SAMPLING DEVIATIONS

Air Particulate and Air Radioiodine

REMP weekly air samples (Air Particulate (AP) or Air Radioiodine (AR)) that experience any downtime during a surveillance period are reported as a Deviation and classified as a “Sampling Deviation.” However, the sample is counted and the data reported, whereas a Deviation with no available sample is classified as an “Unavailable Analyses” and does not have any data reported. The Brunswick REMP air samplers operated for a total of 99.95% availability in 2022.

Location	Scheduled Collection Dates	Code	Description & Action to Prevent Recurrence	Corrective Action
201	8/2 – 8/9/2022	PI	2.81 hours downtime due to electrical repairs.	NCR # 02436621
205	9/6 – 9/13/2022	PI	0.54 hours downtime due GFCI tripped.	NCR # 02440925
200	9/27 – 10/4/2022	PI	6.96 hours downtime due to power interrupt due to Hurricane Ian.	NCR # 02444211
206	9/27 – 10/4/2022	PI	0.35 hours downtime from power interrupt due to Hurricane Ian.	NCR # 02444211
207	9/27 – 10/4/2022	PI	17.4 hours downtime from power interrupt due to Hurricane Ian.	NCR # 02444211
200	10/4 – 10/11/2022	PI	0.15 hours downtime due to power interrupt.	NCR # 02444589
207	10/4 – 10/11/2022	PI	7.33 hours downtime due to power interrupt.	NCR # 02444586
200	10/18 – 10/25/2022	PI	0.24 hours downtime due to power interrupt.	NCR # 02446945

Surface Water

REMP monthly surface water samples (Surface Water (SW)) that experience any downtime during a surveillance period are reported as a Deviation and classified as a “Sampling Deviation.” However, the sample is counted and the data reported, whereas a Deviation with no available sample is classified as an “Unavailable Analyses” and does not have any data reported. The surface water samplers operated for a total of 100% availability in 2022. There were no surface water sampling deviations or unavailable surface water samples during 2022.

C.2 UNAVAILABLE ANALYSES

Direct Gamma Radiation (TLD)

Location	Scheduled Collection Dates	Code	Description & Action to Prevent Recurrence	Corrective Action
5	10/3 – 1/4/2023	CN	TLD location 5 was unavailable due to construction in the area. Location 5 retired and replaced with Location 91 in first quarter 2023.	NCR # 02456017

APPENDIX D

ANALYTICAL DEVIATIONS

APPENDIX D

BRUNSWICK NUCLEAR PLANT ANALYTICAL DEVIATIONS

DEVIATION & UNAVAILABLE REASON CODES			
AD	Analytical Deviation	PM	Preventive Maintenance
BF	Blown fuse	PO	Power Outage
CN	Construction	PS	Pump out of service / Undergoing repair
FZ	Sample Frozen	SL	Sample Loss/Lost due to Lab Accident
IV	Insufficient Volume	SM	Motor / Rotor Seized
IW	Inclement Weather	SU	Seasonally Unavailable
LC	Line Clog to Sampler	TF	Torn Filter
OT	Other	VN	Vandalism
PI	Power Interrupt		

D.1 ANALYTICAL DEVIATIONS

Brunswick REMP Alpha TLD at location 21 was missing at time of collection. The Bravo TLD at this location was in place.

Direct Gamma Radiation (TLD)

Location	Scheduled Collection Dates	Code	Description & Action to Prevent Recurrence	Corrective Action
21	4/1 – 7/7/2022	VN	Alpha TLD was missing and Bravo TLD was successfully collected.	NCR # 02433727

APPENDIX E

**RADIOLOGICAL
ENVIRONMENTAL MONITORING
PROGRAM RESULTS**

2022

This appendix includes sample analysis report summaries and supportive data generated from each sample medium for 2022.

BRUNSWICK Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR PARTICULATE Concentration (Activity): pCi/m3

Sample Point 200 [INDICATOR - WSW @ 1 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
558835	1/4/2022 - 1/11/2022	Beta	1.99E-02	3.09E-03	3.36E-03
559051	1/11/2022 - 1/18/2022	Beta	2.30E-02	3.22E-03	3.36E-03
559277	1/18/2022 - 1/25/2022	Beta	1.78E-02	2.94E-03	3.26E-03
560027	1/25/2022 - 2/1/2022	Beta	2.17E-02	3.26E-03	3.61E-03
560244	2/1/2022 - 2/8/2022	Beta	1.63E-02	2.84E-03	3.24E-03
560481	2/8/2022 - 2/15/2022	Beta	2.19E-02	3.18E-03	3.37E-03
560793	2/15/2022 - 2/22/2022	Beta	1.36E-02	2.87E-03	3.58E-03
561129	2/22/2022 - 3/1/2022	Beta	1.66E-02	2.87E-03	3.28E-03
561629	3/1/2022 - 3/8/2022	Beta	2.63E-02	3.04E-03	2.94E-03
562223	3/8/2022 - 3/15/2022	Beta	9.69E-03	2.54E-03	3.36E-03
562824	3/15/2022 - 3/22/2022	Beta	1.16E-02	2.68E-03	3.44E-03
563423	3/22/2022 - 3/29/2022	Beta	1.70E-02	2.77E-03	2.92E-03
563757	3/29/2022 - 4/5/2022	Beta	1.90E-02	2.67E-03	2.80E-03
563973	1/4/2022 - 4/5/2022	Cs-134	<1.78E-03	0.00E+00	1.78E-03
		Cs-137	<1.68E-03	0.00E+00	1.68E-03
		Be-7	1.98E-01	4.01E-02	2.61E-02
		K-40	3.59E-02	1.92E-02	2.25E-02
563966	4/5/2022 - 4/12/2022	Beta	1.55E-02	2.85E-03	3.35E-03
564521	4/12/2022 - 4/19/2022	Beta	1.63E-02	2.81E-03	3.11E-03
564789	4/19/2022 - 4/26/2022	Beta	2.01E-02	2.75E-03	2.88E-03
565281	4/26/2022 - 5/3/2022	Beta	2.34E-02	2.94E-03	3.04E-03
565939	5/3/2022 - 5/10/2022	Beta	1.71E-02	2.66E-03	2.96E-03
566531	5/10/2022 - 5/17/2022	Beta	8.56E-03	2.43E-03	3.28E-03
566925	5/17/2022 - 5/24/2022	Beta	1.75E-02	2.98E-03	3.43E-03
567116	5/24/2022 - 5/31/2022	Beta	1.30E-02	2.43E-03	2.91E-03

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

BRUNSWICK Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR PARTICULATE Concentration (Activity): pCi/m3

Sample Point 200 [INDICATOR - WSW @ 1 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
567546	5/31/2022 - 6/7/2022	Beta	2.00E-02	3.19E-03	3.63E-03
567722	6/7/2022 - 6/14/2022	Beta	1.35E-02	2.49E-03	3.00E-03
568358	6/14/2022 - 6/21/2022	Beta	1.89E-02	2.57E-03	2.48E-03
568597	6/21/2022 - 6/28/2022	Beta	1.86E-02	2.78E-03	3.13E-03
568805	6/28/2022 - 7/5/2022	Beta	8.61E-03	2.18E-03	2.86E-03
569045	4/5/2022 - 7/5/2022	Cs-134	<2.19E-03	0.00E+00	2.19E-03
		Cs-137	<1.37E-03	0.00E+00	1.37E-03
		Be-7	1.67E-01	3.90E-02	3.49E-02
		K-40	1.99E-02	1.48E-02	1.93E-02
569038	7/5/2022 - 7/12/2022	Beta	6.79E-03	2.05E-03	2.84E-03
570271	7/12/2022 - 7/19/2022	Beta	8.23E-03	2.19E-03	2.95E-03
570835	7/19/2022 - 7/26/2022	Beta	1.36E-02	2.78E-03	3.38E-03
571076	7/26/2022 - 8/2/2022	Beta	1.30E-02	2.44E-03	2.93E-03
571403	8/2/2022 - 8/9/2022	Beta	1.16E-02	2.38E-03	2.98E-03
571678	8/9/2022 - 8/16/2022	Beta	1.67E-02	2.70E-03	3.09E-03
572693	8/16/2022 - 8/23/2022	Beta	1.67E-02	2.50E-03	2.65E-03
573881	8/23/2022 - 8/30/2022	Beta	2.01E-02	3.01E-03	3.11E-03
574512	8/30/2022 - 9/6/2022	Beta	1.86E-02	3.02E-03	3.38E-03
574982	9/6/2022 - 9/13/2022	Beta	1.12E-02	2.32E-03	2.87E-03
575668	9/13/2022 - 9/20/2022	Beta	2.71E-02	3.04E-03	2.83E-03
576059	9/20/2022 - 9/27/2022	Beta	2.64E-02	3.45E-03	3.48E-03
576239	9/27/2022 - 10/4/2022	Beta	9.85E-03	2.50E-03	3.41E-03
576514	7/5/2022 - 10/4/2022	Cs-134	<1.56E-03	0.00E+00	1.56E-03
		Cs-137	<2.17E-03	0.00E+00	2.17E-03
		Be-7	1.44E-01	3.70E-02	3.42E-02
		K-40	<2.58E-02	0.00E+00	2.58E-02
576506	10/4/2022 - 10/11/2022	Beta	2.95E-02	3.15E-03	2.90E-03

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

BRUNSWICK Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR PARTICULATE Concentration (Activity): pCi/m3

Sample Point 200 [INDICATOR - WSW @ 1 miles]

Sample ID	Sample Dates	Nuclide	Activity	2 Sigma Error	MDA
577144	10/11/2022 - 10/18/2022	Beta	2.83E-02	3.14E-03	3.00E-03
577733	10/18/2022 - 10/25/2022	Beta	1.76E-02	2.75E-03	3.17E-03
578095	10/25/2022 - 11/1/2022	Beta	1.33E-02	2.47E-03	2.99E-03
578805	11/1/2022 - 11/8/2022	Beta	1.84E-02	2.75E-03	3.04E-03
579006	11/8/2022 - 11/15/2022	Beta	1.37E-02	2.49E-03	2.97E-03
579757	11/15/2022 - 11/22/2022	Beta	3.39E-02	3.35E-03	2.99E-03
580579	11/22/2022 - 11/29/2022	Beta	2.84E-02	3.48E-03	3.40E-03
580786	11/29/2022 - 12/6/2022	Beta	2.17E-02	3.14E-03	3.31E-03
581111	12/6/2022 - 12/13/2022	Beta	2.33E-02	2.92E-03	2.93E-03
581670	12/13/2022 - 12/20/2022	Beta	2.09E-02	3.10E-03	3.32E-03
582214	12/20/2022 - 12/27/2022	Beta	2.28E-02	2.90E-03	2.91E-03
582401	12/27/2022 - 1/3/2023	Beta	1.70E-02	2.63E-03	2.93E-03
582643	10/4/2022 - 1/3/2023	Cs-134	<1.29E-03	0.00E+00	1.29E-03
		Cs-137	<1.60E-03	0.00E+00	1.60E-03
		Be-7	1.08E-01	3.33E-02	3.60E-02
		K-40	2.51E-02	1.67E-02	2.14E-02

Sample Point 201 [INDICATOR - NE @ 0.5 miles]

Sample ID	Sample Dates	Nuclide	Activity	2 Sigma Error	MDA
558836	1/4/2022 - 1/11/2022	Beta	2.41E-02	3.28E-03	3.36E-03
559052	1/11/2022 - 1/18/2022	Beta	2.17E-02	3.14E-03	3.33E-03
559280	1/18/2022 - 1/25/2022	Beta	1.68E-02	2.90E-03	3.29E-03
560028	1/25/2022 - 2/1/2022	Beta	2.24E-02	3.30E-03	3.63E-03
560245	2/1/2022 - 2/8/2022	Beta	1.57E-02	2.80E-03	3.22E-03
560482	2/8/2022 - 2/15/2022	Beta	2.31E-02	3.22E-03	3.35E-03
560794	2/15/2022 - 2/22/2022	Beta	1.51E-02	2.94E-03	3.58E-03
561130	2/22/2022 - 3/1/2022	Beta	1.87E-02	2.99E-03	3.30E-03

BRUNSWICK Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR PARTICULATE Concentration (Activity): pCi/m3

Sample Point 201 [INDICATOR - NE @ 0.5 miles]

Sample ID	Sample Dates	Nuclide	Activity	2 Sigma Error	MDA
561630	3/1/2022 - 3/8/2022	Beta	2.34E-02	2.92E-03	2.93E-03
562224	3/8/2022 - 3/15/2022	Beta	1.28E-02	2.72E-03	3.37E-03
562825	3/15/2022 - 3/22/2022	Beta	1.41E-02	2.81E-03	3.44E-03
563424	3/22/2022 - 3/29/2022	Beta	1.64E-02	2.74E-03	2.91E-03
563758	3/29/2022 - 4/5/2022	Beta	1.87E-02	2.68E-03	2.84E-03
563974	1/4/2022 - 4/5/2022	Cs-134	<1.80E-03	0.00E+00	1.80E-03
		Cs-137	<1.60E-03	0.00E+00	1.60E-03
		Be-7	1.88E-01	4.10E-02	3.48E-02
		K-40	2.56E-02	1.34E-02	4.62E-03
563967	4/5/2022 - 4/12/2022	Beta	1.21E-02	2.66E-03	3.33E-03
564522	4/12/2022 - 4/19/2022	Beta	1.53E-02	2.74E-03	3.09E-03
564790	4/19/2022 - 4/26/2022	Beta	1.97E-02	2.73E-03	2.87E-03
565282	4/26/2022 - 5/3/2022	Beta	2.00E-02	2.82E-03	3.08E-03
565940	5/3/2022 - 5/10/2022	Beta	1.79E-02	2.69E-03	2.96E-03
566532	5/10/2022 - 5/17/2022	Beta	7.95E-03	2.38E-03	3.24E-03
566926	5/17/2022 - 5/24/2022	Beta	1.71E-02	2.97E-03	3.45E-03
567117	5/24/2022 - 5/31/2022	Beta	1.52E-02	2.54E-03	2.92E-03
567547	5/31/2022 - 6/7/2022	Beta	1.90E-02	3.14E-03	3.63E-03
567723	6/7/2022 - 6/14/2022	Beta	1.29E-02	2.44E-03	2.98E-03
568359	6/14/2022 - 6/21/2022	Beta	1.96E-02	2.58E-03	2.45E-03
568598	6/21/2022 - 6/28/2022	Beta	1.84E-02	2.81E-03	3.20E-03
568806	6/28/2022 - 7/5/2022	Beta	9.28E-03	2.21E-03	2.85E-03
569046	4/5/2022 - 7/5/2022	Cs-134	<1.43E-03	0.00E+00	1.43E-03
		Cs-137	<1.44E-03	0.00E+00	1.44E-03
		Be-7	1.51E-01	3.69E-02	3.37E-02
		K-40	<3.33E-02	0.00E+00	3.33E-02
569039	7/5/2022 - 7/12/2022	Beta	9.29E-03	2.18E-03	2.81E-03

BRUNSWICK Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR PARTICULATE Concentration (Activity): pCi/m3

Sample Point 201 [INDICATOR - NE @ 0.5 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
570272	7/12/2022 - 7/19/2022	Beta	7.48E-03	2.18E-03	2.99E-03
570836	7/19/2022 - 7/26/2022	Beta	1.52E-02	2.87E-03	3.39E-03
571077	7/26/2022 - 8/2/2022	Beta	1.62E-02	2.58E-03	2.91E-03
571404	8/2/2022 - 8/9/2022	Beta	1.17E-02	2.41E-03	3.03E-03
571679	8/9/2022 - 8/16/2022	Beta	1.75E-02	2.73E-03	3.08E-03
572694	8/16/2022 - 8/23/2022	Beta	1.77E-02	2.60E-03	2.74E-03
573882	8/23/2022 - 8/30/2022	Beta	1.54E-02	2.73E-03	3.05E-03
574513	8/30/2022 - 9/6/2022	Beta	1.91E-02	3.04E-03	3.37E-03
574983	9/6/2022 - 9/13/2022	Beta	1.03E-02	2.27E-03	2.87E-03
575669	9/13/2022 - 9/20/2022	Beta	2.80E-02	3.08E-03	2.83E-03
576060	9/20/2022 - 9/27/2022	Beta	2.74E-02	3.49E-03	3.48E-03
576240	9/27/2022 - 10/4/2022	Beta	1.01E-02	2.40E-03	3.22E-03
576515	7/5/2022 - 10/4/2022	Cs-134	<1.81E-03	0.00E+00	1.81E-03
		Cs-137	<2.06E-03	0.00E+00	2.06E-03
		Be-7	1.51E-01	3.90E-02	3.77E-02
		K-40	<3.84E-02	0.00E+00	3.84E-02
576507	10/4/2022 - 10/11/2022	Beta	2.44E-02	2.97E-03	2.94E-03
577145	10/11/2022 - 10/18/2022	Beta	2.56E-02	3.04E-03	3.01E-03
577734	10/18/2022 - 10/25/2022	Beta	1.67E-02	2.71E-03	3.16E-03
578096	10/25/2022 - 11/1/2022	Beta	1.15E-02	2.37E-03	2.98E-03
578806	11/1/2022 - 11/8/2022	Beta	1.61E-02	2.63E-03	3.04E-03
579007	11/8/2022 - 11/15/2022	Beta	1.01E-02	2.28E-03	2.94E-03
579758	11/15/2022 - 11/22/2022	Beta	2.66E-02	3.09E-03	3.02E-03
580580	11/22/2022 - 11/29/2022	Beta	2.27E-02	3.20E-03	3.37E-03
580787	11/29/2022 - 12/6/2022	Beta	2.72E-02	3.41E-03	3.33E-03

BRUNSWICK Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR PARTICULATE Concentration (Activity): pCi/m3

Sample Point 201 [INDICATOR - NE @ 0.5 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
581112	12/6/2022 - 12/13/2022	Beta	2.32E-02	2.91E-03	2.92E-03
581671	12/13/2022 - 12/20/2022	Beta	2.35E-02	3.24E-03	3.34E-03
582215	12/20/2022 - 12/27/2022	Beta	2.22E-02	2.86E-03	2.88E-03
582402	12/27/2022 - 1/3/2023	Beta	1.82E-02	2.70E-03	2.93E-03
582644	10/4/2022 - 1/3/2023	Cs-134	<1.43E-03	0.00E+00	1.43E-03
		Cs-137	<1.32E-03	0.00E+00	1.32E-03
		Be-7	1.03E-01	3.13E-02	3.33E-02
		K-40	2.58E-02	1.46E-02	1.47E-02

Sample Point 202 [INDICATOR - S @ 1 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
558837	1/4/2022 - 1/11/2022	Beta	2.38E-02	3.27E-03	3.36E-03
559053	1/11/2022 - 1/18/2022	Beta	2.29E-02	3.20E-03	3.34E-03
559283	1/18/2022 - 1/25/2022	Beta	1.72E-02	2.91E-03	3.26E-03
560029	1/25/2022 - 2/1/2022	Beta	2.13E-02	3.23E-03	3.61E-03
560246	2/1/2022 - 2/8/2022	Beta	1.71E-02	2.89E-03	3.25E-03
560483	2/8/2022 - 2/15/2022	Beta	2.62E-02	3.38E-03	3.36E-03
560795	2/15/2022 - 2/22/2022	Beta	1.69E-02	3.04E-03	3.58E-03
561131	2/22/2022 - 3/1/2022	Beta	1.95E-02	3.03E-03	3.29E-03
561631	3/1/2022 - 3/8/2022	Beta	2.32E-02	2.92E-03	2.94E-03
562225	3/8/2022 - 3/15/2022	Beta	1.02E-02	2.56E-03	3.36E-03
562826	3/15/2022 - 3/22/2022	Beta	1.02E-02	2.60E-03	3.44E-03
563425	3/22/2022 - 3/29/2022	Beta	1.92E-02	2.89E-03	2.92E-03
563759	3/29/2022 - 4/5/2022	Beta	2.11E-02	2.77E-03	2.80E-03
563975	1/4/2022 - 4/5/2022	Cs-134	<1.95E-03	0.00E+00	1.95E-03
		Cs-137	<1.22E-03	0.00E+00	1.22E-03
		Be-7	1.75E-01	4.15E-02	4.03E-02
		K-40	<4.32E-02	0.00E+00	4.32E-02
563968	4/5/2022 - 4/12/2022	Beta	1.39E-02	2.77E-03	3.34E-03

BRUNSWICK Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR PARTICULATE Concentration (Activity): pCi/m3

Sample Point 202 [INDICATOR - S @ 1 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
564523	4/12/2022 - 4/19/2022	Beta	1.50E-02	2.74E-03	3.11E-03
564791	4/19/2022 - 4/26/2022	Beta	2.29E-02	2.87E-03	2.88E-03
565283	4/26/2022 - 5/3/2022	Beta	2.16E-02	2.87E-03	3.05E-03
565941	5/3/2022 - 5/10/2022	Beta	1.73E-02	2.67E-03	2.96E-03
566533	5/10/2022 - 5/17/2022	Beta	5.77E-03	2.25E-03	3.28E-03
566927	5/17/2022 - 5/24/2022	Beta	1.76E-02	2.97E-03	3.41E-03
567118	5/24/2022 - 5/31/2022	Beta	1.29E-02	2.43E-03	2.92E-03
567548	5/31/2022 - 6/7/2022	Beta	1.94E-02	3.15E-03	3.62E-03
567724	6/7/2022 - 6/14/2022	Beta	1.26E-02	2.45E-03	3.01E-03
568360	6/14/2022 - 6/21/2022	Beta	2.23E-02	2.72E-03	2.47E-03
568599	6/21/2022 - 6/28/2022	Beta	1.59E-02	2.67E-03	3.15E-03
568807	6/28/2022 - 7/5/2022	Beta	9.53E-03	2.22E-03	2.86E-03
569047	4/5/2022 - 7/5/2022	Cs-134	<1.27E-03	0.00E+00	1.27E-03
		Cs-137	<1.04E-03	0.00E+00	1.04E-03
		Be-7	1.54E-01	3.75E-02	3.41E-02
		K-40	3.04E-02	1.45E-02	4.57E-03
569040	7/5/2022 - 7/12/2022	Beta	9.98E-03	2.23E-03	2.82E-03
570273	7/12/2022 - 7/19/2022	Beta	9.26E-03	2.24E-03	2.94E-03
570837	7/19/2022 - 7/26/2022	Beta	1.51E-02	2.87E-03	3.42E-03
571078	7/26/2022 - 8/2/2022	Beta	1.83E-02	2.70E-03	2.94E-03
571405	8/2/2022 - 8/9/2022	Beta	1.28E-02	2.45E-03	2.97E-03
571680	8/9/2022 - 8/16/2022	Beta	1.67E-02	2.69E-03	3.09E-03
572695	8/16/2022 - 8/23/2022	Beta	1.74E-02	2.53E-03	2.65E-03
573883	8/23/2022 - 8/30/2022	Beta	1.94E-02	2.97E-03	3.11E-03
574514	8/30/2022 - 9/6/2022	Beta	2.00E-02	3.09E-03	3.38E-03

BRUNSWICK Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR PARTICULATE Concentration (Activity): pCi/m3

Sample Point 202 [INDICATOR - S @ 1 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
574984	9/6/2022 - 9/13/2022	Beta	1.14E-02	2.33E-03	2.87E-03
575670	9/13/2022 - 9/20/2022	Beta	2.58E-02	2.99E-03	2.83E-03
576061	9/20/2022 - 9/27/2022	Beta	2.46E-02	3.37E-03	3.48E-03
576241	9/27/2022 - 10/4/2022	Beta	1.11E-02	2.47E-03	3.25E-03
576516	7/5/2022 - 10/4/2022	Cs-134	<1.60E-03	0.00E+00	1.60E-03
		Cs-137	<1.44E-03	0.00E+00	1.44E-03
		Be-7	1.16E-01	3.36E-02	3.54E-02
		K-40	<3.71E-02	0.00E+00	3.71E-02
576508	10/4/2022 - 10/11/2022	Beta	2.50E-02	2.97E-03	2.90E-03
577146	10/11/2022 - 10/18/2022	Beta	2.61E-02	3.06E-03	3.02E-03
577735	10/18/2022 - 10/25/2022	Beta	1.56E-02	2.65E-03	3.16E-03
578097	10/25/2022 - 11/1/2022	Beta	1.20E-02	2.42E-03	2.99E-03
578807	11/1/2022 - 11/8/2022	Beta	1.86E-02	2.75E-03	3.04E-03
579008	11/8/2022 - 11/15/2022	Beta	1.15E-02	2.37E-03	2.96E-03
579759	11/15/2022 - 11/22/2022	Beta	3.04E-02	3.23E-03	3.00E-03
580581	11/22/2022 - 11/29/2022	Beta	2.59E-02	3.37E-03	3.40E-03
580788	11/29/2022 - 12/6/2022	Beta	2.28E-02	3.18E-03	3.30E-03
581113	12/6/2022 - 12/13/2022	Beta	2.26E-02	2.90E-03	2.95E-03
581672	12/13/2022 - 12/20/2022	Beta	2.24E-02	3.17E-03	3.32E-03
582216	12/20/2022 - 12/27/2022	Beta	2.07E-02	2.81E-03	2.91E-03
582403	12/27/2022 - 1/3/2023	Beta	1.64E-02	2.61E-03	2.93E-03
582645	10/4/2022 - 1/3/2023	Cs-134	<1.64E-03	0.00E+00	1.64E-03
		Cs-137	<1.47E-03	0.00E+00	1.47E-03
		Be-7	1.40E-01	3.35E-02	2.50E-02
		K-40	<3.06E-02	0.00E+00	3.06E-02

Sample Point 203 [INDICATOR - SSW @ 2 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
558838	1/4/2022 - 1/11/2022	Beta	2.30E-02	3.23E-03	3.35E-03

BRUNSWICK Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR PARTICULATE Concentration (Activity): pCi/m3

Sample Point 203 [INDICATOR - SSW @ 2 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
559054	1/11/2022 - 1/18/2022	Beta	2.29E-02	3.20E-03	3.35E-03
559286	1/18/2022 - 1/25/2022	Beta	1.93E-02	3.01E-03	3.26E-03
560030	1/25/2022 - 2/1/2022	Beta	2.04E-02	3.19E-03	3.61E-03
560247	2/1/2022 - 2/8/2022	Beta	1.77E-02	2.92E-03	3.25E-03
560484	2/8/2022 - 2/15/2022	Beta	2.75E-02	3.43E-03	3.37E-03
560796	2/15/2022 - 2/22/2022	Beta	1.64E-02	3.01E-03	3.58E-03
561132	2/22/2022 - 3/1/2022	Beta	1.78E-02	2.94E-03	3.28E-03
561632	3/1/2022 - 3/8/2022	Beta	2.40E-02	2.95E-03	2.94E-03
562226	3/8/2022 - 3/15/2022	Beta	1.27E-02	2.71E-03	3.36E-03
562827	3/15/2022 - 3/22/2022	Beta	1.22E-02	2.71E-03	3.44E-03
563426	3/22/2022 - 3/29/2022	Beta	1.84E-02	2.84E-03	2.92E-03
563760	3/29/2022 - 4/5/2022	Beta	2.07E-02	2.75E-03	2.80E-03
563976	1/4/2022 - 4/5/2022	Cs-134	<1.24E-03	0.00E+00	1.24E-03
		Cs-137	<1.45E-03	0.00E+00	1.45E-03
		Be-7	1.72E-01	3.65E-02	2.52E-02
		K-40	<3.86E-02	0.00E+00	3.86E-02
563969	4/5/2022 - 4/12/2022	Beta	1.27E-02	2.70E-03	3.34E-03
564524	4/12/2022 - 4/19/2022	Beta	1.55E-02	2.77E-03	3.11E-03
564792	4/19/2022 - 4/26/2022	Beta	2.29E-02	2.87E-03	2.88E-03
565284	4/26/2022 - 5/3/2022	Beta	2.00E-02	2.81E-03	3.05E-03
565942	5/3/2022 - 5/10/2022	Beta	1.54E-02	2.58E-03	2.96E-03
566534	5/10/2022 - 5/17/2022	Beta	8.35E-03	2.42E-03	3.28E-03
566928	5/17/2022 - 5/24/2022	Beta	1.74E-02	2.97E-03	3.42E-03
567119	5/24/2022 - 5/31/2022	Beta	1.50E-02	2.53E-03	2.92E-03
567549	5/31/2022 - 6/7/2022	Beta	1.94E-02	3.16E-03	3.63E-03

BRUNSWICK Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR PARTICULATE Concentration (Activity): pCi/m3

Sample Point 203 [INDICATOR - SSW @ 2 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
567725	6/7/2022 - 6/14/2022	Beta	1.26E-02	2.45E-03	3.01E-03
568361	6/14/2022 - 6/21/2022	Beta	1.79E-02	2.51E-03	2.47E-03
568600	6/21/2022 - 6/28/2022	Beta	1.57E-02	2.66E-03	3.14E-03
568808	6/28/2022 - 7/5/2022	Beta	7.87E-03	2.13E-03	2.86E-03
569048	4/5/2022 - 7/5/2022	Cs-134	<1.94E-03	0.00E+00	1.94E-03
		Cs-137	<1.05E-03	0.00E+00	1.05E-03
		Be-7	1.53E-01	3.60E-02	2.93E-02
		K-40	2.05E-02	1.78E-02	2.64E-02
569041	7/5/2022 - 7/12/2022	Beta	8.41E-03	2.14E-03	2.83E-03
570274	7/12/2022 - 7/19/2022	Beta	8.66E-03	2.22E-03	2.95E-03
570838	7/19/2022 - 7/26/2022	Beta	1.48E-02	2.85E-03	3.39E-03
571079	7/26/2022 - 8/2/2022	Beta	1.45E-02	2.51E-03	2.94E-03
571406	8/2/2022 - 8/9/2022	Beta	1.17E-02	2.38E-03	2.98E-03
571681	8/9/2022 - 8/16/2022	Beta	1.87E-02	2.79E-03	3.09E-03
572696	8/16/2022 - 8/23/2022	Beta	1.93E-02	2.62E-03	2.65E-03
573884	8/23/2022 - 8/30/2022	Beta	1.83E-02	2.91E-03	3.11E-03
574515	8/30/2022 - 9/6/2022	Beta	1.93E-02	3.06E-03	3.38E-03
574985	9/6/2022 - 9/13/2022	Beta	1.02E-02	2.27E-03	2.87E-03
575671	9/13/2022 - 9/20/2022	Beta	2.86E-02	3.10E-03	2.83E-03
576062	9/20/2022 - 9/27/2022	Beta	2.79E-02	3.51E-03	3.48E-03
576242	9/27/2022 - 10/4/2022	Beta	9.24E-03	2.38E-03	3.26E-03
576517	7/5/2022 - 10/4/2022	Cs-134	<1.78E-03	0.00E+00	1.78E-03
		Cs-137	<1.77E-03	0.00E+00	1.77E-03
		Be-7	1.41E-01	3.59E-02	3.37E-02
		K-40	4.74E-02	2.05E-02	2.00E-02
576509	10/4/2022 - 10/11/2022	Beta	2.89E-02	3.13E-03	2.90E-03
577147	10/11/2022 - 10/18/2022	Beta	2.64E-02	3.06E-03	3.00E-03

BRUNSWICK Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR PARTICULATE Concentration (Activity): pCi/m3

Sample Point 203 [INDICATOR - SSW @ 2 miles]

Sample ID	Sample Dates	Nuclide	Activity	2 Sigma Error	MDA
577736	10/18/2022 - 10/25/2022	Beta	1.85E-02	2.79E-03	3.16E-03
578098	10/25/2022 - 11/1/2022	Beta	1.51E-02	2.57E-03	2.99E-03
578808	11/1/2022 - 11/8/2022	Beta	1.97E-02	2.80E-03	3.04E-03
579009	11/8/2022 - 11/15/2022	Beta	1.48E-02	2.54E-03	2.96E-03
579760	11/15/2022 - 11/22/2022	Beta	3.07E-02	3.23E-03	2.99E-03
580582	11/22/2022 - 11/29/2022	Beta	2.57E-02	3.35E-03	3.40E-03
580789	11/29/2022 - 12/6/2022	Beta	2.54E-02	3.31E-03	3.30E-03
581114	12/6/2022 - 12/13/2022	Beta	2.49E-02	2.99E-03	2.94E-03
581673	12/13/2022 - 12/20/2022	Beta	2.49E-02	3.28E-03	3.32E-03
582217	12/20/2022 - 12/27/2022	Beta	2.47E-02	2.98E-03	2.91E-03
582404	12/27/2022 - 1/3/2023	Beta	1.77E-02	2.67E-03	2.93E-03
582646	10/4/2022 - 1/3/2023	Cs-134	<1.28E-03	0.00E+00	1.28E-03
		Cs-137	<1.89E-03	0.00E+00	1.89E-03
		Be-7	1.27E-01	3.52E-02	3.65E-02
		K-40	<3.33E-02	0.00E+00	3.33E-02

Sample Point 204 [CONTROL - NNE @ 22.4 miles]

Sample ID	Sample Dates	Nuclide	Activity	2 Sigma Error	MDA
558839	1/4/2022 - 1/11/2022	Beta	2.26E-02	3.20E-03	3.33E-03
559055	1/11/2022 - 1/18/2022	Beta	2.65E-02	3.38E-03	3.38E-03
559289	1/18/2022 - 1/25/2022	Beta	1.98E-02	3.03E-03	3.24E-03
560031	1/25/2022 - 2/1/2022	Beta	2.40E-02	3.36E-03	3.61E-03
560248	2/1/2022 - 2/8/2022	Beta	1.74E-02	2.91E-03	3.26E-03
560485	2/8/2022 - 2/15/2022	Beta	2.58E-02	3.34E-03	3.34E-03
560797	2/15/2022 - 2/22/2022	Beta	1.59E-02	2.99E-03	3.59E-03
561133	2/22/2022 - 3/1/2022	Beta	2.07E-02	3.11E-03	3.32E-03
561633	3/1/2022 - 3/8/2022	Beta	2.43E-02	2.96E-03	2.94E-03

BRUNSWICK Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR PARTICULATE Concentration (Activity): pCi/m3

Sample Point 204 [CONTROL - NNE @ 22.4 miles]

Sample ID	Sample Dates	Nuclide	Activity	2 Sigma Error	MDA
562227	3/8/2022 - 3/15/2022	Beta	1.37E-02	2.75E-03	3.34E-03
562828	3/15/2022 - 3/22/2022	Beta	1.09E-02	2.64E-03	3.44E-03
563427	3/22/2022 - 3/29/2022	Beta	1.95E-02	2.91E-03	2.92E-03
563761	3/29/2022 - 4/5/2022	Beta	2.10E-02	2.78E-03	2.83E-03
563977	1/4/2022 - 4/5/2022	Cs-134	<1.48E-03	0.00E+00	1.48E-03
		Cs-137	<1.06E-03	0.00E+00	1.06E-03
		Be-7	1.65E-01	3.69E-02	2.81E-02
		K-40	<2.72E-02	0.00E+00	2.72E-02
563970	4/5/2022 - 4/12/2022	Beta	1.54E-02	2.84E-03	3.32E-03
564525	4/12/2022 - 4/19/2022	Beta	1.50E-02	2.72E-03	3.08E-03
564793	4/19/2022 - 4/26/2022	Beta	2.27E-02	2.88E-03	2.89E-03
565285	4/26/2022 - 5/3/2022	Beta	1.88E-02	2.78E-03	3.09E-03
565943	5/3/2022 - 5/10/2022	Beta	1.93E-02	2.74E-03	2.93E-03
566535	5/10/2022 - 5/17/2022	Beta	8.63E-03	2.42E-03	3.25E-03
566929	5/17/2022 - 5/24/2022	Beta	2.08E-02	3.15E-03	3.46E-03
567120	5/24/2022 - 5/31/2022	Beta	1.36E-02	2.48E-03	2.93E-03
567550	5/31/2022 - 6/7/2022	Beta	2.30E-02	3.31E-03	3.59E-03
567726	6/7/2022 - 6/14/2022	Beta	1.41E-02	2.51E-03	2.99E-03
568362	6/14/2022 - 6/21/2022	Beta	2.28E-02	2.75E-03	2.48E-03
568601	6/21/2022 - 6/28/2022	Beta	1.50E-02	2.62E-03	3.15E-03
568809	6/28/2022 - 7/5/2022	Beta	1.11E-02	2.25E-03	2.75E-03
569049	4/5/2022 - 7/5/2022	Cs-134	<1.81E-03	0.00E+00	1.81E-03
		Cs-137	<1.36E-03	0.00E+00	1.36E-03
		Be-7	1.39E-01	3.64E-02	3.59E-02
		K-40	<3.46E-02	0.00E+00	3.46E-02
569042	7/5/2022 - 7/12/2022	Beta	9.15E-03	2.26E-03	2.96E-03
570275	7/12/2022 - 7/19/2022	Beta	1.13E-02	2.35E-03	2.94E-03

BRUNSWICK Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR PARTICULATE Concentration (Activity): pCi/m3

Sample Point 204 [CONTROL - NNE @ 22.4 miles]

Sample ID	Sample Dates	Nuclide	Activity	2 Sigma Error	MDA
570839	7/19/2022 - 7/26/2022	Beta	1.42E-02	2.82E-03	3.40E-03
571080	7/26/2022 - 8/2/2022	Beta	1.50E-02	2.54E-03	2.94E-03
571407	8/2/2022 - 8/9/2022	Beta	1.27E-02	2.46E-03	3.02E-03
571682	8/9/2022 - 8/16/2022	Beta	1.61E-02	2.63E-03	3.02E-03
572697	8/16/2022 - 8/23/2022	Beta	2.11E-02	2.75E-03	2.72E-03
573886	8/23/2022 - 8/30/2022	Beta	2.41E-02	3.18E-03	3.08E-03
574516	8/30/2022 - 9/6/2022	Beta	1.85E-02	3.02E-03	3.37E-03
574986	9/6/2022 - 9/13/2022	Beta	1.06E-02	2.28E-03	2.86E-03
575672	9/13/2022 - 9/20/2022	Beta	2.83E-02	3.08E-03	2.81E-03
576063	9/20/2022 - 9/27/2022	Beta	3.01E-02	3.59E-03	3.45E-03
576243	9/27/2022 - 10/4/2022	Beta	1.17E-02	2.53E-03	3.29E-03
576518	7/5/2022 - 10/4/2022	Cs-134	<2.07E-03	0.00E+00	2.07E-03
		Cs-137	<1.80E-03	0.00E+00	1.80E-03
		Be-7	1.32E-01	3.27E-02	2.57E-02
		K-40	1.33E-02	1.24E-02	1.75E-02
576510	10/4/2022 - 10/11/2022	Beta	2.54E-02	3.00E-03	2.93E-03
577148	10/11/2022 - 10/18/2022	Beta	3.00E-02	3.12E-03	2.89E-03
577737	10/18/2022 - 10/25/2022	Beta	1.76E-02	2.81E-03	3.26E-03
578099	10/25/2022 - 11/1/2022	Beta	1.45E-02	2.56E-03	3.02E-03
578809	11/1/2022 - 11/8/2022	Beta	1.65E-02	2.63E-03	2.99E-03
579010	11/8/2022 - 11/15/2022	Beta	1.46E-02	2.53E-03	2.98E-03
579761	11/15/2022 - 11/22/2022	Beta	2.80E-02	3.12E-03	2.97E-03
580583	11/22/2022 - 11/29/2022	Beta	3.33E-02	3.69E-03	3.42E-03
580790	11/29/2022 - 12/6/2022	Beta	2.62E-02	3.36E-03	3.32E-03
581115	12/6/2022 - 12/13/2022	Beta	2.52E-02	2.99E-03	2.92E-03

BRUNSWICK Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR PARTICULATE Concentration (Activity): pCi/m3

Sample Point 204 [CONTROL - NNE @ 22.4 miles]

Sample ID	Sample Dates	Nuclide	Activity	2 Sigma Error	MDA
581674	12/13/2022 - 12/20/2022	Beta	2.38E-02	3.24E-03	3.33E-03
582218	12/20/2022 - 12/27/2022	Beta	2.33E-02	2.91E-03	2.89E-03
582405	12/27/2022 - 1/3/2023	Beta	1.90E-02	2.73E-03	2.93E-03
582647	10/4/2022 - 1/3/2023	Cs-134	<2.08E-03	0.00E+00	2.08E-03
		Cs-137	<1.37E-03	0.00E+00	1.37E-03
		Be-7	1.12E-01	3.17E-02	3.08E-02
		K-40	<3.36E-02	0.00E+00	3.36E-02

Sample Point 205 [INDICATOR - SSE @ 0.6 miles]

Sample ID	Sample Dates	Nuclide	Activity	2 Sigma Error	MDA
558840	1/4/2022 - 1/11/2022	Beta	2.06E-02	3.11E-03	3.36E-03
559056	1/11/2022 - 1/18/2022	Beta	1.79E-02	2.96E-03	3.33E-03
559292	1/18/2022 - 1/25/2022	Beta	1.66E-02	2.88E-03	3.26E-03
560032	1/25/2022 - 2/1/2022	Beta	2.15E-02	3.24E-03	3.61E-03
560249	2/1/2022 - 2/8/2022	Beta	1.73E-02	2.90E-03	3.26E-03
560486	2/8/2022 - 2/15/2022	Beta	2.36E-02	3.25E-03	3.35E-03
560798	2/15/2022 - 2/22/2022	Beta	1.54E-02	2.95E-03	3.58E-03
561134	2/22/2022 - 3/1/2022	Beta	2.00E-02	3.06E-03	3.31E-03
561634	3/1/2022 - 3/8/2022	Beta	2.04E-02	2.79E-03	2.93E-03
562228	3/8/2022 - 3/15/2022	Beta	1.01E-02	2.56E-03	3.36E-03
562829	3/15/2022 - 3/22/2022	Beta	1.03E-02	2.61E-03	3.45E-03
563428	3/22/2022 - 3/29/2022	Beta	2.12E-02	2.98E-03	2.91E-03
563762	3/29/2022 - 4/5/2022	Beta	2.05E-02	2.74E-03	2.81E-03
563978	1/4/2022 - 4/5/2022	Cs-134	<2.04E-03	0.00E+00	2.04E-03
		Cs-137	<1.68E-03	0.00E+00	1.68E-03
		Be-7	1.63E-01	3.85E-02	3.49E-02
		K-40	<3.60E-02	0.00E+00	3.60E-02
563971	4/5/2022 - 4/12/2022	Beta	1.31E-02	2.72E-03	3.34E-03
564526	4/12/2022 - 4/19/2022	Beta	1.33E-02	2.65E-03	3.11E-03

BRUNSWICK Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR PARTICULATE Concentration (Activity): pCi/m3

Sample Point 205 [INDICATOR - SSE @ 0.6 miles]

Sample ID	Sample Dates	Nuclide	Activity	2 Sigma Error	MDA
564794	4/19/2022 - 4/26/2022	Beta	2.01E-02	2.75E-03	2.87E-03
565286	4/26/2022 - 5/3/2022	Beta	2.12E-02	2.86E-03	3.05E-03
565944	5/3/2022 - 5/10/2022	Beta	1.71E-02	2.66E-03	2.96E-03
566536	5/10/2022 - 5/17/2022	Beta	8.17E-03	2.41E-03	3.27E-03
566930	5/17/2022 - 5/24/2022	Beta	1.81E-02	2.99E-03	3.41E-03
567121	5/24/2022 - 5/31/2022	Beta	1.31E-02	2.44E-03	2.93E-03
567551	5/31/2022 - 6/7/2022	Beta	2.08E-02	3.21E-03	3.61E-03
567727	6/7/2022 - 6/14/2022	Beta	1.19E-02	2.43E-03	3.02E-03
568363	6/14/2022 - 6/21/2022	Beta	1.98E-02	2.60E-03	2.46E-03
568602	6/21/2022 - 6/28/2022	Beta	1.47E-02	2.62E-03	3.16E-03
568810	6/28/2022 - 7/5/2022	Beta	9.56E-03	2.23E-03	2.86E-03
569050	4/5/2022 - 7/5/2022	Cs-134	<1.44E-03	0.00E+00	1.44E-03
		Cs-137	<1.33E-03	0.00E+00	1.33E-03
		Be-7	1.65E-01	3.66E-02	2.81E-02
		K-40	<3.27E-02	0.00E+00	3.27E-02
569043	7/5/2022 - 7/12/2022	Beta	9.74E-03	2.22E-03	2.82E-03
570276	7/12/2022 - 7/19/2022	Beta	9.95E-03	2.28E-03	2.94E-03
570840	7/19/2022 - 7/26/2022	Beta	1.50E-02	2.88E-03	3.42E-03
571081	7/26/2022 - 8/2/2022	Beta	1.41E-02	2.50E-03	2.95E-03
571408	8/2/2022 - 8/9/2022	Beta	1.12E-02	2.35E-03	2.96E-03
571683	8/9/2022 - 8/16/2022	Beta	1.72E-02	2.73E-03	3.09E-03
572698	8/16/2022 - 8/23/2022	Beta	1.80E-02	2.56E-03	2.65E-03
573887	8/23/2022 - 8/30/2022	Beta	1.82E-02	2.91E-03	3.11E-03
574517	8/30/2022 - 9/6/2022	Beta	1.99E-02	3.08E-03	3.37E-03
574987	9/6/2022 - 9/13/2022	Beta	9.75E-03	2.25E-03	2.88E-03

BRUNSWICK Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR PARTICULATE Concentration (Activity): pCi/m3

Sample Point 205 [INDICATOR - SSE @ 0.6 miles]

Sample ID:	575673	Sample Dates:	9/13/2022 - 9/20/2022	Nuclide	Activity	2 Sigma Error	MDA
				Beta	2.37E-02	2.90E-03	2.83E-03
Sample ID:	576064	Sample Dates:	9/20/2022 - 9/27/2022	Nuclide	Activity	2 Sigma Error	MDA
				Beta	2.51E-02	3.40E-03	3.48E-03
Sample ID:	576244	Sample Dates:	9/27/2022 - 10/4/2022	Nuclide	Activity	2 Sigma Error	MDA
				Beta	9.86E-03	2.41E-03	3.25E-03
Sample ID:	576519	Sample Dates:	7/5/2022 - 10/4/2022	Nuclide	Activity	2 Sigma Error	MDA
				Cs-134	<1.81E-03	0.00E+00	1.81E-03
				Cs-137	<1.89E-03	0.00E+00	1.89E-03
				Be-7	1.30E-01	3.16E-02	2.21E-02
				K-40	<3.47E-02	0.00E+00	3.47E-02
Sample ID:	576511	Sample Dates:	10/4/2022 - 10/11/2022	Nuclide	Activity	2 Sigma Error	MDA
				Beta	2.66E-02	3.03E-03	2.90E-03
Sample ID:	577149	Sample Dates:	10/11/2022 - 10/18/2022	Nuclide	Activity	2 Sigma Error	MDA
				Beta	2.41E-02	2.98E-03	3.02E-03
Sample ID:	577738	Sample Dates:	10/18/2022 - 10/25/2022	Nuclide	Activity	2 Sigma Error	MDA
				Beta	1.89E-02	2.80E-03	3.16E-03
Sample ID:	578100	Sample Dates:	10/25/2022 - 11/1/2022	Nuclide	Activity	2 Sigma Error	MDA
				Beta	1.16E-02	2.39E-03	2.99E-03
Sample ID:	578810	Sample Dates:	11/1/2022 - 11/8/2022	Nuclide	Activity	2 Sigma Error	MDA
				Beta	1.62E-02	2.64E-03	3.04E-03
Sample ID:	579011	Sample Dates:	11/8/2022 - 11/15/2022	Nuclide	Activity	2 Sigma Error	MDA
				Beta	1.31E-02	2.44E-03	2.95E-03
Sample ID:	579762	Sample Dates:	11/15/2022 - 11/22/2022	Nuclide	Activity	2 Sigma Error	MDA
				Beta	3.07E-02	3.24E-03	3.01E-03
Sample ID:	580584	Sample Dates:	11/22/2022 - 11/29/2022	Nuclide	Activity	2 Sigma Error	MDA
				Beta	2.90E-02	3.50E-03	3.40E-03
Sample ID:	580791	Sample Dates:	11/29/2022 - 12/6/2022	Nuclide	Activity	2 Sigma Error	MDA
				Beta	2.39E-02	3.23E-03	3.29E-03
Sample ID:	581116	Sample Dates:	12/6/2022 - 12/13/2022	Nuclide	Activity	2 Sigma Error	MDA
				Beta	2.41E-02	2.96E-03	2.95E-03
Sample ID:	581675	Sample Dates:	12/13/2022 - 12/20/2022	Nuclide	Activity	2 Sigma Error	MDA
				Beta	2.36E-02	3.22E-03	3.32E-03
Sample ID:	582219	Sample Dates:	12/20/2022 - 12/27/2022	Nuclide	Activity	2 Sigma Error	MDA
				Beta	2.44E-02	2.97E-03	2.91E-03
Sample ID:	582406	Sample Dates:	12/27/2022 - 1/3/2023	Nuclide	Activity	2 Sigma Error	MDA
				Beta	1.72E-02	2.64E-03	2.93E-03
Sample ID:	582648	Sample Dates:	10/4/2022 - 1/3/2023	Nuclide	Activity	2 Sigma Error	MDA
				Cs-134	<1.47E-03	0.00E+00	1.47E-03
				Cs-137	<1.21E-03	0.00E+00	1.21E-03
				Be-7	1.38E-01	3.45E-02	3.05E-02
				K-40	<4.32E-02	0.00E+00	4.32E-02

Sample Point 206 [CONTROL - NW @ 11.3 miles]

Sample ID:	558841	Sample Dates:	1/4/2022 - 1/11/2022	Nuclide	Activity	2 Sigma Error	MDA
				Beta	2.11E-02	3.11E-03	3.31E-03
Sample ID:	559057	Sample Dates:	1/11/2022 - 1/18/2022	Nuclide	Activity	2 Sigma Error	MDA
				Beta	1.85E-02	3.02E-03	3.38E-03

BRUNSWICK Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR PARTICULATE Concentration (Activity): pCi/m3

Sample Point 206 [CONTROL - NW @ 11.3 miles]

Sample ID	Sample Dates	Nuclide	Activity	2 Sigma Error	MDA
559295	1/18/2022 - 1/25/2022	Beta	1.70E-02	2.89E-03	3.24E-03
560033	1/25/2022 - 2/1/2022	Beta	1.95E-02	3.15E-03	3.61E-03
560250	2/1/2022 - 2/8/2022	Beta	1.72E-02	2.90E-03	3.27E-03
560487	2/8/2022 - 2/15/2022	Beta	2.30E-02	3.21E-03	3.34E-03
560799	2/15/2022 - 2/22/2022	Beta	1.68E-02	3.04E-03	3.58E-03
561135	2/22/2022 - 3/1/2022	Beta	1.85E-02	2.99E-03	3.32E-03
561635	3/1/2022 - 3/8/2022	Beta	2.65E-02	3.06E-03	2.94E-03
562229	3/8/2022 - 3/15/2022	Beta	1.09E-02	2.60E-03	3.34E-03
562830	3/15/2022 - 3/22/2022	Beta	1.36E-02	2.79E-03	3.44E-03
563429	3/22/2022 - 3/29/2022	Beta	1.96E-02	2.92E-03	2.92E-03
563763	3/29/2022 - 4/5/2022	Beta	2.24E-02	2.84E-03	2.82E-03
563979	1/4/2022 - 4/5/2022	Cs-134	<1.80E-03	0.00E+00	1.80E-03
		Cs-137	<1.48E-03	0.00E+00	1.48E-03
		Be-7	1.55E-01	3.68E-02	3.19E-02
		K-40	2.82E-02	1.55E-02	1.54E-02
563972	4/5/2022 - 4/12/2022	Beta	1.44E-02	2.78E-03	3.33E-03
564527	4/12/2022 - 4/19/2022	Beta	1.56E-02	2.76E-03	3.08E-03
564795	4/19/2022 - 4/26/2022	Beta	2.34E-02	2.90E-03	2.89E-03
565287	4/26/2022 - 5/3/2022	Beta	1.98E-02	2.82E-03	3.09E-03
565945	5/3/2022 - 5/10/2022	Beta	1.48E-02	2.52E-03	2.93E-03
566537	5/10/2022 - 5/17/2022	Beta	1.00E-02	2.51E-03	3.25E-03
566931	5/17/2022 - 5/24/2022	Beta	1.79E-02	3.02E-03	3.46E-03
567122	5/24/2022 - 5/31/2022	Beta	1.42E-02	2.50E-03	2.93E-03
567552	5/31/2022 - 6/7/2022	Beta	1.68E-02	3.01E-03	3.59E-03
567728	6/7/2022 - 6/14/2022	Beta	1.21E-02	2.42E-03	3.00E-03

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

BRUNSWICK Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR PARTICULATE Concentration (Activity): pCi/m3

Sample Point 206 [CONTROL - NW @ 11.3 miles]

Sample ID	Sample Dates	Nuclide	Activity	2 Sigma Error	MDA
568364	6/14/2022 - 6/21/2022	Beta	1.74E-02	2.50E-03	2.48E-03
568603	6/21/2022 - 6/28/2022	Beta	1.47E-02	2.61E-03	3.15E-03
568811	6/28/2022 - 7/5/2022	Beta	1.28E-02	2.39E-03	2.84E-03
569051	4/5/2022 - 7/5/2022	Cs-134	<2.17E-03	0.00E+00	2.17E-03
		Cs-137	<1.99E-03	0.00E+00	1.99E-03
		Be-7	1.62E-01	4.02E-02	3.84E-02
		K-40	<3.99E-02	0.00E+00	3.99E-02
569044	7/5/2022 - 7/12/2022	Beta	8.47E-03	2.16E-03	2.86E-03
570277	7/12/2022 - 7/19/2022	Beta	9.13E-03	2.20E-03	2.87E-03
570841	7/19/2022 - 7/26/2022	Beta	1.49E-02	2.91E-03	3.49E-03
571082	7/26/2022 - 8/2/2022	Beta	1.45E-02	2.51E-03	2.93E-03
571409	8/2/2022 - 8/9/2022	Beta	1.27E-02	2.46E-03	3.01E-03
571684	8/9/2022 - 8/16/2022	Beta	1.63E-02	2.65E-03	3.03E-03
572699	8/16/2022 - 8/23/2022	Beta	1.99E-02	2.69E-03	2.72E-03
573888	8/23/2022 - 8/30/2022	Beta	2.04E-02	3.00E-03	3.08E-03
574518	8/30/2022 - 9/6/2022	Beta	2.07E-02	3.12E-03	3.36E-03
574988	9/6/2022 - 9/13/2022	Beta	1.15E-02	2.33E-03	2.86E-03
575674	9/13/2022 - 9/20/2022	Beta	2.81E-02	3.08E-03	2.82E-03
576065	9/20/2022 - 9/27/2022	Beta	2.43E-02	3.36E-03	3.48E-03
576245	9/27/2022 - 10/4/2022	Beta	1.01E-02	2.42E-03	3.25E-03
576520	7/5/2022 - 10/4/2022	Cs-134	<1.00E-03	0.00E+00	1.00E-03
		Cs-137	<1.21E-03	0.00E+00	1.21E-03
		Be-7	1.44E-01	3.45E-02	2.79E-02
		K-40	<3.41E-02	0.00E+00	3.41E-02
576512	10/4/2022 - 10/11/2022	Beta	2.40E-02	2.95E-03	2.93E-03
577150	10/11/2022 - 10/18/2022	Beta	2.50E-02	3.01E-03	3.01E-03
577739	10/18/2022 - 10/25/2022	Beta	1.93E-02	2.82E-03	3.16E-03

BRUNSWICK Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR PARTICULATE Concentration (Activity): pCi/m3

Sample Point 206 [CONTROL - NW @ 11.3 miles]

Sample ID	Sample Dates	Nuclide	Activity	2 Sigma Error	MDA
578101	10/25/2022 - 11/1/2022	Beta	1.14E-02	2.38E-03	2.99E-03
578811	11/1/2022 - 11/8/2022	Beta	1.85E-02	2.73E-03	3.00E-03
579012	11/8/2022 - 11/15/2022	Beta	1.37E-02	2.48E-03	2.96E-03
579763	11/15/2022 - 11/22/2022	Beta	3.10E-02	3.24E-03	2.99E-03
580585	11/22/2022 - 11/29/2022	Beta	2.55E-02	3.34E-03	3.39E-03
580792	11/29/2022 - 12/6/2022	Beta	2.61E-02	3.35E-03	3.33E-03
581117	12/6/2022 - 12/13/2022	Beta	2.29E-02	2.89E-03	2.93E-03
581676	12/13/2022 - 12/20/2022	Beta	1.94E-02	3.05E-03	3.36E-03
582220	12/20/2022 - 12/27/2022	Beta	2.16E-02	2.82E-03	2.86E-03
582407	12/27/2022 - 1/3/2023	Beta	1.80E-02	2.68E-03	2.93E-03
582649	10/4/2022 - 1/3/2023	Cs-134	<1.34E-03	0.00E+00	1.34E-03
		Cs-137	<1.68E-03	0.00E+00	1.68E-03
		Be-7	1.18E-01	3.39E-02	3.39E-02
		K-40	<2.39E-02	0.00E+00	2.39E-02

Sample Point 207 [INDICATOR - NNE @ 0.65 miles]

Sample ID	Sample Dates	Nuclide	Activity	2 Sigma Error	MDA
571554	8/2/2022 - 8/9/2022	Beta	1.52E-02	2.60E-03	3.05E-03
571685	8/9/2022 - 8/16/2022	Beta	1.78E-02	2.70E-03	3.01E-03
572700	8/16/2022 - 8/23/2022	Beta	1.81E-02	2.61E-03	2.73E-03
573889	8/23/2022 - 8/30/2022	Beta	1.98E-02	2.95E-03	3.05E-03
574519	8/30/2022 - 9/6/2022	Beta	2.14E-02	3.15E-03	3.37E-03
574989	9/6/2022 - 9/13/2022	Beta	1.14E-02	2.34E-03	2.88E-03
575675	9/13/2022 - 9/20/2022	Beta	3.01E-02	3.15E-03	2.81E-03
576066	9/20/2022 - 9/27/2022	Beta	3.24E-02	3.72E-03	3.50E-03
576246	9/27/2022 - 10/4/2022	Beta	1.22E-02	2.73E-03	3.60E-03
576521	8/2/2022 - 10/4/2022	Cs-134	<2.25E-03	0.00E+00	2.25E-03
		Cs-137	<2.28E-03	0.00E+00	2.28E-03

BRUNSWICK Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR PARTICULATE Concentration (Activity): pCi/m3

Sample Point 207 [INDICATOR - NNE @ 0.65 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
576521	8/2/2022 - 10/4/2022	Be-7	1.69E-01	4.65E-02	4.87E-02
		K-40	<2.86E-02	0.00E+00	2.86E-02
576513	10/4/2022 - 10/11/2022	Beta	2.56E-02	3.11E-03	3.06E-03
577151	10/11/2022 - 10/18/2022	Beta	2.80E-02	3.14E-03	3.03E-03
577740	10/18/2022 - 10/25/2022	Beta	1.89E-02	2.81E-03	3.17E-03
578102	10/25/2022 - 11/1/2022	Beta	1.54E-02	2.57E-03	2.97E-03
578812	11/1/2022 - 11/8/2022	Beta	1.64E-02	2.65E-03	3.03E-03
579013	11/8/2022 - 11/15/2022	Beta	1.45E-02	2.50E-03	2.93E-03
579764	11/15/2022 - 11/22/2022	Beta	2.78E-02	3.15E-03	3.04E-03
580586	11/22/2022 - 11/29/2022	Beta	3.72E-02	3.84E-03	3.37E-03
580793	11/29/2022 - 12/6/2022	Beta	2.27E-02	3.19E-03	3.32E-03
581118	12/6/2022 - 12/13/2022	Beta	2.55E-02	3.00E-03	2.92E-03
581677	12/13/2022 - 12/20/2022	Beta	2.44E-02	3.28E-03	3.35E-03
582221	12/20/2022 - 12/27/2022	Beta	2.35E-02	2.91E-03	2.88E-03
582408	12/27/2022 - 1/3/2023	Beta	1.83E-02	2.70E-03	2.93E-03
582650	10/4/2022 - 1/3/2023	Cs-134	<1.82E-03	0.00E+00	1.82E-03
		Cs-137	<1.61E-03	0.00E+00	1.61E-03
		Be-7	1.50E-01	3.65E-02	2.96E-02
		K-40	3.72E-02	1.73E-02	1.46E-02

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 200 [INDICATOR - WSW @ 1 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
558842	1/4/2022 - 1/11/2022	I-131	<3.16E-02	0.00E+00	3.16E-02
		Cs-134	<2.55E-02	0.00E+00	2.55E-02
		Cs-137	<2.49E-02	0.00E+00	2.49E-02
		Be-7	<1.32E-01	0.00E+00	1.32E-01
		K-40	5.42E-01	2.41E-01	7.00E-02
559058	1/11/2022 - 1/18/2022	I-131	<3.07E-02	0.00E+00	3.07E-02
		Cs-134	<2.50E-02	0.00E+00	2.50E-02
		Cs-137	<2.14E-02	0.00E+00	2.14E-02
		Be-7	<1.60E-01	0.00E+00	1.60E-01
		K-40	5.89E-01	2.84E-01	2.94E-01

BRUNSWICK Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 200 [INDICATOR - WSW @ 1 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
559298	1/18/2022 - 1/25/2022	I-131	<2.92E-02	0.00E+00	2.92E-02
		Cs-134	<3.65E-02	0.00E+00	3.65E-02
		Cs-137	<3.00E-02	0.00E+00	3.00E-02
		Be-7	<1.53E-01	0.00E+00	1.53E-01
		K-40	<4.67E-01	0.00E+00	4.67E-01
560034	1/25/2022 - 2/1/2022	I-131	<3.22E-02	0.00E+00	3.22E-02
		Cs-134	<2.71E-02	0.00E+00	2.71E-02
		Cs-137	<2.60E-02	0.00E+00	2.60E-02
		Be-7	<1.61E-01	0.00E+00	1.61E-01
		K-40	<6.14E-01	0.00E+00	6.14E-01
560251	2/1/2022 - 2/8/2022	I-131	<2.98E-02	0.00E+00	2.98E-02
		Cs-134	<3.19E-02	0.00E+00	3.19E-02
		Cs-137	<2.14E-02	0.00E+00	2.14E-02
		Be-7	<1.94E-01	0.00E+00	1.94E-01
		K-40	5.75E-01	2.90E-01	3.20E-01
560488	2/8/2022 - 2/15/2022	I-131	<1.44E-02	0.00E+00	1.44E-02
		Cs-134	<2.92E-02	0.00E+00	2.92E-02
		Cs-137	<2.63E-02	0.00E+00	2.63E-02
		Be-7	<2.12E-01	0.00E+00	2.12E-01
		K-40	8.25E-01	2.99E-01	6.99E-02
560800	2/15/2022 - 2/22/2022	I-131	<2.70E-02	0.00E+00	2.70E-02
		Cs-134	<3.05E-02	0.00E+00	3.05E-02
		Cs-137	<1.97E-02	0.00E+00	1.97E-02
		Be-7	<1.71E-01	0.00E+00	1.71E-01
		K-40	4.09E-01	2.50E-01	3.00E-01
561136	2/22/2022 - 3/1/2022	I-131	<3.44E-02	0.00E+00	3.44E-02
		Cs-134	<3.02E-02	0.00E+00	3.02E-02
		Cs-137	<2.88E-02	0.00E+00	2.88E-02
		Be-7	<1.72E-01	0.00E+00	1.72E-01
		K-40	4.85E-01	2.68E-01	3.04E-01
561636	3/1/2022 - 3/8/2022	I-131	<2.91E-02	0.00E+00	2.91E-02
		Cs-134	<2.31E-02	0.00E+00	2.31E-02
		Cs-137	<2.15E-02	0.00E+00	2.15E-02
		Be-7	<2.23E-01	0.00E+00	2.23E-01
		K-40	6.60E-01	2.97E-01	2.90E-01
562230	3/8/2022 - 3/15/2022	I-131	<3.10E-02	0.00E+00	3.10E-02
		Cs-134	<3.07E-02	0.00E+00	3.07E-02
		Cs-137	<1.99E-02	0.00E+00	1.99E-02
		Be-7	<1.30E-01	0.00E+00	1.30E-01
		K-40	7.96E-01	2.93E-01	6.96E-02
562831	3/15/2022 - 3/22/2022	I-131	<2.90E-02	0.00E+00	2.90E-02
		Cs-134	<5.20E-03	0.00E+00	5.20E-03
		Cs-137	<1.97E-02	0.00E+00	1.97E-02
		Be-7	<1.87E-01	0.00E+00	1.87E-01
		K-40	4.86E-01	2.93E-01	3.75E-01
563430	3/22/2022 - 3/29/2022	I-131	<2.82E-02	0.00E+00	2.82E-02
		Cs-134	<2.52E-02	0.00E+00	2.52E-02
		Cs-137	<2.47E-02	0.00E+00	2.47E-02

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

BRUNSWICK Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 200 [INDICATOR - WSW @ 1 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
563430	3/22/2022 - 3/29/2022	Be-7	<1.79E-01	0.00E+00	1.79E-01
		K-40	8.17E-01	2.96E-01	6.92E-02
563764	3/29/2022 - 4/5/2022	I-131	<3.49E-02	0.00E+00	3.49E-02
		Cs-134	<2.05E-02	0.00E+00	2.05E-02
		Cs-137	<1.75E-02	0.00E+00	1.75E-02
		Be-7	<1.69E-01	0.00E+00	1.69E-01
		K-40	8.54E-01	3.31E-01	2.92E-01
563980	4/5/2022 - 4/12/2022	I-131	<3.70E-02	0.00E+00	3.70E-02
		Cs-134	<2.73E-02	0.00E+00	2.73E-02
		Cs-137	<2.49E-02	0.00E+00	2.49E-02
		Be-7	<1.80E-01	0.00E+00	1.80E-01
		K-40	6.15E-01	3.45E-01	4.51E-01
564528	4/12/2022 - 4/19/2022	I-131	<3.51E-02	0.00E+00	3.51E-02
		Cs-134	<2.92E-02	0.00E+00	2.92E-02
		Cs-137	<2.89E-02	0.00E+00	2.89E-02
		Be-7	<2.07E-01	0.00E+00	2.07E-01
		K-40	5.27E-01	2.72E-01	2.89E-01
564796	4/19/2022 - 4/26/2022	I-131	<2.54E-02	0.00E+00	2.54E-02
		Cs-134	<2.30E-02	0.00E+00	2.30E-02
		Cs-137	<2.14E-02	0.00E+00	2.14E-02
		Be-7	<1.70E-01	0.00E+00	1.70E-01
		K-40	7.27E-01	3.17E-01	3.19E-01
565288	4/26/2022 - 5/3/2022	I-131	<3.54E-02	0.00E+00	3.54E-02
		Cs-134	<2.84E-02	0.00E+00	2.84E-02
		Cs-137	<3.18E-02	0.00E+00	3.18E-02
		Be-7	<1.18E-01	0.00E+00	1.18E-01
		K-40	7.17E-01	3.14E-01	3.26E-01
565946	5/3/2022 - 5/10/2022	I-131	<2.32E-02	0.00E+00	2.32E-02
		Cs-134	<1.83E-02	0.00E+00	1.83E-02
		Cs-137	<1.83E-02	0.00E+00	1.83E-02
		Be-7	<1.22E-01	0.00E+00	1.22E-01
		K-40	2.30E-01	1.54E-01	6.92E-02
566538	5/10/2022 - 5/17/2022	I-131	<2.81E-02	0.00E+00	2.81E-02
		Cs-134	<1.80E-02	0.00E+00	1.80E-02
		Cs-137	<2.62E-02	0.00E+00	2.62E-02
		Be-7	<1.80E-01	0.00E+00	1.80E-01
		K-40	<5.49E-01	0.00E+00	5.49E-01
566932	5/17/2022 - 5/24/2022	I-131	<3.06E-02	0.00E+00	3.06E-02
		Cs-134	<3.17E-02	0.00E+00	3.17E-02
		Cs-137	<2.58E-02	0.00E+00	2.58E-02
		Be-7	<1.93E-01	0.00E+00	1.93E-01
		K-40	<5.68E-01	0.00E+00	5.68E-01
567123	5/24/2022 - 5/31/2022	I-131	<2.63E-02	0.00E+00	2.63E-02
		Cs-134	<2.68E-02	0.00E+00	2.68E-02
		Cs-137	<2.31E-02	0.00E+00	2.31E-02
		Be-7	<8.03E-02	0.00E+00	8.03E-02
		K-40	3.85E-01	2.19E-01	2.24E-01

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

BRUNSWICK Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 200 [INDICATOR - WSW @ 1 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
567553	5/31/2022 - 6/7/2022	I-131	<3.41E-02	0.00E+00	3.41E-02
		Cs-134	<3.24E-02	0.00E+00	3.24E-02
		Cs-137	<2.49E-02	0.00E+00	2.49E-02
		Be-7	<1.89E-01	0.00E+00	1.89E-01
		K-40	<5.93E-01	0.00E+00	5.93E-01
567729	6/7/2022 - 6/14/2022	I-131	<3.34E-02	0.00E+00	3.34E-02
		Cs-134	<2.31E-02	0.00E+00	2.31E-02
		Cs-137	<2.34E-02	0.00E+00	2.34E-02
		Be-7	<1.45E-01	0.00E+00	1.45E-01
		K-40	6.46E-01	3.11E-01	3.52E-01
568365	6/14/2022 - 6/21/2022	I-131	<3.51E-02	0.00E+00	3.51E-02
		Cs-134	<2.89E-02	0.00E+00	2.89E-02
		Cs-137	<2.74E-02	0.00E+00	2.74E-02
		Be-7	<1.97E-01	0.00E+00	1.97E-01
		K-40	5.62E-01	2.44E-01	6.93E-02
568604	6/21/2022 - 6/28/2022	I-131	<2.57E-02	0.00E+00	2.57E-02
		Cs-134	<2.45E-02	0.00E+00	2.45E-02
		Cs-137	<2.28E-02	0.00E+00	2.28E-02
		Be-7	<1.61E-01	0.00E+00	1.61E-01
		K-40	3.59E-01	2.01E-01	1.84E-01
568812	6/28/2022 - 7/5/2022	I-131	<2.90E-02	0.00E+00	2.90E-02
		Cs-134	<2.86E-02	0.00E+00	2.86E-02
		Cs-137	<1.52E-02	0.00E+00	1.52E-02
		Be-7	<1.57E-01	0.00E+00	1.57E-01
		K-40	5.04E-01	2.45E-01	2.23E-01
569052	7/5/2022 - 7/12/2022	I-131	<2.78E-02	0.00E+00	2.78E-02
		Cs-134	<2.69E-02	0.00E+00	2.69E-02
		Cs-137	<2.72E-02	0.00E+00	2.72E-02
		Be-7	<1.60E-01	0.00E+00	1.60E-01
		K-40	<5.83E-01	0.00E+00	5.83E-01
570278	7/12/2022 - 7/19/2022	I-131	<3.29E-02	0.00E+00	3.29E-02
		Cs-134	<2.90E-02	0.00E+00	2.90E-02
		Cs-137	<2.62E-02	0.00E+00	2.62E-02
		Be-7	<1.82E-01	0.00E+00	1.82E-01
		K-40	5.30E-01	2.82E-01	3.21E-01
570842	7/19/2022 - 7/26/2022	I-131	<2.02E-02	0.00E+00	2.02E-02
		Cs-134	<2.06E-02	0.00E+00	2.06E-02
		Cs-137	<2.60E-02	0.00E+00	2.60E-02
		Be-7	<1.87E-01	0.00E+00	1.87E-01
		K-40	<5.43E-01	0.00E+00	5.43E-01
571083	7/26/2022 - 8/2/2022	I-131	<5.11E-02	0.00E+00	5.11E-02
		Cs-134	<2.72E-02	0.00E+00	2.72E-02
		Cs-137	<2.73E-02	0.00E+00	2.73E-02
		Be-7	<1.91E-01	0.00E+00	1.91E-01
		K-40	5.90E-01	2.76E-01	2.63E-01
571410	8/2/2022 - 8/9/2022	I-131	<2.48E-02	0.00E+00	2.48E-02
		Cs-134	<2.67E-02	0.00E+00	2.67E-02
		Cs-137	<1.94E-02	0.00E+00	1.94E-02

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

BRUNSWICK Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 200 [INDICATOR - WSW @ 1 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
571410	8/2/2022 - 8/9/2022	Be-7	<2.02E-01	0.00E+00	2.02E-01
		K-40	<5.22E-01	0.00E+00	5.22E-01
571686	8/9/2022 - 8/16/2022	I-131	<3.05E-02	0.00E+00	3.05E-02
		Cs-134	<2.58E-02	0.00E+00	2.58E-02
		Cs-137	<2.37E-02	0.00E+00	2.37E-02
		Be-7	<1.74E-01	0.00E+00	1.74E-01
		K-40	<6.28E-01	0.00E+00	6.28E-01
572701	8/16/2022 - 8/23/2022	I-131	<2.93E-02	0.00E+00	2.93E-02
		Cs-134	<2.25E-02	0.00E+00	2.25E-02
		Cs-137	<2.54E-02	0.00E+00	2.54E-02
		Be-7	<1.48E-01	0.00E+00	1.48E-01
		K-40	5.53E-01	2.64E-01	2.51E-01
573890	8/23/2022 - 8/30/2022	I-131	<2.89E-02	0.00E+00	2.89E-02
		Cs-134	<2.09E-02	0.00E+00	2.09E-02
		Cs-137	<2.17E-02	0.00E+00	2.17E-02
		Be-7	<1.63E-01	0.00E+00	1.63E-01
		K-40	<4.30E-01	0.00E+00	4.30E-01
574520	8/30/2022 - 9/6/2022	I-131	<3.76E-02	0.00E+00	3.76E-02
		Cs-134	<2.91E-02	0.00E+00	2.91E-02
		Cs-137	<2.75E-02	0.00E+00	2.75E-02
		Be-7	<1.91E-01	0.00E+00	1.91E-01
		K-40	2.39E-01	2.91E-01	4.73E-01
574990	9/6/2022 - 9/13/2022	I-131	<3.64E-02	0.00E+00	3.64E-02
		Cs-134	<1.42E-02	0.00E+00	1.42E-02
		Cs-137	<2.16E-02	0.00E+00	2.16E-02
		Be-7	<2.03E-01	0.00E+00	2.03E-01
		K-40	4.43E-01	2.44E-01	2.57E-01
575676	9/13/2022 - 9/20/2022	I-131	<2.38E-02	0.00E+00	2.38E-02
		Cs-134	<2.27E-02	0.00E+00	2.27E-02
		Cs-137	<1.76E-02	0.00E+00	1.76E-02
		Be-7	<1.54E-01	0.00E+00	1.54E-01
		K-40	6.36E-01	2.81E-01	2.64E-01
576067	9/20/2022 - 9/27/2022	I-131	<2.29E-02	0.00E+00	2.29E-02
		Cs-134	<2.18E-02	0.00E+00	2.18E-02
		Cs-137	<2.61E-02	0.00E+00	2.61E-02
		Be-7	<7.71E-02	0.00E+00	7.71E-02
		K-40	<5.54E-01	0.00E+00	5.54E-01
576247	9/27/2022 - 10/4/2022	I-131	<5.30E-02	0.00E+00	5.30E-02
		Cs-134	<2.55E-02	0.00E+00	2.55E-02
		Cs-137	<2.37E-02	0.00E+00	2.37E-02
		Be-7	<2.47E-01	0.00E+00	2.47E-01
		K-40	<7.39E-01	0.00E+00	7.39E-01
576522	10/4/2022 - 10/11/2022	I-131	<4.67E-02	0.00E+00	4.67E-02
		Cs-134	<2.40E-02	0.00E+00	2.40E-02
		Cs-137	<2.98E-02	0.00E+00	2.98E-02
		Be-7	<1.61E-01	0.00E+00	1.61E-01
		K-40	5.36E-01	2.68E-01	2.64E-01

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

BRUNSWICK Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 200 [INDICATOR - WSW @ 1 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
577152	10/11/2022 - 10/18/2022	I-131	<4.40E-02	0.00E+00	4.40E-02
		Cs-134	<3.19E-02	0.00E+00	3.19E-02
		Cs-137	<2.25E-02	0.00E+00	2.25E-02
		Be-7	<2.77E-01	0.00E+00	2.77E-01
		K-40	5.63E-01	2.76E-01	2.71E-01
577741	10/18/2022 - 10/25/2022	I-131	<4.18E-02	0.00E+00	4.18E-02
		Cs-134	<3.66E-02	0.00E+00	3.66E-02
		Cs-137	<2.43E-02	0.00E+00	2.43E-02
		Be-7	<2.55E-01	0.00E+00	2.55E-01
		K-40	5.66E-01	2.77E-01	2.71E-01
578103	10/25/2022 - 11/1/2022	I-131	<4.35E-02	0.00E+00	4.35E-02
		Cs-134	<3.51E-02	0.00E+00	3.51E-02
		Cs-137	<2.43E-02	0.00E+00	2.43E-02
		Be-7	<2.28E-01	0.00E+00	2.28E-01
		K-40	5.24E-01	2.88E-01	3.35E-01
578813	11/1/2022 - 11/8/2022	I-131	<3.91E-02	0.00E+00	3.91E-02
		Cs-134	<2.73E-02	0.00E+00	2.73E-02
		Cs-137	<2.01E-02	0.00E+00	2.01E-02
		Be-7	<1.48E-01	0.00E+00	1.48E-01
		K-40	5.48E-01	2.94E-01	3.52E-01
579014	11/8/2022 - 11/15/2022	I-131	<4.18E-02	0.00E+00	4.18E-02
		Cs-134	<3.04E-02	0.00E+00	3.04E-02
		Cs-137	<3.26E-02	0.00E+00	3.26E-02
		Be-7	<2.14E-01	0.00E+00	2.14E-01
		K-40	2.66E-01	2.69E-01	4.15E-01
579765	11/15/2022 - 11/22/2022	I-131	<5.33E-02	0.00E+00	5.33E-02
		Cs-134	<2.66E-02	0.00E+00	2.66E-02
		Cs-137	<2.26E-02	0.00E+00	2.26E-02
		Be-7	<1.87E-01	0.00E+00	1.87E-01
		K-40	<4.64E-01	0.00E+00	4.64E-01
580587	11/22/2022 - 11/29/2022	I-131	<2.60E-02	0.00E+00	2.60E-02
		Cs-134	<2.30E-02	0.00E+00	2.30E-02
		Cs-137	<3.00E-02	0.00E+00	3.00E-02
		Be-7	<1.57E-01	0.00E+00	1.57E-01
		K-40	8.19E-01	3.15E-01	2.61E-01
580794	11/29/2022 - 12/6/2022	I-131	<4.24E-02	0.00E+00	4.24E-02
		Cs-134	<2.17E-02	0.00E+00	2.17E-02
		Cs-137	<2.87E-02	0.00E+00	2.87E-02
		Be-7	<1.91E-01	0.00E+00	1.91E-01
		K-40	<5.51E-01	0.00E+00	5.51E-01
581119	12/6/2022 - 12/13/2022	I-131	<3.25E-02	0.00E+00	3.25E-02
		Cs-134	<2.48E-02	0.00E+00	2.48E-02
		Cs-137	<2.14E-02	0.00E+00	2.14E-02
		Be-7	<1.66E-01	0.00E+00	1.66E-01
		K-40	<5.76E-01	0.00E+00	5.76E-01
581678	12/13/2022 - 12/20/2022	I-131	<5.27E-02	0.00E+00	5.27E-02
		Cs-134	<2.70E-02	0.00E+00	2.70E-02
		Cs-137	<2.03E-02	0.00E+00	2.03E-02

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

BRUNSWICK Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 200 [INDICATOR - WSW @ 1 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
581678	12/13/2022 - 12/20/2022	Be-7	<1.47E-01	0.00E+00	1.47E-01
		K-40	4.19E-01	2.60E-01	3.35E-01
582222	12/20/2022 - 12/27/2022	I-131	<4.96E-02	0.00E+00	4.96E-02
		Cs-134	<1.82E-02	0.00E+00	1.82E-02
		Cs-137	<2.53E-02	0.00E+00	2.53E-02
		Be-7	<1.71E-01	0.00E+00	1.71E-01
		K-40	<4.75E-01	0.00E+00	4.75E-01
582409	12/27/2022 - 1/3/2023	I-131	<3.14E-02	0.00E+00	3.14E-02
		Cs-134	<2.89E-02	0.00E+00	2.89E-02
		Cs-137	<2.49E-02	0.00E+00	2.49E-02
		Be-7	<1.47E-01	0.00E+00	1.47E-01
		K-40	8.23E-01	3.16E-01	2.62E-01

Sample Point 201 [INDICATOR - NE @ 0.5 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
558843	1/4/2022 - 1/11/2022	I-131	<3.58E-02	0.00E+00	3.58E-02
		Cs-134	<2.87E-02	0.00E+00	2.87E-02
		Cs-137	<2.62E-02	0.00E+00	2.62E-02
		Be-7	<1.77E-01	0.00E+00	1.77E-01
		K-40	<5.94E-01	0.00E+00	5.94E-01
559059	1/11/2022 - 1/18/2022	I-131	<3.05E-02	0.00E+00	3.05E-02
		Cs-134	<2.27E-02	0.00E+00	2.27E-02
		Cs-137	<2.95E-02	0.00E+00	2.95E-02
		Be-7	<1.89E-01	0.00E+00	1.89E-01
		K-40	7.33E-01	2.98E-01	2.62E-01
559301	1/18/2022 - 1/25/2022	I-131	<2.72E-02	0.00E+00	2.72E-02
		Cs-134	<2.10E-02	0.00E+00	2.10E-02
		Cs-137	<3.25E-02	0.00E+00	3.25E-02
		Be-7	<1.73E-01	0.00E+00	1.73E-01
		K-40	8.56E-01	3.06E-01	7.03E-02
560035	1/25/2022 - 2/1/2022	I-131	<2.42E-02	0.00E+00	2.42E-02
		Cs-134	<2.48E-02	0.00E+00	2.48E-02
		Cs-137	<1.96E-02	0.00E+00	1.96E-02
		Be-7	<1.82E-01	0.00E+00	1.82E-01
		K-40	4.65E-01	2.75E-01	3.46E-01
560252	2/1/2022 - 2/8/2022	I-131	<2.36E-02	0.00E+00	2.36E-02
		Cs-134	<2.01E-02	0.00E+00	2.01E-02
		Cs-137	<2.27E-02	0.00E+00	2.27E-02
		Be-7	<2.23E-01	0.00E+00	2.23E-01
		K-40	3.78E-01	2.12E-01	2.10E-01
560489	2/8/2022 - 2/15/2022	I-131	<2.76E-02	0.00E+00	2.76E-02
		Cs-134	<1.39E-02	0.00E+00	1.39E-02
		Cs-137	<2.45E-02	0.00E+00	2.45E-02
		Be-7	<1.82E-01	0.00E+00	1.82E-01
		K-40	<5.22E-01	0.00E+00	5.22E-01
560801	2/15/2022 - 2/22/2022	I-131	<3.29E-02	0.00E+00	3.29E-02
		Cs-134	<1.75E-02	0.00E+00	1.75E-02
		Cs-137	<1.76E-02	0.00E+00	1.76E-02
		Be-7	<1.98E-01	0.00E+00	1.98E-01

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

BRUNSWICK Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 201 [INDICATOR - NE @ 0.5 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
560801	2/15/2022 - 2/22/2022	K-40	4.40E-01	2.10E-01	6.62E-02
561137	2/22/2022 - 3/1/2022	I-131	<2.28E-02	0.00E+00	2.28E-02
		Cs-134	<2.54E-02	0.00E+00	2.54E-02
		Cs-137	<2.01E-02	0.00E+00	2.01E-02
		Be-7	<8.22E-02	0.00E+00	8.22E-02
		K-40	5.26E-01	2.71E-01	2.94E-01
561637	3/1/2022 - 3/8/2022	I-131	<2.41E-02	0.00E+00	2.41E-02
		Cs-134	<2.17E-02	0.00E+00	2.17E-02
		Cs-137	<1.87E-02	0.00E+00	1.87E-02
		Be-7	<1.36E-01	0.00E+00	1.36E-01
		K-40	5.18E-01	2.78E-01	3.33E-01
562231	3/8/2022 - 3/15/2022	I-131	<3.47E-02	0.00E+00	3.47E-02
		Cs-134	<2.45E-02	0.00E+00	2.45E-02
		Cs-137	<2.28E-02	0.00E+00	2.28E-02
		Be-7	<1.89E-01	0.00E+00	1.89E-01
		K-40	5.76E-01	2.61E-01	2.27E-01
562832	3/15/2022 - 3/22/2022	I-131	<2.07E-02	0.00E+00	2.07E-02
		Cs-134	<2.43E-02	0.00E+00	2.43E-02
		Cs-137	<1.73E-02	0.00E+00	1.73E-02
		Be-7	<1.80E-01	0.00E+00	1.80E-01
		K-40	3.37E-01	1.99E-01	1.97E-01
563431	3/22/2022 - 3/29/2022	I-131	<2.78E-02	0.00E+00	2.78E-02
		Cs-134	<3.14E-02	0.00E+00	3.14E-02
		Cs-137	<2.13E-02	0.00E+00	2.13E-02
		Be-7	<1.53E-01	0.00E+00	1.53E-01
		K-40	6.33E-01	2.53E-01	6.60E-02
563765	3/29/2022 - 4/5/2022	I-131	<2.88E-02	0.00E+00	2.88E-02
		Cs-134	<2.48E-02	0.00E+00	2.48E-02
		Cs-137	<2.14E-02	0.00E+00	2.14E-02
		Be-7	<1.43E-01	0.00E+00	1.43E-01
		K-40	6.12E-01	2.50E-01	6.64E-02
563981	4/5/2022 - 4/12/2022	I-131	<3.57E-02	0.00E+00	3.57E-02
		Cs-134	<1.40E-02	0.00E+00	1.40E-02
		Cs-137	<1.97E-02	0.00E+00	1.97E-02
		Be-7	<1.43E-01	0.00E+00	1.43E-01
		K-40	<5.64E-01	0.00E+00	5.64E-01
564529	4/12/2022 - 4/19/2022	I-131	<2.45E-02	0.00E+00	2.45E-02
		Cs-134	<2.67E-02	0.00E+00	2.67E-02
		Cs-137	<1.76E-02	0.00E+00	1.76E-02
		Be-7	<1.33E-01	0.00E+00	1.33E-01
		K-40	7.33E-01	2.74E-01	6.62E-02
564797	4/19/2022 - 4/26/2022	I-131	<2.37E-02	0.00E+00	2.37E-02
		Cs-134	<1.76E-02	0.00E+00	1.76E-02
		Cs-137	<2.60E-02	0.00E+00	2.60E-02
		Be-7	<1.43E-01	0.00E+00	1.43E-01
		K-40	4.70E-01	2.49E-01	2.64E-01

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

BRUNSWICK Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 201 [INDICATOR - NE @ 0.5 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
565289	4/26/2022 - 5/3/2022	I-131	<4.47E-02	0.00E+00	4.47E-02
		Cs-134	<3.54E-02	0.00E+00	3.54E-02
		Cs-137	<2.63E-02	0.00E+00	2.63E-02
		Be-7	<2.05E-01	0.00E+00	2.05E-01
		K-40	4.97E-01	2.32E-01	7.09E-02
565947	5/3/2022 - 5/10/2022	I-131	<2.61E-02	0.00E+00	2.61E-02
		Cs-134	<2.05E-02	0.00E+00	2.05E-02
		Cs-137	<1.52E-02	0.00E+00	1.52E-02
		Be-7	<1.01E-01	0.00E+00	1.01E-01
		K-40	<4.90E-01	0.00E+00	4.90E-01
566539	5/10/2022 - 5/17/2022	I-131	<2.23E-02	0.00E+00	2.23E-02
		Cs-134	<2.46E-02	0.00E+00	2.46E-02
		Cs-137	<2.13E-02	0.00E+00	2.13E-02
		Be-7	<1.63E-01	0.00E+00	1.63E-01
		K-40	3.01E-01	2.40E-01	3.41E-01
566933	5/17/2022 - 5/24/2022	I-131	<2.63E-02	0.00E+00	2.63E-02
		Cs-134	<3.28E-02	0.00E+00	3.28E-02
		Cs-137	<1.75E-02	0.00E+00	1.75E-02
		Be-7	<1.17E-01	0.00E+00	1.17E-01
		K-40	4.30E-01	2.53E-01	3.05E-01
567124	5/24/2022 - 5/31/2022	I-131	<2.17E-02	0.00E+00	2.17E-02
		Cs-134	<2.25E-02	0.00E+00	2.25E-02
		Cs-137	<1.19E-02	0.00E+00	1.19E-02
		Be-7	<1.29E-01	0.00E+00	1.29E-01
		K-40	<5.26E-01	0.00E+00	5.26E-01
567554	5/31/2022 - 6/7/2022	I-131	<3.13E-02	0.00E+00	3.13E-02
		Cs-134	<2.29E-02	0.00E+00	2.29E-02
		Cs-137	<1.97E-02	0.00E+00	1.97E-02
		Be-7	<1.74E-01	0.00E+00	1.74E-01
		K-40	<5.92E-01	0.00E+00	5.92E-01
567730	6/7/2022 - 6/14/2022	I-131	<3.03E-02	0.00E+00	3.03E-02
		Cs-134	<2.45E-02	0.00E+00	2.45E-02
		Cs-137	<1.50E-02	0.00E+00	1.50E-02
		Be-7	<1.87E-01	0.00E+00	1.87E-01
		K-40	<5.25E-01	0.00E+00	5.25E-01
568366	6/14/2022 - 6/21/2022	I-131	<3.35E-02	0.00E+00	3.35E-02
		Cs-134	<2.24E-02	0.00E+00	2.24E-02
		Cs-137	<2.11E-02	0.00E+00	2.11E-02
		Be-7	<1.81E-01	0.00E+00	1.81E-01
		K-40	6.09E-01	2.69E-01	2.40E-01
568605	6/21/2022 - 6/28/2022	I-131	<3.34E-02	0.00E+00	3.34E-02
		Cs-134	<2.75E-02	0.00E+00	2.75E-02
		Cs-137	<2.37E-02	0.00E+00	2.37E-02
		Be-7	<1.20E-01	0.00E+00	1.20E-01
		K-40	<5.09E-01	0.00E+00	5.09E-01
568813	6/28/2022 - 7/5/2022	I-131	<3.61E-02	0.00E+00	3.61E-02
		Cs-134	<2.53E-02	0.00E+00	2.53E-02
		Cs-137	<2.87E-02	0.00E+00	2.87E-02

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

BRUNSWICK Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 201 [INDICATOR - NE @ 0.5 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
568813	6/28/2022 - 7/5/2022	Be-7	<2.06E-01	0.00E+00	2.06E-01
		K-40	7.43E-01	2.82E-01	6.94E-02
569053	7/5/2022 - 7/12/2022	I-131	<2.83E-02	0.00E+00	2.83E-02
		Cs-134	<1.99E-02	0.00E+00	1.99E-02
		Cs-137	<2.10E-02	0.00E+00	2.10E-02
		Be-7	<1.70E-01	0.00E+00	1.70E-01
		K-40	7.49E-01	2.94E-01	2.39E-01
570279	7/12/2022 - 7/19/2022	I-131	<2.30E-02	0.00E+00	2.30E-02
		Cs-134	<2.07E-02	0.00E+00	2.07E-02
		Cs-137	<2.17E-02	0.00E+00	2.17E-02
		Be-7	<2.03E-01	0.00E+00	2.03E-01
		K-40	8.02E-01	3.30E-01	3.31E-01
570843	7/19/2022 - 7/26/2022	I-131	<1.91E-02	0.00E+00	1.91E-02
		Cs-134	<2.66E-02	0.00E+00	2.66E-02
		Cs-137	<1.96E-02	0.00E+00	1.96E-02
		Be-7	<1.64E-01	0.00E+00	1.64E-01
		K-40	2.33E-01	1.79E-01	2.23E-01
571084	7/26/2022 - 8/2/2022	I-131	<4.28E-02	0.00E+00	4.28E-02
		Cs-134	<2.82E-02	0.00E+00	2.82E-02
		Cs-137	<1.50E-02	0.00E+00	1.50E-02
		Be-7	<1.92E-01	0.00E+00	1.92E-01
		K-40	3.53E-01	2.08E-01	2.15E-01
571411	8/2/2022 - 8/9/2022	I-131	<3.26E-02	0.00E+00	3.26E-02
		Cs-134	<1.39E-02	0.00E+00	1.39E-02
		Cs-137	<1.20E-02	0.00E+00	1.20E-02
		Be-7	<1.19E-01	0.00E+00	1.19E-01
		K-40	4.03E-01	2.55E-01	3.26E-01
571687	8/9/2022 - 8/16/2022	I-131	<2.68E-02	0.00E+00	2.68E-02
		Cs-134	<2.07E-02	0.00E+00	2.07E-02
		Cs-137	<2.00E-02	0.00E+00	2.00E-02
		Be-7	<1.46E-01	0.00E+00	1.46E-01
		K-40	4.23E-01	2.49E-01	2.92E-01
572702	8/16/2022 - 8/23/2022	I-131	<2.56E-02	0.00E+00	2.56E-02
		Cs-134	<3.01E-02	0.00E+00	3.01E-02
		Cs-137	<1.76E-02	0.00E+00	1.76E-02
		Be-7	<1.55E-01	0.00E+00	1.55E-01
		K-40	<5.38E-01	0.00E+00	5.38E-01
573891	8/23/2022 - 8/30/2022	I-131	<2.73E-02	0.00E+00	2.73E-02
		Cs-134	<2.45E-02	0.00E+00	2.45E-02
		Cs-137	<2.27E-02	0.00E+00	2.27E-02
		Be-7	<1.95E-01	0.00E+00	1.95E-01
		K-40	<5.55E-01	0.00E+00	5.55E-01
574521	8/30/2022 - 9/6/2022	I-131	<2.80E-02	0.00E+00	2.80E-02
		Cs-134	<2.90E-02	0.00E+00	2.90E-02
		Cs-137	<2.61E-02	0.00E+00	2.61E-02
		Be-7	<2.06E-01	0.00E+00	2.06E-01
		K-40	<5.31E-01	0.00E+00	5.31E-01

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

BRUNSWICK Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 201 [INDICATOR - NE @ 0.5 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
574991	9/6/2022 - 9/13/2022	I-131	<2.56E-02	0.00E+00	2.56E-02
		Cs-134	<2.32E-02	0.00E+00	2.32E-02
		Cs-137	<2.50E-02	0.00E+00	2.50E-02
		Be-7	<2.16E-01	0.00E+00	2.16E-01
		K-40	<5.02E-01	0.00E+00	5.02E-01
575677	9/13/2022 - 9/20/2022	I-131	<2.67E-02	0.00E+00	2.67E-02
		Cs-134	<1.69E-02	0.00E+00	1.69E-02
		Cs-137	<2.05E-02	0.00E+00	2.05E-02
		Be-7	<1.58E-01	0.00E+00	1.57E-01
		K-40	<5.02E-01	0.00E+00	5.02E-01
576068	9/20/2022 - 9/27/2022	I-131	<2.50E-02	0.00E+00	2.50E-02
		Cs-134	<2.23E-02	0.00E+00	2.23E-02
		Cs-137	<2.10E-02	0.00E+00	2.10E-02
		Be-7	<1.16E-01	0.00E+00	1.16E-01
		K-40	2.37E-01	1.75E-01	2.05E-01
576248	9/27/2022 - 10/4/2022	I-131	<3.42E-02	0.00E+00	3.42E-02
		Cs-134	<2.82E-02	0.00E+00	2.82E-02
		Cs-137	<1.74E-02	0.00E+00	1.74E-02
		Be-7	<1.51E-01	0.00E+00	1.51E-01
		K-40	3.95E-01	2.53E-01	3.25E-01
576523	10/4/2022 - 10/11/2022	I-131	<2.62E-02	0.00E+00	2.62E-02
		Cs-134	<2.68E-02	0.00E+00	2.68E-02
		Cs-137	<1.52E-02	0.00E+00	1.52E-02
		Be-7	<1.45E-01	0.00E+00	1.45E-01
		K-40	<4.62E-01	0.00E+00	4.62E-01
577153	10/11/2022 - 10/18/2022	I-131	<2.69E-02	0.00E+00	2.69E-02
		Cs-134	<2.04E-02	0.00E+00	2.04E-02
		Cs-137	<2.59E-02	0.00E+00	2.59E-02
		Be-7	<1.74E-01	0.00E+00	1.74E-01
		K-40	5.87E-01	2.44E-01	6.63E-02
577742	10/18/2022 - 10/25/2022	I-131	<3.01E-02	0.00E+00	3.01E-02
		Cs-134	<2.44E-02	0.00E+00	2.44E-02
		Cs-137	<2.26E-02	0.00E+00	2.26E-02
		Be-7	<1.53E-01	0.00E+00	1.53E-01
		K-40	<5.60E-01	0.00E+00	5.60E-01
578104	10/25/2022 - 11/1/2022	I-131	<2.52E-02	0.00E+00	2.52E-02
		Cs-134	<2.29E-02	0.00E+00	2.29E-02
		Cs-137	<2.98E-02	0.00E+00	2.98E-02
		Be-7	<1.83E-01	0.00E+00	1.83E-01
		K-40	<5.40E-01	0.00E+00	5.40E-01
578814	11/1/2022 - 11/8/2022	I-131	<2.98E-02	0.00E+00	2.98E-02
		Cs-134	<2.87E-02	0.00E+00	2.87E-02
		Cs-137	<1.87E-02	0.00E+00	1.87E-02
		Be-7	<2.26E-01	0.00E+00	2.26E-01
		K-40	<5.07E-01	0.00E+00	5.07E-01
579015	11/8/2022 - 11/15/2022	I-131	<2.51E-02	0.00E+00	2.51E-02
		Cs-134	<2.46E-02	0.00E+00	2.46E-02
		Cs-137	<1.94E-02	0.00E+00	1.94E-02

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

BRUNSWICK Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 201 [INDICATOR - NE @ 0.5 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
579015	11/8/2022 - 11/15/2022	Be-7	<1.53E-01	0.00E+00	1.53E-01
		K-40	4.75E-01	2.36E-01	2.14E-01
579766	11/15/2022 - 11/22/2022	I-131	<5.47E-02	0.00E+00	5.47E-02
		Cs-134	<2.51E-02	0.00E+00	2.51E-02
		Cs-137	<1.98E-02	0.00E+00	1.98E-02
		Be-7	<1.41E-01	0.00E+00	1.41E-01
		K-40	<5.12E-01	0.00E+00	5.12E-01
580588	11/22/2022 - 11/29/2022	I-131	<4.48E-02	0.00E+00	4.48E-02
		Cs-134	<2.82E-02	0.00E+00	2.82E-02
		Cs-137	<2.71E-02	0.00E+00	2.71E-02
		Be-7	<2.29E-01	0.00E+00	2.29E-01
		K-40	<6.35E-01	0.00E+00	6.35E-01
580795	11/29/2022 - 12/6/2022	I-131	<3.13E-02	0.00E+00	3.13E-02
		Cs-134	<2.28E-02	0.00E+00	2.28E-02
		Cs-137	<2.30E-02	0.00E+00	2.30E-02
		Be-7	<1.66E-01	0.00E+00	1.66E-01
		K-40	<4.93E-01	0.00E+00	4.93E-01
581120	12/6/2022 - 12/13/2022	I-131	<3.01E-02	0.00E+00	3.01E-02
		Cs-134	<1.95E-02	0.00E+00	1.95E-02
		Cs-137	<2.20E-02	0.00E+00	2.20E-02
		Be-7	<1.99E-01	0.00E+00	1.99E-01
		K-40	5.40E-01	2.29E-01	6.37E-02
581679	12/13/2022 - 12/20/2022	I-131	<4.80E-02	0.00E+00	4.80E-02
		Cs-134	<2.00E-02	0.00E+00	2.00E-02
		Cs-137	<2.66E-02	0.00E+00	2.66E-02
		Be-7	<1.74E-01	0.00E+00	1.74E-01
		K-40	4.22E-01	2.27E-01	2.26E-01
582223	12/20/2022 - 12/27/2022	I-131	<3.84E-02	0.00E+00	3.84E-02
		Cs-134	<2.34E-02	0.00E+00	2.34E-02
		Cs-137	<2.51E-02	0.00E+00	2.51E-02
		Be-7	<1.58E-01	0.00E+00	1.58E-01
		K-40	6.17E-01	2.94E-01	3.14E-01
582410	12/27/2022 - 1/3/2023	I-131	<4.68E-02	0.00E+00	4.68E-02
		Cs-134	<3.04E-02	0.00E+00	3.04E-02
		Cs-137	<2.27E-02	0.00E+00	2.27E-02
		Be-7	<2.31E-01	0.00E+00	2.31E-01
		K-40	5.34E-01	2.43E-01	7.24E-02

Sample Point 202 [INDICATOR - S @ 1 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
558844	1/4/2022 - 1/11/2022	I-131	<3.28E-02	0.00E+00	3.28E-02
		Cs-134	<3.24E-02	0.00E+00	3.24E-02
		Cs-137	<2.34E-02	0.00E+00	2.34E-02
		Be-7	<1.83E-01	0.00E+00	1.83E-01
		K-40	<5.94E-01	0.00E+00	5.94E-01
559060	1/11/2022 - 1/18/2022	I-131	<2.22E-02	0.00E+00	2.22E-02
		Cs-134	<1.39E-02	0.00E+00	1.39E-02
		Cs-137	<2.30E-02	0.00E+00	2.30E-02
		Be-7	<1.81E-01	0.00E+00	1.81E-01

BRUNSWICK Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 202 [INDICATOR - S @ 1 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
559060	1/11/2022 - 1/18/2022	K-40	3.79E-01	2.52E-01	3.31E-01
559304	1/18/2022 - 1/25/2022	I-131	<3.82E-02	0.00E+00	3.82E-02
		Cs-134	<3.07E-02	0.00E+00	3.07E-02
		Cs-137	<2.33E-02	0.00E+00	2.33E-02
		Be-7	<1.89E-01	0.00E+00	1.89E-01
		K-40	<5.64E-01	0.00E+00	5.64E-01
560036	1/25/2022 - 2/1/2022	I-131	<3.14E-02	0.00E+00	3.14E-02
		Cs-134	<1.74E-02	0.00E+00	1.74E-02
		Cs-137	<1.94E-02	0.00E+00	1.94E-02
		Be-7	<1.29E-01	0.00E+00	1.29E-01
		K-40	<5.65E-01	0.00E+00	5.65E-01
560253	2/1/2022 - 2/8/2022	I-131	<2.39E-02	0.00E+00	2.39E-02
		Cs-134	<3.18E-02	0.00E+00	3.18E-02
		Cs-137	<2.74E-02	0.00E+00	2.74E-02
		Be-7	<1.02E-01	0.00E+00	1.02E-01
		K-40	<5.52E-01	0.00E+00	5.52E-01
560490	2/8/2022 - 2/15/2022	I-131	<2.80E-02	0.00E+00	2.80E-02
		Cs-134	<1.78E-02	0.00E+00	1.78E-02
		Cs-137	<1.99E-02	0.00E+00	1.99E-02
		Be-7	<1.66E-01	0.00E+00	1.66E-01
		K-40	<5.28E-01	0.00E+00	5.28E-01
560802	2/15/2022 - 2/22/2022	I-131	<3.01E-02	0.00E+00	3.01E-02
		Cs-134	<1.78E-02	0.00E+00	1.78E-02
		Cs-137	<1.98E-02	0.00E+00	1.98E-02
		Be-7	<1.75E-01	0.00E+00	1.75E-01
		K-40	<5.25E-01	0.00E+00	5.25E-01
561138	2/22/2022 - 3/1/2022	I-131	<2.16E-02	0.00E+00	2.16E-02
		Cs-134	<1.73E-02	0.00E+00	1.73E-02
		Cs-137	<1.73E-02	0.00E+00	1.73E-02
		Be-7	<1.60E-01	0.00E+00	1.60E-01
		K-40	4.97E-01	2.54E-01	2.71E-01
561638	3/1/2022 - 3/8/2022	I-131	<2.10E-02	0.00E+00	2.10E-02
		Cs-134	<1.41E-02	0.00E+00	1.41E-02
		Cs-137	<2.61E-02	0.00E+00	2.61E-02
		Be-7	<1.32E-01	0.00E+00	1.32E-01
		K-40	<5.97E-01	0.00E+00	5.97E-01
562232	3/8/2022 - 3/15/2022	I-131	<2.29E-02	0.00E+00	2.29E-02
		Cs-134	<1.96E-02	0.00E+00	1.96E-02
		Cs-137	<1.88E-02	0.00E+00	1.88E-02
		Be-7	<9.72E-02	0.00E+00	9.72E-02
		K-40	2.98E-01	1.92E-01	2.13E-01
562833	3/15/2022 - 3/22/2022	I-131	<1.83E-02	0.00E+00	1.83E-02
		Cs-134	<2.17E-02	0.00E+00	2.17E-02
		Cs-137	<1.68E-02	0.00E+00	1.68E-02
		Be-7	<1.47E-01	0.00E+00	1.47E-01
		K-40	<4.88E-01	0.00E+00	4.88E-01

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

BRUNSWICK Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 202 [INDICATOR - S @ 1 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
563432	3/22/2022 - 3/29/2022	I-131	<2.54E-02	0.00E+00	2.54E-02
		Cs-134	<2.23E-02	0.00E+00	2.23E-02
		Cs-137	<1.92E-02	0.00E+00	1.92E-02
		Be-7	<1.42E-01	0.00E+00	1.42E-01
		K-40	6.15E-01	2.95E-01	3.25E-01
563766	3/29/2022 - 4/5/2022	I-131	<2.49E-02	0.00E+00	2.49E-02
		Cs-134	<2.92E-02	0.00E+00	2.92E-02
		Cs-137	<1.71E-02	0.00E+00	1.71E-02
		Be-7	<1.15E-01	0.00E+00	1.15E-01
		K-40	<5.14E-01	0.00E+00	5.14E-01
563982	4/5/2022 - 4/12/2022	I-131	<2.10E-02	0.00E+00	2.10E-02
		Cs-134	<2.53E-02	0.00E+00	2.53E-02
		Cs-137	<2.18E-02	0.00E+00	2.18E-02
		Be-7	<1.19E-01	0.00E+00	1.19E-01
		K-40	<5.62E-01	0.00E+00	5.62E-01
564530	4/12/2022 - 4/19/2022	I-131	<2.76E-02	0.00E+00	2.76E-02
		Cs-134	<1.38E-02	0.00E+00	1.38E-02
		Cs-137	<2.43E-02	0.00E+00	2.43E-02
		Be-7	<1.55E-01	0.00E+00	1.55E-01
		K-40	<4.93E-01	0.00E+00	4.93E-01
564798	4/19/2022 - 4/26/2022	I-131	<2.31E-02	0.00E+00	2.31E-02
		Cs-134	<2.01E-02	0.00E+00	2.01E-02
		Cs-137	<1.50E-02	0.00E+00	1.50E-02
		Be-7	<2.01E-01	0.00E+00	2.01E-01
		K-40	<4.50E-01	0.00E+00	4.50E-01
565290	4/26/2022 - 5/3/2022	I-131	<2.48E-02	0.00E+00	2.48E-02
		Cs-134	<2.71E-02	0.00E+00	2.71E-02
		Cs-137	<1.79E-02	0.00E+00	1.79E-02
		Be-7	<1.47E-01	0.00E+00	1.47E-01
		K-40	2.94E-01	2.29E-01	3.16E-01
565948	5/3/2022 - 5/10/2022	I-131	<2.41E-02	0.00E+00	2.41E-02
		Cs-134	<2.33E-02	0.00E+00	2.33E-02
		Cs-137	<2.19E-02	0.00E+00	2.19E-02
		Be-7	<1.94E-01	0.00E+00	1.94E-01
		K-40	<4.57E-01	0.00E+00	4.57E-01
566540	5/10/2022 - 5/17/2022	I-131	<2.72E-02	0.00E+00	2.72E-02
		Cs-134	<2.67E-02	0.00E+00	2.67E-02
		Cs-137	<1.96E-02	0.00E+00	1.96E-02
		Be-7	<2.04E-01	0.00E+00	2.04E-01
		K-40	<4.56E-01	0.00E+00	4.56E-01
566934	5/17/2022 - 5/24/2022	I-131	<2.29E-02	0.00E+00	2.29E-02
		Cs-134	<2.43E-02	0.00E+00	2.43E-02
		Cs-137	<1.92E-02	0.00E+00	1.92E-02
		Be-7	<1.59E-01	0.00E+00	1.59E-01
		K-40	<5.33E-01	0.00E+00	5.33E-01
567125	5/24/2022 - 5/31/2022	I-131	<2.88E-02	0.00E+00	2.88E-02
		Cs-134	<3.04E-02	0.00E+00	3.04E-02
		Cs-137	<3.11E-02	0.00E+00	3.11E-02

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

BRUNSWICK Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 202 [INDICATOR - S @ 1 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
567125	5/24/2022 - 5/31/2022	Be-7	<1.18E-01	0.00E+00	1.18E-01
		K-40	5.70E-01	2.42E-01	6.71E-02
567555	5/31/2022 - 6/7/2022	I-131	<2.35E-02	0.00E+00	2.35E-02
		Cs-134	<1.76E-02	0.00E+00	1.76E-02
		Cs-137	<1.51E-02	0.00E+00	1.51E-02
		Be-7	<1.30E-01	0.00E+00	1.30E-01
		K-40	3.71E-01	2.80E-01	4.02E-01
567731	6/7/2022 - 6/14/2022	I-131	<2.43E-02	0.00E+00	2.43E-02
		Cs-134	<2.72E-02	0.00E+00	2.72E-02
		Cs-137	<2.34E-02	0.00E+00	2.34E-02
		Be-7	<1.33E-01	0.00E+00	1.33E-01
		K-40	3.25E-01	2.33E-01	3.08E-01
568367	6/14/2022 - 6/21/2022	I-131	<2.82E-02	0.00E+00	2.82E-02
		Cs-134	<2.86E-02	0.00E+00	2.86E-02
		Cs-137	<2.31E-02	0.00E+00	2.31E-02
		Be-7	<1.32E-01	0.00E+00	1.32E-01
		K-40	4.61E-01	2.62E-01	3.11E-01
568606	6/21/2022 - 6/28/2022	I-131	<1.99E-02	0.00E+00	1.99E-02
		Cs-134	<2.18E-02	0.00E+00	2.18E-02
		Cs-137	<1.88E-02	0.00E+00	1.88E-02
		Be-7	<9.68E-02	0.00E+00	9.68E-02
		K-40	<4.75E-01	0.00E+00	4.75E-01
568814	6/28/2022 - 7/5/2022	I-131	<2.30E-02	0.00E+00	2.30E-02
		Cs-134	<2.68E-02	0.00E+00	2.68E-02
		Cs-137	<1.97E-02	0.00E+00	1.97E-02
		Be-7	<1.85E-01	0.00E+00	1.85E-01
		K-40	6.73E-01	3.08E-01	3.33E-01
569054	7/5/2022 - 7/12/2022	I-131	<1.94E-02	0.00E+00	1.94E-02
		Cs-134	<1.93E-02	0.00E+00	1.93E-02
		Cs-137	<1.28E-02	0.00E+00	1.28E-02
		Be-7	<9.86E-02	0.00E+00	9.86E-02
		K-40	4.94E-01	1.80E-01	1.71E-01
570280	7/12/2022 - 7/19/2022	I-131	<2.75E-02	0.00E+00	2.75E-02
		Cs-134	<2.06E-02	0.00E+00	2.06E-02
		Cs-137	<2.61E-02	0.00E+00	2.61E-02
		Be-7	<1.57E-01	0.00E+00	1.57E-01
		K-40	6.22E-01	2.81E-01	2.66E-01
570844	7/19/2022 - 7/26/2022	I-131	<1.67E-02	0.00E+00	1.67E-02
		Cs-134	<2.40E-02	0.00E+00	2.40E-02
		Cs-137	<4.27E-03	0.00E+00	4.27E-03
		Be-7	<1.49E-01	0.00E+00	1.49E-01
		K-40	<4.78E-01	0.00E+00	4.78E-01
571085	7/26/2022 - 8/2/2022	I-131	<3.80E-02	0.00E+00	3.80E-02
		Cs-134	<2.57E-02	0.00E+00	2.57E-02
		Cs-137	<2.35E-02	0.00E+00	2.35E-02
		Be-7	<1.04E-01	0.00E+00	1.04E-01
		K-40	<4.73E-01	0.00E+00	4.73E-01

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

BRUNSWICK Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 202 [INDICATOR - S @ 1 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
571412	8/2/2022 - 8/9/2022	I-131	<2.47E-02	0.00E+00	2.47E-02
		Cs-134	<2.69E-02	0.00E+00	2.69E-02
		Cs-137	<2.17E-02	0.00E+00	2.17E-02
		Be-7	<1.66E-01	0.00E+00	1.66E-01
		K-40	<6.03E-01	0.00E+00	6.03E-01
571688	8/9/2022 - 8/16/2022	I-131	<2.48E-02	0.00E+00	2.48E-02
		Cs-134	<2.43E-02	0.00E+00	2.43E-02
		Cs-137	<1.49E-02	0.00E+00	1.49E-02
		Be-7	<1.40E-01	0.00E+00	1.40E-01
		K-40	<5.27E-01	0.00E+00	5.27E-01
572703	8/16/2022 - 8/23/2022	I-131	<2.25E-02	0.00E+00	2.25E-02
		Cs-134	<1.91E-02	0.00E+00	1.91E-02
		Cs-137	<2.15E-02	0.00E+00	2.15E-02
		Be-7	<1.54E-01	0.00E+00	1.54E-01
		K-40	<5.16E-01	0.00E+00	5.16E-01
573892	8/23/2022 - 8/30/2022	I-131	<2.67E-02	0.00E+00	2.67E-02
		Cs-134	<2.58E-02	0.00E+00	2.58E-02
		Cs-137	<1.90E-02	0.00E+00	1.90E-02
		Be-7	<1.39E-01	0.00E+00	1.39E-01
		K-40	4.62E-01	2.33E-01	2.22E-01
574522	8/30/2022 - 9/6/2022	I-131	<2.53E-02	0.00E+00	2.53E-02
		Cs-134	<2.32E-02	0.00E+00	2.32E-02
		Cs-137	<2.75E-02	0.00E+00	2.75E-02
		Be-7	<1.54E-01	0.00E+00	1.54E-01
		K-40	<6.04E-01	0.00E+00	6.04E-01
574992	9/6/2022 - 9/13/2022	I-131	<2.59E-02	0.00E+00	2.59E-02
		Cs-134	<3.37E-02	0.00E+00	3.37E-02
		Cs-137	<2.48E-02	0.00E+00	2.48E-02
		Be-7	<1.72E-01	0.00E+00	1.72E-01
		K-40	6.40E-01	2.92E-01	2.85E-01
575678	9/13/2022 - 9/20/2022	I-131	<2.75E-02	0.00E+00	2.75E-02
		Cs-134	<2.62E-02	0.00E+00	2.62E-02
		Cs-137	<3.23E-02	0.00E+00	3.23E-02
		Be-7	<1.16E-01	0.00E+00	1.16E-01
		K-40	3.89E-01	1.97E-01	6.59E-02
576069	9/20/2022 - 9/27/2022	I-131	<2.13E-02	0.00E+00	2.13E-02
		Cs-134	<2.87E-02	0.00E+00	2.87E-02
		Cs-137	<1.87E-02	0.00E+00	1.87E-02
		Be-7	<1.47E-01	0.00E+00	1.47E-01
		K-40	4.23E-01	2.41E-01	2.78E-01
576249	9/27/2022 - 10/4/2022	I-131	<3.20E-02	0.00E+00	3.20E-02
		Cs-134	<2.45E-02	0.00E+00	2.45E-02
		Cs-137	<1.93E-02	0.00E+00	1.93E-02
		Be-7	<1.63E-01	0.00E+00	1.63E-01
		K-40	3.81E-01	2.14E-01	2.12E-01
576524	10/4/2022 - 10/11/2022	I-131	<3.44E-02	0.00E+00	3.44E-02
		Cs-134	<2.15E-02	0.00E+00	2.15E-02
		Cs-137	<2.41E-02	0.00E+00	2.41E-02

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

BRUNSWICK Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 202 [INDICATOR - S @ 1 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
576524	10/4/2022 - 10/11/2022	Be-7	<2.36E-01	0.00E+00	2.36E-01
		K-40	<5.93E-01	0.00E+00	5.93E-01
577154	10/11/2022 - 10/18/2022	I-131	<2.04E-02	0.00E+00	2.04E-02
		Cs-134	<2.57E-02	0.00E+00	2.57E-02
		Cs-137	<1.69E-02	0.00E+00	1.69E-02
		Be-7	<1.38E-01	0.00E+00	1.38E-01
		K-40	<5.31E-01	0.00E+00	5.31E-01
577743	10/18/2022 - 10/25/2022	I-131	<2.29E-02	0.00E+00	2.29E-02
		Cs-134	<2.17E-02	0.00E+00	2.17E-02
		Cs-137	<1.68E-02	0.00E+00	1.68E-02
		Be-7	<1.65E-01	0.00E+00	1.65E-01
		K-40	<4.73E-01	0.00E+00	4.73E-01
578105	10/25/2022 - 11/1/2022	I-131	<3.64E-02	0.00E+00	3.64E-02
		Cs-134	<2.84E-02	0.00E+00	2.84E-02
		Cs-137	<3.00E-02	0.00E+00	3.00E-02
		Be-7	<1.49E-01	0.00E+00	1.49E-01
		K-40	3.85E-01	2.69E-01	3.59E-01
578815	11/1/2022 - 11/8/2022	I-131	<2.61E-02	0.00E+00	2.61E-02
		Cs-134	<3.32E-02	0.00E+00	3.32E-02
		Cs-137	<2.16E-02	0.00E+00	2.16E-02
		Be-7	<1.57E-01	0.00E+00	1.57E-01
		K-40	3.18E-01	2.30E-01	3.04E-01
579016	11/8/2022 - 11/15/2022	I-131	<2.56E-02	0.00E+00	2.56E-02
		Cs-134	<1.95E-02	0.00E+00	1.95E-02
		Cs-137	<1.45E-02	0.00E+00	1.45E-02
		Be-7	<1.13E-01	0.00E+00	1.13E-01
		K-40	<4.27E-01	0.00E+00	4.27E-01
579767	11/15/2022 - 11/22/2022	I-131	<4.87E-02	0.00E+00	4.87E-02
		Cs-134	<3.37E-02	0.00E+00	3.37E-02
		Cs-137	<2.18E-02	0.00E+00	2.18E-02
		Be-7	<2.06E-01	0.00E+00	2.06E-01
		K-40	8.71E-01	3.02E-01	6.74E-02
580589	11/22/2022 - 11/29/2022	I-131	<3.47E-02	0.00E+00	3.47E-02
		Cs-134	<2.47E-02	0.00E+00	2.47E-02
		Cs-137	<1.75E-02	0.00E+00	1.75E-02
		Be-7	<1.65E-01	0.00E+00	1.65E-01
		K-40	3.96E-01	2.27E-01	2.45E-01
580796	11/29/2022 - 12/6/2022	I-131	<2.88E-02	0.00E+00	2.88E-02
		Cs-134	<2.37E-02	0.00E+00	2.37E-02
		Cs-137	<1.44E-02	0.00E+00	1.44E-02
		Be-7	<1.14E-01	0.00E+00	1.14E-01
		K-40	3.74E-01	2.98E-01	4.41E-01
581121	12/6/2022 - 12/13/2022	I-131	<3.25E-02	0.00E+00	3.25E-02
		Cs-134	<5.06E-03	0.00E+00	5.06E-03
		Cs-137	<2.28E-02	0.00E+00	2.28E-02
		Be-7	<1.44E-01	0.00E+00	1.44E-01
		K-40	3.07E-01	1.98E-01	2.20E-01

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

BRUNSWICK Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 202 [INDICATOR - S @ 1 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
581680	12/13/2022 - 12/20/2022	I-131	<4.41E-02	0.00E+00	4.41E-02
		Cs-134	<2.04E-02	0.00E+00	2.04E-02
		Cs-137	<1.75E-02	0.00E+00	1.75E-02
		Be-7	<1.76E-01	0.00E+00	1.76E-01
		K-40	5.82E-01	2.86E-01	3.12E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
582224	12/20/2022 - 12/27/2022	I-131	<6.01E-02	0.00E+00	6.01E-02
		Cs-134	<2.77E-02	0.00E+00	2.77E-02
		Cs-137	<2.53E-02	0.00E+00	2.53E-02
		Be-7	<2.02E-01	0.00E+00	2.02E-01
		K-40	<5.08E-01	0.00E+00	5.08E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
582411	12/27/2022 - 1/3/2023	I-131	<2.19E-02	0.00E+00	2.19E-02
		Cs-134	<2.19E-02	0.00E+00	2.19E-02
		Cs-137	<1.89E-02	0.00E+00	1.89E-02
		Be-7	<1.50E-01	0.00E+00	1.50E-01
		K-40	4.96E-01	2.20E-01	6.40E-02

Sample Point 203 [INDICATOR - SSW @ 2 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
558845	1/4/2022 - 1/11/2022	I-131	<2.89E-02	0.00E+00	2.89E-02
		Cs-134	<3.03E-02	0.00E+00	3.03E-02
		Cs-137	<2.74E-02	0.00E+00	2.74E-02
		Be-7	<2.10E-01	0.00E+00	2.10E-01
		K-40	<5.54E-01	0.00E+00	5.54E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
559061	1/11/2022 - 1/18/2022	I-131	<1.81E-02	0.00E+00	1.81E-02
		Cs-134	<1.93E-02	0.00E+00	1.93E-02
		Cs-137	<2.32E-02	0.00E+00	2.32E-02
		Be-7	<1.64E-01	0.00E+00	1.64E-01
		K-40	3.66E-01	2.04E-01	1.98E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
559307	1/18/2022 - 1/25/2022	I-131	<2.69E-02	0.00E+00	2.69E-02
		Cs-134	<2.31E-02	0.00E+00	2.31E-02
		Cs-137	<2.34E-02	0.00E+00	2.34E-02
		Be-7	<1.93E-01	0.00E+00	1.93E-01
		K-40	5.75E-01	2.68E-01	2.52E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
560037	1/25/2022 - 2/1/2022	I-131	<2.33E-02	0.00E+00	2.33E-02
		Cs-134	<1.80E-02	0.00E+00	1.80E-02
		Cs-137	<1.23E-02	0.00E+00	1.23E-02
		Be-7	<1.35E-01	0.00E+00	1.35E-01
		K-40	<3.30E-01	0.00E+00	3.30E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
560254	2/1/2022 - 2/8/2022	I-131	<2.52E-02	0.00E+00	2.52E-02
		Cs-134	<2.17E-02	0.00E+00	2.17E-02
		Cs-137	<2.04E-02	0.00E+00	2.04E-02
		Be-7	<1.65E-01	0.00E+00	1.65E-01
		K-40	3.28E-01	1.77E-01	6.35E-02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
560491	2/8/2022 - 2/15/2022	I-131	<1.42E-02	0.00E+00	1.42E-02
		Cs-134	<1.34E-02	0.00E+00	1.34E-02
		Cs-137	<4.25E-03	0.00E+00	4.25E-03
		Be-7	<1.26E-01	0.00E+00	1.26E-01
		K-40	<4.31E-01	0.00E+00	4.31E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
560803	2/15/2022 - 2/22/2022	I-131	<2.66E-02	0.00E+00	2.66E-02

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

BRUNSWICK Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 203 [INDICATOR - SSW @ 2 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
560803	2/15/2022 - 2/22/2022	Cs-134	<1.95E-02	0.00E+00	1.95E-02
		Cs-137	<1.45E-02	0.00E+00	1.45E-02
		Be-7	<1.57E-01	0.00E+00	1.57E-01
		K-40	<5.42E-01	0.00E+00	5.42E-01
561139	2/22/2022 - 3/1/2022	I-131	<3.11E-02	0.00E+00	3.11E-02
		Cs-134	<2.84E-02	0.00E+00	2.84E-02
		Cs-137	<2.02E-02	0.00E+00	2.02E-02
		Be-7	<1.24E-01	0.00E+00	1.24E-01
		K-40	4.06E-01	2.19E-01	2.19E-01
561639	3/1/2022 - 3/8/2022	I-131	<2.83E-02	0.00E+00	2.83E-02
		Cs-134	<1.38E-02	0.00E+00	1.38E-02
		Cs-137	<1.50E-02	0.00E+00	1.50E-02
		Be-7	<1.79E-01	0.00E+00	1.79E-01
		K-40	4.88E-01	2.43E-01	2.37E-01
562233	3/8/2022 - 3/15/2022	I-131	<2.90E-02	0.00E+00	2.90E-02
		Cs-134	<2.72E-02	0.00E+00	2.72E-02
		Cs-137	<2.34E-02	0.00E+00	2.34E-02
		Be-7	<1.33E-01	0.00E+00	1.33E-01
		K-40	<5.48E-01	0.00E+00	5.48E-01
562834	3/15/2022 - 3/22/2022	I-131	<2.78E-02	0.00E+00	2.78E-02
		Cs-134	<2.30E-02	0.00E+00	2.30E-02
		Cs-137	<1.98E-02	0.00E+00	1.98E-02
		Be-7	<1.44E-01	0.00E+00	1.44E-01
		K-40	<4.84E-01	0.00E+00	4.84E-01
563433	3/22/2022 - 3/29/2022	I-131	<2.67E-02	0.00E+00	2.67E-02
		Cs-134	<2.55E-02	0.00E+00	2.55E-02
		Cs-137	<1.87E-02	0.00E+00	1.87E-02
		Be-7	<1.56E-01	0.00E+00	1.56E-01
		K-40	5.17E-01	2.59E-01	2.76E-01
563767	3/29/2022 - 4/5/2022	I-131	<2.26E-02	0.00E+00	2.26E-02
		Cs-134	<3.13E-02	0.00E+00	3.13E-02
		Cs-137	<1.66E-02	0.00E+00	1.66E-02
		Be-7	<1.55E-01	0.00E+00	1.55E-01
		K-40	<4.98E-01	0.00E+00	4.98E-01
563983	4/5/2022 - 4/12/2022	I-131	<2.59E-02	0.00E+00	2.59E-02
		Cs-134	<2.48E-02	0.00E+00	2.48E-02
		Cs-137	<1.96E-02	0.00E+00	1.96E-02
		Be-7	<1.52E-01	0.00E+00	1.52E-01
		K-40	<4.87E-01	0.00E+00	4.87E-01
564531	4/12/2022 - 4/19/2022	I-131	<2.65E-02	0.00E+00	2.65E-02
		Cs-134	<1.97E-02	0.00E+00	1.97E-02
		Cs-137	<2.06E-02	0.00E+00	2.06E-02
		Be-7	<1.69E-01	0.00E+00	1.69E-01
		K-40	4.98E-01	2.21E-01	6.43E-02
564799	4/19/2022 - 4/26/2022	I-131	<1.75E-02	0.00E+00	1.75E-02
		Cs-134	<2.32E-02	0.00E+00	2.32E-02
		Cs-137	<2.65E-02	0.00E+00	2.65E-02
		Be-7	<1.20E-01	0.00E+00	1.20E-01

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

BRUNSWICK Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 203 [INDICATOR - SSW @ 2 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
564799	4/19/2022 - 4/26/2022	K-40	3.64E-01	2.16E-01	2.28E-01
565291	4/26/2022 - 5/3/2022	I-131	<2.77E-02	0.00E+00	2.77E-02
		Cs-134	<2.00E-02	0.00E+00	2.00E-02
		Cs-137	<2.10E-02	0.00E+00	2.10E-02
		Be-7	<1.79E-01	0.00E+00	1.79E-01
		K-40	5.14E-01	2.66E-01	2.99E-01
565949	5/3/2022 - 5/10/2022	I-131	<2.16E-02	0.00E+00	2.16E-02
		Cs-134	<1.97E-02	0.00E+00	1.97E-02
		Cs-137	<1.70E-02	0.00E+00	1.70E-02
		Be-7	<9.78E-02	0.00E+00	9.78E-02
		K-40	<5.09E-01	0.00E+00	5.09E-01
566541	5/10/2022 - 5/17/2022	I-131	<3.03E-02	0.00E+00	3.03E-02
		Cs-134	<3.23E-02	0.00E+00	3.23E-02
		Cs-137	<2.17E-02	0.00E+00	2.17E-02
		Be-7	<1.63E-01	0.00E+00	1.63E-01
		K-40	<6.18E-01	0.00E+00	6.18E-01
566935	5/17/2022 - 5/24/2022	I-131	<2.50E-02	0.00E+00	2.50E-02
		Cs-134	<2.48E-02	0.00E+00	2.48E-02
		Cs-137	<2.14E-02	0.00E+00	2.14E-02
		Be-7	<2.12E-01	0.00E+00	2.12E-01
		K-40	<5.63E-01	0.00E+00	5.63E-01
567126	5/24/2022 - 5/31/2022	I-131	<2.99E-02	0.00E+00	2.99E-02
		Cs-134	<2.31E-02	0.00E+00	2.31E-02
		Cs-137	<1.97E-02	0.00E+00	1.97E-02
		Be-7	<1.70E-01	0.00E+00	1.70E-01
		K-40	4.58E-01	2.19E-01	6.90E-02
567556	5/31/2022 - 6/7/2022	I-131	<3.04E-02	0.00E+00	3.04E-02
		Cs-134	<3.22E-02	0.00E+00	3.22E-02
		Cs-137	<2.35E-02	0.00E+00	2.35E-02
		Be-7	<2.01E-01	0.00E+00	2.01E-01
		K-40	5.08E-01	2.80E-01	3.34E-01
567732	6/7/2022 - 6/14/2022	I-131	<1.85E-02	0.00E+00	1.85E-02
		Cs-134	<2.73E-02	0.00E+00	2.73E-02
		Cs-137	<1.69E-02	0.00E+00	1.69E-02
		Be-7	<1.37E-01	0.00E+00	1.37E-01
		K-40	4.57E-01	2.34E-01	2.32E-01
568368	6/14/2022 - 6/21/2022	I-131	<2.48E-02	0.00E+00	2.48E-02
		Cs-134	<2.46E-02	0.00E+00	2.46E-02
		Cs-137	<1.50E-02	0.00E+00	1.50E-02
		Be-7	<1.72E-01	0.00E+00	1.72E-01
		K-40	6.12E-01	2.64E-01	2.18E-01
568607	6/21/2022 - 6/28/2022	I-131	<2.50E-02	0.00E+00	2.50E-02
		Cs-134	<2.23E-02	0.00E+00	2.23E-02
		Cs-137	<2.26E-02	0.00E+00	2.26E-02
		Be-7	<1.29E-01	0.00E+00	1.29E-01
		K-40	<5.59E-01	0.00E+00	5.59E-01

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

BRUNSWICK Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 203 [INDICATOR - SSW @ 2 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
568815	6/28/2022 - 7/5/2022	I-131	<3.19E-02	0.00E+00	3.19E-02
		Cs-134	<2.58E-02	0.00E+00	2.58E-02
		Cs-137	<1.89E-02	0.00E+00	1.89E-02
		Be-7	<2.22E-01	0.00E+00	2.22E-01
		K-40	7.50E-01	3.08E-01	2.98E-01
569055	7/5/2022 - 7/12/2022	I-131	<2.37E-02	0.00E+00	2.37E-02
		Cs-134	<1.74E-02	0.00E+00	1.74E-02
		Cs-137	<2.28E-02	0.00E+00	2.28E-02
		Be-7	<1.42E-01	0.00E+00	1.42E-01
		K-40	5.65E-01	2.86E-01	3.27E-01
570281	7/12/2022 - 7/19/2022	I-131	<3.16E-02	0.00E+00	3.16E-02
		Cs-134	<2.89E-02	0.00E+00	2.89E-02
		Cs-137	<2.49E-02	0.00E+00	2.49E-02
		Be-7	<2.03E-01	0.00E+00	2.03E-01
		K-40	<5.16E-01	0.00E+00	5.16E-01
570845	7/19/2022 - 7/26/2022	I-131	<2.87E-02	0.00E+00	2.87E-02
		Cs-134	<2.23E-02	0.00E+00	2.23E-02
		Cs-137	<2.10E-02	0.00E+00	2.10E-02
		Be-7	<1.88E-01	0.00E+00	1.88E-01
		K-40	6.07E-01	2.48E-01	6.58E-02
571086	7/26/2022 - 8/2/2022	I-131	<3.91E-02	0.00E+00	3.91E-02
		Cs-134	<2.23E-02	0.00E+00	2.23E-02
		Cs-137	<2.10E-02	0.00E+00	2.10E-02
		Be-7	<2.01E-01	0.00E+00	2.01E-01
		K-40	<5.71E-01	0.00E+00	5.71E-01
571413	8/2/2022 - 8/9/2022	I-131	<2.83E-02	0.00E+00	2.83E-02
		Cs-134	<2.40E-02	0.00E+00	2.40E-02
		Cs-137	<2.23E-02	0.00E+00	2.23E-02
		Be-7	<1.41E-01	0.00E+00	1.41E-01
		K-40	4.01E-01	2.71E-01	3.69E-01
571689	8/9/2022 - 8/16/2022	I-131	<2.55E-02	0.00E+00	2.55E-02
		Cs-134	<2.28E-02	0.00E+00	2.28E-02
		Cs-137	<2.31E-02	0.00E+00	2.31E-02
		Be-7	<1.65E-01	0.00E+00	1.65E-01
		K-40	5.21E-01	2.31E-01	6.73E-02
572704	8/16/2022 - 8/23/2022	I-131	<2.45E-02	0.00E+00	2.45E-02
		Cs-134	<2.17E-02	0.00E+00	2.17E-02
		Cs-137	<1.68E-02	0.00E+00	1.68E-02
		Be-7	<1.58E-01	0.00E+00	1.58E-01
		K-40	3.07E-01	2.04E-01	2.45E-01
573893	8/23/2022 - 8/30/2022	I-131	<2.50E-02	0.00E+00	2.50E-02
		Cs-134	<2.25E-02	0.00E+00	2.25E-02
		Cs-137	<1.74E-02	0.00E+00	1.74E-02
		Be-7	<1.01E-01	0.00E+00	1.01E-01
		K-40	5.18E-01	2.57E-01	2.58E-01
574523	8/30/2022 - 9/6/2022	I-131	<3.29E-02	0.00E+00	3.29E-02
		Cs-134	<2.32E-02	0.00E+00	2.32E-02
		Cs-137	<2.48E-02	0.00E+00	2.48E-02

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

BRUNSWICK Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 203 [INDICATOR - SSW @ 2 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
574523	8/30/2022 - 9/6/2022	Be-7	<1.44E-01	0.00E+00	1.44E-01
		K-40	<5.91E-01	0.00E+00	5.91E-01
574993	9/6/2022 - 9/13/2022	I-131	<3.04E-02	0.00E+00	3.04E-02
		Cs-134	<3.06E-02	0.00E+00	3.06E-02
		Cs-137	<2.00E-02	0.00E+00	2.00E-02
		Be-7	<1.76E-01	0.00E+00	1.76E-01
		K-40	6.06E-01	2.83E-01	2.83E-01
575679	9/13/2022 - 9/20/2022	I-131	<3.14E-02	0.00E+00	3.14E-02
		Cs-134	<2.17E-02	0.00E+00	2.17E-02
		Cs-137	<1.87E-02	0.00E+00	1.87E-02
		Be-7	<1.65E-01	0.00E+00	1.65E-01
		K-40	2.73E-01	2.25E-01	3.22E-01
576070	9/20/2022 - 9/27/2022	I-131	<2.02E-02	0.00E+00	2.02E-02
		Cs-134	<2.46E-02	0.00E+00	2.46E-02
		Cs-137	<1.74E-02	0.00E+00	1.74E-02
		Be-7	<1.87E-01	0.00E+00	1.87E-01
		K-40	3.52E-01	2.35E-01	3.01E-01
576250	9/27/2022 - 10/4/2022	I-131	<3.73E-02	0.00E+00	3.73E-02
		Cs-134	<2.57E-02	0.00E+00	2.57E-02
		Cs-137	<1.88E-02	0.00E+00	1.88E-02
		Be-7	<1.57E-01	0.00E+00	1.57E-01
		K-40	4.36E-01	2.38E-01	2.61E-01
576525	10/4/2022 - 10/11/2022	I-131	<3.24E-02	0.00E+00	3.24E-02
		Cs-134	<2.25E-02	0.00E+00	2.25E-02
		Cs-137	<1.74E-02	0.00E+00	1.74E-02
		Be-7	<1.64E-01	0.00E+00	1.64E-01
		K-40	1.95E-01	1.82E-01	2.60E-01
577155	10/11/2022 - 10/18/2022	I-131	<2.78E-02	0.00E+00	2.78E-02
		Cs-134	<1.72E-02	0.00E+00	1.72E-02
		Cs-137	<1.49E-02	0.00E+00	1.49E-02
		Be-7	<1.16E-01	0.00E+00	1.16E-01
		K-40	2.43E-01	1.55E-01	6.58E-02
577744	10/18/2022 - 10/25/2022	I-131	<2.26E-02	0.00E+00	2.26E-02
		Cs-134	<5.18E-03	0.00E+00	5.18E-03
		Cs-137	<2.16E-02	0.00E+00	2.16E-02
		Be-7	<1.18E-01	0.00E+00	1.18E-01
		K-40	<5.15E-01	0.00E+00	5.15E-01
578106	10/25/2022 - 11/1/2022	I-131	<2.24E-02	0.00E+00	2.24E-02
		Cs-134	<3.04E-02	0.00E+00	3.04E-02
		Cs-137	<2.88E-02	0.00E+00	2.88E-02
		Be-7	<1.32E-01	0.00E+00	1.32E-01
		K-40	6.81E-01	2.83E-01	2.30E-01
578816	11/1/2022 - 11/8/2022	I-131	<2.67E-02	0.00E+00	2.67E-02
		Cs-134	<2.76E-02	0.00E+00	2.76E-02
		Cs-137	<1.90E-02	0.00E+00	1.90E-02
		Be-7	<9.96E-02	0.00E+00	9.96E-02
		K-40	6.90E-01	3.10E-01	3.36E-01

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

BRUNSWICK Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 203 [INDICATOR - SSW @ 2 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
579017	11/8/2022 - 11/15/2022	I-131	<2.52E-02	0.00E+00	2.52E-02
		Cs-134	<2.23E-02	0.00E+00	2.23E-02
		Cs-137	<1.93E-02	0.00E+00	1.93E-02
		Be-7	<1.52E-01	0.00E+00	1.52E-01
		K-40	5.60E-01	2.38E-01	6.59E-02
579768	11/15/2022 - 11/22/2022	I-131	<4.11E-02	0.00E+00	4.11E-02
		Cs-134	<2.45E-02	0.00E+00	2.45E-02
		Cs-137	<1.49E-02	0.00E+00	1.49E-02
		Be-7	<1.63E-01	0.00E+00	1.63E-01
		K-40	4.28E-01	2.26E-01	2.17E-01
580590	11/22/2022 - 11/29/2022	I-131	<3.25E-02	0.00E+00	3.25E-02
		Cs-134	<2.38E-02	0.00E+00	2.38E-02
		Cs-137	<2.05E-02	0.00E+00	2.05E-02
		Be-7	<1.39E-01	0.00E+00	1.39E-01
		K-40	3.76E-01	2.32E-01	2.81E-01
580797	11/29/2022 - 12/6/2022	I-131	<3.10E-02	0.00E+00	3.10E-02
		Cs-134	<1.99E-02	0.00E+00	1.99E-02
		Cs-137	<2.09E-02	0.00E+00	2.09E-02
		Be-7	<1.17E-01	0.00E+00	1.17E-01
		K-40	6.53E-01	3.07E-01	3.43E-01
581122	12/6/2022 - 12/13/2022	I-131	<2.75E-02	0.00E+00	2.75E-02
		Cs-134	<3.05E-02	0.00E+00	3.05E-02
		Cs-137	<2.17E-02	0.00E+00	2.17E-02
		Be-7	<1.68E-01	0.00E+00	1.68E-01
		K-40	<6.13E-01	0.00E+00	6.13E-01
581681	12/13/2022 - 12/20/2022	I-131	<3.63E-02	0.00E+00	3.63E-02
		Cs-134	<2.63E-02	0.00E+00	2.63E-02
		Cs-137	<1.72E-02	0.00E+00	1.72E-02
		Be-7	<1.62E-01	0.00E+00	1.62E-01
		K-40	6.02E-01	2.62E-01	2.25E-01
582225	12/20/2022 - 12/27/2022	I-131	<4.58E-02	0.00E+00	4.58E-02
		Cs-134	<3.11E-02	0.00E+00	3.11E-02
		Cs-137	<2.67E-02	0.00E+00	2.67E-02
		Be-7	<1.82E-01	0.00E+00	1.82E-01
		K-40	5.21E-01	2.77E-01	3.16E-01
582412	12/27/2022 - 1/3/2023	I-131	<3.00E-02	0.00E+00	3.00E-02
		Cs-134	<1.96E-02	0.00E+00	1.96E-02
		Cs-137	<1.88E-02	0.00E+00	1.88E-02
		Be-7	<1.68E-01	0.00E+00	1.68E-01
		K-40	<5.43E-01	0.00E+00	5.43E-01

Sample Point 204 [CONTROL - NNE @ 22.4 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
558846	1/4/2022 - 1/11/2022	I-131	<3.74E-02	0.00E+00	3.74E-02
		Cs-134	<2.08E-02	0.00E+00	2.08E-02
		Cs-137	<2.16E-02	0.00E+00	2.16E-02
		Be-7	<1.02E-01	0.00E+00	1.02E-01
		K-40	<6.17E-01	0.00E+00	6.17E-01
559062	1/11/2022 - 1/18/2022	I-131	<2.57E-02	0.00E+00	2.57E-02

BRUNSWICK Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 204 [CONTROL - NNE @ 22.4 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
559062	1/11/2022 - 1/18/2022	Cs-134	<2.70E-02	0.00E+00	2.70E-02
		Cs-137	<1.77E-02	0.00E+00	1.77E-02
		Be-7	<1.83E-01	0.00E+00	1.83E-01
		K-40	<4.33E-01	0.00E+00	4.33E-01
559310	1/18/2022 - 1/25/2022	I-131	<3.86E-02	0.00E+00	3.86E-02
		Cs-134	<2.19E-02	0.00E+00	2.19E-02
		Cs-137	<2.78E-02	0.00E+00	2.78E-02
		Be-7	<2.56E-01	0.00E+00	2.56E-01
		K-40	2.99E-01	2.10E-01	2.51E-01
560038	1/25/2022 - 2/1/2022	I-131	<4.05E-02	0.00E+00	4.05E-02
		Cs-134	<3.06E-02	0.00E+00	3.06E-02
		Cs-137	<2.92E-02	0.00E+00	2.92E-02
		Be-7	<2.35E-01	0.00E+00	2.35E-01
		K-40	4.81E-01	2.84E-01	3.51E-01
560255	2/1/2022 - 2/8/2022	I-131	<2.57E-02	0.00E+00	2.57E-02
		Cs-134	<5.18E-03	0.00E+00	5.18E-03
		Cs-137	<2.47E-02	0.00E+00	2.47E-02
		Be-7	<1.44E-01	0.00E+00	1.44E-01
		K-40	<5.15E-01	0.00E+00	5.15E-01
560492	2/8/2022 - 2/15/2022	I-131	<2.82E-02	0.00E+00	2.82E-02
		Cs-134	<2.30E-02	0.00E+00	2.30E-02
		Cs-137	<1.98E-02	0.00E+00	1.98E-02
		Be-7	<1.18E-01	0.00E+00	1.18E-01
		K-40	1.36E-01	2.22E-01	3.79E-01
560804	2/15/2022 - 2/22/2022	I-131	<1.95E-02	0.00E+00	1.95E-02
		Cs-134	<2.88E-02	0.00E+00	2.88E-02
		Cs-137	<2.33E-02	0.00E+00	2.33E-02
		Be-7	<1.32E-01	0.00E+00	1.32E-01
		K-40	<5.45E-01	0.00E+00	5.45E-01
561140	2/22/2022 - 3/1/2022	I-131	<2.82E-02	0.00E+00	2.82E-02
		Cs-134	<2.06E-02	0.00E+00	2.06E-02
		Cs-137	<2.75E-02	0.00E+00	2.75E-02
		Be-7	<1.75E-01	0.00E+00	1.75E-01
		K-40	5.20E-01	2.68E-01	2.93E-01
561640	3/1/2022 - 3/8/2022	I-131	<2.02E-02	0.00E+00	2.02E-02
		Cs-134	<2.74E-02	0.00E+00	2.74E-02
		Cs-137	<1.81E-02	0.00E+00	1.81E-02
		Be-7	<1.79E-01	0.00E+00	1.79E-01
		K-40	3.27E-01	1.83E-01	6.82E-02
562234	3/8/2022 - 3/15/2022	I-131	<2.74E-02	0.00E+00	2.74E-02
		Cs-134	<2.46E-02	0.00E+00	2.46E-02
		Cs-137	<2.12E-02	0.00E+00	2.12E-02
		Be-7	<1.41E-01	0.00E+00	1.41E-01
		K-40	6.49E-01	2.55E-01	6.51E-02
562835	3/15/2022 - 3/22/2022	I-131	<3.18E-02	0.00E+00	3.18E-02
		Cs-134	<2.02E-02	0.00E+00	2.02E-02
		Cs-137	<1.95E-02	0.00E+00	1.95E-02
		Be-7	<1.30E-01	0.00E+00	1.30E-01

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

BRUNSWICK Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 204 [CONTROL - NNE @ 22.4 miles]

Sample ID	Sample Dates	Nuclide	Activity	2 Sigma Error	MDA
562835	3/15/2022 - 3/22/2022	K-40	<5.27E-01	0.00E+00	5.27E-01
563434	3/22/2022 - 3/29/2022	I-131	<2.85E-02	0.00E+00	2.85E-02
		Cs-134	<2.30E-02	0.00E+00	2.30E-02
		Cs-137	<2.16E-02	0.00E+00	2.16E-02
		Be-7	<1.56E-01	0.00E+00	1.56E-01
		K-40	5.41E-01	2.79E-01	3.12E-01
563768	3/29/2022 - 4/5/2022	I-131	<2.70E-02	0.00E+00	2.70E-02
		Cs-134	<2.06E-02	0.00E+00	2.06E-02
		Cs-137	<1.98E-02	0.00E+00	1.98E-02
		Be-7	<8.10E-02	0.00E+00	8.10E-02
		K-40	<5.72E-01	0.00E+00	5.72E-01
563984	4/5/2022 - 4/12/2022	I-131	<3.52E-02	0.00E+00	3.52E-02
		Cs-134	<2.31E-02	0.00E+00	2.31E-02
		Cs-137	<1.97E-02	0.00E+00	1.97E-02
		Be-7	<1.96E-01	0.00E+00	1.96E-01
		K-40	6.47E-01	3.10E-01	3.41E-01
564532	4/12/2022 - 4/19/2022	I-131	<2.31E-02	0.00E+00	2.31E-02
		Cs-134	<2.06E-02	0.00E+00	2.06E-02
		Cs-137	<2.99E-02	0.00E+00	2.99E-02
		Be-7	<1.20E-01	0.00E+00	1.20E-01
		K-40	5.46E-01	2.37E-01	6.72E-02
564800	4/19/2022 - 4/26/2022	I-131	<4.42E-02	0.00E+00	4.42E-02
		Cs-134	<3.23E-02	0.00E+00	3.23E-02
		Cs-137	<3.18E-02	0.00E+00	3.18E-02
		Be-7	<1.94E-01	0.00E+00	1.94E-01
		K-40	7.09E-01	3.06E-01	2.80E-01
565292	4/26/2022 - 5/3/2022	I-131	<2.80E-02	0.00E+00	2.80E-02
		Cs-134	<2.51E-02	0.00E+00	2.51E-02
		Cs-137	<2.33E-02	0.00E+00	2.33E-02
		Be-7	<1.34E-01	0.00E+00	1.34E-01
		K-40	5.46E-01	2.68E-01	2.75E-01
565950	5/3/2022 - 5/10/2022	I-131	<2.54E-02	0.00E+00	2.54E-02
		Cs-134	<1.37E-02	0.00E+00	1.37E-02
		Cs-137	<2.10E-02	0.00E+00	2.10E-02
		Be-7	<1.30E-01	0.00E+00	1.30E-01
		K-40	<5.33E-01	0.00E+00	5.33E-01
566542	5/10/2022 - 5/17/2022	I-131	<2.42E-02	0.00E+00	2.42E-02
		Cs-134	<1.75E-02	0.00E+00	1.75E-02
		Cs-137	<1.51E-02	0.00E+00	1.51E-02
		Be-7	<1.73E-01	0.00E+00	1.73E-01
		K-40	5.85E-01	2.43E-01	6.61E-02
566936	5/17/2022 - 5/24/2022	I-131	<2.79E-02	0.00E+00	2.79E-02
		Cs-134	<2.23E-02	0.00E+00	2.23E-02
		Cs-137	<2.26E-02	0.00E+00	2.26E-02
		Be-7	<1.96E-01	0.00E+00	1.96E-01
		K-40	5.44E-01	2.65E-01	2.71E-01

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

BRUNSWICK Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 204 [CONTROL - NNE @ 22.4 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
567127	5/24/2022 - 5/31/2022	I-131	<2.58E-02	0.00E+00	2.58E-02
		Cs-134	<2.04E-02	0.00E+00	2.04E-02
		Cs-137	<1.76E-02	0.00E+00	1.76E-02
		Be-7	<1.44E-01	0.00E+00	1.44E-01
		K-40	<5.76E-01	0.00E+00	5.76E-01
567557	5/31/2022 - 6/7/2022	I-131	<2.95E-02	0.00E+00	2.95E-02
		Cs-134	<2.38E-02	0.00E+00	2.38E-02
		Cs-137	<2.05E-02	0.00E+00	2.05E-02
		Be-7	<1.91E-01	0.00E+00	1.91E-01
		K-40	<5.02E-01	0.00E+00	5.02E-01
567733	6/7/2022 - 6/14/2022	I-131	<2.56E-02	0.00E+00	2.56E-02
		Cs-134	<2.00E-02	0.00E+00	2.00E-02
		Cs-137	<1.73E-02	0.00E+00	1.73E-02
		Be-7	<1.53E-01	0.00E+00	1.53E-01
		K-40	4.30E-01	2.38E-01	2.58E-01
568369	6/14/2022 - 6/21/2022	I-131	<3.33E-02	0.00E+00	3.33E-02
		Cs-134	<2.41E-02	0.00E+00	2.41E-02
		Cs-137	<2.88E-02	0.00E+00	2.88E-02
		Be-7	<1.62E-01	0.00E+00	1.62E-01
		K-40	5.01E-01	2.51E-01	2.36E-01
568608	6/21/2022 - 6/28/2022	I-131	<2.47E-02	0.00E+00	2.47E-02
		Cs-134	<2.18E-02	0.00E+00	2.18E-02
		Cs-137	<2.05E-02	0.00E+00	2.05E-02
		Be-7	<1.58E-01	0.00E+00	1.58E-01
		K-40	<4.28E-01	0.00E+00	4.28E-01
568816	6/28/2022 - 7/5/2022	I-131	<2.81E-02	0.00E+00	2.81E-02
		Cs-134	<3.00E-02	0.00E+00	3.00E-02
		Cs-137	<2.33E-02	0.00E+00	2.33E-02
		Be-7	<1.50E-01	0.00E+00	1.50E-01
		K-40	<5.54E-01	0.00E+00	5.54E-01
569056	7/5/2022 - 7/12/2022	I-131	<3.14E-02	0.00E+00	3.14E-02
		Cs-134	<3.16E-02	0.00E+00	3.16E-02
		Cs-137	<2.69E-02	0.00E+00	2.69E-02
		Be-7	<1.94E-01	0.00E+00	1.94E-01
		K-40	<5.79E-01	0.00E+00	5.79E-01
570282	7/12/2022 - 7/19/2022	I-131	<2.31E-02	0.00E+00	2.31E-02
		Cs-134	<1.78E-02	0.00E+00	1.78E-02
		Cs-137	<2.32E-02	0.00E+00	2.32E-02
		Be-7	<1.46E-01	0.00E+00	1.46E-01
		K-40	<4.51E-01	0.00E+00	4.51E-01
570846	7/19/2022 - 7/26/2022	I-131	<2.19E-02	0.00E+00	2.19E-02
		Cs-134	<1.95E-02	0.00E+00	1.95E-02
		Cs-137	<1.87E-02	0.00E+00	1.87E-02
		Be-7	<1.26E-01	0.00E+00	1.26E-01
		K-40	3.36E-01	2.20E-01	2.73E-01
571087	7/26/2022 - 8/2/2022	I-131	<3.40E-02	0.00E+00	3.40E-02
		Cs-134	<1.96E-02	0.00E+00	1.96E-02
		Cs-137	<1.15E-02	0.00E+00	1.15E-02

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

BRUNSWICK Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 204 [CONTROL - NNE @ 22.4 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
571087	7/26/2022 - 8/2/2022	Be-7	<1.77E-01	0.00E+00	1.77E-01
		K-40	3.20E-01	2.09E-01	2.51E-01
571414	8/2/2022 - 8/9/2022	I-131	<2.69E-02	0.00E+00	2.69E-02
		Cs-134	<1.95E-02	0.00E+00	1.95E-02
		Cs-137	<2.34E-02	0.00E+00	2.34E-02
		Be-7	<1.59E-01	0.00E+00	1.59E-01
		K-40	5.65E-01	2.35E-01	6.38E-02
571690	8/9/2022 - 8/16/2022	I-131	<2.45E-02	0.00E+00	2.45E-02
		Cs-134	<2.72E-02	0.00E+00	2.72E-02
		Cs-137	<1.68E-02	0.00E+00	1.68E-02
		Be-7	<1.57E-01	0.00E+00	1.57E-01
		K-40	3.76E-01	1.90E-01	6.37E-02
572705	8/16/2022 - 8/23/2022	I-131	<2.47E-02	0.00E+00	2.47E-02
		Cs-134	<2.18E-02	0.00E+00	2.18E-02
		Cs-137	<1.87E-02	0.00E+00	1.87E-02
		Be-7	<7.69E-02	0.00E+00	7.69E-02
		K-40	<4.74E-01	0.00E+00	4.74E-01
573894	8/23/2022 - 8/30/2022	I-131	<2.57E-02	0.00E+00	2.57E-02
		Cs-134	<2.87E-02	0.00E+00	2.87E-02
		Cs-137	<1.87E-02	0.00E+00	1.87E-02
		Be-7	<1.47E-01	0.00E+00	1.47E-01
		K-40	<4.10E-01	0.00E+00	4.10E-01
574524	8/30/2022 - 9/6/2022	I-131	<3.36E-02	0.00E+00	3.36E-02
		Cs-134	<2.32E-02	0.00E+00	2.32E-02
		Cs-137	<2.47E-02	0.00E+00	2.47E-02
		Be-7	<2.06E-01	0.00E+00	2.06E-01
		K-40	7.16E-01	2.77E-01	6.93E-02
574994	9/6/2022 - 9/13/2022	I-131	<2.86E-02	0.00E+00	2.86E-02
		Cs-134	<2.71E-02	0.00E+00	2.71E-02
		Cs-137	<2.86E-02	0.00E+00	2.86E-02
		Be-7	<1.80E-01	0.00E+00	1.80E-01
		K-40	7.68E-01	3.11E-01	2.69E-01
575680	9/13/2022 - 9/20/2022	I-131	<2.27E-02	0.00E+00	2.27E-02
		Cs-134	<2.05E-02	0.00E+00	2.05E-02
		Cs-137	<1.77E-02	0.00E+00	1.77E-02
		Be-7	<1.32E-01	0.00E+00	1.32E-01
		K-40	3.79E-01	2.52E-01	3.29E-01
576071	9/20/2022 - 9/27/2022	I-131	<2.30E-02	0.00E+00	2.30E-02
		Cs-134	<2.61E-02	0.00E+00	2.61E-02
		Cs-137	<1.59E-02	0.00E+00	1.59E-02
		Be-7	<1.79E-01	0.00E+00	1.79E-01
		K-40	3.05E-01	2.26E-01	2.99E-01
576251	9/27/2022 - 10/4/2022	I-131	<4.09E-02	0.00E+00	4.09E-02
		Cs-134	<3.03E-02	0.00E+00	3.03E-02
		Cs-137	<1.21E-02	0.00E+00	1.21E-02
		Be-7	<1.85E-01	0.00E+00	1.85E-01
		K-40	3.23E-01	2.20E-01	2.77E-01

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

BRUNSWICK Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 204 [CONTROL - NNE @ 22.4 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
576526	10/4/2022 - 10/11/2022	I-131	<4.00E-02	0.00E+00	4.00E-02
		Cs-134	<2.85E-02	0.00E+00	2.85E-02
		Cs-137	<3.13E-02	0.00E+00	3.13E-02
		Be-7	<1.83E-01	0.00E+00	1.83E-01
		K-40	6.13E-01	2.91E-01	2.88E-01
577156	10/11/2022 - 10/18/2022	I-131	<2.23E-02	0.00E+00	2.23E-02
		Cs-134	<2.61E-02	0.00E+00	2.61E-02
		Cs-137	<1.80E-02	0.00E+00	1.80E-02
		Be-7	<1.50E-01	0.00E+00	1.50E-01
		K-40	1.76E-01	1.64E-01	2.32E-01
577745	10/18/2022 - 10/25/2022	I-131	<3.44E-02	0.00E+00	3.44E-02
		Cs-134	<2.54E-02	0.00E+00	2.54E-02
		Cs-137	<2.19E-02	0.00E+00	2.19E-02
		Be-7	<1.20E-01	0.00E+00	1.20E-01
		K-40	4.11E-01	2.97E-01	4.23E-01
578107	10/25/2022 - 11/1/2022	I-131	<2.16E-02	0.00E+00	2.16E-02
		Cs-134	<1.80E-02	0.00E+00	1.80E-02
		Cs-137	<1.79E-02	0.00E+00	1.79E-02
		Be-7	<1.46E-01	0.00E+00	1.46E-01
		K-40	<3.02E-01	0.00E+00	3.02E-01
578817	11/1/2022 - 11/8/2022	I-131	<2.60E-02	0.00E+00	2.60E-02
		Cs-134	<2.61E-02	0.00E+00	2.61E-02
		Cs-137	<1.92E-02	0.00E+00	1.92E-02
		Be-7	<1.31E-01	0.00E+00	1.31E-01
		K-40	3.62E-01	1.89E-01	6.55E-02
579018	11/8/2022 - 11/15/2022	I-131	<2.59E-02	0.00E+00	2.59E-02
		Cs-134	<2.19E-02	0.00E+00	2.19E-02
		Cs-137	<2.06E-02	0.00E+00	2.06E-02
		Be-7	<1.38E-01	0.00E+00	1.38E-01
		K-40	<6.04E-01	0.00E+00	6.04E-01
579769	11/15/2022 - 11/22/2022	I-131	<3.36E-02	0.00E+00	3.36E-02
		Cs-134	<1.33E-02	0.00E+00	1.33E-02
		Cs-137	<1.44E-02	0.00E+00	1.44E-02
		Be-7	<1.19E-01	0.00E+00	1.19E-01
		K-40	3.35E-01	2.68E-01	3.91E-01
580591	11/22/2022 - 11/29/2022	I-131	<3.33E-02	0.00E+00	3.33E-02
		Cs-134	<2.72E-02	0.00E+00	2.72E-02
		Cs-137	<2.90E-02	0.00E+00	2.90E-02
		Be-7	<1.59E-01	0.00E+00	1.59E-01
		K-40	2.29E-01	2.13E-01	3.14E-01
580798	11/29/2022 - 12/6/2022	I-131	<2.79E-02	0.00E+00	2.79E-02
		Cs-134	<2.55E-02	0.00E+00	2.55E-02
		Cs-137	<1.45E-02	0.00E+00	1.45E-02
		Be-7	<1.38E-01	0.00E+00	1.38E-01
		K-40	<4.74E-01	0.00E+00	4.74E-01
581123	12/6/2022 - 12/13/2022	I-131	<2.05E-02	0.00E+00	2.05E-02
		Cs-134	<2.26E-02	0.00E+00	2.26E-02
		Cs-137	<1.95E-02	0.00E+00	1.95E-02

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

BRUNSWICK Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 204 [CONTROL - NNE @ 22.4 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
581123	12/6/2022 - 12/13/2022	Be-7	<1.82E-01	0.00E+00	1.82E-01
		K-40	3.79E-01	2.67E-01	3.69E-01
581682	12/13/2022 - 12/20/2022	I-131	<3.88E-02	0.00E+00	3.88E-02
		Cs-134	<1.86E-02	0.00E+00	1.86E-02
		Cs-137	<2.71E-02	0.00E+00	2.71E-02
		Be-7	<1.83E-01	0.00E+00	1.83E-01
		K-40	6.66E-01	2.90E-01	2.63E-01
582226	12/20/2022 - 12/27/2022	I-131	<6.08E-02	0.00E+00	6.08E-02
		Cs-134	<3.25E-02	0.00E+00	3.25E-02
		Cs-137	<2.78E-02	0.00E+00	2.78E-02
		Be-7	<2.19E-01	0.00E+00	2.19E-01
		K-40	6.00E-01	3.04E-01	3.54E-01
582413	12/27/2022 - 1/3/2023	I-131	<1.89E-02	0.00E+00	1.89E-02
		Cs-134	<2.52E-02	0.00E+00	2.52E-02
		Cs-137	<2.16E-02	0.00E+00	2.16E-02
		Be-7	<1.46E-01	0.00E+00	1.46E-01
		K-40	<4.15E-01	0.00E+00	4.15E-01

Sample Point 205 [INDICATOR - SSE @ 0.6 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
558847	1/4/2022 - 1/11/2022	I-131	<3.29E-02	0.00E+00	3.29E-02
		Cs-134	<2.87E-02	0.00E+00	2.87E-02
		Cs-137	<2.47E-02	0.00E+00	2.47E-02
		Be-7	<1.94E-01	0.00E+00	1.94E-01
		K-40	<5.68E-01	0.00E+00	5.68E-01
559063	1/11/2022 - 1/18/2022	I-131	<2.88E-02	0.00E+00	2.88E-02
		Cs-134	<5.02E-03	0.00E+00	5.02E-03
		Cs-137	<1.92E-02	0.00E+00	1.92E-02
		Be-7	<1.77E-01	0.00E+00	1.77E-01
		K-40	<5.82E-01	0.00E+00	5.82E-01
559313	1/18/2022 - 1/25/2022	I-131	<2.56E-02	0.00E+00	2.56E-02
		Cs-134	<1.79E-02	0.00E+00	1.79E-02
		Cs-137	<2.18E-02	0.00E+00	2.18E-02
		Be-7	<1.84E-01	0.00E+00	1.84E-01
		K-40	<5.04E-01	0.00E+00	5.04E-01
560039	1/25/2022 - 2/1/2022	I-131	<3.03E-02	0.00E+00	3.03E-02
		Cs-134	<2.51E-02	0.00E+00	2.51E-02
		Cs-137	<2.17E-02	0.00E+00	2.17E-02
		Be-7	<2.00E-01	0.00E+00	2.00E-01
		K-40	7.31E-01	3.16E-01	3.24E-01
560256	2/1/2022 - 2/8/2022	I-131	<3.21E-02	0.00E+00	3.21E-02
		Cs-134	<2.82E-02	0.00E+00	2.82E-02
		Cs-137	<1.95E-02	0.00E+00	1.95E-02
		Be-7	<1.95E-01	0.00E+00	1.95E-01
		K-40	<6.79E-01	0.00E+00	6.79E-01
560493	2/8/2022 - 2/15/2022	I-131	<2.20E-02	0.00E+00	2.20E-02
		Cs-134	<1.75E-02	0.00E+00	1.75E-02
		Cs-137	<2.29E-02	0.00E+00	2.29E-02
		Be-7	<1.62E-01	0.00E+00	1.62E-01

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

BRUNSWICK Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 205 [INDICATOR - SSE @ 0.6 miles]

Sample ID	Sample Dates	Nuclide	Activity	2 Sigma Error	MDA
560493	2/8/2022 - 2/15/2022	K-40	<4.55E-01	0.00E+00	4.55E-01
560805	2/15/2022 - 2/22/2022	I-131	<2.59E-02	0.00E+00	2.59E-02
		Cs-134	<2.26E-02	0.00E+00	2.26E-02
		Cs-137	<1.51E-02	0.00E+00	1.51E-02
		Be-7	<1.16E-01	0.00E+00	1.16E-01
		K-40	3.37E-01	1.82E-01	6.52E-02
561141	2/22/2022 - 3/1/2022	I-131	<2.23E-02	0.00E+00	2.23E-02
		Cs-134	<2.26E-02	0.00E+00	2.26E-02
		Cs-137	<2.71E-02	0.00E+00	2.71E-02
		Be-7	<2.05E-01	0.00E+00	2.05E-01
		K-40	5.50E-01	3.07E-01	3.92E-01
561641	3/1/2022 - 3/8/2022	I-131	<3.40E-02	0.00E+00	3.40E-02
		Cs-134	<2.44E-02	0.00E+00	2.44E-02
		Cs-137	<3.17E-02	0.00E+00	3.17E-02
		Be-7	<2.41E-01	0.00E+00	2.41E-01
		K-40	5.31E-01	3.21E-01	4.23E-01
562235	3/8/2022 - 3/15/2022	I-131	<2.86E-02	0.00E+00	2.86E-02
		Cs-134	<2.57E-02	0.00E+00	2.57E-02
		Cs-137	<2.54E-02	0.00E+00	2.54E-02
		Be-7	<1.48E-01	0.00E+00	1.48E-01
		K-40	<6.10E-01	0.00E+00	6.10E-01
562836	3/15/2022 - 3/22/2022	I-131	<2.16E-02	0.00E+00	2.16E-02
		Cs-134	<2.10E-02	0.00E+00	2.10E-02
		Cs-137	<2.38E-02	0.00E+00	2.38E-02
		Be-7	<1.05E-01	0.00E+00	1.05E-01
		K-40	<4.41E-01	0.00E+00	4.41E-01
563435	3/22/2022 - 3/29/2022	I-131	<2.84E-02	0.00E+00	2.84E-02
		Cs-134	<1.38E-02	0.00E+00	1.38E-02
		Cs-137	<2.56E-02	0.00E+00	2.56E-02
		Be-7	<1.51E-01	0.00E+00	1.51E-01
		K-40	<6.23E-01	0.00E+00	6.23E-01
563769	3/29/2022 - 4/5/2022	I-131	<2.44E-02	0.00E+00	2.44E-02
		Cs-134	<2.45E-02	0.00E+00	2.45E-02
		Cs-137	<1.49E-02	0.00E+00	1.49E-02
		Be-7	<1.40E-01	0.00E+00	1.40E-01
		K-40	6.44E-01	3.03E-01	3.38E-01
563985	4/5/2022 - 4/12/2022	I-131	<2.66E-02	0.00E+00	2.66E-02
		Cs-134	<2.49E-02	0.00E+00	2.49E-02
		Cs-137	<1.52E-02	0.00E+00	1.52E-02
		Be-7	<1.83E-01	0.00E+00	1.83E-01
		K-40	<5.78E-01	0.00E+00	5.78E-01
564533	4/12/2022 - 4/19/2022	I-131	<3.10E-02	0.00E+00	3.10E-02
		Cs-134	<2.28E-02	0.00E+00	2.28E-02
		Cs-137	<1.96E-02	0.00E+00	1.96E-02
		Be-7	<1.32E-01	0.00E+00	1.32E-01
		K-40	6.06E-01	2.99E-01	3.42E-01

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

BRUNSWICK Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 205 [INDICATOR - SSE @ 0.6 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
564801	4/19/2022 - 4/26/2022	I-131	<2.61E-02	0.00E+00	2.61E-02
		Cs-134	<1.36E-02	0.00E+00	1.36E-02
		Cs-137	<1.72E-02	0.00E+00	1.72E-02
		Be-7	<1.15E-01	0.00E+00	1.15E-01
		K-40	5.07E-01	2.25E-01	6.54E-02
565293	4/26/2022 - 5/3/2022	I-131	<3.38E-02	0.00E+00	3.38E-02
		Cs-134	<2.53E-02	0.00E+00	2.53E-02
		Cs-137	<2.02E-02	0.00E+00	2.02E-02
		Be-7	<1.47E-01	0.00E+00	1.47E-01
		K-40	<4.83E-01	0.00E+00	4.83E-01
565951	5/3/2022 - 5/10/2022	I-131	<2.69E-02	0.00E+00	2.69E-02
		Cs-134	<1.98E-02	0.00E+00	1.98E-02
		Cs-137	<2.08E-02	0.00E+00	2.08E-02
		Be-7	<1.14E-01	0.00E+00	1.14E-01
		K-40	<5.09E-01	0.00E+00	5.09E-01
566543	5/10/2022 - 5/17/2022	I-131	<2.78E-02	0.00E+00	2.78E-02
		Cs-134	<2.96E-02	0.00E+00	2.96E-02
		Cs-137	<2.11E-02	0.00E+00	2.11E-02
		Be-7	<7.98E-02	0.00E+00	7.98E-02
		K-40	<6.89E-01	0.00E+00	6.89E-01
566937	5/17/2022 - 5/24/2022	I-131	<1.96E-02	0.00E+00	1.96E-02
		Cs-134	<2.67E-02	0.00E+00	2.67E-02
		Cs-137	<2.30E-02	0.00E+00	2.30E-02
		Be-7	<1.44E-01	0.00E+00	1.44E-01
		K-40	4.48E-01	2.39E-01	2.60E-01
567128	5/24/2022 - 5/31/2022	I-131	<1.65E-02	0.00E+00	1.65E-02
		Cs-134	<1.69E-02	0.00E+00	1.69E-02
		Cs-137	<1.69E-02	0.00E+00	1.69E-02
		Be-7	<1.38E-01	0.00E+00	1.38E-01
		K-40	4.01E-01	1.97E-01	6.39E-02
567558	5/31/2022 - 6/7/2022	I-131	<2.77E-02	0.00E+00	2.77E-02
		Cs-134	<2.23E-02	0.00E+00	2.23E-02
		Cs-137	<2.41E-02	0.00E+00	2.41E-02
		Be-7	<1.96E-01	0.00E+00	1.96E-01
		K-40	<4.25E-01	0.00E+00	4.25E-01
567734	6/7/2022 - 6/14/2022	I-131	<2.34E-02	0.00E+00	2.34E-02
		Cs-134	<2.91E-02	0.00E+00	2.91E-02
		Cs-137	<1.90E-02	0.00E+00	1.90E-02
		Be-7	<9.85E-02	0.00E+00	9.85E-02
		K-40	<4.79E-01	0.00E+00	4.79E-01
568370	6/14/2022 - 6/21/2022	I-131	<2.54E-02	0.00E+00	2.54E-02
		Cs-134	<2.86E-02	0.00E+00	2.86E-02
		Cs-137	<2.46E-02	0.00E+00	2.46E-02
		Be-7	<1.75E-01	0.00E+00	1.75E-01
		K-40	3.74E-01	2.34E-01	2.83E-01
568609	6/21/2022 - 6/28/2022	I-131	<2.39E-02	0.00E+00	2.39E-02
		Cs-134	<2.04E-02	0.00E+00	2.04E-02
		Cs-137	<2.15E-02	0.00E+00	2.15E-02

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

BRUNSWICK Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 205 [INDICATOR - SSE @ 0.6 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
568609	6/21/2022 - 6/28/2022	Be-7	<1.44E-01	0.00E+00	1.44E-01
		K-40	<4.63E-01	0.00E+00	4.63E-01
568817	6/28/2022 - 7/5/2022	I-131	<2.20E-02	0.00E+00	2.20E-02
		Cs-134	<1.34E-02	0.00E+00	1.34E-02
		Cs-137	<2.06E-02	0.00E+00	2.06E-02
		Be-7	<1.59E-01	0.00E+00	1.59E-01
		K-40	2.46E-01	1.97E-01	2.66E-01
569057	7/5/2022 - 7/12/2022	I-131	<2.86E-02	0.00E+00	2.86E-02
		Cs-134	<2.62E-02	0.00E+00	2.62E-02
		Cs-137	<1.73E-02	0.00E+00	1.73E-02
		Be-7	<1.71E-01	0.00E+00	1.71E-01
		K-40	5.92E-01	2.59E-01	2.14E-01
570283	7/12/2022 - 7/19/2022	I-131	<3.46E-02	0.00E+00	3.46E-02
		Cs-134	<2.31E-02	0.00E+00	2.31E-02
		Cs-137	<2.32E-02	0.00E+00	2.32E-02
		Be-7	<1.73E-01	0.00E+00	1.73E-01
		K-40	6.32E-01	3.25E-01	3.92E-01
570847	7/19/2022 - 7/26/2022	I-131	<2.42E-02	0.00E+00	2.42E-02
		Cs-134	<2.53E-02	0.00E+00	2.53E-02
		Cs-137	<2.50E-02	0.00E+00	2.50E-02
		Be-7	<1.33E-01	0.00E+00	1.33E-01
		K-40	<5.63E-01	0.00E+00	5.63E-01
571088	7/26/2022 - 8/2/2022	I-131	<4.35E-02	0.00E+00	4.35E-02
		Cs-134	<2.07E-02	0.00E+00	2.07E-02
		Cs-137	<2.48E-02	0.00E+00	2.48E-02
		Be-7	<1.27E-01	0.00E+00	1.27E-01
		K-40	4.14E-01	2.25E-01	2.19E-01
571415	8/2/2022 - 8/9/2022	I-131	<2.56E-02	0.00E+00	2.56E-02
		Cs-134	<2.82E-02	0.00E+00	2.82E-02
		Cs-137	<1.94E-02	0.00E+00	1.94E-02
		Be-7	<2.05E-01	0.00E+00	2.05E-01
		K-40	<4.75E-01	0.00E+00	4.75E-01
571691	8/9/2022 - 8/16/2022	I-131	<2.94E-02	0.00E+00	2.94E-02
		Cs-134	<1.82E-02	0.00E+00	1.82E-02
		Cs-137	<2.38E-02	0.00E+00	2.38E-02
		Be-7	<1.68E-01	0.00E+00	1.68E-01
		K-40	3.76E-01	2.15E-01	2.08E-01
572706	8/16/2022 - 8/23/2022	I-131	<1.87E-02	0.00E+00	1.87E-02
		Cs-134	<1.73E-02	0.00E+00	1.73E-02
		Cs-137	<2.68E-02	0.00E+00	2.68E-02
		Be-7	<1.40E-01	0.00E+00	1.40E-01
		K-40	<5.44E-01	0.00E+00	5.44E-01
573895	8/23/2022 - 8/30/2022	I-131	<2.39E-02	0.00E+00	2.39E-02
		Cs-134	<2.08E-02	0.00E+00	2.08E-02
		Cs-137	<2.35E-02	0.00E+00	2.35E-02
		Be-7	<1.66E-01	0.00E+00	1.66E-01
		K-40	<5.05E-01	0.00E+00	5.05E-01

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

BRUNSWICK Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 205 [INDICATOR - SSE @ 0.6 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
574525	8/30/2022 - 9/6/2022	I-131	<3.20E-02	0.00E+00	3.20E-02
		Cs-134	<2.90E-02	0.00E+00	2.90E-02
		Cs-137	<2.87E-02	0.00E+00	2.87E-02
		Be-7	<1.82E-01	0.00E+00	1.82E-01
		K-40	<5.32E-01	0.00E+00	5.32E-01
574995	9/6/2022 - 9/13/2022	I-131	<2.83E-02	0.00E+00	2.83E-02
		Cs-134	<2.54E-02	0.00E+00	2.54E-02
		Cs-137	<2.78E-02	0.00E+00	2.78E-02
		Be-7	<1.67E-01	0.00E+00	1.67E-01
		K-40	5.05E-01	3.09E-01	4.10E-01
575681	9/13/2022 - 9/20/2022	I-131	<2.46E-02	0.00E+00	2.46E-02
		Cs-134	<2.02E-02	0.00E+00	2.02E-02
		Cs-137	<1.75E-02	0.00E+00	1.75E-02
		Be-7	<1.29E-01	0.00E+00	1.29E-01
		K-40	<6.03E-01	0.00E+00	6.03E-01
576072	9/20/2022 - 9/27/2022	I-131	<3.30E-02	0.00E+00	3.30E-02
		Cs-134	<1.78E-02	0.00E+00	1.78E-02
		Cs-137	<2.62E-02	0.00E+00	2.62E-02
		Be-7	<1.75E-01	0.00E+00	1.75E-01
		K-40	<5.96E-01	0.00E+00	5.96E-01
576252	9/27/2022 - 10/4/2022	I-131	<3.29E-02	0.00E+00	3.29E-02
		Cs-134	<2.42E-02	0.00E+00	2.42E-02
		Cs-137	<2.87E-02	0.00E+00	2.87E-02
		Be-7	<1.46E-01	0.00E+00	1.46E-01
		K-40	<4.66E-01	0.00E+00	4.66E-01
576527	10/4/2022 - 10/11/2022	I-131	<3.26E-02	0.00E+00	3.26E-02
		Cs-134	<2.97E-02	0.00E+00	2.97E-02
		Cs-137	<1.94E-02	0.00E+00	1.94E-02
		Be-7	<1.64E-01	0.00E+00	1.64E-01
		K-40	<5.70E-01	0.00E+00	5.70E-01
577157	10/11/2022 - 10/18/2022	I-131	<2.82E-02	0.00E+00	2.82E-02
		Cs-134	<2.07E-02	0.00E+00	2.07E-02
		Cs-137	<1.99E-02	0.00E+00	1.99E-02
		Be-7	<1.56E-01	0.00E+00	1.56E-01
		K-40	4.03E-01	2.34E-01	2.59E-01
577746	10/18/2022 - 10/25/2022	I-131	<3.08E-02	0.00E+00	3.08E-02
		Cs-134	<2.41E-02	0.00E+00	2.41E-02
		Cs-137	<2.07E-02	0.00E+00	2.07E-02
		Be-7	<1.37E-01	0.00E+00	1.37E-01
		K-40	<3.86E-01	0.00E+00	3.86E-01
578108	10/25/2022 - 11/1/2022	I-131	<2.00E-02	0.00E+00	2.00E-02
		Cs-134	<1.95E-02	0.00E+00	1.95E-02
		Cs-137	<2.04E-02	0.00E+00	2.04E-02
		Be-7	<1.47E-01	0.00E+00	1.47E-01
		K-40	<5.16E-01	0.00E+00	5.16E-01
578818	11/1/2022 - 11/8/2022	I-131	<3.25E-02	0.00E+00	3.25E-02
		Cs-134	<2.40E-02	0.00E+00	2.40E-02
		Cs-137	<1.89E-02	0.00E+00	1.89E-02

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

BRUNSWICK Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 205 [INDICATOR - SSE @ 0.6 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
578818	11/1/2022 - 11/8/2022	Be-7	<1.77E-01	0.00E+00	1.77E-01
		K-40	3.09E-01	2.18E-01	2.83E-01
579019	11/8/2022 - 11/15/2022	I-131	<2.66E-02	0.00E+00	2.66E-02
		Cs-134	<2.29E-02	0.00E+00	2.29E-02
		Cs-137	<2.74E-02	0.00E+00	2.74E-02
		Be-7	<1.82E-01	0.00E+00	1.82E-01
		K-40	2.87E-01	1.94E-01	2.22E-01
579770	11/15/2022 - 11/22/2022	I-131	<3.52E-02	0.00E+00	3.52E-02
		Cs-134	<2.08E-02	0.00E+00	2.08E-02
		Cs-137	<2.34E-02	0.00E+00	2.34E-02
		Be-7	<1.55E-01	0.00E+00	1.55E-01
		K-40	5.00E-01	2.27E-01	6.77E-02
580592	11/22/2022 - 11/29/2022	I-131	<2.73E-02	0.00E+00	2.73E-02
		Cs-134	<1.90E-02	0.00E+00	1.90E-02
		Cs-137	<1.62E-02	0.00E+00	1.62E-02
		Be-7	<1.69E-01	0.00E+00	1.69E-01
		K-40	4.91E-01	2.18E-01	2.69E-01
580799	11/29/2022 - 12/6/2022	I-131	<2.25E-02	0.00E+00	2.25E-02
		Cs-134	<2.04E-02	0.00E+00	2.04E-02
		Cs-137	<2.30E-02	0.00E+00	2.30E-02
		Be-7	<1.44E-01	0.00E+00	1.44E-01
		K-40	<4.29E-01	0.00E+00	4.29E-01
581124	12/6/2022 - 12/13/2022	I-131	<2.51E-02	0.00E+00	2.51E-02
		Cs-134	<2.66E-02	0.00E+00	2.66E-02
		Cs-137	<2.62E-02	0.00E+00	2.62E-02
		Be-7	<1.39E-01	0.00E+00	1.39E-01
		K-40	<3.89E-01	0.00E+00	3.89E-01
581683	12/13/2022 - 12/20/2022	I-131	<4.21E-02	0.00E+00	4.21E-02
		Cs-134	<2.49E-02	0.00E+00	2.49E-02
		Cs-137	<2.30E-02	0.00E+00	2.30E-02
		Be-7	<2.29E-01	0.00E+00	2.29E-01
		K-40	9.55E-01	3.37E-01	2.62E-01
582227	12/20/2022 - 12/27/2022	I-131	<4.16E-02	0.00E+00	4.16E-02
		Cs-134	<3.56E-02	0.00E+00	3.56E-02
		Cs-137	<2.37E-02	0.00E+00	2.37E-02
		Be-7	<1.71E-01	0.00E+00	1.71E-01
		K-40	3.36E-01	2.95E-01	4.46E-01
582414	12/27/2022 - 1/3/2023	I-131	<3.29E-02	0.00E+00	3.29E-02
		Cs-134	<2.66E-02	0.00E+00	2.66E-02
		Cs-137	<2.13E-02	0.00E+00	2.13E-02
		Be-7	<1.43E-01	0.00E+00	1.43E-01
		K-40	3.16E-01	2.48E-01	3.53E-01

Sample Point 206 [CONTROL - NW @ 11.3 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
558848	1/4/2022 - 1/11/2022	I-131	<3.92E-02	0.00E+00	3.92E-02
		Cs-134	<2.31E-02	0.00E+00	2.31E-02
		Cs-137	<2.73E-02	0.00E+00	2.73E-02
		Be-7	<1.73E-01	0.00E+00	1.73E-01

BRUNSWICK Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 206 [CONTROL - NW @ 11.3 miles]

Sample ID	Sample Dates	Nuclide	Activity	2 Sigma Error	MDA
558848	1/4/2022 - 1/11/2022	K-40	<6.39E-01	0.00E+00	6.39E-01
559064	1/11/2022 - 1/18/2022	I-131	<2.18E-02	0.00E+00	2.18E-02
		Cs-134	<1.81E-02	0.00E+00	1.81E-02
		Cs-137	<4.55E-03	0.00E+00	4.55E-03
		Be-7	<1.21E-01	0.00E+00	1.21E-01
		K-40	<4.21E-01	0.00E+00	4.21E-01
559316	1/18/2022 - 1/25/2022	I-131	<2.74E-02	0.00E+00	2.74E-02
		Cs-134	<3.21E-02	0.00E+00	3.21E-02
		Cs-137	<2.61E-02	0.00E+00	2.61E-02
		Be-7	<1.42E-01	0.00E+00	1.42E-01
		K-40	<5.74E-01	0.00E+00	5.74E-01
560040	1/25/2022 - 2/1/2022	I-131	<3.63E-02	0.00E+00	3.63E-02
		Cs-134	<2.31E-02	0.00E+00	2.31E-02
		Cs-137	<2.60E-02	0.00E+00	2.60E-02
		Be-7	<2.10E-01	0.00E+00	2.10E-01
		K-40	3.87E-01	2.33E-01	2.64E-01
560257	2/1/2022 - 2/8/2022	I-131	<2.35E-02	0.00E+00	2.35E-02
		Cs-134	<2.34E-02	0.00E+00	2.34E-02
		Cs-137	<1.24E-02	0.00E+00	1.24E-02
		Be-7	<1.36E-01	0.00E+00	1.36E-01
		K-40	<4.59E-01	0.00E+00	4.59E-01
560494	2/8/2022 - 2/15/2022	I-131	<2.18E-02	0.00E+00	2.18E-02
		Cs-134	<2.09E-02	0.00E+00	2.09E-02
		Cs-137	<2.02E-02	0.00E+00	2.02E-02
		Be-7	<1.48E-01	0.00E+00	1.48E-01
		K-40	<4.00E-01	0.00E+00	4.00E-01
560806	2/15/2022 - 2/22/2022	I-131	<3.55E-02	0.00E+00	3.55E-02
		Cs-134	<2.34E-02	0.00E+00	2.34E-02
		Cs-137	<1.81E-02	0.00E+00	1.81E-02
		Be-7	<1.59E-01	0.00E+00	1.59E-01
		K-40	<4.20E-01	0.00E+00	4.20E-01
561142	2/22/2022 - 3/1/2022	I-131	<2.60E-02	0.00E+00	2.60E-02
		Cs-134	<2.31E-02	0.00E+00	2.31E-02
		Cs-137	<2.47E-02	0.00E+00	2.47E-02
		Be-7	<1.71E-01	0.00E+00	1.71E-01
		K-40	5.05E-01	3.11E-01	4.12E-01
561642	3/1/2022 - 3/8/2022	I-131	<3.68E-02	0.00E+00	3.68E-02
		Cs-134	<2.71E-02	0.00E+00	2.71E-02
		Cs-137	<2.33E-02	0.00E+00	2.33E-02
		Be-7	<1.93E-01	0.00E+00	1.93E-01
		K-40	<6.89E-01	0.00E+00	6.89E-01
562236	3/8/2022 - 3/15/2022	I-131	<4.01E-02	0.00E+00	4.01E-02
		Cs-134	<2.19E-02	0.00E+00	2.19E-02
		Cs-137	<2.93E-02	0.00E+00	2.93E-02
		Be-7	<2.56E-01	0.00E+00	2.56E-01
		K-40	4.99E-01	2.32E-01	7.11E-02

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

BRUNSWICK Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 206 [CONTROL - NW @ 11.3 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
562837	3/15/2022 - 3/22/2022	I-131	<3.55E-02	0.00E+00	3.55E-02
		Cs-134	<2.87E-02	0.00E+00	2.87E-02
		Cs-137	<3.18E-02	0.00E+00	3.18E-02
		Be-7	<2.11E-01	0.00E+00	2.11E-01
		K-40	3.30E-01	2.13E-01	2.35E-01
563436	3/22/2022 - 3/29/2022	I-131	<2.02E-02	0.00E+00	2.02E-02
		Cs-134	<2.75E-02	0.00E+00	2.75E-02
		Cs-137	<2.20E-02	0.00E+00	2.20E-02
		Be-7	<1.69E-01	0.00E+00	1.69E-01
		K-40	<4.92E-01	0.00E+00	4.92E-01
563770	3/29/2022 - 4/5/2022	I-131	<1.79E-02	0.00E+00	1.79E-02
		Cs-134	<2.33E-02	0.00E+00	2.33E-02
		Cs-137	<1.23E-02	0.00E+00	1.23E-02
		Be-7	<1.59E-01	0.00E+00	1.59E-01
		K-40	3.52E-01	1.90E-01	6.81E-02
563986	4/5/2022 - 4/12/2022	I-131	<2.62E-02	0.00E+00	2.62E-02
		Cs-134	<3.21E-02	0.00E+00	3.21E-02
		Cs-137	<1.77E-02	0.00E+00	1.77E-02
		Be-7	<1.88E-01	0.00E+00	1.88E-01
		K-40	7.68E-01	2.87E-01	6.94E-02
564534	4/12/2022 - 4/19/2022	I-131	<2.38E-02	0.00E+00	2.38E-02
		Cs-134	<2.56E-02	0.00E+00	2.56E-02
		Cs-137	<2.02E-02	0.00E+00	2.02E-02
		Be-7	<3.09E-02	0.00E+00	3.09E-02
		K-40	<5.38E-01	0.00E+00	5.38E-01
564802	4/19/2022 - 4/26/2022	I-131	<2.01E-02	0.00E+00	2.01E-02
		Cs-134	<2.17E-02	0.00E+00	2.17E-02
		Cs-137	<1.87E-02	0.00E+00	1.87E-02
		Be-7	<1.36E-01	0.00E+00	1.36E-01
		K-40	<4.73E-01	0.00E+00	4.73E-01
565294	4/26/2022 - 5/3/2022	I-131	<2.29E-02	0.00E+00	2.29E-02
		Cs-134	<2.44E-02	0.00E+00	2.44E-02
		Cs-137	<3.13E-02	0.00E+00	3.13E-02
		Be-7	<1.32E-01	0.00E+00	1.32E-01
		K-40	4.67E-01	2.43E-01	2.50E-01
565952	5/3/2022 - 5/10/2022	I-131	<2.93E-02	0.00E+00	2.93E-02
		Cs-134	<2.52E-02	0.00E+00	2.52E-02
		Cs-137	<2.61E-02	0.00E+00	2.61E-02
		Be-7	<1.62E-01	0.00E+00	1.62E-01
		K-40	<5.74E-01	0.00E+00	5.74E-01
566544	5/10/2022 - 5/17/2022	I-131	<2.50E-02	0.00E+00	2.50E-02
		Cs-134	<1.38E-02	0.00E+00	1.38E-02
		Cs-137	<1.19E-02	0.00E+00	1.19E-02
		Be-7	<1.41E-01	0.00E+00	1.41E-01
		K-40	3.60E-01	1.88E-01	6.51E-02
566938	5/17/2022 - 5/24/2022	I-131	<3.14E-02	0.00E+00	3.14E-02
		Cs-134	<2.30E-02	0.00E+00	2.30E-02
		Cs-137	<2.33E-02	0.00E+00	2.33E-02

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

BRUNSWICK Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 206 [CONTROL - NW @ 11.3 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
566938	5/17/2022 - 5/24/2022	Be-7	<8.10E-02	0.00E+00	8.10E-02
		K-40	<4.85E-01	0.00E+00	4.85E-01
		I-131	<2.93E-02	0.00E+00	2.93E-02
		Cs-134	<2.23E-02	0.00E+00	2.23E-02
567129	5/24/2022 - 5/31/2022	Cs-137	<1.93E-02	0.00E+00	1.93E-02
		Be-7	<1.17E-01	0.00E+00	1.17E-01
		K-40	<5.73E-01	0.00E+00	5.73E-01
		I-131	<2.91E-02	0.00E+00	2.91E-02
567559	5/31/2022 - 6/7/2022	Cs-134	<2.55E-02	0.00E+00	2.55E-02
		Cs-137	<1.67E-02	0.00E+00	1.67E-02
		Be-7	<1.37E-01	0.00E+00	1.37E-01
		K-40	<4.73E-01	0.00E+00	4.73E-01
567735	6/7/2022 - 6/14/2022	I-131	<3.36E-02	0.00E+00	3.36E-02
		Cs-134	<2.04E-02	0.00E+00	2.04E-02
		Cs-137	<1.52E-02	0.00E+00	1.52E-02
		Be-7	<1.54E-01	0.00E+00	1.54E-01
568371	6/14/2022 - 6/21/2022	K-40	2.78E-01	1.96E-01	2.37E-01
		I-131	<3.36E-02	0.00E+00	3.36E-02
		Cs-134	<2.52E-02	0.00E+00	2.52E-02
		Cs-137	<1.97E-02	0.00E+00	1.97E-02
568610	6/21/2022 - 6/28/2022	Be-7	<1.63E-01	0.00E+00	1.63E-01
		K-40	<5.73E-01	0.00E+00	5.73E-01
		I-131	<3.23E-02	0.00E+00	3.23E-02
		Cs-134	<2.31E-02	0.00E+00	2.31E-02
568818	6/28/2022 - 7/5/2022	Cs-137	<2.47E-02	0.00E+00	2.47E-02
		Be-7	<1.95E-01	0.00E+00	1.95E-01
		K-40	6.13E-01	2.85E-01	2.79E-01
		I-131	<4.20E-02	0.00E+00	4.20E-02
569058	7/5/2022 - 7/12/2022	Cs-134	<2.89E-02	0.00E+00	2.89E-02
		Cs-137	<2.32E-02	0.00E+00	2.32E-02
		Be-7	<1.90E-01	0.00E+00	1.90E-01
		K-40	<5.14E-01	0.00E+00	5.14E-01
570284	7/12/2022 - 7/19/2022	I-131	<3.36E-02	0.00E+00	3.36E-02
		Cs-134	<2.52E-02	0.00E+00	2.52E-02
		Cs-137	<1.77E-02	0.00E+00	1.77E-02
		Be-7	<1.52E-01	0.00E+00	1.52E-01
570848	7/19/2022 - 7/26/2022	K-40	<4.81E-01	0.00E+00	4.81E-01
		I-131	<1.82E-02	0.00E+00	1.82E-02
		Cs-134	<2.77E-02	0.00E+00	2.77E-02
		Cs-137	<1.71E-02	0.00E+00	1.71E-02
570848	7/19/2022 - 7/26/2022	Be-7	<1.41E-01	0.00E+00	1.41E-01
		K-40	5.95E-01	2.43E-01	6.45E-02
		I-131	<2.82E-02	0.00E+00	2.82E-02
		Cs-134	<3.44E-02	0.00E+00	3.44E-02
570848	7/19/2022 - 7/26/2022	Cs-137	<1.65E-02	0.00E+00	1.65E-02
		Be-7	<1.76E-01	0.00E+00	1.76E-01
		K-40	<4.79E-01	0.00E+00	4.79E-01
		I-131	<2.82E-02	0.00E+00	2.82E-02

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

BRUNSWICK Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 206 [CONTROL - NW @ 11.3 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
571089	7/26/2022 - 8/2/2022	I-131	<2.28E-02	0.00E+00	2.28E-02
		Cs-134	<2.26E-02	0.00E+00	2.26E-02
		Cs-137	<2.70E-02	0.00E+00	2.70E-02
		Be-7	<1.73E-01	0.00E+00	1.73E-01
		K-40	<4.83E-01	0.00E+00	4.83E-01
571416	8/2/2022 - 8/9/2022	I-131	<2.73E-02	0.00E+00	2.73E-02
		Cs-134	<2.02E-02	0.00E+00	2.02E-02
		Cs-137	<1.74E-02	0.00E+00	1.74E-02
		Be-7	<1.43E-01	0.00E+00	1.43E-01
		K-40	<5.39E-01	0.00E+00	5.39E-01
571692	8/9/2022 - 8/16/2022	I-131	<2.63E-02	0.00E+00	2.63E-02
		Cs-134	<2.47E-02	0.00E+00	2.47E-02
		Cs-137	<1.95E-02	0.00E+00	1.95E-02
		Be-7	<2.03E-01	0.00E+00	2.03E-01
		K-40	<5.42E-01	0.00E+00	5.42E-01
572707	8/16/2022 - 8/23/2022	I-131	<2.76E-02	0.00E+00	2.76E-02
		Cs-134	<2.65E-02	0.00E+00	2.65E-02
		Cs-137	<1.19E-02	0.00E+00	1.19E-02
		Be-7	<2.03E-01	0.00E+00	2.03E-01
		K-40	4.10E-01	2.26E-01	2.33E-01
573896	8/23/2022 - 8/30/2022	I-131	<2.62E-02	0.00E+00	2.62E-02
		Cs-134	<2.03E-02	0.00E+00	2.03E-02
		Cs-137	<1.51E-02	0.00E+00	1.51E-02
		Be-7	<1.52E-01	0.00E+00	1.52E-01
		K-40	3.85E-01	2.33E-01	2.76E-01
574526	8/30/2022 - 9/6/2022	I-131	<3.37E-02	0.00E+00	3.37E-02
		Cs-134	<2.72E-02	0.00E+00	2.72E-02
		Cs-137	<1.97E-02	0.00E+00	1.97E-02
		Be-7	<2.06E-01	0.00E+00	2.06E-01
		K-40	7.08E-01	3.08E-01	3.00E-01
574996	9/6/2022 - 9/13/2022	I-131	<3.68E-02	0.00E+00	3.68E-02
		Cs-134	<2.52E-02	0.00E+00	2.52E-02
		Cs-137	<2.32E-02	0.00E+00	2.32E-02
		Be-7	<1.43E-01	0.00E+00	1.43E-01
		K-40	4.43E-01	2.42E-01	2.50E-01
575682	9/13/2022 - 9/20/2022	I-131	<2.87E-02	0.00E+00	2.87E-02
		Cs-134	<1.86E-02	0.00E+00	1.86E-02
		Cs-137	<2.26E-02	0.00E+00	2.26E-02
		Be-7	<1.37E-01	0.00E+00	1.37E-01
		K-40	4.22E-01	2.35E-01	2.40E-01
576073	9/20/2022 - 9/27/2022	I-131	<2.92E-02	0.00E+00	2.92E-02
		Cs-134	<2.04E-02	0.00E+00	2.04E-02
		Cs-137	<1.20E-02	0.00E+00	1.20E-02
		Be-7	<1.43E-01	0.00E+00	1.43E-01
		K-40	5.46E-01	2.83E-01	3.27E-01
576253	9/27/2022 - 10/4/2022	I-131	<4.72E-02	0.00E+00	4.72E-02
		Cs-134	<2.08E-02	0.00E+00	2.08E-02
		Cs-137	<2.17E-02	0.00E+00	2.17E-02

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

BRUNSWICK Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 206 [CONTROL - NW @ 11.3 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
576253	9/27/2022 - 10/4/2022	Be-7	<1.77E-01	0.00E+00	1.77E-01
		K-40	1.02E+00	3.28E-01	6.72E-02
576528	10/4/2022 - 10/11/2022	I-131	<2.58E-02	0.00E+00	2.58E-02
		Cs-134	<2.88E-02	0.00E+00	2.88E-02
		Cs-137	<1.88E-02	0.00E+00	1.88E-02
		Be-7	<1.69E-01	0.00E+00	1.69E-01
		K-40	<5.29E-01	0.00E+00	5.29E-01
577158	10/11/2022 - 10/18/2022	I-131	<2.66E-02	0.00E+00	2.66E-02
		Cs-134	<2.65E-02	0.00E+00	2.65E-02
		Cs-137	<1.51E-02	0.00E+00	1.51E-02
		Be-7	<1.16E-01	0.00E+00	1.16E-01
		K-40	5.05E-01	2.24E-01	6.51E-02
577747	10/18/2022 - 10/25/2022	I-131	<4.02E-02	0.00E+00	4.02E-02
		Cs-134	<3.19E-02	0.00E+00	3.19E-02
		Cs-137	<2.58E-02	0.00E+00	2.58E-02
		Be-7	<2.21E-01	0.00E+00	2.21E-01
		K-40	2.90E-01	1.96E-01	2.11E-01
578109	10/25/2022 - 11/1/2022	I-131	<2.43E-02	0.00E+00	2.43E-02
		Cs-134	<2.23E-02	0.00E+00	2.23E-02
		Cs-137	<2.79E-02	0.00E+00	2.79E-02
		Be-7	<1.63E-01	0.00E+00	1.63E-01
		K-40	<5.85E-01	0.00E+00	5.85E-01
578819	11/1/2022 - 11/8/2022	I-131	<2.11E-02	0.00E+00	2.11E-02
		Cs-134	<2.70E-02	0.00E+00	2.70E-02
		Cs-137	<2.47E-02	0.00E+00	2.47E-02
		Be-7	<1.46E-01	0.00E+00	1.46E-01
		K-40	6.47E-01	3.15E-01	3.63E-01
579020	11/8/2022 - 11/15/2022	I-131	<2.23E-02	0.00E+00	2.23E-02
		Cs-134	<2.47E-02	0.00E+00	2.47E-02
		Cs-137	<2.13E-02	0.00E+00	2.13E-02
		Be-7	<1.71E-01	0.00E+00	1.71E-01
		K-40	<5.54E-01	0.00E+00	5.54E-01
579771	11/15/2022 - 11/22/2022	I-131	<4.92E-02	0.00E+00	4.92E-02
		Cs-134	<2.27E-02	0.00E+00	2.27E-02
		Cs-137	<1.95E-02	0.00E+00	1.95E-02
		Be-7	<1.73E-01	0.00E+00	1.73E-01
		K-40	<4.84E-01	0.00E+00	4.84E-01
580593	11/22/2022 - 11/29/2022	I-131	<3.31E-02	0.00E+00	3.31E-02
		Cs-134	<2.51E-02	0.00E+00	2.51E-02
		Cs-137	<2.16E-02	0.00E+00	2.16E-02
		Be-7	<1.20E-01	0.00E+00	1.20E-01
		K-40	5.95E-01	2.74E-01	2.62E-01
580800	11/29/2022 - 12/6/2022	I-131	<2.85E-02	0.00E+00	2.85E-02
		Cs-134	<2.83E-02	0.00E+00	2.83E-02
		Cs-137	<1.75E-02	0.00E+00	1.75E-02
		Be-7	<1.82E-01	0.00E+00	1.82E-01
		K-40	2.98E-01	1.99E-01	2.33E-01

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

BRUNSWICK Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 206 [CONTROL - NW @ 11.3 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
581125	12/6/2022 - 12/13/2022	I-131	<2.93E-02	0.00E+00	2.93E-02
		Cs-134	<3.05E-02	0.00E+00	3.05E-02
		Cs-137	<3.11E-02	0.00E+00	3.11E-02
		Be-7	<1.86E-01	0.00E+00	1.86E-01
		K-40	5.36E-01	2.52E-01	2.18E-01
581684	12/13/2022 - 12/20/2022	I-131	<4.92E-02	0.00E+00	4.92E-02
		Cs-134	<2.28E-02	0.00E+00	2.28E-02
		Cs-137	<2.45E-02	0.00E+00	2.45E-02
		Be-7	<1.77E-01	0.00E+00	1.77E-01
		K-40	<6.23E-01	0.00E+00	6.23E-01
582228	12/20/2022 - 12/27/2022	I-131	<4.21E-02	0.00E+00	4.21E-02
		Cs-134	<2.90E-02	0.00E+00	2.90E-02
		Cs-137	<1.15E-02	0.00E+00	1.15E-02
		Be-7	<1.51E-01	0.00E+00	1.51E-01
		K-40	<3.74E-01	0.00E+00	3.74E-01
582415	12/27/2022 - 1/3/2023	I-131	<2.52E-02	0.00E+00	2.52E-02
		Cs-134	<1.48E-02	0.00E+00	1.48E-02
		Cs-137	<2.60E-02	0.00E+00	2.60E-02
		Be-7	<1.92E-01	0.00E+00	1.92E-01
		K-40	<3.87E-01	0.00E+00	3.87E-01

Sample Point 207 [INDICATOR - NNE @ 0.65 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
571555	8/2/2022 - 8/9/2022	I-131	<2.95E-02	0.00E+00	2.95E-02
		Cs-134	<2.91E-02	0.00E+00	2.91E-02
		Cs-137	<2.65E-02	0.00E+00	2.65E-02
		Be-7	<1.69E-01	0.00E+00	1.69E-01
		K-40	8.21E-01	3.23E-01	2.87E-01
571693	8/9/2022 - 8/16/2022	I-131	<3.58E-02	0.00E+00	3.58E-02
		Cs-134	<2.30E-02	0.00E+00	2.30E-02
		Cs-137	<2.32E-02	0.00E+00	2.32E-02
		Be-7	<2.14E-01	0.00E+00	2.14E-01
		K-40	<6.07E-01	0.00E+00	6.07E-01
572708	8/16/2022 - 8/23/2022	I-131	<3.25E-02	0.00E+00	3.25E-02
		Cs-134	<2.71E-02	0.00E+00	2.71E-02
		Cs-137	<1.78E-02	0.00E+00	1.78E-02
		Be-7	<1.66E-01	0.00E+00	1.66E-01
		K-40	5.71E-01	2.42E-01	6.73E-02
573897	8/23/2022 - 8/30/2022	I-131	<3.33E-02	0.00E+00	3.33E-02
		Cs-134	<2.38E-02	0.00E+00	2.38E-02
		Cs-137	<2.41E-02	0.00E+00	2.41E-02
		Be-7	<8.27E-02	0.00E+00	8.27E-02
		K-40	<4.23E-01	0.00E+00	4.23E-01
574527	8/30/2022 - 9/6/2022	I-131	<3.93E-02	0.00E+00	3.93E-02
		Cs-134	<2.08E-02	0.00E+00	2.08E-02
		Cs-137	<2.32E-02	0.00E+00	2.32E-02
		Be-7	<1.82E-01	0.00E+00	1.82E-01
		K-40	<6.29E-01	0.00E+00	6.29E-01
574997	9/6/2022 - 9/13/2022	I-131	<2.99E-02	0.00E+00	2.99E-02

BRUNSWICK Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 207 [INDICATOR - NNE @ 0.65 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
574997	9/6/2022 - 9/13/2022	Cs-134	<2.68E-02	0.00E+00	2.68E-02
		Cs-137	<1.21E-02	0.00E+00	1.21E-02
		Be-7	<1.45E-01	0.00E+00	1.45E-01
		K-40	<5.91E-01	0.00E+00	5.91E-01
575683	9/13/2022 - 9/20/2022	I-131	<2.63E-02	0.00E+00	2.63E-02
		Cs-134	<2.82E-02	0.00E+00	2.82E-02
		Cs-137	<1.75E-02	0.00E+00	1.75E-02
		Be-7	<1.53E-01	0.00E+00	1.53E-01
		K-40	5.34E-01	2.32E-01	6.58E-02
576074	9/20/2022 - 9/27/2022	I-131	<2.35E-02	0.00E+00	2.35E-02
		Cs-134	<1.75E-02	0.00E+00	1.75E-02
		Cs-137	<2.14E-02	0.00E+00	2.14E-02
		Be-7	<1.42E-01	0.00E+00	1.42E-01
		K-40	2.72E-01	2.17E-01	3.02E-01
576254	9/27/2022 - 10/4/2022	I-131	<5.19E-02	0.00E+00	5.19E-02
		Cs-134	<2.97E-02	0.00E+00	2.97E-02
		Cs-137	<2.81E-02	0.00E+00	2.81E-02
		Be-7	<1.71E-01	0.00E+00	1.71E-01
		K-40	3.95E-01	2.33E-01	2.88E-01
576529	10/4/2022 - 10/11/2022	I-131	<3.77E-02	0.00E+00	3.77E-02
		Cs-134	<1.81E-02	0.00E+00	1.81E-02
		Cs-137	<2.66E-02	0.00E+00	2.66E-02
		Be-7	<1.82E-01	0.00E+00	1.82E-01
		K-40	5.58E-01	2.76E-01	2.85E-01
577159	10/11/2022 - 10/18/2022	I-131	<2.89E-02	0.00E+00	2.89E-02
		Cs-134	<3.20E-02	0.00E+00	3.20E-02
		Cs-137	<2.76E-02	0.00E+00	2.76E-02
		Be-7	<1.38E-01	0.00E+00	1.38E-01
		K-40	4.04E-01	2.27E-01	2.27E-01
577748	10/18/2022 - 10/25/2022	I-131	<2.91E-02	0.00E+00	2.91E-02
		Cs-134	<2.79E-02	0.00E+00	2.79E-02
		Cs-137	<2.11E-02	0.00E+00	2.11E-02
		Be-7	<1.53E-01	0.00E+00	1.53E-01
		K-40	<5.34E-01	0.00E+00	5.34E-01
578110	10/25/2022 - 11/1/2022	I-131	<4.31E-02	0.00E+00	4.31E-02
		Cs-134	<2.63E-02	0.00E+00	2.63E-02
		Cs-137	<3.11E-02	0.00E+00	3.11E-02
		Be-7	<2.47E-01	0.00E+00	2.47E-01
		K-40	<6.63E-01	0.00E+00	6.63E-01
578820	11/1/2022 - 11/8/2022	I-131	<2.55E-02	0.00E+00	2.55E-02
		Cs-134	<1.40E-02	0.00E+00	1.40E-02
		Cs-137	<1.96E-02	0.00E+00	1.96E-02
		Be-7	<1.74E-01	0.00E+00	1.74E-01
		K-40	5.67E-01	2.59E-01	2.31E-01
579021	11/8/2022 - 11/15/2022	I-131	<2.82E-02	0.00E+00	2.82E-02
		Cs-134	<2.14E-02	0.00E+00	2.14E-02
		Cs-137	<4.63E-03	0.00E+00	4.63E-03
		Be-7	<8.29E-02	0.00E+00	8.29E-02

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

BRUNSWICK Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 207 [INDICATOR - NNE @ 0.65 miles]

Sample ID:	Sample Dates:		Nuclide	Activity	2 Sigma Error	MDA
579021	11/8/2022 - 11/15/2022		K-40	6.64E-01	2.90E-01	2.64E-01
579772	11/15/2022 - 11/22/2022		I-131	<4.85E-02	0.00E+00	4.85E-02
			Cs-134	<1.90E-02	0.00E+00	1.90E-02
			Cs-137	<2.92E-02	0.00E+00	2.92E-02
			Be-7	<1.33E-01	0.00E+00	1.33E-01
			K-40	3.91E-01	2.04E-01	7.06E-02
580594	11/22/2022 - 11/29/2022		I-131	<2.32E-02	0.00E+00	2.32E-02
			Cs-134	<1.67E-02	0.00E+00	1.67E-02
			Cs-137	<2.57E-02	0.00E+00	2.57E-02
			Be-7	<1.25E-01	0.00E+00	1.25E-01
			K-40	<4.69E-01	0.00E+00	4.69E-01
580801	11/29/2022 - 12/6/2022		I-131	<2.81E-02	0.00E+00	2.81E-02
			Cs-134	<2.16E-02	0.00E+00	2.16E-02
			Cs-137	<2.74E-02	0.00E+00	2.74E-02
			Be-7	<1.51E-01	0.00E+00	1.51E-01
			K-40	<3.63E-01	0.00E+00	3.63E-01
581126	12/6/2022 - 12/13/2022		I-131	<2.43E-02	0.00E+00	2.43E-02
			Cs-134	<2.66E-02	0.00E+00	2.66E-02
			Cs-137	<1.96E-02	0.00E+00	1.96E-02
			Be-7	<1.32E-01	0.00E+00	1.32E-01
			K-40	<5.35E-01	0.00E+00	5.35E-01
581685	12/13/2022 - 12/20/2022		I-131	<3.88E-02	0.00E+00	3.88E-02
			Cs-134	<1.96E-02	0.00E+00	1.96E-02
			Cs-137	<1.68E-02	0.00E+00	1.68E-02
			Be-7	<1.36E-01	0.00E+00	1.36E-01
			K-40	6.34E-01	2.49E-01	6.36E-02
582229	12/20/2022 - 12/27/2022		I-131	<3.45E-02	0.00E+00	3.45E-02
			Cs-134	<2.65E-02	0.00E+00	2.65E-02
			Cs-137	<2.42E-02	0.00E+00	2.42E-02
			Be-7	<1.42E-01	0.00E+00	1.42E-01
			K-40	4.43E-01	3.40E-01	5.04E-01
582416	12/27/2022 - 1/3/2023		I-131	<2.76E-02	0.00E+00	2.76E-02
			Cs-134	<2.72E-02	0.00E+00	2.72E-02
			Cs-137	<2.63E-02	0.00E+00	2.63E-02
			Be-7	<1.34E-01	0.00E+00	1.34E-01
			K-40	5.61E-01	2.58E-01	2.24E-01

Media Type: FISH Concentration (Activity): pCi/kg wet

Sample Point 700 [INDICATOR - SSW @ 5.5 miles]

Sample ID:	Sample Dates:	FREESWIM	Nuclide	Activity	2 Sigma Error	MDA
566743	5/25/2022 - 5/25/2022		Mn-54	<4.45E+01	0.00E+00	4.45E+01
			Co-58	<4.04E+01	0.00E+00	4.04E+01
			Fe-59	<6.91E+01	0.00E+00	6.91E+01
			Co-60	<4.17E+01	0.00E+00	4.17E+01
			Zn-65	<1.17E+02	0.00E+00	1.17E+02
			Nb-95	<5.69E+01	0.00E+00	5.69E+01
			I-131	<1.59E+02	0.00E+00	1.59E+02
			Cs-134	<4.93E+01	0.00E+00	4.93E+01
			Cs-137	<4.26E+01	0.00E+00	4.26E+01
			Be-7	<4.61E+02	0.00E+00	4.61E+02

BRUNSWICK Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: FISH Concentration (Activity): pCi/kg wet

Sample Point 700 [INDICATOR - SSW @ 5.5 miles]

Sample ID:	566743	Sample Dates:	5/25/2022 - 5/25/2022	FREESWIM	Nuclide	Activity	2 Sigma Error	MDA
					K-40	4.08E+03	8.82E+02	4.02E+02
					Ag-110M	<3.72E+01	0.00E+00	3.72E+01
					Sb-122	<2.38E+03	0.00E+00	2.38E+03
					Sb-125	<1.23E+02	0.00E+00	1.23E+02

Sample ID:	579142	Sample Dates:	11/7/2022 - 11/7/2022	FREESWIM	Nuclide	Activity	2 Sigma Error	MDA
					Mn-54	<7.75E+01	0.00E+00	7.75E+01
					Co-58	<8.00E+01	0.00E+00	8.00E+01
					Fe-59	<1.78E+02	0.00E+00	1.78E+02
					Co-60	<7.52E+01	0.00E+00	7.52E+01
					Zn-65	<1.66E+02	0.00E+00	1.66E+02
					Nb-95	<1.31E+02	0.00E+00	1.31E+02
					I-131	<6.34E+02	0.00E+00	6.34E+02
					Cs-134	<7.60E+01	0.00E+00	7.60E+01
					Cs-137	<8.71E+01	0.00E+00	8.71E+01
					Be-7	<7.06E+02	0.00E+00	7.06E+02
					K-40	5.51E+03	1.26E+03	1.68E+02
					Ag-110M	<6.57E+01	0.00E+00	6.57E+01
					Sb-122	<1.27E+05	0.00E+00	1.27E+05
					Sb-125	<1.93E+02	0.00E+00	1.93E+02

Sample Point 701 [INDICATOR - SSW @ 5.5 miles]

Sample ID:	566744	Sample Dates:	5/25/2022 - 5/25/2022	BOTMFEEDER	Nuclide	Activity	2 Sigma Error	MDA
					Mn-54	<5.13E+01	0.00E+00	5.13E+01
					Co-58	<4.24E+01	0.00E+00	4.24E+01
					Fe-59	<1.03E+02	0.00E+00	1.03E+02
					Co-60	<5.77E+01	0.00E+00	5.77E+01
					Zn-65	<1.11E+02	0.00E+00	1.11E+02
					Nb-95	<6.50E+01	0.00E+00	6.50E+01
					I-131	<1.86E+02	0.00E+00	1.86E+02
					Cs-134	<6.35E+01	0.00E+00	6.35E+01
					Cs-137	<5.49E+01	0.00E+00	5.49E+01
					Be-7	<4.00E+02	0.00E+00	4.00E+02
					K-40	3.37E+03	9.11E+02	8.55E+02
					Ag-110M	<4.53E+01	0.00E+00	4.53E+01
					Sb-122	<2.73E+03	0.00E+00	2.73E+03
					Sb-125	<1.25E+02	0.00E+00	1.25E+02

Sample ID:	579143	Sample Dates:	11/7/2022 - 11/7/2022	BOTMFEEDER	Nuclide	Activity	2 Sigma Error	MDA
					Mn-54	<8.48E+01	0.00E+00	8.48E+01
					Co-58	<8.25E+01	0.00E+00	8.25E+01
					Fe-59	<1.55E+02	0.00E+00	1.55E+02
					Co-60	<7.32E+01	0.00E+00	7.32E+01
					Zn-65	<1.61E+02	0.00E+00	1.61E+02
					Nb-95	<9.83E+01	0.00E+00	9.83E+01
					I-131	<7.37E+02	0.00E+00	7.37E+02
					Cs-134	<6.90E+01	0.00E+00	6.90E+01
					Cs-137	<6.97E+01	0.00E+00	6.97E+01
					Be-7	<8.10E+02	0.00E+00	8.10E+02
					K-40	4.84E+03	1.21E+03	7.92E+02
					Ag-110M	<6.97E+01	0.00E+00	6.97E+01
					Sb-122	<1.30E+05	0.00E+00	1.30E+05
					Sb-125	<1.50E+02	0.00E+00	1.50E+02

Sample Point 702 [INDICATOR - SSW @ 5.5 miles]

Sample ID:	566745	Sample Dates:	5/25/2022 - 5/25/2022	INVERTEBRA	Nuclide	Activity	2 Sigma Error	MDA
					Mn-54	<4.21E+01	0.00E+00	4.21E+01
					Co-58	<3.99E+01	0.00E+00	3.99E+01
					Fe-59	<1.07E+02	0.00E+00	1.07E+02
					Co-60	<4.99E+01	0.00E+00	4.99E+01
					Zn-65	<1.10E+02	0.00E+00	1.10E+02
					Nb-95	<4.41E+01	0.00E+00	4.41E+01
					I-131	<1.30E+02	0.00E+00	1.30E+02

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

BRUNSWICK Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: FISH Concentration (Activity): pCi/kg wet

Sample Point 702 [INDICATOR - SSW @ 5.5 miles]

Sample ID:	566745	Sample Dates:	5/25/2022 - 5/25/2022	INVERTEBRA	Nuclide	Activity	2 Sigma Error	MDA
					Cs-134	<4.66E+01	0.00E+00	4.66E+01
					Cs-137	<3.26E+01	0.00E+00	3.26E+01
					Be-7	<4.05E+02	0.00E+00	4.05E+02
					K-40	3.85E+03	8.19E+02	5.09E+02
					Ag-110M	<3.72E+01	0.00E+00	3.72E+01
					Sb-122	<1.75E+03	0.00E+00	1.75E+03
					Sb-125	<1.10E+02	0.00E+00	1.10E+02

Sample ID:	579144	Sample Dates:	11/7/2022 - 11/7/2022	INVERTEBRA	Nuclide	Activity	2 Sigma Error	MDA
					Mn-54	<7.20E+01	0.00E+00	7.20E+01
					Co-58	<9.74E+01	0.00E+00	9.74E+01
					Fe-59	<2.00E+02	0.00E+00	2.00E+02
					Co-60	<6.92E+01	0.00E+00	6.92E+01
					Zn-65	<1.45E+02	0.00E+00	1.45E+02
					Nb-95	<1.24E+02	0.00E+00	1.24E+02
					I-131	<7.40E+02	0.00E+00	7.40E+02
					Cs-134	<6.83E+01	0.00E+00	6.83E+01
					Cs-137	<6.28E+01	0.00E+00	6.28E+01
					Be-7	<7.82E+02	0.00E+00	7.82E+02
					K-40	4.14E+03	1.12E+03	6.57E+02
					Ag-110M	<8.84E+01	0.00E+00	8.84E+01
					Sb-122	<1.21E+05	0.00E+00	1.21E+05
					Sb-125	<2.09E+02	0.00E+00	2.09E+02

Sample Point 703 [CONTROL - -- @ 0 miles]

Sample ID:	566746	Sample Dates:	5/25/2022 - 5/25/2022	FREESWIM	Nuclide	Activity	2 Sigma Error	MDA
					Mn-54	<4.36E+01	0.00E+00	4.36E+01
					Co-58	<5.21E+01	0.00E+00	5.21E+01
					Fe-59	<1.10E+02	0.00E+00	1.10E+02
					Co-60	<2.66E+01	0.00E+00	2.66E+01
					Zn-65	<8.60E+01	0.00E+00	8.60E+01
					Nb-95	<6.20E+01	0.00E+00	6.20E+01
					I-131	<1.28E+02	0.00E+00	1.28E+02
					Cs-134	<5.45E+01	0.00E+00	5.45E+01
					Cs-137	<3.97E+01	0.00E+00	3.97E+01
					Be-7	<4.72E+02	0.00E+00	4.72E+02
					K-40	3.51E+03	8.46E+02	6.79E+02
					Ag-110M	<3.85E+01	0.00E+00	3.85E+01
					Sb-122	<2.39E+03	0.00E+00	2.39E+03
					Sb-125	<1.01E+02	0.00E+00	1.01E+02

Sample ID:	579145	Sample Dates:	11/7/2022 - 11/7/2022	FREESWIM	Nuclide	Activity	2 Sigma Error	MDA
					Mn-54	<7.00E+01	0.00E+00	7.00E+01
					Co-58	<8.88E+01	0.00E+00	8.88E+01
					Fe-59	<2.02E+02	0.00E+00	2.02E+02
					Co-60	<8.53E+01	0.00E+00	8.53E+01
					Zn-65	<1.33E+02	0.00E+00	1.33E+02
					Nb-95	<1.08E+02	0.00E+00	1.08E+02
					I-131	<6.73E+02	0.00E+00	6.73E+02
					Cs-134	<9.06E+01	0.00E+00	9.06E+01
					Cs-137	<7.74E+01	0.00E+00	7.74E+01
					Be-7	<7.17E+02	0.00E+00	7.17E+02
					K-40	4.71E+03	1.22E+03	1.12E+03
					Ag-110M	<7.40E+01	0.00E+00	7.40E+01
					Sb-122	<1.06E+05	0.00E+00	1.06E+05
					Sb-125	<1.74E+02	0.00E+00	1.74E+02

Sample Point 704 [CONTROL - -- @ 0 miles]

Sample ID:	566747	Sample Dates:	5/25/2022 - 5/25/2022	BOTMFEEDER	Nuclide	Activity	2 Sigma Error	MDA
					Mn-54	<4.23E+01	0.00E+00	4.23E+01
					Co-58	<4.65E+01	0.00E+00	4.65E+01
					Fe-59	<9.79E+01	0.00E+00	9.79E+01
					Co-60	<5.10E+01	0.00E+00	5.10E+01

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

BRUNSWICK Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: FISH Concentration (Activity): pCi/kg wet

Sample Point 704 [CONTROL - -- @ 0 miles]

Sample ID:	566747	Sample Dates:	5/25/2022 - 5/25/2022	BOTMFEEDER	Nuclide	Activity	2 Sigma Error	MDA
					Zn-65	<1.28E+02	0.00E+00	1.28E+02
					Nb-95	<6.44E+01	0.00E+00	6.44E+01
					I-131	<1.72E+02	0.00E+00	1.72E+02
					Cs-134	<6.83E+01	0.00E+00	6.83E+01
					Cs-137	<4.50E+01	0.00E+00	4.50E+01
					Be-7	<3.83E+02	0.00E+00	3.83E+02
					K-40	4.28E+03	9.34E+02	5.77E+02
					Ag-110M	<4.15E+01	0.00E+00	4.15E+01
					Sb-122	<2.39E+03	0.00E+00	2.39E+03
					Sb-125	<1.16E+02	0.00E+00	1.16E+02

Sample ID:	579146	Sample Dates:	11/7/2022 - 11/7/2022	BOTMFEEDER	Nuclide	Activity	2 Sigma Error	MDA
					Mn-54	<7.45E+01	0.00E+00	7.45E+01
					Co-58	<8.53E+01	0.00E+00	8.53E+01
					Fe-59	<1.16E+02	0.00E+00	1.16E+02
					Co-60	<7.97E+01	0.00E+00	7.97E+01
					Zn-65	<1.64E+02	0.00E+00	1.64E+02
					Nb-95	<1.15E+02	0.00E+00	1.15E+02
					I-131	<7.66E+02	0.00E+00	7.66E+02
					Cs-134	<7.08E+01	0.00E+00	7.08E+01
					Cs-137	<9.27E+01	0.00E+00	9.27E+01
					Be-7	<9.79E+02	0.00E+00	9.79E+02
					K-40	4.14E+03	1.34E+03	1.45E+03
					Ag-110M	<7.00E+01	0.00E+00	7.00E+01
					Sb-122	<1.39E+05	0.00E+00	1.39E+05
					Sb-125	<2.14E+02	0.00E+00	2.14E+02

Sample Point 705 [CONTROL - -- @ 0 miles]

Sample ID:	566748	Sample Dates:	5/25/2022 - 5/25/2022	INVERTEBRA	Nuclide	Activity	2 Sigma Error	MDA
					Mn-54	<4.90E+01	0.00E+00	4.90E+01
					Co-58	<5.38E+01	0.00E+00	5.38E+01
					Fe-59	<1.20E+02	0.00E+00	1.20E+02
					Co-60	<4.04E+01	0.00E+00	4.04E+01
					Zn-65	<1.08E+02	0.00E+00	1.08E+02
					Nb-95	<5.47E+01	0.00E+00	5.47E+01
					I-131	<1.35E+02	0.00E+00	1.35E+02
					Cs-134	<6.55E+01	0.00E+00	6.55E+01
					Cs-137	<3.88E+01	0.00E+00	3.88E+01
					Be-7	<4.07E+02	0.00E+00	4.07E+02
					K-40	4.93E+03	1.05E+03	8.32E+02
					Ag-110M	<4.32E+01	0.00E+00	4.32E+01
					Sb-122	<2.55E+03	0.00E+00	2.55E+03
					Sb-125	<9.19E+01	0.00E+00	9.19E+01

Sample ID:	579147	Sample Dates:	11/7/2022 - 11/7/2022	INVERTEBRA	Nuclide	Activity	2 Sigma Error	MDA
					Mn-54	<7.67E+01	0.00E+00	7.67E+01
					Co-58	<8.47E+01	0.00E+00	8.47E+01
					Fe-59	<1.77E+02	0.00E+00	1.77E+02
					Co-60	<6.91E+01	0.00E+00	6.91E+01
					Zn-65	<1.36E+02	0.00E+00	1.36E+02
					Nb-95	<1.05E+02	0.00E+00	1.05E+02
					I-131	<7.32E+02	0.00E+00	7.32E+02
					Cs-134	<7.88E+01	0.00E+00	7.88E+01
					Cs-137	<7.25E+01	0.00E+00	7.25E+01
					Be-7	<6.87E+02	0.00E+00	6.87E+02
					K-40	6.85E+03	1.27E+03	8.89E+02
					Ag-110M	<7.06E+01	0.00E+00	7.06E+01
					Sb-122	<1.01E+05	0.00E+00	1.01E+05
					Sb-125	<1.73E+02	0.00E+00	1.73E+02

Sample Point 706 [INDICATOR - -- @ 0 miles]

Sample ID:	566498	Sample Dates:	5/20/2022 - 5/20/2022	FREESWIM	Nuclide	Activity	2 Sigma Error	MDA
					Mn-54	<4.48E+01	0.00E+00	4.48E+01

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

BRUNSWICK Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: FISH Concentration (Activity): pCi/kg wet

Sample Point 706 [INDICATOR - -- @ 0 miles]

Sample ID:	566498	Sample Dates:	5/20/2022 - 5/20/2022	FREESWIM	Nuclide	Activity	2 Sigma Error	MDA
					Co-58	<4.87E+01	0.00E+00	4.87E+01
					Fe-59	<9.97E+01	0.00E+00	9.97E+01
					Co-60	<5.82E+01	0.00E+00	5.82E+01
					Zn-65	<9.54E+01	0.00E+00	9.54E+01
					Nb-95	<5.35E+01	0.00E+00	5.35E+01
					I-131	<2.28E+02	0.00E+00	2.28E+02
					Cs-134	<5.95E+01	0.00E+00	5.95E+01
					Cs-137	<3.34E+01	0.00E+00	3.34E+01
					Be-7	<3.84E+02	0.00E+00	3.84E+02
					K-40	3.42E+03	8.38E+02	6.87E+02
					Ag-110M	<5.08E+01	0.00E+00	5.08E+01
					Sb-122	<6.97E+03	0.00E+00	6.97E+03
					Sb-125	<1.16E+02	0.00E+00	1.16E+02

Sample Point 707 [INDICATOR - -- @ 0 miles]

Sample ID:	566499	Sample Dates:	5/18/2022 - 5/18/2022	BOTMFEEDER	Nuclide	Activity	2 Sigma Error	MDA
					Mn-54	<6.41E+01	0.00E+00	6.41E+01
					Co-58	<5.65E+01	0.00E+00	5.65E+01
					Fe-59	<9.17E+01	0.00E+00	9.17E+01
					Co-60	<5.23E+01	0.00E+00	5.23E+01
					Zn-65	<1.11E+02	0.00E+00	1.11E+02
					Nb-95	<7.84E+01	0.00E+00	7.84E+01
					I-131	<3.40E+02	0.00E+00	3.40E+02
					Cs-134	<6.26E+01	0.00E+00	6.26E+01
					Cs-137	<6.05E+01	0.00E+00	6.05E+01
					Be-7	<5.29E+02	0.00E+00	5.29E+02
					K-40	3.85E+03	9.15E+02	7.11E+02
					Ag-110M	<5.83E+01	0.00E+00	5.83E+01
					Sb-122	<1.75E+04	0.00E+00	1.75E+04
					Sb-125	<1.42E+02	0.00E+00	1.42E+02

Sample Point 708 [INDICATOR - -- @ 0 miles]

Sample ID:	566500	Sample Dates:	5/18/2022 - 5/18/2022	INVERTEBRA	Nuclide	Activity	2 Sigma Error	MDA
					Mn-54	<5.20E+01	0.00E+00	5.20E+01
					Co-58	<6.99E+01	0.00E+00	6.99E+01
					Fe-59	<1.42E+02	0.00E+00	1.42E+02
					Co-60	<7.48E+01	0.00E+00	7.48E+01
					Zn-65	<1.23E+02	0.00E+00	1.23E+02
					Nb-95	<1.01E+02	0.00E+00	1.01E+02
					I-131	<3.55E+02	0.00E+00	3.55E+02
					Cs-134	<6.90E+01	0.00E+00	6.90E+01
					Cs-137	<5.93E+01	0.00E+00	5.93E+01
					Be-7	<6.10E+02	0.00E+00	6.10E+02
					K-40	4.16E+03	1.23E+03	1.43E+03
					Ag-110M	<7.06E+01	0.00E+00	7.06E+01
					Sb-122	<1.66E+04	0.00E+00	1.66E+04
					Sb-125	<1.45E+02	0.00E+00	1.45E+02

Media Type: GROUND WATER Concentration (Activity): pCi/l

Sample Point 404 [INDICATOR - SW @ 0.16 miles]

Sample ID:	560753	Sample Dates:	3/7/2022 - 3/7/2022		Nuclide	Activity	2 Sigma Error	MDA
					Mn-54	<5.54E+00	0.00E+00	5.54E+00
					Co-58	<5.34E+00	0.00E+00	5.34E+00
					Fe-59	<1.24E+01	0.00E+00	1.24E+01
					Co-60	<5.42E+00	0.00E+00	5.42E+00
					Zn-65	<1.11E+01	0.00E+00	1.11E+01
					Zr-95	<1.08E+01	0.00E+00	1.08E+01
					Nb-95	<6.16E+00	0.00E+00	6.16E+00
					I-131	<1.06E+01	0.00E+00	1.06E+01
					Cs-134	<5.21E+00	0.00E+00	5.21E+00
					Cs-137	<5.73E+00	0.00E+00	5.73E+00

BRUNSWICK Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: GROUND WATER Concentration (Activity): pCi/l

Sample Point 404 [INDICATOR - SW @ 0.16 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
560753	3/7/2022 - 3/7/2022	BaLa-140	<9.84E+00	0.00E+00	9.84E+00
		Total-Gam	0.00E+00		
		H3GW	<-7.0E+00	0.00E+00	1.82E+02
566903	6/8/2022 - 6/8/2022	H3GW	<-1.4E+02	0.00E+00	1.86E+02
572842	9/7/2022 - 9/7/2022	Mn-54	<5.20E+00	0.00E+00	5.20E+00
		Co-58	<5.53E+00	0.00E+00	5.53E+00
		Fe-59	<1.36E+01	0.00E+00	1.36E+01
		Co-60	<6.66E+00	0.00E+00	6.66E+00
		Zn-65	<1.35E+01	0.00E+00	1.35E+01
		Zr-95	<8.86E+00	0.00E+00	8.86E+00
		Nb-95	<6.53E+00	0.00E+00	6.53E+00
		I-131	<9.61E+00	0.00E+00	9.61E+00
		Cs-134	<8.16E+00	0.00E+00	8.16E+00
		Cs-137	<5.84E+00	0.00E+00	5.84E+00
		BaLa-140	<7.93E+00	0.00E+00	7.93E+00
		Total-Gam	0.00E+00		
		H3GW	<-6.3E+01	0.00E+00	1.88E+02
579857	12/6/2022 - 12/6/2022	H3GW	<-4.6E+01	0.00E+00	2.05E+02

Sample Point 407 [INDICATOR - ENE @ 0.06 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
560754	3/7/2022 - 3/7/2022	Mn-54	<6.09E+00	0.00E+00	6.09E+00
		Co-58	<5.02E+00	0.00E+00	5.02E+00
		Fe-59	<9.65E+00	0.00E+00	9.65E+00
		Co-60	<6.41E+00	0.00E+00	6.41E+00
		Zn-65	<1.53E+01	0.00E+00	1.53E+01
		Zr-95	<8.31E+00	0.00E+00	8.31E+00
		Nb-95	<5.93E+00	0.00E+00	5.93E+00
		I-131	<9.82E+00	0.00E+00	9.82E+00
		Cs-134	<5.89E+00	0.00E+00	5.89E+00
		Cs-137	<4.90E+00	0.00E+00	4.90E+00
		BaLa-140	<8.40E+00	0.00E+00	8.40E+00
		Total-Gam	0.00E+00		
		H3GW	2.18E+02	1.13E+02	1.82E+02
566904	6/7/2022 - 6/7/2022	H3GW	2.45E+02	1.15E+02	1.84E+02
572843	9/6/2022 - 9/6/2022	Mn-54	<7.35E+00	0.00E+00	7.35E+00
		Co-58	<4.79E+00	0.00E+00	4.79E+00
		Fe-59	<9.78E+00	0.00E+00	9.78E+00
		Co-60	<7.76E+00	0.00E+00	7.76E+00
		Zn-65	<1.22E+01	0.00E+00	1.22E+01
		Zr-95	<1.06E+01	0.00E+00	1.06E+01
		Nb-95	<6.35E+00	0.00E+00	6.35E+00
		I-131	<1.04E+01	0.00E+00	1.04E+01
		Cs-134	<5.96E+00	0.00E+00	5.96E+00
		Cs-137	<4.97E+00	0.00E+00	4.97E+00
		BaLa-140	<8.91E+00	0.00E+00	8.91E+00
		Total-Gam	0.00E+00		
		H3GW	2.53E+02	1.17E+02	1.87E+02
579858	12/7/2022 - 12/7/2022	H3GW	2.27E+02	1.26E+02	2.04E+02

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

BRUNSWICK Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: GROUND WATER Concentration (Activity): pCi/l

Sample Point 409 [INDICATOR - NE @ 0.65 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
560755	3/8/2022 - 3/8/2022	Mn-54	<6.37E+00	0.00E+00	6.37E+00
		Co-58	<5.82E+00	0.00E+00	5.82E+00
		Fe-59	<1.14E+01	0.00E+00	1.14E+01
		Co-60	<5.53E+00	0.00E+00	5.53E+00
		Zn-65	<1.19E+01	0.00E+00	1.19E+01
		Zr-95	<1.15E+01	0.00E+00	1.15E+01
		Nb-95	<7.26E+00	0.00E+00	7.26E+00
		I-131	<1.12E+01	0.00E+00	1.12E+01
		Cs-134	<6.28E+00	0.00E+00	6.28E+00
		Cs-137	<6.94E+00	0.00E+00	6.94E+00
		BaLa-140	<8.77E+00	0.00E+00	8.77E+00
		Total-Gam	0.00E+00		
		H3GW	<-1.4E+02	0.00E+00	1.81E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
566905	6/7/2022 - 6/7/2022	H3GW	<-9.2E+01	0.00E+00	1.83E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
572844	9/6/2022 - 9/6/2022	Mn-54	<6.37E+00	0.00E+00	6.37E+00
		Co-58	<6.75E+00	0.00E+00	6.75E+00
		Fe-59	<1.18E+01	0.00E+00	1.18E+01
		Co-60	<7.02E+00	0.00E+00	7.02E+00
		Zn-65	<8.49E+00	0.00E+00	8.49E+00
		Zr-95	<9.90E+00	0.00E+00	9.90E+00
		Nb-95	<6.84E+00	0.00E+00	6.84E+00
		I-131	<9.82E+00	0.00E+00	9.82E+00
		Cs-134	<7.75E+00	0.00E+00	7.75E+00
		Cs-137	<7.37E+00	0.00E+00	7.37E+00
		BaLa-140	<5.37E+00	0.00E+00	5.37E+00
		Total-Gam	0.00E+00		
		H3GW	<-1.5E+02	0.00E+00	1.87E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
579859	12/10/2022 - 12/10/2022	H3GW	<-3.2E+01	0.00E+00	1.87E+02

Sample Point 410 [INDICATOR - NE @ 0.65 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
560756	3/8/2022 - 3/8/2022	Mn-54	<6.00E+00	0.00E+00	6.00E+00
		Co-58	<7.35E+00	0.00E+00	7.35E+00
		Fe-59	<1.16E+01	0.00E+00	1.16E+01
		Co-60	<6.17E+00	0.00E+00	6.17E+00
		Zn-65	<1.21E+01	0.00E+00	1.21E+01
		Zr-95	<1.02E+01	0.00E+00	1.02E+01
		Nb-95	<7.35E+00	0.00E+00	7.35E+00
		I-131	<1.06E+01	0.00E+00	1.06E+01
		Cs-134	<6.30E+00	0.00E+00	6.30E+00
		Cs-137	<5.46E+00	0.00E+00	5.46E+00
		BaLa-140	<1.12E+01	0.00E+00	1.12E+01
		Total-Gam	0.00E+00		
		H3GW	<-2.8E+01	0.00E+00	1.81E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
566906	6/8/2022 - 6/8/2022	H3GW	<-6.3E+01	0.00E+00	1.83E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
572845	9/7/2022 - 9/7/2022	Mn-54	<4.51E+00	0.00E+00	4.51E+00
		Co-58	<5.12E+00	0.00E+00	5.12E+00
		Fe-59	<9.90E+00	0.00E+00	9.90E+00
		Co-60	<7.38E+00	0.00E+00	7.38E+00
		Zn-65	<1.25E+01	0.00E+00	1.25E+01
		Zr-95	<1.11E+01	0.00E+00	1.11E+01
		Nb-95	<7.08E+00	0.00E+00	7.08E+00
		I-131	<7.60E+00	0.00E+00	7.60E+00
		Cs-134	<7.37E+00	0.00E+00	7.37E+00

BRUNSWICK Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: GROUND WATER Concentration (Activity): pCi/l

Sample Point 410 [INDICATOR - NE @ 0.65 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
572845	9/7/2022 - 9/7/2022	Cs-137	<6.11E+00	0.00E+00	6.11E+00
		BaLa-140	<1.05E+01	0.00E+00	1.05E+01
		Total-Gam	0.00E+00		
		H3GW	<1.16E+01	0.00E+00	1.87E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
579860	12/10/2022 - 12/10/2022	H3GW	<-2.7E+01	0.00E+00	1.87E+02

Sample Point 418 [INDICATOR - -- @ 0 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
560763	3/7/2022 - 3/7/2022	Mn-54	<5.89E+00	0.00E+00	5.89E+00
		Co-58	<6.14E+00	0.00E+00	6.14E+00
		Fe-59	<1.16E+01	0.00E+00	1.16E+01
		Co-60	<5.98E+00	0.00E+00	5.98E+00
		Zn-65	<1.26E+01	0.00E+00	1.26E+01
		Zr-95	<9.99E+00	0.00E+00	9.99E+00
		Nb-95	<7.64E+00	0.00E+00	7.64E+00
		I-131	<1.03E+01	0.00E+00	1.03E+01
		Cs-134	<5.62E+00	0.00E+00	5.62E+00
		Cs-137	<6.39E+00	0.00E+00	6.39E+00
		BaLa-140	<1.01E+01	0.00E+00	1.01E+01
		Total-Gam	0.00E+00		
		H3GW	<1.04E+02	0.00E+00	1.82E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
566914	6/7/2022 - 6/7/2022	H3GW	<1.24E+02	0.00E+00	1.83E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
572852	9/6/2022 - 9/6/2022	Mn-54	<5.81E+00	0.00E+00	5.81E+00
		Co-58	<5.78E+00	0.00E+00	5.78E+00
		Fe-59	<1.34E+01	0.00E+00	1.34E+01
		Co-60	<8.00E+00	0.00E+00	8.00E+00
		Zn-65	<1.27E+01	0.00E+00	1.27E+01
		Zr-95	<8.21E+00	0.00E+00	8.21E+00
		Nb-95	<6.57E+00	0.00E+00	6.57E+00
		I-131	<8.58E+00	0.00E+00	8.58E+00
		Cs-134	<6.50E+00	0.00E+00	6.50E+00
		Cs-137	<5.64E+00	0.00E+00	5.64E+00
		BaLa-140	<8.08E+00	0.00E+00	8.08E+00
		Total-Gam	0.00E+00		
		H3GW	<1.50E+02	0.00E+00	1.86E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
579868	12/6/2022 - 12/6/2022	H3GW	<1.59E+02	0.00E+00	2.04E+02

Sample Point 423 [INDICATOR - -- @ 0 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
560765	3/8/2022 - 3/8/2022	Mn-54	<6.43E+00	0.00E+00	6.43E+00
		Co-58	<3.98E+00	0.00E+00	3.98E+00
		Fe-59	<1.17E+01	0.00E+00	1.17E+01
		Co-60	<6.21E+00	0.00E+00	6.21E+00
		Zn-65	<1.48E+01	0.00E+00	1.48E+01
		Zr-95	<8.85E+00	0.00E+00	8.85E+00
		Nb-95	<5.63E+00	0.00E+00	5.63E+00
		I-131	<1.13E+01	0.00E+00	1.13E+01
		Cs-134	<5.72E+00	0.00E+00	5.72E+00
		Cs-137	<5.90E+00	0.00E+00	5.90E+00
		BaLa-140	<7.68E+00	0.00E+00	7.68E+00
		Total-Gam	0.00E+00		
		H3GW	<4.87E+01	0.00E+00	1.82E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
566917	6/8/2022 - 6/8/2022	H3GW	<-6.5E+01	0.00E+00	1.83E+02

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

BRUNSWICK Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: GROUND WATER Concentration (Activity): pCi/l

Sample Point 423 [INDICATOR - -- @ 0 miles]

Sample ID: 572854 Sample Dates: 9/7/2022 - 9/7/2022

Nuclide	Activity	2 Sigma Error	MDA
Mn-54	<6.00E+00	0.00E+00	6.00E+00
Co-58	<6.32E+00	0.00E+00	6.32E+00
Fe-59	<1.36E+01	0.00E+00	1.36E+01
Co-60	<5.04E+00	0.00E+00	5.04E+00
Zn-65	<1.18E+01	0.00E+00	1.18E+01
Zr-95	<1.13E+01	0.00E+00	1.13E+01
Nb-95	<7.37E+00	0.00E+00	7.37E+00
I-131	<8.41E+00	0.00E+00	8.41E+00
Cs-134	<6.93E+00	0.00E+00	6.93E+00
Cs-137	<6.83E+00	0.00E+00	6.83E+00
BaLa-140	<8.68E+00	0.00E+00	8.68E+00
Total-Gam	0.00E+00		
H3GW	<-4.6E+01	0.00E+00	1.86E+02

Sample ID: 579873 Sample Dates: 12/10/2022 - 12/10/2022

Nuclide	Activity	2 Sigma Error	MDA
H3GW	<-7.6E+01	0.00E+00	1.87E+02

Sample Point 424 [INDICATOR - -- @ 0 miles]

Sample ID: 560766 Sample Dates: 3/8/2022 - 3/8/2022

Nuclide	Activity	2 Sigma Error	MDA
Mn-54	<3.63E+00	0.00E+00	3.63E+00
Co-58	<6.09E+00	0.00E+00	6.09E+00
Fe-59	<9.48E+00	0.00E+00	9.48E+00
Co-60	<5.12E+00	0.00E+00	5.12E+00
Zn-65	<7.03E+00	0.00E+00	7.03E+00
Zr-95	<1.03E+01	0.00E+00	1.03E+01
Nb-95	<6.81E+00	0.00E+00	6.81E+00
I-131	<9.41E+00	0.00E+00	9.41E+00
Cs-134	<6.80E+00	0.00E+00	6.80E+00
Cs-137	<4.66E+00	0.00E+00	4.66E+00
BaLa-140	<8.81E+00	0.00E+00	8.81E+00
Total-Gam	0.00E+00		
H3GW	<-4.9E+01	0.00E+00	1.82E+02

Sample ID: 566918 Sample Dates: 6/8/2022 - 6/8/2022

Nuclide	Activity	2 Sigma Error	MDA
H3GW	<-7.6E+01	0.00E+00	1.83E+02

Sample ID: 572855 Sample Dates: 9/7/2022 - 9/7/2022

Nuclide	Activity	2 Sigma Error	MDA
Mn-54	<5.86E+00	0.00E+00	5.86E+00
Co-58	<4.88E+00	0.00E+00	4.88E+00
Fe-59	<9.91E+00	0.00E+00	9.91E+00
Co-60	<5.97E+00	0.00E+00	5.97E+00
Zn-65	<9.02E+00	0.00E+00	9.02E+00
Zr-95	<1.01E+01	0.00E+00	1.01E+01
Nb-95	<6.21E+00	0.00E+00	6.21E+00
I-131	<7.94E+00	0.00E+00	7.94E+00
Cs-134	<8.42E+00	0.00E+00	8.42E+00
Cs-137	<5.87E+00	0.00E+00	5.87E+00
BaLa-140	<7.19E+00	0.00E+00	7.19E+00
Total-Gam	0.00E+00		
H3GW	<-1.2E+02	0.00E+00	1.87E+02

Sample ID: 579874 Sample Dates: 12/10/2022 - 12/10/2022

Nuclide	Activity	2 Sigma Error	MDA
H3GW	<-6.8E+01	0.00E+00	1.87E+02

Sample Point 426 [INDICATOR - -- @ 0 miles]

Sample ID: 560768 Sample Dates: 3/8/2022 - 3/8/2022

Nuclide	Activity	2 Sigma Error	MDA
Mn-54	<7.02E+00	0.00E+00	7.02E+00
Co-58	<7.80E+00	0.00E+00	7.80E+00
Fe-59	<1.20E+01	0.00E+00	1.20E+01
Co-60	<5.07E+00	0.00E+00	5.07E+00
Zn-65	<1.55E+01	0.00E+00	1.55E+01
Zr-95	<1.22E+01	0.00E+00	1.22E+01
Nb-95	<8.13E+00	0.00E+00	8.13E+00

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

BRUNSWICK Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: GROUND WATER Concentration (Activity): pCi/l

Sample Point 426 [INDICATOR - -- @ 0 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
560768	3/8/2022 - 3/8/2022	I-131	<1.18E+01	0.00E+00	1.18E+01
		Cs-134	<8.80E+00	0.00E+00	8.80E+00
		Cs-137	<8.77E+00	0.00E+00	8.77E+00
		BaLa-140	<1.07E+01	0.00E+00	1.07E+01
		Total-Gam	0.00E+00		
		H3GW	<-2.8E+01	0.00E+00	1.82E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
566920	6/7/2022 - 6/7/2022	H3GW	<-3.2E+01	0.00E+00	1.84E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
572857	9/6/2022 - 9/6/2022	Mn-54	<8.37E+00	0.00E+00	8.37E+00
		Co-58	<6.34E+00	0.00E+00	6.34E+00
		Fe-59	<1.05E+01	0.00E+00	1.05E+01
		Co-60	<5.32E+00	0.00E+00	5.32E+00
		Zn-65	<1.93E+01	0.00E+00	1.93E+01
		Zr-95	<1.14E+01	0.00E+00	1.14E+01
		Nb-95	<9.83E+00	0.00E+00	9.83E+00
		I-131	<9.49E+00	0.00E+00	9.49E+00
		Cs-134	<6.90E+00	0.00E+00	6.90E+00
		Cs-137	<7.37E+00	0.00E+00	7.37E+00
		BaLa-140	<6.76E+00	0.00E+00	6.76E+00
		Total-Gam	0.00E+00		
		H3GW	<-1.0E+02	0.00E+00	1.86E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
579876	12/11/2022 - 12/11/2022	H3GW	<-3.2E+01	0.00E+00	1.87E+02

Sample Point 429 [INDICATOR - -- @ 0 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
560770	3/7/2022 - 3/7/2022	Mn-54	<6.55E+00	0.00E+00	6.55E+00
		Co-58	<5.27E+00	0.00E+00	5.27E+00
		Fe-59	<1.48E+01	0.00E+00	1.48E+01
		Co-60	<5.88E+00	0.00E+00	5.88E+00
		Zn-65	<1.22E+01	0.00E+00	1.22E+01
		Zr-95	<9.56E+00	0.00E+00	9.56E+00
		Nb-95	<6.03E+00	0.00E+00	6.03E+00
		I-131	<1.23E+01	0.00E+00	1.23E+01
		Cs-134	<5.64E+00	0.00E+00	5.64E+00
		Cs-137	<5.25E+00	0.00E+00	5.25E+00
		BaLa-140	<1.07E+01	0.00E+00	1.07E+01
		Total-Gam	0.00E+00		
		H3GW	<9.79E+01	0.00E+00	1.83E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
566921	6/7/2022 - 6/7/2022	H3GW	<4.94E+01	0.00E+00	1.83E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
572858	9/6/2022 - 9/6/2022	Mn-54	<6.59E+00	0.00E+00	6.59E+00
		Co-58	<5.04E+00	0.00E+00	5.04E+00
		Fe-59	<1.21E+01	0.00E+00	1.21E+01
		Co-60	<7.18E+00	0.00E+00	7.18E+00
		Zn-65	<1.28E+01	0.00E+00	1.28E+01
		Zr-95	<1.06E+01	0.00E+00	1.06E+01
		Nb-95	<6.16E+00	0.00E+00	6.16E+00
		I-131	<8.55E+00	0.00E+00	8.55E+00
		Cs-134	<5.73E+00	0.00E+00	5.73E+00
		Cs-137	<6.40E+00	0.00E+00	6.40E+00
		BaLa-140	<1.13E+01	0.00E+00	1.13E+01
		Total-Gam	0.00E+00		
		H3GW	<1.06E+02	0.00E+00	1.86E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
579877	12/6/2022 - 12/6/2022	H3GW	<1.03E+02	0.00E+00	2.04E+02

BRUNSWICK Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: GROUND WATER Concentration (Activity): pCi/l

Sample Point 612 [INDICATOR - -- @ 0 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
560771	3/7/2022 - 3/7/2022	Mn-54	<6.09E+00	0.00E+00	6.09E+00
		Co-58	<6.37E+00	0.00E+00	6.37E+00
		Fe-59	<1.61E+01	0.00E+00	1.61E+01
		Co-60	<8.03E+00	0.00E+00	8.03E+00
		Zn-65	<1.38E+01	0.00E+00	1.38E+01
		Zr-95	<1.15E+01	0.00E+00	1.15E+01
		Nb-95	<8.19E+00	0.00E+00	8.19E+00
		I-131	<9.67E+00	0.00E+00	9.67E+00
		Cs-134	<6.37E+00	0.00E+00	6.37E+00
		Cs-137	<5.33E+00	0.00E+00	5.33E+00
		BaLa-140	<9.41E+00	0.00E+00	9.41E+00
		Total-Gam	0.00E+00		
		H3GW	<8.82E+01	0.00E+00	1.82E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
566923	6/7/2022 - 6/7/2022	H3GW	<6.77E+00	0.00E+00	1.84E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
572859	9/6/2022 - 9/6/2022	Mn-54	<4.59E+00	0.00E+00	4.59E+00
		Co-58	<6.51E+00	0.00E+00	6.51E+00
		Fe-59	<9.03E+00	0.00E+00	9.03E+00
		Co-60	<5.38E+00	0.00E+00	5.38E+00
		Zn-65	<1.15E+01	0.00E+00	1.15E+01
		Zr-95	<9.42E+00	0.00E+00	9.42E+00
		Nb-95	<6.07E+00	0.00E+00	6.07E+00
		I-131	<9.36E+00	0.00E+00	9.36E+00
		Cs-134	<6.30E+00	0.00E+00	6.30E+00
		Cs-137	<5.64E+00	0.00E+00	5.64E+00
		BaLa-140	<7.35E+00	0.00E+00	7.35E+00
		Total-Gam	0.00E+00		
		H3GW	<2.31E+00	0.00E+00	1.86E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
579879	12/7/2022 - 12/7/2022	H3GW	<-4.6E+01	0.00E+00	2.05E+02

Media Type: SEDIMENT_SHORE Concentration (Activity): pCi/kg dry

Sample Point 500 [INDICATOR - SSW @ 5 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
567687	5/16/2022 - 5/16/2022	Mn-54	<3.37E+01	0.00E+00	3.37E+01
		Co-58	<4.34E+01	0.00E+00	4.34E+01
		Fe-59	<9.30E+01	0.00E+00	9.30E+01
		Co-60	<5.67E+01	0.00E+00	5.67E+01
		Zn-65	<7.24E+01	0.00E+00	7.24E+01
		Zr-95	<6.26E+01	0.00E+00	6.26E+01
		Nb-95	<4.19E+01	0.00E+00	4.19E+01
		I-131	<8.35E+01	0.00E+00	8.35E+01
		Cs-134	<4.18E+01	0.00E+00	4.18E+01
		Cs-137	<3.63E+01	0.00E+00	3.63E+01
		Be-7	<4.00E+02	0.00E+00	4.00E+02
		K-40	1.34E+03	4.92E+02	1.17E+02
		Co-57	<2.77E+01	0.00E+00	2.77E+01
		Mo-99	<3.28E+03	0.00E+00	3.28E+03
		Ag-110M	<4.37E+01	0.00E+00	4.37E+01
		Sb-122	<4.76E+02	0.00E+00	4.76E+02
		Sb-125	<8.96E+01	0.00E+00	8.96E+01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
581181	11/16/2022 - 11/16/2022	Mn-54	<3.21E+01	0.00E+00	3.21E+01
		Co-58	<6.15E+01	0.00E+00	6.15E+01
		Fe-59	<8.23E+01	0.00E+00	8.23E+01
		Co-60	<6.55E+01	0.00E+00	6.55E+01
		Zn-65	<1.02E+02	0.00E+00	1.02E+02
		Zr-95	<7.66E+01	0.00E+00	7.66E+01
		Nb-95	<4.69E+01	0.00E+00	4.69E+01

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

BRUNSWICK Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: SEDIMENT_SHORE Concentration (Activity): pCi/kg dry

Sample Point 500 [INDICATOR - SSW @ 5 miles]

Sample ID:	581181	Sample Dates:	11/16/2022 - 11/16/2022	Nuclide	Activity	2 Sigma Error	MDA
				I-131	<1.07E+02	0.00E+00	1.07E+02
				Cs-134	<6.83E+01	0.00E+00	6.83E+01
				Cs-137	<5.04E+01	0.00E+00	5.04E+01
				Be-7	<4.47E+02	0.00E+00	4.47E+02
				K-40	2.00E+03	7.14E+02	1.64E+02
				Co-57	<4.13E+01	0.00E+00	4.13E+01
				Mo-99	<7.09E+03	0.00E+00	7.09E+03
				Ag-110M	<4.13E+01	0.00E+00	4.13E+01
				Sb-122	<1.36E+03	0.00E+00	1.36E+03
				Sb-125	<1.17E+02	0.00E+00	1.17E+02

Sample Point 501 [INDICATOR - -- @ 0 miles]

Sample ID:	567688	Sample Dates:	5/17/2022 - 5/17/2022	Nuclide	Activity	2 Sigma Error	MDA
				Mn-54	<8.86E+01	0.00E+00	8.86E+01
				Co-58	<4.56E+01	0.00E+00	4.56E+01
				Fe-59	<1.56E+02	0.00E+00	1.56E+02
				Co-60	<1.09E+02	0.00E+00	1.09E+02
				Zn-65	<1.78E+02	0.00E+00	1.78E+02
				Zr-95	<1.30E+02	0.00E+00	1.30E+02
				Nb-95	<1.08E+02	0.00E+00	1.08E+02
				I-131	<1.59E+02	0.00E+00	1.59E+02
				Cs-134	<1.19E+02	0.00E+00	1.19E+02
				Cs-137	<1.34E+02	0.00E+00	1.34E+02
				Be-7	<7.51E+02	0.00E+00	7.51E+02
				K-40	9.74E+03	1.96E+03	2.24E+02
				Co-57	<6.55E+01	0.00E+00	6.55E+01
				Mo-99	<5.60E+03	0.00E+00	5.60E+03
				Ag-110M	<7.79E+01	0.00E+00	7.79E+01
				Sb-122	<6.21E+02	0.00E+00	6.21E+02
				Sb-125	<1.71E+02	0.00E+00	1.71E+02

Sample ID:	581182	Sample Dates:	11/16/2022 - 11/16/2022	Nuclide	Activity	2 Sigma Error	MDA
				Mn-54	<6.10E+01	0.00E+00	6.10E+01
				Co-58	<7.17E+01	0.00E+00	7.17E+01
				Fe-59	<1.39E+02	0.00E+00	1.39E+02
				Co-60	<6.49E+01	0.00E+00	6.49E+01
				Zn-65	<1.52E+02	0.00E+00	1.52E+02
				Zr-95	<1.26E+02	0.00E+00	1.26E+02
				Nb-95	<1.22E+02	0.00E+00	1.22E+02
				I-131	<1.69E+02	0.00E+00	1.69E+02
				Cs-134	<7.95E+01	0.00E+00	7.95E+01
				Cs-137	<7.33E+01	0.00E+00	7.33E+01
				Be-7	<5.79E+02	0.00E+00	5.79E+02
				K-40	8.26E+03	1.76E+03	1.18E+03
				Co-57	<6.90E+01	0.00E+00	6.90E+01
				Mo-99	<1.23E+04	0.00E+00	1.23E+04
				Ag-110M	<8.99E+01	0.00E+00	8.99E+01
				Sb-122	<1.69E+03	0.00E+00	1.69E+03
				Sb-125	<1.71E+02	0.00E+00	1.71E+02

Media Type: SURFACE WATER Concentration (Activity): pCi/l

Sample Point 400 [CONTROL - NE @ 0.6 miles]

Sample ID:	560500	Sample Dates:	1/5/2022 - 2/1/2022	Nuclide	Activity	2 Sigma Error	MDA
				Mn-54	<2.00E+00	0.00E+00	2.00E+00
				Co-58	<2.29E+00	0.00E+00	2.29E+00
				Fe-59	<4.35E+00	0.00E+00	4.35E+00
				Co-60	<1.65E+00	0.00E+00	1.65E+00
				Zn-65	<3.59E+00	0.00E+00	3.59E+00
				Zr-95	<4.74E+00	0.00E+00	4.74E+00
				Nb-95	<2.74E+00	0.00E+00	2.74E+00
				I-131	<1.06E+01	0.00E+00	1.06E+01
				Cs-134	<2.05E+00	0.00E+00	2.05E+00

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

BRUNSWICK Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: SURFACE WATER Concentration (Activity): pCi/l

Sample Point 400 [CONTROL - NE @ 0.6 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
560500	1/5/2022 - 2/1/2022	Cs-137	<2.19E+00	0.00E+00	2.19E+00
		BaLa-140	<4.33E+00	0.00E+00	4.33E+00
		H3SW	<9.34E+00	0.00E+00	1.81E+02
562242	2/1/2022 - 3/1/2022	Mn-54	<2.38E+00	0.00E+00	2.38E+00
		Co-58	<2.68E+00	0.00E+00	2.68E+00
		Fe-59	<6.04E+00	0.00E+00	6.04E+00
		Co-60	<2.73E+00	0.00E+00	2.73E+00
		Zn-65	<5.70E+00	0.00E+00	5.70E+00
		Zr-95	<4.17E+00	0.00E+00	4.17E+00
		Nb-95	<3.74E+00	0.00E+00	3.74E+00
		I-131	<1.19E+01	0.00E+00	1.19E+01
		Cs-134	<2.49E+00	0.00E+00	2.49E+00
		Cs-137	<2.33E+00	0.00E+00	2.33E+00
		BaLa-140	<8.32E+00	0.00E+00	8.32E+00
		H3SW	<1.17E+01	0.00E+00	1.80E+02
563992	3/1/2022 - 4/3/2022	Mn-54	<2.43E+00	0.00E+00	2.43E+00
		Co-58	<2.99E+00	0.00E+00	2.99E+00
		Fe-59	<5.31E+00	0.00E+00	5.31E+00
		Co-60	<2.67E+00	0.00E+00	2.67E+00
		Zn-65	<5.55E+00	0.00E+00	5.55E+00
		Zr-95	<5.25E+00	0.00E+00	5.25E+00
		Nb-95	<3.76E+00	0.00E+00	3.76E+00
		I-131	<1.26E+01	0.00E+00	1.26E+01
		Cs-134	<2.98E+00	0.00E+00	2.98E+00
		Cs-137	<2.38E+00	0.00E+00	2.38E+00
		BaLa-140	<7.51E+00	0.00E+00	7.51E+00
		H3SW	<-5.7E+01	0.00E+00	1.82E+02
565958	4/3/2022 - 5/3/2022	Mn-54	<2.75E+00	0.00E+00	2.75E+00
		Co-58	<2.77E+00	0.00E+00	2.77E+00
		Fe-59	<6.74E+00	0.00E+00	6.74E+00
		Co-60	<2.68E+00	0.00E+00	2.68E+00
		Zn-65	<5.11E+00	0.00E+00	5.11E+00
		Zr-95	<5.66E+00	0.00E+00	5.66E+00
		Nb-95	<4.15E+00	0.00E+00	4.15E+00
		I-131	<1.14E+01	0.00E+00	1.14E+01
		Cs-134	<2.99E+00	0.00E+00	2.99E+00
		Cs-137	<2.70E+00	0.00E+00	2.70E+00
		BaLa-140	<5.22E+00	0.00E+00	5.22E+00
		H3SW	<2.16E+01	0.00E+00	1.83E+02
567565	5/3/2022 - 6/1/2022	Mn-54	<1.97E+00	0.00E+00	1.97E+00
		Co-58	<2.30E+00	0.00E+00	2.30E+00
		Fe-59	<4.17E+00	0.00E+00	4.17E+00
		Co-60	<2.01E+00	0.00E+00	2.01E+00
		Zn-65	<3.89E+00	0.00E+00	3.89E+00
		Zr-95	<4.29E+00	0.00E+00	4.29E+00
		Nb-95	<2.62E+00	0.00E+00	2.62E+00
		I-131	<1.08E+01	0.00E+00	1.08E+01
		Cs-134	<2.17E+00	0.00E+00	2.17E+00
		Cs-137	<1.86E+00	0.00E+00	1.86E+00
		BaLa-140	<6.44E+00	0.00E+00	6.44E+00
		H3SW	<-4.0E+01	0.00E+00	1.84E+02
568824	6/1/2022 - 7/6/2022	Mn-54	<1.48E+00	0.00E+00	1.48E+00
		Co-58	<1.77E+00	0.00E+00	1.77E+00
		Fe-59	<3.66E+00	0.00E+00	3.66E+00
		Co-60	<1.40E+00	0.00E+00	1.40E+00
		Zn-65	<3.41E+00	0.00E+00	3.41E+00

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

BRUNSWICK Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: SURFACE WATER Concentration (Activity): pCi/l

Sample Point 400 [CONTROL - NE @ 0.6 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
568824	6/1/2022 - 7/6/2022	Zr-95	<3.38E+00	0.00E+00	3.38E+00
		Nb-95	<2.43E+00	0.00E+00	2.43E+00
		I-131	<1.20E+01	0.00E+00	1.20E+01
		Cs-134	<1.65E+00	0.00E+00	1.65E+00
		Cs-137	<1.30E+00	0.00E+00	1.30E+00
		BaLa-140	<4.98E+00	0.00E+00	4.98E+00
		H3SW	<1.19E+01	0.00E+00	1.86E+02
571095	7/6/2022 - 8/1/2022	Mn-54	<1.27E+00	0.00E+00	1.27E+00
		Co-58	<1.53E+00	0.00E+00	1.53E+00
		Fe-59	<2.85E+00	0.00E+00	2.85E+00
		Co-60	<1.35E+00	0.00E+00	1.35E+00
		Zn-65	<2.95E+00	0.00E+00	2.95E+00
		Zr-95	<2.76E+00	0.00E+00	2.76E+00
		Nb-95	<1.93E+00	0.00E+00	1.93E+00
		I-131	<7.91E+00	0.00E+00	7.91E+00
		Cs-134	<1.59E+00	0.00E+00	1.59E+00
		Cs-137	<1.55E+00	0.00E+00	1.55E+00
		BaLa-140	<3.75E+00	0.00E+00	3.75E+00
		H3SW	<0.00E+00	0.00E+00	1.87E+02
		573905	8/1/2022 - 9/4/2022	Mn-54	<1.29E+00
Co-58	<1.34E+00			0.00E+00	1.34E+00
Fe-59	<3.13E+00			0.00E+00	3.13E+00
Co-60	<1.07E+00			0.00E+00	1.07E+00
Zn-65	<2.61E+00			0.00E+00	2.61E+00
Zr-95	<2.82E+00			0.00E+00	2.82E+00
Nb-95	<1.96E+00			0.00E+00	1.96E+00
I-131	<1.01E+01			0.00E+00	1.01E+01
Cs-134	<1.42E+00			0.00E+00	1.42E+00
Cs-137	<1.09E+00			0.00E+00	1.09E+00
BaLa-140	<4.39E+00			0.00E+00	4.39E+00
H3SW	<-1.4E+02			0.00E+00	2.00E+02
576081	9/4/2022 - 10/3/2022			Mn-54	<1.49E+00
		Co-58	<1.82E+00	0.00E+00	1.82E+00
		Fe-59	<3.71E+00	0.00E+00	3.71E+00
		Co-60	<1.15E+00	0.00E+00	1.15E+00
		Zn-65	<3.79E+00	0.00E+00	3.79E+00
		Zr-95	<4.39E+00	0.00E+00	4.39E+00
		Nb-95	<2.34E+00	0.00E+00	2.34E+00
		I-131	<1.03E+01	0.00E+00	1.03E+01
		Cs-134	<1.70E+00	0.00E+00	1.70E+00
		Cs-137	<1.52E+00	0.00E+00	1.52E+00
		BaLa-140	<4.31E+00	0.00E+00	4.31E+00
		H3SW	<1.89E+01	0.00E+00	2.05E+02
		577755	10/3/2022 - 11/1/2022	Mn-54	<2.92E+00
Co-58	<2.51E+00			0.00E+00	2.51E+00
Fe-59	<7.25E+00			0.00E+00	7.25E+00
Co-60	<3.01E+00			0.00E+00	3.01E+00
Zn-65	<6.95E+00			0.00E+00	6.95E+00
Zr-95	<5.98E+00			0.00E+00	5.98E+00
Nb-95	<3.01E+00			0.00E+00	3.01E+00
I-131	<1.28E+01			0.00E+00	1.28E+01
Cs-134	<2.77E+00			0.00E+00	2.77E+00
Cs-137	<2.54E+00			0.00E+00	2.54E+00
BaLa-140	<6.23E+00			0.00E+00	6.23E+00
H3SW	<5.36E+01			0.00E+00	1.80E+02
581692	11/1/2022 - 12/1/2022			Nuclide	Activity
		Mn-54	<2.17E+00	0.00E+00	2.17E+00

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

BRUNSWICK Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: SURFACE WATER Concentration (Activity): pCi/l

Sample Point 400 [CONTROL - NE @ 0.6 miles]

Sample ID: 581692 Sample Dates: 11/1/2022 - 12/1/2022

Nuclide	Activity	2 Sigma Error	MDA
Co-58	<2.57E+00	0.00E+00	2.57E+00
Fe-59	<5.78E+00	0.00E+00	5.78E+00
Co-60	<2.19E+00	0.00E+00	2.19E+00
Zn-65	<4.49E+00	0.00E+00	4.49E+00
Zr-95	<4.45E+00	0.00E+00	4.45E+00
Nb-95	<3.25E+00	0.00E+00	3.25E+00
I-131	<1.33E+01	0.00E+00	1.33E+01
Cs-134	<2.54E+00	0.00E+00	2.54E+00
Cs-137	<2.45E+00	0.00E+00	2.45E+00
BaLa-140	<6.58E+00	0.00E+00	6.58E+00
H3SW	<-1.3E+02	0.00E+00	2.02E+02

Sample ID: 582966 Sample Dates: 12/1/2022 - 1/3/2023

Nuclide	Activity	2 Sigma Error	MDA
Mn-54	<2.18E+00	0.00E+00	2.18E+00
Co-58	<2.34E+00	0.00E+00	2.34E+00
Fe-59	<5.31E+00	0.00E+00	5.31E+00
Co-60	<1.91E+00	0.00E+00	1.91E+00
Zn-65	<5.33E+00	0.00E+00	5.33E+00
Zr-95	<3.97E+00	0.00E+00	3.97E+00
Nb-95	<3.12E+00	0.00E+00	3.12E+00
I-131	<1.12E+01	0.00E+00	1.12E+01
Cs-134	<2.14E+00	0.00E+00	2.14E+00
Cs-137	<1.84E+00	0.00E+00	1.84E+00
BaLa-140	<6.53E+00	0.00E+00	6.53E+00
H3SW	<-8.2E+01	0.00E+00	1.89E+02

Sample Point 401 [INDICATOR - SSW @ 4.9 miles]

Sample ID: 560501 Sample Dates: 1/5/2022 - 2/1/2022

Nuclide	Activity	2 Sigma Error	MDA
Mn-54	<2.01E+00	0.00E+00	2.01E+00
Co-58	<1.73E+00	0.00E+00	1.73E+00
Fe-59	<3.67E+00	0.00E+00	3.67E+00
Co-60	<2.02E+00	0.00E+00	2.02E+00
Zn-65	<4.31E+00	0.00E+00	4.31E+00
Zr-95	<3.33E+00	0.00E+00	3.33E+00
Nb-95	<2.52E+00	0.00E+00	2.52E+00
I-131	<1.01E+01	0.00E+00	1.01E+01
Cs-134	<1.93E+00	0.00E+00	1.93E+00
Cs-137	<2.23E+00	0.00E+00	2.23E+00
BaLa-140	<4.40E+00	0.00E+00	4.40E+00
H3SW	<-7.9E+01	0.00E+00	1.80E+02

Sample ID: 562243 Sample Dates: 2/1/2022 - 3/1/2022

Nuclide	Activity	2 Sigma Error	MDA
Mn-54	<1.65E+00	0.00E+00	1.65E+00
Co-58	<1.83E+00	0.00E+00	1.83E+00
Fe-59	<4.05E+00	0.00E+00	4.05E+00
Co-60	<1.52E+00	0.00E+00	1.52E+00
Zn-65	<3.81E+00	0.00E+00	3.81E+00
Zr-95	<3.57E+00	0.00E+00	3.57E+00
Nb-95	<2.58E+00	0.00E+00	2.58E+00
I-131	<1.19E+01	0.00E+00	1.19E+01
Cs-134	<1.86E+00	0.00E+00	1.86E+00
Cs-137	<1.82E+00	0.00E+00	1.82E+00
BaLa-140	<5.13E+00	0.00E+00	5.13E+00
H3SW	<2.09E+01	0.00E+00	1.79E+02

Sample ID: 563993 Sample Dates: 3/1/2022 - 4/3/2022

Nuclide	Activity	2 Sigma Error	MDA
Mn-54	<2.80E+00	0.00E+00	2.80E+00
Co-58	<2.72E+00	0.00E+00	2.72E+00
Fe-59	<5.30E+00	0.00E+00	5.30E+00
Co-60	<2.32E+00	0.00E+00	2.32E+00
Zn-65	<6.06E+00	0.00E+00	6.06E+00
Zr-95	<5.26E+00	0.00E+00	5.26E+00
Nb-95	<3.67E+00	0.00E+00	3.67E+00
I-131	<1.31E+01	0.00E+00	1.31E+01

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

BRUNSWICK Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: SURFACE WATER Concentration (Activity): pCi/l

Sample Point 401 [INDICATOR - SSW @ 4.9 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
563993	3/1/2022 - 4/3/2022	Cs-134	<2.29E+00	0.00E+00	2.29E+00
		Cs-137	<2.86E+00	0.00E+00	2.86E+00
		BaLa-140	<7.25E+00	0.00E+00	7.25E+00
		H3SW	<5.38E+01	0.00E+00	1.80E+02
565959	4/3/2022 - 5/3/2022	Mn-54	<2.86E+00	0.00E+00	2.86E+00
		Co-58	<3.02E+00	0.00E+00	3.02E+00
		Fe-59	<6.52E+00	0.00E+00	6.52E+00
		Co-60	<2.40E+00	0.00E+00	2.40E+00
		Zn-65	<5.81E+00	0.00E+00	5.81E+00
		Zr-95	<6.14E+00	0.00E+00	6.14E+00
		Nb-95	<4.59E+00	0.00E+00	4.59E+00
		I-131	<1.08E+01	0.00E+00	1.08E+01
		Cs-134	<3.17E+00	0.00E+00	3.17E+00
		Cs-137	<3.40E+00	0.00E+00	3.40E+00
		BaLa-140	<7.16E+00	0.00E+00	7.16E+00
		H3SW	<-3.1E+01	0.00E+00	1.81E+02
567566	5/3/2022 - 6/1/2022	Mn-54	<1.85E+00	0.00E+00	1.85E+00
		Co-58	<2.51E+00	0.00E+00	2.51E+00
		Fe-59	<4.06E+00	0.00E+00	4.06E+00
		Co-60	<1.61E+00	0.00E+00	1.61E+00
		Zn-65	<4.25E+00	0.00E+00	4.25E+00
		Zr-95	<3.73E+00	0.00E+00	3.73E+00
		Nb-95	<2.75E+00	0.00E+00	2.75E+00
		I-131	<1.11E+01	0.00E+00	1.11E+01
		Cs-134	<1.73E+00	0.00E+00	1.73E+00
		Cs-137	<1.98E+00	0.00E+00	1.98E+00
		BaLa-140	<5.63E+00	0.00E+00	5.63E+00
		H3SW	<3.04E+01	0.00E+00	1.83E+02
568825	6/1/2022 - 7/5/2022	Mn-54	<1.44E+00	0.00E+00	1.44E+00
		Co-58	<1.34E+00	0.00E+00	1.34E+00
		Fe-59	<3.48E+00	0.00E+00	3.48E+00
		Co-60	<1.42E+00	0.00E+00	1.42E+00
		Zn-65	<3.02E+00	0.00E+00	3.02E+00
		Zr-95	<2.47E+00	0.00E+00	2.47E+00
		Nb-95	<1.93E+00	0.00E+00	1.93E+00
		I-131	<1.17E+01	0.00E+00	1.17E+01
		Cs-134	<1.45E+00	0.00E+00	1.45E+00
		Cs-137	<1.33E+00	0.00E+00	1.33E+00
		BaLa-140	<4.89E+00	0.00E+00	4.89E+00
		H3SW	<-1.4E+01	0.00E+00	1.85E+02
571096	7/5/2022 - 8/1/2022	Mn-54	<1.91E+00	0.00E+00	1.91E+00
		Co-58	<2.23E+00	0.00E+00	2.23E+00
		Fe-59	<5.34E+00	0.00E+00	5.34E+00
		Co-60	<1.81E+00	0.00E+00	1.81E+00
		Zn-65	<3.97E+00	0.00E+00	3.97E+00
		Zr-95	<3.45E+00	0.00E+00	3.45E+00
		Nb-95	<2.25E+00	0.00E+00	2.25E+00
		I-131	<1.09E+01	0.00E+00	1.09E+01
		Cs-134	<1.92E+00	0.00E+00	1.92E+00
		Cs-137	<2.03E+00	0.00E+00	2.03E+00
		BaLa-140	<5.50E+00	0.00E+00	5.50E+00
		H3SW	<-2.9E+01	0.00E+00	1.88E+02
573906	8/1/2022 - 9/4/2022	Mn-54	<1.21E+00	0.00E+00	1.21E+00
		Co-58	<1.27E+00	0.00E+00	1.27E+00
		Fe-59	<2.69E+00	0.00E+00	2.69E+00
		Co-60	<1.17E+00	0.00E+00	1.17E+00

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

BRUNSWICK Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: SURFACE WATER Concentration (Activity): pCi/l

Sample Point 401 [INDICATOR - SSW @ 4.9 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
573906	8/1/2022 - 9/4/2022	Zn-65	<2.62E+00	0.00E+00	2.62E+00
		Zr-95	<2.46E+00	0.00E+00	2.46E+00
		Nb-95	<1.84E+00	0.00E+00	1.84E+00
		I-131	<9.38E+00	0.00E+00	9.38E+00
		Cs-134	<1.22E+00	0.00E+00	1.22E+00
		Cs-137	<1.15E+00	0.00E+00	1.15E+00
		BaLa-140	<3.88E+00	0.00E+00	3.88E+00
		H3SW	<-1.5E+02	0.00E+00	2.00E+02
		576082	9/4/2022 - 10/3/2022	Mn-54	<1.93E+00
Co-58	<2.21E+00			0.00E+00	2.21E+00
Fe-59	<4.77E+00			0.00E+00	4.77E+00
Co-60	<2.05E+00			0.00E+00	2.05E+00
Zn-65	<4.33E+00			0.00E+00	4.33E+00
Zr-95	<4.33E+00			0.00E+00	4.33E+00
Nb-95	<3.02E+00			0.00E+00	3.02E+00
I-131	<1.16E+01			0.00E+00	1.16E+01
Cs-134	<2.27E+00			0.00E+00	2.27E+00
Cs-137	<1.79E+00			0.00E+00	1.79E+00
BaLa-140	<6.03E+00			0.00E+00	6.03E+00
H3SW	<7.03E+01			0.00E+00	2.05E+02
577756	10/3/2022 - 11/1/2022			Mn-54	<3.28E+00
		Co-58	<4.64E+00	0.00E+00	4.64E+00
		Fe-59	<7.58E+00	0.00E+00	7.58E+00
		Co-60	<3.64E+00	0.00E+00	3.64E+00
		Zn-65	<7.01E+00	0.00E+00	7.01E+00
		Zr-95	<6.89E+00	0.00E+00	6.89E+00
		Nb-95	<4.95E+00	0.00E+00	4.95E+00
		I-131	<1.34E+01	0.00E+00	1.34E+01
		Cs-134	<3.63E+00	0.00E+00	3.63E+00
		Cs-137	<4.38E+00	0.00E+00	4.38E+00
		BaLa-140	<8.85E+00	0.00E+00	8.85E+00
		H3SW	<7.04E+01	0.00E+00	1.79E+02
		581693	11/1/2022 - 12/1/2022	Mn-54	<2.32E+00
Co-58	<1.99E+00			0.00E+00	1.99E+00
Fe-59	<4.02E+00			0.00E+00	4.02E+00
Co-60	<1.88E+00			0.00E+00	1.88E+00
Zn-65	<4.20E+00			0.00E+00	4.20E+00
Zr-95	<4.63E+00			0.00E+00	4.63E+00
Nb-95	<3.46E+00			0.00E+00	3.46E+00
I-131	<1.34E+01			0.00E+00	1.34E+01
Cs-134	<2.70E+00			0.00E+00	2.70E+00
Cs-137	<2.04E+00			0.00E+00	2.04E+00
BaLa-140	<6.33E+00			0.00E+00	6.33E+00
H3SW	<-9.7E+00			0.00E+00	2.01E+02
582967	12/1/2022 - 1/3/2023			Mn-54	<2.45E+00
		Co-58	<3.15E+00	0.00E+00	3.15E+00
		Fe-59	<6.50E+00	0.00E+00	6.50E+00
		Co-60	<2.40E+00	0.00E+00	2.40E+00
		Zn-65	<5.03E+00	0.00E+00	5.03E+00
		Zr-95	<5.29E+00	0.00E+00	5.29E+00
		Nb-95	<4.48E+00	0.00E+00	4.48E+00
		I-131	<1.29E+01	0.00E+00	1.29E+01
		Cs-134	<3.24E+00	0.00E+00	3.24E+00
		Cs-137	<2.74E+00	0.00E+00	2.74E+00
		BaLa-140	<6.06E+00	0.00E+00	6.06E+00
		H3SW	<-6.8E+01	0.00E+00	1.89E+02

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

BRUNSWICK Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: SURFACE WATER Concentration (Activity): pCi/l

Sample Point 494 [INDICATOR - -- @ 0 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
558456	1/20/2022 - 1/20/2022	Mn-54	<4.78E+00	0.00E+00	4.78E+00
		Co-58	<4.22E+00	0.00E+00	4.22E+00
		Fe-59	<9.05E+00	0.00E+00	9.05E+00
		Co-60	<4.17E+00	0.00E+00	4.17E+00
		Zn-65	<1.04E+01	0.00E+00	1.04E+01
		Zr-95	<9.53E+00	0.00E+00	9.53E+00
		Nb-95	<5.77E+00	0.00E+00	5.77E+00
		I-131	<7.79E+00	0.00E+00	7.79E+00
		Cs-134	<4.94E+00	0.00E+00	4.94E+00
		Cs-137	<4.99E+00	0.00E+00	4.99E+00
		BaLa-140	<6.01E+00	0.00E+00	6.01E+00
		Total-Gam	0.00E+00		
		H3SW	<1.02E+02	0.00E+00	1.73E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
561098	2/17/2022 - 2/17/2022	Mn-54	<5.23E+00	0.00E+00	5.23E+00
		Co-58	<6.01E+00	0.00E+00	6.01E+00
		Fe-59	<1.22E+01	0.00E+00	1.22E+01
		Co-60	<5.21E+00	0.00E+00	5.21E+00
		Zn-65	<1.24E+01	0.00E+00	1.24E+01
		Zr-95	<1.15E+01	0.00E+00	1.15E+01
		Nb-95	<5.35E+00	0.00E+00	5.35E+00
		I-131	<7.60E+00	0.00E+00	7.60E+00
		Cs-134	<6.00E+00	0.00E+00	6.00E+00
		Cs-137	<5.74E+00	0.00E+00	5.74E+00
		BaLa-140	<7.10E+00	0.00E+00	7.10E+00
		Total-Gam	0.00E+00		
		H3SW	<2.82E+01	0.00E+00	1.88E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
560119	3/17/2022 - 3/17/2022	Mn-54	<6.41E+00	0.00E+00	6.41E+00
		Co-58	<7.30E+00	0.00E+00	7.30E+00
		Fe-59	<1.24E+01	0.00E+00	1.24E+01
		Co-60	<7.17E+00	0.00E+00	7.17E+00
		Zn-65	<1.27E+01	0.00E+00	1.27E+01
		Zr-95	<1.17E+01	0.00E+00	1.17E+01
		Nb-95	<8.46E+00	0.00E+00	8.46E+00
		I-131	<8.47E+00	0.00E+00	8.47E+00
		Cs-134	<6.72E+00	0.00E+00	6.72E+00
		Cs-137	<5.83E+00	0.00E+00	5.83E+00
		BaLa-140	<6.55E+00	0.00E+00	6.55E+00
		Total-Gam	0.00E+00		
		H3SW	<5.33E+01	0.00E+00	1.77E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
563413	4/20/2022 - 4/20/2022	Mn-54	<5.77E+00	0.00E+00	5.77E+00
		Co-58	<5.88E+00	0.00E+00	5.88E+00
		Fe-59	<9.56E+00	0.00E+00	9.56E+00
		Co-60	<4.79E+00	0.00E+00	4.79E+00
		Zn-65	<1.06E+01	0.00E+00	1.06E+01
		Zr-95	<1.15E+01	0.00E+00	1.15E+01
		Nb-95	<6.31E+00	0.00E+00	6.31E+00
		I-131	<6.85E+00	0.00E+00	6.85E+00
		Cs-134	<6.09E+00	0.00E+00	6.09E+00
		Cs-137	<4.56E+00	0.00E+00	4.56E+00
		BaLa-140	<7.86E+00	0.00E+00	7.86E+00
		Total-Gam	0.00E+00		
		H3SW	<-2.1E+01	0.00E+00	1.87E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
565189	5/17/2022 - 5/17/2022	Mn-54	<6.85E+00	0.00E+00	6.85E+00
		Co-58	<6.35E+00	0.00E+00	6.35E+00
		Fe-59	<1.06E+01	0.00E+00	1.06E+01
		Co-60	<5.53E+00	0.00E+00	5.53E+00
		Zn-65	<1.12E+01	0.00E+00	1.12E+01
		Zr-95	<1.14E+01	0.00E+00	1.14E+01

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

BRUNSWICK Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: SURFACE WATER Concentration (Activity): pCi/l

Sample Point 494 [INDICATOR - -- @ 0 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
565189	5/17/2022 - 5/17/2022	Nb-95	<8.20E+00	0.00E+00	8.20E+00
		I-131	<8.30E+00	0.00E+00	8.30E+00
		Cs-134	<8.18E+00	0.00E+00	8.18E+00
		Cs-137	<6.32E+00	0.00E+00	6.32E+00
		BaLa-140	<7.47E+00	0.00E+00	7.47E+00
		Total-Gam	0.00E+00		
		H3SW	<-5.6E+01	0.00E+00	1.85E+02
567087	6/21/2022 - 6/21/2022	Mn-54	<5.58E+00	0.00E+00	5.58E+00
		Co-58	<5.53E+00	0.00E+00	5.53E+00
		Fe-59	<1.13E+01	0.00E+00	1.13E+01
		Co-60	<3.75E+00	0.00E+00	3.75E+00
		Zn-65	<1.14E+01	0.00E+00	1.14E+01
		Zr-95	<9.65E+00	0.00E+00	9.65E+00
		Nb-95	<5.79E+00	0.00E+00	5.79E+00
		I-131	<8.10E+00	0.00E+00	8.10E+00
		Cs-134	<6.83E+00	0.00E+00	6.83E+00
		Cs-137	<5.03E+00	0.00E+00	5.03E+00
		BaLa-140	<9.86E+00	0.00E+00	9.86E+00
		Total-Gam	0.00E+00		
		H3SW	<-9.0E+01	0.00E+00	1.88E+02
568587	7/19/2022 - 7/19/2022	Mn-54	<5.40E+00	0.00E+00	5.40E+00
		Co-58	<4.46E+00	0.00E+00	4.46E+00
		Fe-59	<1.03E+01	0.00E+00	1.03E+01
		Co-60	<6.40E+00	0.00E+00	6.40E+00
		Zn-65	<1.30E+01	0.00E+00	1.30E+01
		Zr-95	<9.75E+00	0.00E+00	9.75E+00
		Nb-95	<6.79E+00	0.00E+00	6.79E+00
		I-131	<9.52E+00	0.00E+00	9.52E+00
		Cs-134	<5.81E+00	0.00E+00	5.81E+00
		Cs-137	<4.40E+00	0.00E+00	4.40E+00
		BaLa-140	<9.75E+00	0.00E+00	9.75E+00
		Total-Gam	0.00E+00		
		H3SW	<-2.9E+01	0.00E+00	1.94E+02
571029	8/16/2022 - 8/16/2022	Mn-54	<6.64E+00	0.00E+00	6.64E+00
		Co-58	<6.12E+00	0.00E+00	6.12E+00
		Fe-59	<1.10E+01	0.00E+00	1.10E+01
		Co-60	<7.32E+00	0.00E+00	7.32E+00
		Zn-65	<1.17E+01	0.00E+00	1.17E+01
		Zr-95	<1.06E+01	0.00E+00	1.06E+01
		Nb-95	<6.90E+00	0.00E+00	6.90E+00
		I-131	<6.89E+00	0.00E+00	6.89E+00
		Cs-134	<7.83E+00	0.00E+00	7.83E+00
		Cs-137	<5.83E+00	0.00E+00	5.83E+00
		BaLa-140	<7.27E+00	0.00E+00	7.27E+00
		Total-Gam	0.00E+00		
		H3SW	<5.83E+01	0.00E+00	1.88E+02
573674	9/23/2022 - 9/23/2022	Mn-54	<5.58E+00	0.00E+00	5.58E+00
		Co-58	<5.75E+00	0.00E+00	5.75E+00
		Fe-59	<9.60E+00	0.00E+00	9.60E+00
		Co-60	<6.06E+00	0.00E+00	6.06E+00
		Zn-65	<1.08E+01	0.00E+00	1.08E+01
		Zr-95	<1.00E+01	0.00E+00	1.00E+01
		Nb-95	<4.99E+00	0.00E+00	4.99E+00
		I-131	<8.07E+00	0.00E+00	8.07E+00
		Cs-134	<6.24E+00	0.00E+00	6.24E+00
		Cs-137	<5.40E+00	0.00E+00	5.40E+00
		BaLa-140	<9.45E+00	0.00E+00	9.45E+00
Total-Gam	0.00E+00				

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

BRUNSWICK Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: SURFACE WATER Concentration (Activity): pCi/l

Sample Point 494 [INDICATOR - -- @ 0 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
573674	9/23/2022 - 9/23/2022	H3SW	<2.33E+01	0.00E+00	1.83E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
576136	10/24/2022 - 10/24/2022	Mn-54	<4.19E+00	0.00E+00	4.19E+00
		Co-58	<6.06E+00	0.00E+00	6.06E+00
		Fe-59	<8.98E+00	0.00E+00	8.98E+00
		Co-60	<6.31E+00	0.00E+00	6.31E+00
		Zn-65	<9.74E+00	0.00E+00	9.74E+00
		Zr-95	<1.09E+01	0.00E+00	1.09E+01
		Nb-95	<6.38E+00	0.00E+00	6.38E+00
		I-131	<7.55E+00	0.00E+00	7.55E+00
		Cs-134	<5.56E+00	0.00E+00	5.56E+00
		Cs-137	<5.26E+00	0.00E+00	5.26E+00
		BaLa-140	<6.69E+00	0.00E+00	6.69E+00
		Total-Gam	0.00E+00		
		H3SW	<-2.5E+00	0.00E+00	1.92E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
578029	11/17/2022 - 11/17/2022	Mn-54	<5.22E+00	0.00E+00	5.22E+00
		Co-58	<4.51E+00	0.00E+00	4.51E+00
		Fe-59	<1.02E+01	0.00E+00	1.02E+01
		Co-60	<4.55E+00	0.00E+00	4.55E+00
		Zn-65	<1.29E+01	0.00E+00	1.29E+01
		Zr-95	<1.07E+01	0.00E+00	1.07E+01
		Nb-95	<6.71E+00	0.00E+00	6.71E+00
		I-131	<1.28E+01	0.00E+00	1.28E+01
		Cs-134	<6.27E+00	0.00E+00	6.27E+00
		Cs-137	<5.01E+00	0.00E+00	5.01E+00
		BaLa-140	<1.01E+01	0.00E+00	1.01E+01
		Total-Gam	0.00E+00		
		H3SW	<-9.3E+01	0.00E+00	2.08E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
580545	12/23/2022 - 12/23/2022	Mn-54	<4.75E+00	0.00E+00	4.75E+00
		Co-58	<5.03E+00	0.00E+00	5.03E+00
		Fe-59	<1.02E+01	0.00E+00	1.02E+01
		Co-60	<5.28E+00	0.00E+00	5.28E+00
		Zn-65	<9.28E+00	0.00E+00	9.28E+00
		Zr-95	<1.09E+01	0.00E+00	1.09E+01
		Nb-95	<6.63E+00	0.00E+00	6.63E+00
		I-131	<1.27E+01	0.00E+00	1.27E+01
		Cs-134	<5.83E+00	0.00E+00	5.83E+00
		Cs-137	<4.40E+00	0.00E+00	4.40E+00
		BaLa-140	<9.65E+00	0.00E+00	9.65E+00
		Total-Gam	0.00E+00		
		H3SW	<3.42E+01	0.00E+00	1.91E+02

Sample Point 495 [INDICATOR - -- @ 0 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
558457	1/20/2022 - 1/20/2022	Mn-54	<6.78E+00	0.00E+00	6.78E+00
		Co-58	<5.54E+00	0.00E+00	5.54E+00
		Fe-59	<1.23E+01	0.00E+00	1.23E+01
		Co-60	<4.93E+00	0.00E+00	4.93E+00
		Zn-65	<1.02E+01	0.00E+00	1.02E+01
		Zr-95	<1.06E+01	0.00E+00	1.06E+01
		Nb-95	<5.74E+00	0.00E+00	5.74E+00
		I-131	<8.56E+00	0.00E+00	8.56E+00
		Cs-134	<8.08E+00	0.00E+00	8.08E+00
		Cs-137	<4.45E+00	0.00E+00	4.45E+00
		BaLa-140	<9.02E+00	0.00E+00	9.02E+00
		Total-Gam	0.00E+00		
		H3SW	<6.26E+01	0.00E+00	1.73E+02

BRUNSWICK Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: SURFACE WATER Concentration (Activity): pCi/l

Sample Point 495 [INDICATOR - -- @ 0 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
561099	2/17/2022 - 2/17/2022	Mn-54	<5.85E+00	0.00E+00	5.85E+00
		Co-58	<5.97E+00	0.00E+00	5.97E+00
		Fe-59	<1.22E+01	0.00E+00	1.22E+01
		Co-60	<7.38E+00	0.00E+00	7.38E+00
		Zn-65	<1.25E+01	0.00E+00	1.25E+01
		Zr-95	<1.31E+01	0.00E+00	1.31E+01
		Nb-95	<8.40E+00	0.00E+00	8.40E+00
		I-131	<8.84E+00	0.00E+00	8.84E+00
		Cs-134	<7.37E+00	0.00E+00	7.37E+00
		Cs-137	<6.87E+00	0.00E+00	6.87E+00
		BaLa-140	<7.11E+00	0.00E+00	7.11E+00
		Total-Gam	0.00E+00		
		H3SW	<-4.2E+01	0.00E+00	1.87E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
560120	3/17/2022 - 3/17/2022	Mn-54	<6.53E+00	0.00E+00	6.53E+00
		Co-58	<5.21E+00	0.00E+00	5.21E+00
		Fe-59	<1.65E+01	0.00E+00	1.65E+01
		Co-60	<5.24E+00	0.00E+00	5.24E+00
		Zn-65	<1.16E+01	0.00E+00	1.16E+01
		Zr-95	<9.07E+00	0.00E+00	9.07E+00
		Nb-95	<7.20E+00	0.00E+00	7.20E+00
		I-131	<8.28E+00	0.00E+00	8.28E+00
		Cs-134	<7.11E+00	0.00E+00	7.11E+00
		Cs-137	<4.47E+00	0.00E+00	4.47E+00
		BaLa-140	<8.91E+00	0.00E+00	8.91E+00
		Total-Gam	0.00E+00		
		H3SW	<9.24E+01	0.00E+00	1.76E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
563414	4/20/2022 - 4/20/2022	Mn-54	<3.90E+00	0.00E+00	3.90E+00
		Co-58	<5.05E+00	0.00E+00	5.05E+00
		Fe-59	<1.26E+01	0.00E+00	1.26E+01
		Co-60	<7.03E+00	0.00E+00	7.03E+00
		Zn-65	<1.35E+01	0.00E+00	1.35E+01
		Zr-95	<1.03E+01	0.00E+00	1.03E+01
		Nb-95	<8.02E+00	0.00E+00	8.02E+00
		I-131	<6.32E+00	0.00E+00	6.32E+00
		Cs-134	<5.80E+00	0.00E+00	5.80E+00
		Cs-137	<5.44E+00	0.00E+00	5.44E+00
		BaLa-140	<9.83E+00	0.00E+00	9.83E+00
		Total-Gam	0.00E+00		
		H3SW	<-3.3E+01	0.00E+00	1.86E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
565190	5/17/2022 - 5/17/2022	Mn-54	<4.99E+00	0.00E+00	4.99E+00
		Co-58	<5.34E+00	0.00E+00	5.34E+00
		Fe-59	<1.13E+01	0.00E+00	1.13E+01
		Co-60	<6.06E+00	0.00E+00	6.06E+00
		Zn-65	<8.62E+00	0.00E+00	8.62E+00
		Zr-95	<8.94E+00	0.00E+00	8.94E+00
		Nb-95	<6.68E+00	0.00E+00	6.68E+00
		I-131	<8.31E+00	0.00E+00	8.31E+00
		Cs-134	<7.36E+00	0.00E+00	7.36E+00
		Cs-137	<5.22E+00	0.00E+00	5.22E+00
		BaLa-140	<8.65E+00	0.00E+00	8.65E+00
		Total-Gam	0.00E+00		
		H3SW	<-3.5E+01	0.00E+00	1.84E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
567088	6/21/2022 - 6/21/2022	Mn-54	<5.19E+00	0.00E+00	5.19E+00
		Co-58	<4.89E+00	0.00E+00	4.89E+00
		Fe-59	<1.07E+01	0.00E+00	1.07E+01
		Co-60	<5.29E+00	0.00E+00	5.29E+00
		Zn-65	<1.25E+01	0.00E+00	1.25E+01
		Zr-95	<9.64E+00	0.00E+00	9.64E+00

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

BRUNSWICK Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: SURFACE WATER Concentration (Activity): pCi/l

Sample Point 495 [INDICATOR - -- @ 0 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
567088	6/21/2022 - 6/21/2022	Nb-95	<6.81E+00	0.00E+00	6.81E+00
		I-131	<7.60E+00	0.00E+00	7.60E+00
		Cs-134	<5.81E+00	0.00E+00	5.81E+00
		Cs-137	<6.66E+00	0.00E+00	6.66E+00
		BaLa-140	<7.84E+00	0.00E+00	7.84E+00
		Total-Gam	0.00E+00		
		H3SW	<-5.9E+01	0.00E+00	1.87E+02
568588	7/19/2022 - 7/19/2022	Mn-54	<5.45E+00	0.00E+00	5.45E+00
		Co-58	<5.43E+00	0.00E+00	5.43E+00
		Fe-59	<1.26E+01	0.00E+00	1.26E+01
		Co-60	<6.84E+00	0.00E+00	6.84E+00
		Zn-65	<1.27E+01	0.00E+00	1.27E+01
		Zr-95	<8.29E+00	0.00E+00	8.29E+00
		Nb-95	<6.51E+00	0.00E+00	6.51E+00
		I-131	<9.85E+00	0.00E+00	9.85E+00
		Cs-134	<6.70E+00	0.00E+00	6.70E+00
		Cs-137	<5.81E+00	0.00E+00	5.81E+00
		BaLa-140	<9.24E+00	0.00E+00	9.24E+00
		Total-Gam	0.00E+00		
		H3SW	<-1.2E+02	0.00E+00	1.92E+02
571030	8/16/2022 - 8/16/2022	Mn-54	<6.05E+00	0.00E+00	6.05E+00
		Co-58	<5.69E+00	0.00E+00	5.69E+00
		Fe-59	<1.11E+01	0.00E+00	1.11E+01
		Co-60	<7.31E+00	0.00E+00	7.31E+00
		Zn-65	<1.43E+01	0.00E+00	1.43E+01
		Zr-95	<1.10E+01	0.00E+00	1.10E+01
		Nb-95	<5.86E+00	0.00E+00	5.86E+00
		I-131	<6.43E+00	0.00E+00	6.43E+00
		Cs-134	<6.22E+00	0.00E+00	6.22E+00
		Cs-137	<6.22E+00	0.00E+00	6.22E+00
		BaLa-140	<3.90E+00	0.00E+00	3.90E+00
		Total-Gam	0.00E+00		
		H3SW	<5.78E+01	0.00E+00	1.86E+02
573675	9/23/2022 - 9/23/2022	Mn-54	<5.62E+00	0.00E+00	5.62E+00
		Co-58	<6.37E+00	0.00E+00	6.37E+00
		Fe-59	<1.34E+01	0.00E+00	1.34E+01
		Co-60	<4.54E+00	0.00E+00	4.54E+00
		Zn-65	<1.30E+01	0.00E+00	1.30E+01
		Zr-95	<8.93E+00	0.00E+00	8.93E+00
		Nb-95	<6.82E+00	0.00E+00	6.82E+00
		I-131	<8.14E+00	0.00E+00	8.14E+00
		Cs-134	<6.28E+00	0.00E+00	6.28E+00
		Cs-137	<5.81E+00	0.00E+00	5.81E+00
		BaLa-140	<8.44E+00	0.00E+00	8.44E+00
		Total-Gam	0.00E+00		
		H3SW	<-9.7E+01	0.00E+00	1.82E+02
576137	10/24/2022 - 10/24/2022	Mn-54	<6.40E+00	0.00E+00	6.40E+00
		Co-58	<4.18E+00	0.00E+00	4.18E+00
		Fe-59	<1.07E+01	0.00E+00	1.07E+01
		Co-60	<5.81E+00	0.00E+00	5.81E+00
		Zn-65	<1.27E+01	0.00E+00	1.27E+01
		Zr-95	<1.01E+01	0.00E+00	1.01E+01
		Nb-95	<6.10E+00	0.00E+00	6.10E+00
		I-131	<8.07E+00	0.00E+00	8.07E+00
		Cs-134	<6.18E+00	0.00E+00	6.18E+00
		Cs-137	<5.74E+00	0.00E+00	5.74E+00
		BaLa-140	<7.98E+00	0.00E+00	7.98E+00
Total-Gam	0.00E+00				

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

BRUNSWICK Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: SURFACE WATER Concentration (Activity): pCi/l

Sample Point 495 [INDICATOR - -- @ 0 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
576137	10/24/2022 - 10/24/2022	H3SW	<-1.7E+01	0.00E+00	1.91E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
578030	11/17/2022 - 11/17/2022	Mn-54	<5.16E+00	0.00E+00	5.16E+00
		Co-58	<6.32E+00	0.00E+00	6.32E+00
		Fe-59	<1.07E+01	0.00E+00	1.07E+01
		Co-60	<5.22E+00	0.00E+00	5.22E+00
		Zn-65	<9.40E+00	0.00E+00	9.40E+00
		Zr-95	<1.11E+01	0.00E+00	1.11E+01
		Nb-95	<7.59E+00	0.00E+00	7.59E+00
		I-131	<1.20E+01	0.00E+00	1.20E+01
		Cs-134	<5.73E+00	0.00E+00	5.73E+00
		Cs-137	<5.48E+00	0.00E+00	5.48E+00
		BaLa-140	<1.06E+01	0.00E+00	1.06E+01
		Total-Gam	0.00E+00		
		H3SW	<-7.3E+01	0.00E+00	2.07E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
580546	12/23/2022 - 12/23/2022	Mn-54	<7.05E+00	0.00E+00	7.05E+00
		Co-58	<4.12E+00	0.00E+00	4.12E+00
		Fe-59	<9.80E+00	0.00E+00	9.80E+00
		Co-60	<4.83E+00	0.00E+00	4.83E+00
		Zn-65	<1.11E+01	0.00E+00	1.11E+01
		Zr-95	<8.10E+00	0.00E+00	8.10E+00
		Nb-95	<6.13E+00	0.00E+00	6.13E+00
		I-131	<1.30E+01	0.00E+00	1.30E+01
		Cs-134	<5.86E+00	0.00E+00	5.86E+00
		Cs-137	<5.06E+00	0.00E+00	5.06E+00
		BaLa-140	<9.19E+00	0.00E+00	9.19E+00
		Total-Gam	0.00E+00		
		H3SW	<-4.9E+00	0.00E+00	1.91E+02

Sample Point 496 [INDICATOR - -- @ 0 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
558458	1/20/2022 - 1/20/2022	Mn-54	<6.04E+00	0.00E+00	6.04E+00
		Co-58	<6.17E+00	0.00E+00	6.17E+00
		Fe-59	<9.88E+00	0.00E+00	9.88E+00
		Co-60	<5.55E+00	0.00E+00	5.55E+00
		Zn-65	<6.97E+00	0.00E+00	6.97E+00
		Zr-95	<9.70E+00	0.00E+00	9.70E+00
		Nb-95	<7.54E+00	0.00E+00	7.54E+00
		I-131	<8.08E+00	0.00E+00	8.08E+00
		Cs-134	<5.05E+00	0.00E+00	5.05E+00
		Cs-137	<5.69E+00	0.00E+00	5.69E+00
		BaLa-140	<8.66E+00	0.00E+00	8.66E+00
		Total-Gam	0.00E+00		
		H3SW	<1.63E+01	0.00E+00	1.74E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
561100	2/17/2022 - 2/17/2022	Mn-54	<5.24E+00	0.00E+00	5.24E+00
		Co-58	<4.87E+00	0.00E+00	4.87E+00
		Fe-59	<1.22E+01	0.00E+00	1.22E+01
		Co-60	<6.40E+00	0.00E+00	6.40E+00
		Zn-65	<1.26E+01	0.00E+00	1.26E+01
		Zr-95	<1.01E+01	0.00E+00	1.01E+01
		Nb-95	<6.92E+00	0.00E+00	6.92E+00
		I-131	<8.60E+00	0.00E+00	8.60E+00
		Cs-134	<7.57E+00	0.00E+00	7.57E+00
		Cs-137	<5.12E+00	0.00E+00	5.12E+00
		BaLa-140	<8.71E+00	0.00E+00	8.71E+00
		Total-Gam	0.00E+00		
		H3SW	<-6.1E+01	0.00E+00	1.88E+02

BRUNSWICK Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: SURFACE WATER Concentration (Activity): pCi/l

Sample Point 496 [INDICATOR - -- @ 0 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
560121	3/17/2022 - 3/17/2022	Mn-54	<4.96E+00	0.00E+00	4.96E+00
		Co-58	<5.31E+00	0.00E+00	5.31E+00
		Fe-59	<1.32E+01	0.00E+00	1.32E+01
		Co-60	<6.21E+00	0.00E+00	6.21E+00
		Zn-65	<1.24E+01	0.00E+00	1.24E+01
		Zr-95	<1.01E+01	0.00E+00	1.01E+01
		Nb-95	<7.35E+00	0.00E+00	7.35E+00
		I-131	<8.11E+00	0.00E+00	8.11E+00
		Cs-134	<5.26E+00	0.00E+00	5.26E+00
		Cs-137	<6.65E+00	0.00E+00	6.65E+00
		BaLa-140	<9.00E+00	0.00E+00	9.00E+00
		Total-Gam	0.00E+00		
		H3SW	<1.09E+02	0.00E+00	1.76E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
563415	4/20/2022 - 4/20/2022	Mn-54	<5.42E+00	0.00E+00	5.42E+00
		Co-58	<5.91E+00	0.00E+00	5.91E+00
		Fe-59	<1.36E+01	0.00E+00	1.36E+01
		Co-60	<4.93E+00	0.00E+00	4.93E+00
		Zn-65	<1.21E+01	0.00E+00	1.21E+01
		Zr-95	<1.06E+01	0.00E+00	1.06E+01
		Nb-95	<5.34E+00	0.00E+00	5.34E+00
		I-131	<7.18E+00	0.00E+00	7.18E+00
		Cs-134	<7.07E+00	0.00E+00	7.07E+00
		Cs-137	<4.88E+00	0.00E+00	4.88E+00
		BaLa-140	<8.34E+00	0.00E+00	8.34E+00
		Total-Gam	0.00E+00		
		H3SW	<4.4E+01	0.00E+00	1.86E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
565191	5/17/2022 - 5/17/2022	Mn-54	<6.16E+00	0.00E+00	6.16E+00
		Co-58	<4.46E+00	0.00E+00	4.46E+00
		Fe-59	<1.24E+01	0.00E+00	1.24E+01
		Co-60	<6.51E+00	0.00E+00	6.51E+00
		Zn-65	<1.37E+01	0.00E+00	1.37E+01
		Zr-95	<9.39E+00	0.00E+00	9.39E+00
		Nb-95	<6.23E+00	0.00E+00	6.23E+00
		I-131	<7.19E+00	0.00E+00	7.19E+00
		Cs-134	<5.86E+00	0.00E+00	5.86E+00
		Cs-137	<5.28E+00	0.00E+00	5.28E+00
		BaLa-140	<8.09E+00	0.00E+00	8.09E+00
		Total-Gam	0.00E+00		
		H3SW	<-1.1E+02	0.00E+00	1.84E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
567089	6/21/2022 - 6/21/2022	Mn-54	<5.81E+00	0.00E+00	5.81E+00
		Co-58	<7.19E+00	0.00E+00	7.19E+00
		Fe-59	<1.28E+01	0.00E+00	1.28E+01
		Co-60	<6.69E+00	0.00E+00	6.69E+00
		Zn-65	<1.64E+01	0.00E+00	1.64E+01
		Zr-95	<1.14E+01	0.00E+00	1.14E+01
		Nb-95	<8.02E+00	0.00E+00	8.02E+00
		I-131	<8.72E+00	0.00E+00	8.72E+00
		Cs-134	<5.29E+00	0.00E+00	5.29E+00
		Cs-137	<6.16E+00	0.00E+00	6.16E+00
		BaLa-140	<1.19E+01	0.00E+00	1.19E+01
		Total-Gam	0.00E+00		
		H3SW	<-5.4E+01	0.00E+00	1.87E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
568589	7/19/2022 - 7/19/2022	Mn-54	<5.88E+00	0.00E+00	5.88E+00
		Co-58	<5.66E+00	0.00E+00	5.66E+00
		Fe-59	<7.76E+00	0.00E+00	7.76E+00
		Co-60	<4.56E+00	0.00E+00	4.56E+00
		Zn-65	<9.89E+00	0.00E+00	9.89E+00
		Zr-95	<1.19E+01	0.00E+00	1.19E+01

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

BRUNSWICK Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: SURFACE WATER Concentration (Activity): pCi/l

Sample Point 496 [INDICATOR - -- @ 0 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
568589	7/19/2022 - 7/19/2022	Nb-95	<6.41E+00	0.00E+00	6.41E+00
		I-131	<8.94E+00	0.00E+00	8.94E+00
		Cs-134	<5.06E+00	0.00E+00	5.06E+00
		Cs-137	<6.23E+00	0.00E+00	6.23E+00
		BaLa-140	<6.76E+00	0.00E+00	6.76E+00
		Total-Gam	0.00E+00		
		H3SW	<-5.9E+01	0.00E+00	1.92E+02
571031	8/16/2022 - 8/16/2022	Mn-54	<5.56E+00	0.00E+00	5.56E+00
		Co-58	<6.11E+00	0.00E+00	6.11E+00
		Fe-59	<1.38E+01	0.00E+00	1.38E+01
		Co-60	<5.94E+00	0.00E+00	5.94E+00
		Zn-65	<1.34E+01	0.00E+00	1.34E+01
		Zr-95	<1.03E+01	0.00E+00	1.03E+01
		Nb-95	<5.19E+00	0.00E+00	5.19E+00
		I-131	<6.47E+00	0.00E+00	6.47E+00
		Cs-134	<8.15E+00	0.00E+00	8.15E+00
		Cs-137	<5.24E+00	0.00E+00	5.24E+00
		BaLa-140	<7.30E+00	0.00E+00	7.30E+00
		Total-Gam	0.00E+00		
		H3SW	<-7.2E+00	0.00E+00	1.85E+02
573676	9/23/2022 - 9/23/2022	Mn-54	<6.94E+00	0.00E+00	6.94E+00
		Co-58	<7.00E+00	0.00E+00	7.00E+00
		Fe-59	<1.34E+01	0.00E+00	1.34E+01
		Co-60	<6.16E+00	0.00E+00	6.16E+00
		Zn-65	<8.73E+00	0.00E+00	8.73E+00
		Zr-95	<1.17E+01	0.00E+00	1.17E+01
		Nb-95	<5.26E+00	0.00E+00	5.26E+00
		I-131	<9.37E+00	0.00E+00	9.37E+00
		Cs-134	<6.50E+00	0.00E+00	6.50E+00
		Cs-137	<4.67E+00	0.00E+00	4.67E+00
		BaLa-140	<1.85E+00	0.00E+00	1.85E+00
		Total-Gam	0.00E+00		
		H3SW	<-2.3E+00	0.00E+00	1.82E+02
576138	10/24/2022 - 10/24/2022	Mn-54	<6.90E+00	0.00E+00	6.90E+00
		Co-58	<6.22E+00	0.00E+00	6.22E+00
		Fe-59	<1.09E+01	0.00E+00	1.09E+01
		Co-60	<5.80E+00	0.00E+00	5.80E+00
		Zn-65	<1.53E+01	0.00E+00	1.53E+01
		Zr-95	<1.01E+01	0.00E+00	1.01E+01
		Nb-95	<7.77E+00	0.00E+00	7.77E+00
		I-131	<8.13E+00	0.00E+00	8.13E+00
		Cs-134	<8.31E+00	0.00E+00	8.31E+00
		Cs-137	<7.21E+00	0.00E+00	7.21E+00
		BaLa-140	<8.58E+00	0.00E+00	8.58E+00
		Total-Gam	0.00E+00		
		H3SW	<-6.2E+01	0.00E+00	1.92E+02
578031	11/17/2022 - 11/17/2022	Mn-54	<5.75E+00	0.00E+00	5.75E+00
		Co-58	<5.89E+00	0.00E+00	5.89E+00
		Fe-59	<1.17E+01	0.00E+00	1.17E+01
		Co-60	<5.61E+00	0.00E+00	5.61E+00
		Zn-65	<1.09E+01	0.00E+00	1.09E+01
		Zr-95	<1.03E+01	0.00E+00	1.03E+01
		Nb-95	<6.64E+00	0.00E+00	6.64E+00
		I-131	<1.30E+01	0.00E+00	1.30E+01
		Cs-134	<6.75E+00	0.00E+00	6.75E+00
		Cs-137	<5.51E+00	0.00E+00	5.51E+00
		BaLa-140	<1.15E+01	0.00E+00	1.15E+01
Total-Gam	0.00E+00				

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

BRUNSWICK Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: SURFACE WATER Concentration (Activity): pCi/l

Sample Point 496 [INDICATOR - -- @ 0 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
578031	11/17/2022 - 11/17/2022	H3SW	<-1.3E+02	0.00E+00	2.06E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
580547	12/23/2022 - 12/23/2022	Mn-54	<6.36E+00	0.00E+00	6.36E+00
		Co-58	<4.96E+00	0.00E+00	4.96E+00
		Fe-59	<8.05E+00	0.00E+00	8.05E+00
		Co-60	<4.86E+00	0.00E+00	4.86E+00
		Zn-65	<1.10E+01	0.00E+00	1.10E+01
		Zr-95	<1.17E+01	0.00E+00	1.17E+01
		Nb-95	<7.57E+00	0.00E+00	7.57E+00
		I-131	<1.25E+01	0.00E+00	1.25E+01
		Cs-134	<7.57E+00	0.00E+00	7.57E+00
		Cs-137	<5.03E+00	0.00E+00	5.03E+00
		BaLa-140	<8.63E+00	0.00E+00	8.63E+00
		Total-Gam	0.00E+00		
		H3SW	<-3.4E+01	0.00E+00	1.91E+02

Sample Point 497 [INDICATOR - -- @ 0 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
558459	1/20/2022 - 1/20/2022	Mn-54	<6.72E+00	0.00E+00	6.72E+00
		Co-58	<4.48E+00	0.00E+00	4.48E+00
		Fe-59	<1.14E+01	0.00E+00	1.14E+01
		Co-60	<5.42E+00	0.00E+00	5.42E+00
		Zn-65	<1.33E+01	0.00E+00	1.33E+01
		Zr-95	<9.80E+00	0.00E+00	9.80E+00
		Nb-95	<6.88E+00	0.00E+00	6.88E+00
		I-131	<8.21E+00	0.00E+00	8.21E+00
		Cs-134	<5.71E+00	0.00E+00	5.71E+00
		Cs-137	<6.07E+00	0.00E+00	6.07E+00
		BaLa-140	<4.75E+00	0.00E+00	4.75E+00
		Total-Gam	0.00E+00		
		H3SW	<4.41E+01	0.00E+00	1.73E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
561101	2/17/2022 - 2/17/2022	Mn-54	<6.14E+00	0.00E+00	6.14E+00
		Co-58	<6.10E+00	0.00E+00	6.10E+00
		Fe-59	<1.18E+01	0.00E+00	1.18E+01
		Co-60	<6.16E+00	0.00E+00	6.16E+00
		Zn-65	<1.46E+01	0.00E+00	1.46E+01
		Zr-95	<9.65E+00	0.00E+00	9.65E+00
		Nb-95	<6.28E+00	0.00E+00	6.28E+00
		I-131	<7.94E+00	0.00E+00	7.94E+00
		Cs-134	<5.85E+00	0.00E+00	5.85E+00
		Cs-137	<5.08E+00	0.00E+00	5.08E+00
		BaLa-140	<9.02E+00	0.00E+00	9.02E+00
		Total-Gam	0.00E+00		
		H3SW	<2.34E+00	0.00E+00	1.87E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
560122	3/17/2022 - 3/17/2022	Mn-54	<5.48E+00	0.00E+00	5.48E+00
		Co-58	<5.14E+00	0.00E+00	5.14E+00
		Fe-59	<1.06E+01	0.00E+00	1.06E+01
		Co-60	<7.12E+00	0.00E+00	7.12E+00
		Zn-65	<1.37E+01	0.00E+00	1.37E+01
		Zr-95	<9.76E+00	0.00E+00	9.76E+00
		Nb-95	<6.41E+00	0.00E+00	6.41E+00
		I-131	<6.85E+00	0.00E+00	6.85E+00
		Cs-134	<6.14E+00	0.00E+00	6.14E+00
		Cs-137	<5.73E+00	0.00E+00	5.73E+00
		BaLa-140	<8.75E+00	0.00E+00	8.75E+00
		Total-Gam	0.00E+00		
		H3SW	<2.55E+01	0.00E+00	1.77E+02

BRUNSWICK Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: SURFACE WATER Concentration (Activity): pCi/l

Sample Point 497 [INDICATOR - -- @ 0 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
563416	4/20/2022 - 4/20/2022	Mn-54	<5.01E+00	0.00E+00	5.01E+00
		Co-58	<5.11E+00	0.00E+00	5.11E+00
		Fe-59	<9.17E+00	0.00E+00	9.17E+00
		Co-60	<6.72E+00	0.00E+00	6.72E+00
		Zn-65	<1.51E+01	0.00E+00	1.51E+01
		Zr-95	<1.04E+01	0.00E+00	1.04E+01
		Nb-95	<6.36E+00	0.00E+00	6.36E+00
		I-131	<7.74E+00	0.00E+00	7.74E+00
		Cs-134	<6.77E+00	0.00E+00	6.77E+00
		Cs-137	<7.45E+00	0.00E+00	7.45E+00
		BaLa-140	<7.07E+00	0.00E+00	7.07E+00
		Total-Gam	0.00E+00		
		H3SW	<-3.7E+01	0.00E+00	1.86E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
565192	5/17/2022 - 5/17/2022	Mn-54	<6.06E+00	0.00E+00	6.06E+00
		Co-58	<6.42E+00	0.00E+00	6.42E+00
		Fe-59	<7.66E+00	0.00E+00	7.66E+00
		Co-60	<5.97E+00	0.00E+00	5.97E+00
		Zn-65	<1.19E+01	0.00E+00	1.19E+01
		Zr-95	<1.05E+01	0.00E+00	1.05E+01
		Nb-95	<7.84E+00	0.00E+00	7.84E+00
		I-131	<9.47E+00	0.00E+00	9.47E+00
		Cs-134	<7.92E+00	0.00E+00	7.92E+00
		Cs-137	<5.87E+00	0.00E+00	5.87E+00
		BaLa-140	<9.12E+00	0.00E+00	9.12E+00
		Total-Gam	0.00E+00		
		H3SW	<-5.6E+01	0.00E+00	1.84E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
567090	6/21/2022 - 6/21/2022	Mn-54	<6.41E+00	0.00E+00	6.41E+00
		Co-58	<6.05E+00	0.00E+00	6.05E+00
		Fe-59	<6.41E+00	0.00E+00	6.41E+00
		Co-60	<7.20E+00	0.00E+00	7.20E+00
		Zn-65	<1.28E+01	0.00E+00	1.28E+01
		Zr-95	<8.75E+00	0.00E+00	8.75E+00
		Nb-95	<5.06E+00	0.00E+00	5.06E+00
		I-131	<9.90E+00	0.00E+00	9.90E+00
		Cs-134	<5.95E+00	0.00E+00	5.95E+00
		Cs-137	<6.23E+00	0.00E+00	6.23E+00
		BaLa-140	<1.17E+01	0.00E+00	1.17E+01
		Total-Gam	0.00E+00		
		H3SW	<-1.2E+02	0.00E+00	1.87E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
568590	7/19/2022 - 7/19/2022	Mn-54	<5.59E+00	0.00E+00	5.59E+00
		Co-58	<5.97E+00	0.00E+00	5.97E+00
		Fe-59	<1.25E+01	0.00E+00	1.25E+01
		Co-60	<7.60E+00	0.00E+00	7.60E+00
		Zn-65	<1.30E+01	0.00E+00	1.30E+01
		Zr-95	<1.01E+01	0.00E+00	1.01E+01
		Nb-95	<5.70E+00	0.00E+00	5.70E+00
		I-131	<8.99E+00	0.00E+00	8.99E+00
		Cs-134	<7.70E+00	0.00E+00	7.70E+00
		Cs-137	<5.74E+00	0.00E+00	5.74E+00
		BaLa-140	<9.09E+00	0.00E+00	9.09E+00
		Total-Gam	0.00E+00		
		H3SW	<-1.3E+02	0.00E+00	1.93E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
571032	8/16/2022 - 8/16/2022	Mn-54	<5.39E+00	0.00E+00	5.39E+00
		Co-58	<6.08E+00	0.00E+00	6.08E+00
		Fe-59	<1.17E+01	0.00E+00	1.17E+01
		Co-60	<5.37E+00	0.00E+00	5.37E+00
		Zn-65	<1.25E+01	0.00E+00	1.25E+01
		Zr-95	<1.03E+01	0.00E+00	1.03E+01

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

BRUNSWICK Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: SURFACE WATER Concentration (Activity): pCi/l

Sample Point 497 [INDICATOR - -- @ 0 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
571032	8/16/2022 - 8/16/2022	Nb-95	<5.40E+00	0.00E+00	5.40E+00
		I-131	<6.28E+00	0.00E+00	6.28E+00
		Cs-134	<7.57E+00	0.00E+00	7.57E+00
		Cs-137	<5.27E+00	0.00E+00	5.27E+00
		BaLa-140	<7.10E+00	0.00E+00	7.10E+00
		Total-Gam	0.00E+00		
		H3SW	<-3.1E+01	0.00E+00	1.84E+02
573677	9/23/2022 - 9/23/2022	Mn-54	<5.02E+00	0.00E+00	5.02E+00
		Co-58	<7.13E+00	0.00E+00	7.13E+00
		Fe-59	<1.07E+01	0.00E+00	1.07E+01
		Co-60	<6.72E+00	0.00E+00	6.72E+00
		Zn-65	<1.13E+01	0.00E+00	1.13E+01
		Zr-95	<1.15E+01	0.00E+00	1.15E+01
		Nb-95	<7.88E+00	0.00E+00	7.88E+00
		I-131	<9.41E+00	0.00E+00	9.41E+00
		Cs-134	<8.10E+00	0.00E+00	8.10E+00
		Cs-137	<7.02E+00	0.00E+00	7.02E+00
		BaLa-140	<5.19E+00	0.00E+00	5.19E+00
		Total-Gam	0.00E+00		
		H3SW	<-4.6E+01	0.00E+00	1.82E+02
		576139	10/24/2022 - 10/24/2022	Mn-54	<6.34E+00
Co-58	<6.25E+00			0.00E+00	6.25E+00
Fe-59	<1.38E+01			0.00E+00	1.38E+01
Co-60	<6.30E+00			0.00E+00	6.30E+00
Zn-65	<1.24E+01			0.00E+00	1.24E+01
Zr-95	<1.12E+01			0.00E+00	1.12E+01
Nb-95	<6.38E+00			0.00E+00	6.38E+00
I-131	<8.16E+00			0.00E+00	8.16E+00
Cs-134	<7.12E+00			0.00E+00	7.12E+00
Cs-137	<6.83E+00			0.00E+00	6.83E+00
BaLa-140	<6.68E+00			0.00E+00	6.68E+00
Total-Gam	0.00E+00				
H3SW	<-3.4E+01			0.00E+00	1.91E+02
578032	11/17/2022 - 11/17/2022			Mn-54	<4.30E+00
		Co-58	<5.66E+00	0.00E+00	5.66E+00
		Fe-59	<1.09E+01	0.00E+00	1.09E+01
		Co-60	<4.67E+00	0.00E+00	4.67E+00
		Zn-65	<1.06E+01	0.00E+00	1.06E+01
		Zr-95	<8.39E+00	0.00E+00	8.39E+00
		Nb-95	<5.93E+00	0.00E+00	5.93E+00
		I-131	<1.24E+01	0.00E+00	1.24E+01
		Cs-134	<4.98E+00	0.00E+00	4.98E+00
		Cs-137	<4.48E+00	0.00E+00	4.48E+00
		BaLa-140	<1.08E+01	0.00E+00	1.08E+01
		Total-Gam	0.00E+00		
		H3SW	<-1.6E+02	0.00E+00	2.07E+02
		580548	12/23/2022 - 12/23/2022	Mn-54	<5.33E+00
Co-58	<5.41E+00			0.00E+00	5.41E+00
Fe-59	<1.25E+01			0.00E+00	1.25E+01
Co-60	<6.74E+00			0.00E+00	6.74E+00
Zn-65	<1.01E+01			0.00E+00	1.01E+01
Zr-95	<9.96E+00			0.00E+00	9.96E+00
Nb-95	<6.11E+00			0.00E+00	6.11E+00
I-131	<1.35E+01			0.00E+00	1.35E+01
Cs-134	<6.24E+00			0.00E+00	6.24E+00
Cs-137	<5.85E+00			0.00E+00	5.85E+00
BaLa-140	<9.35E+00			0.00E+00	9.35E+00
Total-Gam	0.00E+00				

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

BRUNSWICK Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: SURFACE WATER Concentration (Activity): pCi/l

Sample Point 497 [INDICATOR - -- @ 0 miles]

Sample ID: 580548 Sample Dates: 12/23/2022 - 12/23/2022

Nuclide	Activity	2 Sigma Error	MDA
H3SW	<-1.1E+02	0.00E+00	1.90E+02

Sample Point 498 [INDICATOR - -- @ 0 miles]

Sample ID: 558460 Sample Dates: 1/20/2022 - 1/20/2022

Nuclide	Activity	2 Sigma Error	MDA
Mn-54	<5.02E+00	0.00E+00	5.02E+00
Co-58	<4.61E+00	0.00E+00	4.61E+00
Fe-59	<9.22E+00	0.00E+00	9.22E+00
Co-60	<6.40E+00	0.00E+00	6.40E+00
Zn-65	<1.26E+01	0.00E+00	1.26E+01
Zr-95	<9.34E+00	0.00E+00	9.34E+00
Nb-95	<4.89E+00	0.00E+00	4.89E+00
I-131	<6.05E+00	0.00E+00	6.05E+00
Cs-134	<6.11E+00	0.00E+00	6.11E+00
Cs-137	<5.53E+00	0.00E+00	5.53E+00
BaLa-140	<8.72E+00	0.00E+00	8.72E+00
Total-Gam	0.00E+00		
H3SW	<7.19E+01	0.00E+00	1.73E+02

Sample ID: 561102 Sample Dates: 2/17/2022 - 2/17/2022

Nuclide	Activity	2 Sigma Error	MDA
Mn-54	<3.54E+00	0.00E+00	3.54E+00
Co-58	<3.46E+00	0.00E+00	3.46E+00
Fe-59	<7.52E+00	0.00E+00	7.52E+00
Co-60	<3.55E+00	0.00E+00	3.55E+00
Zn-65	<8.66E+00	0.00E+00	8.66E+00
Zr-95	<5.73E+00	0.00E+00	5.73E+00
Nb-95	<3.56E+00	0.00E+00	3.56E+00
I-131	<5.19E+00	0.00E+00	5.19E+00
Cs-134	<4.05E+00	0.00E+00	4.05E+00
Cs-137	<3.30E+00	0.00E+00	3.30E+00
BaLa-140	<4.04E+00	0.00E+00	4.04E+00
Total-Gam	0.00E+00		
H3SW	<0.00E+00	0.00E+00	1.87E+02

Sample ID: 560123 Sample Dates: 3/17/2022 - 3/17/2022

Nuclide	Activity	2 Sigma Error	MDA
Mn-54	<4.90E+00	0.00E+00	4.90E+00
Co-58	<5.50E+00	0.00E+00	5.50E+00
Fe-59	<1.45E+01	0.00E+00	1.45E+01
Co-60	<6.17E+00	0.00E+00	6.17E+00
Zn-65	<1.16E+01	0.00E+00	1.16E+01
Zr-95	<9.59E+00	0.00E+00	9.59E+00
Nb-95	<7.10E+00	0.00E+00	7.10E+00
I-131	<7.65E+00	0.00E+00	7.65E+00
Cs-134	<6.52E+00	0.00E+00	6.52E+00
Cs-137	<5.47E+00	0.00E+00	5.47E+00
BaLa-140	<8.20E+00	0.00E+00	8.20E+00
Total-Gam	0.00E+00		
H3SW	<1.86E+01	0.00E+00	1.77E+02

Sample ID: 563417 Sample Dates: 4/20/2022 - 4/20/2022

Nuclide	Activity	2 Sigma Error	MDA
Mn-54	<5.88E+00	0.00E+00	5.88E+00
Co-58	<4.73E+00	0.00E+00	4.73E+00
Fe-59	<1.08E+01	0.00E+00	1.08E+01
Co-60	<6.56E+00	0.00E+00	6.56E+00
Zn-65	<1.42E+01	0.00E+00	1.42E+01
Zr-95	<8.25E+00	0.00E+00	8.25E+00
Nb-95	<5.20E+00	0.00E+00	5.20E+00
I-131	<8.39E+00	0.00E+00	8.39E+00
Cs-134	<6.79E+00	0.00E+00	6.79E+00
Cs-137	<6.23E+00	0.00E+00	6.23E+00
BaLa-140	<8.42E+00	0.00E+00	8.42E+00
Total-Gam	0.00E+00		
H3SW	<-5.1E+01	0.00E+00	1.85E+02

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

BRUNSWICK Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: SURFACE WATER Concentration (Activity): pCi/l

Sample Point 498 [INDICATOR - -- @ 0 miles]

Sample ID: 565193 Sample Dates: 5/17/2022 - 5/17/2022

Nuclide	Activity	2 Sigma Error	MDA
Mn-54	<5.11E+00	0.00E+00	5.11E+00
Co-58	<4.78E+00	0.00E+00	4.78E+00
Fe-59	<1.15E+01	0.00E+00	1.15E+01
Co-60	<6.89E+00	0.00E+00	6.89E+00
Zn-65	<1.33E+01	0.00E+00	1.33E+01
Zr-95	<8.35E+00	0.00E+00	8.35E+00
Nb-95	<6.50E+00	0.00E+00	6.50E+00
I-131	<8.78E+00	0.00E+00	8.78E+00
Cs-134	<8.21E+00	0.00E+00	8.21E+00
Cs-137	<6.55E+00	0.00E+00	6.55E+00
BaLa-140	<8.92E+00	0.00E+00	8.92E+00
Total-Gam	0.00E+00		
H3SW	<-2.8E+01	0.00E+00	1.85E+02

Sample ID: 567091 Sample Dates: 6/21/2022 - 6/21/2022

Nuclide	Activity	2 Sigma Error	MDA
Mn-54	<5.54E+00	0.00E+00	5.54E+00
Co-58	<5.30E+00	0.00E+00	5.30E+00
Fe-59	<1.17E+01	0.00E+00	1.17E+01
Co-60	<4.33E+00	0.00E+00	4.33E+00
Zn-65	<1.07E+01	0.00E+00	1.07E+01
Zr-95	<1.20E+01	0.00E+00	1.20E+01
Nb-95	<7.39E+00	0.00E+00	7.39E+00
I-131	<8.79E+00	0.00E+00	8.79E+00
Cs-134	<6.78E+00	0.00E+00	6.78E+00
Cs-137	<7.03E+00	0.00E+00	7.03E+00
BaLa-140	<4.84E+00	0.00E+00	4.84E+00
Total-Gam	0.00E+00		
H3SW	<-1.0E+02	0.00E+00	1.87E+02

Sample ID: 568591 Sample Dates: 7/19/2022 - 7/19/2022

Nuclide	Activity	2 Sigma Error	MDA
Mn-54	<4.98E+00	0.00E+00	4.98E+00
Co-58	<5.82E+00	0.00E+00	5.82E+00
Fe-59	<1.01E+01	0.00E+00	1.01E+01
Co-60	<7.03E+00	0.00E+00	7.03E+00
Zn-65	<1.13E+01	0.00E+00	1.13E+01
Zr-95	<1.12E+01	0.00E+00	1.12E+01
Nb-95	<5.94E+00	0.00E+00	5.94E+00
I-131	<1.06E+01	0.00E+00	1.06E+01
Cs-134	<7.85E+00	0.00E+00	7.85E+00
Cs-137	<7.37E+00	0.00E+00	7.37E+00
BaLa-140	<1.09E+01	0.00E+00	1.09E+01
Total-Gam	0.00E+00		
H3SW	<-5.0E+01	0.00E+00	1.92E+02

Sample ID: 571033 Sample Dates: 8/16/2022 - 8/16/2022

Nuclide	Activity	2 Sigma Error	MDA
Mn-54	<5.62E+00	0.00E+00	5.62E+00
Co-58	<4.96E+00	0.00E+00	4.96E+00
Fe-59	<1.11E+01	0.00E+00	1.11E+01
Co-60	<6.35E+00	0.00E+00	6.35E+00
Zn-65	<1.12E+01	0.00E+00	1.12E+01
Zr-95	<1.04E+01	0.00E+00	1.04E+01
Nb-95	<6.00E+00	0.00E+00	6.00E+00
I-131	<6.40E+00	0.00E+00	6.40E+00
Cs-134	<6.75E+00	0.00E+00	6.75E+00
Cs-137	<6.22E+00	0.00E+00	6.22E+00
BaLa-140	<5.19E+00	0.00E+00	5.19E+00
Total-Gam	0.00E+00		
H3SW	<2.62E+01	0.00E+00	1.84E+02

Sample ID: 573678 Sample Dates: 9/23/2022 - 9/23/2022

Nuclide	Activity	2 Sigma Error	MDA
Mn-54	<6.09E+00	0.00E+00	6.09E+00
Co-58	<4.80E+00	0.00E+00	4.80E+00
Fe-59	<1.26E+01	0.00E+00	1.26E+01
Co-60	<6.54E+00	0.00E+00	6.54E+00
Zn-65	<1.10E+01	0.00E+00	1.10E+01
Zr-95	<8.81E+00	0.00E+00	8.81E+00

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

BRUNSWICK Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: SURFACE WATER Concentration (Activity): pCi/l

Sample Point 498 [INDICATOR - -- @ 0 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
573678	9/23/2022 - 9/23/2022	Nb-95	<6.37E+00	0.00E+00	6.37E+00
		I-131	<8.66E+00	0.00E+00	8.66E+00
		Cs-134	<6.41E+00	0.00E+00	6.41E+00
		Cs-137	<5.91E+00	0.00E+00	5.91E+00
		BaLa-140	<8.24E+00	0.00E+00	8.24E+00
		Total-Gam	0.00E+00		
		H3SW	<5.80E+01	0.00E+00	1.82E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
576140	10/24/2022 - 10/24/2022	Mn-54	<6.08E+00	0.00E+00	6.08E+00
		Co-58	<5.24E+00	0.00E+00	5.24E+00
		Fe-59	<9.88E+00	0.00E+00	9.88E+00
		Co-60	<4.84E+00	0.00E+00	4.84E+00
		Zn-65	<9.36E+00	0.00E+00	9.36E+00
		Zr-95	<9.46E+00	0.00E+00	9.46E+00
		Nb-95	<5.20E+00	0.00E+00	5.20E+00
		I-131	<6.02E+00	0.00E+00	6.02E+00
		Cs-134	<6.23E+00	0.00E+00	6.23E+00
		Cs-137	<4.83E+00	0.00E+00	4.83E+00
		BaLa-140	<7.79E+00	0.00E+00	7.79E+00
		Total-Gam	0.00E+00		
		H3SW	<-1.1E+02	0.00E+00	1.92E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
578033	11/17/2022 - 11/17/2022	Mn-54	<5.17E+00	0.00E+00	5.17E+00
		Co-58	<5.05E+00	0.00E+00	5.05E+00
		Fe-59	<1.12E+01	0.00E+00	1.12E+01
		Co-60	<5.14E+00	0.00E+00	5.14E+00
		Zn-65	<1.12E+01	0.00E+00	1.12E+01
		Zr-95	<9.52E+00	0.00E+00	9.52E+00
		Nb-95	<5.87E+00	0.00E+00	5.87E+00
		I-131	<1.31E+01	0.00E+00	1.31E+01
		Cs-134	<5.56E+00	0.00E+00	5.56E+00
		Cs-137	<5.84E+00	0.00E+00	5.84E+00
		BaLa-140	<9.85E+00	0.00E+00	9.85E+00
		Total-Gam	0.00E+00		
		H3SW	<-1.3E+02	0.00E+00	2.06E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
580549	12/23/2022 - 12/23/2022	Mn-54	<5.25E+00	0.00E+00	5.25E+00
		Co-58	<5.87E+00	0.00E+00	5.87E+00
		Fe-59	<9.83E+00	0.00E+00	9.83E+00
		Co-60	<4.49E+00	0.00E+00	4.49E+00
		Zn-65	<9.24E+00	0.00E+00	9.24E+00
		Zr-95	<9.40E+00	0.00E+00	9.40E+00
		Nb-95	<5.54E+00	0.00E+00	5.54E+00
		I-131	<1.32E+01	0.00E+00	1.32E+01
		Cs-134	<6.33E+00	0.00E+00	6.33E+00
		Cs-137	<5.69E+00	0.00E+00	5.69E+00
		BaLa-140	<8.62E+00	0.00E+00	8.62E+00
		Total-Gam	0.00E+00		
		H3SW	<-1.2E+02	0.00E+00	1.90E+02

Sample Point 499 [CONTROL - -- @ 0 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
558461	1/20/2022 - 1/20/2022	Mn-54	<6.54E+00	0.00E+00	6.54E+00
		Co-58	<6.02E+00	0.00E+00	6.02E+00
		Fe-59	<1.33E+01	0.00E+00	1.33E+01
		Co-60	<6.41E+00	0.00E+00	6.41E+00
		Zn-65	<1.32E+01	0.00E+00	1.32E+01
		Zr-95	<1.12E+01	0.00E+00	1.12E+01
		Nb-95	<7.38E+00	0.00E+00	7.38E+00
		I-131	<1.03E+01	0.00E+00	1.03E+01
		Cs-134	<6.03E+00	0.00E+00	6.03E+00

BRUNSWICK Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: SURFACE WATER Concentration (Activity): pCi/l

Sample Point 499 [CONTROL - -- @ 0 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
558461	1/20/2022 - 1/20/2022	Cs-137	<7.39E+00	0.00E+00	7.39E+00
		BaLa-140	<8.76E+00	0.00E+00	8.76E+00
		Total-Gam	0.00E+00		
		H3SW	<8.12E+01	0.00E+00	1.73E+02
561103	2/17/2022 - 2/17/2022	Mn-54	<5.70E+00	0.00E+00	5.70E+00
		Co-58	<5.20E+00	0.00E+00	5.20E+00
		Fe-59	<1.14E+01	0.00E+00	1.14E+01
		Co-60	<5.42E+00	0.00E+00	5.42E+00
		Zn-65	<1.22E+01	0.00E+00	1.22E+01
		Zr-95	<8.68E+00	0.00E+00	8.68E+00
		Nb-95	<6.02E+00	0.00E+00	6.02E+00
		I-131	<8.09E+00	0.00E+00	8.09E+00
		Cs-134	<6.59E+00	0.00E+00	6.59E+00
		Cs-137	<6.07E+00	0.00E+00	6.07E+00
		BaLa-140	<8.47E+00	0.00E+00	8.47E+00
		Total-Gam	0.00E+00		
		H3SW	<-8.7E+01	0.00E+00	1.87E+02
560124	3/17/2022 - 3/17/2022	Mn-54	<6.63E+00	0.00E+00	6.63E+00
		Co-58	<8.73E+00	0.00E+00	8.73E+00
		Fe-59	<1.68E+01	0.00E+00	1.68E+01
		Co-60	<7.74E+00	0.00E+00	7.74E+00
		Zn-65	<2.14E+01	0.00E+00	2.14E+01
		Zr-95	<1.25E+01	0.00E+00	1.25E+01
		Nb-95	<9.93E+00	0.00E+00	9.93E+00
		I-131	<1.30E+01	0.00E+00	1.30E+01
		Cs-134	<8.29E+00	0.00E+00	8.29E+00
		Cs-137	<8.77E+00	0.00E+00	8.77E+00
		BaLa-140	<8.71E+00	0.00E+00	8.71E+00
		Total-Gam	0.00E+00		
		H3SW	<-4.2E+01	0.00E+00	1.77E+02
563418	4/20/2022 - 4/20/2022	Mn-54	<5.46E+00	0.00E+00	5.46E+00
		Co-58	<4.33E+00	0.00E+00	4.33E+00
		Fe-59	<1.05E+01	0.00E+00	1.05E+01
		Co-60	<6.01E+00	0.00E+00	6.01E+00
		Zn-65	<1.31E+01	0.00E+00	1.31E+01
		Zr-95	<1.11E+01	0.00E+00	1.11E+01
		Nb-95	<4.03E+00	0.00E+00	4.03E+00
		I-131	<8.11E+00	0.00E+00	8.11E+00
		Cs-134	<6.35E+00	0.00E+00	6.35E+00
		Cs-137	<4.66E+00	0.00E+00	4.66E+00
		BaLa-140	<8.66E+00	0.00E+00	8.66E+00
		Total-Gam	0.00E+00		
		H3SW	<-2.1E+01	0.00E+00	1.86E+02
565194	5/17/2022 - 5/17/2022	Mn-54	<5.39E+00	0.00E+00	5.39E+00
		Co-58	<5.92E+00	0.00E+00	5.92E+00
		Fe-59	<1.02E+01	0.00E+00	1.02E+01
		Co-60	<6.72E+00	0.00E+00	6.72E+00
		Zn-65	<1.44E+01	0.00E+00	1.44E+01
		Zr-95	<1.09E+01	0.00E+00	1.09E+01
		Nb-95	<6.52E+00	0.00E+00	6.52E+00
		I-131	<8.36E+00	0.00E+00	8.36E+00
		Cs-134	<8.17E+00	0.00E+00	8.17E+00
		Cs-137	<5.57E+00	0.00E+00	5.57E+00
		BaLa-140	<7.13E+00	0.00E+00	7.13E+00
		Total-Gam	0.00E+00		
		H3SW	<-3.0E+01	0.00E+00	1.84E+02

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

BRUNSWICK Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: SURFACE WATER Concentration (Activity): pCi/l

Sample Point 499 [CONTROL - -- @ 0 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
567092	6/21/2022 - 6/21/2022	Mn-54	<4.58E+00	0.00E+00	4.58E+00
		Co-58	<4.70E+00	0.00E+00	4.70E+00
		Fe-59	<1.14E+01	0.00E+00	1.14E+01
		Co-60	<7.15E+00	0.00E+00	7.15E+00
		Zn-65	<1.63E+01	0.00E+00	1.63E+01
		Zr-95	<7.29E+00	0.00E+00	7.29E+00
		Nb-95	<5.43E+00	0.00E+00	5.43E+00
		I-131	<8.32E+00	0.00E+00	8.32E+00
		Cs-134	<5.86E+00	0.00E+00	5.86E+00
		Cs-137	<5.08E+00	0.00E+00	5.08E+00
		BaLa-140	<8.73E+00	0.00E+00	8.73E+00
		Total-Gam	0.00E+00		
		H3SW	<-1.0E+02	0.00E+00	1.87E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
568592	7/19/2022 - 7/19/2022	Mn-54	<6.50E+00	0.00E+00	6.50E+00
		Co-58	<8.05E+00	0.00E+00	8.05E+00
		Fe-59	<1.40E+01	0.00E+00	1.40E+01
		Co-60	<6.51E+00	0.00E+00	6.51E+00
		Zn-65	<1.27E+01	0.00E+00	1.27E+01
		Zr-95	<8.71E+00	0.00E+00	8.71E+00
		Nb-95	<6.15E+00	0.00E+00	6.15E+00
		I-131	<9.30E+00	0.00E+00	9.30E+00
		Cs-134	<6.89E+00	0.00E+00	6.89E+00
		Cs-137	<4.45E+00	0.00E+00	4.45E+00
		BaLa-140	<1.12E+01	0.00E+00	1.12E+01
		Total-Gam	0.00E+00		
		H3SW	<-5.9E+01	0.00E+00	1.92E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
571034	8/16/2022 - 8/16/2022	Mn-54	<6.99E+00	0.00E+00	6.99E+00
		Co-58	<5.06E+00	0.00E+00	5.06E+00
		Fe-59	<1.08E+01	0.00E+00	1.08E+01
		Co-60	<5.39E+00	0.00E+00	5.39E+00
		Zn-65	<1.31E+01	0.00E+00	1.31E+01
		Zr-95	<8.41E+00	0.00E+00	8.41E+00
		Nb-95	<4.70E+00	0.00E+00	4.70E+00
		I-131	<7.17E+00	0.00E+00	7.17E+00
		Cs-134	<5.20E+00	0.00E+00	5.20E+00
		Cs-137	<6.08E+00	0.00E+00	6.08E+00
		BaLa-140	<6.52E+00	0.00E+00	6.52E+00
		Total-Gam	0.00E+00		
		H3SW	<4.82E+01	0.00E+00	1.86E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
573679	9/23/2022 - 9/23/2022	Mn-54	<5.29E+00	0.00E+00	5.29E+00
		Co-58	<5.07E+00	0.00E+00	5.07E+00
		Fe-59	<1.03E+01	0.00E+00	1.03E+01
		Co-60	<5.91E+00	0.00E+00	5.91E+00
		Zn-65	<1.13E+01	0.00E+00	1.13E+01
		Zr-95	<1.07E+01	0.00E+00	1.07E+01
		Nb-95	<6.52E+00	0.00E+00	6.52E+00
		I-131	<6.56E+00	0.00E+00	6.56E+00
		Cs-134	<6.04E+00	0.00E+00	6.04E+00
		Cs-137	<5.75E+00	0.00E+00	5.75E+00
		BaLa-140	<6.86E+00	0.00E+00	6.86E+00
		Total-Gam	0.00E+00		
		H3SW	<-3.7E+01	0.00E+00	1.82E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
576141	10/24/2022 - 10/24/2022	Mn-54	<6.66E+00	0.00E+00	6.66E+00
		Co-58	<6.41E+00	0.00E+00	6.41E+00
		Fe-59	<1.19E+01	0.00E+00	1.19E+01
		Co-60	<6.69E+00	0.00E+00	6.69E+00
		Zn-65	<1.59E+01	0.00E+00	1.59E+01
		Zr-95	<1.08E+01	0.00E+00	1.08E+01

BRUNSWICK Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: SURFACE WATER Concentration (Activity): pCi/l

Sample Point 499 [CONTROL - -- @ 0 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
576141	10/24/2022 - 10/24/2022	Nb-95	<5.81E+00	0.00E+00	5.81E+00
		I-131	<6.72E+00	0.00E+00	6.72E+00
		Cs-134	<6.70E+00	0.00E+00	6.70E+00
		Cs-137	<6.16E+00	0.00E+00	6.16E+00
		BaLa-140	<8.16E+00	0.00E+00	8.16E+00
		Total-Gam	0.00E+00		
		H3SW	<-5.7E+01	0.00E+00	1.93E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
578034	11/17/2022 - 11/17/2022	Mn-54	<5.13E+00	0.00E+00	5.13E+00
		Co-58	<4.73E+00	0.00E+00	4.73E+00
		Fe-59	<1.29E+01	0.00E+00	1.29E+01
		Co-60	<5.50E+00	0.00E+00	5.50E+00
		Zn-65	<1.19E+01	0.00E+00	1.19E+01
		Zr-95	<7.67E+00	0.00E+00	7.67E+00
		Nb-95	<6.51E+00	0.00E+00	6.51E+00
		I-131	<1.18E+01	0.00E+00	1.18E+01
		Cs-134	<5.28E+00	0.00E+00	5.28E+00
		Cs-137	<4.84E+00	0.00E+00	4.84E+00
		BaLa-140	<1.07E+01	0.00E+00	1.07E+01
		Total-Gam	0.00E+00		
		H3SW	<-1.8E+02	0.00E+00	2.07E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
580550	12/23/2022 - 12/23/2022	Mn-54	<4.69E+00	0.00E+00	4.69E+00
		Co-58	<5.82E+00	0.00E+00	5.82E+00
		Fe-59	<1.07E+01	0.00E+00	1.07E+01
		Co-60	<5.81E+00	0.00E+00	5.81E+00
		Zn-65	<1.12E+01	0.00E+00	1.12E+01
		Zr-95	<9.12E+00	0.00E+00	9.12E+00
		Nb-95	<6.02E+00	0.00E+00	6.02E+00
		I-131	<1.34E+01	0.00E+00	1.34E+01
		Cs-134	<6.34E+00	0.00E+00	6.34E+00
		Cs-137	<4.72E+00	0.00E+00	4.72E+00
		BaLa-140	<1.25E+01	0.00E+00	1.25E+01
		Total-Gam	0.00E+00		
		H3SW	<-6.8E+01	0.00E+00	1.91E+02

Sample Point 604 [INDICATOR - -- @ 0 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
558462	1/20/2022 - 1/20/2022	Mn-54	<6.23E+00	0.00E+00	6.23E+00
		Co-58	<6.12E+00	0.00E+00	6.12E+00
		Fe-59	<8.56E+00	0.00E+00	8.56E+00
		Co-60	<5.74E+00	0.00E+00	5.74E+00
		Zn-65	<1.23E+01	0.00E+00	1.23E+01
		Zr-95	<1.17E+01	0.00E+00	1.17E+01
		Nb-95	<6.50E+00	0.00E+00	6.50E+00
		I-131	<8.51E+00	0.00E+00	8.51E+00
		Cs-134	<6.99E+00	0.00E+00	6.99E+00
		Cs-137	<6.71E+00	0.00E+00	6.71E+00
		BaLa-140	<6.46E+00	0.00E+00	6.46E+00
		Total-Gam	0.00E+00		
		H3SW	<1.07E+02	0.00E+00	1.73E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
561104	2/17/2022 - 2/17/2022	Mn-54	<4.86E+00	0.00E+00	4.86E+00
		Co-58	<4.57E+00	0.00E+00	4.57E+00
		Fe-59	<1.01E+01	0.00E+00	1.01E+01
		Co-60	<4.83E+00	0.00E+00	4.83E+00
		Zn-65	<1.10E+01	0.00E+00	1.10E+01
		Zr-95	<1.01E+01	0.00E+00	1.01E+01
		Nb-95	<5.49E+00	0.00E+00	5.49E+00
		I-131	<8.86E+00	0.00E+00	8.86E+00
		Cs-134	<5.38E+00	0.00E+00	5.38E+00

BRUNSWICK Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: SURFACE WATER Concentration (Activity): pCi/l

Sample Point 604 [INDICATOR - -- @ 0 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
561104	2/17/2022 - 2/17/2022	Cs-137	<5.78E+00	0.00E+00	5.78E+00
		BaLa-140	<6.50E+00	0.00E+00	6.50E+00
		Total-Gam	0.00E+00		
		H3SW	2.03E+02	1.15E+02	1.87E+02
560125	3/17/2022 - 3/17/2022	Mn-54	<6.78E+00	0.00E+00	6.78E+00
		Co-58	<6.40E+00	0.00E+00	6.40E+00
		Fe-59	<1.46E+01	0.00E+00	1.46E+01
		Co-60	<6.39E+00	0.00E+00	6.39E+00
		Zn-65	<1.42E+01	0.00E+00	1.42E+01
		Zr-95	<1.24E+01	0.00E+00	1.24E+01
		Nb-95	<8.32E+00	0.00E+00	8.32E+00
		I-131	<9.26E+00	0.00E+00	9.26E+00
		Cs-134	<7.02E+00	0.00E+00	7.02E+00
		Cs-137	<7.65E+00	0.00E+00	7.65E+00
		BaLa-140	<4.88E+00	0.00E+00	4.88E+00
		Total-Gam	0.00E+00		
		H3SW	2.20E+02	1.10E+02	1.77E+02
563419	4/20/2022 - 4/20/2022	Mn-54	<5.95E+00	0.00E+00	5.95E+00
		Co-58	<5.46E+00	0.00E+00	5.46E+00
		Fe-59	<1.15E+01	0.00E+00	1.15E+01
		Co-60	<5.85E+00	0.00E+00	5.85E+00
		Zn-65	<1.25E+01	0.00E+00	1.25E+01
		Zr-95	<1.13E+01	0.00E+00	1.13E+01
		Nb-95	<6.44E+00	0.00E+00	6.44E+00
		I-131	<9.12E+00	0.00E+00	9.12E+00
		Cs-134	<7.21E+00	0.00E+00	7.21E+00
		Cs-137	<5.73E+00	0.00E+00	5.73E+00
		BaLa-140	<8.01E+00	0.00E+00	8.01E+00
		Total-Gam	0.00E+00		
		H3SW	<1.62E+01	0.00E+00	1.86E+02
565195	5/17/2022 - 5/17/2022	Mn-54	<5.34E+00	0.00E+00	5.34E+00
		Co-58	<4.86E+00	0.00E+00	4.86E+00
		Fe-59	<1.22E+01	0.00E+00	1.22E+01
		Co-60	<7.82E+00	0.00E+00	7.82E+00
		Zn-65	<1.24E+01	0.00E+00	1.24E+01
		Zr-95	<1.17E+01	0.00E+00	1.17E+01
		Nb-95	<7.40E+00	0.00E+00	7.40E+00
		I-131	<9.44E+00	0.00E+00	9.44E+00
		Cs-134	<6.18E+00	0.00E+00	6.18E+00
		Cs-137	<5.53E+00	0.00E+00	5.53E+00
		BaLa-140	<7.97E+00	0.00E+00	7.97E+00
		Total-Gam	0.00E+00		
		H3SW	<5.36E+01	0.00E+00	1.84E+02
567093	6/21/2022 - 6/21/2022	Mn-54	<6.59E+00	0.00E+00	6.59E+00
		Co-58	<6.40E+00	0.00E+00	6.40E+00
		Fe-59	<1.24E+01	0.00E+00	1.24E+01
		Co-60	<5.97E+00	0.00E+00	5.97E+00
		Zn-65	<9.87E+00	0.00E+00	9.87E+00
		Zr-95	<1.08E+01	0.00E+00	1.08E+01
		Nb-95	<8.10E+00	0.00E+00	8.10E+00
		I-131	<8.18E+00	0.00E+00	8.18E+00
		Cs-134	<6.56E+00	0.00E+00	6.56E+00
		Cs-137	<5.87E+00	0.00E+00	5.87E+00
		BaLa-140	<7.41E+00	0.00E+00	7.41E+00
		Total-Gam	0.00E+00		
		H3SW	<-1.9E+01	0.00E+00	1.87E+02

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

BRUNSWICK Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: SURFACE WATER Concentration (Activity): pCi/l

Sample Point 604 [INDICATOR - -- @ 0 miles]

Sample ID:	568593	Sample Dates:	7/19/2022 - 7/19/2022	Nuclide	Activity	2 Sigma Error	MDA
				Mn-54	<6.70E+00	0.00E+00	6.70E+00
				Co-58	<6.02E+00	0.00E+00	6.02E+00
				Fe-59	<1.14E+01	0.00E+00	1.14E+01
				Co-60	<7.94E+00	0.00E+00	7.94E+00
				Zn-65	<1.13E+01	0.00E+00	1.13E+01
				Zr-95	<1.05E+01	0.00E+00	1.05E+01
				Nb-95	<7.41E+00	0.00E+00	7.41E+00
				I-131	<8.57E+00	0.00E+00	8.57E+00
				Cs-134	<6.50E+00	0.00E+00	6.50E+00
				Cs-137	<5.24E+00	0.00E+00	5.24E+00
				BaLa-140	<1.09E+01	0.00E+00	1.09E+01
				Total-Gam	0.00E+00		
				H3SW	2.12E+02	1.18E+02	1.92E+02

Sample ID:	571035	Sample Dates:	8/16/2022 - 8/16/2022	Nuclide	Activity	2 Sigma Error	MDA
				Mn-54	<6.48E+00	0.00E+00	6.48E+00
				Co-58	<6.12E+00	0.00E+00	6.12E+00
				Fe-59	<1.10E+01	0.00E+00	1.10E+01
				Co-60	<6.30E+00	0.00E+00	6.30E+00
				Zn-65	<1.39E+01	0.00E+00	1.39E+01
				Zr-95	<1.06E+01	0.00E+00	1.06E+01
				Nb-95	<6.28E+00	0.00E+00	6.28E+00
				I-131	<7.15E+00	0.00E+00	7.15E+00
				Cs-134	<7.84E+00	0.00E+00	7.84E+00
				Cs-137	<7.54E+00	0.00E+00	7.54E+00
				BaLa-140	<5.95E+00	0.00E+00	5.95E+00
				Total-Gam	0.00E+00		
				H3SW	<2.84E+01	0.00E+00	1.83E+02

Sample ID:	573680	Sample Dates:	9/23/2022 - 9/23/2022	Nuclide	Activity	2 Sigma Error	MDA
				Mn-54	<6.18E+00	0.00E+00	6.18E+00
				Co-58	<6.37E+00	0.00E+00	6.37E+00
				Fe-59	<1.42E+01	0.00E+00	1.42E+01
				Co-60	<6.12E+00	0.00E+00	6.12E+00
				Zn-65	<1.02E+01	0.00E+00	1.02E+01
				Zr-95	<1.14E+01	0.00E+00	1.14E+01
				Nb-95	<7.13E+00	0.00E+00	7.13E+00
				I-131	<9.97E+00	0.00E+00	9.97E+00
				Cs-134	<5.15E+00	0.00E+00	5.15E+00
				Cs-137	<6.62E+00	0.00E+00	6.62E+00
				BaLa-140	<1.18E+01	0.00E+00	1.18E+01
				Total-Gam	0.00E+00		
				H3SW	<-3.0E+01	0.00E+00	1.82E+02

Sample ID:	576142	Sample Dates:	10/24/2022 - 10/24/2022	Nuclide	Activity	2 Sigma Error	MDA
				Mn-54	<4.56E+00	0.00E+00	4.56E+00
				Co-58	<6.04E+00	0.00E+00	6.04E+00
				Fe-59	<1.11E+01	0.00E+00	1.11E+01
				Co-60	<7.72E+00	0.00E+00	7.72E+00
				Zn-65	<9.47E+00	0.00E+00	9.47E+00
				Zr-95	<8.05E+00	0.00E+00	8.05E+00
				Nb-95	<5.44E+00	0.00E+00	5.44E+00
				I-131	<6.66E+00	0.00E+00	6.66E+00
				Cs-134	<6.28E+00	0.00E+00	6.28E+00
				Cs-137	<6.29E+00	0.00E+00	6.29E+00
				BaLa-140	<7.96E+00	0.00E+00	7.96E+00
				Total-Gam	0.00E+00		
				H3SW	<3.53E+01	0.00E+00	1.88E+02

Sample ID:	578035	Sample Dates:	11/17/2022 - 11/17/2022	Nuclide	Activity	2 Sigma Error	MDA
				Mn-54	<5.76E+00	0.00E+00	5.76E+00
				Co-58	<5.62E+00	0.00E+00	5.62E+00
				Fe-59	<1.33E+01	0.00E+00	1.33E+01
				Co-60	<4.26E+00	0.00E+00	4.26E+00
				Zn-65	<1.44E+01	0.00E+00	1.44E+01
				Zr-95	<1.12E+01	0.00E+00	1.12E+01

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

BRUNSWICK Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: SURFACE WATER Concentration (Activity): pCi/l

Sample Point 604 [INDICATOR - -- @ 0 miles]

Sample ID: 578035 Sample Dates: 11/17/2022 - 11/17/2022

Nuclide	Activity	2 Sigma Error	MDA
Nb-95	<7.84E+00	0.00E+00	7.84E+00
I-131	<1.17E+01	0.00E+00	1.17E+01
Cs-134	<5.71E+00	0.00E+00	5.71E+00
Cs-137	<5.94E+00	0.00E+00	5.94E+00
BaLa-140	<1.31E+01	0.00E+00	1.31E+01
Total-Gam	0.00E+00		
H3SW	<-1.7E+01	0.00E+00	2.06E+02

Sample ID: 580551 Sample Dates: 12/23/2022 - 12/23/2022

Nuclide	Activity	2 Sigma Error	MDA
Mn-54	<4.84E+00	0.00E+00	4.84E+00
Co-58	<5.12E+00	0.00E+00	5.12E+00
Fe-59	<1.13E+01	0.00E+00	1.13E+01
Co-60	<5.62E+00	0.00E+00	5.62E+00
Zn-65	<1.08E+01	0.00E+00	1.08E+01
Zr-95	<9.19E+00	0.00E+00	9.19E+00
Nb-95	<4.58E+00	0.00E+00	4.58E+00
I-131	<1.29E+01	0.00E+00	1.29E+01
Cs-134	<4.06E+00	0.00E+00	4.06E+00
Cs-137	<4.23E+00	0.00E+00	4.23E+00
BaLa-140	<1.18E+01	0.00E+00	1.18E+01
Total-Gam	0.00E+00		
H3SW	<4.64E+01	0.00E+00	1.91E+02

Sample Point 607 [INDICATOR - -- @ 0 miles]

Sample ID: 558463 Sample Dates: 1/20/2022 - 1/20/2022

Nuclide	Activity	2 Sigma Error	MDA
Mn-54	<7.16E+00	0.00E+00	7.16E+00
Co-58	<7.31E+00	0.00E+00	7.31E+00
Fe-59	<1.36E+01	0.00E+00	1.36E+01
Co-60	<5.93E+00	0.00E+00	5.93E+00
Zn-65	<1.18E+01	0.00E+00	1.18E+01
Zr-95	<1.19E+01	0.00E+00	1.19E+01
Nb-95	<7.01E+00	0.00E+00	7.01E+00
I-131	<7.82E+00	0.00E+00	7.82E+00
Cs-134	<7.49E+00	0.00E+00	7.49E+00
Cs-137	<6.18E+00	0.00E+00	6.18E+00
BaLa-140	<7.06E+00	0.00E+00	7.06E+00
Total-Gam	0.00E+00		
H3SW	<1.39E+01	0.00E+00	1.73E+02

Sample ID: 561105 Sample Dates: 2/17/2022 - 2/17/2022

Nuclide	Activity	2 Sigma Error	MDA
Mn-54	<4.24E+00	0.00E+00	4.25E+00
Co-58	<4.03E+00	0.00E+00	4.03E+00
Fe-59	<1.06E+01	0.00E+00	1.06E+01
Co-60	<5.59E+00	0.00E+00	5.59E+00
Zn-65	<1.06E+01	0.00E+00	1.06E+01
Zr-95	<7.03E+00	0.00E+00	7.03E+00
Nb-95	<6.21E+00	0.00E+00	6.21E+00
I-131	<8.88E+00	0.00E+00	8.88E+00
Cs-134	<5.35E+00	0.00E+00	5.35E+00
Cs-137	<4.90E+00	0.00E+00	4.90E+00
BaLa-140	<8.75E+00	0.00E+00	8.75E+00
Total-Gam	0.00E+00		
H3SW	<-1.0E+02	0.00E+00	1.87E+02

Sample ID: 560126 Sample Dates: 3/17/2022 - 3/17/2022

Nuclide	Activity	2 Sigma Error	MDA
Mn-54	<7.44E+00	0.00E+00	7.44E+00
Co-58	<7.75E+00	0.00E+00	7.75E+00
Fe-59	<1.40E+01	0.00E+00	1.40E+01
Co-60	<5.95E+00	0.00E+00	5.95E+00
Zn-65	<1.24E+01	0.00E+00	1.24E+01
Zr-95	<1.16E+01	0.00E+00	1.16E+01
Nb-95	<9.21E+00	0.00E+00	9.21E+00
I-131	<9.55E+00	0.00E+00	9.55E+00
Cs-134	<7.83E+00	0.00E+00	7.83E+00

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

BRUNSWICK Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: SURFACE WATER Concentration (Activity): pCi/l

Sample Point 607 [INDICATOR - -- @ 0 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
560126	3/17/2022 - 3/17/2022	Cs-137	<6.79E+00	0.00E+00	6.79E+00
		BaLa-140	<9.91E+00	0.00E+00	9.91E+00
		Total-Gam	0.00E+00		
		H3SW	<3.94E+01	0.00E+00	1.77E+02
563420	4/20/2022 - 4/20/2022	Mn-54	<6.36E+00	0.00E+00	6.36E+00
		Co-58	<6.66E+00	0.00E+00	6.66E+00
		Fe-59	<1.31E+01	0.00E+00	1.31E+01
		Co-60	<7.32E+00	0.00E+00	7.32E+00
		Zn-65	<1.30E+01	0.00E+00	1.30E+01
		Zr-95	<9.62E+00	0.00E+00	9.62E+00
		Nb-95	<7.62E+00	0.00E+00	7.62E+00
		I-131	<8.18E+00	0.00E+00	8.18E+00
		Cs-134	<7.68E+00	0.00E+00	7.68E+00
		Cs-137	<7.41E+00	0.00E+00	7.41E+00
		BaLa-140	<7.82E+00	0.00E+00	7.82E+00
		Total-Gam	0.00E+00		
		H3SW	<-9.1E+01	0.00E+00	1.86E+02
565196	5/17/2022 - 5/17/2022	Mn-54	<5.47E+00	0.00E+00	5.47E+00
		Co-58	<6.04E+00	0.00E+00	6.04E+00
		Fe-59	<1.13E+01	0.00E+00	1.13E+01
		Co-60	<5.59E+00	0.00E+00	5.59E+00
		Zn-65	<1.20E+01	0.00E+00	1.20E+01
		Zr-95	<1.12E+01	0.00E+00	1.12E+01
		Nb-95	<5.70E+00	0.00E+00	5.70E+00
		I-131	<8.10E+00	0.00E+00	8.10E+00
		Cs-134	<7.58E+00	0.00E+00	7.58E+00
		Cs-137	<5.12E+00	0.00E+00	5.12E+00
		BaLa-140	<9.18E+00	0.00E+00	9.18E+00
		Total-Gam	0.00E+00		
		H3SW	<0.00E+00	0.00E+00	1.83E+02
567094	6/21/2022 - 6/21/2022	Mn-54	<7.05E+00	0.00E+00	7.05E+00
		Co-58	<6.33E+00	0.00E+00	6.33E+00
		Fe-59	<1.10E+01	0.00E+00	1.10E+01
		Co-60	<5.92E+00	0.00E+00	5.92E+00
		Zn-65	<1.32E+01	0.00E+00	1.32E+01
		Zr-95	<1.16E+01	0.00E+00	1.16E+01
		Nb-95	<7.72E+00	0.00E+00	7.72E+00
		I-131	<7.64E+00	0.00E+00	7.64E+00
		Cs-134	<5.93E+00	0.00E+00	5.93E+00
		Cs-137	<5.82E+00	0.00E+00	5.82E+00
		BaLa-140	<9.03E+00	0.00E+00	9.03E+00
		Total-Gam	0.00E+00		
		H3SW	<-5.9E+01	0.00E+00	1.87E+02
568594	7/19/2022 - 7/19/2022	Mn-54	<5.68E+00	0.00E+00	5.68E+00
		Co-58	<4.95E+00	0.00E+00	4.95E+00
		Fe-59	<1.02E+01	0.00E+00	1.02E+01
		Co-60	<5.56E+00	0.00E+00	5.56E+00
		Zn-65	<1.26E+01	0.00E+00	1.26E+01
		Zr-95	<1.03E+01	0.00E+00	1.03E+01
		Nb-95	<6.42E+00	0.00E+00	6.42E+00
		I-131	<6.64E+00	0.00E+00	6.64E+00
		Cs-134	<6.78E+00	0.00E+00	6.78E+00
		Cs-137	<5.87E+00	0.00E+00	5.87E+00
		BaLa-140	<9.58E+00	0.00E+00	9.58E+00
		Total-Gam	0.00E+00		
		H3SW	<-6.6E+01	0.00E+00	1.92E+02

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

BRUNSWICK Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: SURFACE WATER Concentration (Activity): pCi/l

Sample Point 607 [INDICATOR - -- @ 0 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
571036	8/16/2022 - 8/16/2022	H3SW	<-1.2E+02	0.00E+00	1.85E+02
575135	8/17/2022 - 8/17/2022	Mn-54	<4.77E+00	0.00E+00	4.77E+00
		Co-58	<5.33E+00	0.00E+00	5.33E+00
		Fe-59	<7.29E+00	0.00E+00	7.29E+00
		Co-60	<5.69E+00	0.00E+00	5.69E+00
		Zn-65	<1.08E+01	0.00E+00	1.08E+01
		Zr-95	<8.14E+00	0.00E+00	8.14E+00
		Nb-95	<6.34E+00	0.00E+00	6.34E+00
		I-131	<8.42E+00	0.00E+00	8.42E+00
		Cs-134	<7.85E+00	0.00E+00	7.85E+00
		Cs-137	<5.57E+00	0.00E+00	5.57E+00
		BaLa-140	<6.11E+00	0.00E+00	6.11E+00
		Total-Gam	0.00E+00		
573681	9/23/2022 - 9/23/2022	Mn-54	<4.99E+00	0.00E+00	4.99E+00
		Co-58	<5.75E+00	0.00E+00	5.75E+00
		Fe-59	<9.61E+00	0.00E+00	9.61E+00
		Co-60	<7.03E+00	0.00E+00	7.03E+00
		Zn-65	<1.49E+01	0.00E+00	1.49E+01
		Zr-95	<1.00E+01	0.00E+00	1.00E+01
		Nb-95	<6.21E+00	0.00E+00	6.21E+00
		I-131	<9.62E+00	0.00E+00	9.62E+00
		Cs-134	<6.44E+00	0.00E+00	6.44E+00
		Cs-137	<6.22E+00	0.00E+00	6.22E+00
		BaLa-140	<9.48E+00	0.00E+00	9.48E+00
		Total-Gam	0.00E+00		
		H3SW	<-7.0E+00	0.00E+00	1.82E+02
576143	10/24/2022 - 10/24/2022	Mn-54	<4.76E+00	0.00E+00	4.76E+00
		Co-58	<4.28E+00	0.00E+00	4.28E+00
		Fe-59	<1.30E+01	0.00E+00	1.30E+01
		Co-60	<5.55E+00	0.00E+00	5.55E+00
		Zn-65	<1.12E+01	0.00E+00	1.12E+01
		Zr-95	<1.03E+01	0.00E+00	1.03E+01
		Nb-95	<7.39E+00	0.00E+00	7.40E+00
		I-131	<6.77E+00	0.00E+00	6.77E+00
		Cs-134	<6.10E+00	0.00E+00	6.10E+00
		Cs-137	<6.87E+00	0.00E+00	6.87E+00
		BaLa-140	<5.81E+00	0.00E+00	5.81E+00
		Total-Gam	0.00E+00		
		H3SW	<-4.2E+01	0.00E+00	1.86E+02
578036	11/17/2022 - 11/17/2022	Mn-54	<5.51E+00	0.00E+00	5.51E+00
		Co-58	<5.53E+00	0.00E+00	5.53E+00
		Fe-59	<1.08E+01	0.00E+00	1.08E+01
		Co-60	<5.11E+00	0.00E+00	5.11E+00
		Zn-65	<9.61E+00	0.00E+00	9.61E+00
		Zr-95	<9.26E+00	0.00E+00	9.26E+00
		Nb-95	<7.05E+00	0.00E+00	7.05E+00
		I-131	<1.30E+01	0.00E+00	1.30E+01
		Cs-134	<6.25E+00	0.00E+00	6.25E+00
		Cs-137	<5.20E+00	0.00E+00	5.20E+00
		BaLa-140	<1.19E+01	0.00E+00	1.19E+01
		Total-Gam	0.00E+00		
		H3SW	<-1.1E+02	0.00E+00	2.08E+02
580552	12/23/2022 - 12/23/2022	Mn-54	<3.84E+00	0.00E+00	3.84E+00
		Co-58	<4.98E+00	0.00E+00	4.98E+00
		Fe-59	<9.11E+00	0.00E+00	9.11E+00
		Co-60	<4.46E+00	0.00E+00	4.46E+00

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

BRUNSWICK Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: SURFACE WATER Concentration (Activity): pCi/l

Sample Point 607 [INDICATOR - -- @ 0 miles]

Sample ID: 580552 Sample Dates: 12/23/2022 - 12/23/2022

Nuclide	Activity	2 Sigma Error	MDA
Zn-65	<8.27E+00	0.00E+00	8.27E+00
Zr-95	<8.64E+00	0.00E+00	8.64E+00
Nb-95	<5.10E+00	0.00E+00	5.10E+00
I-131	<1.21E+01	0.00E+00	1.21E+01
Cs-134	<4.11E+00	0.00E+00	4.11E+00
Cs-137	<4.48E+00	0.00E+00	4.48E+00
BaLa-140	<9.78E+00	0.00E+00	9.78E+00
Total-Gam	0.00E+00		
H3SW	<-5.4E+01	0.00E+00	1.91E+02

Sample Point 609 [INDICATOR - -- @ 0 miles]

Sample ID: 558464 Sample Dates: 1/20/2022 - 1/20/2022

Nuclide	Activity	2 Sigma Error	MDA
Mn-54	<7.07E+00	0.00E+00	7.07E+00
Co-58	<6.10E+00	0.00E+00	6.10E+00
Fe-59	<1.18E+01	0.00E+00	1.18E+01
Co-60	<5.79E+00	0.00E+00	5.79E+00
Zn-65	<1.21E+01	0.00E+00	1.21E+01
Zr-95	<8.14E+00	0.00E+00	8.14E+00
Nb-95	<5.55E+00	0.00E+00	5.55E+00
I-131	<7.97E+00	0.00E+00	7.97E+00
Cs-134	<5.86E+00	0.00E+00	5.86E+00
Cs-137	<4.67E+00	0.00E+00	4.67E+00
BaLa-140	<1.12E+01	0.00E+00	1.12E+01
Total-Gam	0.00E+00		
H3SW	<6.96E+00	0.00E+00	1.74E+02

Sample ID: 561106 Sample Dates: 2/17/2022 - 2/17/2022

Nuclide	Activity	2 Sigma Error	MDA
Mn-54	<8.39E+00	0.00E+00	8.39E+00
Co-58	<7.10E+00	0.00E+00	7.10E+00
Fe-59	<1.75E+01	0.00E+00	1.75E+01
Co-60	<5.75E+00	0.00E+00	5.75E+00
Zn-65	<1.62E+01	0.00E+00	1.62E+01
Zr-95	<1.10E+01	0.00E+00	1.10E+01
Nb-95	<7.42E+00	0.00E+00	7.42E+00
I-131	<1.19E+01	0.00E+00	1.19E+01
Cs-134	<8.57E+00	0.00E+00	8.57E+00
Cs-137	<7.82E+00	0.00E+00	7.82E+00
BaLa-140	<8.38E+00	0.00E+00	8.38E+00
Total-Gam	0.00E+00		
H3SW	<-1.1E+02	0.00E+00	1.87E+02

Sample ID: 560127 Sample Dates: 3/17/2022 - 3/17/2022

Nuclide	Activity	2 Sigma Error	MDA
Mn-54	<6.15E+00	0.00E+00	6.15E+00
Co-58	<6.61E+00	0.00E+00	6.61E+00
Fe-59	<1.13E+01	0.00E+00	1.13E+01
Co-60	<7.72E+00	0.00E+00	7.72E+00
Zn-65	<1.21E+01	0.00E+00	1.21E+01
Zr-95	<1.09E+01	0.00E+00	1.09E+01
Nb-95	<5.35E+00	0.00E+00	5.35E+00
I-131	<1.04E+01	0.00E+00	1.04E+01
Cs-134	<7.76E+00	0.00E+00	7.76E+00
Cs-137	<7.01E+00	0.00E+00	7.01E+00
BaLa-140	<1.02E+01	0.00E+00	1.02E+01
Total-Gam	0.00E+00		
H3SW	<5.10E+01	0.00E+00	1.77E+02

Sample ID: 563421 Sample Dates: 4/20/2022 - 4/20/2022

Nuclide	Activity	2 Sigma Error	MDA
Mn-54	<7.88E+00	0.00E+00	7.88E+00
Co-58	<6.12E+00	0.00E+00	6.12E+00
Fe-59	<1.21E+01	0.00E+00	1.21E+01
Co-60	<5.51E+00	0.00E+00	5.51E+00
Zn-65	<1.18E+01	0.00E+00	1.18E+01
Zr-95	<1.16E+01	0.00E+00	1.16E+01
Nb-95	<6.84E+00	0.00E+00	6.84E+00

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

BRUNSWICK Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: SURFACE WATER Concentration (Activity): pCi/l

Sample Point 609 [INDICATOR - -- @ 0 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
563421	4/20/2022 - 4/20/2022	I-131	<7.65E+00	0.00E+00	7.65E+00
		Cs-134	<5.82E+00	0.00E+00	5.82E+00
		Cs-137	<6.01E+00	0.00E+00	6.01E+00
		BaLa-140	<4.82E+00	0.00E+00	4.82E+00
		Total-Gam	0.00E+00		
		H3SW	<-4.0E+01	0.00E+00	1.87E+02
565197	5/17/2022 - 5/17/2022	Mn-54	<5.65E+00	0.00E+00	5.65E+00
		Co-58	<6.88E+00	0.00E+00	6.88E+00
		Fe-59	<1.36E+01	0.00E+00	1.36E+01
		Co-60	<5.65E+00	0.00E+00	5.65E+00
		Zn-65	<1.44E+01	0.00E+00	1.44E+01
		Zr-95	<1.15E+01	0.00E+00	1.15E+01
		Nb-95	<7.16E+00	0.00E+00	7.16E+00
		I-131	<1.13E+01	0.00E+00	1.13E+01
		Cs-134	<7.80E+00	0.00E+00	7.80E+00
		Cs-137	<7.03E+00	0.00E+00	7.03E+00
		BaLa-140	<9.68E+00	0.00E+00	9.68E+00
		Total-Gam	0.00E+00		
		H3SW	<-3.3E+01	0.00E+00	1.83E+02
567095	6/21/2022 - 6/21/2022	Mn-54	<6.01E+00	0.00E+00	6.01E+00
		Co-58	<6.54E+00	0.00E+00	6.54E+00
		Fe-59	<1.22E+01	0.00E+00	1.22E+01
		Co-60	<5.92E+00	0.00E+00	5.92E+00
		Zn-65	<1.55E+01	0.00E+00	1.55E+01
		Zr-95	<1.17E+01	0.00E+00	1.17E+01
		Nb-95	<7.29E+00	0.00E+00	7.29E+00
		I-131	<9.61E+00	0.00E+00	9.61E+00
		Cs-134	<7.32E+00	0.00E+00	7.32E+00
		Cs-137	<6.19E+00	0.00E+00	6.19E+00
		BaLa-140	<1.08E+01	0.00E+00	1.08E+01
		Total-Gam	0.00E+00		
		H3SW	<-9.4E+01	0.00E+00	1.87E+02
568595	7/19/2022 - 7/19/2022	Mn-54	<5.72E+00	0.00E+00	5.72E+00
		Co-58	<5.53E+00	0.00E+00	5.53E+00
		Fe-59	<1.27E+01	0.00E+00	1.27E+01
		Co-60	<7.98E+00	0.00E+00	7.98E+00
		Zn-65	<1.33E+01	0.00E+00	1.33E+01
		Zr-95	<1.06E+01	0.00E+00	1.06E+01
		Nb-95	<5.65E+00	0.00E+00	5.65E+00
		I-131	<8.70E+00	0.00E+00	8.70E+00
		Cs-134	<5.76E+00	0.00E+00	5.76E+00
		Cs-137	<5.69E+00	0.00E+00	5.69E+00
		BaLa-140	<1.14E+01	0.00E+00	1.14E+01
		Total-Gam	0.00E+00		
		H3SW	<-6.8E+01	0.00E+00	1.92E+02
571037	8/16/2022 - 8/16/2022	Mn-54	<3.98E+00	0.00E+00	3.98E+00
		Co-58	<3.98E+00	0.00E+00	3.98E+00
		Fe-59	<6.27E+00	0.00E+00	6.27E+00
		Co-60	<4.94E+00	0.00E+00	4.94E+00
		Zn-65	<1.01E+01	0.00E+00	1.01E+01
		Zr-95	<7.98E+00	0.00E+00	7.98E+00
		Nb-95	<4.07E+00	0.00E+00	4.07E+00
		I-131	<4.27E+00	0.00E+00	4.27E+00
		Cs-134	<5.03E+00	0.00E+00	5.03E+00
		Cs-137	<4.32E+00	0.00E+00	4.32E+00
		BaLa-140	<5.32E+00	0.00E+00	5.32E+00
		Total-Gam	0.00E+00		

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

BRUNSWICK Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: SURFACE WATER Concentration (Activity): pCi/l

Sample Point 609 [INDICATOR - -- @ 0 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
571037	8/16/2022 - 8/16/2022	H3SW	<-1.2E+01	0.00E+00	1.85E+02
573682	9/23/2022 - 9/23/2022	Mn-54	<4.15E+00	0.00E+00	4.15E+00
		Co-58	<4.42E+00	0.00E+00	4.42E+00
		Fe-59	<8.55E+00	0.00E+00	8.55E+00
		Co-60	<4.60E+00	0.00E+00	4.60E+00
		Zn-65	<1.01E+01	0.00E+00	1.01E+01
		Zr-95	<7.71E+00	0.00E+00	7.71E+00
		Nb-95	<4.81E+00	0.00E+00	4.81E+00
		I-131	<6.52E+00	0.00E+00	6.52E+00
		Cs-134	<5.05E+00	0.00E+00	5.05E+00
		Cs-137	<4.50E+00	0.00E+00	4.50E+00
		BaLa-140	<5.64E+00	0.00E+00	5.64E+00
		Total-Gam	0.00E+00		
		H3SW	<6.99E+00	0.00E+00	1.83E+02
576144	10/24/2022 - 10/24/2022	Mn-54	<5.98E+00	0.00E+00	5.98E+00
		Co-58	<6.60E+00	0.00E+00	6.60E+00
		Fe-59	<1.29E+01	0.00E+00	1.29E+01
		Co-60	<7.62E+00	0.00E+00	7.62E+00
		Zn-65	<1.45E+01	0.00E+00	1.45E+01
		Zr-95	<1.12E+01	0.00E+00	1.12E+01
		Nb-95	<7.77E+00	0.00E+00	7.77E+00
		I-131	<7.58E+00	0.00E+00	7.58E+00
		Cs-134	<8.02E+00	0.00E+00	8.02E+00
		Cs-137	<7.39E+00	0.00E+00	7.39E+00
		BaLa-140	<8.78E+00	0.00E+00	8.78E+00
		Total-Gam	0.00E+00		
		H3SW	<-3.7E+01	0.00E+00	1.86E+02
578037	11/17/2022 - 11/17/2022	Mn-54	<5.17E+00	0.00E+00	5.17E+00
		Co-58	<4.70E+00	0.00E+00	4.70E+00
		Fe-59	<9.61E+00	0.00E+00	9.61E+00
		Co-60	<4.81E+00	0.00E+00	4.81E+00
		Zn-65	<1.03E+01	0.00E+00	1.03E+01
		Zr-95	<7.88E+00	0.00E+00	7.88E+00
		Nb-95	<6.12E+00	0.00E+00	6.12E+00
		I-131	<1.13E+01	0.00E+00	1.13E+01
		Cs-134	<5.19E+00	0.00E+00	5.19E+00
		Cs-137	<5.24E+00	0.00E+00	5.24E+00
		BaLa-140	<1.03E+01	0.00E+00	1.03E+01
		Total-Gam	0.00E+00		
		H3SW	<-2.3E+02	0.00E+00	2.06E+02
580553	12/23/2022 - 12/23/2022	Mn-54	<6.51E+00	0.00E+00	6.51E+00
		Co-58	<4.07E+00	0.00E+00	4.07E+00
		Fe-59	<1.43E+01	0.00E+00	1.43E+01
		Co-60	<5.57E+00	0.00E+00	5.57E+00
		Zn-65	<1.08E+01	0.00E+00	1.08E+01
		Zr-95	<9.19E+00	0.00E+00	9.19E+00
		Nb-95	<7.37E+00	0.00E+00	7.37E+00
		I-131	<1.34E+01	0.00E+00	1.34E+01
		Cs-134	<7.22E+00	0.00E+00	7.22E+00
		Cs-137	<7.31E+00	0.00E+00	7.31E+00
		BaLa-140	<1.29E+01	0.00E+00	1.29E+01
		Total-Gam	0.00E+00		
		H3SW	<2.19E+01	0.00E+00	1.90E+02

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

BRUNSWICK Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: TLD Concentration (Activity): mR/Standard Quarter

Sample Point 1 [INDICATOR - E @ 1.1 miles]

TLD RING TLD_INNER

Sample ID:	562357	Sample Dates:	1/4/2022 - 4/4/2022	Nuclide	Activity
				mR/Std Qtr	10.58
Sample ID:	567849	Sample Dates:	4/4/2022 - 7/13/2022	Nuclide	Activity
				mR/Std Qtr	11.03
Sample ID:	575266	Sample Dates:	7/13/2022 - 10/5/2022	Nuclide	Activity
				mR/Std Qtr	8.37
Sample ID:	581337	Sample Dates:	10/5/2022 - 1/10/2023	Nuclide	Activity
				mR/Std Qtr	10.90

Sample Point 2 [INDICATOR - ESE @ 0.9 miles]

TLD RING TLD_INNER

Sample ID:	562367	Sample Dates:	1/4/2022 - 4/4/2022	Nuclide	Activity
				mR/Std Qtr	10.67
Sample ID:	567859	Sample Dates:	4/4/2022 - 7/13/2022	Nuclide	Activity
				mR/Std Qtr	10.78
Sample ID:	575276	Sample Dates:	7/13/2022 - 10/5/2022	Nuclide	Activity
				mR/Std Qtr	7.61
Sample ID:	581347	Sample Dates:	10/5/2022 - 1/10/2023	Nuclide	Activity
				mR/Std Qtr	11.81

Sample Point 3 [INDICATOR - SE @ 0.9 miles]

TLD RING TLD_INNER

Sample ID:	562378	Sample Dates:	1/4/2022 - 4/1/2022	Nuclide	Activity
				mR/Std Qtr	12.22
Sample ID:	567870	Sample Dates:	4/1/2022 - 7/7/2022	Nuclide	Activity
				mR/Std Qtr	11.51
Sample ID:	575287	Sample Dates:	7/7/2022 - 10/3/2022	Nuclide	Activity
				mR/Std Qtr	8.84
Sample ID:	581358	Sample Dates:	10/3/2022 - 1/4/2023	Nuclide	Activity
				mR/Std Qtr	11.94

Sample Point 4 [INDICATOR - SSE @ 1.1 miles]

TLD RING TLD_INNER

Sample ID:	562389	Sample Dates:	1/4/2022 - 4/1/2022	Nuclide	Activity
				mR/Std Qtr	9.68
Sample ID:	567881	Sample Dates:	4/1/2022 - 7/7/2022	Nuclide	Activity
				mR/Std Qtr	9.72
Sample ID:	575298	Sample Dates:	7/7/2022 - 10/3/2022	Nuclide	Activity
				mR/Std Qtr	8.85
Sample ID:	581369	Sample Dates:	10/3/2022 - 1/4/2023	Nuclide	Activity
				mR/Std Qtr	11.93

Sample Point 5 [INDICATOR - S @ 1.1 miles]

TLD RING TLD_INNER

Sample ID:	562391	Sample Dates:	1/4/2022 - 4/1/2022	Nuclide	Activity
				mR/Std Qtr	11.07
Sample ID:	567883	Sample Dates:	4/1/2022 - 7/7/2022	Nuclide	Activity
				mR/Std Qtr	9.64
Sample ID:	575300	Sample Dates:	7/7/2022 - 10/3/2022	Nuclide	Activity
				mR/Std Qtr	8.64

BRUNSWICK Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: TLD Concentration (Activity): mR/Standard Quarter

Sample Point 6 [INDICATOR - SSW @ 1.6 miles]

TLD RING TLD_INNER

Sample ID:	562392	Sample Dates:	1/4/2022 - 4/1/2022	Nuclide	Activity
				mR/Std Qtr	10.50
Sample ID:	567884	Sample Dates:	4/1/2022 - 7/7/2022	Nuclide	Activity
				mR/Std Qtr	10.94
Sample ID:	575301	Sample Dates:	7/7/2022 - 10/3/2022	Nuclide	Activity
				mR/Std Qtr	8.53
Sample ID:	581372	Sample Dates:	10/3/2022 - 1/4/2023	Nuclide	Activity
				mR/Std Qtr	10.94

Sample Point 7 [INDICATOR - SW @ 1.1 miles]

TLD RING TLD_INNER

Sample ID:	562393	Sample Dates:	1/4/2022 - 4/1/2022	Nuclide	Activity
				mR/Std Qtr	11.72
Sample ID:	567885	Sample Dates:	4/1/2022 - 7/7/2022	Nuclide	Activity
				mR/Std Qtr	9.74
Sample ID:	575302	Sample Dates:	7/7/2022 - 10/3/2022	Nuclide	Activity
				mR/Std Qtr	8.91
Sample ID:	581373	Sample Dates:	10/3/2022 - 1/4/2023	Nuclide	Activity
				mR/Std Qtr	11.15

Sample Point 8 [INDICATOR - W @ 1.2 miles]

TLD RING TLD_INNER

Sample ID:	562399	Sample Dates:	1/4/2022 - 4/1/2022	Nuclide	Activity
				mR/Std Qtr	10.75
Sample ID:	567891	Sample Dates:	4/1/2022 - 7/6/2022	Nuclide	Activity
				mR/Std Qtr	10.23
Sample ID:	575308	Sample Dates:	7/6/2022 - 10/3/2022	Nuclide	Activity
				mR/Std Qtr	8.12
Sample ID:	581379	Sample Dates:	10/3/2022 - 1/5/2023	Nuclide	Activity
				mR/Std Qtr	11.57

Sample Point 9 [INDICATOR - WNW @ 1 miles]

TLD RING TLD_INNER

Sample ID:	562405	Sample Dates:	1/4/2022 - 4/1/2022	Nuclide	Activity
				mR/Std Qtr	11.43
Sample ID:	567897	Sample Dates:	4/1/2022 - 7/6/2022	Nuclide	Activity
				mR/Std Qtr	9.71
Sample ID:	575314	Sample Dates:	7/6/2022 - 10/3/2022	Nuclide	Activity
				mR/Std Qtr	8.72
Sample ID:	581385	Sample Dates:	10/3/2022 - 1/5/2023	Nuclide	Activity
				mR/Std Qtr	12.00

Sample Point 10 [INDICATOR - NW @ 0.8 miles]

TLD RING TLD_INNER

Sample ID:	562358	Sample Dates:	1/4/2022 - 4/1/2022	Nuclide	Activity
				mR/Std Qtr	9.13
Sample ID:	567850	Sample Dates:	4/1/2022 - 7/6/2022	Nuclide	Activity
				mR/Std Qtr	8.60
Sample ID:	575267	Sample Dates:	7/6/2022 - 10/3/2022	Nuclide	Activity
				mR/Std Qtr	7.56
Sample ID:	581338	Sample Dates:	10/3/2022 - 1/5/2023	Nuclide	Activity
				mR/Std Qtr	10.12

BRUNSWICK Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: TLD Concentration (Activity): mR/Standard Quarter

Sample Point 11 [INDICATOR - NNW @ 0.9 miles]

TLD RING TLD_INNER

Sample ID:	562359	Sample Dates:	1/4/2022 - 4/1/2022	Nuclide	Activity
				mR/Std Qtr	10.55
Sample ID:	567851	Sample Dates:	4/1/2022 - 7/6/2022	Nuclide	Activity
				mR/Std Qtr	10.27
Sample ID:	575268	Sample Dates:	7/6/2022 - 10/3/2022	Nuclide	Activity
				mR/Std Qtr	8.86
Sample ID:	581339	Sample Dates:	10/3/2022 - 1/5/2023	Nuclide	Activity
				mR/Std Qtr	11.61

Sample Point 12 [INDICATOR - N @ 1.1 miles]

TLD RING TLD_INNER

Sample ID:	562360	Sample Dates:	1/4/2022 - 4/1/2022	Nuclide	Activity
				mR/Std Qtr	11.94
Sample ID:	567852	Sample Dates:	4/1/2022 - 7/6/2022	Nuclide	Activity
				mR/Std Qtr	10.50
Sample ID:	575269	Sample Dates:	7/6/2022 - 10/3/2022	Nuclide	Activity
				mR/Std Qtr	8.10
Sample ID:	581340	Sample Dates:	10/3/2022 - 1/5/2023	Nuclide	Activity
				mR/Std Qtr	11.80

Sample Point 13 [INDICATOR - NNE @ 1.2 miles]

TLD RING TLD_INNER

Sample ID:	562361	Sample Dates:	1/4/2022 - 4/1/2022	Nuclide	Activity
				mR/Std Qtr	11.48
Sample ID:	567853	Sample Dates:	4/1/2022 - 7/6/2022	Nuclide	Activity
				mR/Std Qtr	9.94
Sample ID:	575270	Sample Dates:	7/6/2022 - 10/3/2022	Nuclide	Activity
				mR/Std Qtr	8.23
Sample ID:	581341	Sample Dates:	10/3/2022 - 1/5/2023	Nuclide	Activity
				mR/Std Qtr	9.48

Sample Point 14 [INDICATOR - NE @ 0.5 miles]

TLD RING TLD_INNER

Sample ID:	562362	Sample Dates:	1/10/2022 - 4/1/2022	Nuclide	Activity
				mR/Std Qtr	11.22
Sample ID:	567854	Sample Dates:	4/1/2022 - 7/7/2022	Nuclide	Activity
				mR/Std Qtr	10.54
Sample ID:	575271	Sample Dates:	7/7/2022 - 10/3/2022	Nuclide	Activity
				mR/Std Qtr	8.39
Sample ID:	581342	Sample Dates:	10/3/2022 - 1/6/2023	Nuclide	Activity
				mR/Std Qtr	11.15

Sample Point 15 [INDICATOR - ENE @ 0.9 miles]

TLD RING TLD_INNER

Sample ID:	562363	Sample Dates:	1/10/2022 - 4/1/2022	Nuclide	Activity
				mR/Std Qtr	12.05
Sample ID:	567855	Sample Dates:	4/1/2022 - 7/7/2022	Nuclide	Activity
				mR/Std Qtr	11.86
Sample ID:	575272	Sample Dates:	7/7/2022 - 10/3/2022	Nuclide	Activity
				mR/Std Qtr	9.53
Sample ID:	581343	Sample Dates:	10/3/2022 - 1/6/2023	Nuclide	Activity
				mR/Std Qtr	13.26

BRUNSWICK Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: TLD Concentration (Activity): mR/Standard Quarter

Sample Point 16 [INDICATOR - WSW @ 1 miles]

TLD RING TLD_INNER

Sample ID:	562364	Sample Dates:	1/4/2022 - 4/1/2022	Nuclide	Activity
				mR/Std Qtr	11.22
Sample ID:	567856	Sample Dates:	4/1/2022 - 7/6/2022	Nuclide	Activity
				mR/Std Qtr	10.29
Sample ID:	575273	Sample Dates:	7/6/2022 - 10/3/2022	Nuclide	Activity
				mR/Std Qtr	7.98
Sample ID:	581344	Sample Dates:	10/3/2022 - 1/5/2023	Nuclide	Activity
				mR/Std Qtr	10.55

Sample Point 17 [INDICATOR - ESE @ 1.4 miles]

TLD RING TLD_INNER

Sample ID:	562365	Sample Dates:	1/4/2022 - 4/1/2022	Nuclide	Activity
				mR/Std Qtr	18.34
Sample ID:	567857	Sample Dates:	4/1/2022 - 7/7/2022	Nuclide	Activity
				mR/Std Qtr	17.15
Sample ID:	575274	Sample Dates:	7/7/2022 - 10/3/2022	Nuclide	Activity
				mR/Std Qtr	14.60
Sample ID:	581345	Sample Dates:	10/3/2022 - 1/4/2023	Nuclide	Activity
				mR/Std Qtr	19.17

Sample Point 18 [INDICATOR - SE @ 1.7 miles]

TLD RING TLD_INNER

Sample ID:	562366	Sample Dates:	1/4/2022 - 4/1/2022	Nuclide	Activity
				mR/Std Qtr	11.34
Sample ID:	567858	Sample Dates:	4/1/2022 - 7/7/2022	Nuclide	Activity
				mR/Std Qtr	10.37
Sample ID:	575275	Sample Dates:	7/7/2022 - 10/3/2022	Nuclide	Activity
				mR/Std Qtr	7.57
Sample ID:	581346	Sample Dates:	10/3/2022 - 1/4/2023	Nuclide	Activity
				mR/Std Qtr	11.16

Sample Point 20 [INDICATOR - S @ 2.1 miles]

TLD RING TLD_INNER

Sample ID:	562368	Sample Dates:	1/4/2022 - 4/1/2022	Nuclide	Activity
				mR/Std Qtr	11.82
Sample ID:	567860	Sample Dates:	4/1/2022 - 7/7/2022	Nuclide	Activity
				mR/Std Qtr	10.32
Sample ID:	575277	Sample Dates:	7/7/2022 - 10/3/2022	Nuclide	Activity
				mR/Std Qtr	8.26
Sample ID:	581348	Sample Dates:	10/3/2022 - 1/4/2023	Nuclide	Activity
				mR/Std Qtr	12.03

Sample Point 21 [INDICATOR - SSW @ 2.9 miles]

TLD RING TLD_INNER

Sample ID:	562369	Sample Dates:	1/4/2022 - 4/1/2022	Nuclide	Activity
				mR/Std Qtr	12.94
Sample ID:	567861	Sample Dates:	4/1/2022 - 7/7/2022	Nuclide	Activity
				mR/Std Qtr	11.81
Sample ID:	575278	Sample Dates:	7/7/2022 - 10/3/2022	Nuclide	Activity
				mR/Std Qtr	8.82
Sample ID:	581349	Sample Dates:	10/3/2022 - 1/4/2023	Nuclide	Activity
				mR/Std Qtr	13.05

BRUNSWICK Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: TLD Concentration (Activity): mR/Standard Quarter

Sample Point 22 [INDICATOR - SW @ 5.3 miles]

TLD RING TLD_OUTER

Sample ID:	562370	Sample Dates:	1/5/2022 - 4/3/2022	Nuclide	Activity
				mR/Std Qtr	12.66
Sample ID:	567862	Sample Dates:	4/3/2022 - 7/12/2022	Nuclide	Activity
				mR/Std Qtr	10.95
Sample ID:	575279	Sample Dates:	7/12/2022 - 10/4/2022	Nuclide	Activity
				mR/Std Qtr	9.34
Sample ID:	581350	Sample Dates:	10/4/2022 - 1/5/2023	Nuclide	Activity
				mR/Std Qtr	13.35

Sample Point 23 [INDICATOR - WSW @ 4.6 miles]

TLD RING TLD_OUTER

Sample ID:	562371	Sample Dates:	1/5/2022 - 4/3/2022	Nuclide	Activity
				mR/Std Qtr	8.84
Sample ID:	567863	Sample Dates:	4/3/2022 - 7/12/2022	Nuclide	Activity
				mR/Std Qtr	8.03
Sample ID:	575280	Sample Dates:	7/12/2022 - 10/4/2022	Nuclide	Activity
				mR/Std Qtr	5.50
Sample ID:	581351	Sample Dates:	10/4/2022 - 1/4/2023	Nuclide	Activity
				mR/Std Qtr	8.62

Sample Point 24 [INDICATOR - W @ 3 miles]

TLD RING TLD_INNER

Sample ID:	562372	Sample Dates:	1/5/2022 - 4/2/2022	Nuclide	Activity
				mR/Std Qtr	14.57
Sample ID:	567864	Sample Dates:	4/2/2022 - 7/12/2022	Nuclide	Activity
				mR/Std Qtr	15.00
Sample ID:	575281	Sample Dates:	7/12/2022 - 10/4/2022	Nuclide	Activity
				mR/Std Qtr	10.39
Sample ID:	581352	Sample Dates:	10/4/2022 - 1/4/2023	Nuclide	Activity
				mR/Std Qtr	14.54

Sample Point 25 [INDICATOR - WNW @ 8.6 miles]

TLD RING TLD_OUTER

Sample ID:	562373	Sample Dates:	1/5/2022 - 4/2/2022	Nuclide	Activity
				mR/Std Qtr	11.32
Sample ID:	567865	Sample Dates:	4/2/2022 - 7/12/2022	Nuclide	Activity
				mR/Std Qtr	10.53
Sample ID:	575282	Sample Dates:	7/12/2022 - 10/4/2022	Nuclide	Activity
				mR/Std Qtr	8.13
Sample ID:	581353	Sample Dates:	10/4/2022 - 1/4/2023	Nuclide	Activity
				mR/Std Qtr	11.62

Sample Point 26 [INDICATOR - NW @ 5.9 miles]

TLD RING TLD_OUTER

Sample ID:	562374	Sample Dates:	1/5/2022 - 4/1/2022	Nuclide	Activity
				mR/Std Qtr	13.47
Sample ID:	567866	Sample Dates:	4/1/2022 - 7/7/2022	Nuclide	Activity
				mR/Std Qtr	11.56
Sample ID:	575283	Sample Dates:	7/7/2022 - 10/5/2022	Nuclide	Activity
				mR/Std Qtr	9.43
Sample ID:	581354	Sample Dates:	10/5/2022 - 1/5/2023	Nuclide	Activity
				mR/Std Qtr	13.85

BRUNSWICK Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: TLD Concentration (Activity): mR/Standard Quarter

Sample Point 27 [INDICATOR - NNW @ 5.1 miles]

TLD RING TLD_OUTER

Sample ID:	Sample Dates:	Nuclide	Activity
562375	1/5/2022 - 4/1/2022	mR/Std Qtr	10.39
567867	4/1/2022 - 7/7/2022	mR/Std Qtr	9.59
575284	7/7/2022 - 10/5/2022	mR/Std Qtr	8.27
581355	10/5/2022 - 1/5/2023	mR/Std Qtr	11.31

Sample Point 28 [INDICATOR - NW @ 4.2 miles]

TLD RING TLD_OUTER

Sample ID:	Sample Dates:	Nuclide	Activity
562376	1/5/2022 - 4/1/2022	mR/Std Qtr	10.66
567868	4/1/2022 - 7/7/2022	mR/Std Qtr	9.29
575285	7/7/2022 - 10/5/2022	mR/Std Qtr	7.75
581356	10/5/2022 - 1/5/2023	mR/Std Qtr	9.43

Sample Point 29 [INDICATOR - SSW @ 2.6 miles]

TLD RING TLD_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
562377	1/4/2022 - 4/1/2022	mR/Std Qtr	10.35
567869	4/1/2022 - 7/7/2022	mR/Std Qtr	9.54
575286	7/7/2022 - 10/4/2022	mR/Std Qtr	7.74
581357	10/4/2022 - 1/4/2023	mR/Std Qtr	11.53

Sample Point 30 [INDICATOR - NE @ 2 miles]

TLD RING TLD_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
562379	1/11/2022 - 4/2/2022	mR/Std Qtr	10.14
567871	4/2/2022 - 7/12/2022	mR/Std Qtr	9.94
575288	7/12/2022 - 10/4/2022	mR/Std Qtr	6.27
581359	10/4/2022 - 1/6/2023	mR/Std Qtr	9.77

Sample Point 31 [INDICATOR - ENE @ 2.5 miles]

TLD RING TLD_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
562380	1/11/2022 - 4/2/2022	mR/Std Qtr	11.15
567872	4/2/2022 - 7/12/2022	mR/Std Qtr	11.28
575289	7/12/2022 - 10/4/2022	mR/Std Qtr	9.29
581360	10/4/2022 - 1/6/2023	mR/Std Qtr	12.58

BRUNSWICK Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: TLD Concentration (Activity): mR/Standard Quarter

Sample Point 32 [INDICATOR - ENE @ 5.8 miles]

TLD RING TLD_OUTER

Sample ID:	Sample Dates:	Nuclide	Activity
562381	1/10/2022 - 4/3/2022	mR/Std Qtr	12.08
567873	4/3/2022 - 7/11/2022	mR/Std Qtr	11.82
575290	7/11/2022 - 10/5/2022	mR/Std Qtr	8.64
581361	10/5/2022 - 1/6/2023	mR/Std Qtr	12.71

Sample Point 33 [INDICATOR - E @ 4.1 miles]

TLD RING TLD_OUTER

Sample ID:	Sample Dates:	Nuclide	Activity
562382	1/10/2022 - 4/3/2022	mR/Std Qtr	9.95
567874	4/3/2022 - 7/11/2022	mR/Std Qtr	8.65
575291	7/11/2022 - 10/5/2022	mR/Std Qtr	6.05
581362	10/5/2022 - 1/6/2023	mR/Std Qtr	9.98

Sample Point 34 [INDICATOR - E @ 5.4 miles]

TLD RING TLD_OUTER

Sample ID:	Sample Dates:	Nuclide	Activity
562383	1/10/2022 - 4/3/2022	mR/Std Qtr	10.27
567875	4/3/2022 - 7/11/2022	mR/Std Qtr	10.19
575292	7/11/2022 - 10/5/2022	mR/Std Qtr	6.81
581363	10/5/2022 - 1/6/2023	mR/Std Qtr	11.02

Sample Point 35 [INDICATOR - SSE @ 7.3 miles]

TLD RING TLD_OUTER

Sample ID:	Sample Dates:	Nuclide	Activity
562384	1/6/2022 - 4/6/2022	mR/Std Qtr	9.19
567876	4/6/2022 - 7/7/2022	mR/Std Qtr	8.88
575293	7/7/2022 - 10/11/2022	mR/Std Qtr	7.12
581364	10/11/2022 - 1/9/2023	mR/Std Qtr	9.17

Sample Point 36 [INDICATOR - NE @ 8.9 miles]

TLD RING TLD_OUTER

Sample ID:	Sample Dates:	Nuclide	Activity
562385	1/10/2022 - 4/3/2022	mR/Std Qtr	10.49
567877	4/3/2022 - 7/11/2022	mR/Std Qtr	11.34
575294	7/11/2022 - 10/5/2022	mR/Std Qtr	8.76
581365	10/5/2022 - 1/6/2023	mR/Std Qtr	12.65

BRUNSWICK Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: TLD Concentration (Activity): mR/Standard Quarter

Sample Point 37 [INDICATOR - NW @ 5.5 miles]

TLD RING TLD_OUTER

Sample ID:	562386	Sample Dates:	1/5/2022 - 4/1/2022	Nuclide	Activity
				mR/Std Qtr	9.72
Sample ID:	567878	Sample Dates:	4/1/2022 - 7/7/2022	Nuclide	Activity
				mR/Std Qtr	9.68
Sample ID:	575295	Sample Dates:	7/7/2022 - 10/5/2022	Nuclide	Activity
				mR/Std Qtr	6.76
Sample ID:	581366	Sample Dates:	10/5/2022 - 1/5/2023	Nuclide	Activity
				mR/Std Qtr	9.91

Sample Point 38 [INDICATOR - W @ 11 miles]

TLD RING TLD_OUTER

Sample ID:	562387	Sample Dates:	1/5/2022 - 4/2/2022	Nuclide	Activity
				mR/Std Qtr	9.28
Sample ID:	567879	Sample Dates:	4/2/2022 - 7/12/2022	Nuclide	Activity
				mR/Std Qtr	9.70
Sample ID:	575296	Sample Dates:	7/12/2022 - 10/4/2022	Nuclide	Activity
				mR/Std Qtr	6.40
Sample ID:	581367	Sample Dates:	10/4/2022 - 1/4/2023	Nuclide	Activity
				mR/Std Qtr	10.00

Sample Point 39 [INDICATOR - SW @ 5.3 miles]

TLD RING TLD_OUTER

Sample ID:	562388	Sample Dates:	1/5/2022 - 4/3/2022	Nuclide	Activity
				mR/Std Qtr	16.94
Sample ID:	567880	Sample Dates:	4/3/2022 - 7/12/2022	Nuclide	Activity
				mR/Std Qtr	15.10
Sample ID:	575297	Sample Dates:	7/12/2022 - 10/4/2022	Nuclide	Activity
				mR/Std Qtr	10.25
Sample ID:	581368	Sample Dates:	10/4/2022 - 1/5/2023	Nuclide	Activity
				mR/Std Qtr	16.58

Sample Point 40 [INDICATOR - WSW @ 6.9 miles]

TLD RING TLD_OUTER

Sample ID:	562390	Sample Dates:	1/5/2022 - 4/3/2022	Nuclide	Activity
				mR/Std Qtr	13.01
Sample ID:	567882	Sample Dates:	4/3/2022 - 7/12/2022	Nuclide	Activity
				mR/Std Qtr	12.60
Sample ID:	575299	Sample Dates:	7/12/2022 - 10/4/2022	Nuclide	Activity
				mR/Std Qtr	10.31
Sample ID:	581370	Sample Dates:	10/4/2022 - 1/5/2023	Nuclide	Activity
				mR/Std Qtr	15.55

Sample Point 75 [INDICATOR - S @ 4.7 miles]

TLD RING TLD_OUTER

Sample ID:	562394	Sample Dates:	1/5/2022 - 4/3/2022	Nuclide	Activity
				mR/Std Qtr	13.46
Sample ID:	567886	Sample Dates:	4/3/2022 - 7/12/2022	Nuclide	Activity
				mR/Std Qtr	11.64
Sample ID:	575303	Sample Dates:	7/12/2022 - 10/4/2022	Nuclide	Activity
				mR/Std Qtr	9.23
Sample ID:	581374	Sample Dates:	10/4/2022 - 1/5/2023	Nuclide	Activity
				mR/Std Qtr	10.39

BRUNSWICK Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: TLD Concentration (Activity): mR/Standard Quarter

Sample Point 76 [INDICATOR - SSW @ 4.8 miles]

TLD RING TLD_OUTER

Sample ID:	562395	Sample Dates:	1/5/2022 - 4/3/2022	Nuclide	Activity
				mR/Std Qtr	12.69
Sample ID:	567887	Sample Dates:	4/3/2022 - 7/12/2022	Nuclide	Activity
				mR/Std Qtr	12.49
Sample ID:	575304	Sample Dates:	7/12/2022 - 10/4/2022	Nuclide	Activity
				mR/Std Qtr	9.36
Sample ID:	581375	Sample Dates:	10/4/2022 - 1/5/2023	Nuclide	Activity
				mR/Std Qtr	13.89

Sample Point 77 [INDICATOR - S @ 5.4 miles]

TLD RING TLD_OUTER

Sample ID:	562396	Sample Dates:	1/6/2022 - 4/6/2022	Nuclide	Activity
				mR/Std Qtr	10.73
Sample ID:	567888	Sample Dates:	4/6/2022 - 7/7/2022	Nuclide	Activity
				mR/Std Qtr	7.29
Sample ID:	575305	Sample Dates:	7/7/2022 - 10/11/2022	Nuclide	Activity
				mR/Std Qtr	7.26
Sample ID:	581376	Sample Dates:	10/11/2022 - 1/9/2023	Nuclide	Activity
				mR/Std Qtr	9.21

Sample Point 78 [INDICATOR - NNE @ 9.9 miles]

TLD RING TLD_OUTER

Sample ID:	562397	Sample Dates:	1/5/2022 - 4/1/2022	Nuclide	Activity
				mR/Std Qtr	9.19
Sample ID:	567889	Sample Dates:	4/1/2022 - 7/7/2022	Nuclide	Activity
				mR/Std Qtr	8.33
Sample ID:	575306	Sample Dates:	7/7/2022 - 10/5/2022	Nuclide	Activity
				mR/Std Qtr	6.02
Sample ID:	581377	Sample Dates:	10/5/2022 - 1/5/2023	Nuclide	Activity
				mR/Std Qtr	9.86

Sample Point 79 [INDICATOR - N @ 9.5 miles]

TLD RING TLD_OUTER

Sample ID:	562398	Sample Dates:	1/5/2022 - 4/1/2022	Nuclide	Activity
				mR/Std Qtr	11.20
Sample ID:	567890	Sample Dates:	4/1/2022 - 7/7/2022	Nuclide	Activity
				mR/Std Qtr	9.57
Sample ID:	575307	Sample Dates:	7/7/2022 - 10/5/2022	Nuclide	Activity
				mR/Std Qtr	7.99
Sample ID:	581378	Sample Dates:	10/5/2022 - 1/5/2023	Nuclide	Activity
				mR/Std Qtr	9.78

Sample Point 81 [CONTROL - WNW @ 9.9 miles]

TLD RING TLD_CTRL

Sample ID:	562400	Sample Dates:	1/5/2022 - 4/2/2022	Nuclide	Activity
				mR/Std Qtr	10.96
Sample ID:	567892	Sample Dates:	4/2/2022 - 7/12/2022	Nuclide	Activity
				mR/Std Qtr	11.63
Sample ID:	575309	Sample Dates:	7/12/2022 - 10/4/2022	Nuclide	Activity
				mR/Std Qtr	8.66
Sample ID:	581380	Sample Dates:	10/4/2022 - 1/4/2023	Nuclide	Activity
				mR/Std Qtr	11.33

BRUNSWICK Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: TLD Concentration (Activity): mR/Standard Quarter

Sample Point 82 [INDICATOR - NNE @ 0.17 miles]

TLD RING TLD_ISFSI

Sample ID:	Sample Dates:	Nuclide	Activity
562401	1/10/2022 - 4/1/2022	mR/Std Qtr	33.37
567893	4/1/2022 - 7/7/2022	mR/Std Qtr	33.54
575310	7/7/2022 - 10/3/2022	mR/Std Qtr	34.60
581381	10/3/2022 - 1/6/2023	mR/Std Qtr	42.25

Sample Point 83 [INDICATOR - NE @ 0.27 miles]

TLD RING TLD_ISFSI

Sample ID:	Sample Dates:	Nuclide	Activity
562402	1/10/2022 - 4/1/2022	mR/Std Qtr	23.42
567894	4/1/2022 - 7/7/2022	mR/Std Qtr	23.15
575311	7/7/2022 - 10/3/2022	mR/Std Qtr	22.50
581382	10/3/2022 - 1/6/2023	mR/Std Qtr	25.34

Sample Point 84 [INDICATOR - NE @ 0.27 miles]

TLD RING TLD_ISFSI

Sample ID:	Sample Dates:	Nuclide	Activity
562403	1/10/2022 - 4/1/2022	mR/Std Qtr	26.22
567895	4/1/2022 - 7/7/2022	mR/Std Qtr	25.96
575312	7/7/2022 - 10/3/2022	mR/Std Qtr	24.16
581383	10/3/2022 - 1/6/2023	mR/Std Qtr	28.57

Sample Point 85 [INDICATOR - ENE @ 0.09 miles]

TLD RING TLD_ISFSI

Sample ID:	Sample Dates:	Nuclide	Activity
562404	1/10/2022 - 4/1/2022	mR/Std Qtr	20.33
567896	4/1/2022 - 7/12/2022	mR/Std Qtr	25.57
575313	7/12/2022 - 10/3/2022	mR/Std Qtr	18.76
581384	10/3/2022 - 1/6/2023	mR/Std Qtr	25.66

Media Type: VEGETATION Concentration (Activity): pCi/kg wet

Sample Point 800 [INDICATOR - NE @ 0.76 miles]

Sample ID:	Sample Dates:	WAXMYRTLE	Nuclide	Activity	2 Sigma Error	MDA
552264	1/5/2022 - 1/5/2022		Mn-54	<8.85E+00	0.00E+00	8.85E+00
			Co-58	<8.92E+00	0.00E+00	8.92E+00
			Fe-59	<1.67E+01	0.00E+00	1.67E+01
			Co-60	8.57E+00	7.92E+00	1.27E+01
			Zn-65	<2.07E+01	0.00E+00	2.07E+01
			Zr-95	<1.77E+01	0.00E+00	1.77E+01
			Nb-95	<9.84E+00	0.00E+00	9.84E+00
			I-131	<1.42E+01	0.00E+00	1.42E+01

BRUNSWICK Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: VEGETATION Concentration (Activity): pCi/kg wet

Sample Point 800 [INDICATOR - NE @ 0.76 miles]

Sample ID:	Sample Dates:	WAXMYRTLE	Nuclide	Activity	2 Sigma Error	MDA
552264	1/5/2022 - 1/5/2022		Cs-134	<9.60E+00	0.00E+00	9.60E+00
			Cs-137	<9.96E+00	0.00E+00	9.96E+00
			BaLa-140	<1.31E+01	0.00E+00	1.31E+01
			Be-7	1.52E+03	1.83E+02	1.28E+02
			K-40	1.91E+03	2.33E+02	1.50E+02
560643	1/24/2022 - 1/24/2022		Mn-54	<1.63E+01	0.00E+00	1.63E+01
			Co-58	<1.72E+01	0.00E+00	1.72E+01
			Fe-59	<3.14E+01	0.00E+00	3.14E+01
			Co-60	<1.66E+01	0.00E+00	1.66E+01
			Zn-65	<4.23E+01	0.00E+00	4.23E+01
			Zr-95	<3.10E+01	0.00E+00	3.10E+01
			Nb-95	<1.75E+01	0.00E+00	1.75E+01
			I-131	<1.95E+01	0.00E+00	1.95E+01
			Cs-134	<2.33E+01	0.00E+00	2.33E+01
			Cs-137	<1.65E+01	0.00E+00	1.65E+01
			BaLa-140	<1.92E+01	0.00E+00	1.92E+01
			Be-7	1.23E+03	2.31E+02	2.35E+02
			K-40	2.67E+03	4.03E+02	1.37E+02
560495	2/1/2022 - 2/1/2022		Mn-54	<2.11E+01	0.00E+00	2.11E+01
			Co-58	<2.07E+01	0.00E+00	2.07E+01
			Fe-59	<4.33E+01	0.00E+00	4.33E+01
			Co-60	<2.69E+01	0.00E+00	2.69E+01
			Zn-65	<3.81E+01	0.00E+00	3.81E+01
			Zr-95	<3.02E+01	0.00E+00	3.02E+01
			Nb-95	<1.87E+01	0.00E+00	1.87E+01
			I-131	<2.43E+01	0.00E+00	2.43E+01
			Cs-134	<2.19E+01	0.00E+00	2.19E+01
			Cs-137	<2.32E+01	0.00E+00	2.32E+01
			BaLa-140	<3.01E+01	0.00E+00	3.01E+01
			Be-7	1.73E+03	3.16E+02	3.20E+02
			K-40	2.23E+03	4.27E+02	3.39E+02
562237	3/1/2022 - 3/1/2022		Mn-54	<2.46E+01	0.00E+00	2.46E+01
			Co-58	<2.58E+01	0.00E+00	2.58E+01
			Fe-59	<4.37E+01	0.00E+00	4.37E+01
			Co-60	<2.18E+01	0.00E+00	2.18E+01
			Zn-65	<6.27E+01	0.00E+00	6.27E+01
			Zr-95	<3.82E+01	0.00E+00	3.82E+01
			Nb-95	<2.80E+01	0.00E+00	2.80E+01
			I-131	<3.51E+01	0.00E+00	3.51E+01
			Cs-134	<2.52E+01	0.00E+00	2.52E+01
			Cs-137	<2.59E+01	0.00E+00	2.59E+01
			BaLa-140	<2.87E+01	0.00E+00	2.87E+01
			Be-7	2.39E+03	3.78E+02	3.14E+02
			K-40	2.49E+03	4.58E+02	3.05E+02
563987	4/3/2022 - 4/3/2022		Mn-54	<1.90E+01	0.00E+00	1.90E+01
			Co-58	<2.80E+01	0.00E+00	2.80E+01
			Fe-59	<4.36E+01	0.00E+00	4.36E+01
			Co-60	<4.25E+01	0.00E+00	4.25E+01
			Zn-65	<6.70E+01	0.00E+00	6.70E+01
			Zr-95	<4.32E+01	0.00E+00	4.32E+01
			Nb-95	<2.74E+01	0.00E+00	2.74E+01
			I-131	<2.99E+01	0.00E+00	2.99E+01
			Cs-134	<2.37E+01	0.00E+00	2.37E+01
			Cs-137	<2.70E+01	0.00E+00	2.70E+01
			BaLa-140	<3.81E+01	0.00E+00	3.81E+01
			Be-7	1.82E+03	3.73E+02	3.23E+02
			K-40	3.00E+03	6.36E+02	3.83E+02

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

BRUNSWICK Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: VEGETATION Concentration (Activity): pCi/kg wet

Sample Point 800 [INDICATOR - NE @ 0.76 miles]

Sample ID:	Sample Dates:	WAXMYRTLE	Nuclide	Activity	2 Sigma Error	MDA
565953	5/3/2022 - 5/3/2022	WAXMYRTLE	Mn-54	<9.46E+00	0.00E+00	9.46E+00
			Co-58	<9.42E+00	0.00E+00	9.42E+00
			Fe-59	<1.86E+01	0.00E+00	1.86E+01
			Co-60	<8.87E+00	0.00E+00	8.87E+00
			Zn-65	<2.02E+01	0.00E+00	2.02E+01
			Zr-95	<1.69E+01	0.00E+00	1.69E+01
			Nb-95	<1.01E+01	0.00E+00	1.01E+01
			I-131	1.64E+01	6.12E+00	1.38E+01
			Cs-134	<1.04E+01	0.00E+00	1.04E+01
			Cs-137	<9.74E+00	0.00E+00	9.74E+00
			BaLa-140	<1.18E+01	0.00E+00	1.18E+01
			Be-7	4.83E+02	9.20E+01	1.11E+02
			K-40	3.49E+03	3.51E+02	1.44E+02
			567222	5/10/2022 - 5/10/2022	MIXEDBLV	Mn-54
Co-58	<5.89E+00	0.00E+00				5.89E+00
Fe-59	<1.10E+01	0.00E+00				1.10E+01
Co-60	<5.70E+00	0.00E+00				5.70E+00
Zn-65	<1.23E+01	0.00E+00				1.23E+01
Zr-95	<1.06E+01	0.00E+00				1.06E+01
Nb-95	<6.70E+00	0.00E+00				6.70E+00
I-131	9.58E+00	9.95E+00				1.63E+01
Cs-134	<7.39E+00	0.00E+00				7.39E+00
Cs-137	<5.00E+00	0.00E+00				5.00E+00
BaLa-140	<8.80E+00	0.00E+00				8.80E+00
Be-7	6.09E+02	8.03E+01				7.97E+01
K-40	3.44E+03	3.14E+02				8.87E+01
567560	6/1/2022 - 6/1/2022	WAXMYRTLE				Mn-54
			Co-58	<1.53E+01	0.00E+00	1.53E+01
			Fe-59	<3.77E+01	0.00E+00	3.77E+01
			Co-60	<1.64E+01	0.00E+00	1.64E+01
			Zn-65	<3.79E+01	0.00E+00	3.79E+01
			Zr-95	<2.89E+01	0.00E+00	2.89E+01
			Nb-95	<1.24E+01	0.00E+00	1.24E+01
			I-131	<2.23E+01	0.00E+00	2.23E+01
			Cs-134	<1.81E+01	0.00E+00	1.81E+01
			Cs-137	<1.52E+01	0.00E+00	1.52E+01
			BaLa-140	<2.82E+01	0.00E+00	2.82E+01
			Be-7	1.17E+03	2.00E+02	1.52E+02
			K-40	3.06E+03	4.63E+02	2.82E+02
			568819	7/6/2022 - 7/6/2022	WAXMYRTLE	Mn-54
Co-58	<1.86E+01	0.00E+00				1.86E+01
Fe-59	<3.87E+01	0.00E+00				3.87E+01
Co-60	<2.37E+01	0.00E+00				2.37E+01
Zn-65	<4.19E+01	0.00E+00				4.19E+01
Zr-95	<3.42E+01	0.00E+00				3.42E+01
Nb-95	<2.05E+01	0.00E+00				2.05E+01
I-131	<2.94E+01	0.00E+00				2.94E+01
Cs-134	<1.71E+01	0.00E+00				1.71E+01
Cs-137	<2.10E+01	0.00E+00				2.10E+01
BaLa-140	<3.36E+01	0.00E+00				3.36E+01
Be-7	1.18E+03	2.39E+02				2.50E+02
K-40	3.18E+03	5.07E+02				3.30E+02
571090	8/2/2022 - 8/2/2022	WAXMYRTLE				Mn-54
			Co-58	<2.14E+01	0.00E+00	2.14E+01
			Fe-59	<4.29E+01	0.00E+00	4.29E+01
			Co-60	<2.57E+01	0.00E+00	2.57E+01
			Zn-65	<4.85E+01	0.00E+00	4.85E+01
			Zr-95	<3.52E+01	0.00E+00	3.52E+01

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

BRUNSWICK Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: VEGETATION Concentration (Activity): pCi/kg wet

Sample Point 800 [INDICATOR - NE @ 0.76 miles]

Sample ID:	Sample Dates:	WAXMYRTLE	Nuclide	Activity	2 Sigma Error	MDA
571090	8/2/2022 - 8/2/2022	WAXMYRTLE	Nb-95	<2.32E+01	0.00E+00	2.32E+01
			I-131	<3.62E+01	0.00E+00	3.62E+01
			Cs-134	<2.55E+01	0.00E+00	2.55E+01
			Cs-137	<2.37E+01	0.00E+00	2.37E+01
			BaLa-140	<3.18E+01	0.00E+00	3.18E+01
			Be-7	1.76E+03	2.96E+02	2.47E+02
			K-40	3.47E+03	5.44E+02	2.92E+02
573898	9/4/2022 - 9/4/2022	WAXMYRTLE	Mn-54	<2.78E+01	0.00E+00	2.78E+01
			Co-58	<1.75E+01	0.00E+00	1.75E+01
			Fe-59	<5.02E+01	0.00E+00	5.02E+01
			Co-60	<2.49E+01	0.00E+00	2.49E+01
			Zn-65	<4.94E+01	0.00E+00	4.94E+01
			Zr-95	<3.77E+01	0.00E+00	3.77E+01
			Nb-95	<2.15E+01	0.00E+00	2.15E+01
			I-131	<3.45E+01	0.00E+00	3.45E+01
			Cs-134	<2.93E+01	0.00E+00	2.93E+01
			Cs-137	<2.40E+01	0.00E+00	2.40E+01
			BaLa-140	<3.16E+01	0.00E+00	3.16E+01
			Be-7	8.46E+02	2.53E+02	3.27E+02
			K-40	2.96E+03	5.34E+02	4.05E+02
576075	10/5/2022 - 10/5/2022	WAXMYRTLE	Mn-54	<1.42E+01	0.00E+00	1.42E+01
			Co-58	<1.68E+01	0.00E+00	1.68E+01
			Fe-59	<2.83E+01	0.00E+00	2.83E+01
			Co-60	<2.00E+01	0.00E+00	2.00E+01
			Zn-65	<3.39E+01	0.00E+00	3.39E+01
			Zr-95	<3.02E+01	0.00E+00	3.02E+01
			Nb-95	<1.59E+01	0.00E+00	1.59E+01
			I-131	<2.08E+01	0.00E+00	2.08E+01
			Cs-134	<1.77E+01	0.00E+00	1.77E+01
			Cs-137	<1.42E+01	0.00E+00	1.42E+01
			BaLa-140	<1.59E+01	0.00E+00	1.59E+01
			Be-7	1.96E+03	2.76E+02	1.92E+02
			K-40	2.73E+03	4.25E+02	2.64E+02
577749	11/1/2022 - 11/1/2022	WAXMYRTLE	Mn-54	<4.34E+01	0.00E+00	4.34E+01
			Co-58	<2.80E+01	0.00E+00	2.80E+01
			Fe-59	<6.16E+01	0.00E+00	6.16E+01
			Co-60	<3.89E+01	0.00E+00	3.89E+01
			Zn-65	<5.50E+01	0.00E+00	5.50E+01
			Zr-95	<6.01E+01	0.00E+00	6.01E+01
			Nb-95	<3.92E+01	0.00E+00	3.92E+01
			I-131	<4.30E+01	0.00E+00	4.30E+01
			Cs-134	<3.97E+01	0.00E+00	3.97E+01
			Cs-137	<3.34E+01	0.00E+00	3.34E+01
			BaLa-140	<4.07E+01	0.00E+00	4.07E+01
			Be-7	1.07E+03	3.17E+02	3.95E+02
			K-40	2.38E+03	5.73E+02	5.15E+02
581686	12/1/2022 - 12/1/2022	WAXMYRTLE	Mn-54	<1.97E+01	0.00E+00	1.97E+01
			Co-58	<2.10E+01	0.00E+00	2.10E+01
			Fe-59	<4.88E+01	0.00E+00	4.88E+01
			Co-60	<2.71E+01	0.00E+00	2.71E+01
			Zn-65	<4.51E+01	0.00E+00	4.51E+01
			Zr-95	<3.14E+01	0.00E+00	3.14E+01
			Nb-95	<2.50E+01	0.00E+00	2.50E+01
			I-131	<3.15E+01	0.00E+00	3.15E+01
			Cs-134	<2.96E+01	0.00E+00	2.96E+01
			Cs-137	<1.80E+01	0.00E+00	1.80E+01
			BaLa-140	<2.88E+01	0.00E+00	2.88E+01
Be-7	1.58E+03	2.97E+02	2.53E+02			

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

BRUNSWICK Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: VEGETATION Concentration (Activity): pCi/kg wet

Sample Point 800 [INDICATOR - NE @ 0.76 miles]

Sample ID:	581686	Sample Dates:	12/1/2022 - 12/1/2022	WAXMYRTLE	Nuclide	Activity	2 Sigma Error	MDA
					K-40	2.17E+03	4.78E+02	4.08E+02

Sample Point 801 [INDICATOR - SW @ 0.71 miles]

Sample ID:	552265	Sample Dates:	1/5/2022 - 1/5/2022	WAXMYRTLE	Nuclide	Activity	2 Sigma Error	MDA
					Mn-54	<1.75E+01	0.00E+00	1.75E+01
					Co-58	<1.74E+01	0.00E+00	1.74E+01
					Fe-59	<4.72E+01	0.00E+00	4.72E+01
					Co-60	<1.78E+01	0.00E+00	1.78E+01
					Zn-65	<4.19E+01	0.00E+00	4.19E+01
					Zr-95	<3.28E+01	0.00E+00	3.28E+01
					Nb-95	<2.35E+01	0.00E+00	2.35E+01
					I-131	<2.56E+01	0.00E+00	2.56E+01
					Cs-134	<2.00E+01	0.00E+00	2.00E+01
					Cs-137	<1.81E+01	0.00E+00	1.81E+01
					BaLa-140	<2.10E+01	0.00E+00	2.10E+01
					Be-7	2.12E+03	3.32E+02	2.89E+02
					K-40	2.49E+03	4.05E+02	1.54E+02

Sample ID:	560496	Sample Dates:	2/1/2022 - 2/1/2022	WAXMYRTLE	Nuclide	Activity	2 Sigma Error	MDA
					Mn-54	<1.73E+01	0.00E+00	1.73E+01
					Co-58	<2.24E+01	0.00E+00	2.24E+01
					Fe-59	<3.61E+01	0.00E+00	3.61E+01
					Co-60	<2.05E+01	0.00E+00	2.05E+01
					Zn-65	<4.37E+01	0.00E+00	4.37E+01
					Zr-95	<3.20E+01	0.00E+00	3.20E+01
					Nb-95	<2.52E+01	0.00E+00	2.52E+01
					I-131	<2.79E+01	0.00E+00	2.79E+01
					Cs-134	<2.26E+01	0.00E+00	2.26E+01
					Cs-137	<1.60E+01	0.00E+00	1.60E+01
					BaLa-140	<4.07E+01	0.00E+00	4.07E+01
					Be-7	1.50E+03	2.75E+02	2.55E+02
					K-40	2.13E+03	4.26E+02	3.49E+02

Sample ID:	562238	Sample Dates:	3/1/2022 - 3/1/2022	WAXMYRTLE	Nuclide	Activity	2 Sigma Error	MDA
					Mn-54	<2.25E+01	0.00E+00	2.25E+01
					Co-58	<1.91E+01	0.00E+00	1.91E+01
					Fe-59	<4.34E+01	0.00E+00	4.34E+01
					Co-60	<2.26E+01	0.00E+00	2.26E+01
					Zn-65	<5.00E+01	0.00E+00	5.00E+01
					Zr-95	<3.51E+01	0.00E+00	3.51E+01
					Nb-95	<2.24E+01	0.00E+00	2.24E+01
					I-131	<3.53E+01	0.00E+00	3.53E+01
					Cs-134	<2.08E+01	0.00E+00	2.08E+01
					Cs-137	<1.89E+01	0.00E+00	1.89E+01
					BaLa-140	<3.57E+01	0.00E+00	3.57E+01
					Be-7	3.12E+03	4.20E+02	2.96E+02
					K-40	2.77E+03	5.02E+02	4.21E+02

Sample ID:	563988	Sample Dates:	4/3/2022 - 4/3/2022	WAXMYRTLE	Nuclide	Activity	2 Sigma Error	MDA
					Mn-54	<2.74E+01	0.00E+00	2.74E+01
					Co-58	<2.99E+01	0.00E+00	2.99E+01
					Fe-59	<5.35E+01	0.00E+00	5.35E+01
					Co-60	<2.87E+01	0.00E+00	2.87E+01
					Zn-65	<6.96E+01	0.00E+00	6.96E+01
					Zr-95	<5.57E+01	0.00E+00	5.57E+01
					Nb-95	<2.69E+01	0.00E+00	2.69E+01
					I-131	<2.73E+01	0.00E+00	2.73E+01
					Cs-134	<2.93E+01	0.00E+00	2.93E+01
					Cs-137	<3.30E+01	0.00E+00	3.30E+01
					BaLa-140	<4.02E+01	0.00E+00	4.02E+01
					Be-7	2.57E+03	4.37E+02	3.09E+02
					K-40	2.66E+03	5.62E+02	2.66E+02

BRUNSWICK Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: VEGETATION Concentration (Activity): pCi/kg wet

Sample Point 801 [INDICATOR - SW @ 0.71 miles]

Sample ID:	Sample Dates:	WAXMYRTLE	Nuclide	Activity	2 Sigma Error	MDA
565954	5/3/2022 - 5/3/2022	WAXMYRTLE	Mn-54	<1.07E+01	0.00E+00	1.07E+01
			Co-58	<1.23E+01	0.00E+00	1.23E+01
			Fe-59	<2.82E+01	0.00E+00	2.82E+01
			Co-60	<1.51E+01	0.00E+00	1.51E+01
			Zn-65	<2.94E+01	0.00E+00	2.94E+01
			Zr-95	<2.47E+01	0.00E+00	2.47E+01
			Nb-95	<1.25E+01	0.00E+00	1.25E+01
			I-131	<1.16E+01	0.00E+00	1.16E+01
			Cs-134	<1.39E+01	0.00E+00	1.39E+01
			Cs-137	<1.36E+01	0.00E+00	1.36E+01
			BaLa-140	<1.31E+01	0.00E+00	1.31E+01
			Be-7	5.80E+02	1.22E+02	1.19E+02
			K-40	3.43E+03	4.42E+02	2.28E+02
567561	6/1/2022 - 6/1/2022	WAXMYRTLE	Mn-54	<2.14E+01	0.00E+00	2.14E+01
			Co-58	<2.05E+01	0.00E+00	2.05E+01
			Fe-59	<4.29E+01	0.00E+00	4.29E+01
			Co-60	<2.04E+01	0.00E+00	2.04E+01
			Zn-65	<5.20E+01	0.00E+00	5.20E+01
			Zr-95	<3.56E+01	0.00E+00	3.56E+01
			Nb-95	<2.39E+01	0.00E+00	2.39E+01
			I-131	<2.95E+01	0.00E+00	2.95E+01
			Cs-134	<2.48E+01	0.00E+00	2.48E+01
			Cs-137	<2.14E+01	0.00E+00	2.14E+01
			BaLa-140	<2.76E+01	0.00E+00	2.76E+01
			Be-7	6.18E+02	1.74E+02	2.03E+02
			K-40	2.87E+03	4.76E+02	3.00E+02
568820	7/5/2022 - 7/5/2022	WAXMYRTLE	Mn-54	<2.30E+01	0.00E+00	2.30E+01
			Co-58	<2.20E+01	0.00E+00	2.20E+01
			Fe-59	<4.39E+01	0.00E+00	4.39E+01
			Co-60	<2.09E+01	0.00E+00	2.09E+01
			Zn-65	<3.91E+01	0.00E+00	3.91E+01
			Zr-95	<4.26E+01	0.00E+00	4.26E+01
			Nb-95	<2.42E+01	0.00E+00	2.42E+01
			I-131	<3.23E+01	0.00E+00	3.23E+01
			Cs-134	<2.36E+01	0.00E+00	2.36E+01
			Cs-137	<2.12E+01	0.00E+00	2.12E+01
			BaLa-140	<2.88E+01	0.00E+00	2.88E+01
			Be-7	9.91E+02	2.26E+02	2.41E+02
			K-40	3.44E+03	5.43E+02	3.50E+02
571091	8/2/2022 - 8/2/2022	WAXMYRTLE	Mn-54	<2.37E+01	0.00E+00	2.37E+01
			Co-58	<2.11E+01	0.00E+00	2.11E+01
			Fe-59	<4.28E+01	0.00E+00	4.28E+01
			Co-60	1.76E+00	1.39E+01	2.57E+01
			Zn-65	<5.21E+01	0.00E+00	5.21E+01
			Zr-95	<3.85E+01	0.00E+00	3.85E+01
			Nb-95	<2.38E+01	0.00E+00	2.38E+01
			I-131	<3.46E+01	0.00E+00	3.46E+01
			Cs-134	<2.50E+01	0.00E+00	2.50E+01
			Cs-137	<2.44E+01	0.00E+00	2.44E+01
			BaLa-140	<2.64E+01	0.00E+00	2.64E+01
			Be-7	2.51E+03	3.69E+02	2.70E+02
			K-40	3.31E+03	5.71E+02	4.81E+02
573899	9/4/2022 - 9/4/2022	WAXMYRTLE	Mn-54	<2.30E+01	0.00E+00	2.30E+01
			Co-58	<1.89E+01	0.00E+00	1.89E+01
			Fe-59	<4.79E+01	0.00E+00	4.79E+01
			Co-60	<1.66E+01	0.00E+00	1.66E+01
			Zn-65	<4.57E+01	0.00E+00	4.57E+01
			Zr-95	<3.29E+01	0.00E+00	3.29E+01

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

BRUNSWICK Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: VEGETATION Concentration (Activity): pCi/kg wet

Sample Point 801 [INDICATOR - SW @ 0.71 miles]

Sample ID:	Sample Dates:	WAXMYRTLE	Nuclide	Activity	2 Sigma Error	MDA
573899	9/4/2022 - 9/4/2022		Nb-95	<2.17E+01	0.00E+00	2.17E+01
			I-131	<3.02E+01	0.00E+00	3.02E+01
			Cs-134	<2.63E+01	0.00E+00	2.63E+01
			Cs-137	<2.02E+01	0.00E+00	2.02E+01
			BaLa-140	<3.47E+01	0.00E+00	3.47E+01
			Be-7	6.39E+02	2.06E+02	2.68E+02
			K-40	3.52E+03	5.56E+02	3.20E+02

Sample ID:	Sample Dates:	WAXMYRTLE	Nuclide	Activity	2 Sigma Error	MDA
576076	10/3/2022 - 10/3/2022		Mn-54	<1.78E+01	0.00E+00	1.78E+01
			Co-58	<1.53E+01	0.00E+00	1.53E+01
			Fe-59	<3.43E+01	0.00E+00	3.43E+01
			Co-60	<1.93E+01	0.00E+00	1.93E+01
			Zn-65	<4.14E+01	0.00E+00	4.14E+01
			Zr-95	<2.93E+01	0.00E+00	2.93E+01
			Nb-95	<1.56E+01	0.00E+00	1.56E+01
			I-131	<2.00E+01	0.00E+00	2.00E+01
			Cs-134	<1.68E+01	0.00E+00	1.68E+01
			Cs-137	<1.58E+01	0.00E+00	1.58E+01
			BaLa-140	<1.11E+01	0.00E+00	1.11E+01
			Be-7	6.62E+02	1.57E+02	1.68E+02
			K-40	3.03E+03	4.43E+02	2.09E+02

Sample ID:	Sample Dates:	WAXMYRTLE	Nuclide	Activity	2 Sigma Error	MDA
577750	11/1/2022 - 11/1/2022		Mn-54	<3.22E+01	0.00E+00	3.22E+01
			Co-58	<3.69E+01	0.00E+00	3.69E+01
			Fe-59	<6.82E+01	0.00E+00	6.82E+01
			Co-60	<3.20E+01	0.00E+00	3.20E+01
			Zn-65	<7.95E+01	0.00E+00	7.95E+01
			Zr-95	<5.60E+01	0.00E+00	5.60E+01
			Nb-95	<3.47E+01	0.00E+00	3.47E+01
			I-131	<3.84E+01	0.00E+00	3.84E+01
			Cs-134	<3.60E+01	0.00E+00	3.60E+01
			Cs-137	<3.69E+01	0.00E+00	3.69E+01
			BaLa-140	<3.92E+01	0.00E+00	3.92E+01
			Be-7	1.09E+03	3.33E+02	4.32E+02
			K-40	2.47E+03	5.16E+02	2.50E+02

Sample ID:	Sample Dates:	WAXMYRTLE	Nuclide	Activity	2 Sigma Error	MDA
581687	12/1/2022 - 12/1/2022		Mn-54	<2.19E+01	0.00E+00	2.19E+01
			Co-58	<2.13E+01	0.00E+00	2.13E+01
			Fe-59	<4.45E+01	0.00E+00	4.45E+01
			Co-60	<2.17E+01	0.00E+00	2.17E+01
			Zn-65	<3.82E+01	0.00E+00	3.82E+01
			Zr-95	<4.03E+01	0.00E+00	4.03E+01
			Nb-95	<2.23E+01	0.00E+00	2.23E+01
			I-131	<2.82E+01	0.00E+00	2.82E+01
			Cs-134	<2.55E+01	0.00E+00	2.55E+01
			Cs-137	<2.19E+01	0.00E+00	2.19E+01
			BaLa-140	<3.69E+01	0.00E+00	3.69E+01
			Be-7	1.12E+03	4.97E+02	1.99E+02
			K-40	2.06E+03	4.75E+02	4.05E+02

Sample Point 802 [CONTROL - WNW @ 10.4 miles]

Sample ID:	Sample Dates:	WAXMYRTLE	Nuclide	Activity	2 Sigma Error	MDA
552266	1/5/2022 - 1/5/2022		Mn-54	<1.95E+01	0.00E+00	1.95E+01
			Co-58	<1.59E+01	0.00E+00	1.59E+01
			Fe-59	<3.17E+01	0.00E+00	3.17E+01
			Co-60	<2.30E+01	0.00E+00	2.30E+01
			Zn-65	<4.06E+01	0.00E+00	4.06E+01
			Zr-95	<3.61E+01	0.00E+00	3.61E+01
			Nb-95	<2.17E+01	0.00E+00	2.17E+01
			I-131	<2.99E+01	0.00E+00	2.99E+01
			Cs-134	<1.54E+01	0.00E+00	1.54E+01

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

BRUNSWICK Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: VEGETATION Concentration (Activity): pCi/kg wet

Sample Point 802 [CONTROL - WNW @ 10.4 miles]

Sample ID:	Sample Dates:	WAXMYRTLE	Nuclide	Activity	2 Sigma Error	MDA
552266	1/5/2022 - 1/5/2022		Cs-137	<1.75E+01	0.00E+00	1.75E+01
			BaLa-140	<3.42E+01	0.00E+00	3.42E+01
			Be-7	3.37E+03	4.25E+02	2.71E+02
			K-40	1.70E+03	3.50E+02	2.90E+02
560497	2/1/2022 - 2/1/2022		Mn-54	<2.44E+01	0.00E+00	2.44E+01
			Co-58	<2.18E+01	0.00E+00	2.18E+01
			Fe-59	<4.66E+01	0.00E+00	4.66E+01
			Co-60	<2.51E+01	0.00E+00	2.51E+01
			Zn-65	<4.42E+01	0.00E+00	4.42E+01
			Zr-95	<3.95E+01	0.00E+00	3.95E+01
			Nb-95	<2.56E+01	0.00E+00	2.56E+01
			I-131	<4.24E+01	0.00E+00	4.24E+01
			Cs-134	<3.08E+01	0.00E+00	3.08E+01
			Cs-137	<2.32E+01	0.00E+00	2.32E+01
			BaLa-140	<3.09E+01	0.00E+00	3.09E+01
			Be-7	5.10E+03	5.90E+02	2.57E+02
			K-40	1.74E+03	3.94E+02	3.97E+02
			562239	3/1/2022 - 3/1/2022		Mn-54
Co-58	<2.09E+01	0.00E+00				2.09E+01
Fe-59	<3.92E+01	0.00E+00				3.92E+01
Co-60	<2.05E+01	0.00E+00				2.05E+01
Zn-65	<4.30E+01	0.00E+00				4.30E+01
Zr-95	<3.63E+01	0.00E+00				3.63E+01
Nb-95	<2.52E+01	0.00E+00				2.52E+01
I-131	<3.50E+01	0.00E+00				3.50E+01
Cs-134	<2.21E+01	0.00E+00				2.21E+01
Cs-137	<2.40E+01	0.00E+00				2.40E+01
BaLa-140	<2.68E+01	0.00E+00				2.68E+01
Be-7	2.51E+03	3.20E+02				2.17E+02
K-40	1.77E+03	3.40E+02				3.51E+02
563989	4/2/2022 - 4/2/2022					Mn-54
			Co-58	<2.59E+01	0.00E+00	2.59E+01
			Fe-59	<5.57E+01	0.00E+00	5.57E+01
			Co-60	<3.45E+01	0.00E+00	3.45E+01
			Zn-65	<6.04E+01	0.00E+00	6.04E+01
			Zr-95	<5.06E+01	0.00E+00	5.06E+01
			Nb-95	<2.88E+01	0.00E+00	2.88E+01
			I-131	<3.30E+01	0.00E+00	3.30E+01
			Cs-134	<3.54E+01	0.00E+00	3.54E+01
			Cs-137	<3.17E+01	0.00E+00	3.17E+01
			BaLa-140	<2.88E+01	0.00E+00	2.88E+01
			Be-7	4.80E+03	6.51E+02	2.95E+02
			K-40	2.50E+03	5.54E+02	7.14E+01
			565955	5/3/2022 - 5/3/2022		Mn-54
Co-58	<9.82E+00	0.00E+00				9.82E+00
Fe-59	<2.62E+01	0.00E+00				2.62E+01
Co-60	<1.48E+01	0.00E+00				1.48E+01
Zn-65	<2.42E+01	0.00E+00				2.42E+01
Zr-95	<1.85E+01	0.00E+00				1.85E+01
Nb-95	<1.11E+01	0.00E+00				1.11E+01
I-131	<1.19E+01	0.00E+00				1.19E+01
Cs-134	<1.38E+01	0.00E+00				1.38E+01
Cs-137	<1.23E+01	0.00E+00				1.23E+01
BaLa-140	<1.43E+01	0.00E+00				1.43E+01
Be-7	6.49E+02	1.32E+02				1.38E+02
K-40	3.27E+03	4.28E+02				2.28E+02

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

BRUNSWICK Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: VEGETATION Concentration (Activity): pCi/kg wet

Sample Point 802 [CONTROL - WNW @ 10.4 miles]

Sample ID:	Sample Dates:	WAXMYRTLE	Nuclide	Activity	2 Sigma Error	MDA
567562	6/1/2022 - 6/1/2022		Mn-54	<1.45E+01	0.00E+00	1.45E+01
			Co-58	<1.45E+01	0.00E+00	1.45E+01
			Fe-59	<3.55E+01	0.00E+00	3.55E+01
			Co-60	<1.28E+01	0.00E+00	1.28E+01
			Zn-65	<3.50E+01	0.00E+00	3.50E+01
			Zr-95	<2.19E+01	0.00E+00	2.19E+01
			Nb-95	<1.31E+01	0.00E+00	1.31E+01
			I-131	<2.23E+01	0.00E+00	2.23E+01
			Cs-134	<1.41E+01	0.00E+00	1.41E+01
			Cs-137	5.81E+01	1.82E+01	2.23E+01
			BaLa-140	<1.79E+01	0.00E+00	1.79E+01
			Be-7	5.68E+02	1.54E+02	1.91E+02
			K-40	1.91E+03	3.50E+02	2.99E+02
568821	7/5/2022 - 7/5/2022		Mn-54	<2.04E+01	0.00E+00	2.04E+01
			Co-58	<1.72E+01	0.00E+00	1.72E+01
			Fe-59	<3.86E+01	0.00E+00	3.86E+01
			Co-60	<2.12E+01	0.00E+00	2.12E+01
			Zn-65	<3.35E+01	0.00E+00	3.35E+01
			Zr-95	<3.63E+01	0.00E+00	3.63E+01
			Nb-95	<2.35E+01	0.00E+00	2.35E+01
			I-131	<3.38E+01	0.00E+00	3.38E+01
			Cs-134	<2.10E+01	0.00E+00	2.10E+01
			Cs-137	<1.95E+01	0.00E+00	1.95E+01
			BaLa-140	<1.85E+01	0.00E+00	1.85E+01
			Be-7	2.47E+03	3.20E+02	2.17E+02
			K-40	2.96E+03	4.74E+02	3.48E+02
571092	8/1/2022 - 8/1/2022		Mn-54	<1.81E+01	0.00E+00	1.81E+01
			Co-58	<2.11E+01	0.00E+00	2.11E+01
			Fe-59	<4.41E+01	0.00E+00	4.41E+01
			Co-60	<1.91E+01	0.00E+00	1.91E+01
			Zn-65	<4.75E+01	0.00E+00	4.75E+01
			Zr-95	<4.65E+01	0.00E+00	4.65E+01
			Nb-95	<2.64E+01	0.00E+00	2.64E+01
			I-131	<3.30E+01	0.00E+00	3.30E+01
			Cs-134	<1.95E+01	0.00E+00	1.95E+01
			Cs-137	<2.23E+01	0.00E+00	2.23E+01
			BaLa-140	<3.50E+01	0.00E+00	3.50E+01
			Be-7	3.49E+03	4.61E+02	2.99E+02
			K-40	2.47E+03	4.33E+02	2.27E+02
573900	9/4/2022 - 9/4/2022		Mn-54	<2.34E+01	0.00E+00	2.34E+01
			Co-58	<2.32E+01	0.00E+00	2.32E+01
			Fe-59	<5.36E+01	0.00E+00	5.36E+01
			Co-60	<2.57E+01	0.00E+00	2.57E+01
			Zn-65	<6.08E+01	0.00E+00	6.08E+01
			Zr-95	<4.91E+01	0.00E+00	4.91E+01
			Nb-95	<2.76E+01	0.00E+00	2.76E+01
			I-131	<3.43E+01	0.00E+00	3.43E+01
			Cs-134	<2.96E+01	0.00E+00	2.96E+01
			Cs-137	<2.42E+01	0.00E+00	2.42E+01
			BaLa-140	<3.36E+01	0.00E+00	3.36E+01
			Be-7	4.46E+03	5.71E+02	3.61E+02
			K-40	2.68E+03	4.81E+02	2.84E+02
576077	10/3/2022 - 10/3/2022		Mn-54	<1.69E+01	0.00E+00	1.69E+01
			Co-58	<1.67E+01	0.00E+00	1.67E+01
			Fe-59	<3.96E+01	0.00E+00	3.96E+01
			Co-60	<1.82E+01	0.00E+00	1.82E+01
			Zn-65	<3.97E+01	0.00E+00	3.97E+01
			Zr-95	<2.66E+01	0.00E+00	2.66E+01

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

BRUNSWICK Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: VEGETATION Concentration (Activity): pCi/kg wet

Sample Point 802 [CONTROL - WNW @ 10.4 miles]

Sample ID:	576077	Sample Dates:	10/3/2022 - 10/3/2022	WAXMYRTLE	Nuclide	Activity	2 Sigma Error	MDA
					Nb-95	<1.92E+01	0.00E+00	1.92E+01
					I-131	<2.21E+01	0.00E+00	2.21E+01
					Cs-134	<2.19E+01	0.00E+00	2.19E+01
					Cs-137	<2.26E+01	0.00E+00	2.26E+01
					BaLa-140	<1.94E+01	0.00E+00	1.94E+01
					Be-7	3.04E+03	4.49E+02	4.47E+02
					K-40	2.14E+03	3.89E+02	2.98E+02

Sample ID:	577751	Sample Dates:	11/1/2022 - 11/1/2022	WAXMYRTLE	Nuclide	Activity	2 Sigma Error	MDA
					Mn-54	<3.81E+01	0.00E+00	3.81E+01
					Co-58	<4.62E+01	0.00E+00	4.62E+01
					Fe-59	<7.27E+01	0.00E+00	7.27E+01
					Co-60	<4.29E+01	0.00E+00	4.29E+01
					Zn-65	<1.04E+02	0.00E+00	1.04E+02
					Zr-95	<4.80E+01	0.00E+00	4.80E+01
					Nb-95	<4.03E+01	0.00E+00	4.03E+01
					I-131	<4.70E+01	0.00E+00	4.70E+01
					Cs-134	<3.32E+01	0.00E+00	3.32E+01
					Cs-137	<3.22E+01	0.00E+00	3.22E+01
					BaLa-140	<7.12E+01	0.00E+00	7.12E+01
					Be-7	2.07E+03	4.74E+02	5.04E+02
					K-40	1.74E+03	5.47E+02	5.11E+02

Sample ID:	581688	Sample Dates:	12/1/2022 - 12/1/2022	WAXMYRTLE	Nuclide	Activity	2 Sigma Error	MDA
					Mn-54	<1.90E+01	0.00E+00	1.90E+01
					Co-58	<1.94E+01	0.00E+00	1.94E+01
					Fe-59	<4.27E+01	0.00E+00	4.27E+01
					Co-60	<2.28E+01	0.00E+00	2.28E+01
					Zn-65	<2.83E+01	0.00E+00	2.83E+01
					Zr-95	<3.54E+01	0.00E+00	3.54E+01
					Nb-95	<1.94E+01	0.00E+00	1.94E+01
					I-131	<3.11E+01	0.00E+00	3.11E+01
					Cs-134	<2.23E+01	0.00E+00	2.23E+01
					Cs-137	<2.01E+01	0.00E+00	2.01E+01
					BaLa-140	<3.56E+01	0.00E+00	3.56E+01
					Be-7	3.37E+03	4.79E+02	3.06E+02
					K-40	1.54E+03	3.94E+02	3.47E+02

Sample Point 803 [INDICATOR - SSE @ 0.48 miles]

Sample ID:	552267	Sample Dates:	1/5/2022 - 1/5/2022	WAXMYRTLE	Nuclide	Activity	2 Sigma Error	MDA
					Mn-54	<1.66E+01	0.00E+00	1.66E+01
					Co-58	<1.49E+01	0.00E+00	1.49E+01
					Fe-59	<3.47E+01	0.00E+00	3.47E+01
					Co-60	<1.72E+01	0.00E+00	1.72E+01
					Zn-65	<3.94E+01	0.00E+00	3.94E+01
					Zr-95	<2.87E+01	0.00E+00	2.87E+01
					Nb-95	<1.99E+01	0.00E+00	1.99E+01
					I-131	<2.78E+01	0.00E+00	2.78E+01
					Cs-134	<1.95E+01	0.00E+00	1.95E+01
					Cs-137	<1.64E+01	0.00E+00	1.64E+01
					BaLa-140	<2.04E+01	0.00E+00	2.04E+01
					Be-7	2.97E+03	3.85E+02	2.33E+02
					K-40	1.71E+03	3.75E+02	3.76E+02

Sample ID:	560498	Sample Dates:	2/1/2022 - 2/1/2022	WAXMYRTLE	Nuclide	Activity	2 Sigma Error	MDA
					Mn-54	<2.45E+01	0.00E+00	2.45E+01
					Co-58	<1.89E+01	0.00E+00	1.89E+01
					Fe-59	<5.01E+01	0.00E+00	5.01E+01
					Co-60	<2.00E+01	0.00E+00	2.00E+01
					Zn-65	<6.47E+01	0.00E+00	6.47E+01
					Zr-95	<3.62E+01	0.00E+00	3.62E+01
					Nb-95	<2.59E+01	0.00E+00	2.59E+01
					I-131	<3.85E+01	0.00E+00	3.85E+01
					Cs-134	<2.45E+01	0.00E+00	2.45E+01

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

BRUNSWICK Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: VEGETATION Concentration (Activity): pCi/kg wet

Sample Point 803 [INDICATOR - SSE @ 0.48 miles]

Sample ID:	Sample Dates:	WAXMYRTLE	Nuclide	Activity	2 Sigma Error	MDA
560498	2/1/2022 - 2/1/2022		Cs-137	<2.40E+01	0.00E+00	2.40E+01
			BaLa-140	<3.07E+01	0.00E+00	3.07E+01
			Be-7	4.81E+03	5.92E+02	3.68E+02
			K-40	3.35E+03	5.66E+02	4.28E+02
562240	3/1/2022 - 3/1/2022		Mn-54	<2.65E+01	0.00E+00	2.65E+01
			Co-58	<2.44E+01	0.00E+00	2.44E+01
			Fe-59	<4.71E+01	0.00E+00	4.71E+01
			Co-60	<2.28E+01	0.00E+00	2.28E+01
			Zn-65	<6.27E+01	0.00E+00	6.27E+01
			Zr-95	<4.34E+01	0.00E+00	4.34E+01
			Nb-95	<4.83E+01	0.00E+00	4.83E+01
			I-131	<4.58E+01	0.00E+00	4.58E+01
			Cs-134	<3.11E+01	0.00E+00	3.11E+01
			Cs-137	<2.96E+01	0.00E+00	2.96E+01
			BaLa-140	<3.98E+01	0.00E+00	3.98E+01
			Be-7	3.52E+03	4.75E+02	4.15E+02
			K-40	2.65E+03	4.43E+02	3.67E+02
			563990	4/3/2022 - 4/3/2022		Mn-54
Co-58	<2.56E+01	0.00E+00				2.56E+01
Fe-59	<4.22E+01	0.00E+00				4.22E+01
Co-60	<3.11E+01	0.00E+00				3.11E+01
Zn-65	<6.13E+01	0.00E+00				6.13E+01
Zr-95	<4.00E+01	0.00E+00				4.00E+01
Nb-95	<2.62E+01	0.00E+00				2.62E+01
I-131	<2.64E+01	0.00E+00				2.64E+01
Cs-134	<2.72E+01	0.00E+00				2.72E+01
Cs-137	<2.22E+01	0.00E+00				2.22E+01
BaLa-140	<3.32E+01	0.00E+00				3.32E+01
Be-7	3.35E+03	4.96E+02				3.11E+02
K-40	2.75E+03	5.47E+02				2.03E+02
565956	5/3/2022 - 5/3/2022					Mn-54
			Co-58	<1.31E+01	0.00E+00	1.31E+01
			Fe-59	<2.71E+01	0.00E+00	2.71E+01
			Co-60	<1.66E+01	0.00E+00	1.66E+01
			Zn-65	<2.25E+01	0.00E+00	2.25E+01
			Zr-95	<2.13E+01	0.00E+00	2.13E+01
			Nb-95	<1.31E+01	0.00E+00	1.31E+01
			I-131	<1.28E+01	0.00E+00	1.28E+01
			Cs-134	<1.63E+01	0.00E+00	1.63E+01
			Cs-137	<1.20E+01	0.00E+00	1.20E+01
			BaLa-140	<1.14E+01	0.00E+00	1.14E+01
			Be-7	8.24E+02	1.59E+02	1.47E+02
			K-40	2.93E+03	4.14E+02	1.80E+02
			567563	6/1/2022 - 6/1/2022		Mn-54
Co-58	<1.91E+01	0.00E+00				1.91E+01
Fe-59	<3.75E+01	0.00E+00				3.75E+01
Co-60	<2.04E+01	0.00E+00				2.04E+01
Zn-65	<4.21E+01	0.00E+00				4.21E+01
Zr-95	<3.47E+01	0.00E+00				3.47E+01
Nb-95	<2.05E+01	0.00E+00				2.05E+01
I-131	<2.99E+01	0.00E+00				2.99E+01
Cs-134	<2.33E+01	0.00E+00				2.33E+01
Cs-137	<2.04E+01	0.00E+00				2.04E+01
BaLa-140	<2.61E+01	0.00E+00				2.61E+01
Be-7	6.39E+02	1.98E+02				2.63E+02
K-40	3.65E+03	5.16E+02				2.23E+02

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

BRUNSWICK Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: VEGETATION Concentration (Activity): pCi/kg wet

Sample Point 803 [INDICATOR - SSE @ 0.48 miles]

Sample ID:	Sample Dates:	WAXMYRTLE	Nuclide	Activity	2 Sigma Error	MDA
568822	7/5/2022 - 7/5/2022		Mn-54	<1.72E+01	0.00E+00	1.72E+01
			Co-58	<1.91E+01	0.00E+00	1.91E+01
			Fe-59	<3.63E+01	0.00E+00	3.63E+01
			Co-60	<1.84E+01	0.00E+00	1.84E+01
			Zn-65	<3.25E+01	0.00E+00	3.25E+01
			Zr-95	<3.52E+01	0.00E+00	3.52E+01
			Nb-95	<2.07E+01	0.00E+00	2.07E+01
			I-131	<3.33E+01	0.00E+00	3.33E+01
			Cs-134	<2.33E+01	0.00E+00	2.33E+01
			Cs-137	<1.92E+01	0.00E+00	1.92E+01
			BaLa-140	<2.89E+01	0.00E+00	2.89E+01
			Be-7	1.73E+03	2.79E+02	2.50E+02
			K-40	3.04E+03	4.49E+02	2.08E+02
			571093	8/2/2022 - 8/2/2022		Mn-54
Co-58	<2.15E+01	0.00E+00				2.15E+01
Fe-59	<5.05E+01	0.00E+00				5.05E+01
Co-60	<2.83E+01	0.00E+00				2.83E+01
Zn-65	<4.98E+01	0.00E+00				4.98E+01
Zr-95	<4.28E+01	0.00E+00				4.28E+01
Nb-95	<2.60E+01	0.00E+00				2.60E+01
I-131	<3.74E+01	0.00E+00				3.74E+01
Cs-134	<2.47E+01	0.00E+00				2.47E+01
Cs-137	<2.01E+01	0.00E+00				2.01E+01
BaLa-140	<3.78E+01	0.00E+00				3.78E+01
Be-7	2.35E+03	3.78E+02				3.17E+02
K-40	2.65E+03	4.92E+02				3.58E+02
573901	9/4/2022 - 9/4/2022					Mn-54
			Co-58	<1.97E+01	0.00E+00	1.97E+01
			Fe-59	<3.84E+01	0.00E+00	3.84E+01
			Co-60	<2.65E+01	0.00E+00	2.65E+01
			Zn-65	<4.49E+01	0.00E+00	4.49E+01
			Zr-95	<3.43E+01	0.00E+00	3.43E+01
			Nb-95	<2.17E+01	0.00E+00	2.17E+01
			I-131	<2.74E+01	0.00E+00	2.74E+01
			Cs-134	<2.53E+01	0.00E+00	2.53E+01
			Cs-137	<1.77E+01	0.00E+00	1.77E+01
			BaLa-140	<2.68E+01	0.00E+00	2.68E+01
			Be-7	2.55E+03	3.77E+02	2.97E+02
			K-40	2.53E+03	4.56E+02	3.06E+02
			576078	10/4/2022 - 10/4/2022		Mn-54
Co-58	<1.25E+01	0.00E+00				1.25E+01
Fe-59	<3.46E+01	0.00E+00				3.46E+01
Co-60	<1.30E+01	0.00E+00				1.30E+01
Zn-65	<4.34E+01	0.00E+00				4.34E+01
Zr-95	<2.16E+01	0.00E+00				2.16E+01
Nb-95	<2.07E+01	0.00E+00				2.07E+01
I-131	<1.88E+01	0.00E+00				1.88E+01
Cs-134	<1.59E+01	0.00E+00				1.59E+01
Cs-137	<1.69E+01	0.00E+00				1.69E+01
BaLa-140	<1.83E+01	0.00E+00				1.83E+01
Be-7	2.13E+03	2.95E+02				1.84E+02
K-40	2.55E+03	4.00E+02				2.21E+02
577752	11/1/2022 - 11/1/2022					Mn-54
			Co-58	<3.80E+01	0.00E+00	3.80E+01
			Fe-59	<9.05E+01	0.00E+00	9.05E+01
			Co-60	<5.06E+01	0.00E+00	5.06E+01
			Zn-65	<9.24E+01	0.00E+00	9.24E+01
			Zr-95	<7.52E+01	0.00E+00	7.52E+01

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

BRUNSWICK Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: VEGETATION Concentration (Activity): pCi/kg wet

Sample Point 803 [INDICATOR - SSE @ 0.48 miles]

Sample ID:	Sample Dates:	WAXMYRTLE	Nuclide	Activity	2 Sigma Error	MDA
577752	11/1/2022 - 11/1/2022		Nb-95	<4.60E+01	0.00E+00	4.60E+01
			I-131	<4.51E+01	0.00E+00	4.51E+01
			Cs-134	<4.41E+01	0.00E+00	4.41E+01
			Cs-137	<4.64E+01	0.00E+00	4.64E+01
			BaLa-140	<5.95E+01	0.00E+00	5.95E+01
			Be-7	1.78E+03	4.76E+02	5.72E+02
			K-40	2.80E+03	7.12E+02	6.41E+02

Sample ID:	Sample Dates:	WAXMYRTLE	Nuclide	Activity	2 Sigma Error	MDA
581689	12/1/2022 - 12/1/2022		Mn-54	<2.82E+01	0.00E+00	2.82E+01
			Co-58	<2.35E+01	0.00E+00	2.35E+01
			Fe-59	<5.45E+01	0.00E+00	5.45E+01
			Co-60	<2.50E+01	0.00E+00	2.50E+01
			Zn-65	<5.32E+01	0.00E+00	5.32E+01
			Zr-95	<3.90E+01	0.00E+00	3.90E+01
			Nb-95	<2.14E+01	0.00E+00	2.14E+01
			I-131	<3.29E+01	0.00E+00	3.29E+01
			Cs-134	<2.35E+01	0.00E+00	2.35E+01
			Cs-137	<2.64E+01	0.00E+00	2.64E+01
			BaLa-140	<3.20E+01	0.00E+00	3.20E+01
			Be-7	2.31E+03	4.01E+02	3.37E+02
			K-40	2.51E+03	5.07E+02	2.99E+02

Sample Point 804 [INDICATOR - S @ 0.67 miles]

Sample ID:	Sample Dates:	WAXMYRTLE	Nuclide	Activity	2 Sigma Error	MDA
552268	1/5/2022 - 1/5/2022		Mn-54	<2.10E+01	0.00E+00	2.10E+01
			Co-58	<2.02E+01	0.00E+00	2.02E+01
			Fe-59	<4.14E+01	0.00E+00	4.14E+01
			Co-60	<2.16E+01	0.00E+00	2.16E+01
			Zn-65	<4.25E+01	0.00E+00	4.25E+01
			Zr-95	<3.44E+01	0.00E+00	3.44E+01
			Nb-95	<2.43E+01	0.00E+00	2.43E+01
			I-131	<3.42E+01	0.00E+00	3.42E+01
			Cs-134	<2.69E+01	0.00E+00	2.69E+01
			Cs-137	<2.25E+01	0.00E+00	2.25E+01
			BaLa-140	<2.21E+01	0.00E+00	2.21E+01
			Be-7	4.44E+03	5.32E+02	2.98E+02
			K-40	2.42E+03	4.58E+02	4.02E+02

Sample ID:	Sample Dates:	WAXMYRTLE	Nuclide	Activity	2 Sigma Error	MDA
560499	2/1/2022 - 2/1/2022		Mn-54	<2.46E+01	0.00E+00	2.46E+01
			Co-58	<2.53E+01	0.00E+00	2.53E+01
			Fe-59	<5.73E+01	0.00E+00	5.73E+01
			Co-60	<2.95E+01	0.00E+00	2.95E+01
			Zn-65	<6.07E+01	0.00E+00	6.07E+01
			Zr-95	<3.81E+01	0.00E+00	3.81E+01
			Nb-95	<2.71E+01	0.00E+00	2.71E+01
			I-131	<4.24E+01	0.00E+00	4.24E+01
			Cs-134	<2.57E+01	0.00E+00	2.57E+01
			Cs-137	<2.36E+01	0.00E+00	2.36E+01
			BaLa-140	<3.14E+01	0.00E+00	3.14E+01
			Be-7	4.60E+03	5.99E+02	3.91E+02
			K-40	2.54E+03	5.42E+02	4.80E+02

Sample ID:	Sample Dates:	WAXMYRTLE	Nuclide	Activity	2 Sigma Error	MDA
562241	3/1/2022 - 3/1/2022		Mn-54	<2.59E+01	0.00E+00	2.59E+01
			Co-58	<2.27E+01	0.00E+00	2.27E+01
			Fe-59	<5.32E+01	0.00E+00	5.32E+01
			Co-60	<2.71E+01	0.00E+00	2.71E+01
			Zn-65	<4.77E+01	0.00E+00	4.77E+01
			Zr-95	<4.22E+01	0.00E+00	4.22E+01
			Nb-95	<2.60E+01	0.00E+00	2.60E+01
			I-131	<3.37E+01	0.00E+00	3.37E+01
			Cs-134	<2.69E+01	0.00E+00	2.69E+01

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

BRUNSWICK Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: VEGETATION Concentration (Activity): pCi/kg wet

Sample Point 804 [INDICATOR - S @ 0.67 miles]

Sample ID:	Sample Dates:	WAXMYRTLE	Nuclide	Activity	2 Sigma Error	MDA
562241	3/1/2022 - 3/1/2022		Cs-137	<2.36E+01	0.00E+00	2.36E+01
			BaLa-140	<3.66E+01	0.00E+00	3.66E+01
			Be-7	3.39E+03	4.76E+02	3.88E+02
			K-40	2.89E+03	5.06E+02	3.65E+02
563991	4/3/2022 - 4/3/2022		Mn-54	<3.31E+01	0.00E+00	3.31E+01
			Co-58	<3.43E+01	0.00E+00	3.43E+01
			Fe-59	<4.20E+01	0.00E+00	4.20E+01
			Co-60	<3.69E+01	0.00E+00	3.69E+01
			Zn-65	<7.79E+01	0.00E+00	7.79E+01
			Zr-95	<5.76E+01	0.00E+00	5.76E+01
			Nb-95	<3.56E+01	0.00E+00	3.56E+01
			I-131	<4.61E+01	0.00E+00	4.61E+01
			Cs-134	<4.17E+01	0.00E+00	4.17E+01
			Cs-137	<4.03E+01	0.00E+00	4.03E+01
			BaLa-140	<3.19E+01	0.00E+00	3.19E+01
			Be-7	3.98E+03	6.01E+02	4.37E+02
			K-40	2.33E+03	5.85E+02	5.23E+02
			565957	5/3/2022 - 5/3/2022		Mn-54
Co-58	<1.45E+01	0.00E+00				1.45E+01
Fe-59	<3.39E+01	0.00E+00				3.39E+01
Co-60	<1.75E+01	0.00E+00				1.75E+01
Zn-65	<4.55E+01	0.00E+00				4.55E+01
Zr-95	<3.37E+01	0.00E+00				3.37E+01
Nb-95	<2.04E+01	0.00E+00				2.04E+01
I-131	<2.25E+01	0.00E+00				2.25E+01
Cs-134	<2.16E+01	0.00E+00				2.16E+01
Cs-137	<1.79E+01	0.00E+00				1.79E+01
BaLa-140	<1.81E+01	0.00E+00				1.81E+01
Be-7	1.15E+03	2.04E+02				1.98E+02
K-40	3.19E+03	4.57E+02				2.96E+02
567564	6/1/2022 - 6/1/2022					Mn-54
			Co-58	<1.76E+01	0.00E+00	1.76E+01
			Fe-59	<3.23E+01	0.00E+00	3.23E+01
			Co-60	<1.23E+01	0.00E+00	1.23E+01
			Zn-65	<3.32E+01	0.00E+00	3.32E+01
			Zr-95	<2.93E+01	0.00E+00	2.93E+01
			Nb-95	<1.82E+01	0.00E+00	1.82E+01
			I-131	<2.52E+01	0.00E+00	2.52E+01
			Cs-134	<1.65E+01	0.00E+00	1.65E+01
			Cs-137	<1.14E+01	0.00E+00	1.14E+01
			BaLa-140	<2.71E+01	0.00E+00	2.71E+01
			Be-7	9.55E+02	2.04E+02	2.25E+02
			K-40	2.32E+03	3.93E+02	2.72E+02
			568823	7/5/2022 - 7/5/2022		Mn-54
Co-58	<1.77E+01	0.00E+00				1.77E+01
Fe-59	<3.99E+01	0.00E+00				3.99E+01
Co-60	<2.20E+01	0.00E+00				2.20E+01
Zn-65	<4.54E+01	0.00E+00				4.54E+01
Zr-95	<3.45E+01	0.00E+00				3.45E+01
Nb-95	<2.22E+01	0.00E+00				2.22E+01
I-131	<3.18E+01	0.00E+00				3.18E+01
Cs-134	<1.99E+01	0.00E+00				1.99E+01
Cs-137	<2.31E+01	0.00E+00				2.31E+01
BaLa-140	<2.63E+01	0.00E+00				2.63E+01
Be-7	1.61E+03	2.18E+02				1.94E+02
K-40	3.07E+03	4.77E+02				3.18E+02

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

BRUNSWICK Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: VEGETATION Concentration (Activity): pCi/kg wet

Sample Point 804 [INDICATOR - S @ 0.67 miles]

Sample ID:	Sample Dates:	WAXMYRTLE	Nuclide	Activity	2 Sigma Error	MDA
571094	8/2/2022 - 8/2/2022	WAXMYRTLE	Mn-54	<2.10E+01	0.00E+00	2.10E+01
			Co-58	<2.35E+01	0.00E+00	2.35E+01
			Fe-59	<6.03E+01	0.00E+00	6.03E+01
			Co-60	<2.39E+01	0.00E+00	2.39E+01
			Zn-65	<6.38E+01	0.00E+00	6.38E+01
			Zr-95	<4.09E+01	0.00E+00	4.09E+01
			Nb-95	<2.12E+01	0.00E+00	2.12E+01
			I-131	<3.59E+01	0.00E+00	3.59E+01
			Cs-134	<2.74E+01	0.00E+00	2.74E+01
			Cs-137	<1.82E+01	0.00E+00	1.82E+01
			BaLa-140	<3.97E+01	0.00E+00	3.97E+01
			Be-7	3.49E+03	4.84E+02	3.27E+02
			K-40	3.39E+03	5.83E+02	4.34E+02
			573902	9/4/2022 - 9/4/2022	WAXMYRTLE	Mn-54
Co-58	<2.18E+01	0.00E+00				2.18E+01
Fe-59	<3.49E+01	0.00E+00				3.49E+01
Co-60	<2.05E+01	0.00E+00				2.05E+01
Zn-65	<4.96E+01	0.00E+00				4.96E+01
Zr-95	<3.79E+01	0.00E+00				3.79E+01
Nb-95	<2.65E+01	0.00E+00				2.65E+01
I-131	<2.69E+01	0.00E+00				2.69E+01
Cs-134	<2.56E+01	0.00E+00				2.56E+01
Cs-137	<2.44E+01	0.00E+00				2.44E+01
BaLa-140	<2.54E+01	0.00E+00				2.54E+01
Be-7	1.01E+03	2.19E+02				2.27E+02
K-40	2.13E+03	4.12E+02				3.23E+02
576079	10/3/2022 - 10/3/2022	WAXMYRTLE				Mn-54
			Co-58	<1.67E+01	0.00E+00	1.67E+01
			Fe-59	<3.73E+01	0.00E+00	3.73E+01
			Co-60	<1.94E+01	0.00E+00	1.94E+01
			Zn-65	<3.69E+01	0.00E+00	3.69E+01
			Zr-95	<2.81E+01	0.00E+00	2.81E+01
			Nb-95	<1.97E+01	0.00E+00	1.97E+01
			I-131	<2.47E+01	0.00E+00	2.47E+01
			Cs-134	<2.12E+01	0.00E+00	2.12E+01
			Cs-137	<1.55E+01	0.00E+00	1.55E+01
			BaLa-140	<1.97E+01	0.00E+00	1.97E+01
			Be-7	2.49E+03	3.41E+02	2.36E+02
			K-40	2.57E+03	4.22E+02	2.54E+02
			577753	11/1/2022 - 11/1/2022	WAXMYRTLE	Mn-54
Co-58	<3.40E+01	0.00E+00				3.40E+01
Fe-59	<6.45E+01	0.00E+00				6.45E+01
Co-60	<4.64E+01	0.00E+00				4.64E+01
Zn-65	<6.50E+01	0.00E+00				6.50E+01
Zr-95	<4.47E+01	0.00E+00				4.47E+01
Nb-95	<3.33E+01	0.00E+00				3.33E+01
I-131	<3.66E+01	0.00E+00				3.66E+01
Cs-134	<3.99E+01	0.00E+00				3.99E+01
Cs-137	<3.89E+01	0.00E+00				3.89E+01
BaLa-140	<4.02E+01	0.00E+00				4.02E+01
Be-7	1.77E+03	4.09E+02				3.85E+02
K-40	2.49E+03	7.67E+02				8.87E+02
581690	12/1/2022 - 12/1/2022	WAXMYRTLE				Mn-54
			Co-58	<2.35E+01	0.00E+00	2.35E+01
			Fe-59	<2.91E+01	0.00E+00	2.91E+01
			Co-60	<2.29E+01	0.00E+00	2.29E+01
			Zn-65	<7.90E+01	0.00E+00	7.90E+01
			Zr-95	<4.09E+01	0.00E+00	4.09E+01

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

BRUNSWICK Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: VEGETATION Concentration (Activity): pCi/kg wet

Sample Point 804 [INDICATOR - S @ 0.67 miles]

Sample ID:	Sample Dates:	WAXMYRTLE	Nuclide	Activity	2 Sigma Error	MDA
581690	12/1/2022 - 12/1/2022		Nb-95	<3.92E+01	0.00E+00	3.92E+01
			I-131	<2.50E+01	0.00E+00	2.50E+01
			Cs-134	<3.16E+01	0.00E+00	3.16E+01
			Cs-137	<3.13E+01	0.00E+00	3.13E+01
			BaLa-140	<4.96E+01	0.00E+00	4.96E+01
			Be-7	1.48E+03	3.14E+02	3.05E+02
			K-40	1.61E+03	4.13E+02	3.40E+02

Sample Point 805 [INDICATOR - NE @ 0.8 miles]

Sample ID:	Sample Dates:	WAXMYRTLE	Nuclide	Activity	2 Sigma Error	MDA
573302	8/2/2022 - 8/2/2022		Mn-54	<2.42E+01	0.00E+00	2.42E+01
			Co-58	<2.44E+01	0.00E+00	2.44E+01
			Fe-59	<4.88E+01	0.00E+00	4.88E+01
			Co-60	<2.74E+01	0.00E+00	2.74E+01
			Zn-65	<4.65E+01	0.00E+00	4.65E+01
			Zr-95	<4.60E+01	0.00E+00	4.60E+01
			Nb-95	<2.77E+01	0.00E+00	2.77E+01
			I-131	<3.47E+01	0.00E+00	3.47E+01
			Cs-134	<3.12E+01	0.00E+00	3.12E+01
			Cs-137	<2.38E+01	0.00E+00	2.38E+01
			BaLa-140	<3.17E+01	0.00E+00	3.17E+01
			Be-7	1.94E+03	3.42E+02	3.30E+02
			K-40	3.28E+03	5.59E+02	4.04E+02

Sample ID:	Sample Dates:	WAXMYRTLE	Nuclide	Activity	2 Sigma Error	MDA
573903	9/4/2022 - 9/4/2022		Mn-54	<3.06E+01	0.00E+00	3.06E+01
			Co-58	<2.45E+01	0.00E+00	2.45E+01
			Fe-59	<5.70E+01	0.00E+00	5.70E+01
			Co-60	<3.26E+01	0.00E+00	3.26E+01
			Zn-65	<6.66E+01	0.00E+00	6.66E+01
			Zr-95	<4.40E+01	0.00E+00	4.40E+01
			Nb-95	<2.99E+01	0.00E+00	2.99E+01
			I-131	<3.56E+01	0.00E+00	3.56E+01
			Cs-134	<3.29E+01	0.00E+00	3.29E+01
			Cs-137	<3.16E+01	0.00E+00	3.16E+01
			BaLa-140	<4.27E+01	0.00E+00	4.27E+01
			Be-7	2.82E+03	4.23E+02	2.99E+02
			K-40	3.50E+03	6.07E+02	3.83E+02

Sample ID:	Sample Dates:	WAXMYRTLE	Nuclide	Activity	2 Sigma Error	MDA
576080	10/5/2022 - 10/5/2022		Mn-54	<1.26E+01	0.00E+00	1.26E+01
			Co-58	<1.57E+01	0.00E+00	1.57E+01
			Fe-59	<3.69E+01	0.00E+00	3.69E+01
			Co-60	<1.67E+01	0.00E+00	1.67E+01
			Zn-65	<3.19E+01	0.00E+00	3.19E+01
			Zr-95	<2.73E+01	0.00E+00	2.73E+01
			Nb-95	<1.45E+01	0.00E+00	1.45E+01
			I-131	<1.85E+01	0.00E+00	1.85E+01
			Cs-134	<1.63E+01	0.00E+00	1.63E+01
			Cs-137	<1.49E+01	0.00E+00	1.49E+01
			BaLa-140	<2.22E+01	0.00E+00	2.22E+01
			Be-7	2.51E+03	2.47E+02	1.54E+02
			K-40	2.66E+03	4.09E+02	1.92E+02

Sample ID:	Sample Dates:	WAXMYRTLE	Nuclide	Activity	2 Sigma Error	MDA
577754	11/1/2022 - 11/1/2022		Mn-54	<3.84E+01	0.00E+00	3.84E+01
			Co-58	<3.01E+01	0.00E+00	3.01E+01
			Fe-59	<6.20E+01	0.00E+00	6.20E+01
			Co-60	<3.90E+01	0.00E+00	3.90E+01
			Zn-65	<8.57E+01	0.00E+00	8.57E+01
			Zr-95	<6.10E+01	0.00E+00	6.10E+01
			Nb-95	<4.91E+01	0.00E+00	4.91E+01
			I-131	<3.20E+01	0.00E+00	3.20E+01
			Cs-134	<4.06E+01	0.00E+00	4.06E+01

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

BRUNSWICK Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: VEGETATION Concentration (Activity): pCi/kg wet

Sample Point 805 [INDICATOR - NE @ 0.8 miles]

Sample ID:	577754	Sample Dates:	11/1/2022 - 11/1/2022	WAXMYRTLE	Nuclide	Activity	2 Sigma Error	MDA
					Cs-137	<4.44E+01	0.00E+00	4.44E+01
					BaLa-140	<4.36E+01	0.00E+00	4.36E+01
					Be-7	1.51E+03	3.79E+02	4.21E+02
					K-40	2.51E+03	6.66E+02	6.89E+02

Sample ID:	581691	Sample Dates:	12/1/2022 - 12/1/2022	WAXMYRTLE	Nuclide	Activity	2 Sigma Error	MDA
					Mn-54	<1.68E+01	0.00E+00	1.68E+01
					Co-58	<2.27E+01	0.00E+00	2.27E+01
					Fe-59	<4.26E+01	0.00E+00	4.26E+01
					Co-60	<3.36E+01	0.00E+00	3.36E+01
					Zn-65	<5.89E+01	0.00E+00	5.89E+01
					Zr-95	<4.83E+01	0.00E+00	4.83E+01
					Nb-95	<2.77E+01	0.00E+00	2.77E+01
					I-131	<3.56E+01	0.00E+00	3.56E+01
					Cs-134	<2.38E+01	0.00E+00	2.38E+01
					Cs-137	<2.84E+01	0.00E+00	2.84E+01
					BaLa-140	<4.07E+01	0.00E+00	4.07E+01
					Be-7	1.70E+03	3.29E+02	2.94E+02
					K-40	4.33E+03	6.90E+02	2.87E+02

APPENDIX F

**ERRATA TO
PREVIOUS REPORTS**

APPENDIX F

ERRATA TO THE 2021 AREOR

BNP AREOR Section 2.1, Site Descriptions and Sample Locations, Table 2.1-B.

Error identified in the BNP 2021 AREOR section 2.1, Site Descriptions and Sample Locations, Table 2.1-B, Sample Site 18 missing direction. (NCR # 02441650). The Location description for Site 18 should have been "1.7 miles SE".

ERRATA TO THE PREVIOUS AREORs

BNP AREOR Section 2.1, Site Descriptions and Sample Locations

Error identified in previous BNP AREORs, the centerline and waypoint coordinates were not associate with the BNP UFSAR (NCR# 02441863). The correct waypoints are latitude: 33°57'24.3" North and longitude: 78°0'33.9" West.

BNP AREOR Section 2.1, Site Descriptions and Sample Locations, Table 2.1-A.

Error identified in previous BNP AREORs, the sector in the description for Air Sample Location 204 in Table 2.1-A was incorrect (NCR# 02467842). Air Sample Location 204 is located in the North sector.

Enclosure 2
RA-23-0047

ENCLOSURE 2: [CNS Annual Radiological Environmental Operating Report](#)



ANNUAL RADIOLOGICAL ENVIRONMENTAL OPERATING REPORT

**DUKE ENERGY CORPORATION
CATAWBA NUCLEAR STATION
Units 1 and 2**

2022



TABLE OF CONTENTS

1.0 Executive Summary	1-1
2.0 Introduction	2-1
2.1 Site Description and Sample Locations	2-1
2.2 Scope and Requirements of the REMP	2-1
2.3 Statistical and Calculational Methodology	2-2
2.3.1 Estimation of the Mean Value	2-2
2.3.2 Lower Limit of Detection and Minimum Detectable Activity	2-3
2.3.3 Trend Identification	2-3
3.0 Interpretation of Results	3-1
3.1 Airborne Radioiodine and Particulates	3-3
3.2 Drinking Water	3-7
3.3 Surface Water	3-10
3.4 Milk	3-13
3.5 Broadleaf Vegetation	3-15
3.6 Food Products	3-18
3.7 Fish	3-19
3.8 Shoreline Sediment	3-22
3.9 Direct Gamma Radiation	3-25
3.9.1 Environmental TLD	3-25
3.9.2 ISFSI	3-26
3.10 Land Use Census	3-29
4.0 Quality Assurance	4-1
4.1 Sample Collection	4-1
4.2 Sample Analysis	4-1
4.3 Dosimetry Analysis	4-1
4.4 Laboratory Equipment Quality Assurance	4-1
4.4.1 Daily Quality Control	4-1
4.4.2 Calibration Verification	4-1
4.4.3 Batch Processing	4-1
4.5 Duke Energy Interlaboratory Comparison Program	4-2
4.5.1 Eckert & Ziegler Analytics Cross Check Program	4-2
4.6 Intercomparison Program	4-2
4.7 TLD Intercomparison Program	4-2
 Appendices	
Appendix A: Environmental Sampling and Analysis Procedures	A-1
I. Change of Sampling Procedures	A-2
II. Description of Analysis Procedures	A-2
III. Change of Analysis Procedures	A-3
Appendix B: Radiological Environmental Monitoring Program Data Summary	B-1
Air Particulate	B-2
Air Radioiodine	B-2
Drinking Water	B-2
Surface Water	B-2
Milk	B-2
Broadleaf Vegetation	B-3
Food Products	B-3
Fish	B-3

Shoreline Sediment	B-3
Direct Gamma Radiation (TLD)	B-3
Appendix C: Catawba Nuclear Station Sampling Deviations & Unavailable Analyses .	C-1
C.1 Sampling Deviations	C-2
C.2 Unavailable Analyses	C-3
Appendix D: Catawba Nuclear Station Analytical Deviations	D-1
D.1 Analytical Deviations	D-2
Appendix E: Radiological Environmental Monitoring Program Results	E-1
Appendix F: Errata to Previous Reports	F-1

LIST OF FIGURES

2.1-1	Catawba Nuclear Station Sampling Locations Map (One Mile Radius)	2-5
2.1-2	Catawba Nuclear Station Sampling Locations Map (Ten Mile Radius).	2-6
2.1-3	Catawba Nuclear Station Sampling Locations Map (>Ten Mile Radius)	2-7
3.1	Concentration of Gross Beta in Air Particulate	3-4
3.2-1	Concentration of Gross Beta in Drinking Water	3-8
3.2-2	Concentration of Tritium in Drinking Water	3-8
3.3	Concentration of Tritium in Surface Water	3-11
3.5	Concentration of Cs-137 in Broadleaf Vegetation	3-16
3.7-1	Concentration of Co-60 in Fish	3-19
3.7-2	Concentration of Cs-137 in Fish.	3-20
3.8-1	Concentration of Co-58 in Shoreline Sediment	3-22
3.8-2	Concentration of Co-60 in Shoreline Sediment	3-23
3.8-3	Concentration of Cs-137 in Shoreline Sediment	3-23
3.9	Direct Gamma Radiation (TLD) Results	3-27
3.10	Catawba Nuclear Station 2022 Land Use Census Map.	3-31

LIST OF TABLES

2.1-A	Catawba Radiological Monitoring Program Sampling Locations	2-8
2.1-B	Catawba Radiological Monitoring Program Sampling Locations (TLD Sites).	2-9
2.2-A	Reporting Levels for Radioactivity Concentrations in Environmental Samples	2-10
2.2-B	REMP Analysis Frequency	2-11
2.2-C	Maximum Values for the <i>A Priori</i> Lower Limits of Detection	2-12
3.1-A	Mean Concentration of Gross Beta in Air Particulate	3-5
3.1-B	Mean Concentration of Air Radioiodine (I-131)	3-6
3.2	Mean Concentration of Radionuclides in Drinking Water	3-9
3.3	Mean Concentrations of Radionuclides in Surface Water	3-12
3.4	Mean Concentration of Radionuclides in Milk	3-14
3.5	Mean Concentration of Radionuclides in Broadleaf Vegetation	3-17
3.7	Mean Concentrations of Radionuclides in Fish (pCi/kg).	3-21
3.8	Mean Concentrations of Radionuclides in Shoreline Sediment (pCi/kg).	3-24
3.9	Direct Gamma Radiation (TLD) Results	3-28
3.10	Catawba 2022 Land Use Census Results	3-30
4.0-A	Eckert & Ziegler Analytics Cross Check Program	4-3
4.0-B	2022 Environmental Dosimeter Cross-Check Results	4-5

LIST OF ACRONYMS USED IN THIS TEXT *(in alphabetical order)*

AREOR	Annual Radiological Environmental Operating Report
BW	BiWeekly
C	Control
CM	Community
CNS	Catawba Nuclear Station
EZA	Eckert & Ziegler Analytics
GPS	Global Positioning System
I	Indicator
IR	Inner Ring
ISFSI	Independent Spent Fuel Storage Installation
LLD	Lower Limit of Detection
LLI	Low Level Iodine
LUC	Land Use Census
M	Monthly
MAPEP	Department of Energy Mixed Analyte Performance Evaluation Program
MDA	Minimum Detectable Activity
mR/Std Qtr	milliroentgen per standard quarter
MWe	Megawatt (electrical)
NIST	National Institute of Standards and Technology
NCR	Nuclear Condition Report – Corrective Action Program
NRC	Nuclear Regulatory Commission
ODCM	Offsite Dose Calculation Manual
OR	Outer Ring
pCi/kg	picocurie per kilogram
pCi/l	picocurie per liter
pCi/m ³	picocurie per cubic meter
Q	Quarterly
REMP	Radiological Environmental Monitoring Program
SA	Semiannually
SB	Site Boundary
SI	Special Interest
SLCs	Selected Licensee Commitments
SM	Semimonthly
TECH SPECS	Technical Specifications
TLD	Thermoluminescent Dosimeter
μCi/ml	microcurie per milliliter
UFSAR	Updated Final Safety Analysis Report
W	Weekly

1.0 EXECUTIVE SUMMARY

This Annual Radiological Environmental Operating Report describes the Catawba Nuclear Station Radiological Environmental Monitoring Program (REMP), and the program results for the calendar year 2022.

Included are the identification of sampling locations, descriptions of environmental sampling and analysis procedures, comparisons of present environmental radioactivity levels and pre-operational environmental data, analysis of trends in environmental radiological data as potentially affected by station operations, and a summary of environmental radiological sampling results. Quality assurance practices, sampling deviations, unavailable samples, and program changes are also discussed.

Sampling activities were conducted as prescribed by the Catawba Nuclear Station Offsite Dose Calculated Manual (ODCM) and Selected Licensee Commitments (SLCs). Nine hundred and three samples were analyzed comprising nine hundred and fifty-five test results in order to compile data for the 2022 report. Based on the annual land use census, the current number of sampling sites for Catawba Nuclear Station is sufficient.

Concentrations observed in the environment in 2022 for station related radionuclides were generally within the ranges of concentrations observed in the past. Inspection of data showed that radioactivity concentrations in drinking water, surface water, and broad leaf vegetation are higher than the activities reported for samples collected prior to the operation of the station. Measured concentrations were not higher than expected and all positively identified measurements attributable to station operation were within limits as specified in the CNS ODCM and SLCs, thus presenting no significant impact on the environment or public health and safety.

2.0 INTRODUCTION

2.1 SITE DESCRIPTION AND SAMPLE LOCATIONS

Duke Energy Corporation's Catawba Nuclear Station is a two-unit facility located on the shore of Lake Wylie in York County, South Carolina. Each of the two essentially identical units employs a pressurized water reactor nuclear steam supply system furnished by Westinghouse Electric Corporation. Unit one produces a net electrical output of 1165 MWe, while Unit 2 produces a net electrical output of 1145 MWe. Units 1 and 2 achieved initial criticality on January 7, 1985, and May 8, 1986, respectively.

Condenser cooling is accomplished utilizing a closed system incorporating cooling towers, instead of using lake water directly. Liquid effluents are released into Lake Wylie via the station discharge canal and are not accompanied by the large additional dilution water flow associated with “once-through” condenser cooling. This design results in greater radionuclide concentrations in the discharge canal given comparable liquid effluent source terms.

Sampling locations are chosen based upon meteorological factors, preoperational monitoring, and results of the land use surveys. Figures 2.1-1, 2.1-2, and 2.1-3 are maps depicting the Thermoluminescent Dosimeter (TLD) monitoring locations and the sampling locations. The location numbers shown on these maps correspond to those listed in Tables 2.1-A and 2.1-B. Figure 2.1-1 comprises all sample locations within a one mile radius of CNS. Figures 2.1-2 and 2.1-3 comprise all sample locations within a 10 mile radius of CNS and beyond.

The Catawba site centerline used for GPS measurements was referenced from the Catawba Nuclear Station Updated Final Safety Analysis Report (UFSAR), section 2.1.1.1, Specification of Location. Waypoint coordinates used for CNS GPS measurements were latitude 35°-3'-5"N and longitude 81°-4'-10"W. Maps and tables were generated using North American Datum (NAD) 27. Data normally reflect accuracy to within 2 to 5 meters from point of measurement. All GPS field measurements were taken as close as possible to the item of interest. Distances for the locations are displayed using three significant figures.

2.2 SCOPE AND REQUIREMENTS OF THE REMP

An environmental monitoring program has been in effect at Catawba Nuclear Station since 1981, four years prior to operation of Unit 1 in 1985. The preoperational program provides data on the existing environmental radioactivity levels for the site and vicinity which may be used to determine whether increases in environmental levels are attributable to the station. The operational program provides surveillance and backup support of detailed effluent monitoring which is necessary to evaluate the significance, if any, of the contributions to the existing environmental radioactivity levels that result from station operation.

This monitoring program is based on NRC guidance as reflected in the Selected Licensee Commitments Manual, with regard to sample media, sampling locations, sampling frequency and analytical sensitivity requirements. Indicator and control locations were established for comparison purposes to distinguish radioactivity of station origin from natural or other “man-made” environmental radioactivity.

The environmental monitoring program also verifies projected and anticipated radionuclide concentrations in the environment and related exposures from releases of radionuclides from Catawba Nuclear Station. This program satisfies the requirements of Section IV.B.2 of Appendix I to 10CFR50 and provides surveillance of all appropriate critical exposure pathways to man and protects vital interests of the company, public and state and federal agencies concerned with the environment. Reporting levels for activity found in environmental samples are listed in Table 2.2-A. Table 2.2-B lists the REMP analysis and frequency schedule.

The Annual Land Use Census, required by Selected Licensee Commitments, is performed to ensure that changes in the use of areas at or beyond the site boundary are identified and that modifications to the REMP are made if required by changes in land use. This census satisfies the requirements of Section IV.B.3 of Appendix I to 10CFR50. Results are shown in Table 3.10.

Participation in an interlaboratory comparison program as required by Selected Licensee Commitments provides for independent checks on the precision and accuracy of measurements of radioactive material in REMP sample matrices. Such checks are performed as part of the quality assurance program for environmental monitoring in order to demonstrate that the results are valid for the purposes of Section IV.B.2 of Appendix I to 10CFR50. A summary of the results obtained as part of this comparison program are in Section 4 of this annual report.

2.3 STATISTICAL AND CALCULATIONAL METHODOLOGY

2.3.1 ESTIMATION OF THE MEAN VALUE

There was one (1) basic statistical calculation performed on the raw data resulting from the environmental sample analysis program. The calculation involved the determination of the mean value for the indicator and the control samples for each sample medium. The mean is a widely used statistic. This value was used in the reduction of the data generated by the sampling and analysis of the various media in the Radiological Environmental Monitoring Program. “Net activity (or concentration)” is the activity (or concentration) determined to be present in the sample. No “Minimum Detectable Activity”, “Lower Limit of Detection”, “Less Than Level”, or negative activities or concentrations are included in the calculation of the mean. The following equation was used to estimate the mean:

$$\bar{x} = \frac{\sum_{i=1}^N x_i}{N}$$

Where:

\bar{x} = estimate of the mean,

i = individual sample,

N = total number of samples with a net activity (or concentration),

x_i = net activity (or concentration) for sample i.

2.3.2 LOWER LIMIT OF DETECTION AND MINIMUM DETECTABLE ACTIVITY

The Lower Limit of Detection (LLD), and Minimum Detectable Activity (MDA) are used throughout the REMP.

LLD - The LLD, as defined in the Selected Licensee Commitments Manual is the smallest concentration of radioactive material in a sample that will yield a net count, above the system background, that will be detected with 95% probability with only 5% probability of falsely concluding that a blank observation represents a "real" signal. The LLD is an *a priori* (before the fact) lower limit of detection. The actual LLD is dependent upon the standard deviation of the background counting rate, the counting efficiency, the sample size (mass or volume), the radiochemical yield and the radioactive decay of the sample between sample collection and counting. The "required" LLDs for each sample medium and selected radionuclides are given in the Selected Licensee Commitments and are listed in Table 2.2-C.

MDA - The MDA is the net counting rate (sample after subtraction of background) that must be surpassed before a sample is considered to contain a scientifically measurable amount of a radioactive material exceeding background amounts. The MDA is calculated using a sample background and may be thought of as an "actual" LLD for a particular sample measurement. Certain gross counting measurements display a calculated negative value, indicating background is greater than sample activity.

2.3.3 TREND IDENTIFICATION

One of the purposes of an environmental monitoring program is to determine if there is a buildup of radionuclides in the environment due to the operation of the nuclear station. Visual inspection of tabular or graphical presentations of data (including preoperational) is used to determine if a trend exists. A decrease in a particular radionuclide's concentration in an environmental medium does not indicate that reactor operations are removing radioactivity from the environment but that reactor operations are not adding that radionuclide to the environment in quantities exceeding the preoperational level and that

the normal removal processes (radioactive decay, deposition, resuspension, etc.) are influencing the concentration.

Substantial increases or decreases in the amount of a particular radionuclide's release from the nuclear plant will greatly affect the resulting environmental levels; therefore, a knowledge of the release of a radionuclide from the nuclear plant is necessary to completely interpret the trends, or lack of trends, determined from the environmental data. Factors that may affect environmental levels of radionuclides include prevailing weather conditions (periods of drought, solar cycles or heavier than normal precipitation), construction in or around either the nuclear plant or the sampling location, and addition or deletion of other sources of radioactive materials (such as the Chernobyl accident and the Japan earthquake and tsunami, which triggered the Fukushima Dai-ichi Nuclear Power Plant incident). Some of these factors may be obvious while others are sometimes unknown. Therefore, how trends are identified will include some judgment by plant personnel.

Figure 2.1-1

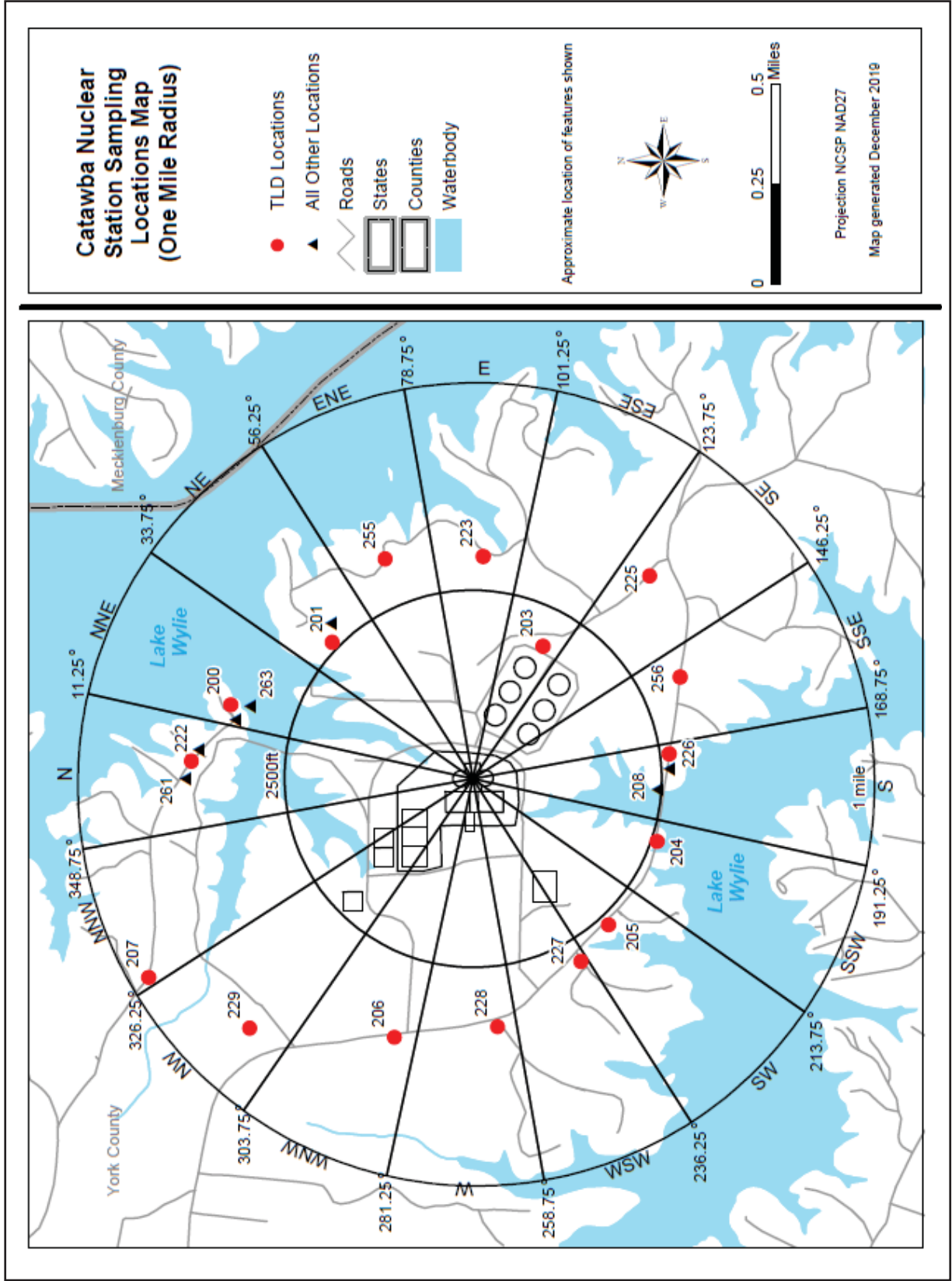


Figure 2.1-2

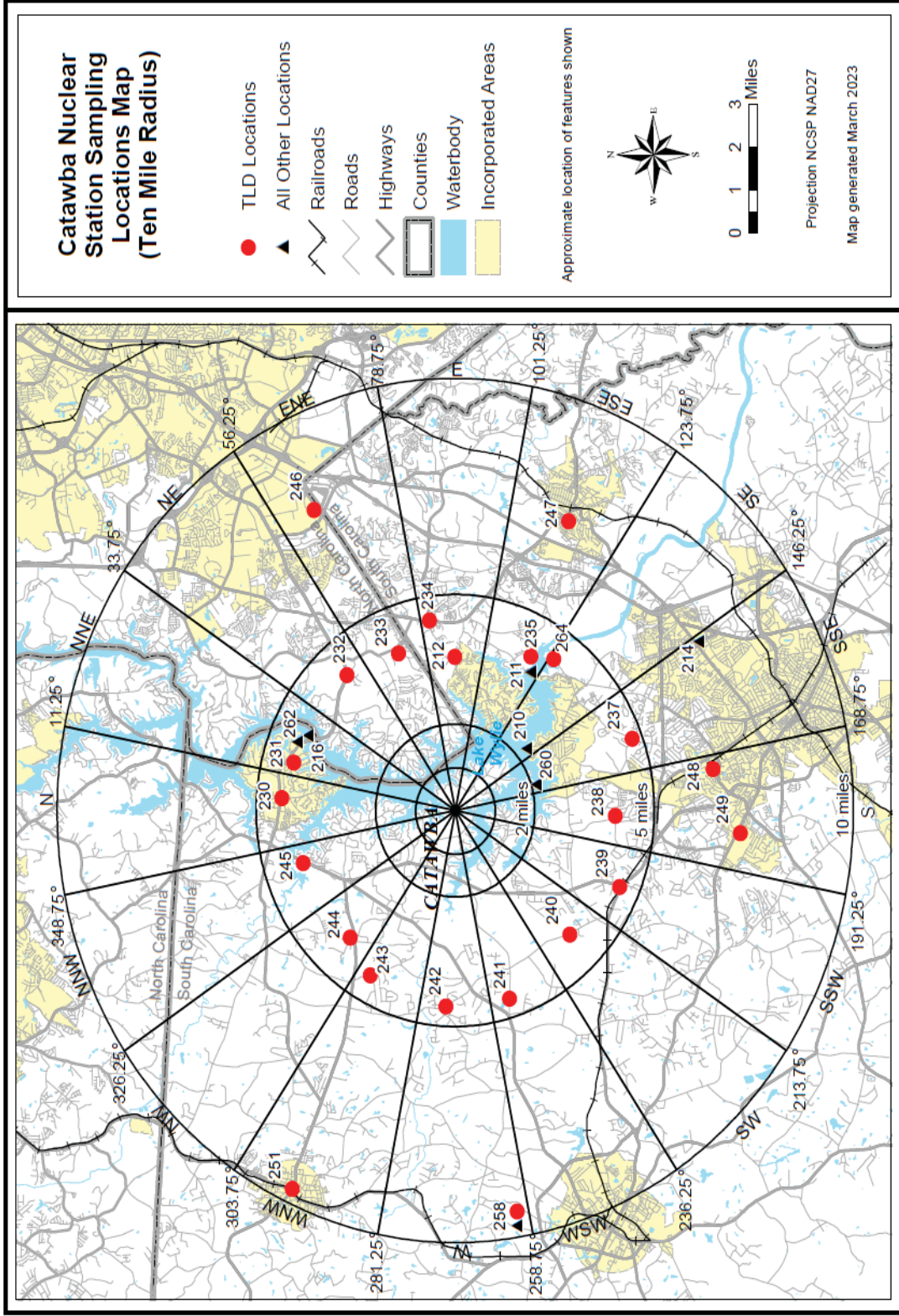


Figure 2.1-3

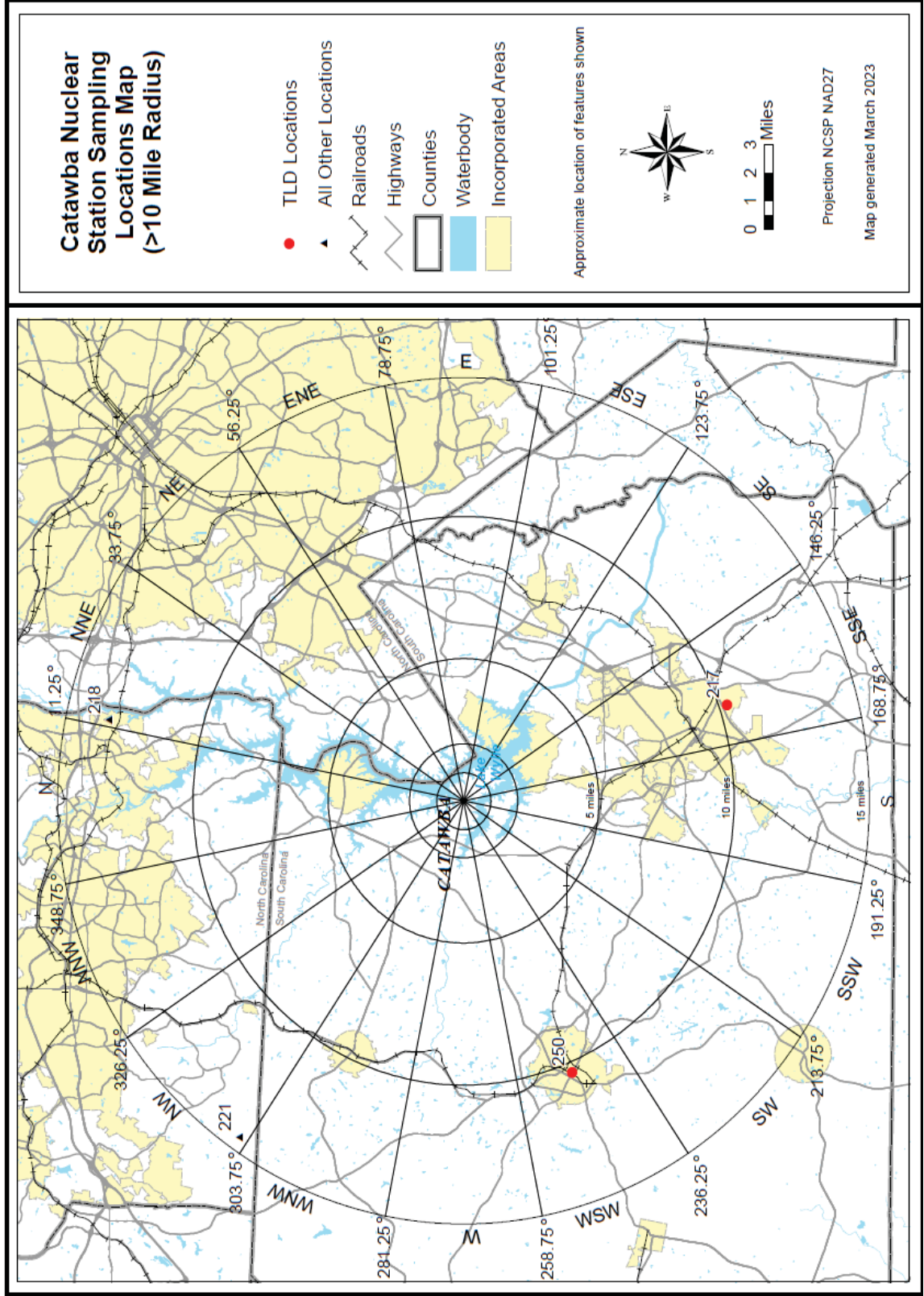


TABLE 2.1-A
CATAWBA RADIOLOGICAL MONITORING PROGRAM
SAMPLING LOCATIONS

Table 2.1-A Codes			
BW	BiWeekly	Q	Quarterly
C	Control	SA	Semiannually
CM	Community	SM	Semimonthly
I	Indicator	W	Weekly
M	Monthly		

Site #	Measure Type	Location Description*	Air Rad. & Part.	Surface Water	Drinking Water	Shoreline Sediment	Food Products (a)	Fish	Milk	Broad Leaf Veg. (b)	Ground Water**
200	I	Site Boundary (0.63 mi NNE)	W							M	
201	I	Site Boundary (0.53 mi NE)	W, CM							M	
208	I	Discharge Canal – Site Boundary (0.45 mi S)	W	M		SA		SA			
210	I	Ebenezer Access (2.31 mi SE)				SA					
211	I	Wylie Dam (4.06 mi ESE)		M							
214	I	Rock Hill Water Supply (7.30 mi SSE)			M						
216	C	Hwy 49 Bridge (4.19 mi NNE)						SA			
218	C	Belmont Water Supply (13.5 mi NNE)			M						
221	C	Dairy (14.5 mi NW)							SM		
222	I	Site Boundary (0.70 mi N)								M	
226	I	Site Boundary (0.48 mi S)								M	
258	C	Fairhope Road (9.84 mi W)	W							M	
260	I	Irrigated Gardens (2.00 mi SSE)					M(a)				
261	I	Firing Range-Site Boundary (0.72 mi N)	W								
262	C	Lake Wylie Marina- Hwy 49 (4.19 mi NNE)				SA					
263	C	Liberty Hill Road (0.59 mi NNE)		M							

(a) During Harvest Season

(b) When Available

* GPS data reflect approximate accuracy to within 2-5 meters. GPS field measurements were taken as close as possible to the item of interest.

** Currently no off-site ground water monitoring locations available that are used for drinking or irrigation purposes where hydraulic gradient or recharge properties are suitable for contamination.

TABLE 2.1-B

**CATAWBA RADIOLOGICAL MONITORING PROGRAM
SAMPLING LOCATIONS (TLD SITES)**

Table 2.1-B Codes			
C	Control	OR	Outer Ring
IR	Inner Ring	SI	Special Interest

Site #	Measure Type	Location ^{*(a)}	Distance (miles)	Sector	Site #	Measure Type	Location ^{*(a)}	Distance (miles)	Sector
200	IR	SITE BOUNDARY	0.63	NNE	235	OR	LAKE WYLIE DAM	4.07	ESE
201	IR	SITE BOUNDARY	0.53	NE	237	OR	TWIN LAKES ROAD AND HOMESTEAD ROAD	4.75	SSE
203	IR	SITE BOUNDARY	0.38	ESE	238	OR	PENNINGTON ROAD AND WEST OAK ROAD	4.02	S
204	IR	SITE BOUNDARY	0.48	SSW	239	OR	CARTER LUMBER COMPANY	4.49	SSW
205	IR	SITE BOUNDARY	0.50	SW	240	OR	PARAHAM ROAD	4.07	SW
206	IR	SITE BOUNDARY	0.67	WNW	241	OR	CAMPBELL ROAD	4.58	WSW
207	IR	SITE BOUNDARY	0.95	NNW	242	OR	TRANSMISSION TOWER ON PARAHAM ROAD	4.56	W
212	SI	TEGA CAY	3.32	E	243	OR	KINGSBURY ROAD	4.39	WNW
217	C	BLACKMON ROAD	10.3	SSE	244	OR	BETHEL ELEMENTARY SCHOOL	4.02	NW
222	IR	SITE BOUNDARY	0.71	N	245	OR	CROWDERS CREEK BOAT LANDING	4.01	NNW
223	IR	SITE BOUNDARY	0.57	E	246	SI	CAROWINDS GUARD HOUSE	7.87	ENE
225	IR	SITE BOUNDARY	0.68	SE	247	C	FORT MILL	7.33	ESE
226	IR	SITE BOUNDARY	0.48	S	248	SI	PIEDMONT MEDICAL CENTER	6.54	S
227	IR	SITE BOUNDARY	0.52	WSW	249	SI	YORK COUNTY OPERATIONS CENTER	7.17	S
228	IR	SITE BOUNDARY	0.61	W	250	SI	YORK DUKE POWER OFFICE	10.4	WSW
229	IR	SITE BOUNDARY	0.84	NW	251	C	CLOVER	9.72	WNW
230	OR	RIVER HILLS COMMUNITY CHURCH	4.37	N	255	IR	SITE BOUNDARY	0.61	ENE
231	OR	RIVER HILLS FRONT ENTRANCE	4.21	NNE	256	IR	SITE BOUNDARY	0.58	SSE
232	OR	PLEASANT HILL ROAD	4.18	NE	258	SI	FAIRHOPE ROAD	9.84	W
233	OR	ZOAR ROAD AND THOMAS DRIVE	3.95	ENE	264	OR	INDIA HOOK ROAD	4.32	SE
234	OR	WELLS FARGO BANK	4.50	E					

* GPS data reflect approximate accuracy to within 2-5 meters. GPS field measurements were taken as close as possible to the item of interest.

(a) One or more instruments, such as a pressurized ion chamber, for measuring and recording dose rate continuously may be used in place of, or in addition to, integrating dosimeters. For the purposes of this table, a thermoluminescent dosimeter (TLD) is considered to be one phosphor; two or more phosphors in a packet are considered as two or more dosimeters. Film badges shall not be used as dosimeters for measuring direct radiation. (The 40 stations is not an absolute number. The number of direct radiation monitoring stations may be reduced according to geographical limitations; e.g., at an ocean site, some sectors will be over water so that the number of dosimeters may be reduced accordingly. The frequency of analysis or readout for TLD systems will depend upon the characteristics of the specific system used and should be selected to obtain optimum dose information within minimal fading.)

TABLE 2.2-A

**REPORTING LEVELS FOR RADIOACTIVITY
CONCENTRATIONS IN ENVIRONMENTAL SAMPLES**

Analysis	Water (pCi/liter)	Air Particulates or Gases (pCi/m ³)	Fish (pCi/kg-wet)	Milk (pCi/liter)	Food Products (pCi/kg-wet)
H-3	20,000 ^{(a),(b)}	---	---	---	---
Mn-54	1,000	---	30,000	---	---
Fe-59	400	---	10,000	---	---
Co-58	1,000	---	30,000	---	---
Co-60	300	---	10,000	---	---
Zn-65	300	---	20,000	---	---
Zr-Nb-95	400	---	---	---	---
I-131	2	0.9	---	3	100
Cs-134	30	10	1,000	60	1,000
Cs-137	50	20	2,000	70	2,000
Ba-La-140	200	---	---	300	---

(a) If no drinking water pathway exists, a value of 30,000 pCi/liter may be used.

(b) H-3 Reporting level not applicable to surface water.

TABLE 2.2-B

REMP ANALYSIS FREQUENCY

Sample Medium	Analysis Schedule	Gamma Isotopic ^(d)	Tritium	Low Level I-131	Gross Beta	TLD
Air Radioiodine	Weekly	X	---	---	---	---
Air Particulate	Weekly	---	---	---	(c)	---
	Quarterly Composite	X	---	---	---	---
Direct Radiation	Quarterly	---	---	---	---	X
Surface Water	Monthly Composite ^{(e)(f)}	X	---	---	---	---
	Quarterly Composite	---	X	---	---	---
Drinking Water	Monthly Composite ^(e)	X	---	(a)	X	---
	Quarterly Composite	---	X	---	---	---
Ground Water	Quarterly	X	X	---	---	---
Shoreline Sediment	Semiannually	X	---	---	---	---
Milk	Semimonthly	X	---	X	---	---
Fish	Semiannually	X	---	---	---	---
Broadleaf Vegetation	Monthly ^(b)	X	---	---	---	---
Food Products	Monthly ^(g)	X	---	---	---	---

- (a) Low-level I-131 analysis will be performed if the dose calculated for the consumption of drinking water is > 1 mrem per year. An LLD of 1 pCi/liter will be required for this analysis.
- (b) When Available.
- (c) Airborne particulate sample filters shall be analyzed for gross beta radioactivity 24 hours or more after sampling to allow for radon and thoron daughter decay. If gross beta activity in air particulate samples is greater than 10 times the yearly mean of control samples, gamma isotopic analysis shall be performed on the individual samples.
- (d) Gamma isotopic analysis means the identification and quantification of gamma emitting radionuclides that may be attributable to the effluents from the facility.
- (e) A composite sample is one in which the rate at which the liquid sampled is uniform and in which the method of sampling employed results in a specimen that is representative of the time-averages concentration at the location being samples. In this program composite sample aliquots shall be collected at time intervals that are very short (e.g. hourly) relative to the composite period (e.g. monthly) in order to assure obtaining a representative sample.
- (f) The “upstream sample” shall be taken at a distance beyond significant influence of the discharge. The “downstream” sample shall be taken in an area beyond but near the mixing zone. “Upstream” samples in an estuary must be taken far enough upstream to be beyond the plant influence. Salt water shall be sampled only when the receiving water is utilized for recreational activities.
- (g) If harvest occurs more than once a year, sampling shall be performed during each discrete harvest. If harvest occurs continuously, sampling shall be monthly. Attention shall be paid to including samples of tuberous and root food products.

TABLE 2.2-C

MAXIMUM VALUES FOR THE *A PRIORI* LOWER LIMIT OF DETECTION^{(c) (d)}

Analysis	Water (pCi/liter)	Air Particulates or Gases (pCi/m ³)	Fish (pCi/kg-wet)	Milk (pCi/liter)	Food Products (pCi/kg-wet)	Sediment (pCi/kg-dry)
Gross Beta	4	0.01	---	---	---	---
H-3	2000 ^(a)	---	---	---	---	---
Mn-54	15	---	130	---	---	---
Fe-59	30	---	260	---	---	---
Co-58, 60	15	---	130	---	---	---
Zn-65	30	---	260	---	---	---
Zr-Nb-95	15	---	---	---	---	---
I-131	1 ^(b)	0.07	---	1	60	---
Cs-134	15	0.05	130	15	60	150
Cs-137	18	0.06	150	18	80	180
Ba-La-140	15	---	---	15	---	---

- (a) If no drinking water pathway exists, a value of 3,000 pCi/liter may be used.
- (b) If no drinking water pathway exists, the LLD of gamma isotopic analysis may be used.
- (c) Lower Limit of Detection is defined in Section 2.3.2.
- (d) This list does not mean that only these nuclides are to be considered. Other peaks that are identifiable, together with those of the above nuclides, shall also be analyzed and reported in the Annual Radiological Environmental Operating Report pursuant to Technical Specification 5.6.2.

3.0 INTERPRETATION OF RESULTS

Review of all 2022 REMP analysis results was performed to identify changes in environmental levels as a result of station operations. The following section depicts and explains the review of these results. Sample data for 2022 was compared to preoperational and historical data. Over the years of operation, analysis and collection changes have taken place that do not allow direct comparisons for some data collected from 1984 (preoperational) through 2022. Summary tables containing 2022 information required by Technical Specification Administrative Control 5.6.2 are located in Appendix B. REMP results for 2022 are located in Appendix E.

Evaluation for significant trends was performed for radionuclides that are listed as required within Selected Licensee Commitments 16.11-13. The radionuclides include: H-3, Mn-54, Fe-59, Co-58, Co-60, Zn-65, Zr-95, Nb-95, I-131, Cs-134, Cs-137, Ba-140 and La-140. Gross beta analysis results were trended for drinking water and air particulate. Other radionuclides detected that are the result of plant operation, but not required for reporting, are trended.

A comparison of annual mean concentrations of effluent-based detected radionuclides to historical results provided trending bases. Frequency of detection and concentrations related to SLC reporting levels (Table 2.2-A) were used as criteria for trending conclusions. All 2022 maximum percentages of reporting levels attributed to CNS operation were well below the 100% action level.

Selected Licensee Commitment section 16.11-13 addresses actions to be taken if radionuclides other than those required are detected in samples collected. The occurrences of these radionuclides are the result of CNS liquid effluents which contained the radionuclides.

During 1984-1986, all net activity results (sample minus background), both positive and negative were included in calculation of sample mean. A change in the EnRad gamma spectroscopy system on September 1, 1987, decreased the number of measurements yielding detectable low-level activity for indicator and control location samples. It was thought that the method used by the previous system was vulnerable to false-positive results.

All 2022 sample analysis results were reviewed to detect and identify any significant trends. Tables and graphs are used throughout this section to display data from effluent-based radionuclides identified since the system change in late 1987. All negative concentration values were replaced with zero for calculation purposes. Any zero concentrations used in tables or graphs represent activity measurements less than detectable levels.

Review of all 2022 data presented in this section supports the conclusion that there were no significant changes in environmental sample radionuclide concentrations of samples collected and analyzed from CNS site and surrounding areas that were attributable to plant operations. Inspection of the data showed that radioactivity concentrations were as expected and all positively identified measurements attributed to plant operations were within CNS Offsite Dose

Calculation Manual (ODCM) and SLC regulatory limits; thus presenting no significant impact to the environment or public health and safety.

Data presented in Sections 3.1 through 3.9 support the conclusion that there was no significant increase in radioactivity in the environment around Catawba Nuclear Station due to station operations in 2022. Similarly, there was no significant increase in ambient background radiation levels in the surrounding areas. The 2022 land use census data, shown in Section 3.10, indicates that no program changes are required as a result of the census.

3.1 AIRBORNE RADIOIODINE AND PARTICULATES

Airborne particulate and radioiodine samples at each of five locations were composited by means of continuous air samplers. Air particulates were collected on a particulate filter and radioiodines were collected in a charcoal cartridge positioned behind the filter in the sampler. The samplers are designed to operate at a constant flow rate (in order to compensate for any filter loading) and are set to sample approximately 2 cubic feet per minute. Filters and cartridges were collected weekly.

In 2022, 260 radioiodine and particulate samples were analyzed, 208 from four indicator locations and 52 at the control location. Particulate samples were analyzed weekly for gross beta. A quarterly gamma analysis was performed on the quarterly filter composite (by location). Radioiodine samples received a weekly gamma analysis.

Figure 3.1 shows individual sample gross beta results for the indicator location with highest annual mean and the control location samples during 2022. The two sample locations' results are similar in concentration and have varied negligibly since preoperational periods.

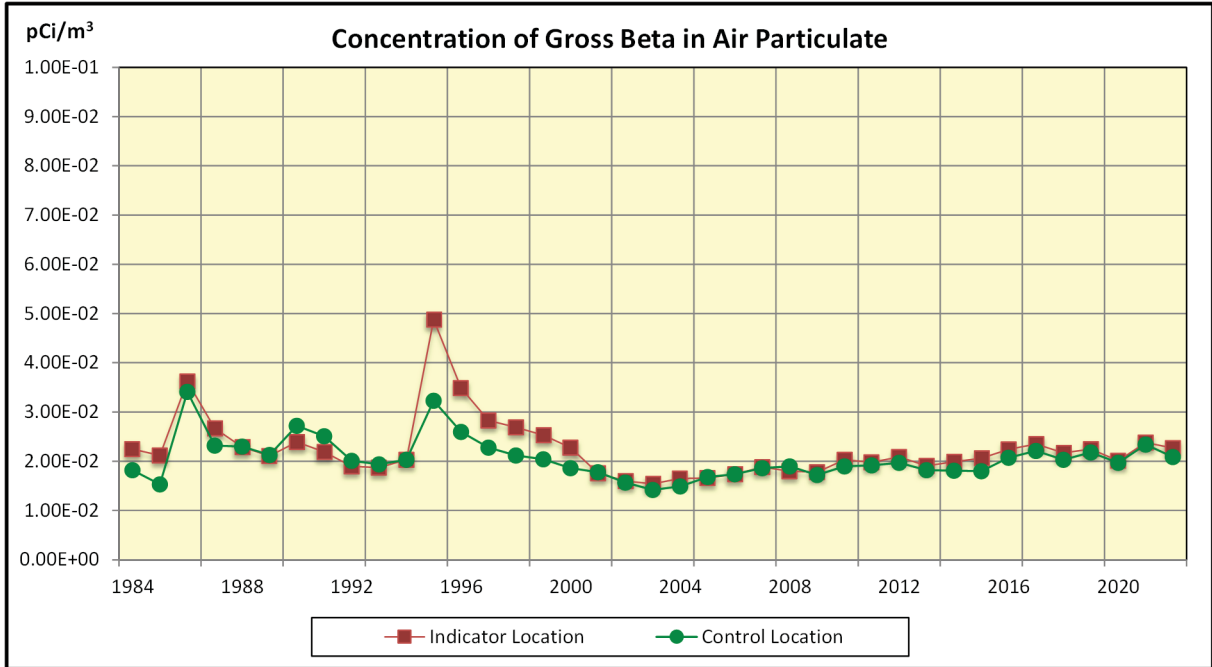
There were no detectable gamma emitters attributable to plant operations identified for particulate filters analyzed during 2022. Table 3.1-A shows the highest indicator annual mean and control location annual mean for gross beta in air particulate.

There was no detectable I-131 in air radioiodine samples analyzed in 2022. Table 3.1-B shows the highest indicator annual mean and control location annual mean for I-131 since 1984 (preoperational period). The table shows similar concentrations for both the indicator and control locations and the activities decreasing from early in the operational history of the plant. No I-131 activity due to CNS plant operations has been detected since 1987.

K-40 and Be-7 that occur naturally were routinely detected in air particulate collected during the year. K-40 was routinely detected in charcoal cartridges.

In 2020, Nuclear Oversight (NOS) determined (NCR #2347403) that air sampling location 212 (Tega Cay, 3.32 mi E) did not currently meet the definition of a community air sampling location per CNS SLC 16.11-13. The geography and population demographics have changed considerably since Location 212 was initially deemed the community air sampler. To meet the CNS SLC 16.11-13 requirements, Location 201 (Site Boundary, 0.53 mi NE) was removed as a site boundary location (as it had the 4th highest average D/Q) and is now the new community air sampler as it is within a community on the edge of the station. Location 208 (Discharge Canal – Site Boundary, 0.45 mi S), the location with the third highest average D/Q was formally made a site boundary location as it had not been previously designated as so. Location 212 (Tega Cay, 3.32 mi E) was a surplus location and was removed from the CNS REMP. All changes to the CNS REMP as a result of the NOS community air sampling finding were effective with the 30DEC2020 Rev. 64 of the CNS ODCM.

Figure 3.1



There is no reporting level for gross beta in air particulate

Table 3.1-A Mean Concentration of Gross Beta in Air Particulate

Year	Indicator Location (pCi/m³)	Control Location (pCi/m³)
1984	2.25E-2	1.82E-2
1985	2.12E-2	1.53E-2
1986	3.62E-2	3.41E-2
1987	2.67E-2	2.32E-2
1988	2.29E-2	2.30E-2
1989	2.11E-2	2.13E-2
1990	2.39E-2	2.72E-2
1991	2.19E-2	2.51E-2
1992	1.90E-2	2.01E-2
1993	1.87E-2	1.94E-2
1994	2.03E-2	2.03E-2
1995	4.88E-2	3.23E-2
1996	3.49E-2	2.60E-2
1997	2.83E-2	2.28E-2
1998	2.69E-2	2.12E-2
1999	2.53E-2	2.04E-2
2000	2.28E-2	1.86E-2
2001	1.76E-2	1.78E-2
2002	1.60E-2	1.57E-2
2003	1.54E-2	1.42E-2
2004	1.65E-2	1.49E-2
2005	1.66E-2	1.68E-2
2006	1.74E-2	1.74E-2
2007	1.88E-2	1.86E-2
2008	1.80E-2	1.90E-2
2009	1.78E-2	1.72E-2
2010	2.03E-2	1.90E-2
2011	1.98E-2	1.92E-2
2012	2.09E-2	1.97E-2
2013	1.92E-2	1.82E-2
2014	1.99E-2	1.81E-2
2015	2.06E-2	1.80E-2
2016	2.24E-2	2.07E-2
2017	2.35E-2	2.21E-2
2018	2.17E-2	2.03E-2
2019	2.25E-2	2.18E-2
2020	2.01E-2	1.97E-2
2021	2.38E-2	2.34E-2
2022	2.27E-2	2.09E-2

Table 3.1-B Mean Concentration of Air Radioiodine (I-131)

Year	Indicator Location (pCi/m³)	Control Location (pCi/m³)
1984	1.30E-3	1.46E-2
1985	4.75E-3	2.38E-2
1986	1.43E-2	1.02E-2
1987	1.38E-2	0.00E0
1988	0.00E0	0.00E0
1989	0.00E0	0.00E0
1990	0.00E0	0.00E0
1991	0.00E0	0.00E0
1992	0.00E0	0.00E0
1993	0.00E0	0.00E0
1994	0.00E0	0.00E0
1995	0.00E0	0.00E0
1996	0.00E0	0.00E0
1997	0.00E0	0.00E0
1998	0.00E0	0.00E0
1999	0.00E0	0.00E0
2000	0.00E0	0.00E0
2001	0.00E0	0.00E0
2002	0.00E0	0.00E0
2003	0.00E0	0.00E0
2004	0.00E0	0.00E0
2005	0.00E0	0.00E0
2006	0.00E0	0.00E0
2007	0.00E0	0.00E0
2008	0.00E0	0.00E0
2009	0.00E0	0.00E0
2010	0.00E0	0.00E0
2011 ⁽¹⁾	5.53E-2	5.65E-2
2012	0.00E0	0.00E0
2013	0.00E0	0.00E0
2014 ⁽²⁾	0.00E0	0.00E0
2015	0.00E0	0.00E0
2016	0.00E0	0.00E0
2017	0.00E0	0.00E0
2018	0.00E0	0.00E0
2019	0.00E0	0.00E0
2020	0.00E0	0.00E0
2021	0.00E0	0.00E0
2022	0.00E0	0.00E0

0.00E0 indicates no detectable measurements

(1) 2011 concentration affected by Fukushima Daiichi

(2) 2014 – Gamma spectroscopy system was replaced 10JUL2014. Gamma spectroscopy system hardware, detector cooling apparatus, software, electronics, nuclide identification libraries, and analytical test matrix components for test matrices were modified (NCR # 0739995). No analytical changes were noted due to the 2014 gamma spectroscopy system change.

3.2 DRINKING WATER

Gross beta analysis and gamma spectroscopy were performed on 26 drinking water samples. These samples were composited to create 8 quarterly composite period samples for tritium analysis. Monthly composite drinking water samples were collected at each of two locations; one indicator location, along with one control location.

No gamma emitting radionuclides attributable to plant operations were identified in 2022 drinking water samples.

Figure 3.2-1 and Table 3.2 shows highest annual mean gross beta concentrations for the indicator location and control location since preoperation. The indicator location (downstream of the plant effluent release point) average concentration was 3.50 pCi/l in 2022 and the control location concentration was 3.37 pCi/l. The gross beta mean indicator activity and mean control activity increased in 2019 due to an analytical method change affecting analytical sensitivities in 2019 (NCR # 02303030).

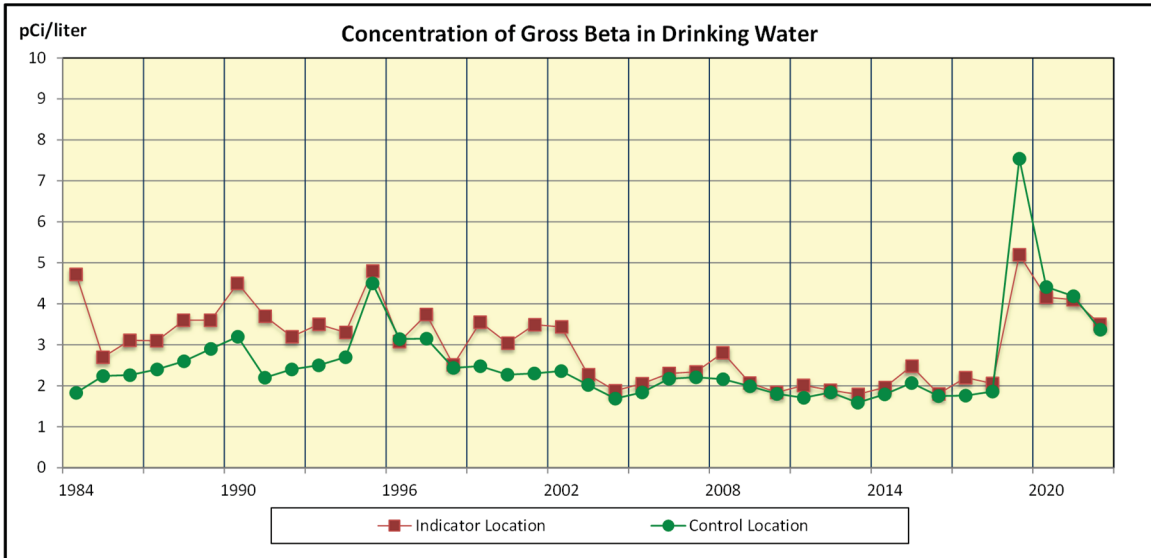
Tritium was detected in all four indicator samples as well as control location samples during 2022. The mean indicator tritium concentration for 2022 was 928 pCi/l, 4.64% of reporting level. The mean control tritium concentration for 2022 was 411 pCi/l, 2.06% of reporting level. Figure 3.2-2 and Table 3.2 display the highest indicator and control location annual mean concentrations for tritium since 1984.

The concentration of tritium in drinking water is affected by releases from the Catawba plant and the McGuire Nuclear Station, located approximately 40 miles upstream of the Catawba plant on the Catawba River.

The dose for consumption of water was less than one mrem per year, historically and for 2022; therefore low-level iodine analysis is not required.

K-40 is a naturally occurring radionuclide observed in drinking water samples in 2022.

Figure 3.2-1



Analytical method change implemented in 2019.

Figure 3.2-2

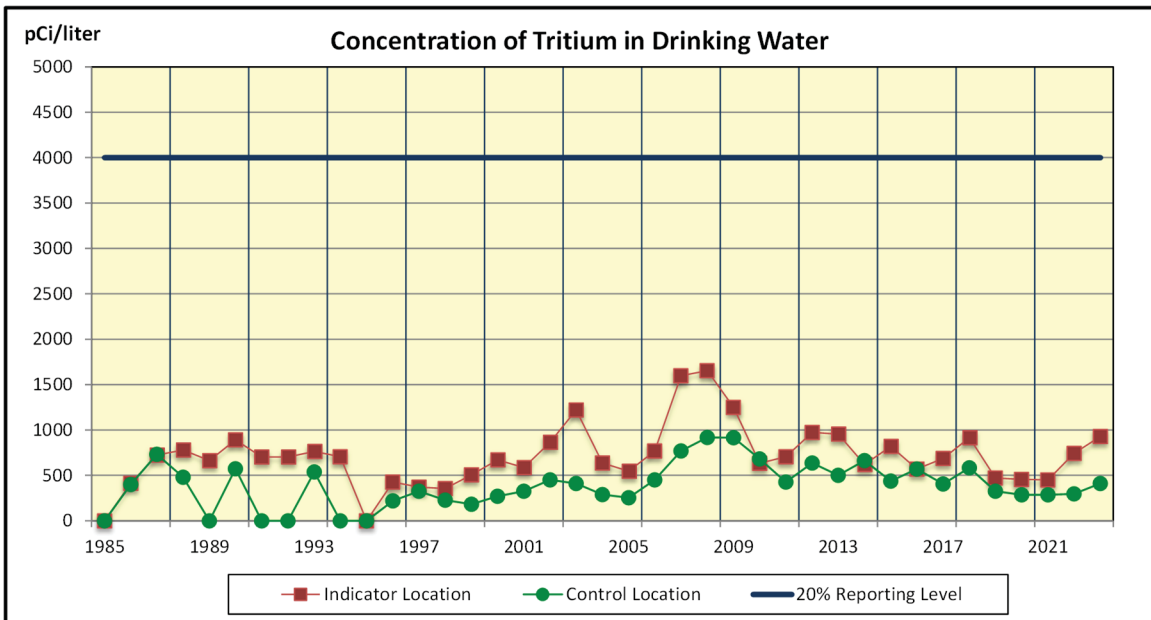


Table 3.2 Mean Concentration of Radionuclides in Drinking Water

YEAR	Gross Beta (pCi/l)		Tritium (pCi/l)	
	Indicator Location	Control Location	Indicator Location	Control Location
1984	4.72	1.83	3.10E-2	3.10E-2
1985	2.70	2.24	4.13E2	4.00E2
1986	3.11	2.26	7.23E2	7.33E2
1987	3.10	2.40	7.80E2	4.80E2
1988	3.60	2.60	6.64E2	0.00E0
1989	3.60	2.90	8.91E2	5.72E2
1990	4.50	3.20	7.03E2	0.00E0
1991	3.70	2.20	7.04E2	0.00E0
1992	3.20	2.40	7.65E2	5.38E2
1993	3.50	2.50	7.06E2	0.00E0
1994	3.30	2.70	0.00E0	0.00E0
1995	4.80	4.50	4.28E2	2.21E2
1996	3.08	3.14	3.71E2	3.27E2
1997	3.74	3.15	3.54E2	2.28E2
1998	2.51	2.44	5.07E2	1.83E2
1999	3.55	2.48	6.71E2	2.70E2
2000	3.04	2.27	5.87E2	3.26E2
2001	3.49	2.30	8.66E2	4.50E2
2002	3.44	2.36	1.22E3	4.11E2
2003	2.27	2.02	6.36E2	2.88E2
2004	1.88	1.69	5.47E2	2.54E2
2005	2.05	1.84	7.69E2	4.50E2
2006	2.30	2.17	1.59E3	7.70E2
2007	2.34	2.21	1.65E3	9.18E2
2008	2.81	2.16	1.25E3	9.16E2
2009	2.07	1.99	6.34E2	6.81E2
2010	1.84	1.80	7.05E2	4.27E2
2011	2.01	1.71	9.73E2	6.36E2
2012	1.89	1.84	9.54E2	5.02E2
2013	1.79	1.59	6.22E2	6.64E2
2014	1.96	1.79	8.21E2	4.37E2
2015	2.48	2.07	5.70E2	5.70E2
2016	1.80	1.75	6.88E2	4.06E2
2017	2.20	1.76	9.16E2	5.83E2
2018	2.06	1.86	4.71E2	3.26E2
2019 ⁽¹⁾	5.20	7.54	4.55E2	2.85E2
2020	4.16	4.41	4.52E2	2.87E2
2021	4.10	4.19	7.44E2	2.98E2
2022	3.50	3.37	9.28E2	4.11E2

0.00E0 indicates no detectable measurements

1984 - 1986 mean based on all net activity

(1) Gross beta preparation/analysis methodology change (NCR # 02303030).

3.3 SURFACE WATER

A total of 39 monthly surface water composite samples were analyzed for gamma emitting radionuclides. The samples were additionally composited to create 12 quarterly composite period samples for tritium analysis. Two indicator locations and one control location were sampled. One indicator location (208) is located near the liquid effluent discharge point.

Tritium was identified in all 8 indicator samples with an average concentration of 4,838 pCi/l. Indicator location 208 (Discharge Canal) showed a range of activities from 4,720 to 18,500 pCi/l which had the highest mean concentration of 8,853 pCi/l. Tritium was detected in all four control samples during 2022 with an average concentration of 418 pCi/l.

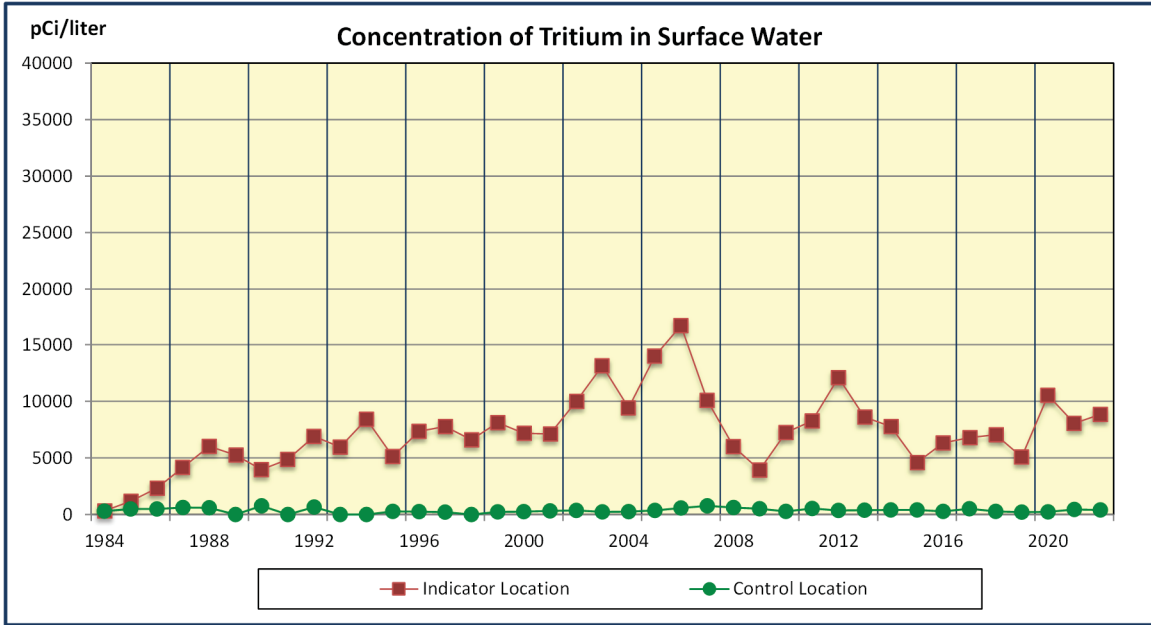
No gamma emitting radionuclides attributable to plant operations were identified in 2022 surface water samples. Table 3.3 summarizes the indicator annual means of radionuclides detected since 1984. Visual inspection of the tabular data did not reveal any increasing trends.

Figure 3.3 displays the highest indicator and control annual means for tritium since 1984.

The concentration of tritium in surface water is affected by releases from the Catawba plant and the McGuire Nuclear Station, located approximately 40 miles upstream of the Catawba plant on the Catawba River.

K-40 is a naturally occurring radionuclide observed in surface water samples in 2022.

Figure 3.3



There is no reporting level for tritium in surface water, however, if no drinking water pathway exists, a value of 30,000 pCi/l may be used. A drinking water pathway exists for Catawba Nuclear Station, so this limit does not apply for surface water. See section 3.2 for drinking water results.

Table 3.3 Mean Concentrations of Radionuclides in Surface Water (pCi/l)

YEAR	Co-58	Co-60	Cs-137	H-3 Indicator	H-3 Control
1984	4.59E-1	5.71E-1	9.08E-1	3.35E2	3.18E2
1985	3.46E0	4.83E-2	8.19E-1	1.19E3	5.05E2
1986	3.10E-1	-4.12E-2	4.85E-1	2.34E3	5.05E2
1987 ⁽¹⁾	0.00E0	3.10E0	9.90E0	4.17E3	6.20E2
1988	9.20E0	0.00E0	0.00E0	6.03E3	6.07E2
1989	0.00E0	0.00E0	0.00E0	5.27E3	0.00E0
1990	6.50E0	0.00E0	0.00E0	3.98E3	7.73E2
1991	0.00E0	0.00E0	0.00E0	4.87E3	0.00E0
1992	0.00E0	0.00E0	0.00E0	6.91E3	6.64E2
1993	4.70E0	1.80E0	0.00E0	5.98E3	0.00E0
1994	0.00E0	0.00E0	0.00E0	8.42E3	0.00E0
1995	0.00E0	0.00E0	0.00E0	5.13E3	2.89E2
1996	0.00E0	0.00E0	0.00E0	7.36E3	2.61E2
1997	0.00E0	0.00E0	0.00E0	7.77E3	2.20E2
1998	0.00E0	0.00E0	0.00E0	6.61E3	0.00E0
1999	0.00E0	0.00E0	0.00E0	8.13E3	2.41E2
2000	0.00E0	0.00E0	0.00E0	7.19E3	2.56E2
2001	0.00E0	0.00E0	0.00E0	7.13E3	3.28E2
2002	0.00E0	0.00E0	0.00E0	1.00E4	3.80E2
2003	0.00E0	0.00E0	0.00E0	1.31E4	2.37E2
2004	0.00E0	0.00E0	0.00E0	9.43E3	2.60E2
2005	0.00E0	0.00E0	0.00E0	1.40E4	3.78E2
2006	0.00E0	0.00E0	0.00E0	1.67E4	5.83E2
2007	0.00E0	0.00E0	0.00E0	1.01E4	7.82E2
2008	6.80E0	1.16E1	0.00E0	6.02E3	6.31E2
2009	9.40E0	1.06E1	0.00E0	3.93E3	5.29E2
2010	0.00E0	0.00E0	0.00E0	7.26E3	2.94E2
2011	8.75E0	1.96E1	0.00E0	8.29E3	5.41E2
2012	0.00E0	0.00E0	0.00E0	1.21E4	3.71E2
2013	0.00E0	0.00E0	0.00E0	8.62E3	4.02E2
2014 ^{(2) (3)}	7.23E0	4.69E0	0.00E0	7.79E3	4.18E2
2015 ⁽⁴⁾	1.15E1	1.07E0	0.00E0	4.61E3	4.14E2
2016	0.00E0	0.00E0	0.00E0	6.34E3	2.81E2
2017	0.00E0	0.00E0	0.00E0	6.80E3	5.24E2
2018	0.00E0	0.00E0	0.00E0	7.07E3	2.79E2
2019	0.00E0	0.00E0	0.00E0	5.10E3	2.21E2
2020	0.00E0	0.00E0	0.00E0	1.05E4	2.37E2
2021	0.00E0	0.00E0	0.00E0	8.06E3	4.67E2
2022	0.00E0	0.00E0	0.00E0	8.85E3	4.18E2

0.00E0 indicates no detectable measurements

1984 - 1986 mean based on all net activity

(1) 1987 – Gamma spectroscopy system change

(2) 2014 – Gamma spectroscopy system was replaced 10JUL2014. Gamma spectroscopy system hardware, detector cooling apparatus, software, electronics, nuclide identification libraries, and analytical test matrix components for test matrices were modified (NCR # 0739995). No analytical changes were noted due to the 2014 gamma spectroscopy system change.

(3) 2014 – During the 3rd quarter, CNS experienced higher levels than normal of mixed fission and activation products in the liquid radioactive waste processing system and higher than normal liquid waste discharges (NCR # 01897053).

(4) 2015 – Co-58 and Co-60 were detected at SW Location 208 (NCR # 01934713).

3.4 MILK

A total of 26 biweekly grab samples of milk were analyzed by gamma spectroscopy and low-level Iodine-131 during 2022. There was one control location sampled. No indicator dairies were identified by the 2022 land use census.

There were no gamma emitting radionuclides attributable to plant operations identified in milk samples in 2022. Cs-137 is the only radionuclide, other than naturally occurring, reported in milk samples since 1996. Cs-137 in milk is not unusual. It is a constituent of nuclear weapons test fallout and nuclear plant accidents and has been observed periodically in samples from indicator and control locations since the preoperational period. Airborne Cs-137 has not been released from the plant since 1992.

Table 3.4 lists highest indicator location annual mean and control location annual mean for Cs-137 since the preoperational period.

K-40 is a naturally occurring radionuclide observed in milk samples in 2022.

Table 3.4 Mean Concentration of Radionuclides in Milk

YEAR	Cs-137 Indicator (pCi/l)	Cs-137 Control (pCi/l)
1984	2.95E0	2.98E0
1985	2.11E0	2.12E0
1986	3.76E0	4.54E0
1987 ⁽¹⁾	5.00E0	5.50E0
1988	3.20E0	3.80E0
1989	0.00E0	0.00E0
1990	8.00E0	6.70E0
1991	0.00E0	0.00E0
1992	3.40E0	5.00E0
1993	5.00E0	0.00E0
1994	2.80E0	0.00E0
1995	8.60E0	0.00E0
1996	6.05E0	0.00E0
1997	0.00E0	0.00E0
1998	0.00E0	0.00E0
1999	0.00E0	0.00E0
2000	0.00E0	0.00E0
2001	0.00E0	0.00E0
2002	0.00E0	0.00E0
2003	0.00E0	0.00E0
2004	No Indicator Location	0.00E0
2005	No Indicator Location	0.00E0
2006	No Indicator Location	0.00E0
2007	No Indicator Location	0.00E0
2008	No Indicator Location	0.00E0
2009	No Indicator Location	0.00E0
2010	No Indicator Location	0.00E0
2011	No Indicator Location	0.00E0
2012	No Indicator Location	0.00E0
2013	No Indicator Location	0.00E0
2014 ⁽²⁾	No Indicator Location	0.00E0
2015	No Indicator Location	0.00E0
2016	No Indicator Location	0.00E0
2017	No Indicator Location	0.00E0
2018	No Indicator Location	0.00E0
2019	No Indicator Location	0.00E0
2020	No Indicator Location	0.00E0
2021	No Indicator Location	0.00E0
2022	No Indicator Location	0.00E0

0.00E0 indicates no detectable measurements

1984 - 1986 mean based on all net activity

(1) 1987 – Gamma spectroscopy system change

(2) 2014 – Gamma spectroscopy system was replaced 10JUL2014. Gamma spectroscopy system hardware, detector cooling apparatus, software, electronics, nuclide identification libraries, and analytical test matrix components for test matrices were modified (NCR # 0739995). No analytical changes were noted due to the 2014 gamma spectroscopy system change.

3.5 BROADLEAF VEGETATION

Gamma spectroscopy was performed on 61 broadleaf vegetation samples collected monthly from five locations during 2022. Four indicator locations and one control location were sampled. Cs-137 was reported in one indicator location, Location 201, in one of twelve samples collected with a concentration of 23.4 pCi/kg (1.17 % of reporting level). Co-60 was reported in one indicator location, Location 226, in one of thirteen samples collected with a concentration of 56.1 pCi/kg (NCR# 02441805). There is no reporting level for Co-60 in broadleaf vegetation. Neither Cs-137 or Co-60 were detected in any of the control samples in 2022.

Cs-137 and Co-60 are the only gamma emitting radionuclide, other than naturally occurring, reported in vegetation samples. Co-60 was present in one sample and verified with a recount on a second detector. When resampled a week later, Co-60 was not present at broadleaf vegetation Location 226. It is not unusual for Cs-137 to be present in vegetation. It is a constituent of nuclear weapons test fallout and nuclear plant accidents and has been observed in samples from indicator and control locations since the preoperational period. Table 3.5 lists the highest indicator location annual mean and control location annual mean for Cs-137 since early in the station's operational history. Visual inspection of the tabular data did not reveal any increasing trends.

Figure 3.5 shows indicator and control annual means for Cs-137 in vegetation since 1984. Values shown from 1984 to 2022 show a stable trend for Cs-137 in vegetation. No airborne Cs-137 has been released from the plant since 1992.

K-40 and Be-7 are naturally occurring radionuclides that were observed in broadleaf vegetation samples in 2022.

Figure 3.5

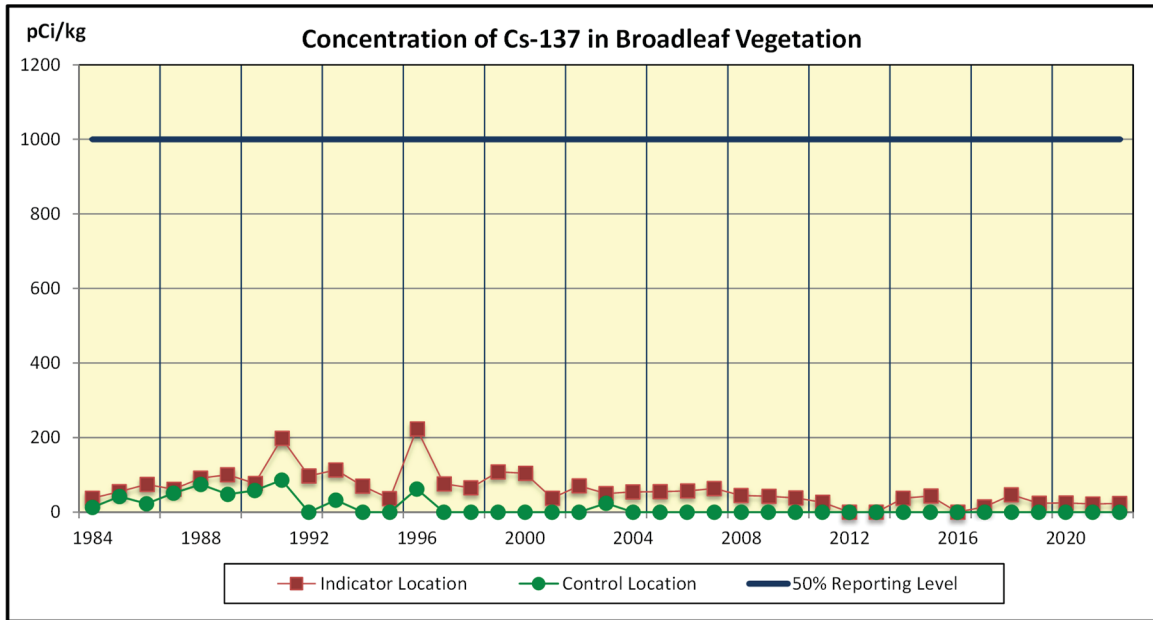


Table 3.5 Mean Concentration of Radionuclides in Broadleaf Vegetation

YEAR	Cs-137 Indicator (pCi/kg)	Cs-137 Control (pCi/kg)
1984	3.76E1	1.30E1
1985	5.48E1	4.16E1
1986	7.42E1	2.22E1
1987 ⁽¹⁾	6.10E1	5.10E1
1988	9.10E1	7.40E1
1989	1.00E2	4.80E1
1990	7.70E1	5.80E1
1991	1.98E2	8.60E1
1992	9.70E1	0.00E0
1993	1.13E2	3.20E1
1994	7.00E1	0.00E0
1995	3.60E1	0.00E0
1996	2.23E2	6.22E1
1997	7.57E1	0.00E0
1998	6.53E1	0.00E0
1999	1.08E2	0.00E0
2000	1.04E2	0.00E0
2001	3.76E1	0.00E0
2002	7.02E1	0.00E0
2003	4.96E1	2.40E1
2004	5.45E1	0.00E0
2005	5.48E1	0.00E0
2006	5.79E1	0.00E0
2007	6.31E1	0.00E0
2008	4.44E1	0.00E0
2009	4.25E1	0.00E0
2010	3.77E1	0.00E0
2011	2.62E1	0.00E0
2012	0.00E0	0.00E0
2013	0.00E0	0.00E0
2014 ⁽²⁾	3.72E1	0.00E0
2015	4.29E1	0.00E0
2016	0.00E0	0.00E0
2017	1.43E1	0.00E0
2018	4.67E1	0.00E0
2019	2.35E1	0.00E0
2020	2.46E1	0.00E0
2021	2.18E1	0.00E0
2022	2.34E1	0.00E0

0.00E0 indicates no detectable measurements

1984 - 1986 mean based on all net activity

2011 concentration affected by Fukushima Daiichi

(1) 1987 – Gamma spectroscopy system change

(2) 2014 – Gamma spectroscopy system was replaced 10JUL2014. Gamma spectroscopy system hardware, detector cooling apparatus, software, electronics, nuclide identification libraries, and analytical test matrix components for test matrices were modified (NCR # 0739995). No analytical changes were noted due to the 2014 gamma spectroscopy system change.

3.6 FOOD PRODUCTS

Collection of food product samples (crops) from an irrigated garden began in 1989. The irrigated garden is located on Lake Wylie downstream from CNS, Location 260. During the 2022 growing season ten samples were collected (monthly when available) and analyzed for gamma radionuclides.

There were no gamma emitting radionuclides attributable to plant operations identified in food product samples in 2022. There is no control location for this media type.

K-40 and Be-7 are naturally occurring radionuclides that were observed in food product samples in 2022.

3.7 FISH

Gamma spectroscopy was performed on the edible portions of the twelve fish samples collected semiannually during 2022. One downstream indicator location and one control location were sampled.

No fish indicator or control samples were positive for gamma emitting radionuclides, attributable to plant operations during 2022.

Co-58, Co-60, and Cs-137 are normally the predominant radionuclides identified in fish samples.

Figures 3.7-1 and 3.7-2 are graphs displaying annual mean concentrations for Co-60 and Cs-137. Table 3.7 depicts the highest indicator location annual mean for radionuclides detected. In addition, radionuclides identified in fish samples since 1984 have been included in the table. Overall, radionuclides have not shown a significant trend or accumulation.

K-40 is a naturally occurring radionuclide that was observed in some fish samples collected during 2022.

Figure 3.7-1

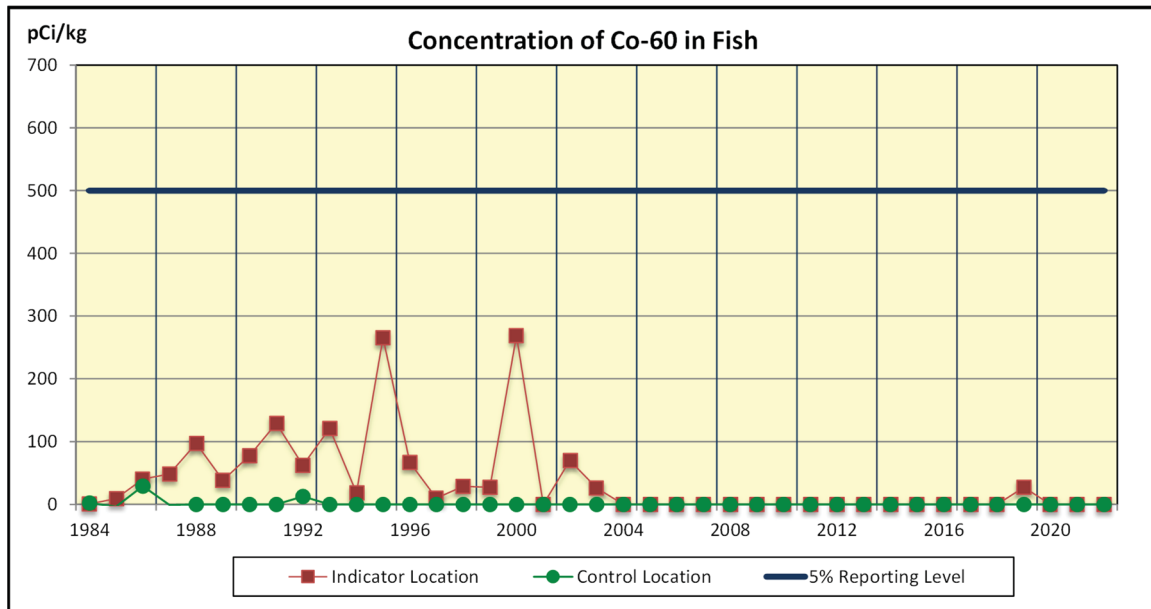


Figure 3.7-2

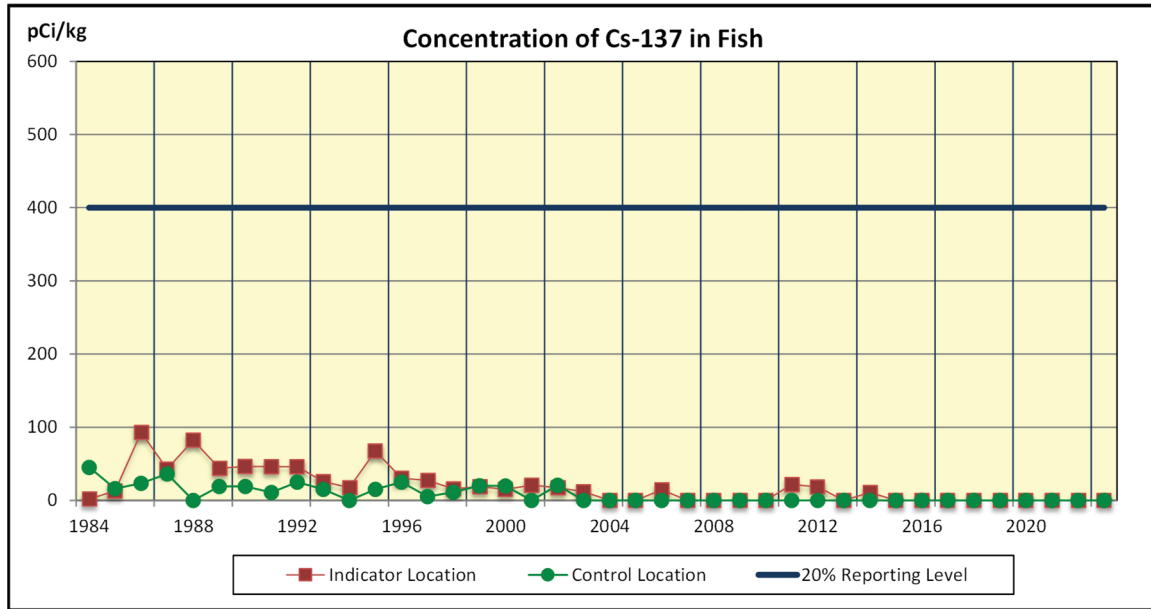


Table 3.7 Mean Concentrations of Radionuclides in Fish (pCi/kg)

Year	Co-58	Co-60	Cs-134	Cs-137
1984	3.00E0	6.11E-1	-5.32E0	1.83E0
1985	3.40E1	9.11E0	3.22E0	1.28E1
1986	1.86E2	4.01E1	3.51E1	9.29E1
1987 ⁽¹⁾	7.57E1	4.81E1	3.83E0	4.27E1
1988	1.40E2	9.70E1	1.67E1	8.24E1
1989	1.33E2	3.83E1	1.47E1	4.37E1
1990	1.75E2	7.77E1	1.32E1	4.66E1
1991	1.46E2	1.29E2	1.03E1	4.60E1
1992	9.02E1	6.20E1	1.27E1	4.61E1
1993	3.58E2	1.21E2	2.73E0	2.56E1
1994	4.75E1	1.81E1	0.00E0	1.75E1
1995	8.90E2	2.66E2	0.00E0	6.77E1
1996	5.95E1	6.68E1	0.00E0	3.02E1
1997	4.93E1	9.88E0	0.00E0	2.74E1
1998	6.44E1	2.86E1	0.00E0	1.58E1
1999	3.12E1	2.71E1	0.00E0	1.87E1
2000	2.13E2	2.69E2	0.00E0	1.52E1
2001	4.66E1	0.00E0	0.00E0	2.08E1
2002	5.23E1	7.00E1	0.00E0	1.73E1
2003	1.43E2	2.61E1	0.00E0	1.19E1
2004	1.81E1	0.00E0	0.00E0	0.00E0
2005	0.00E0	0.00E0	0.00E0	0.00E0
2006	0.00E0	0.00E0	0.00E0	1.44E1
2007	0.00E0	0.00E0	0.00E0	0.00E0
2008	0.00E0	0.00E0	0.00E0	0.00E0
2009	0.00E0	0.00E0	0.00E0	0.00E0
2010	0.00E0	0.00E0	0.00E0	0.00E0
2011	0.00E0	0.00E0	0.00E0	2.16E1
2012	0.00E0	0.00E0	0.00E0	1.84E1
2013	0.00E0	0.00E0	0.00E0	0.00E0
2014 ⁽²⁾	0.00E0	0.00E0	0.00E0	1.10E1
2015	0.00E0	0.00E0	0.00E0	0.00E0
2016	0.00E0	0.00E0	0.00E0	0.00E0
2017	0.00E0	0.00E0	0.00E0	0.00E0
2018	0.00E0	0.00E0	0.00E0	0.00E0
2019	0.00E0	2.72E1	0.00E0	0.00E0
2020	0.00E0	0.00E0	0.00E0	0.00E0
2021	0.00E0	0.00E0	0.00E0	0.00E0
2022	0.00E0	0.00E0	0.00E0	0.00E0

0.00E0 indicates no detectable measurements

1984 - 1986 mean based on all net activity

(1) 1987 – Gamma spectroscopy system change

(2) 2014 – Gamma spectroscopy system was replaced 10JUL2014. Gamma spectroscopy system hardware, detector cooling apparatus, software, electronics, nuclide identification libraries, and analytical test matrix components for test matrices were modified (NCR # 0739995). No analytical changes were noted due to the 2014 gamma spectroscopy system change.

3.8 SHORELINE SEDIMENT

During 2022, a total of six shoreline sediment samples were collected semiannually and analyzed, four from two indicator locations and two from the control location. The sample is dried, then sifted to remove any rocks and clams prior to analysis.

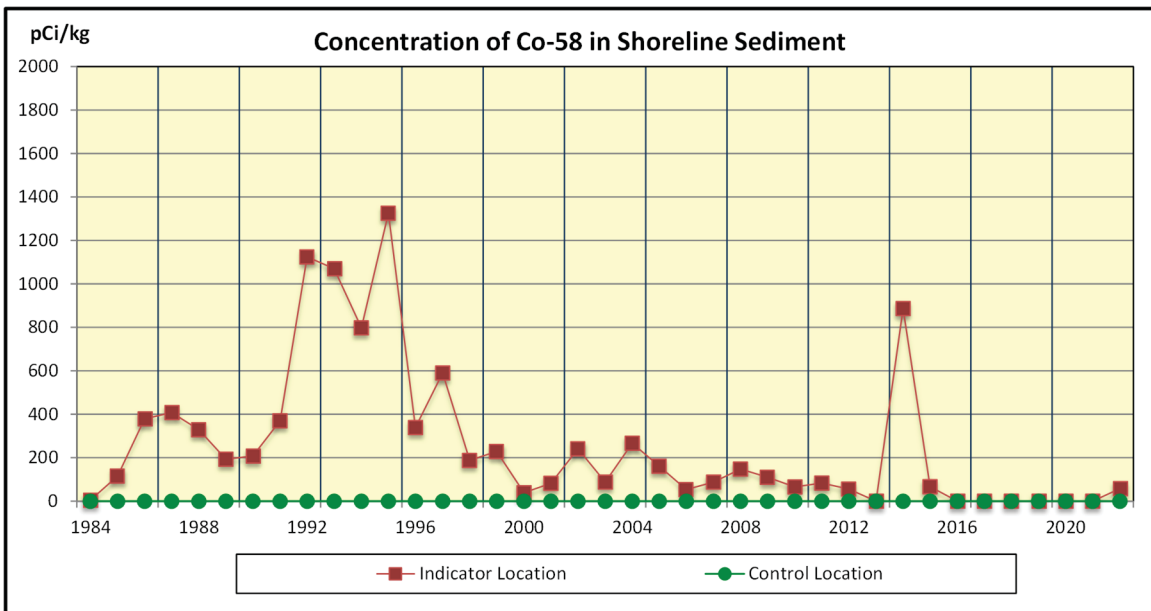
Co-58 and Co-60 were identified at indicator location 208. Positive identified activity within the same sample was 58.4 pCi/kg (Co-58) and 129 pCi/kg (Co-60) respectively. Co-58, Co-60, and Cs-137 are normally the predominant radionuclides identified in shoreline sediment samples. There were no gamma emitting radionuclides attributable to plant operations identified in samples from the control location in 2022.

Table 3.8 lists highest indicator location annual mean since 1984. Included in the table are radionuclides that have been identified in shoreline sediment samples since 1988.

Figures 3.8-1, 3.8-2, and 3.8-3 are graphs displaying annual mean concentrations for Co-58, Co-60, and Cs-137.

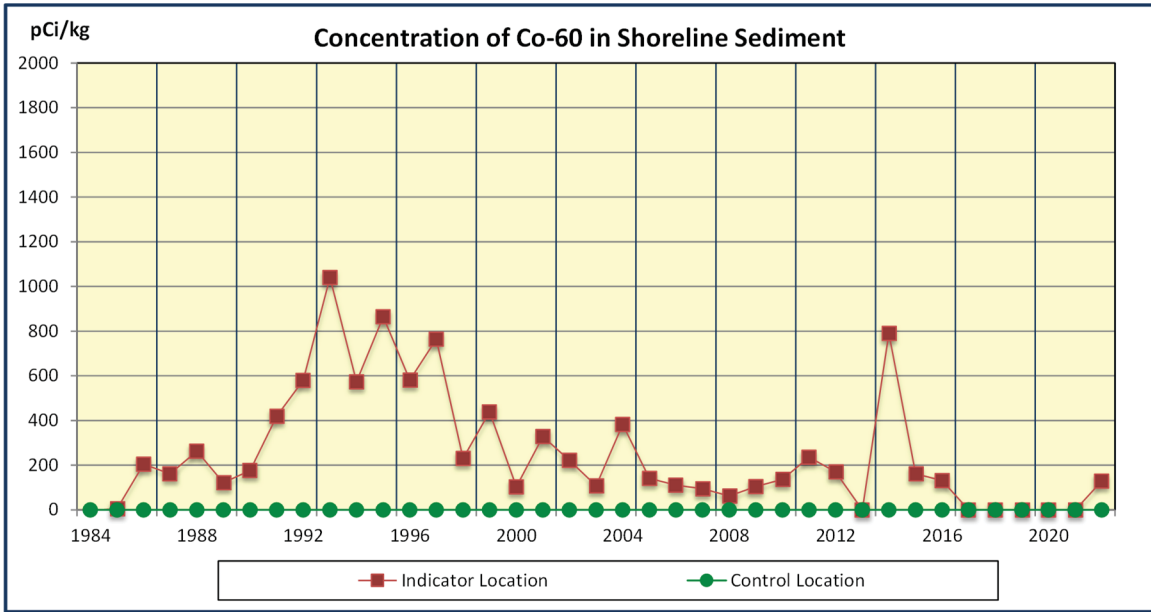
Naturally occurring K-40 and Be-7 were observed in some shoreline sediment samples collected during 2022.

Figure 3.8-1



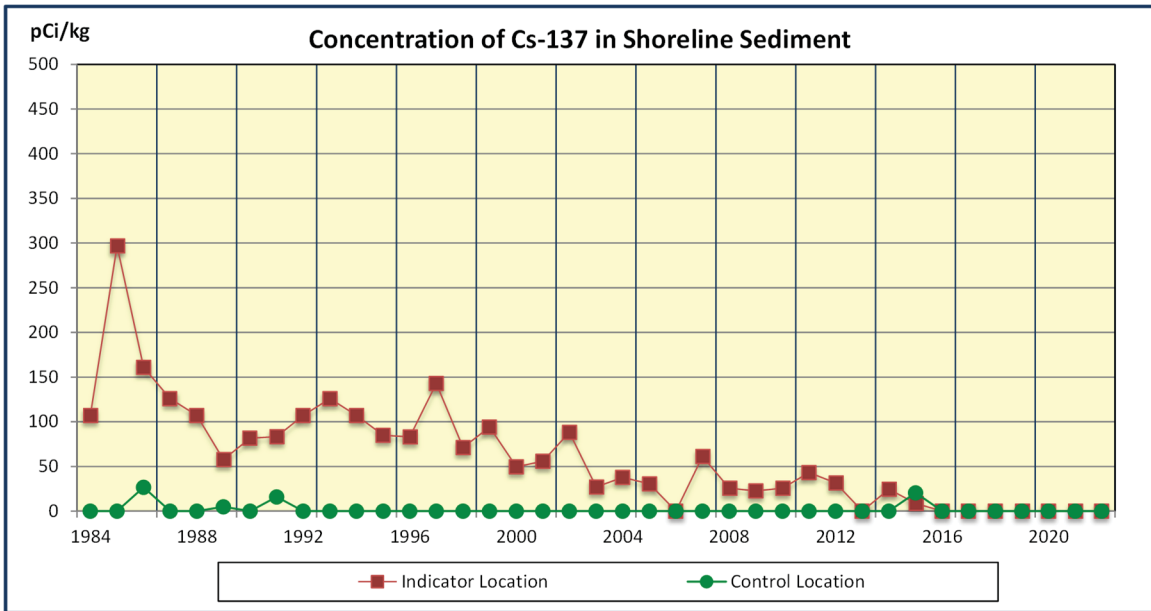
There is no reporting level for Co-58 in Shoreline Sediment

Figure 3.8-2



There is no reporting level for Co-60 in Shoreline Sediment

Figure 3.8-3



There is no reporting level for Cs-137 in Shoreline Sediment

Table 3.8 Mean Concentrations of Radionuclides in Shoreline Sediment (pCi/kg)

Year	Mn-54	Co-58	Co-60	Cs-134	Cs-137	Co-57
1984	1.03E0	4.40E0	-2.34E0	3.19E1	1.07E2	0.00E0
1985	-3.12E0	1.16E2	5.18E0	2.11E2	2.97E2	0.00E0
1986	1.09E2	3.79E2	2.05E2	6.50E1	1.61E2	0.00E0
1987 ⁽¹⁾	8.83E1	4.08E2	1.61E2	6.08E1	1.26E2	0.00E0
1988	1.07E2	3.29E2	2.63E2	2.59E1	1.07E2	7.65E-1
1989	4.58E1	1.94E2	1.21E2	1.65E1	5.77E1	0.00E0
1990	5.39E1	2.08E2	1.77E2	1.66E1	8.18E1	0.00E0
1991	8.50E1	3.70E2	4.19E2	1.82E1	8.33E1	1.20E0
1992	1.17E2	1.13E3	5.80E2	1.69E1	1.07E2	3.00E0
1993	1.33E2	1.07E3	1.04E3	2.80E1	1.26E2	2.47E1
1994	4.93E1	7.98E2	5.73E2	5.67E0	1.07E2	4.38E0
1995	1.02E2	1.33E3	8.65E2	0.00E0	8.50E1	3.69E1
1996	8.73E1	3.39E2	5.81E2	0.00E0	8.30E1	0.00E0
1997	6.96E1	5.90E2	7.64E2	0.00E0	1.43E2	0.00E0
1998	3.07E1	1.88E2	2.30E2	0.00E0	7.11E1	0.00E0
1999	7.28E1	2.29E2	4.39E2	0.00E0	9.42E1	0.00E0
2000	0.00E0	3.90E1	1.03E2	0.00E0	4.96E1	0.00E0
2001	3.86E1	8.27E1	3.29E2	0.00E0	5.58E1	0.00E0
2002	3.51E1	2.41E2	2.22E2	0.00E0	8.83E1	0.00E0
2003	2.17E1	8.75E1	1.08E2	0.00E0	2.69E1	0.00E0
2004	6.60E1	2.67E2	3.83E2	0.00E0	3.79E1	0.00E0
2005	0.00E0	1.61E2	1.41E2	0.00E0	3.04E1	0.00E0
2006	0.00E0	5.40E1	1.11E2	0.00E0	0.00E0	0.00E0
2007	0.00E0	8.77E1	9.46E1	0.00E0	6.13E1	0.00E0
2008	0.00E0	1.48E2	6.24E1	0.00E0	2.57E1	0.00E0
2009	0.00E0	1.10E2	1.04E2	0.00E0	2.27E1	0.00E0
2010	0.00E0	6.56E1	1.37E2	0.00E0	2.56E1	0.00E0
2011	0.00E0	8.36E1	2.36E2	3.62E1	4.33E1	1.05E1
2012	0.00E0	5.59E1	1.70E2	0.00E0	3.15E1	0.00E0
2013	0.00E0	0.00E0	0.00E0	0.00E0	0.00E0	0.00E0
2014 ^{(2) (3)}	6.84E1	8.87E2	7.90E2	0.00E0	2.46E1	0.00E0
2015	0.00E0	6.73E1	1.61E2	0.00E0	8.75E0	0.00E0
2016	0.00E0	0.00E0	1.31E2	0.00E0	0.00E0	0.00E0
2017	0.00E0	0.00E0	1.31E2	0.00E0	0.00E0	0.00E0
2018	0.00E0	0.00E0	0.00E0	0.00E0	0.00E0	0.00E0
2019	0.00E0	0.00E0	0.00E0	0.00E0	0.00E0	0.00E0
2020	0.00E0	0.00E0	0.00E0	0.00E0	0.00E0	0.00E0
2021	0.00E0	0.00E0	0.00E0	0.00E0	0.00E0	0.00E0
2022	0.00E0	5.84E1	1.29E2	0.00E0	0.00E0	0.00E0

0.00E0 indicates no detectable measurements

1984 - 1986 mean based on all net activity

(1) 1987 – Gamma spectroscopy system change

(2) 2014 – Gamma spectroscopy system was replaced 10JUL2014. Gamma spectroscopy system hardware, detector cooling apparatus, software, electronics, nuclide identification libraries, and analytical test matrix components for test matrices were modified (NCR # 0739995). No analytical changes were noted due to the 2014 gamma spectroscopy system change.

(3) 2014 – During the 3rd quarter, CNS experienced higher levels than normal of mixed fission and activation products in the liquid radioactive waste processing system and higher than normal liquid waste discharges (NCR # 01897053).

3.9 DIRECT GAMMA RADIATION

3.9.1 ENVIRONMENTAL TLD

Catawba is licensed with an exclusion area boundary defined by UFSAR Section 2.1.1.2 as a 2500 foot radius from station center. This is the same boundary established for determining radioactive effluent release limits. No permanent public access is permitted within the exclusion area. Catawba has forty-one Thermoluminescent dosimeter (TLD) locations which are collected quarterly. Sixteen TLDs, one in each meteorological sector in the general area of the site boundary are designated as "inner ring" and are within a 1 mile radius from station center and all are used as indicators. Sixteen TLD locations, one in each meteorological sector in the 6 to 8 kilometer range, are designated as "outer ring," they are outside the 1 mile "inner ring" but within a 5 mile radius of station center. All outer ring TLD locations are used as indicators. A subset of TLD locations within a 7 to 11 mile radius from station center are designated as "special interest," they are placed in population centers, residential areas, or schools. The three "control" locations are greater than 7 miles from station center. These locations were chosen to reduce the probability of influence from Catawba operation on data. The control locations are not used as background subtraction in the TLD analysis. Their purpose is to provide a comparison to indicator locations.

In 2022, 163 total TLDs were analyzed, 151 at indicator locations and 12 at control locations. TLDs are collected and analyzed quarterly. Transit and laboratory background dose is determined and subtracted from gross field readings as required by ANSI N545-1975. Based on Appendix B TLD data, the data on external radiation exposure for 2022 was essentially unchanged, with an average exposure for all of indicator locations of 18.8 mR per std. quarter. The TLD location with the highest annual mean of 28.2 mR per std. quarter was indicator location 264, India Hook Road, 4.32 mi SE. The three control TLD locations (217 (Blackmon Road 10.3 mi. SSE), 247 (Fort Mill 7.33 mi. ESE), 251 (Clover 9.72 mi. WNW)) had an annual mean of 15.1 mR per std. quarter. Figure 3.9 and Table 3.9 show TLD inner ring, outer ring, and control location annual averages in mR per std. quarter. Data is provided from 1984 when TLD locations were added and arranged in an inner ring and outer ring configuration. Preoperational data is also provided in the table. As shown in the graph, doses measured by environmental TLDs show little or no change since the current TLD system was implemented.

Quarterly, environmental ODCM TLD results are compared by location to its historical data to evaluate any significant changes. The comparison utilizes the location's average exposure history to determine if quarterly results fall within low and high ranges and provides a reliable indication of potential changes occurring at a specific TLD location. The low and high ranges are determined by the historical average \pm two standard deviations. The quarterly TLD evaluation implements portions of American National Standard ANSI/HPS N13.37-2014, "Environmental Dosimetry – Criteria for System Design and Implementation, for environmental Thermoluminescent Dosimeters (TLD)." The WP-RP-ALL-0030 – Updated Radiological Environmental Monitoring Program TLD Analytical Method, describes the process implemented in late 2018 for the fleet TLD programs.

TLD values identified as < Low Range or > High Range are evaluated in consideration of factors including possible TLD damage, sampling deviations, glow curve irregularities, and any known environmental location changes which may affect results. Quarterly TLD results are in Appendix E.

In the first quarter of 2022 the TLD from location 241 (Campbell Road) with a high range result of 18.0 mR per Std. qtr exceeded the location's acceptance range. The investigations (NCR# 02424014) did not determine any exposure ratio flags, glow curves were reviewed and found to be acceptable, and the TLD elements were reviewed and revealed no abnormalities. REMP collection personnel noted new construction in the area which included disturbances in the earth and new concrete. The TLD results were deemed acceptable.

In the first quarter of 2022 the TLD from location 251 (Clover, Control) with a high range result of 23.0 mR per Std. qtr exceeded the location's acceptance range. The investigations (NCR# 02424014) did not determine any exposure ratio flags, glow curves were reviewed and found to be acceptable, and the TLD elements were reviewed and revealed no abnormalities. No changes were by REMP collection personnel that would attribute to the high range. Location 251 (9.72 miles) is a control location TLD, TLD 243 (4.39 miles) is within the same sector and in the outer ring and did not display any notable increases so the high range exceedance is not likely due to plant exposure. The TLD results were deemed acceptable.

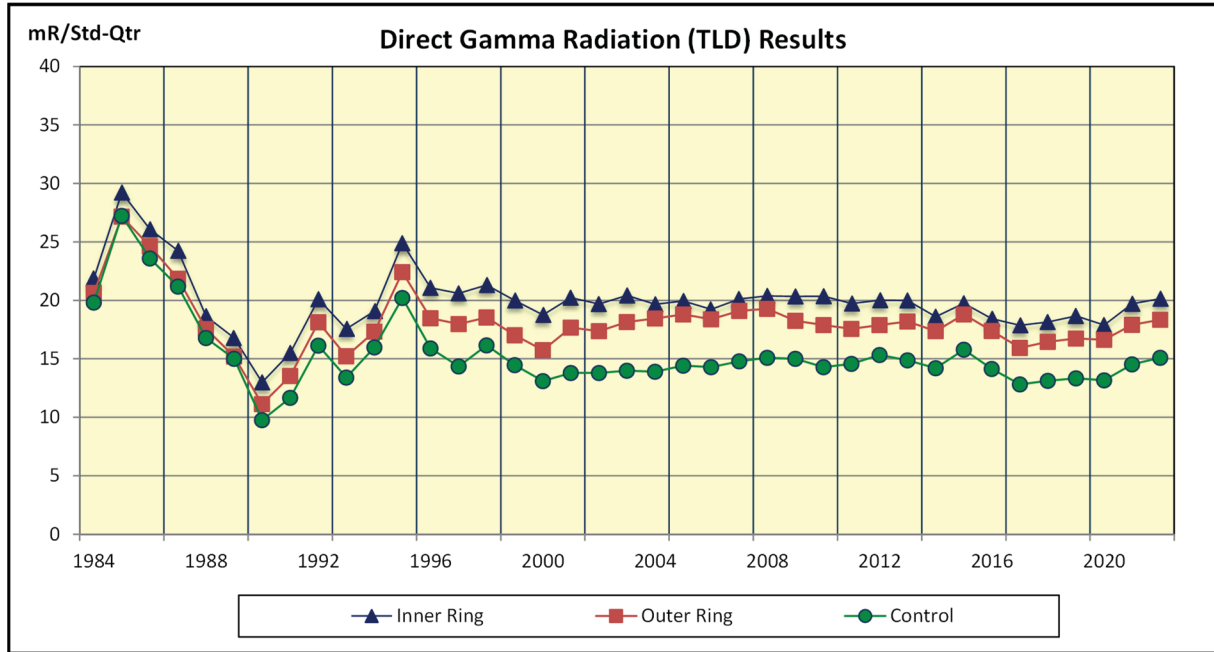
A TLD intercomparison program is conducted as part of the quality assurance program. Results of this program are included in section 4.7.

3.9.2 ISFSI

The Catawba ISFSI began operation in 2007. It is located approximately 0.2 miles north of station center in a secured area specifically constructed to provide dry storage for spent nuclear fuel. The ISFSI employs the NAC-UMS® and MAGNASTOR® vertical storage designs. Irradiated fuel assemblies are confined, protected, and shielded by a reinforced concrete module. Both systems are completely passive and designed to provide radiation shielding and safe confinement for a range of accident conditions and natural events. Both systems use a passive natural circulation ventilation system to remove decay heat from the modules. No radiological liquid or gaseous effluents are expected from the passive storage provided by the ISFSI. Therefore, any dose to offsite locations would be from direct and scattered gamma radiation.

Environmental TLD results described in 3.9.1 above are reviewed quarterly to identify trends and demonstrate compliance with dose and dose rate limits at the 2500 foot exclusion area boundary. Additional TLD locations not associated with REMP are presently located on the Catawba protected area fence near the ISFSI and on the ISFSI boundary. These are used to demonstrate compliance with occupational exposure controls and augment REMP TLD results. Doses measured by environmental TLDs show little or no change since the ISFSI began operation.

Figure 3.9



There is no reporting level for Direct Radiation (TLD)

Table 3.9 Direct Gamma Radiation (TLD) Results

Year	Inner Ring Average (mR per std. quarter)	Outer Ring Average (mR per std. quarter)	Control Average (mR per std. quarter)
1984*	2.19E+01	2.07E+01	1.98E+01
1985	2.92E+01	2.72E+01	2.72E+01
1986	2.61E+01	2.46E+01	2.36E+01
1987	2.43E+01	2.19E+01	2.12E+01
1988	1.87E+01	1.76E+01	1.68E+01
1989	1.68E+01	1.52E+01	1.50E+01
1990	1.30E+01	1.11E+01	9.78E+00
1991	1.55E+01	1.35E+01	1.17E+01
1992	2.01E+01	1.81E+01	1.61E+01
1993	1.76E+01	1.52E+01	1.34E+01
1994	1.91E+01	1.73E+01	1.60E+01
1995	2.49E+01	2.24E+01	2.02E+01
1996	2.11E+01	1.85E+01	1.59E+01
1997	2.06E+01	1.80E+01	1.44E+01
1998	2.13E+01	1.86E+01	1.62E+01
1999	2.00E+01	1.70E+01	1.45E+01
2000	1.88E+01	1.57E+01	1.31E+01
2001	2.02E+01	1.77E+01	1.38E+01
2002	1.97E+01	1.74E+01	1.38E+01
2003	2.04E+01	1.82E+01	1.40E+01
2004	1.97E+01	1.85E+01	1.39E+01
2005	2.00E+01	1.88E+01	1.44E+01
2006	1.92E+01	1.84E+01	1.43E+01
2007	2.01E+01	1.91E+01	1.48E+01
2008	2.04E+01	1.93E+01	1.51E+01
2009	2.04E+01	1.83E+01	1.50E+01
2010	2.04E+01	1.79E+01	1.43E+01
2011	1.97E+01	1.76E+01	1.46E+01
2012	2.00E+01	1.79E+01	1.53E+01
2013	2.00E+01	1.82E+01	1.49E+01
2014	1.86E+01	1.74E+01	1.42E+01
2015	1.98E+01	1.88E+01	1.58E+01
2016	1.84E+01	1.74E+01	1.41E+01
2017	1.79E+01	1.60E+01	1.28E+01
2018	1.82E+01	1.65E+01	1.31E+01
2019	1.87E+01	1.68E+01	1.34E+01
2020	1.79E+01	1.66E+01	1.32E+01
2021	1.97E+01	1.79E+01	1.45E+01
2022	2.02E+01	1.83E+01	1.51E+01

* Preoperational Data

3.10 LAND USE CENSUS

The 2022 Annual Land Use Census was conducted June 29 - 30, 2022 as required by SLC 16.11-14. The Land Use Census was conducted to identify within a distance of 8 kilometers (5.0 miles) from the station, the nearest location from the site boundary in each of the sixteen meteorological sectors, which includes: the nearest residence, the nearest garden greater than 50 square meters (500 square feet), the nearest milk-giving animal (cow, goat, etc.).

Table 3.10 summarizes the comparison between the 2021 and 2022 census results. A map indicating identified locations is shown in Figure 3.10.

During the 2022 census a goat milk location was identified in the SE Sector at 4.89 miles, however, the owners did not wish to participate in the CNS REMP. The nearest residence is located in the NE sector at 0.56 miles. No environmental program changes were required as a result of the 2022 land use census.

Table 3.10 Catawba 2022 Land Use Census Results

**Performed 6/29/2022 - 6/30/2022
Nearest Pathways (Miles)**

SECTOR	RESIDENCE		GARDEN		MILK ANIMAL	
	2021	2022	2021	2022	2021	2022
North	0.63	0.63	1.55	1.33*	---	---
North-Northeast	0.66	0.66	2.75	2.75	---	---
Northeast	0.56	0.56	0.67	0.67	---	---
East-Northeast	0.61	0.61	2.89	2.80*	---	---
East	0.65	0.65	2.21	2.21	---	---
East-Southeast	0.84	0.84	3.80	3.72*	---	---
Southeast	0.97	0.97	1.50	1.50	---	4.89 ⁽¹⁾
South-Southeast	0.74	0.80*	2.02	2.02	---	---
South	0.63	0.63	1.87	1.10*	---	---
South-Southwest	0.78	0.78	1.03	1.03	---	---
Southwest	0.63	0.60*	1.99	1.99	---	---
West-Southwest	0.57	0.57	2.60	2.07*	---	---
West	0.62	0.62	0.96	0.96	---	---
West-Northwest	1.10	1.10	1.31	1.23*	---	---
Northwest	1.27	1.27	1.75	2.41*	---	---
North-Northwest	0.86	0.86	1.04	1.04	---	---

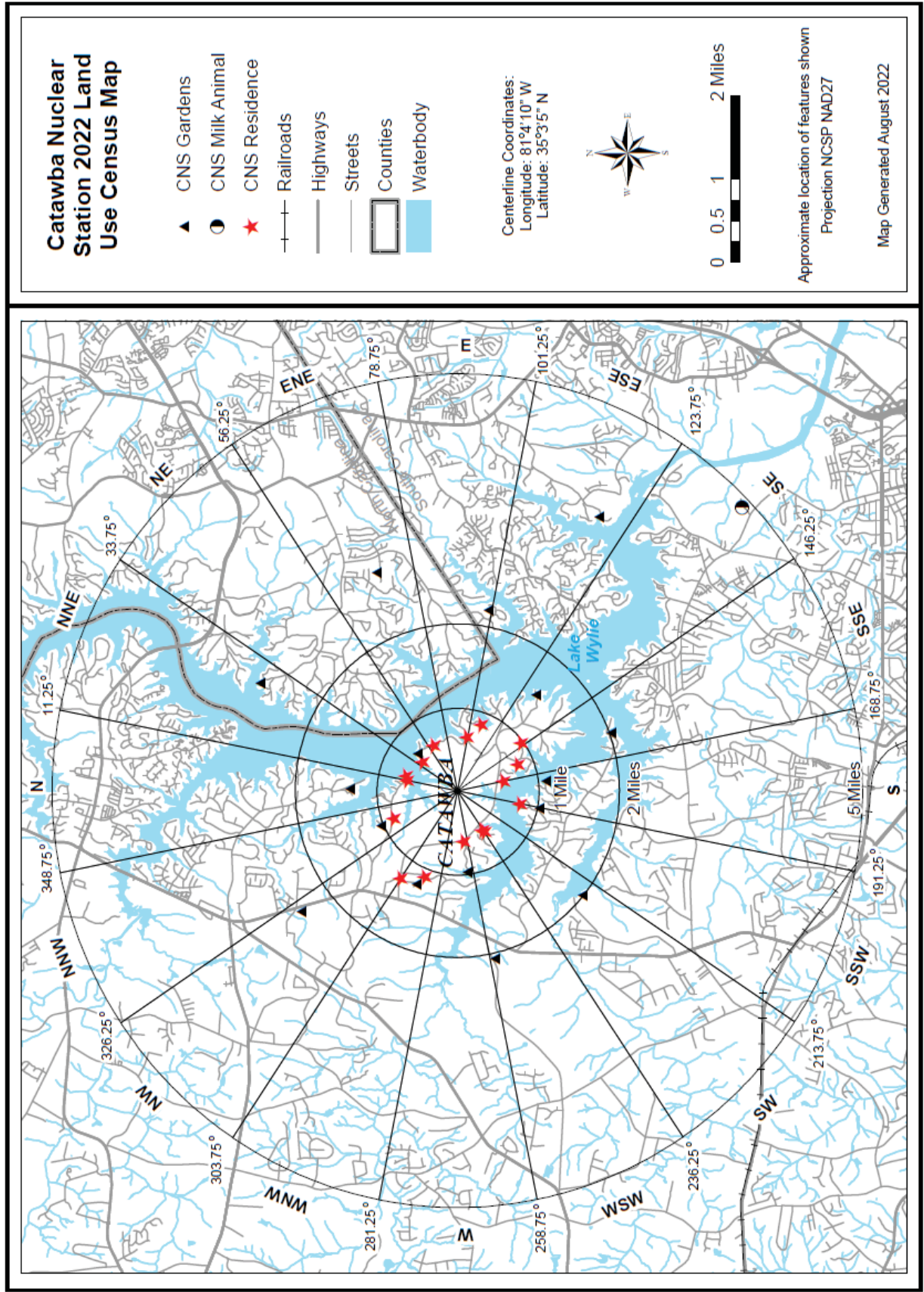
NOTE: Sector and distances were determined by Global Positioning System

* Represents a change from the previous year

--- Indicates no occurrence within 5 mile radius

(1) Indicates owners were not willing to participate in the REMP at time of LUC.

Figure 3.10



4.0 QUALITY ASSURANCE

4.1 SAMPLE COLLECTION

EnRad Laboratories and the Environmental Services Group performed the environmental sample collections as specified by approved sample collection procedures.

4.2 SAMPLE ANALYSIS

EnRad Laboratories performed the environmental sample analyses as specified by approved analysis procedures. EnRad Laboratories is in Huntersville, North Carolina, at Duke Energy's Environmental Center.

4.3 DOSIMETRY ANALYSIS

The Dosimetry and Records group performed the environmental dosimetry measurements as specified by approved dosimetry analysis procedures. The Dosimetry and Records Laboratory is in Huntersville, North Carolina, at Duke Energy's Environmental Center.

4.4 LABORATORY EQUIPMENT QUALITY ASSURANCE

4.4.1 DAILY QUALITY CONTROL

EnRad Laboratories has an internal quality assurance program which monitors each type of instrumentation for reliability and accuracy. Daily quality control checks ensure that instruments are in proper working order and these checks are used to monitor instrument performance.

4.4.2 CALIBRATION VERIFICATION

National Institute of Standards and Technology (NIST) standards that represent counting geometries are analyzed as unknowns at various frequencies ranging from weekly to annually to verify that efficiency calibrations are valid. The frequency is dependent upon instrument use and performance. Investigations are performed and documented should calibration verification data fall outside of the acceptable limits.

4.4.3 BATCH PROCESSING

Method quality control samples are analyzed with sample analyses that are processed in batches. These include tritium analyses in drinking water, surface water, and ground water samples; beta analysis in drinking water samples, and Low-Level Iodine-131 analysis in milk samples.

4.5 DUKE ENERGY INTERLABORATORY COMPARISON PROGRAM

In 2022 Duke Energy Environmental Laboratory (EnRad) participated in interlaboratory programs to satisfy Radiological Environmental Monitoring Program requirements in Duke Energy nuclear plant Offsite Dose Calculation Manuals and Selected Licensee Commitments Manuals, as applicable.

EnRad Laboratory participated in an interlaboratory program with Eckert & Ziegler Analytics (EZA) in 2022. EZA results were evaluated against the NRC Inspection Manual Procedure 84750 (IP 84750) acceptance criteria stated in EnRad Procedure 515, Cross Check Program Administration. All regulatory requirements continue to be met by the EZA Cross Check Program.

4.5.1 ECKERT & ZIEGLER ANALYTICS CROSS CHECK PROGRAM

EZA mixed gamma in liquid, mixed gamma in vegetation, mixed gamma in soil, low-level I-131 in liquid, mixed gamma air filter composites, I-131 air cartridges, gross beta in water, gross beta in filters, and tritium in water were analyzed at various times of the year at EnRad Laboratories. A summary of the applicable REMP EnRad Laboratory program results for 2022 is documented in Table 4.0-A.

Interlaboratory cross check samples from EZA were received and analyzed in two of the four quarters of 2022. Table 4.0-A lists the performance for specific samples. Forty-one nuclide results were reported to EZA of which forty-one (100 %) met the acceptance criteria based on IP 84750.

4.6 INTERCOMPARISON PROGRAM

Catawba Nuclear Station routinely participates in an environmental sample intercomparison program. Program elements include sampling frequency and analysis parameters for drinking water, surface water, milk, fish, broadleaf vegetation, crops, and shoreline sediment samples that have been collected. Samples are routinely split with a vendor laboratory for intercomparison analysis.

4.7 TLD INTERCOMPARISON PROGRAM

Radiation Dosimetry and Records participates in a quarterly TLD internal comparison program administered internally by the Dosimetry Lab. The Dosimetry Lab Staff irradiates environmental dosimeters quarterly using the NIST-traceable Hopewell and submits them for analysis of the unknown estimated delivered exposure. The TLD results were evaluated against Radiation Dosimetry and Records Procedure RD/0/B/2000/09, Harshaw TLD Dose Algorithm Verification. Forty TLD results were evaluated of which forty (100%) met the acceptance criteria. A summary of the 2022 Internal Cross Check (Duke Energy) Program is documented in Table 4.0-B.

TABLE 4.0-A

ECKERT & ZIEGLER ANALYTICS

CROSS CHECK PROGRAM

2022 Cross Check Results for EnRad Laboratories

Interlaboratory cross check samples from EZA were received and analyzed in two of the four quarters of 2022. Results are reported directly to Eckert & Ziegler Analytics. Environmental cross check samples were analyzed in replicate, and the result closest to the mean is reported to Eckert & Ziegler Analytics. The acceptance criteria for the program was based on the NRC Inspection Manual Procedure 84750 (IP 84750). Table 4.0-A lists the performance for specific samples. Forty-one nuclide results were reported to EZA of which forty-one (100 %) met the acceptance criteria based on IP 84750.

Sample	Sample ID	Nuclide	Quarter	Units	EnRad Value	EZA Value	EnRad/EZA Ratio	Evaluation
Beta Filter in Planchet	E13558	Cs-137	2	pCi	211	223	0.94	Agreement
I-131 in Charcoal Cartridge	E13556	I-131	2	pCi	86.0	84.8	1.01	Agreement
Gamma in Soil	E13557	Ce-141	2	pCi/g	0.198	0.195	1.01	Agreement
		Co-58	2	pCi/g	0.162	0.181	0.90	Agreement
		Co-60	2	pCi/g	0.340	0.340	1.00	Agreement
		Cr-51	2	pCi/g	0.529	0.484	1.09	Agreement
		Cs-134	2	pCi/g	0.258	0.241	1.07	Agreement
		Cs-137	2	pCi/g	0.316	0.360	0.88	Agreement
		Fe-59	2	pCi/g	0.203	0.220	0.92	Agreement
		Mn-54	2	pCi/g	0.349	0.322	1.08	Agreement
		Zn-65	2	pCi/g	0.448	0.417	1.08	Agreement
Gamma in Simulated Vegetation	E13564	Ce-141	3	pCi/g	0.196	0.208	0.94	Agreement
		Co-58	3	pCi/g	0.232	0.244	0.95	Agreement
		Co-60	3	pCi/g	0.305	0.336	0.91	Agreement
		Cr-51	3	pCi/g	0.551	0.590	0.93	Agreement
		Cs-134	3	pCi/g	0.264	0.326	0.81	Agreement
		Cs-137	3	pCi/g	0.261	0.287	0.91	Agreement
		Fe-59	3	pCi/g	0.223	0.224	1.00	Agreement
		Mn-54	3	pCi/g	0.348	0.365	0.95	Agreement
		Zn-65	3	pCi/g	0.477	0.483	0.99	Agreement

TABLE 4.0-A (Cont.)

Sample	Sample ID	Nuclide	Quarter	Units	EnRad Value	EZA Value	EnRad/EZA Ratio	Evaluation
Gamma in Composite Filter	E13562	Ce-141	3	pCi	112	108	1.04	Agreement
		Co-58	3	pCi	130	126	1.03	Agreement
		Co-60	3	pCi	179	174	1.03	Agreement
		Cr-51	3	pCi	309	305	1.01	Agreement
		Cs-134	3	pCi	162	169	0.96	Agreement
		Cs-137	3	pCi	151	148	1.02	Agreement
		Fe-59	3	pCi	126	116	1.09	Agreement
		Mn-54	3	pCi	199	189	1.05	Agreement
		Zn-65	3	pCi	269	250	1.08	Agreement
Gamma in Water	E13563	Ce-141	3	pCi/L	168	157	1.07	Agreement
		Co-58	3	pCi/L	192	184	1.04	Agreement
		Co-60	3	pCi/L	266	253	1.05	Agreement
		Cr-51	3	pCi/L	490	444	1.10	Agreement
		Cs-134	3	pCi/L	233	246	0.95	Agreement
		Cs-137	3	pCi/L	231	216	1.07	Agreement
		Fe-59	3	pCi/L	190	168	1.13	Agreement
		Mn-54	3	pCi/L	297	275	1.08	Agreement
		Zn-65	3	pCi/L	396	364	1.09	Agreement
Milk LLI-131	E13559	I-131	2	pCi/L	100	93.3	1.07	Agreement
Gross Beta in Water	E13561	Cs-137	2	pCi/L	252	279	0.90	Agreement
Tritium in Water	E13565	H-3	3	pCi/L	11600	12500	0.93	Agreement

TABLE 4.0-B

2022 ENVIRONMENTAL DOSIMETER

CROSS CHECK RESULTS

Internal Crosscheck (Duke Energy)

Radiation Dosimetry and Records participates in a quarterly TLD internal comparison program administered internally by the Dosimetry Lab. The Dosimetry Lab Staff irradiates environmental dosimetry quarterly and submits them for analysis of the unknown estimated delivered exposure. The TLD results were evaluated against Radiation Dosimetry and Records Procedure RD/0/B/2000/09, Harshaw TLD Dose Algorithm Verification. Forty TLD results were evaluated of which forty (100%) met the acceptance criteria.

1st Quarter 2022						2nd Quarter 2022					
TLD Number	Reported (mR)	Delivered (mR)	Bias (% diff)	Pass/Fail Criteria	Pass/Fail	TLD Number	Reported (mR)	Delivered (mR)	Bias (% diff)	Pass/Fail Criteria	Pass/Fail
103615	59.74	58.21	2.63	<+/-20%	Pass	102931	19.48	18.49	5.35	<+/-20%	Pass
102059	56.77	58.21	-2.47	<+/-20%	Pass	100029	18.10	18.49	-2.11	<+/-20%	Pass
100164	55.78	58.21	-4.17	<+/-20%	Pass	100033	17.98	18.49	-2.76	<+/-20%	Pass
102407	57.37	58.21	-1.44	<+/-20%	Pass	103721	19.90	18.49	7.63	<+/-20%	Pass
103098	60.15	58.21	3.33	<+/-20%	Pass	103212	19.62	18.49	6.11	<+/-20%	Pass
100007	56.16	58.21	-3.52	<+/-20%	Pass	100224	18.18	18.49	-1.68	<+/-20%	Pass
100038	56.16	58.21	-3.52	<+/-20%	Pass	100074	18.32	18.49	-0.92	<+/-20%	Pass
100245	54.99	58.21	-5.53	<+/-20%	Pass	102018	19.49	18.49	5.41	<+/-20%	Pass
102442	55.54	58.21	-4.59	<+/-20%	Pass	100068	18.12	18.49	-2.00	<+/-20%	Pass
100170	55.95	58.21	-3.88	<+/-20%	Pass	100028	18.22	18.49	-1.46	<+/-20%	Pass
Average Bias (B)			-2.32			Average Bias (B)			1.36		
Standard Deviation (S)			3.01			Standard Deviation (S)			4.17		
Measure Performance B +S			5.33	<20%	Pass	Measure Performance B +S			5.53	<20%	Pass
3rd Quarter 2022						4th Quarter 2022					
TLD Number	Reported (mR)	Delivered (mR)	Bias (% diff)	Pass/Fail Criteria	Pass/Fail	TLD Number	Reported (mR)	Delivered (mR)	Bias (% diff)	Pass/Fail Criteria	Pass/Fail
104776	37.17	40.39	-7.97	<+/-20%	Pass	104757	27.93	29.67	-5.86	<+/-20%	Pass
104826	37.06	40.39	-8.24	<+/-20%	Pass	104823	28.05	29.67	-5.46	<+/-20%	Pass
104474	37.27	40.39	-7.72	<+/-20%	Pass	104475	27.76	29.67	-6.44	<+/-20%	Pass
104775	36.47	40.39	-9.71	<+/-20%	Pass	104824	28.14	29.67	-5.16	<+/-20%	Pass
104827	38.17	40.39	-5.50	<+/-20%	Pass	104750	28.20	29.67	-4.95	<+/-20%	Pass
104357	36.64	40.39	-9.28	<+/-20%	Pass	104776	28.03	29.67	-5.53	<+/-20%	Pass
104353	37.42	40.39	-7.35	<+/-20%	Pass	104755	28.25	29.67	-4.79	<+/-20%	Pass
104358	35.99	40.39	-10.89	<+/-20%	Pass	104355	28.04	29.67	-5.49	<+/-20%	Pass
104355	38.17	40.39	-5.50	<+/-20%	Pass	104828	27.20	29.67	-8.32	<+/-20%	Pass
104475	36.55	40.39	-9.51	<+/-20%	Pass	104354	27.63	29.67	-6.88	<+/-20%	Pass
Average Bias (B)			-8.17			Average Bias (B)			-5.89		
Standard Deviation (S)			1.76			Standard Deviation (S)			1.07		
Measure Performance B +S			9.93	<20%	Pass	Measure Performance B +S			6.96	<20%	Pass

APPENDIX A

ENVIRONMENTAL SAMPLING
&
ANALYSIS PROCEDURES

2022

APPENDIX A

ENVIRONMENTAL SAMPLING AND ANALYSIS PROCEDURES

Adherence to established procedures for sampling and analysis of all environmental media at Catawba Nuclear Station was required to ensure compliance with Station Selected Licensee Commitments. Analytical procedures were employed to ensure that Selected Licensee Commitments detection capabilities were achieved.

Environmental sampling was performed by EnRad Laboratories and Environmental Services. Environmental sample analysis was performed by EnRad Laboratories and Dosimetry and Records.

This appendix provides a description of the specific analyses performed on samples collected in the field. Changes to the sampling procedures and analyses procedures are also discussed in the section.

I. CHANGE OF SAMPLING PROCEDURES

There were no changes to the Catawba Nuclear Station sampling procedures implemented during 2022.

II. DESCRIPTION OF ANALYSIS PROCEDURES

Gamma spectroscopy analyses are performed using high purity germanium gamma detectors and Mirion analytical software. Designated sample volumes are transferred to appropriate counting geometries and analyzed by gamma spectroscopy. Perishable samples such as fish and broadleaf vegetation are ground to achieve a homogeneous mixture. Soils and sediments are dried, sifted to remove foreign objects (rocks, clams, glass, etc.) then transferred to appropriate counting geometry.

Low-level iodine analyses are performed by passing a designated sample aliquot through a pre-determined amount of ion exchange resin to remove and concentrate any iodine in the aqueous sample (milk). The resin is then dried and mixed thoroughly before being transferred to appropriate counting geometry and analyzed by gamma spectroscopy.

Tritium analyses are performed by using low-level environmental liquid scintillation analysis technique on a Perkin-Elmer 4910TR liquid scintillation system or Perkin-Elmer 3100TR liquid scintillation system. Tritium samples are distilled and batch processed with a laboratory fortified blank, matrix spike, matrix spike duplicate, and blank to verify instrument performance and sample preparation technique are acceptable, and sample contamination has not occurred.

Gross beta analysis of air filters is performed by analyzing filters on Tennelec XLB Series 5 gas-flow proportional counters. Samples are batch processed with a blank to ensure sample contamination has not occurred.

Gross beta analysis of liquid samples is performed by concentrating a designated aliquot of sample and analyzing by Perkin-Elmer 4910TR liquid scintillation system. Samples are batch processed with a laboratory fortified blank and blank to verify instrument performance and ensure sample contamination has not occurred.

III. CHANGE OF ANALYSIS PROCEDURES

There were no changes to analysis procedures implemented during 2022.

APPENDIX B

**RADIOLOGICAL
ENVIRONMENTAL MONITORING
PROGRAM**

SUMMARY OF RESULTS

2022

**CATAWBA NUCLEAR STATION
RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM DATA SUMMARY**

Catawba Nuclear Station
York County, South Carolina

Docket Numbers 50-413, 414
Calendar Year 2022

Medium or Pathway Sampled or Measured (Unit of Measurement)	Type and Total No. of Measurements Performed	Lower Limit of Detection (LLD) ⁽¹⁾	All Indicator Locations ⁽²⁾⁽³⁾ Mean Range	Location w/Highest Annual Mean Name, Distance, and Direction	Mean Range ⁽²⁾⁽³⁾		Control Locations Mean Range ⁽²⁾⁽³⁾	No. of Non-Routine Report Meas.
					Annual	Quarterly		
Air Particulate (pCi/m ³)	Gross Beta 260 ⁽⁴⁾	See Table 2.2-C	2.22E-02 (208/208) 9.48E-03 – 3.51E-02	200 (0.63 mi NNE)	2.27E-02 (52/52) 9.48E-03 – 3.45E-02	2.09E-02 (52/52) 9.21E-03 – 3.64E-02	258 (9.84 mi W)	0
Air Radiiodine (pCi/m ³)	Gamma 260 ⁽⁴⁾	See Table 2.2-C	All less than LLD	-----	-----	All less than LLD	All less than LLD	0
Drinking Water (pCi/l)	Gross Beta 26	See Table 2.2-C	3.50E+00 (2/13) 3.49E+00 – 3.50E+00	214 (7.30 mi SSE)	3.50E+00 (2/13) 3.49E+00 – 3.50E+00	3.37E+00 (5/13) 3.21E+00 – 3.47E+00	218 (13.5 mi NNE)	0
Surface Water (pCi/l)	Gamma 39	See Table 2.2-C	9.28E+02 (4/4) 6.22E+02 – 1.63E+03	214 (7.30 mi SSE)	9.28E+02 (4/4) 6.22E+02 – 1.63E+03	4.11E+02 (4/4) 3.51E+02 – 4.77E+02	218 (13.5 mi NNE)	0
Milk (pCi/l)	Tritium 12 ⁽⁵⁾	See Table 2.2-C	4.84E+03 (8/8) 5.47E+02 – 1.85E+04	208 (0.45 mi S)	8.85E+03 (4/4) 4.72E+03 – 1.85E+04	4.18E+02 (4/4) 3.11E+02 – 5.34E+02	263 (0.59 mi NNE)	0
	I-131 26	See Table 2.2-C	No Indicator Location	-----	-----	All less than LLD	All less than LLD	0

**CATAWBA NUCLEAR STATION
RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM DATA SUMMARY**

Catawba Nuclear Station
York County, South Carolina

Docket Numbers 50-413, 414
Calendar Year 2022

Medium or Pathway Sampled or Measured (Unit of Measurement)	Type and Total No. of Measurements Performed	Lower Limit of Detection (LLD) ⁽¹⁾	All Indicator Locations ⁽²⁾⁽³⁾ Mean Range	Location w/Highest Annual Mean Name, Distance, and Direction	Control Locations		No. of Non-Routine Report Meas.
					Mean Range ⁽²⁾⁽³⁾	Mean Range ⁽²⁾⁽³⁾	
Broadleaf Vegetation (pCi/kg, wet)	Gamma 61 Cs-137	See Table 2.2-C	2.34E+01 (1/49) 2.34E+01 – 2.34E+01	201 (0.53 mi NE)	2.34E+01 (1/12)	All less than LLD	0
					2.34E+01 – 2.34E+01		
Food Products (pCi/kg, wet)	Gamma 10 ⁽⁴⁾	See Table 2.2-C	5.61E+01 (1/49) 5.61E+01 – 5.61E+01	226 (0.48 mi S)	5.61E+01 (1/13)	All less than LLD	0
					5.61E+01 – 5.61E+01		
Fish (pCi/kg, wet)	Gamma 12	See Table 2.2-C	All less than LLD	-----	-----	No Control Location	0

Sediments--Shoreline (pCi/kg, dry)	Gamma 6 Co-58	See Table 2.2-C	5.84E+01 (1/4) 5.84E+01 – 5.84E+01	208 (0.45 mi S)	5.84E+01 (1/2)	All less than LLD	0
					5.84E+01 – 5.84E+01		
TLD (mR/Std Qtr)	Co-60 TLD Readout 163 ⁽⁶⁾	See Table 2.2-C	1.29E+02 (1/4) 1.29E+02 – 1.29E+02	208 (0.45 mi S)	1.29E+02 (1/2)	All less than LLD	0
					1.29E+02 – 1.29E+02		
					217 (10.3 mi SSE) 247 (7.33 mi ESE) 251 (9.72 mi WNW)		
		-----	1.88E+01 (151/151) 1.19E+01 – 3.16E+01	264 (4.32 mi SE)	2.82E+01 (4/4) 2.58E+01 – 3.16E+01	1.51E+01 (12/12) 1.12E+01 – 2.26E+01	0

Footnotes to Appendix B

1. The Lower Limit of Detection (LLD) is the smallest concentration of radioactive material in a sample that will yield a net count above system background which will be detected with 95 percent probability and with only 5 percent probability of falsely concluding that a blank observation represents a "real" signal. Due to counting statistics and varying volumes, occasionally lower LLDs are achieved. Refer to Section 2.3.2 for an explanation of how LLD values were derived.
2. Mean and range are based on detectable measurements only.
3. The fractions of all samples with detectable activities at specific locations are indicated in parentheses.
4. Missing samples or surveillances are discussed in Appendix C or Appendix D.
5. Quarterly tritium composites determined using quarter days (92 days +/- 25% (23 days)).
6. TLD exposure is reported in milliroentgen (mR) per standard quarter (91 days).

APPENDIX C

**SAMPLING DEVIATIONS
&
UNAVAILABLE ANALYSES**

2022

APPENDIX C

CATAWBA NUCLEAR STATION SAMPLING DEVIATIONS & UNAVAILABLE ANALYSES

DEVIATION & UNAVAILABLE REASON CODES			
BF	Blown Fuse	PM	Preventive Maintenance
CN	Construction	PO	Power Outage
FZ	Sample Frozen	PS	Pump out of service / Undergoing repair
IV	Insufficient Volume	SL	Sample Loss/Lost due to Lab Accident
IW	Inclement Weather	SM	Motor / Rotor Seized
LC	Line Clog to Sampler	SU	Seasonally Unavailable
OT	Other	TF	Torn Filter
PI	Power Interrupt	VN	Vandalism

C.1 SAMPLING DEVIATIONS

Air Particulate and Air Radioiodine

REMP weekly air samples (Air Particulate (AP) or Air Radioiodine (AR)) that experience any downtime during a surveillance period are reported as a Deviation and classified as a “Sampling Deviation.” However, the sample is counted and the data reported, whereas a Deviation with no available sample is classified as an “Unavailable Analyses” and does not have any data reported. The Catawba REMF air samplers operated for a total of 99.96% availability in 2022.

Location	Scheduled Collection Dates	Code	Description & Action to Prevent Recurrence	Corrective Action
200	7/12 – 7/19/2022	PI	18.83 hours of downtime due to power interruption, tripped breaker.	NCR # 02434717
258	12/20 – 12/28/2022	PI	1.03 hours downtime due to power interrupt, unknown reason.	NCR # 02454222

Drinking Water and Surface Water

REMP monthly drinking water samples (Drinking Water (DW)) or surface water samples (Surface Water (SW)) that experience any downtime during a surveillance period are reported as a deviation and classified as a “Sampling Deviation.” However, the sample is counted and the data reported, whereas a Deviation with no available sample is classified as an “Unavailable Analyses” and does not have any data reported. The water samplers operated for a total of 100% availability in 2022.

There were no drinking water or surface water deviations in 2022.

C.2 UNAVAILABLE ANALYSES

Food Products / Crops

Location	Scheduled Collection Dates	Code	Description & Action to Prevent Recurrence	Corrective Action
260	4/5/2022	SU	Sample seasonally unavailable at time of collection.	NCR # 02422617
260	5/3/2022	SU	Sample seasonally unavailable at time of collection.	NCR # 02425909

TLDs

Location	Scheduled Collection Dates	Code	Description & Action to Prevent Recurrence	Corrective Action
232	3/17-6/23/2022	VN	Neither co-located alpha and bravo TLDs 232 were available at the time of collection due to vandalism. The 3 rd quarter 2022 TLDs were moved a few feet further down the fence to a less conspicuous area to prevent recurrence.	NCR # 02432322

APPENDIX D

ANALYTICAL DEVIATIONS

2022

APPENDIX D

CATAWBA NUCLEAR STATION ANALYTICAL DEVIATIONS

DEVIATION & UNAVAILABLE REASON CODES			
BF	Blown Fuse	PM	Preventive Maintenance
CN	Construction	PO	Power Outage
FZ	Sample Frozen	PS	Pump out of service / Undergoing repair
IV	Insufficient Volume	SL	Sample Loss/Lost due to Lab Accident
IW	Inclement Weather	SM	Motor / Rotor Seized
LC	Line Clog to Sampler	SU	Seasonally Unavailable
OT	Other	TF	Torn Filter
PI	Power Interrupt	VN	Vandalism

D.1 ANALYTICAL DEVIATIONS

Catawba environmental Alpha (A) and Bravo (B) TLDs are co-located TLDs placed next to each other to comply with ANSI/HPS N13.37-2014 Section 7.1 Paragraph 7. The TLD collections indicated incurred tampering/vandalism with one of the two co-located TLDs. One TLD for each collection was available and did not appear to have experienced any tampering/vandalism during the quarter. The remaining Bravo (B) TLD was collected and analyzed, but did not get averaged with the unusable Alpha (A) TLD which is normally included in the established process for the Catawba REMP TLDs.

TLDs

Location	Scheduled Collection Dates	Code	Description & Action to Prevent Recurrence	Corrective Action
232	12/16/2021- 3/17/2022	VN	Alpha TLD 232 was not available at the time of collection due to vandalism, Bravo TLD 232 was collected and analyzed. The 3 rd quarter 2022 TLDs were moved a few feet further down the fence to a less conspicuous area to prevent recurrent vandalism as this occurred in 2QTR2022 as well (See Appendix C, NCR#02432322).	NCR # 02420285

APPENDIX E

**RADIOLOGICAL
ENVIRONMENTAL MONITORING
PROGRAM RESULTS**

2022

This appendix includes sample analysis report summaries and supportive data generated from each sample medium for 2022.

CATAWBA Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR PARTICULATE Concentration (Activity): pCi/m3
 Sample Point 200 [INDICATOR - NNE @ 0.63 miles]

Sample ID	Sample Dates	Nuclide	Activity	2 Sigma Error	MDA
558941	1/5/2022 - 1/11/2022	Beta	2.64E-02	3.30E-03	3.17E-03
559019	1/11/2022 - 1/19/2022	Beta	2.48E-02	2.70E-03	2.46E-03
559319	1/19/2022 - 1/25/2022	Beta	2.49E-02	3.48E-03	3.21E-03
560041	1/25/2022 - 2/1/2022	Beta	2.59E-02	2.93E-03	2.64E-03
560258	2/1/2022 - 2/8/2022	Beta	2.65E-02	3.29E-03	2.95E-03
560502	2/8/2022 - 2/15/2022	Beta	2.44E-02	2.89E-03	2.72E-03
560807	2/15/2022 - 2/22/2022	Beta	2.32E-02	3.19E-03	3.15E-03
561143	2/22/2022 - 3/1/2022	Beta	2.08E-02	3.21E-03	3.54E-03
561643	3/1/2022 - 3/8/2022	Beta	2.90E-02	3.12E-03	2.80E-03
562244	3/8/2022 - 3/15/2022	Beta	1.74E-02	2.86E-03	3.07E-03
562838	3/15/2022 - 3/22/2022	Beta	1.54E-02	2.52E-03	2.84E-03
563437	3/22/2022 - 3/29/2022	Beta	1.96E-02	3.14E-03	3.52E-03
563771	3/29/2022 - 4/5/2022	Beta	1.99E-02	3.10E-03	3.35E-03
563999	1/5/2022 - 4/5/2022	Cs-134	<1.49E-03	0.00E+00	1.49E-03
		Cs-137	<1.06E-03	0.00E+00	1.06E-03
		Be-7	1.90E-01	4.08E-02	3.26E-02
		K-40	2.24E-02	1.57E-02	2.02E-02
563994	4/5/2022 - 4/12/2022	Beta	1.52E-02	2.71E-03	3.04E-03
564535	4/12/2022 - 4/19/2022	Beta	1.78E-02	2.58E-03	2.65E-03
564803	4/19/2022 - 4/26/2022	Beta	2.87E-02	3.10E-03	2.81E-03
565295	4/26/2022 - 5/3/2022	Beta	2.75E-02	3.40E-03	3.19E-03
565960	5/3/2022 - 5/10/2022	Beta	1.88E-02	2.99E-03	3.21E-03
566545	5/10/2022 - 5/17/2022	Beta	1.52E-02	2.73E-03	3.02E-03
566939	5/17/2022 - 5/24/2022	Beta	2.56E-02	2.84E-03	2.33E-03
567130	5/24/2022 - 6/1/2022	Beta	1.79E-02	2.63E-03	2.70E-03

CATAWBA Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR PARTICULATE Concentration (Activity): pCi/m3

Sample Point 200 [INDICATOR - NNE @ 0.63 miles]

Sample ID	Sample Dates	Nuclide	Activity	2 Sigma Error	MDA
567567	6/1/2022 - 6/7/2022	Beta	2.74E-02	3.32E-03	3.19E-03
567736	6/7/2022 - 6/14/2022	Beta	2.28E-02	3.26E-03	3.37E-03
568372	6/14/2022 - 6/21/2022	Beta	2.74E-02	2.94E-03	2.47E-03
568611	6/21/2022 - 6/28/2022	Beta	2.60E-02	3.43E-03	3.46E-03
568826	6/28/2022 - 7/6/2022	Beta	1.67E-02	2.55E-03	2.64E-03
569064	4/5/2022 - 7/6/2022	Cs-134	<2.59E-03	0.00E+00	2.59E-03
		Cs-137	<1.66E-03	0.00E+00	1.66E-03
		Be-7	2.21E-01	4.64E-02	3.99E-02
		K-40	<2.86E-02	0.00E+00	2.86E-02
569059	7/6/2022 - 7/12/2022	Beta	1.32E-02	2.73E-03	3.38E-03
570285	7/12/2022 - 7/19/2022	Beta	2.27E-02	3.43E-03	3.65E-03
570849	7/19/2022 - 7/26/2022	Beta	1.97E-02	2.69E-03	2.72E-03
571097	7/26/2022 - 8/2/2022	Beta	1.43E-02	2.79E-03	3.31E-03
571417	8/2/2022 - 8/9/2022	Beta	1.52E-02	2.83E-03	3.34E-03
571694	8/9/2022 - 8/16/2022	Beta	2.07E-02	3.03E-03	3.06E-03
572709	8/16/2022 - 8/23/2022	Beta	2.13E-02	2.80E-03	2.87E-03
573907	8/23/2022 - 8/30/2022	Beta	2.46E-02	3.40E-03	3.58E-03
574528	8/30/2022 - 9/7/2022	Beta	2.34E-02	2.90E-03	2.76E-03
574998	9/7/2022 - 9/13/2022	Beta	9.48E-03	2.94E-03	4.12E-03
575684	9/13/2022 - 9/20/2022	Beta	3.45E-02	3.74E-03	3.43E-03
576083	9/20/2022 - 9/27/2022	Beta	3.07E-02	3.52E-03	3.22E-03
576255	9/27/2022 - 10/4/2022	Beta	1.37E-02	2.66E-03	3.14E-03
576535	7/6/2022 - 10/4/2022	Cs-134	<1.63E-03	0.00E+00	1.63E-03
		Cs-137	<1.68E-03	0.00E+00	1.68E-03
		Be-7	1.61E-01	3.76E-02	3.20E-02
		K-40	2.15E-02	1.34E-02	1.40E-02
576530	10/4/2022 - 10/11/2022	Beta	3.01E-02	3.53E-03	3.35E-03

CATAWBA Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR PARTICULATE Concentration (Activity): pCi/m3

Sample Point 200 [INDICATOR - NNE @ 0.63 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
577160	10/11/2022 - 10/18/2022	Beta	3.36E-02	3.65E-03	3.32E-03
577757	10/18/2022 - 10/25/2022	Beta	2.95E-02	3.55E-03	3.45E-03
578111	10/25/2022 - 11/1/2022	Beta	1.58E-02	3.01E-03	3.68E-03
578821	11/1/2022 - 11/8/2022	Beta	2.22E-02	3.09E-03	3.06E-03
579022	11/8/2022 - 11/15/2022	Beta	1.63E-02	2.73E-03	2.91E-03
579781	11/15/2022 - 11/22/2022	Beta	3.14E-02	3.16E-03	2.65E-03
580595	11/22/2022 - 11/29/2022	Beta	2.84E-02	3.48E-03	3.29E-03
580802	11/29/2022 - 12/6/2022	Beta	2.78E-02	3.28E-03	2.78E-03
581127	12/6/2022 - 12/13/2022	Beta	2.86E-02	3.39E-03	2.97E-03
581694	12/13/2022 - 12/20/2022	Beta	2.32E-02	3.33E-03	3.57E-03
582230	12/20/2022 - 12/28/2022	Beta	2.35E-02	2.71E-03	2.64E-03
582417	12/28/2022 - 1/4/2023	Beta	2.18E-02	3.09E-03	3.06E-03
582664	10/4/2022 - 1/4/2023	Cs-134	<2.13E-03	0.00E+00	2.13E-03
		Cs-137	<1.76E-03	0.00E+00	1.76E-03
		Be-7	1.26E-01	3.21E-02	2.77E-02
		K-40	<3.14E-02	0.00E+00	3.14E-02

Sample Point 201 [INDICATOR - NE @ 0.53 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
558942	1/5/2022 - 1/11/2022	Beta	2.58E-02	3.26E-03	3.17E-03
559020	1/11/2022 - 1/19/2022	Beta	2.32E-02	2.63E-03	2.46E-03
559322	1/19/2022 - 1/25/2022	Beta	2.68E-02	3.57E-03	3.22E-03
560042	1/25/2022 - 2/1/2022	Beta	2.90E-02	3.06E-03	2.64E-03
560259	2/1/2022 - 2/8/2022	Beta	2.39E-02	3.16E-03	2.94E-03
560503	2/8/2022 - 2/15/2022	Beta	2.83E-02	3.05E-03	2.72E-03
560808	2/15/2022 - 2/22/2022	Beta	1.74E-02	2.91E-03	3.15E-03
561144	2/22/2022 - 3/1/2022	Beta	1.90E-02	3.11E-03	3.54E-03

CATAWBA Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR PARTICULATE Concentration (Activity): pCi/m3
 Sample Point 201 [INDICATOR - NE @ 0.53 miles]

Sample ID	Sample Dates	Nuclide	Activity	2 Sigma Error	MDA
561644	3/1/2022 - 3/8/2022	Beta	2.51E-02	2.96E-03	2.80E-03
562245	3/8/2022 - 3/15/2022	Beta	1.71E-02	2.85E-03	3.08E-03
562839	3/15/2022 - 3/22/2022	Beta	1.11E-02	2.31E-03	2.84E-03
563438	3/22/2022 - 3/29/2022	Beta	2.05E-02	3.18E-03	3.51E-03
563772	3/29/2022 - 4/5/2022	Beta	1.87E-02	3.04E-03	3.36E-03
564000	1/5/2022 - 4/5/2022	Cs-134	<1.30E-03	0.00E+00	1.30E-03
		Cs-137	<1.62E-03	0.00E+00	1.62E-03
		Be-7	1.86E-01	3.97E-02	2.95E-02
		K-40	<3.40E-02	0.00E+00	3.40E-02
563995	4/5/2022 - 4/12/2022	Beta	1.29E-02	2.59E-03	3.04E-03
564536	4/12/2022 - 4/19/2022	Beta	1.82E-02	2.60E-03	2.66E-03
564804	4/19/2022 - 4/26/2022	Beta	2.65E-02	3.00E-03	2.80E-03
565296	4/26/2022 - 5/3/2022	Beta	2.41E-02	3.24E-03	3.19E-03
565961	5/3/2022 - 5/10/2022	Beta	1.70E-02	2.90E-03	3.20E-03
566546	5/10/2022 - 5/17/2022	Beta	1.28E-02	2.60E-03	3.03E-03
566940	5/17/2022 - 5/24/2022	Beta	2.25E-02	2.69E-03	2.31E-03
567131	5/24/2022 - 6/1/2022	Beta	1.38E-02	2.42E-03	2.70E-03
567568	6/1/2022 - 6/7/2022	Beta	2.70E-02	3.31E-03	3.20E-03
567737	6/7/2022 - 6/14/2022	Beta	2.16E-02	3.19E-03	3.36E-03
568373	6/14/2022 - 6/21/2022	Beta	2.82E-02	2.97E-03	2.47E-03
568612	6/21/2022 - 6/28/2022	Beta	2.03E-02	3.15E-03	3.45E-03
568827	6/28/2022 - 7/6/2022	Beta	1.63E-02	2.53E-03	2.65E-03
569065	4/5/2022 - 7/6/2022	Cs-134	<1.72E-03	0.00E+00	1.72E-03
		Cs-137	<1.53E-03	0.00E+00	1.53E-03
		Be-7	1.87E-01	3.81E-02	2.36E-02
		K-40	<3.18E-02	0.00E+00	3.18E-02
569060	7/6/2022 - 7/12/2022	Beta	1.32E-02	2.73E-03	3.39E-03

CATAWBA Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR PARTICULATE Concentration (Activity): pCi/m3

Sample Point 201 [INDICATOR - NE @ 0.53 miles]

Sample ID	Sample Dates	Nuclide	Activity	2 Sigma Error	MDA
570286	7/12/2022 - 7/19/2022	Beta	1.71E-02	2.88E-03	3.23E-03
570850	7/19/2022 - 7/26/2022	Beta	2.08E-02	2.73E-03	2.72E-03
571098	7/26/2022 - 8/2/2022	Beta	1.46E-02	2.81E-03	3.32E-03
571418	8/2/2022 - 8/9/2022	Beta	1.71E-02	2.94E-03	3.34E-03
571695	8/9/2022 - 8/16/2022	Beta	1.84E-02	2.92E-03	3.05E-03
572710	8/16/2022 - 8/23/2022	Beta	2.23E-02	2.85E-03	2.87E-03
573908	8/23/2022 - 8/30/2022	Beta	3.10E-02	3.66E-03	3.58E-03
574529	8/30/2022 - 9/7/2022	Beta	2.02E-02	2.77E-03	2.77E-03
574999	9/7/2022 - 9/13/2022	Beta	1.11E-02	3.02E-03	4.10E-03
575685	9/13/2022 - 9/20/2022	Beta	3.06E-02	3.58E-03	3.43E-03
576084	9/20/2022 - 9/27/2022	Beta	3.14E-02	3.55E-03	3.22E-03
576256	9/27/2022 - 10/4/2022	Beta	1.31E-02	2.64E-03	3.16E-03
576536	7/6/2022 - 10/4/2022	Cs-134	<1.94E-03	0.00E+00	1.94E-03
		Cs-137	<1.60E-03	0.00E+00	1.60E-03
		Be-7	1.37E-01	3.47E-02	3.09E-02
		K-40	<3.21E-02	0.00E+00	3.21E-02
576531	10/4/2022 - 10/11/2022	Beta	2.85E-02	3.45E-03	3.34E-03
577161	10/11/2022 - 10/18/2022	Beta	2.83E-02	3.44E-03	3.32E-03
577758	10/18/2022 - 10/25/2022	Beta	2.71E-02	3.44E-03	3.44E-03
578112	10/25/2022 - 11/1/2022	Beta	1.59E-02	3.03E-03	3.70E-03
578822	11/1/2022 - 11/8/2022	Beta	2.09E-02	3.01E-03	3.04E-03
579023	11/8/2022 - 11/15/2022	Beta	1.38E-02	2.59E-03	2.91E-03
579782	11/15/2022 - 11/22/2022	Beta	3.39E-02	3.26E-03	2.65E-03
580596	11/22/2022 - 11/29/2022	Beta	3.01E-02	3.56E-03	3.30E-03
580803	11/29/2022 - 12/6/2022	Beta	2.81E-02	3.30E-03	2.78E-03

CATAWBA Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR PARTICULATE Concentration (Activity): pCi/m3

Sample Point 201 [INDICATOR - NE @ 0.53 miles]

Sample ID	Sample Dates	Nuclide	Activity	2 Sigma Error	MDA
581128	12/6/2022 - 12/13/2022	Beta	2.85E-02	3.38E-03	2.97E-03
581695	12/13/2022 - 12/20/2022	Beta	2.54E-02	3.43E-03	3.57E-03
582231	12/20/2022 - 12/28/2022	Beta	2.58E-02	2.80E-03	2.66E-03
582418	12/28/2022 - 1/4/2023	Beta	2.19E-02	3.08E-03	3.05E-03
582665	10/4/2022 - 1/4/2023	Cs-134	<1.26E-03	0.00E+00	1.26E-03
		Cs-137	<1.04E-03	0.00E+00	1.04E-03
		Be-7	1.33E-01	3.40E-02	3.11E-02
		K-40	2.40E-02	1.49E-02	1.70E-02

Sample Point 208 [INDICATOR - S @ 0.45 miles]

Sample ID	Sample Dates	Nuclide	Activity	2 Sigma Error	MDA
558943	1/5/2022 - 1/11/2022	Beta	2.58E-02	3.27E-03	3.17E-03
559021	1/11/2022 - 1/19/2022	Beta	2.46E-02	2.69E-03	2.46E-03
559325	1/19/2022 - 1/25/2022	Beta	2.71E-02	3.58E-03	3.22E-03
560043	1/25/2022 - 2/1/2022	Beta	2.84E-02	3.04E-03	2.64E-03
560260	2/1/2022 - 2/8/2022	Beta	2.77E-02	3.34E-03	2.94E-03
560504	2/8/2022 - 2/15/2022	Beta	2.56E-02	2.95E-03	2.72E-03
560809	2/15/2022 - 2/22/2022	Beta	2.09E-02	3.09E-03	3.15E-03
561145	2/22/2022 - 3/1/2022	Beta	1.86E-02	3.10E-03	3.54E-03
561645	3/1/2022 - 3/8/2022	Beta	3.08E-02	3.19E-03	2.80E-03
562246	3/8/2022 - 3/15/2022	Beta	1.60E-02	2.79E-03	3.08E-03
562840	3/15/2022 - 3/22/2022	Beta	1.68E-02	2.60E-03	2.84E-03
563439	3/22/2022 - 3/29/2022	Beta	1.72E-02	3.02E-03	3.51E-03
563773	3/29/2022 - 4/5/2022	Beta	2.00E-02	3.10E-03	3.35E-03
564001	1/5/2022 - 4/5/2022	Cs-134	<1.77E-03	0.00E+00	1.77E-03
		Cs-137	<1.20E-03	0.00E+00	1.20E-03
		Be-7	1.65E-01	3.62E-02	2.68E-02
		K-40	2.37E-02	1.59E-02	2.01E-02
563996	4/5/2022 - 4/12/2022	Beta	1.61E-02	2.77E-03	3.04E-03

CATAWBA Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR PARTICULATE Concentration (Activity): pCi/m3

Sample Point 208 [INDICATOR - S @ 0.45 miles]

Sample ID	Sample Dates	Nuclide	Activity	2 Sigma Error	MDA
564537	4/12/2022 - 4/19/2022	Beta	1.89E-02	2.63E-03	2.66E-03
564805	4/19/2022 - 4/26/2022	Beta	2.90E-02	3.10E-03	2.80E-03
565297	4/26/2022 - 5/3/2022	Beta	2.67E-02	3.37E-03	3.19E-03
565962	5/3/2022 - 5/10/2022	Beta	1.86E-02	2.98E-03	3.20E-03
566547	5/10/2022 - 5/17/2022	Beta	1.29E-02	2.60E-03	3.03E-03
566941	5/17/2022 - 5/24/2022	Beta	2.80E-02	2.93E-03	2.32E-03
567132	5/24/2022 - 6/1/2022	Beta	1.85E-02	2.66E-03	2.70E-03
567569	6/1/2022 - 6/7/2022	Beta	2.61E-02	3.27E-03	3.20E-03
567738	6/7/2022 - 6/14/2022	Beta	2.26E-02	3.24E-03	3.37E-03
568374	6/14/2022 - 6/21/2022	Beta	2.84E-02	2.99E-03	2.47E-03
568613	6/21/2022 - 6/28/2022	Beta	2.38E-02	3.31E-03	3.45E-03
568828	6/28/2022 - 7/6/2022	Beta	1.54E-02	2.48E-03	2.65E-03
569066	4/5/2022 - 7/6/2022	Cs-134	<1.25E-03	0.00E+00	1.25E-03
		Cs-137	<1.19E-03	0.00E+00	1.19E-03
		Be-7	2.01E-01	4.07E-02	2.82E-02
		K-40	2.61E-02	1.47E-02	1.46E-02
569061	7/6/2022 - 7/12/2022	Beta	1.34E-02	2.74E-03	3.39E-03
570287	7/12/2022 - 7/19/2022	Beta	1.94E-02	3.01E-03	3.23E-03
570851	7/19/2022 - 7/26/2022	Beta	2.13E-02	2.75E-03	2.72E-03
571099	7/26/2022 - 8/2/2022	Beta	1.37E-02	2.76E-03	3.32E-03
571419	8/2/2022 - 8/9/2022	Beta	1.27E-02	2.70E-03	3.34E-03
571696	8/9/2022 - 8/16/2022	Beta	2.31E-02	3.15E-03	3.05E-03
572711	8/16/2022 - 8/23/2022	Beta	2.29E-02	2.88E-03	2.87E-03
573909	8/23/2022 - 8/30/2022	Beta	2.17E-02	3.26E-03	3.58E-03
574530	8/30/2022 - 9/7/2022	Beta	1.98E-02	2.75E-03	2.77E-03

CATAWBA Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR PARTICULATE Concentration (Activity): pCi/m3

Sample Point 208 [INDICATOR - S @ 0.45 miles]

Sample ID:	575000	Sample Dates:	9/7/2022 - 9/13/2022	Nuclide	Activity	2 Sigma Error	MDA
				Beta	1.05E-02	2.99E-03	4.10E-03
Sample ID:	575686	Sample Dates:	9/13/2022 - 9/20/2022	Nuclide	Activity	2 Sigma Error	MDA
				Beta	3.15E-02	3.62E-03	3.43E-03
Sample ID:	576085	Sample Dates:	9/20/2022 - 9/27/2022	Nuclide	Activity	2 Sigma Error	MDA
				Beta	3.07E-02	3.52E-03	3.22E-03
Sample ID:	576257	Sample Dates:	9/27/2022 - 10/4/2022	Nuclide	Activity	2 Sigma Error	MDA
				Beta	1.02E-02	2.47E-03	3.16E-03
Sample ID:	576537	Sample Dates:	7/6/2022 - 10/4/2022	Nuclide	Activity	2 Sigma Error	MDA
				Cs-134	<2.09E-03	0.00E+00	2.09E-03
				Cs-137	<3.10E-04	0.00E+00	3.10E-04
				Be-7	1.02E-01	3.13E-02	3.30E-02
				K-40	<3.78E-02	0.00E+00	3.78E-02
Sample ID:	576532	Sample Dates:	10/4/2022 - 10/11/2022	Nuclide	Activity	2 Sigma Error	MDA
				Beta	2.99E-02	3.51E-03	3.34E-03
Sample ID:	577162	Sample Dates:	10/11/2022 - 10/18/2022	Nuclide	Activity	2 Sigma Error	MDA
				Beta	3.06E-02	3.54E-03	3.32E-03
Sample ID:	577759	Sample Dates:	10/18/2022 - 10/25/2022	Nuclide	Activity	2 Sigma Error	MDA
				Beta	2.66E-02	3.42E-03	3.45E-03
Sample ID:	578113	Sample Dates:	10/25/2022 - 11/1/2022	Nuclide	Activity	2 Sigma Error	MDA
				Beta	1.51E-02	2.98E-03	3.69E-03
Sample ID:	578823	Sample Dates:	11/1/2022 - 11/8/2022	Nuclide	Activity	2 Sigma Error	MDA
				Beta	2.22E-02	3.08E-03	3.04E-03
Sample ID:	579024	Sample Dates:	11/8/2022 - 11/15/2022	Nuclide	Activity	2 Sigma Error	MDA
				Beta	1.45E-02	2.63E-03	2.91E-03
Sample ID:	579783	Sample Dates:	11/15/2022 - 11/22/2022	Nuclide	Activity	2 Sigma Error	MDA
				Beta	3.29E-02	3.22E-03	2.65E-03
Sample ID:	580597	Sample Dates:	11/22/2022 - 11/29/2022	Nuclide	Activity	2 Sigma Error	MDA
				Beta	2.88E-02	3.51E-03	3.30E-03
Sample ID:	580804	Sample Dates:	11/29/2022 - 12/6/2022	Nuclide	Activity	2 Sigma Error	MDA
				Beta	2.87E-02	3.33E-03	2.77E-03
Sample ID:	581129	Sample Dates:	12/6/2022 - 12/13/2022	Nuclide	Activity	2 Sigma Error	MDA
				Beta	2.91E-02	3.42E-03	2.98E-03
Sample ID:	581696	Sample Dates:	12/13/2022 - 12/20/2022	Nuclide	Activity	2 Sigma Error	MDA
				Beta	2.28E-02	3.31E-03	3.57E-03
Sample ID:	582232	Sample Dates:	12/20/2022 - 12/28/2022	Nuclide	Activity	2 Sigma Error	MDA
				Beta	2.35E-02	2.71E-03	2.66E-03
Sample ID:	582419	Sample Dates:	12/28/2022 - 1/4/2023	Nuclide	Activity	2 Sigma Error	MDA
				Beta	2.11E-02	3.04E-03	3.05E-03
Sample ID:	582666	Sample Dates:	10/4/2022 - 1/4/2023	Nuclide	Activity	2 Sigma Error	MDA
				Cs-134	<1.92E-03	0.00E+00	1.92E-03
				Cs-137	<1.69E-03	0.00E+00	1.69E-03
				Be-7	1.41E-01	3.44E-02	2.93E-02
				K-40	<2.71E-02	0.00E+00	2.71E-02

Sample Point 258 [CONTROL - W @ 9.84 miles]

Sample ID:	558944	Sample Dates:	1/5/2022 - 1/11/2022	Nuclide	Activity	2 Sigma Error	MDA
				Beta	2.36E-02	3.15E-03	3.16E-03

CATAWBA Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR PARTICULATE Concentration (Activity): pCi/m3
 Sample Point 258 [CONTROL - W @ 9.84 miles]

Sample ID	Sample Dates	Nuclide	Activity	2 Sigma Error	MDA
559022	1/11/2022 - 1/19/2022	Beta	2.08E-02	2.53E-03	2.46E-03
559328	1/19/2022 - 1/25/2022	Beta	2.44E-02	3.45E-03	3.22E-03
560044	1/25/2022 - 2/1/2022	Beta	2.06E-02	2.71E-03	2.65E-03
560261	2/1/2022 - 2/8/2022	Beta	2.25E-02	3.09E-03	2.93E-03
560505	2/8/2022 - 2/15/2022	Beta	2.43E-02	2.89E-03	2.72E-03
560810	2/15/2022 - 2/22/2022	Beta	2.20E-02	3.14E-03	3.15E-03
561146	2/22/2022 - 3/1/2022	Beta	1.60E-02	2.98E-03	3.55E-03
561646	3/1/2022 - 3/8/2022	Beta	2.59E-02	2.97E-03	2.76E-03
562247	3/8/2022 - 3/15/2022	Beta	1.56E-02	2.79E-03	3.11E-03
562841	3/15/2022 - 3/22/2022	Beta	1.44E-02	2.48E-03	2.84E-03
563440	3/22/2022 - 3/29/2022	Beta	1.69E-02	3.00E-03	3.50E-03
563774	3/29/2022 - 4/5/2022	Beta	2.07E-02	3.15E-03	3.37E-03
564002	1/5/2022 - 4/5/2022	Cs-134	<1.80E-03	0.00E+00	1.80E-03
		Cs-137	<1.60E-03	0.00E+00	1.60E-03
		Be-7	1.67E-01	3.70E-02	2.71E-02
		K-40	3.24E-02	1.51E-02	4.62E-03
563997	4/5/2022 - 4/12/2022	Beta	1.50E-02	2.70E-03	3.03E-03
564538	4/12/2022 - 4/19/2022	Beta	1.57E-02	2.48E-03	2.65E-03
564806	4/19/2022 - 4/26/2022	Beta	2.79E-02	3.06E-03	2.80E-03
565298	4/26/2022 - 5/3/2022	Beta	2.43E-02	3.27E-03	3.20E-03
565963	5/3/2022 - 5/10/2022	Beta	1.74E-02	2.91E-03	3.19E-03
566548	5/10/2022 - 5/17/2022	Beta	1.16E-02	2.53E-03	3.04E-03
566942	5/17/2022 - 5/24/2022	Beta	2.46E-02	2.78E-03	2.31E-03
567133	5/24/2022 - 6/1/2022	Beta	1.55E-02	2.51E-03	2.70E-03
567570	6/1/2022 - 6/7/2022	Beta	2.18E-02	3.08E-03	3.21E-03

CATAWBA Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR PARTICULATE Concentration (Activity): pCi/m3
 Sample Point 258 [CONTROL - W @ 9.84 miles]

Sample ID	Sample Dates	Nuclide	Activity	2 Sigma Error	MDA
567739	6/7/2022 - 6/14/2022	Beta	2.65E-02	3.41E-03	3.36E-03
568375	6/14/2022 - 6/21/2022	Beta	2.78E-02	2.96E-03	2.47E-03
568614	6/21/2022 - 6/28/2022	Beta	2.60E-02	3.43E-03	3.45E-03
568829	6/28/2022 - 7/6/2022	Beta	1.52E-02	2.47E-03	2.65E-03
569067	4/5/2022 - 7/6/2022	Cs-134	<1.00E-03	0.00E+00	1.00E-03
		Cs-137	<1.21E-03	0.00E+00	1.21E-03
		Be-7	2.13E-01	4.11E-02	2.43E-02
		K-40	<3.40E-02	0.00E+00	3.40E-02
569062	7/6/2022 - 7/12/2022	Beta	1.19E-02	2.66E-03	3.38E-03
570288	7/12/2022 - 7/19/2022	Beta	1.88E-02	2.97E-03	3.23E-03
570852	7/19/2022 - 7/26/2022	Beta	1.84E-02	2.63E-03	2.72E-03
571100	7/26/2022 - 8/2/2022	Beta	1.41E-02	2.78E-03	3.32E-03
571420	8/2/2022 - 8/9/2022	Beta	1.66E-02	2.91E-03	3.34E-03
571697	8/9/2022 - 8/16/2022	Beta	2.19E-02	3.09E-03	3.05E-03
572712	8/16/2022 - 8/23/2022	Beta	2.24E-02	2.85E-03	2.87E-03
573910	8/23/2022 - 8/30/2022	Beta	2.62E-02	3.47E-03	3.57E-03
574531	8/30/2022 - 9/7/2022	Beta	2.05E-02	2.78E-03	2.78E-03
575001	9/7/2022 - 9/13/2022	Beta	1.07E-02	2.99E-03	4.08E-03
575687	9/13/2022 - 9/20/2022	Beta	3.64E-02	3.82E-03	3.43E-03
576086	9/20/2022 - 9/27/2022	Beta	2.69E-02	3.36E-03	3.22E-03
576258	9/27/2022 - 10/4/2022	Beta	9.21E-03	2.42E-03	3.17E-03
576538	7/6/2022 - 10/4/2022	Cs-134	<1.83E-03	0.00E+00	1.83E-03
		Cs-137	<1.38E-03	0.00E+00	1.38E-03
		Be-7	1.20E-01	3.51E-02	3.78E-02
		K-40	<3.51E-02	0.00E+00	3.51E-02
576533	10/4/2022 - 10/11/2022	Beta	2.85E-02	3.45E-03	3.34E-03
577163	10/11/2022 - 10/18/2022	Beta	2.82E-02	3.43E-03	3.33E-03

CATAWBA Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR PARTICULATE Concentration (Activity): pCi/m3

Sample Point 258 [CONTROL - W @ 9.84 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
577760	10/18/2022 - 10/25/2022	Beta	2.56E-02	3.37E-03	3.43E-03
578114	10/25/2022 - 11/1/2022	Beta	1.52E-02	3.01E-03	3.72E-03
578824	11/1/2022 - 11/8/2022	Beta	2.00E-02	2.96E-03	3.03E-03
579025	11/8/2022 - 11/15/2022	Beta	1.38E-02	2.60E-03	2.91E-03
579784	11/15/2022 - 11/22/2022	Beta	3.00E-02	3.11E-03	2.65E-03
580598	11/22/2022 - 11/29/2022	Beta	2.62E-02	3.39E-03	3.31E-03
580805	11/29/2022 - 12/6/2022	Beta	2.34E-02	3.08E-03	2.78E-03
581130	12/6/2022 - 12/13/2022	Beta	2.55E-02	3.24E-03	2.97E-03
581697	12/13/2022 - 12/20/2022	Beta	2.19E-02	3.26E-03	3.56E-03
582233	12/20/2022 - 12/28/2022	Beta	2.19E-02	2.66E-03	2.67E-03
582420	12/28/2022 - 1/4/2023	Beta	2.04E-02	3.01E-03	3.06E-03
582667	10/4/2022 - 1/4/2023	Cs-134	<2.03E-03	0.00E+00	2.03E-03
		Cs-137	<1.57E-03	0.00E+00	1.57E-03
		Be-7	1.28E-01	3.48E-02	3.60E-02
		K-40	<3.26E-02	0.00E+00	3.26E-02

Sample Point 261 [INDICATOR - N @ 0.72 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
558945	1/5/2022 - 1/11/2022	Beta	2.44E-02	3.21E-03	3.17E-03
559023	1/11/2022 - 1/19/2022	Beta	2.31E-02	2.63E-03	2.47E-03
559331	1/19/2022 - 1/25/2022	Beta	2.34E-02	3.40E-03	3.21E-03
560045	1/25/2022 - 2/1/2022	Beta	3.30E-02	3.24E-03	2.64E-03
560262	2/1/2022 - 2/8/2022	Beta	2.18E-02	3.06E-03	2.94E-03
560506	2/8/2022 - 2/15/2022	Beta	2.14E-02	2.77E-03	2.72E-03
560811	2/15/2022 - 2/22/2022	Beta	1.70E-02	2.87E-03	3.15E-03
561147	2/22/2022 - 3/1/2022	Beta	1.89E-02	3.12E-03	3.55E-03
561647	3/1/2022 - 3/8/2022	Beta	2.82E-02	3.10E-03	2.80E-03

CATAWBA Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR PARTICULATE Concentration (Activity): pCi/m3

Sample Point 261 [INDICATOR - N @ 0.72 miles]

Sample ID	Sample Dates	Nuclide	Activity	2 Sigma Error	MDA
562248	3/8/2022 - 3/15/2022	Beta	2.04E-02	3.04E-03	3.07E-03
562842	3/15/2022 - 3/22/2022	Beta	1.30E-02	2.40E-03	2.84E-03
563441	3/22/2022 - 3/29/2022	Beta	2.08E-02	3.22E-03	3.52E-03
563775	3/29/2022 - 4/5/2022	Beta	2.43E-02	3.32E-03	3.35E-03
564003	1/5/2022 - 4/5/2022	Cs-134	<1.67E-03	0.00E+00	1.67E-03
		Cs-137	<1.23E-03	0.00E+00	1.23E-03
		Be-7	1.55E-01	3.70E-02	3.24E-02
		K-40	<3.01E-02	0.00E+00	3.01E-02
563998	4/5/2022 - 4/12/2022	Beta	1.49E-02	2.70E-03	3.04E-03
564539	4/12/2022 - 4/19/2022	Beta	1.43E-02	2.40E-03	2.65E-03
564807	4/19/2022 - 4/26/2022	Beta	2.56E-02	2.97E-03	2.81E-03
565299	4/26/2022 - 5/3/2022	Beta	3.20E-02	3.60E-03	3.19E-03
565964	5/3/2022 - 5/10/2022	Beta	1.76E-02	2.95E-03	3.20E-03
566549	5/10/2022 - 5/17/2022	Beta	1.39E-02	2.65E-03	3.02E-03
566943	5/17/2022 - 5/24/2022	Beta	2.60E-02	2.85E-03	2.33E-03
567134	5/24/2022 - 6/1/2022	Beta	1.73E-02	2.60E-03	2.70E-03
567571	6/1/2022 - 6/7/2022	Beta	2.40E-02	3.18E-03	3.20E-03
567740	6/7/2022 - 6/14/2022	Beta	2.18E-02	3.20E-03	3.36E-03
568376	6/14/2022 - 6/21/2022	Beta	2.67E-02	2.92E-03	2.48E-03
568615	6/21/2022 - 6/28/2022	Beta	2.41E-02	3.33E-03	3.45E-03
568830	6/28/2022 - 7/6/2022	Beta	1.41E-02	2.41E-03	2.64E-03
569068	4/5/2022 - 7/6/2022	Cs-134	<1.64E-03	0.00E+00	1.64E-03
		Cs-137	<1.47E-03	0.00E+00	1.47E-03
		Be-7	1.99E-01	4.18E-02	3.34E-02
		K-40	<2.85E-02	0.00E+00	2.85E-02
569063	7/6/2022 - 7/12/2022	Beta	1.33E-02	2.73E-03	3.38E-03
570289	7/12/2022 - 7/19/2022	Beta	2.06E-02	3.07E-03	3.24E-03

CATAWBA Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR PARTICULATE Concentration (Activity): pCi/m3
 Sample Point 261 [INDICATOR - N @ 0.72 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
570853	7/19/2022 - 7/26/2022	Beta	1.88E-02	2.64E-03	2.72E-03
571101	7/26/2022 - 8/2/2022	Beta	1.55E-02	2.85E-03	3.32E-03
571421	8/2/2022 - 8/9/2022	Beta	1.44E-02	2.79E-03	3.34E-03
571698	8/9/2022 - 8/16/2022	Beta	1.89E-02	2.94E-03	3.06E-03
572713	8/16/2022 - 8/23/2022	Beta	2.27E-02	2.87E-03	2.87E-03
573911	8/23/2022 - 8/30/2022	Beta	2.40E-02	3.37E-03	3.58E-03
574532	8/30/2022 - 9/7/2022	Beta	1.82E-02	2.66E-03	2.76E-03
575002	9/7/2022 - 9/13/2022	Beta	9.78E-03	2.96E-03	4.12E-03
575688	9/13/2022 - 9/20/2022	Beta	3.27E-02	3.67E-03	3.43E-03
576087	9/20/2022 - 9/27/2022	Beta	2.95E-02	3.46E-03	3.22E-03
576259	9/27/2022 - 10/4/2022	Beta	1.41E-02	2.69E-03	3.14E-03
576539	7/6/2022 - 10/4/2022	Cs-134	<1.81E-03	0.00E+00	1.81E-03
		Cs-137	<1.49E-03	0.00E+00	1.49E-03
		Be-7	1.41E-01	3.47E-02	3.01E-02
		K-40	2.51E-02	1.46E-02	1.48E-02
576534	10/4/2022 - 10/11/2022	Beta	2.79E-02	3.43E-03	3.35E-03
577164	10/11/2022 - 10/18/2022	Beta	3.21E-02	3.60E-03	3.32E-03
577761	10/18/2022 - 10/25/2022	Beta	2.39E-02	3.30E-03	3.45E-03
578115	10/25/2022 - 11/1/2022	Beta	1.36E-02	2.90E-03	3.68E-03
578825	11/1/2022 - 11/8/2022	Beta	2.09E-02	3.03E-03	3.06E-03
579026	11/8/2022 - 11/15/2022	Beta	1.24E-02	2.52E-03	2.91E-03
579785	11/15/2022 - 11/22/2022	Beta	3.26E-02	3.21E-03	2.65E-03
580599	11/22/2022 - 11/29/2022	Beta	3.51E-02	3.78E-03	3.29E-03
580806	11/29/2022 - 12/6/2022	Beta	2.68E-02	3.24E-03	2.78E-03
581131	12/6/2022 - 12/13/2022	Beta	2.92E-02	3.41E-03	2.97E-03

CATAWBA Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR PARTICULATE Concentration (Activity): pCi/m3

Sample Point 261 [INDICATOR - N @ 0.72 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
581698	12/13/2022 - 12/20/2022	Beta	1.79E-02	3.08E-03	3.57E-03
582234	12/20/2022 - 12/28/2022	Beta	2.28E-02	2.68E-03	2.64E-03
582421	12/28/2022 - 1/4/2023	Beta	1.91E-02	2.95E-03	3.06E-03
582668	10/4/2022 - 1/4/2023	Cs-134	<1.54E-03	0.00E+00	1.54E-03
		Cs-137	<1.66E-03	0.00E+00	1.66E-03
		Be-7	8.22E-02	3.16E-02	3.95E-02
		K-40	<2.36E-02	0.00E+00	2.36E-02

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 200 [INDICATOR - NNE @ 0.63 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
558946	1/5/2022 - 1/11/2022	I-131	<3.02E-02	0.00E+00	3.02E-02
		Cs-134	<2.37E-02	0.00E+00	2.37E-02
		Cs-137	<2.50E-02	0.00E+00	2.50E-02
		Be-7	<1.96E-01	0.00E+00	1.96E-01
		K-40	<6.50E-01	0.00E+00	6.50E-01
559024	1/11/2022 - 1/19/2022	I-131	<2.61E-02	0.00E+00	2.61E-02
		Cs-134	<2.37E-02	0.00E+00	2.37E-02
		Cs-137	<2.15E-02	0.00E+00	2.15E-02
		Be-7	<1.69E-01	0.00E+00	1.69E-01
		K-40	<4.62E-01	0.00E+00	4.62E-01
559334	1/19/2022 - 1/25/2022	I-131	<2.89E-02	0.00E+00	2.89E-02
		Cs-134	<2.94E-02	0.00E+00	2.94E-02
		Cs-137	<2.73E-02	0.00E+00	2.73E-02
		Be-7	<1.66E-01	0.00E+00	1.66E-01
		K-40	7.66E-01	3.82E-01	4.60E-01
560046	1/25/2022 - 2/1/2022	I-131	<3.11E-02	0.00E+00	3.11E-02
		Cs-134	<2.30E-02	0.00E+00	2.30E-02
		Cs-137	<2.60E-02	0.00E+00	2.60E-02
		Be-7	<1.59E-01	0.00E+00	1.59E-01
		K-40	<5.43E-01	0.00E+00	5.43E-01
560263	2/1/2022 - 2/8/2022	I-131	<3.10E-02	0.00E+00	3.10E-02
		Cs-134	<3.07E-02	0.00E+00	3.07E-02
		Cs-137	<3.32E-02	0.00E+00	3.32E-02
		Be-7	<2.08E-01	0.00E+00	2.08E-01
		K-40	3.34E-01	1.87E-01	6.96E-02
560507	2/8/2022 - 2/15/2022	I-131	<2.85E-02	0.00E+00	2.85E-02
		Cs-134	<2.52E-02	0.00E+00	2.52E-02
		Cs-137	<2.73E-02	0.00E+00	2.73E-02
		Be-7	<1.68E-01	0.00E+00	1.68E-01
		K-40	<5.59E-01	0.00E+00	5.59E-01
560812	2/15/2022 - 2/22/2022	I-131	<2.78E-02	0.00E+00	2.78E-02
		Cs-134	<2.71E-02	0.00E+00	2.71E-02
		Cs-137	<2.31E-02	0.00E+00	2.31E-02
		Be-7	<2.14E-01	0.00E+00	2.14E-01
		K-40	6.04E-01	2.69E-01	2.22E-01

CATAWBA Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 200 [INDICATOR - NNE @ 0.63 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
561148	2/22/2022 - 3/1/2022	I-131	<2.49E-02	0.00E+00	2.49E-02
		Cs-134	<1.42E-02	0.00E+00	1.42E-02
		Cs-137	<1.55E-02	0.00E+00	1.55E-02
		Be-7	<1.45E-01	0.00E+00	1.45E-01
		K-40	<3.98E-01	0.00E+00	3.98E-01
561648	3/1/2022 - 3/8/2022	I-131	<3.13E-02	0.00E+00	3.13E-02
		Cs-134	<2.33E-02	0.00E+00	2.33E-02
		Cs-137	<3.00E-02	0.00E+00	3.00E-02
		Be-7	<1.87E-01	0.00E+00	1.87E-01
		K-40	<6.20E-01	0.00E+00	6.20E-01
562249	3/8/2022 - 3/15/2022	I-131	<3.00E-02	0.00E+00	3.00E-02
		Cs-134	<2.50E-02	0.00E+00	2.50E-02
		Cs-137	<2.30E-02	0.00E+00	2.30E-02
		Be-7	<1.98E-01	0.00E+00	1.98E-01
		K-40	7.56E-01	3.13E-01	2.88E-01
562843	3/15/2022 - 3/22/2022	I-131	<3.68E-02	0.00E+00	3.68E-02
		Cs-134	<2.45E-02	0.00E+00	2.45E-02
		Cs-137	<2.64E-02	0.00E+00	2.64E-02
		Be-7	<2.39E-01	0.00E+00	2.39E-01
		K-40	6.32E-01	2.63E-01	7.13E-02
563442	3/22/2022 - 3/29/2022	I-131	<2.57E-02	0.00E+00	2.57E-02
		Cs-134	<2.89E-02	0.00E+00	2.89E-02
		Cs-137	<2.32E-02	0.00E+00	2.32E-02
		Be-7	<2.07E-01	0.00E+00	2.07E-01
		K-40	5.70E-01	2.77E-01	2.80E-01
563776	3/29/2022 - 4/5/2022	I-131	<2.62E-02	0.00E+00	2.62E-02
		Cs-134	<2.09E-02	0.00E+00	2.09E-02
		Cs-137	<2.02E-02	0.00E+00	2.02E-02
		Be-7	<1.19E-01	0.00E+00	1.19E-01
		K-40	2.43E-01	2.50E-01	3.88E-01
564004	4/5/2022 - 4/12/2022	I-131	<2.34E-02	0.00E+00	2.34E-02
		Cs-134	<2.70E-02	0.00E+00	2.70E-02
		Cs-137	<1.53E-02	0.00E+00	1.53E-02
		Be-7	<1.72E-01	0.00E+00	1.72E-01
		K-40	<5.85E-01	0.00E+00	5.85E-01
564540	4/12/2022 - 4/19/2022	I-131	<3.67E-02	0.00E+00	3.67E-02
		Cs-134	<3.06E-02	0.00E+00	3.06E-02
		Cs-137	<3.30E-02	0.00E+00	3.30E-02
		Be-7	<2.09E-01	0.00E+00	2.09E-01
		K-40	2.80E-01	3.43E-01	5.59E-01
564808	4/19/2022 - 4/26/2022	I-131	<2.05E-02	0.00E+00	2.05E-02
		Cs-134	<1.72E-02	0.00E+00	1.72E-02
		Cs-137	<2.55E-02	0.00E+00	2.55E-02
		Be-7	<1.50E-01	0.00E+00	1.50E-01
		K-40	3.93E-01	2.28E-01	2.54E-01
565300	4/26/2022 - 5/3/2022	I-131	<1.97E-02	0.00E+00	1.97E-02
		Cs-134	<2.92E-02	0.00E+00	2.92E-02
		Cs-137	<1.81E-02	0.00E+00	1.81E-02

CATAWBA Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 200 [INDICATOR - NNE @ 0.63 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
565300	4/26/2022 - 5/3/2022	Be-7	<1.45E-01	0.00E+00	1.45E-01
		K-40	<4.39E-01	0.00E+00	4.39E-01
565965	5/3/2022 - 5/10/2022	I-131	<3.03E-02	0.00E+00	3.03E-02
		Cs-134	<2.32E-02	0.00E+00	2.32E-02
		Cs-137	<1.21E-02	0.00E+00	1.21E-02
		Be-7	<1.93E-01	0.00E+00	1.93E-01
		K-40	<5.62E-01	0.00E+00	5.62E-01
566550	5/10/2022 - 5/17/2022	I-131	<2.34E-02	0.00E+00	2.34E-02
		Cs-134	<1.67E-02	0.00E+00	1.67E-02
		Cs-137	<1.67E-02	0.00E+00	1.67E-02
		Be-7	<1.45E-01	0.00E+00	1.45E-01
		K-40	<4.25E-01	0.00E+00	4.25E-01
566944	5/17/2022 - 5/24/2022	I-131	<2.94E-02	0.00E+00	2.94E-02
		Cs-134	<2.38E-02	0.00E+00	2.38E-02
		Cs-137	<1.88E-02	0.00E+00	1.88E-02
		Be-7	<1.37E-01	0.00E+00	1.37E-01
		K-40	3.12E-01	1.83E-01	1.63E-01
567135	5/24/2022 - 6/1/2022	I-131	<1.68E-02	0.00E+00	1.68E-02
		Cs-134	<2.24E-02	0.00E+00	2.24E-02
		Cs-137	<1.79E-02	0.00E+00	1.79E-02
		Be-7	<1.28E-01	0.00E+00	1.28E-01
		K-40	3.04E-01	1.76E-01	1.76E-01
567572	6/1/2022 - 6/7/2022	I-131	<2.69E-02	0.00E+00	2.69E-02
		Cs-134	<2.23E-02	0.00E+00	2.23E-02
		Cs-137	<2.69E-02	0.00E+00	2.69E-02
		Be-7	<1.66E-01	0.00E+00	1.66E-01
		K-40	3.47E-01	2.15E-01	2.21E-01
567741	6/7/2022 - 6/14/2022	I-131	<2.16E-02	0.00E+00	2.16E-02
		Cs-134	<1.70E-02	0.00E+00	1.70E-02
		Cs-137	<2.37E-02	0.00E+00	2.37E-02
		Be-7	<1.48E-01	0.00E+00	1.48E-01
		K-40	4.85E-01	2.91E-01	3.82E-01
568377	6/14/2022 - 6/21/2022	I-131	<2.83E-02	0.00E+00	2.83E-02
		Cs-134	<3.03E-02	0.00E+00	3.03E-02
		Cs-137	<2.59E-02	0.00E+00	2.59E-02
		Be-7	<1.76E-01	0.00E+00	1.76E-01
		K-40	<5.71E-01	0.00E+00	5.71E-01
568616	6/21/2022 - 6/28/2022	I-131	<2.95E-02	0.00E+00	2.95E-02
		Cs-134	<2.54E-02	0.00E+00	2.54E-02
		Cs-137	<2.49E-02	0.00E+00	2.49E-02
		Be-7	<1.86E-01	0.00E+00	1.86E-01
		K-40	5.17E-01	2.65E-01	2.74E-01
568831	6/28/2022 - 7/6/2022	I-131	<2.66E-02	0.00E+00	2.66E-02
		Cs-134	<1.80E-02	0.00E+00	1.80E-02
		Cs-137	<1.72E-02	0.00E+00	1.72E-02
		Be-7	<1.69E-01	0.00E+00	1.69E-01
		K-40	<5.46E-01	0.00E+00	5.46E-01

CATAWBA Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 200 [INDICATOR - NNE @ 0.63 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
569069	7/6/2022 - 7/12/2022	I-131	<2.04E-02	0.00E+00	2.04E-02
		Cs-134	<2.70E-02	0.00E+00	2.70E-02
		Cs-137	<2.88E-02	0.00E+00	2.88E-02
		Be-7	<2.08E-01	0.00E+00	2.08E-01
		K-40	<6.19E-01	0.00E+00	6.19E-01
570290	7/12/2022 - 7/19/2022	I-131	<2.38E-02	0.00E+00	2.38E-02
		Cs-134	<2.68E-02	0.00E+00	2.68E-02
		Cs-137	<2.31E-02	0.00E+00	2.31E-02
		Be-7	<2.11E-01	0.00E+00	2.11E-01
		K-40	<5.51E-01	0.00E+00	5.51E-01
570854	7/19/2022 - 7/26/2022	I-131	<3.02E-02	0.00E+00	3.02E-02
		Cs-134	<1.86E-02	0.00E+00	1.86E-02
		Cs-137	<2.43E-02	0.00E+00	2.43E-02
		Be-7	<1.68E-01	0.00E+00	1.68E-01
		K-40	<5.62E-01	0.00E+00	5.62E-01
571102	7/26/2022 - 8/2/2022	I-131	<2.53E-02	0.00E+00	2.53E-02
		Cs-134	<2.22E-02	0.00E+00	2.22E-02
		Cs-137	<1.91E-02	0.00E+00	1.91E-02
		Be-7	<1.93E-01	0.00E+00	1.93E-01
		K-40	6.44E-01	2.70E-01	2.12E-01
571422	8/2/2022 - 8/9/2022	I-131	<2.37E-02	0.00E+00	2.37E-02
		Cs-134	<2.52E-02	0.00E+00	2.52E-02
		Cs-137	<1.54E-02	0.00E+00	1.54E-02
		Be-7	<2.06E-01	0.00E+00	2.06E-01
		K-40	<5.18E-01	0.00E+00	5.18E-01
571699	8/9/2022 - 8/16/2022	I-131	<3.05E-02	0.00E+00	3.05E-02
		Cs-134	<2.53E-02	0.00E+00	2.53E-02
		Cs-137	<3.10E-02	0.00E+00	3.10E-02
		Be-7	<1.28E-01	0.00E+00	1.28E-01
		K-40	<5.75E-01	0.00E+00	5.75E-01
572714	8/16/2022 - 8/23/2022	I-131	<1.90E-02	0.00E+00	1.90E-02
		Cs-134	<3.35E-02	0.00E+00	3.35E-02
		Cs-137	<2.25E-02	0.00E+00	2.25E-02
		Be-7	<1.28E-01	0.00E+00	1.28E-01
		K-40	6.11E-01	3.02E-01	3.49E-01
573912	8/23/2022 - 8/30/2022	I-131	<2.85E-02	0.00E+00	2.85E-02
		Cs-134	<2.71E-02	0.00E+00	2.71E-02
		Cs-137	<2.31E-02	0.00E+00	2.31E-02
		Be-7	<1.59E-01	0.00E+00	1.59E-01
		K-40	<5.59E-01	0.00E+00	5.59E-01
574533	8/30/2022 - 9/7/2022	I-131	<1.90E-02	0.00E+00	1.90E-02
		Cs-134	<1.55E-02	0.00E+00	1.55E-02
		Cs-137	<2.02E-02	0.00E+00	2.02E-02
		Be-7	<1.25E-01	0.00E+00	1.25E-01
		K-40	4.54E-01	2.01E-01	5.85E-02
575003	9/7/2022 - 9/13/2022	I-131	<2.98E-02	0.00E+00	2.98E-02
		Cs-134	<2.95E-02	0.00E+00	2.95E-02
		Cs-137	<2.71E-02	0.00E+00	2.71E-02

CATAWBA Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 200 [INDICATOR - NNE @ 0.63 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
575003	9/7/2022 - 9/13/2022	Be-7	<2.56E-01	0.00E+00	2.56E-01
		K-40	<6.38E-01	0.00E+00	6.38E-01
575689	9/13/2022 - 9/20/2022	I-131	<2.61E-02	0.00E+00	2.61E-02
		Cs-134	<2.16E-02	0.00E+00	2.16E-02
		Cs-137	<2.44E-02	0.00E+00	2.44E-02
		Be-7	<1.35E-01	0.00E+00	1.35E-01
		K-40	<3.10E-01	0.00E+00	3.10E-01
576088	9/20/2022 - 9/27/2022	I-131	<2.48E-02	0.00E+00	2.48E-02
		Cs-134	<2.39E-02	0.00E+00	2.39E-02
		Cs-137	<1.46E-02	0.00E+00	1.46E-02
		Be-7	<1.81E-01	0.00E+00	1.81E-01
		K-40	<4.90E-01	0.00E+00	4.90E-01
576260	9/27/2022 - 10/4/2022	I-131	<3.76E-02	0.00E+00	3.76E-02
		Cs-134	<2.62E-02	0.00E+00	2.62E-02
		Cs-137	<2.24E-02	0.00E+00	2.24E-02
		Be-7	<1.78E-01	0.00E+00	1.78E-01
		K-40	4.22E-01	2.14E-01	7.15E-02
576540	10/4/2022 - 10/11/2022	I-131	<3.43E-02	0.00E+00	3.43E-02
		Cs-134	<2.41E-02	0.00E+00	2.41E-02
		Cs-137	<2.42E-02	0.00E+00	2.42E-02
		Be-7	<2.44E-01	0.00E+00	2.44E-01
		K-40	7.08E-01	3.18E-01	3.22E-01
577165	10/11/2022 - 10/18/2022	I-131	<2.11E-02	0.00E+00	2.11E-02
		Cs-134	<2.81E-02	0.00E+00	2.81E-02
		Cs-137	<2.25E-02	0.00E+00	2.25E-02
		Be-7	<1.57E-01	0.00E+00	1.57E-01
		K-40	<2.75E-01	0.00E+00	2.75E-01
577762	10/18/2022 - 10/25/2022	I-131	<3.87E-02	0.00E+00	3.87E-02
		Cs-134	<2.78E-02	0.00E+00	2.78E-02
		Cs-137	<2.38E-02	0.00E+00	2.38E-02
		Be-7	<1.85E-01	0.00E+00	1.85E-01
		K-40	3.67E-01	2.46E-01	3.12E-01
578116	10/25/2022 - 11/1/2022	I-131	<3.08E-02	0.00E+00	3.08E-02
		Cs-134	<2.47E-02	0.00E+00	2.47E-02
		Cs-137	<3.31E-02	0.00E+00	3.31E-02
		Be-7	<1.91E-01	0.00E+00	1.91E-01
		K-40	2.06E-01	3.43E-01	5.81E-01
578826	11/1/2022 - 11/8/2022	I-131	<2.96E-02	0.00E+00	2.96E-02
		Cs-134	<2.90E-02	0.00E+00	2.90E-02
		Cs-137	<2.50E-02	0.00E+00	2.50E-02
		Be-7	<2.06E-01	0.00E+00	2.06E-01
		K-40	<5.61E-01	0.00E+00	5.61E-01
579027	11/8/2022 - 11/15/2022	I-131	<2.20E-02	0.00E+00	2.20E-02
		Cs-134	<2.07E-02	0.00E+00	2.07E-02
		Cs-137	<1.99E-02	0.00E+00	1.99E-02
		Be-7	<1.73E-01	0.00E+00	1.73E-01
		K-40	<5.60E-01	0.00E+00	5.60E-01

CATAWBA Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 200 [INDICATOR - NNE @ 0.63 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
579786	11/15/2022 - 11/22/2022	I-131	<3.44E-02	0.00E+00	3.44E-02
		Cs-134	<2.42E-02	0.00E+00	2.42E-02
		Cs-137	<2.59E-02	0.00E+00	2.59E-02
		Be-7	<1.58E-01	0.00E+00	1.58E-01
		K-40	4.61E-01	3.21E-01	4.49E-01
580600	11/22/2022 - 11/29/2022	I-131	<2.63E-02	0.00E+00	2.63E-02
		Cs-134	<2.64E-02	0.00E+00	2.64E-02
		Cs-137	<2.75E-02	0.00E+00	2.75E-02
		Be-7	<1.50E-01	0.00E+00	1.50E-01
		K-40	<2.77E-01	0.00E+00	2.77E-01
580807	11/29/2022 - 12/6/2022	I-131	<1.84E-02	0.00E+00	1.84E-02
		Cs-134	<1.94E-02	0.00E+00	1.94E-02
		Cs-137	<1.44E-02	0.00E+00	1.44E-02
		Be-7	<1.54E-01	0.00E+00	1.54E-01
		K-40	<4.70E-01	0.00E+00	4.70E-01
581132	12/6/2022 - 12/13/2022	I-131	<2.35E-02	0.00E+00	2.35E-02
		Cs-134	<2.74E-02	0.00E+00	2.74E-02
		Cs-137	<1.89E-02	0.00E+00	1.89E-02
		Be-7	<1.37E-01	0.00E+00	1.37E-01
		K-40	<5.33E-01	0.00E+00	5.33E-01
581699	12/13/2022 - 12/20/2022	I-131	<2.22E-02	0.00E+00	2.22E-02
		Cs-134	<1.68E-02	0.00E+00	1.68E-02
		Cs-137	<1.45E-02	0.00E+00	1.45E-02
		Be-7	<1.46E-01	0.00E+00	1.46E-01
		K-40	<4.73E-01	0.00E+00	4.73E-01
582235	12/20/2022 - 12/28/2022	I-131	<2.58E-02	0.00E+00	2.58E-02
		Cs-134	<2.11E-02	0.00E+00	2.11E-02
		Cs-137	<1.81E-02	0.00E+00	1.81E-02
		Be-7	<1.20E-01	0.00E+00	1.20E-01
		K-40	<3.17E-01	0.00E+00	3.17E-01
582422	12/28/2022 - 1/4/2023	I-131	<3.59E-02	0.00E+00	3.59E-02
		Cs-134	<2.16E-02	0.00E+00	2.16E-02
		Cs-137	<2.86E-02	0.00E+00	2.86E-02
		Be-7	<2.31E-01	0.00E+00	2.31E-01
		K-40	<5.17E-01	0.00E+00	5.17E-01

Sample Point 201 [INDICATOR - NE @ 0.53 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
558947	1/5/2022 - 1/11/2022	I-131	<2.04E-02	0.00E+00	2.04E-02
		Cs-134	<2.12E-02	0.00E+00	2.12E-02
		Cs-137	<1.83E-02	0.00E+00	1.83E-02
		Be-7	<3.50E-02	0.00E+00	3.50E-02
		K-40	<3.88E-01	0.00E+00	3.88E-01
559025	1/11/2022 - 1/19/2022	I-131	<2.02E-02	0.00E+00	2.02E-02
		Cs-134	<2.00E-02	0.00E+00	2.00E-02
		Cs-137	<1.89E-02	0.00E+00	1.89E-02
		Be-7	<1.35E-01	0.00E+00	1.35E-01
		K-40	2.90E-01	1.80E-01	1.96E-01
559337	1/19/2022 - 1/25/2022	I-131	<3.72E-02	0.00E+00	3.72E-02

CATAWBA Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 201 [INDICATOR - NE @ 0.53 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
559337	1/19/2022 - 1/25/2022	Cs-134	<3.18E-02	0.00E+00	3.18E-02
		Cs-137	<2.89E-02	0.00E+00	2.89E-02
		Be-7	<1.98E-01	0.00E+00	1.98E-01
		K-40	<6.39E-01	0.00E+00	6.39E-01
560047	1/25/2022 - 2/1/2022	I-131	<2.57E-02	0.00E+00	2.57E-02
		Cs-134	<2.69E-02	0.00E+00	2.69E-02
		Cs-137	<2.74E-02	0.00E+00	2.74E-02
		Be-7	<1.63E-01	0.00E+00	1.63E-01
		K-40	<6.14E-01	0.00E+00	6.14E-01
560264	2/1/2022 - 2/8/2022	I-131	<2.06E-02	0.00E+00	2.06E-02
		Cs-134	<2.84E-02	0.00E+00	2.84E-02
		Cs-137	<2.45E-02	0.00E+00	2.45E-02
		Be-7	<1.88E-01	0.00E+00	1.88E-01
		K-40	6.10E-01	2.79E-01	2.72E-01
560508	2/8/2022 - 2/15/2022	I-131	<2.55E-02	0.00E+00	2.55E-02
		Cs-134	<2.99E-02	0.00E+00	2.99E-02
		Cs-137	<1.75E-02	0.00E+00	1.75E-02
		Be-7	<1.87E-01	0.00E+00	1.87E-01
		K-40	5.40E-01	2.59E-01	2.52E-01
560813	2/15/2022 - 2/22/2022	I-131	<2.22E-02	0.00E+00	2.22E-02
		Cs-134	<3.29E-02	0.00E+00	3.29E-02
		Cs-137	<2.72E-02	0.00E+00	2.72E-02
		Be-7	<1.96E-01	0.00E+00	1.96E-01
		K-40	<6.13E-01	0.00E+00	6.13E-01
561149	2/22/2022 - 3/1/2022	I-131	<2.80E-02	0.00E+00	2.80E-02
		Cs-134	<3.04E-02	0.00E+00	3.04E-02
		Cs-137	<3.04E-02	0.00E+00	3.04E-02
		Be-7	<2.69E-01	0.00E+00	2.69E-01
		K-40	4.69E-01	2.25E-01	7.07E-02
561649	3/1/2022 - 3/8/2022	I-131	<2.34E-02	0.00E+00	2.34E-02
		Cs-134	<2.85E-02	0.00E+00	2.85E-02
		Cs-137	<2.47E-02	0.00E+00	2.47E-02
		Be-7	<1.17E-01	0.00E+00	1.17E-01
		K-40	3.95E-01	2.42E-01	2.92E-01
562250	3/8/2022 - 3/15/2022	I-131	<1.90E-02	0.00E+00	1.90E-02
		Cs-134	<2.21E-02	0.00E+00	2.21E-02
		Cs-137	<1.91E-02	0.00E+00	1.91E-02
		Be-7	<1.49E-01	0.00E+00	1.49E-01
		K-40	8.43E-01	2.93E-01	6.53E-02
562844	3/15/2022 - 3/22/2022	I-131	<3.35E-02	0.00E+00	3.35E-02
		Cs-134	<2.89E-02	0.00E+00	2.89E-02
		Cs-137	<2.00E-02	0.00E+00	2.00E-02
		Be-7	<1.91E-01	0.00E+00	1.91E-01
		K-40	7.22E-01	3.01E-01	2.73E-01
563443	3/22/2022 - 3/29/2022	I-131	<3.35E-02	0.00E+00	3.35E-02
		Cs-134	<2.26E-02	0.00E+00	2.26E-02
		Cs-137	<1.95E-02	0.00E+00	1.95E-02
		Be-7	<1.87E-01	0.00E+00	1.87E-01

CATAWBA Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3
 Sample Point 201 [INDICATOR - NE @ 0.53 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
563443	3/22/2022 - 3/29/2022	K-40	<6.65E-01	0.00E+00	6.65E-01
563777	3/29/2022 - 4/5/2022	I-131	<3.13E-02	0.00E+00	3.13E-02
		Cs-134	<3.40E-02	0.00E+00	3.40E-02
		Cs-137	<3.19E-02	0.00E+00	3.19E-02
		Be-7	<2.39E-01	0.00E+00	2.39E-01
		K-40	5.84E-01	3.34E-01	4.31E-01
564005	4/5/2022 - 4/12/2022	I-131	<1.84E-02	0.00E+00	1.84E-02
		Cs-134	<2.17E-02	0.00E+00	2.17E-02
		Cs-137	<1.87E-02	0.00E+00	1.87E-02
		Be-7	<1.35E-01	0.00E+00	1.35E-01
		K-40	<3.92E-01	0.00E+00	3.92E-01
564541	4/12/2022 - 4/19/2022	I-131	<2.60E-02	0.00E+00	2.60E-02
		Cs-134	<2.72E-02	0.00E+00	2.72E-02
		Cs-137	<2.49E-02	0.00E+00	2.49E-02
		Be-7	<1.31E-01	0.00E+00	1.31E-01
		K-40	5.21E-01	2.73E-01	3.05E-01
564809	4/19/2022 - 4/26/2022	I-131	<2.43E-02	0.00E+00	2.43E-02
		Cs-134	<1.67E-02	0.00E+00	1.67E-02
		Cs-137	<2.33E-02	0.00E+00	2.33E-02
		Be-7	<1.78E-01	0.00E+00	1.78E-01
		K-40	<4.26E-01	0.00E+00	4.26E-01
565301	4/26/2022 - 5/3/2022	I-131	<2.20E-02	0.00E+00	2.20E-02
		Cs-134	<2.87E-02	0.00E+00	2.87E-02
		Cs-137	<2.47E-02	0.00E+00	2.47E-02
		Be-7	<2.31E-01	0.00E+00	2.31E-01
		K-40	3.52E-01	2.22E-01	2.49E-01
565966	5/3/2022 - 5/10/2022	I-131	<2.65E-02	0.00E+00	2.65E-02
		Cs-134	<2.00E-02	0.00E+00	2.00E-02
		Cs-137	<2.11E-02	0.00E+00	2.11E-02
		Be-7	<2.01E-01	0.00E+00	2.01E-01
		K-40	<5.34E-01	0.00E+00	5.34E-01
566551	5/10/2022 - 5/17/2022	I-131	<2.34E-02	0.00E+00	2.34E-02
		Cs-134	<2.79E-02	0.00E+00	2.79E-02
		Cs-137	<1.93E-02	0.00E+00	1.93E-02
		Be-7	<1.40E-01	0.00E+00	1.40E-01
		K-40	<5.47E-01	0.00E+00	5.47E-01
566945	5/17/2022 - 5/24/2022	I-131	<2.95E-02	0.00E+00	2.95E-02
		Cs-134	<2.94E-02	0.00E+00	2.94E-02
		Cs-137	<2.10E-02	0.00E+00	2.10E-02
		Be-7	<1.16E-01	0.00E+00	1.16E-01
		K-40	4.63E-01	2.74E-01	3.46E-01
567136	5/24/2022 - 6/1/2022	I-131	<2.68E-02	0.00E+00	2.68E-02
		Cs-134	<1.20E-02	0.00E+00	1.20E-02
		Cs-137	<1.98E-02	0.00E+00	1.98E-02
		Be-7	<1.01E-01	0.00E+00	1.01E-01
		K-40	4.30E-01	2.17E-01	2.17E-01

CATAWBA Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 201 [INDICATOR - NE @ 0.53 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
567573	6/1/2022 - 6/7/2022	I-131	<1.96E-02	0.00E+00	1.96E-02
		Cs-134	<2.89E-02	0.00E+00	2.89E-02
		Cs-137	<2.68E-02	0.00E+00	2.68E-02
		Be-7	<1.50E-01	0.00E+00	1.50E-01
		K-40	<3.21E-01	0.00E+00	3.21E-01
567742	6/7/2022 - 6/14/2022	I-131	<2.68E-02	0.00E+00	2.68E-02
		Cs-134	<1.80E-02	0.00E+00	1.80E-02
		Cs-137	<2.64E-02	0.00E+00	2.64E-02
		Be-7	<1.56E-01	0.00E+00	1.56E-01
		K-40	<5.78E-01	0.00E+00	5.78E-01
568378	6/14/2022 - 6/21/2022	I-131	<2.06E-02	0.00E+00	2.06E-02
		Cs-134	<2.98E-02	0.00E+00	2.98E-02
		Cs-137	<2.13E-02	0.00E+00	2.13E-02
		Be-7	<1.61E-01	0.00E+00	1.61E-01
		K-40	<5.47E-01	0.00E+00	5.47E-01
568617	6/21/2022 - 6/28/2022	I-131	<2.55E-02	0.00E+00	2.55E-02
		Cs-134	<2.67E-02	0.00E+00	2.67E-02
		Cs-137	<1.52E-02	0.00E+00	1.52E-02
		Be-7	<1.00E-01	0.00E+00	1.00E-01
		K-40	<5.76E-01	0.00E+00	5.76E-01
568832	6/28/2022 - 7/6/2022	I-131	<1.59E-02	0.00E+00	1.59E-02
		Cs-134	<1.53E-02	0.00E+00	1.53E-02
		Cs-137	<1.04E-02	0.00E+00	1.04E-02
		Be-7	<1.57E-01	0.00E+00	1.57E-01
		K-40	<3.86E-01	0.00E+00	3.86E-01
569070	7/6/2022 - 7/12/2022	I-131	<2.48E-02	0.00E+00	2.48E-02
		Cs-134	<3.12E-02	0.00E+00	3.12E-02
		Cs-137	<3.03E-02	0.00E+00	3.03E-02
		Be-7	<2.38E-01	0.00E+00	2.38E-01
		K-40	4.09E-01	2.67E-01	3.29E-01
570291	7/12/2022 - 7/19/2022	I-131	<2.44E-02	0.00E+00	2.44E-02
		Cs-134	<5.01E-03	0.00E+00	5.01E-03
		Cs-137	<2.41E-02	0.00E+00	2.41E-02
		Be-7	<9.90E-02	0.00E+00	9.90E-02
		K-40	3.49E-01	2.12E-01	2.35E-01
570855	7/19/2022 - 7/26/2022	I-131	<2.63E-02	0.00E+00	2.63E-02
		Cs-134	<3.77E-02	0.00E+00	3.77E-02
		Cs-137	<1.86E-02	0.00E+00	1.86E-02
		Be-7	<1.78E-01	0.00E+00	1.78E-01
		K-40	<5.16E-01	0.00E+00	5.16E-01
571103	7/26/2022 - 8/2/2022	I-131	<2.44E-02	0.00E+00	2.44E-02
		Cs-134	<2.54E-02	0.00E+00	2.54E-02
		Cs-137	<2.04E-02	0.00E+00	2.04E-02
		Be-7	<1.79E-01	0.00E+00	1.79E-01
		K-40	4.92E-01	2.18E-01	6.36E-02
571423	8/2/2022 - 8/9/2022	I-131	<1.97E-02	0.00E+00	1.97E-02
		Cs-134	<1.79E-02	0.00E+00	1.79E-02
		Cs-137	<2.50E-02	0.00E+00	2.50E-02

CATAWBA Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 201 [INDICATOR - NE @ 0.53 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
571423	8/2/2022 - 8/9/2022	Be-7	<1.32E-01	0.00E+00	1.32E-01
		K-40	6.49E-01	2.60E-01	6.76E-02
571700	8/9/2022 - 8/16/2022	I-131	<2.01E-02	0.00E+00	2.01E-02
		Cs-134	<1.95E-02	0.00E+00	1.95E-02
		Cs-137	<1.15E-02	0.00E+00	1.15E-02
		Be-7	<1.25E-01	0.00E+00	1.25E-01
		K-40	3.02E-01	2.21E-01	2.95E-01
572715	8/16/2022 - 8/23/2022	I-131	<2.09E-02	0.00E+00	2.09E-02
		Cs-134	<2.17E-02	0.00E+00	2.17E-02
		Cs-137	<1.67E-02	0.00E+00	1.67E-02
		Be-7	<1.23E-01	0.00E+00	1.23E-01
		K-40	2.49E-01	2.30E-01	3.44E-01
573913	8/23/2022 - 8/30/2022	I-131	<1.70E-02	0.00E+00	1.70E-02
		Cs-134	<2.18E-02	0.00E+00	2.18E-02
		Cs-137	<1.68E-02	0.00E+00	1.68E-02
		Be-7	<1.46E-01	0.00E+00	1.46E-01
		K-40	3.76E-01	2.34E-01	2.86E-01
574534	8/30/2022 - 9/7/2022	I-131	<1.98E-02	0.00E+00	1.98E-02
		Cs-134	<2.47E-02	0.00E+00	2.47E-02
		Cs-137	<1.53E-02	0.00E+00	1.53E-02
		Be-7	<1.41E-01	0.00E+00	1.41E-01
		K-40	4.11E-01	2.05E-01	1.88E-01
575004	9/7/2022 - 9/13/2022	I-131	<2.22E-02	0.00E+00	2.22E-02
		Cs-134	<2.53E-02	0.00E+00	2.53E-02
		Cs-137	<2.57E-02	0.00E+00	2.57E-02
		Be-7	<1.57E-01	0.00E+00	1.57E-01
		K-40	<6.59E-01	0.00E+00	6.59E-01
575690	9/13/2022 - 9/20/2022	I-131	<2.96E-02	0.00E+00	2.96E-02
		Cs-134	<2.07E-02	0.00E+00	2.07E-02
		Cs-137	<2.34E-02	0.00E+00	2.34E-02
		Be-7	<1.54E-01	0.00E+00	1.54E-01
		K-40	5.72E-01	2.98E-01	3.51E-01
576089	9/20/2022 - 9/27/2022	I-131	<3.22E-02	0.00E+00	3.22E-02
		Cs-134	<2.00E-02	0.00E+00	2.00E-02
		Cs-137	<2.11E-02	0.00E+00	2.11E-02
		Be-7	<1.51E-01	0.00E+00	1.51E-01
		K-40	2.75E-01	2.11E-01	2.83E-01
576261	9/27/2022 - 10/4/2022	I-131	<2.36E-02	0.00E+00	2.36E-02
		Cs-134	<2.98E-02	0.00E+00	2.98E-02
		Cs-137	<1.51E-02	0.00E+00	1.51E-02
		Be-7	<1.17E-01	0.00E+00	1.17E-01
		K-40	2.39E-01	1.88E-01	2.45E-01
576541	10/4/2022 - 10/11/2022	I-131	<2.55E-02	0.00E+00	2.55E-02
		Cs-134	<2.17E-02	0.00E+00	2.17E-02
		Cs-137	<1.87E-02	0.00E+00	1.87E-02
		Be-7	<1.55E-01	0.00E+00	1.55E-01
		K-40	<5.13E-01	0.00E+00	5.13E-01

CATAWBA Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 201 [INDICATOR - NE @ 0.53 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
577166	10/11/2022 - 10/18/2022	I-131	<2.08E-02	0.00E+00	2.08E-02
		Cs-134	<1.40E-02	0.00E+00	1.40E-02
		Cs-137	<2.47E-02	0.00E+00	2.47E-02
		Be-7	<7.96E-02	0.00E+00	7.96E-02
		K-40	<5.54E-01	0.00E+00	5.54E-01
577763	10/18/2022 - 10/25/2022	I-131	<3.28E-02	0.00E+00	3.28E-02
		Cs-134	<2.77E-02	0.00E+00	2.77E-02
		Cs-137	<1.72E-02	0.00E+00	1.72E-02
		Be-7	<1.69E-01	0.00E+00	1.69E-01
		K-40	4.75E-01	2.57E-01	2.95E-01
578117	10/25/2022 - 11/1/2022	I-131	<2.51E-02	0.00E+00	2.51E-02
		Cs-134	<2.73E-02	0.00E+00	2.73E-02
		Cs-137	<1.80E-02	0.00E+00	1.80E-02
		Be-7	<1.45E-01	0.00E+00	1.45E-01
		K-40	3.51E-01	2.73E-01	3.91E-01
578827	11/1/2022 - 11/8/2022	I-131	<3.37E-02	0.00E+00	3.37E-02
		Cs-134	<2.64E-02	0.00E+00	2.64E-02
		Cs-137	<2.87E-02	0.00E+00	2.87E-02
		Be-7	<1.87E-01	0.00E+00	1.87E-01
		K-40	4.81E-01	3.22E-01	4.44E-01
579028	11/8/2022 - 11/15/2022	I-131	<2.59E-02	0.00E+00	2.59E-02
		Cs-134	<3.15E-02	0.00E+00	3.15E-02
		Cs-137	<2.45E-02	0.00E+00	2.45E-02
		Be-7	<1.60E-01	0.00E+00	1.60E-01
		K-40	6.36E-01	2.97E-01	3.22E-01
579787	11/15/2022 - 11/22/2022	I-131	<2.56E-02	0.00E+00	2.56E-02
		Cs-134	<3.02E-02	0.00E+00	3.02E-02
		Cs-137	<2.05E-02	0.00E+00	2.05E-02
		Be-7	<1.36E-01	0.00E+00	1.36E-01
		K-40	4.08E-01	2.23E-01	2.29E-01
580601	11/22/2022 - 11/29/2022	I-131	<3.49E-02	0.00E+00	3.49E-02
		Cs-134	<3.21E-02	0.00E+00	3.21E-02
		Cs-137	<2.64E-02	0.00E+00	2.64E-02
		Be-7	<1.33E-01	0.00E+00	1.33E-01
		K-40	5.64E-01	2.58E-01	2.18E-01
580808	11/29/2022 - 12/6/2022	I-131	<2.73E-02	0.00E+00	2.73E-02
		Cs-134	<2.21E-02	0.00E+00	2.21E-02
		Cs-137	<2.24E-02	0.00E+00	2.24E-02
		Be-7	<1.49E-01	0.00E+00	1.49E-01
		K-40	<4.37E-01	0.00E+00	4.37E-01
581133	12/6/2022 - 12/13/2022	I-131	<2.52E-02	0.00E+00	2.52E-02
		Cs-134	<3.53E-02	0.00E+00	3.53E-02
		Cs-137	<2.08E-02	0.00E+00	2.08E-02
		Be-7	<2.40E-01	0.00E+00	2.40E-01
		K-40	<6.45E-01	0.00E+00	6.45E-01
581700	12/13/2022 - 12/20/2022	I-131	<2.41E-02	0.00E+00	2.41E-02
		Cs-134	<2.42E-02	0.00E+00	2.42E-02
		Cs-137	<2.78E-02	0.00E+00	2.78E-02

CATAWBA Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 201 [INDICATOR - NE @ 0.53 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
581700	12/13/2022 - 12/20/2022	Be-7	<1.27E-01	0.00E+00	1.27E-01
		K-40	<5.02E-01	0.00E+00	5.02E-01
582236	12/20/2022 - 12/28/2022	I-131	<2.55E-02	0.00E+00	2.55E-02
		Cs-134	<2.53E-02	0.00E+00	2.53E-02
		Cs-137	<1.75E-02	0.00E+00	1.75E-02
		Be-7	<1.17E-01	0.00E+00	1.17E-01
		K-40	5.18E-01	2.52E-01	2.73E-01
582423	12/28/2022 - 1/4/2023	I-131	<2.12E-02	0.00E+00	2.12E-02
		Cs-134	<2.36E-02	0.00E+00	2.36E-02
		Cs-137	<1.87E-02	0.00E+00	1.87E-02
		Be-7	<1.79E-01	0.00E+00	1.79E-01
		K-40	4.67E-01	2.12E-01	6.33E-02

Sample Point 208 [INDICATOR - S @ 0.45 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
58948	1/5/2022 - 1/11/2022	I-131	<2.76E-02	0.00E+00	2.76E-02
		Cs-134	<2.70E-02	0.00E+00	2.70E-02
		Cs-137	<2.73E-02	0.00E+00	2.73E-02
		Be-7	<2.11E-01	0.00E+00	2.11E-01
		K-40	7.80E-01	3.43E-01	3.30E-01
59026	1/11/2022 - 1/19/2022	I-131	<2.13E-02	0.00E+00	2.13E-02
		Cs-134	<1.89E-02	0.00E+00	1.89E-02
		Cs-137	<1.92E-02	0.00E+00	1.92E-02
		Be-7	<1.08E-01	0.00E+00	1.08E-01
		K-40	<4.13E-01	0.00E+00	4.13E-01
59340	1/19/2022 - 1/25/2022	I-131	<2.78E-02	0.00E+00	2.78E-02
		Cs-134	<3.51E-02	0.00E+00	3.51E-02
		Cs-137	<2.06E-02	0.00E+00	2.06E-02
		Be-7	<2.01E-01	0.00E+00	2.01E-01
		K-40	<6.27E-01	0.00E+00	6.27E-01
56048	1/25/2022 - 2/1/2022	I-131	<2.64E-02	0.00E+00	2.64E-02
		Cs-134	<2.16E-02	0.00E+00	2.16E-02
		Cs-137	<1.44E-02	0.00E+00	1.44E-02
		Be-7	<1.34E-01	0.00E+00	1.34E-01
		K-40	<4.57E-01	0.00E+00	4.57E-01
560265	2/1/2022 - 2/8/2022	I-131	<2.56E-02	0.00E+00	2.56E-02
		Cs-134	<2.52E-02	0.00E+00	2.52E-02
		Cs-137	<2.77E-02	0.00E+00	2.77E-02
		Be-7	<1.64E-01	0.00E+00	1.64E-01
		K-40	<7.23E-01	0.00E+00	7.23E-01
560509	2/8/2022 - 2/15/2022	I-131	<1.92E-02	0.00E+00	1.92E-02
		Cs-134	<2.05E-02	0.00E+00	2.05E-02
		Cs-137	<1.98E-02	0.00E+00	1.98E-02
		Be-7	<1.72E-01	0.00E+00	1.72E-01
		K-40	5.31E-01	2.49E-01	2.16E-01
560814	2/15/2022 - 2/22/2022	I-131	<1.38E-02	0.00E+00	1.38E-02
		Cs-134	<2.51E-02	0.00E+00	2.51E-02
		Cs-137	<1.78E-02	0.00E+00	1.78E-02
		Be-7	<1.43E-01	0.00E+00	1.43E-01

CATAWBA Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 208 [INDICATOR - S @ 0.45 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
560814	2/15/2022 - 2/22/2022	K-40	5.95E-01	2.72E-01	2.55E-01
561150	2/22/2022 - 3/1/2022	I-131	<2.44E-02	0.00E+00	2.44E-02
		Cs-134	<2.29E-02	0.00E+00	2.29E-02
		Cs-137	<2.15E-02	0.00E+00	2.15E-02
		Be-7	<1.52E-01	0.00E+00	1.52E-01
		K-40	6.22E-01	2.75E-01	2.47E-01
561650	3/1/2022 - 3/8/2022	I-131	<1.70E-02	0.00E+00	1.70E-02
		Cs-134	<2.39E-02	0.00E+00	2.39E-02
		Cs-137	<1.69E-02	0.00E+00	1.69E-02
		Be-7	<1.64E-01	0.00E+00	1.64E-01
		K-40	4.45E-01	2.77E-01	3.64E-01
562251	3/8/2022 - 3/15/2022	I-131	<2.42E-02	0.00E+00	2.42E-02
		Cs-134	<1.67E-02	0.00E+00	1.67E-02
		Cs-137	<1.86E-02	0.00E+00	1.86E-02
		Be-7	<1.62E-01	0.00E+00	1.62E-01
		K-40	5.12E-01	2.53E-01	2.60E-01
562845	3/15/2022 - 3/22/2022	I-131	<2.71E-02	0.00E+00	2.71E-02
		Cs-134	<2.53E-02	0.00E+00	2.53E-02
		Cs-137	<2.62E-02	0.00E+00	2.62E-02
		Be-7	<1.78E-01	0.00E+00	1.78E-01
		K-40	<6.67E-01	0.00E+00	6.67E-01
563444	3/22/2022 - 3/29/2022	I-131	<2.53E-02	0.00E+00	2.53E-02
		Cs-134	<1.99E-02	0.00E+00	1.99E-02
		Cs-137	<2.09E-02	0.00E+00	2.09E-02
		Be-7	<7.81E-02	0.00E+00	7.81E-02
		K-40	5.54E-01	2.99E-01	3.68E-01
563778	3/29/2022 - 4/5/2022	I-131	<2.67E-02	0.00E+00	2.67E-02
		Cs-134	<2.30E-02	0.00E+00	2.30E-02
		Cs-137	<2.88E-02	0.00E+00	2.88E-02
		Be-7	<1.90E-01	0.00E+00	1.90E-01
		K-40	6.69E-01	2.63E-01	6.72E-02
564006	4/5/2022 - 4/12/2022	I-131	<2.55E-02	0.00E+00	2.55E-02
		Cs-134	<3.09E-02	0.00E+00	3.09E-02
		Cs-137	<1.93E-02	0.00E+00	1.93E-02
		Be-7	<1.60E-01	0.00E+00	1.60E-01
		K-40	7.88E-01	3.01E-01	2.31E-01
564542	4/12/2022 - 4/19/2022	I-131	<2.99E-02	0.00E+00	2.99E-02
		Cs-134	<2.32E-02	0.00E+00	2.32E-02
		Cs-137	<2.75E-02	0.00E+00	2.75E-02
		Be-7	<1.28E-01	0.00E+00	1.28E-01
		K-40	<6.30E-01	0.00E+00	6.30E-01
564810	4/19/2022 - 4/26/2022	I-131	<2.75E-02	0.00E+00	2.75E-02
		Cs-134	<2.51E-02	0.00E+00	2.51E-02
		Cs-137	<2.46E-02	0.00E+00	2.46E-02
		Be-7	<1.99E-01	0.00E+00	1.99E-01
		K-40	<6.25E-01	0.00E+00	6.25E-01

CATAWBA Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3
 Sample Point 208 [INDICATOR - S @ 0.45 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
565302	4/26/2022 - 5/3/2022	I-131	<3.38E-02	0.00E+00	3.38E-02
		Cs-134	<2.30E-02	0.00E+00	2.30E-02
		Cs-137	<2.16E-02	0.00E+00	2.16E-02
		Be-7	<1.81E-01	0.00E+00	1.81E-01
		K-40	7.16E-01	3.00E-01	2.75E-01
565967	5/3/2022 - 5/10/2022	I-131	<1.69E-02	0.00E+00	1.69E-02
		Cs-134	<3.02E-02	0.00E+00	3.02E-02
		Cs-137	<1.88E-02	0.00E+00	1.88E-02
		Be-7	<1.45E-01	0.00E+00	1.45E-01
		K-40	<6.02E-01	0.00E+00	6.02E-01
566552	5/10/2022 - 5/17/2022	I-131	<2.49E-02	0.00E+00	2.49E-02
		Cs-134	<2.38E-02	0.00E+00	2.38E-02
		Cs-137	<1.15E-02	0.00E+00	1.15E-02
		Be-7	<1.46E-01	0.00E+00	1.46E-01
		K-40	1.90E-01	1.50E-01	1.72E-01
566946	5/17/2022 - 5/24/2022	I-131	<2.67E-02	0.00E+00	2.67E-02
		Cs-134	<1.74E-02	0.00E+00	1.74E-02
		Cs-137	<2.28E-02	0.00E+00	2.28E-02
		Be-7	<1.15E-01	0.00E+00	1.15E-01
		K-40	4.40E-01	2.44E-01	2.72E-01
567137	5/24/2022 - 6/1/2022	I-131	<2.16E-02	0.00E+00	2.16E-02
		Cs-134	<1.71E-02	0.00E+00	1.71E-02
		Cs-137	<1.80E-02	0.00E+00	1.80E-02
		Be-7	<1.10E-01	0.00E+00	1.10E-01
		K-40	<3.89E-01	0.00E+00	3.89E-01
567574	6/1/2022 - 6/7/2022	I-131	<2.63E-02	0.00E+00	2.63E-02
		Cs-134	<2.66E-02	0.00E+00	2.66E-02
		Cs-137	<2.67E-02	0.00E+00	2.67E-02
		Be-7	<2.21E-01	0.00E+00	2.21E-01
		K-40	6.48E-01	2.81E-01	7.98E-02
567743	6/7/2022 - 6/14/2022	I-131	<2.78E-02	0.00E+00	2.78E-02
		Cs-134	<1.97E-02	0.00E+00	1.97E-02
		Cs-137	<1.70E-02	0.00E+00	1.70E-02
		Be-7	<1.48E-01	0.00E+00	1.48E-01
		K-40	<4.79E-01	0.00E+00	4.79E-01
568379	6/14/2022 - 6/21/2022	I-131	<2.55E-02	0.00E+00	2.55E-02
		Cs-134	<2.05E-02	0.00E+00	2.05E-02
		Cs-137	<2.47E-02	0.00E+00	2.47E-02
		Be-7	<1.62E-01	0.00E+00	1.62E-01
		K-40	<4.49E-01	0.00E+00	4.49E-01
568618	6/21/2022 - 6/28/2022	I-131	<2.36E-02	0.00E+00	2.36E-02
		Cs-134	<2.89E-02	0.00E+00	2.89E-02
		Cs-137	<1.69E-02	0.00E+00	1.69E-02
		Be-7	<1.36E-01	0.00E+00	1.36E-01
		K-40	6.14E-01	2.72E-01	2.57E-01
568833	6/28/2022 - 7/6/2022	I-131	<2.50E-02	0.00E+00	2.50E-02
		Cs-134	<1.70E-02	0.00E+00	1.70E-02
		Cs-137	<1.64E-02	0.00E+00	1.64E-02

CATAWBA Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3
 Sample Point 208 [INDICATOR - S @ 0.45 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
568833	6/28/2022 - 7/6/2022	Be-7	<9.77E-02	0.00E+00	9.77E-02
		K-40	4.12E-01	2.19E-01	2.44E-01
569071	7/6/2022 - 7/12/2022	I-131	<3.54E-02	0.00E+00	3.54E-02
		Cs-134	<2.42E-02	0.00E+00	2.42E-02
		Cs-137	<3.49E-02	0.00E+00	3.49E-02
		Be-7	<2.59E-01	0.00E+00	2.59E-01
		K-40	<5.43E-01	0.00E+00	5.43E-01
570292	7/12/2022 - 7/19/2022	I-131	<2.37E-02	0.00E+00	2.37E-02
		Cs-134	<2.18E-02	0.00E+00	2.18E-02
		Cs-137	<2.35E-02	0.00E+00	2.35E-02
		Be-7	<1.46E-01	0.00E+00	1.46E-01
		K-40	<4.43E-01	0.00E+00	4.43E-01
570856	7/19/2022 - 7/26/2022	I-131	<2.96E-02	0.00E+00	2.96E-02
		Cs-134	<2.71E-02	0.00E+00	2.71E-02
		Cs-137	<2.86E-02	0.00E+00	2.86E-02
		Be-7	<1.77E-01	0.00E+00	1.77E-01
		K-40	5.90E-01	2.76E-01	2.64E-01
571104	7/26/2022 - 8/2/2022	I-131	<2.07E-02	0.00E+00	2.07E-02
		Cs-134	<2.69E-02	0.00E+00	2.69E-02
		Cs-137	<1.53E-02	0.00E+00	1.53E-02
		Be-7	<1.00E-01	0.00E+00	1.00E-01
		K-40	5.69E-01	2.42E-01	6.70E-02
571424	8/2/2022 - 8/9/2022	I-131	<2.92E-02	0.00E+00	2.92E-02
		Cs-134	<3.23E-02	0.00E+00	3.23E-02
		Cs-137	<2.88E-02	0.00E+00	2.88E-02
		Be-7	<1.51E-01	0.00E+00	1.51E-01
		K-40	<4.67E-01	0.00E+00	4.67E-01
571701	8/9/2022 - 8/16/2022	I-131	<2.45E-02	0.00E+00	2.45E-02
		Cs-134	<2.61E-02	0.00E+00	2.61E-02
		Cs-137	<1.92E-02	0.00E+00	1.92E-02
		Be-7	<1.93E-01	0.00E+00	1.93E-01
		K-40	<4.41E-01	0.00E+00	4.41E-01
572716	8/16/2022 - 8/23/2022	I-131	<2.06E-02	0.00E+00	2.06E-02
		Cs-134	<2.50E-02	0.00E+00	2.50E-02
		Cs-137	<2.47E-02	0.00E+00	2.47E-02
		Be-7	<1.72E-01	0.00E+00	1.72E-01
		K-40	<5.29E-01	0.00E+00	5.29E-01
573914	8/23/2022 - 8/30/2022	I-131	<2.05E-02	0.00E+00	2.05E-02
		Cs-134	<2.78E-02	0.00E+00	2.78E-02
		Cs-137	<2.40E-02	0.00E+00	2.40E-02
		Be-7	<1.50E-01	0.00E+00	1.50E-01
		K-40	5.32E-01	2.82E-01	3.33E-01
574535	8/30/2022 - 9/7/2022	I-131	<3.03E-02	0.00E+00	3.03E-02
		Cs-134	<2.10E-02	0.00E+00	2.10E-02
		Cs-137	<2.51E-02	0.00E+00	2.51E-02
		Be-7	<1.06E-01	0.00E+00	1.06E-01
		K-40	4.39E-01	2.19E-01	2.01E-01

CATAWBA Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 208 [INDICATOR - S @ 0.45 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
575005	9/7/2022 - 9/13/2022	I-131	<2.82E-02	0.00E+00	2.82E-02
		Cs-134	<1.95E-02	0.00E+00	1.95E-02
		Cs-137	<1.69E-02	0.00E+00	1.69E-02
		Be-7	<1.56E-01	0.00E+00	1.56E-01
		K-40	<6.00E-01	0.00E+00	6.00E-01
575691	9/13/2022 - 9/20/2022	I-131	<2.78E-02	0.00E+00	2.78E-02
		Cs-134	<2.72E-02	0.00E+00	2.72E-02
		Cs-137	<2.61E-02	0.00E+00	2.61E-02
		Be-7	<1.78E-01	0.00E+00	1.78E-01
		K-40	<3.62E-01	0.00E+00	3.62E-01
576090	9/20/2022 - 9/27/2022	I-131	<2.66E-02	0.00E+00	2.66E-02
		Cs-134	<2.72E-02	0.00E+00	2.72E-02
		Cs-137	<2.20E-02	0.00E+00	2.20E-02
		Be-7	<1.72E-01	0.00E+00	1.72E-01
		K-40	<4.45E-01	0.00E+00	4.45E-01
576262	9/27/2022 - 10/4/2022	I-131	<2.64E-02	0.00E+00	2.64E-02
		Cs-134	<2.37E-02	0.00E+00	2.37E-02
		Cs-137	<1.68E-02	0.00E+00	1.68E-02
		Be-7	<1.25E-01	0.00E+00	1.25E-01
		K-40	<5.00E-01	0.00E+00	5.00E-01
576542	10/4/2022 - 10/11/2022	I-131	<2.82E-02	0.00E+00	2.82E-02
		Cs-134	<4.99E-03	0.00E+00	4.99E-03
		Cs-137	<2.25E-02	0.00E+00	2.25E-02
		Be-7	<1.59E-01	0.00E+00	1.59E-01
		K-40	3.76E-01	2.15E-01	2.21E-01
577167	10/11/2022 - 10/18/2022	I-131	<3.29E-02	0.00E+00	3.29E-02
		Cs-134	<2.62E-02	0.00E+00	2.62E-02
		Cs-137	<2.72E-02	0.00E+00	2.72E-02
		Be-7	<1.77E-01	0.00E+00	1.77E-01
		K-40	5.56E-01	2.46E-01	7.17E-02
577764	10/18/2022 - 10/25/2022	I-131	<2.23E-02	0.00E+00	2.23E-02
		Cs-134	<2.13E-02	0.00E+00	2.13E-02
		Cs-137	<1.65E-02	0.00E+00	1.65E-02
		Be-7	<1.63E-01	0.00E+00	1.63E-01
		K-40	3.77E-01	2.13E-01	2.23E-01
578118	10/25/2022 - 11/1/2022	I-131	<2.25E-02	0.00E+00	2.25E-02
		Cs-134	<2.69E-02	0.00E+00	2.69E-02
		Cs-137	<2.32E-02	0.00E+00	2.32E-02
		Be-7	<1.54E-01	0.00E+00	1.54E-01
		K-40	6.66E-01	3.34E-01	4.05E-01
578828	11/1/2022 - 11/8/2022	I-131	<2.54E-02	0.00E+00	2.54E-02
		Cs-134	<2.27E-02	0.00E+00	2.27E-02
		Cs-137	<1.76E-02	0.00E+00	1.76E-02
		Be-7	<1.41E-01	0.00E+00	1.41E-01
		K-40	4.16E-01	2.04E-01	6.63E-02
579029	11/8/2022 - 11/15/2022	I-131	<1.97E-02	0.00E+00	1.97E-02
		Cs-134	<1.48E-02	0.00E+00	1.48E-02
		Cs-137	<2.45E-02	0.00E+00	2.45E-02

CATAWBA Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 208 [INDICATOR - S @ 0.45 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
579029	11/8/2022 - 11/15/2022	Be-7	<1.35E-01	0.00E+00	1.35E-01
		K-40	<3.10E-01	0.00E+00	3.10E-01
579788	11/15/2022 - 11/22/2022	I-131	<2.18E-02	0.00E+00	2.18E-02
		Cs-134	<2.43E-02	0.00E+00	2.43E-02
		Cs-137	<2.41E-02	0.00E+00	2.41E-02
		Be-7	<1.40E-01	0.00E+00	1.40E-01
		K-40	4.20E-01	2.31E-01	2.42E-01
580602	11/22/2022 - 11/29/2022	I-131	<2.52E-02	0.00E+00	2.52E-02
		Cs-134	<2.04E-02	0.00E+00	2.04E-02
		Cs-137	<2.45E-02	0.00E+00	2.45E-02
		Be-7	<1.72E-01	0.00E+00	1.72E-01
		K-40	<6.17E-01	0.00E+00	6.17E-01
580809	11/29/2022 - 12/6/2022	I-131	<2.89E-02	0.00E+00	2.89E-02
		Cs-134	<2.52E-02	0.00E+00	2.52E-02
		Cs-137	<2.32E-02	0.00E+00	2.32E-02
		Be-7	<1.99E-01	0.00E+00	1.99E-01
		K-40	4.35E-01	2.48E-01	2.94E-01
581134	12/6/2022 - 12/13/2022	I-131	<2.77E-02	0.00E+00	2.77E-02
		Cs-134	<2.49E-02	0.00E+00	2.49E-02
		Cs-137	<2.31E-02	0.00E+00	2.31E-02
		Be-7	<1.01E-01	0.00E+00	1.01E-01
		K-40	<5.25E-01	0.00E+00	5.25E-01
581701	12/13/2022 - 12/20/2022	I-131	<1.75E-02	0.00E+00	1.75E-02
		Cs-134	<2.05E-02	0.00E+00	2.05E-02
		Cs-137	<2.15E-02	0.00E+00	2.15E-02
		Be-7	<1.71E-01	0.00E+00	1.71E-01
		K-40	<5.13E-01	0.00E+00	5.13E-01
582237	12/20/2022 - 12/28/2022	I-131	<2.31E-02	0.00E+00	2.31E-02
		Cs-134	<2.34E-02	0.00E+00	2.34E-02
		Cs-137	<1.33E-02	0.00E+00	1.33E-02
		Be-7	<1.36E-01	0.00E+00	1.36E-01
		K-40	5.29E-01	2.53E-01	2.72E-01
582424	12/28/2022 - 1/4/2023	I-131	<2.18E-02	0.00E+00	2.18E-02
		Cs-134	<1.98E-02	0.00E+00	1.98E-02
		Cs-137	<2.08E-02	0.00E+00	2.08E-02
		Be-7	<1.92E-01	0.00E+00	1.92E-01
		K-40	3.37E-01	2.25E-01	2.83E-01
Sample Point 258 [CONTROL - W @ 9.84 miles]					
558949	1/5/2022 - 1/11/2022	I-131	<3.31E-02	0.00E+00	3.31E-02
		Cs-134	<2.94E-02	0.00E+00	2.94E-02
		Cs-137	<3.20E-02	0.00E+00	3.20E-02
		Be-7	<2.15E-01	0.00E+00	2.15E-01
		K-40	5.07E-01	2.98E-01	3.50E-01
559027	1/11/2022 - 1/19/2022	I-131	<2.02E-02	0.00E+00	2.02E-02
		Cs-134	<2.35E-02	0.00E+00	2.35E-02
		Cs-137	<2.16E-02	0.00E+00	2.16E-02
		Be-7	<1.34E-01	0.00E+00	1.34E-01

CATAWBA Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3
 Sample Point 258 [CONTROL - W @ 9.84 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
559027	1/11/2022 - 1/19/2022	K-40	<3.26E-01	0.00E+00	3.26E-01
559343	1/19/2022 - 1/25/2022	I-131	<2.94E-02	0.00E+00	2.94E-02
		Cs-134	<3.36E-02	0.00E+00	3.36E-02
		Cs-137	<2.32E-02	0.00E+00	2.32E-02
		Be-7	<1.68E-01	0.00E+00	1.68E-01
		K-40	4.14E-01	2.52E-01	2.79E-01
560049	1/25/2022 - 2/1/2022	I-131	<2.98E-02	0.00E+00	2.98E-02
		Cs-134	<2.30E-02	0.00E+00	2.30E-02
		Cs-137	<1.98E-02	0.00E+00	1.98E-02
		Be-7	<1.17E-01	0.00E+00	1.17E-01
		K-40	<5.97E-01	0.00E+00	5.97E-01
560266	2/1/2022 - 2/8/2022	I-131	<2.07E-02	0.00E+00	2.07E-02
		Cs-134	<2.29E-02	0.00E+00	2.29E-02
		Cs-137	<2.62E-02	0.00E+00	2.62E-02
		Be-7	<1.17E-01	0.00E+00	1.17E-01
		K-40	<5.11E-01	0.00E+00	5.11E-01
560510	2/8/2022 - 2/15/2022	I-131	<2.56E-02	0.00E+00	2.56E-02
		Cs-134	<2.50E-02	0.00E+00	2.50E-02
		Cs-137	<2.47E-02	0.00E+00	2.47E-02
		Be-7	<1.17E-01	0.00E+00	1.17E-01
		K-40	2.23E-01	1.80E-01	2.31E-01
560815	2/15/2022 - 2/22/2022	I-131	<2.77E-02	0.00E+00	2.77E-02
		Cs-134	<2.55E-02	0.00E+00	2.55E-02
		Cs-137	<1.88E-02	0.00E+00	1.88E-02
		Be-7	<1.46E-01	0.00E+00	1.46E-01
		K-40	5.97E-01	2.86E-01	3.14E-01
561151	2/22/2022 - 3/1/2022	I-131	<2.86E-02	0.00E+00	2.86E-02
		Cs-134	<2.88E-02	0.00E+00	2.88E-02
		Cs-137	<1.97E-02	0.00E+00	1.97E-02
		Be-7	<1.39E-01	0.00E+00	1.39E-01
		K-40	7.89E-01	2.90E-01	6.90E-02
561651	3/1/2022 - 3/8/2022	I-131	<2.75E-02	0.00E+00	2.75E-02
		Cs-134	<3.02E-02	0.00E+00	3.02E-02
		Cs-137	<2.60E-02	0.00E+00	2.60E-02
		Be-7	<1.62E-01	0.00E+00	1.62E-01
		K-40	<5.81E-01	0.00E+00	5.81E-01
562252	3/8/2022 - 3/15/2022	I-131	<2.08E-02	0.00E+00	2.08E-02
		Cs-134	<3.19E-02	0.00E+00	3.19E-02
		Cs-137	<1.78E-02	0.00E+00	1.78E-02
		Be-7	<1.43E-01	0.00E+00	1.43E-01
		K-40	<5.01E-01	0.00E+00	5.01E-01
562846	3/15/2022 - 3/22/2022	I-131	<2.70E-02	0.00E+00	2.70E-02
		Cs-134	<3.38E-02	0.00E+00	3.38E-02
		Cs-137	<1.94E-02	0.00E+00	1.94E-02
		Be-7	<2.02E-01	0.00E+00	2.02E-01
		K-40	<6.12E-01	0.00E+00	6.12E-01

CATAWBA Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 258 [CONTROL - W @ 9.84 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
563445	3/22/2022 - 3/29/2022	I-131	<2.21E-02	0.00E+00	2.21E-02
		Cs-134	<3.00E-02	0.00E+00	3.00E-02
		Cs-137	<2.03E-02	0.00E+00	2.03E-02
		Be-7	<1.93E-01	0.00E+00	1.93E-01
		K-40	4.88E-01	2.80E-01	3.54E-01
563779	3/29/2022 - 4/5/2022	I-131	<2.89E-02	0.00E+00	2.89E-02
		Cs-134	<2.73E-02	0.00E+00	2.73E-02
		Cs-137	<2.48E-02	0.00E+00	2.48E-02
		Be-7	<1.86E-01	0.00E+00	1.86E-01
		K-40	3.88E-01	2.74E-01	3.75E-01
564007	4/5/2022 - 4/12/2022	I-131	<2.78E-02	0.00E+00	2.78E-02
		Cs-134	<2.83E-02	0.00E+00	2.83E-02
		Cs-137	<2.13E-02	0.00E+00	2.13E-02
		Be-7	<1.71E-01	0.00E+00	1.71E-01
		K-40	6.58E-01	3.12E-01	3.53E-01
564543	4/12/2022 - 4/19/2022	I-131	<2.90E-02	0.00E+00	2.90E-02
		Cs-134	<2.84E-02	0.00E+00	2.84E-02
		Cs-137	<1.52E-02	0.00E+00	1.52E-02
		Be-7	<1.62E-01	0.00E+00	1.62E-01
		K-40	5.62E-01	2.39E-01	6.62E-02
564811	4/19/2022 - 4/26/2022	I-131	<2.32E-02	0.00E+00	2.32E-02
		Cs-134	<2.82E-02	0.00E+00	2.82E-02
		Cs-137	<1.75E-02	0.00E+00	1.75E-02
		Be-7	<1.94E-01	0.00E+00	1.94E-01
		K-40	5.00E-01	2.42E-01	2.19E-01
565303	4/26/2022 - 5/3/2022	I-131	<2.39E-02	0.00E+00	2.39E-02
		Cs-134	<2.07E-02	0.00E+00	2.07E-02
		Cs-137	<2.32E-02	0.00E+00	2.32E-02
		Be-7	<1.93E-01	0.00E+00	1.93E-01
		K-40	<4.83E-01	0.00E+00	4.83E-01
565968	5/3/2022 - 5/10/2022	I-131	<2.26E-02	0.00E+00	2.26E-02
		Cs-134	<2.52E-02	0.00E+00	2.52E-02
		Cs-137	<2.60E-02	0.00E+00	2.60E-02
		Be-7	<1.50E-01	0.00E+00	1.50E-01
		K-40	4.59E-01	2.60E-01	3.00E-01
566553	5/10/2022 - 5/17/2022	I-131	<1.78E-02	0.00E+00	1.78E-02
		Cs-134	<2.04E-02	0.00E+00	2.04E-02
		Cs-137	<2.59E-02	0.00E+00	2.59E-02
		Be-7	<1.80E-01	0.00E+00	1.80E-01
		K-40	<4.78E-01	0.00E+00	4.78E-01
566947	5/17/2022 - 5/24/2022	I-131	<2.49E-02	0.00E+00	2.49E-02
		Cs-134	<2.83E-02	0.00E+00	2.83E-02
		Cs-137	<2.13E-02	0.00E+00	2.13E-02
		Be-7	<1.53E-01	0.00E+00	1.53E-01
		K-40	<4.90E-01	0.00E+00	4.90E-01
567138	5/24/2022 - 6/1/2022	I-131	<2.01E-02	0.00E+00	2.01E-02
		Cs-134	<1.78E-02	0.00E+00	1.78E-02
		Cs-137	<1.87E-02	0.00E+00	1.87E-02

CATAWBA Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 258 [CONTROL - W @ 9.84 miles]

Sample ID	Sample Dates	Nuclide	Activity	2 Sigma Error	MDA
567138	5/24/2022 - 6/1/2022	Be-7	<1.14E-01	0.00E+00	1.14E-01
		K-40	<4.44E-01	0.00E+00	4.44E-01
567575	6/1/2022 - 6/7/2022	I-131	<2.31E-02	0.00E+00	2.31E-02
		Cs-134	<2.62E-02	0.00E+00	2.62E-02
		Cs-137	<1.39E-02	0.00E+00	1.39E-02
		Be-7	<1.86E-01	0.00E+00	1.86E-01
		K-40	8.14E-01	3.44E-01	3.22E-01
567744	6/7/2022 - 6/14/2022	I-131	<2.81E-02	0.00E+00	2.81E-02
		Cs-134	<2.90E-02	0.00E+00	2.90E-02
		Cs-137	<2.35E-02	0.00E+00	2.35E-02
		Be-7	<1.66E-01	0.00E+00	1.66E-01
		K-40	<3.54E-01	0.00E+00	3.54E-01
568380	6/14/2022 - 6/21/2022	I-131	<2.27E-02	0.00E+00	2.27E-02
		Cs-134	<2.25E-02	0.00E+00	2.25E-02
		Cs-137	<2.42E-02	0.00E+00	2.42E-02
		Be-7	<1.68E-01	0.00E+00	1.68E-01
		K-40	4.48E-01	2.26E-01	2.04E-01
568619	6/21/2022 - 6/28/2022	I-131	<2.76E-02	0.00E+00	2.76E-02
		Cs-134	<3.10E-02	0.00E+00	3.10E-02
		Cs-137	<2.27E-02	0.00E+00	2.27E-02
		Be-7	<1.78E-01	0.00E+00	1.78E-01
		K-40	4.56E-01	2.32E-01	2.12E-01
568834	6/28/2022 - 7/6/2022	I-131	<2.41E-02	0.00E+00	2.41E-02
		Cs-134	<1.50E-02	0.00E+00	1.50E-02
		Cs-137	<1.30E-02	0.00E+00	1.30E-02
		Be-7	<1.23E-01	0.00E+00	1.23E-01
		K-40	4.78E-01	2.20E-01	1.89E-01
569072	7/6/2022 - 7/12/2022	I-131	<2.11E-02	0.00E+00	2.11E-02
		Cs-134	<2.65E-02	0.00E+00	2.65E-02
		Cs-137	<2.50E-02	0.00E+00	2.50E-02
		Be-7	<1.52E-01	0.00E+00	1.52E-01
		K-40	4.07E-01	2.97E-01	4.09E-01
570293	7/12/2022 - 7/19/2022	I-131	<1.93E-02	0.00E+00	1.93E-02
		Cs-134	<1.75E-02	0.00E+00	1.75E-02
		Cs-137	<2.30E-02	0.00E+00	2.30E-02
		Be-7	<1.16E-01	0.00E+00	1.16E-01
		K-40	4.15E-01	2.44E-01	2.87E-01
570857	7/19/2022 - 7/26/2022	I-131	<2.67E-02	0.00E+00	2.67E-02
		Cs-134	<2.47E-02	0.00E+00	2.47E-02
		Cs-137	<1.75E-02	0.00E+00	1.75E-02
		Be-7	<1.16E-01	0.00E+00	1.16E-01
		K-40	<5.06E-01	0.00E+00	5.06E-01
571105	7/26/2022 - 8/2/2022	I-131	<2.39E-02	0.00E+00	2.39E-02
		Cs-134	<1.74E-02	0.00E+00	1.74E-02
		Cs-137	<2.43E-02	0.00E+00	2.43E-02
		Be-7	<1.50E-01	0.00E+00	1.50E-01
		K-40	6.55E-01	2.77E-01	2.39E-01

CATAWBA Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 258 [CONTROL - W @ 9.84 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
571425	8/2/2022 - 8/9/2022	I-131	<1.96E-02	0.00E+00	1.96E-02
		Cs-134	<2.28E-02	0.00E+00	2.28E-02
		Cs-137	<2.15E-02	0.00E+00	2.15E-02
		Be-7	<1.81E-01	0.00E+00	1.81E-01
		K-40	4.66E-01	2.17E-01	6.65E-02
571702	8/9/2022 - 8/16/2022	I-131	<2.36E-02	0.00E+00	2.36E-02
		Cs-134	<3.01E-02	0.00E+00	3.01E-02
		Cs-137	<2.19E-02	0.00E+00	2.19E-02
		Be-7	<1.79E-01	0.00E+00	1.79E-01
		K-40	<4.27E-01	0.00E+00	4.27E-01
572717	8/16/2022 - 8/23/2022	I-131	<1.87E-02	0.00E+00	1.87E-02
		Cs-134	<2.64E-02	0.00E+00	2.64E-02
		Cs-137	<2.12E-02	0.00E+00	2.12E-02
		Be-7	<1.39E-01	0.00E+00	1.39E-01
		K-40	<5.65E-01	0.00E+00	5.65E-01
573915	8/23/2022 - 8/30/2022	I-131	<2.90E-02	0.00E+00	2.90E-02
		Cs-134	<2.17E-02	0.00E+00	2.17E-02
		Cs-137	<1.67E-02	0.00E+00	1.67E-02
		Be-7	<1.35E-01	0.00E+00	1.35E-01
		K-40	3.76E-01	1.90E-01	6.36E-02
574536	8/30/2022 - 9/7/2022	I-131	<2.84E-02	0.00E+00	2.84E-02
		Cs-134	<2.93E-02	0.00E+00	2.93E-02
		Cs-137	<2.18E-02	0.00E+00	2.18E-02
		Be-7	<1.45E-01	0.00E+00	1.45E-01
		K-40	5.28E-01	2.38E-01	2.15E-01
575006	9/7/2022 - 9/13/2022	I-131	<2.72E-02	0.00E+00	2.72E-02
		Cs-134	<3.51E-02	0.00E+00	3.51E-02
		Cs-137	<2.29E-02	0.00E+00	2.29E-02
		Be-7	<1.76E-01	0.00E+00	1.76E-01
		K-40	5.25E-01	2.81E-01	2.90E-01
575692	9/13/2022 - 9/20/2022	I-131	<3.06E-02	0.00E+00	3.06E-02
		Cs-134	<3.16E-02	0.00E+00	3.16E-02
		Cs-137	<2.14E-02	0.00E+00	2.14E-02
		Be-7	<1.42E-01	0.00E+00	1.42E-01
		K-40	5.43E-01	2.89E-01	3.43E-01
576091	9/20/2022 - 9/27/2022	I-131	<2.41E-02	0.00E+00	2.41E-02
		Cs-134	<2.26E-02	0.00E+00	2.26E-02
		Cs-137	<1.75E-02	0.00E+00	1.75E-02
		Be-7	<2.89E-02	0.00E+00	2.89E-02
		K-40	4.47E-01	2.83E-01	3.78E-01
576263	9/27/2022 - 10/4/2022	I-131	<2.74E-02	0.00E+00	2.74E-02
		Cs-134	<1.36E-02	0.00E+00	1.36E-02
		Cs-137	<2.10E-02	0.00E+00	2.10E-02
		Be-7	<1.71E-01	0.00E+00	1.71E-01
		K-40	<4.23E-01	0.00E+00	4.23E-01
576543	10/4/2022 - 10/11/2022	I-131	<2.43E-02	0.00E+00	2.43E-02
		Cs-134	<2.16E-02	0.00E+00	2.16E-02
		Cs-137	<1.67E-02	0.00E+00	1.67E-02

CATAWBA Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 258 [CONTROL - W @ 9.84 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
576543	10/4/2022 - 10/11/2022	Be-7	<1.70E-01	0.00E+00	1.70E-01
		K-40	3.43E-01	2.00E-01	2.02E-01
577168	10/11/2022 - 10/18/2022	I-131	<2.57E-02	0.00E+00	2.57E-02
		Cs-134	<2.46E-02	0.00E+00	2.46E-02
		Cs-137	<2.29E-02	0.00E+00	2.29E-02
		Be-7	<1.61E-01	0.00E+00	1.61E-01
		K-40	<5.60E-01	0.00E+00	5.60E-01
577765	10/18/2022 - 10/25/2022	I-131	<2.43E-02	0.00E+00	2.43E-02
		Cs-134	<2.55E-02	0.00E+00	2.55E-02
		Cs-137	<2.48E-02	0.00E+00	2.48E-02
		Be-7	<1.48E-01	0.00E+00	1.48E-01
		K-40	4.71E-01	2.78E-01	3.55E-01
578119	10/25/2022 - 11/1/2022	I-131	<2.83E-02	0.00E+00	2.83E-02
		Cs-134	<2.63E-02	0.00E+00	2.63E-02
		Cs-137	<2.42E-02	0.00E+00	2.42E-02
		Be-7	<1.50E-01	0.00E+00	1.50E-01
		K-40	<5.72E-01	0.00E+00	5.72E-01
578829	11/1/2022 - 11/8/2022	I-131	<3.09E-02	0.00E+00	3.09E-02
		Cs-134	<2.55E-02	0.00E+00	2.55E-02
		Cs-137	<2.20E-02	0.00E+00	2.20E-02
		Be-7	<1.35E-01	0.00E+00	1.35E-01
		K-40	<3.31E-01	0.00E+00	3.31E-01
579030	11/8/2022 - 11/15/2022	I-131	<2.46E-02	0.00E+00	2.46E-02
		Cs-134	<2.72E-02	0.00E+00	2.72E-02
		Cs-137	<3.34E-02	0.00E+00	3.34E-02
		Be-7	<1.54E-01	0.00E+00	1.54E-01
		K-40	<5.17E-01	0.00E+00	5.17E-01
579789	11/15/2022 - 11/22/2022	I-131	<2.43E-02	0.00E+00	2.43E-02
		Cs-134	<2.17E-02	0.00E+00	2.17E-02
		Cs-137	<1.87E-02	0.00E+00	1.87E-02
		Be-7	<9.54E-02	0.00E+00	9.54E-02
		K-40	<4.73E-01	0.00E+00	4.73E-01
580603	11/22/2022 - 11/29/2022	I-131	<3.77E-02	0.00E+00	3.77E-02
		Cs-134	<2.66E-02	0.00E+00	2.66E-02
		Cs-137	<3.02E-02	0.00E+00	3.02E-02
		Be-7	<2.37E-01	0.00E+00	2.37E-01
		K-40	<5.06E-01	0.00E+00	5.06E-01
580810	11/29/2022 - 12/6/2022	I-131	<2.26E-02	0.00E+00	2.26E-02
		Cs-134	<2.61E-02	0.00E+00	2.61E-02
		Cs-137	<2.06E-02	0.00E+00	2.06E-02
		Be-7	<1.57E-01	0.00E+00	1.57E-01
		K-40	3.57E-01	2.39E-01	3.03E-01
581135	12/6/2022 - 12/13/2022	I-131	<2.48E-02	0.00E+00	2.48E-02
		Cs-134	<1.96E-02	0.00E+00	1.96E-02
		Cs-137	<2.22E-02	0.00E+00	2.22E-02
		Be-7	<1.65E-01	0.00E+00	1.65E-01
		K-40	<5.31E-01	0.00E+00	5.31E-01

CATAWBA Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 258 [CONTROL - W @ 9.84 miles]

Sample ID:	581702	Sample Dates:	12/13/2022 - 12/20/2022	Nuclide	Activity	2 Sigma Error	MDA
				I-131	<2.25E-02	0.00E+00	2.25E-02
				Cs-134	<2.45E-02	0.00E+00	2.45E-02
				Cs-137	<2.27E-02	0.00E+00	2.27E-02
				Be-7	<1.59E-01	0.00E+00	1.59E-01
				K-40	4.45E-01	2.27E-01	2.11E-01

Sample ID:	582238	Sample Dates:	12/20/2022 - 12/28/2022	Nuclide	Activity	2 Sigma Error	MDA
				I-131	<2.85E-02	0.00E+00	2.85E-02
				Cs-134	<2.41E-02	0.00E+00	2.41E-02
				Cs-137	<2.08E-02	0.00E+00	2.08E-02
				Be-7	<1.12E-01	0.00E+00	1.12E-01
				K-40	<3.93E-01	0.00E+00	3.93E-01

Sample ID:	582425	Sample Dates:	12/28/2022 - 1/4/2023	Nuclide	Activity	2 Sigma Error	MDA
				I-131	<1.98E-02	0.00E+00	1.98E-02
				Cs-134	<2.53E-02	0.00E+00	2.53E-02
				Cs-137	<2.33E-02	0.00E+00	2.33E-02
				Be-7	<7.53E-02	0.00E+00	7.53E-02
				K-40	3.00E-01	1.86E-01	1.90E-01

Sample Point 261 [INDICATOR - N @ 0.72 miles]

Sample ID:	558950	Sample Dates:	1/5/2022 - 1/11/2022	Nuclide	Activity	2 Sigma Error	MDA
				I-131	<2.32E-02	0.00E+00	2.32E-02
				Cs-134	<3.12E-02	0.00E+00	3.12E-02
				Cs-137	<2.51E-02	0.00E+00	2.51E-02
				Be-7	<1.77E-01	0.00E+00	1.77E-01
				K-40	<6.74E-01	0.00E+00	6.74E-01

Sample ID:	559028	Sample Dates:	1/11/2022 - 1/19/2022	Nuclide	Activity	2 Sigma Error	MDA
				I-131	<1.71E-02	0.00E+00	1.71E-02
				Cs-134	<2.15E-02	0.00E+00	2.15E-02
				Cs-137	<2.24E-02	0.00E+00	2.24E-02
				Be-7	<1.12E-01	0.00E+00	1.12E-01
				K-40	3.08E-01	1.80E-01	1.83E-01

Sample ID:	559346	Sample Dates:	1/19/2022 - 1/25/2022	Nuclide	Activity	2 Sigma Error	MDA
				I-131	<2.35E-02	0.00E+00	2.35E-02
				Cs-134	<2.98E-02	0.00E+00	2.98E-02
				Cs-137	<2.73E-02	0.00E+00	2.73E-02
				Be-7	<1.12E-01	0.00E+00	1.12E-01
				K-40	<4.37E-01	0.00E+00	4.37E-01

Sample ID:	560050	Sample Dates:	1/25/2022 - 2/1/2022	Nuclide	Activity	2 Sigma Error	MDA
				I-131	<2.27E-02	0.00E+00	2.27E-02
				Cs-134	<2.46E-02	0.00E+00	2.46E-02
				Cs-137	<1.74E-02	0.00E+00	1.74E-02
				Be-7	<9.84E-02	0.00E+00	9.84E-02
				K-40	<4.52E-01	0.00E+00	4.52E-01

Sample ID:	560267	Sample Dates:	2/1/2022 - 2/8/2022	Nuclide	Activity	2 Sigma Error	MDA
				I-131	<2.57E-02	0.00E+00	2.57E-02
				Cs-134	<2.90E-02	0.00E+00	2.90E-02
				Cs-137	<2.88E-02	0.00E+00	2.88E-02
				Be-7	<2.39E-01	0.00E+00	2.39E-01
				K-40	3.61E-01	2.58E-01	3.47E-01

Sample ID:	560511	Sample Dates:	2/8/2022 - 2/15/2022	Nuclide	Activity	2 Sigma Error	MDA
				I-131	<1.81E-02	0.00E+00	1.81E-02
				Cs-134	<2.09E-02	0.00E+00	2.09E-02
				Cs-137	<2.02E-02	0.00E+00	2.02E-02
				Be-7	<1.45E-01	0.00E+00	1.45E-01
				K-40	<3.55E-01	0.00E+00	3.55E-01

Sample ID:	560816	Sample Dates:	2/15/2022 - 2/22/2022	Nuclide	Activity	2 Sigma Error	MDA
				I-131	<1.59E-02	0.00E+00	1.59E-02

CATAWBA Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 261 [INDICATOR - N @ 0.72 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
560816	2/15/2022 - 2/22/2022	Cs-134	<2.50E-02	0.00E+00	2.50E-02
		Cs-137	<2.47E-02	0.00E+00	2.47E-02
		Be-7	<1.97E-01	0.00E+00	1.97E-01
		K-40	6.20E-01	2.53E-01	6.72E-02
561152	2/22/2022 - 3/1/2022	I-131	<1.91E-02	0.00E+00	1.91E-02
		Cs-134	<2.82E-02	0.00E+00	2.82E-02
		Cs-137	<1.75E-02	0.00E+00	1.75E-02
		Be-7	<2.35E-01	0.00E+00	2.35E-01
		K-40	<5.59E-01	0.00E+00	5.59E-01
561652	3/1/2022 - 3/8/2022	I-131	<2.40E-02	0.00E+00	2.40E-02
		Cs-134	<2.84E-02	0.00E+00	2.84E-02
		Cs-137	<1.52E-02	0.00E+00	1.52E-02
		Be-7	<1.51E-01	0.00E+00	1.51E-01
		K-40	<5.45E-01	0.00E+00	5.45E-01
562253	3/8/2022 - 3/15/2022	I-131	<2.65E-02	0.00E+00	2.65E-02
		Cs-134	<2.29E-02	0.00E+00	2.29E-02
		Cs-137	<3.06E-02	0.00E+00	3.06E-02
		Be-7	<1.75E-01	0.00E+00	1.75E-01
		K-40	6.49E-01	3.22E-01	3.77E-01
562847	3/15/2022 - 3/22/2022	I-131	<1.53E-02	0.00E+00	1.53E-02
		Cs-134	<2.18E-02	0.00E+00	2.18E-02
		Cs-137	<2.05E-02	0.00E+00	2.05E-02
		Be-7	<1.36E-01	0.00E+00	1.36E-01
		K-40	3.91E-01	2.15E-01	2.15E-01
563446	3/22/2022 - 3/29/2022	I-131	<2.44E-02	0.00E+00	2.44E-02
		Cs-134	<2.30E-02	0.00E+00	2.30E-02
		Cs-137	<1.77E-02	0.00E+00	1.77E-02
		Be-7	<1.72E-01	0.00E+00	1.72E-01
		K-40	5.70E-01	2.42E-01	6.72E-02
563780	3/29/2022 - 4/5/2022	I-131	<2.55E-02	0.00E+00	2.55E-02
		Cs-134	<3.14E-02	0.00E+00	3.14E-02
		Cs-137	<2.30E-02	0.00E+00	2.30E-02
		Be-7	<1.29E-01	0.00E+00	1.29E-01
		K-40	3.17E-01	2.26E-01	2.96E-01
564008	4/5/2022 - 4/12/2022	I-131	<2.58E-02	0.00E+00	2.58E-02
		Cs-134	<2.52E-02	0.00E+00	2.52E-02
		Cs-137	<2.32E-02	0.00E+00	2.32E-02
		Be-7	<1.50E-01	0.00E+00	1.50E-01
		K-40	6.89E-01	2.71E-01	6.92E-02
564544	4/12/2022 - 4/19/2022	I-131	<2.45E-02	0.00E+00	2.45E-02
		Cs-134	<2.94E-02	0.00E+00	2.94E-02
		Cs-137	<1.73E-02	0.00E+00	1.73E-02
		Be-7	<1.51E-01	0.00E+00	1.51E-01
		K-40	5.73E-01	2.58E-01	2.18E-01
564812	4/19/2022 - 4/26/2022	I-131	<1.36E-02	0.00E+00	1.36E-02
		Cs-134	<3.19E-02	0.00E+00	3.19E-02
		Cs-137	<1.78E-02	0.00E+00	1.78E-02
		Be-7	<1.97E-01	0.00E+00	1.97E-01

CATAWBA Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3
 Sample Point 261 [INDICATOR - N @ 0.72 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
564812	4/19/2022 - 4/26/2022	K-40	<4.85E-01	0.00E+00	4.85E-01
565304	4/26/2022 - 5/3/2022	I-131	<2.20E-02	0.00E+00	2.20E-02
		Cs-134	<2.03E-02	0.00E+00	2.03E-02
		Cs-137	<1.95E-02	0.00E+00	1.95E-02
		Be-7	<1.61E-01	0.00E+00	1.61E-01
		K-40	3.90E-01	2.39E-01	2.89E-01
565969	5/3/2022 - 5/10/2022	I-131	<3.21E-02	0.00E+00	3.21E-02
		Cs-134	<2.08E-02	0.00E+00	2.08E-02
		Cs-137	<1.77E-02	0.00E+00	1.77E-02
		Be-7	<1.86E-01	0.00E+00	1.86E-01
		K-40	4.61E-01	2.20E-01	6.94E-02
566554	5/10/2022 - 5/17/2022	I-131	<2.77E-02	0.00E+00	2.77E-02
		Cs-134	<2.70E-02	0.00E+00	2.70E-02
		Cs-137	<2.31E-02	0.00E+00	2.31E-02
		Be-7	<1.39E-01	0.00E+00	1.39E-01
		K-40	5.34E-01	2.37E-01	6.89E-02
566948	5/17/2022 - 5/24/2022	I-131	<3.26E-02	0.00E+00	3.26E-02
		Cs-134	<2.32E-02	0.00E+00	2.32E-02
		Cs-137	<2.99E-02	0.00E+00	2.99E-02
		Be-7	<1.71E-01	0.00E+00	1.71E-01
		K-40	3.48E-01	2.56E-01	3.50E-01
567139	5/24/2022 - 6/1/2022	I-131	<2.16E-02	0.00E+00	2.16E-02
		Cs-134	<2.21E-02	0.00E+00	2.21E-02
		Cs-137	<1.55E-02	0.00E+00	1.55E-02
		Be-7	<1.41E-01	0.00E+00	1.41E-01
		K-40	<5.15E-01	0.00E+00	5.15E-01
567576	6/1/2022 - 6/7/2022	I-131	<1.68E-02	0.00E+00	1.68E-02
		Cs-134	<2.73E-02	0.00E+00	2.73E-02
		Cs-137	<2.16E-02	0.00E+00	2.16E-02
		Be-7	<1.42E-01	0.00E+00	1.42E-01
		K-40	3.27E-01	2.52E-01	3.47E-01
567745	6/7/2022 - 6/14/2022	I-131	<2.58E-02	0.00E+00	2.58E-02
		Cs-134	<1.97E-02	0.00E+00	1.97E-02
		Cs-137	<1.47E-02	0.00E+00	1.47E-02
		Be-7	<1.68E-01	0.00E+00	1.68E-01
		K-40	<4.78E-01	0.00E+00	4.78E-01
568381	6/14/2022 - 6/21/2022	I-131	<2.11E-02	0.00E+00	2.11E-02
		Cs-134	<3.01E-02	0.00E+00	3.01E-02
		Cs-137	<2.59E-02	0.00E+00	2.59E-02
		Be-7	<1.35E-01	0.00E+00	1.35E-01
		K-40	<5.00E-01	0.00E+00	5.00E-01
568620	6/21/2022 - 6/28/2022	I-131	<2.78E-02	0.00E+00	2.78E-02
		Cs-134	<2.53E-02	0.00E+00	2.53E-02
		Cs-137	<2.16E-02	0.00E+00	2.16E-02
		Be-7	<1.86E-01	0.00E+00	1.86E-01
		K-40	4.98E-01	2.53E-01	2.44E-01

CATAWBA Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 261 [INDICATOR - N @ 0.72 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
568835	6/28/2022 - 7/6/2022	I-131	<2.01E-02	0.00E+00	2.01E-02
		Cs-134	<1.46E-02	0.00E+00	1.46E-02
		Cs-137	<1.78E-02	0.00E+00	1.78E-02
		Be-7	<1.63E-01	0.00E+00	1.63E-01
		K-40	<5.42E-01	0.00E+00	5.42E-01
569073	7/6/2022 - 7/12/2022	I-131	<3.30E-02	0.00E+00	3.30E-02
		Cs-134	<4.37E-02	0.00E+00	4.37E-02
		Cs-137	<3.20E-02	0.00E+00	3.20E-02
		Be-7	<1.97E-01	0.00E+00	1.97E-01
		K-40	5.40E-01	3.36E-01	4.36E-01
570294	7/12/2022 - 7/19/2022	I-131	<3.21E-02	0.00E+00	3.21E-02
		Cs-134	<2.89E-02	0.00E+00	2.89E-02
		Cs-137	<2.74E-02	0.00E+00	2.74E-02
		Be-7	<2.08E-01	0.00E+00	2.08E-01
		K-40	4.25E-01	2.33E-01	2.30E-01
570858	7/19/2022 - 7/26/2022	I-131	<2.37E-02	0.00E+00	2.37E-02
		Cs-134	<1.95E-02	0.00E+00	1.95E-02
		Cs-137	<1.68E-02	0.00E+00	1.68E-02
		Be-7	<1.46E-01	0.00E+00	1.46E-01
		K-40	6.11E-01	2.44E-01	6.37E-02
571106	7/26/2022 - 8/2/2022	I-131	<2.74E-02	0.00E+00	2.74E-02
		Cs-134	<2.88E-02	0.00E+00	2.88E-02
		Cs-137	<2.46E-02	0.00E+00	2.46E-02
		Be-7	<1.70E-01	0.00E+00	1.70E-01
		K-40	<5.12E-01	0.00E+00	5.12E-01
571426	8/2/2022 - 8/9/2022	I-131	<2.69E-02	0.00E+00	2.69E-02
		Cs-134	<1.96E-02	0.00E+00	1.96E-02
		Cs-137	<2.05E-02	0.00E+00	2.05E-02
		Be-7	<1.46E-01	0.00E+00	1.46E-01
		K-40	3.03E-01	2.22E-01	2.97E-01
571703	8/9/2022 - 8/16/2022	I-131	<1.94E-02	0.00E+00	1.94E-02
		Cs-134	<2.30E-02	0.00E+00	2.30E-02
		Cs-137	<2.16E-02	0.00E+00	2.16E-02
		Be-7	<1.17E-01	0.00E+00	1.17E-01
		K-40	5.47E-01	2.38E-01	6.74E-02
572718	8/16/2022 - 8/23/2022	I-131	<2.44E-02	0.00E+00	2.44E-02
		Cs-134	<2.51E-02	0.00E+00	2.51E-02
		Cs-137	<2.87E-02	0.00E+00	2.87E-02
		Be-7	<1.72E-01	0.00E+00	1.72E-01
		K-40	6.92E-01	3.18E-01	3.50E-01
573916	8/23/2022 - 8/30/2022	I-131	<2.44E-02	0.00E+00	2.44E-02
		Cs-134	<1.77E-02	0.00E+00	1.77E-02
		Cs-137	<1.77E-02	0.00E+00	1.77E-02
		Be-7	<1.42E-01	0.00E+00	1.42E-01
		K-40	<4.67E-01	0.00E+00	4.67E-01
574537	8/30/2022 - 9/7/2022	I-131	<2.38E-02	0.00E+00	2.38E-02
		Cs-134	<2.20E-02	0.00E+00	2.20E-02
		Cs-137	<2.38E-02	0.00E+00	2.38E-02

CATAWBA Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3
 Sample Point 261 [INDICATOR - N @ 0.72 miles]

Sample ID	Sample Dates	Nuclide	Activity	2 Sigma Error	MDA
574537	8/30/2022 - 9/7/2022	Be-7	<1.76E-01	0.00E+00	1.76E-01
		K-40	4.52E-01	2.49E-01	2.97E-01
575007	9/7/2022 - 9/13/2022	I-131	<2.78E-02	0.00E+00	2.78E-02
		Cs-134	<2.04E-02	0.00E+00	2.04E-02
		Cs-137	<2.49E-02	0.00E+00	2.49E-02
		Be-7	<1.85E-01	0.00E+00	1.85E-01
		K-40	4.32E-01	2.53E-01	2.72E-01
575693	9/13/2022 - 9/20/2022	I-131	<2.26E-02	0.00E+00	2.26E-02
		Cs-134	<2.19E-02	0.00E+00	2.19E-02
		Cs-137	<2.06E-02	0.00E+00	2.06E-02
		Be-7	<1.73E-01	0.00E+00	1.73E-01
		K-40	2.70E-01	2.05E-01	2.74E-01
576092	9/20/2022 - 9/27/2022	I-131	<2.64E-02	0.00E+00	2.64E-02
		Cs-134	<1.48E-02	0.00E+00	1.48E-02
		Cs-137	<2.89E-02	0.00E+00	2.89E-02
		Be-7	<1.21E-01	0.00E+00	1.21E-01
		K-40	3.26E-01	2.07E-01	2.23E-01
576264	9/27/2022 - 10/4/2022	I-131	<2.11E-02	0.00E+00	2.11E-02
		Cs-134	<2.15E-02	0.00E+00	2.15E-02
		Cs-137	<2.18E-02	0.00E+00	2.18E-02
		Be-7	<1.45E-01	0.00E+00	1.45E-01
		K-40	<5.11E-01	0.00E+00	5.11E-01
576544	10/4/2022 - 10/11/2022	I-131	<3.11E-02	0.00E+00	3.11E-02
		Cs-134	<2.50E-02	0.00E+00	2.50E-02
		Cs-137	<2.61E-02	0.00E+00	2.61E-02
		Be-7	<1.52E-01	0.00E+00	1.52E-01
		K-40	3.88E-01	2.18E-01	2.15E-01
577169	10/11/2022 - 10/18/2022	I-131	<2.35E-02	0.00E+00	2.35E-02
		Cs-134	<2.16E-02	0.00E+00	2.16E-02
		Cs-137	<2.04E-02	0.00E+00	2.04E-02
		Be-7	<1.35E-01	0.00E+00	1.35E-01
		K-40	2.96E-01	2.19E-01	2.94E-01
577766	10/18/2022 - 10/25/2022	I-131	<2.07E-02	0.00E+00	2.07E-02
		Cs-134	<1.91E-02	0.00E+00	1.91E-02
		Cs-137	<1.12E-02	0.00E+00	1.12E-02
		Be-7	<1.10E-01	0.00E+00	1.10E-01
		K-40	4.76E-01	2.54E-01	2.91E-01
578120	10/25/2022 - 11/1/2022	I-131	<2.50E-02	0.00E+00	2.50E-02
		Cs-134	<2.76E-02	0.00E+00	2.76E-02
		Cs-137	<2.53E-02	0.00E+00	2.53E-02
		Be-7	<1.45E-01	0.00E+00	1.45E-01
		K-40	5.08E-01	2.31E-01	6.88E-02
578830	11/1/2022 - 11/8/2022	I-131	<2.43E-02	0.00E+00	2.43E-02
		Cs-134	<2.63E-02	0.00E+00	2.63E-02
		Cs-137	<1.74E-02	0.00E+00	1.74E-02
		Be-7	<1.29E-01	0.00E+00	1.29E-01
		K-40	4.45E-01	2.75E-01	3.56E-01

CATAWBA Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 261 [INDICATOR - N @ 0.72 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
579031	11/8/2022 - 11/15/2022	I-131	<3.76E-02	0.00E+00	3.76E-02
		Cs-134	<3.52E-02	0.00E+00	3.52E-02
		Cs-137	<2.08E-02	0.00E+00	2.08E-02
		Be-7	<2.26E-01	0.00E+00	2.26E-01
		K-40	<5.86E-01	0.00E+00	5.86E-01
579790	11/15/2022 - 11/22/2022	I-131	<3.03E-02	0.00E+00	3.03E-02
		Cs-134	<2.70E-02	0.00E+00	2.70E-02
		Cs-137	<2.48E-02	0.00E+00	2.48E-02
		Be-7	<1.63E-01	0.00E+00	1.63E-01
		K-40	<3.95E-01	0.00E+00	3.95E-01
580604	11/22/2022 - 11/29/2022	I-131	<2.51E-02	0.00E+00	2.51E-02
		Cs-134	<1.75E-02	0.00E+00	1.75E-02
		Cs-137	<2.13E-02	0.00E+00	2.13E-02
		Be-7	<1.52E-01	0.00E+00	1.52E-01
		K-40	<4.54E-01	0.00E+00	4.54E-01
580811	11/29/2022 - 12/6/2022	I-131	<2.66E-02	0.00E+00	2.66E-02
		Cs-134	<3.17E-02	0.00E+00	3.17E-02
		Cs-137	<2.31E-02	0.00E+00	2.31E-02
		Be-7	<1.42E-01	0.00E+00	1.42E-01
		K-40	5.57E-01	2.80E-01	3.08E-01
581136	12/6/2022 - 12/13/2022	I-131	<2.43E-02	0.00E+00	2.43E-02
		Cs-134	<2.96E-02	0.00E+00	2.96E-02
		Cs-137	<2.56E-02	0.00E+00	2.56E-02
		Be-7	<1.87E-01	0.00E+00	1.87E-01
		K-40	5.27E-01	2.49E-01	2.18E-01
581703	12/13/2022 - 12/20/2022	I-131	<1.60E-02	0.00E+00	1.60E-02
		Cs-134	<2.15E-02	0.00E+00	2.15E-02
		Cs-137	<2.59E-02	0.00E+00	2.59E-02
		Be-7	<1.47E-01	0.00E+00	1.47E-01
		K-40	<3.36E-01	0.00E+00	3.36E-01
582239	12/20/2022 - 12/28/2022	I-131	<2.80E-02	0.00E+00	2.80E-02
		Cs-134	<1.51E-02	0.00E+00	1.51E-02
		Cs-137	<1.51E-02	0.00E+00	1.51E-02
		Be-7	<8.82E-02	0.00E+00	8.82E-02
		K-40	3.75E-01	2.21E-01	2.66E-01
582426	12/28/2022 - 1/4/2023	I-131	<2.55E-02	0.00E+00	2.55E-02
		Cs-134	<2.69E-02	0.00E+00	2.69E-02
		Cs-137	<2.32E-02	0.00E+00	2.32E-02
		Be-7	<1.42E-01	0.00E+00	1.42E-01
		K-40	3.71E-01	1.94E-01	6.70E-02

Media Type: CROPS Concentration (Activity): pCi/kg

Sample Point 260 [INDICATOR - SSE @ 2 miles]

Sample ID:	Sample Dates:	MIXEDCROPS	Nuclide	Activity	2 Sigma Error	MDA
558323	1/5/2022 - 1/5/2022		Co-58	<1.08E+01	0.00E+00	1.08E+01
			Fe-59	<2.40E+01	0.00E+00	2.40E+01
			Co-60	<1.33E+01	0.00E+00	1.33E+01
			Zn-65	<2.46E+01	0.00E+00	2.46E+01
			Zr-95	<1.94E+01	0.00E+00	1.94E+01
			Nb-95	<1.08E+01	0.00E+00	1.08E+01

CATAWBA Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: CROPS Concentration (Activity): pCi/kg

Sample Point 260 [INDICATOR - SSE @ 2 miles]

Sample ID:	Sample Dates:	MIXEDCROPS	Nuclide	Activity	2 Sigma Error	MDA
558323	1/5/2022 - 1/5/2022	MIXEDCROPS	I-131	<1.20E+01	0.00E+00	1.20E+01
			Cs-134	<1.06E+01	0.00E+00	1.06E+01
			Cs-137	<1.09E+01	0.00E+00	1.09E+01
			BaLa-140	<1.43E+01	0.00E+00	1.43E+01
			Be-7	5.09E+02	1.10E+02	1.16E+02
			K-40	3.60E+03	4.18E+02	1.32E+02
559354	2/1/2022 - 2/1/2022	MIXEDCROPS	Co-58	<1.08E+01	0.00E+00	1.08E+01
			Fe-59	<2.19E+01	0.00E+00	2.19E+01
			Co-60	<1.26E+01	0.00E+00	1.26E+01
			Zn-65	<2.73E+01	0.00E+00	2.73E+01
			Zr-95	<2.29E+01	0.00E+00	2.29E+01
			Nb-95	<1.15E+01	0.00E+00	1.15E+01
			I-131	<1.70E+01	0.00E+00	1.70E+01
			Cs-134	<1.20E+01	0.00E+00	1.20E+01
			Cs-137	<1.06E+01	0.00E+00	1.06E+01
			BaLa-140	<1.36E+01	0.00E+00	1.36E+01
			Be-7	1.32E+02	8.56E+01	1.31E+02
			K-40	3.06E+03	3.87E+02	1.66E+02
			560717	3/1/2022 - 3/1/2022	MIXEDCROPS	Co-58
Fe-59	<3.44E+01	0.00E+00				3.44E+01
Co-60	<1.30E+01	0.00E+00				1.30E+01
Zn-65	<3.15E+01	0.00E+00				3.15E+01
Zr-95	<3.00E+01	0.00E+00				3.00E+01
Nb-95	<1.83E+01	0.00E+00				1.83E+01
I-131	<1.73E+01	0.00E+00				1.73E+01
Cs-134	<2.01E+01	0.00E+00				2.01E+01
Cs-137	<1.82E+01	0.00E+00				1.82E+01
BaLa-140	<2.10E+01	0.00E+00				2.10E+01
Be-7	1.79E+02	1.38E+02				2.17E+02
K-40	2.69E+03	4.43E+02				3.29E+02
568164	6/7/2022 - 6/7/2022	MIXEDCROPS				Mn-54
			Co-58	<8.51E+00	0.00E+00	8.51E+00
			Fe-59	<1.98E+01	0.00E+00	1.98E+01
			Co-60	<1.03E+01	0.00E+00	1.03E+01
			Zn-65	<1.68E+01	0.00E+00	1.68E+01
			Zr-95	<1.29E+01	0.00E+00	1.29E+01
			Nb-95	<9.02E+00	0.00E+00	9.02E+00
			I-131	<8.75E+00	0.00E+00	8.75E+00
			Cs-134	<8.60E+00	0.00E+00	8.60E+00
			Cs-137	<8.12E+00	0.00E+00	8.12E+00
			BaLa-140	<7.93E+00	0.00E+00	7.93E+00
			Be-7	<6.92E+01	0.00E+00	6.92E+01
			K-40	2.18E+03	2.87E+02	1.48E+02
570149	7/6/2022 - 7/6/2022	MIXEDCROPS	Mn-54	<9.61E+00	0.00E+00	9.61E+00
			Co-58	<9.17E+00	0.00E+00	9.17E+00
			Fe-59	<1.78E+01	0.00E+00	1.78E+01
			Co-60	<8.55E+00	0.00E+00	8.55E+00
			Zn-65	<2.16E+01	0.00E+00	2.16E+01
			Zr-95	<1.49E+01	0.00E+00	1.49E+01
			Nb-95	<8.65E+00	0.00E+00	8.65E+00
			I-131	<7.43E+00	0.00E+00	7.43E+00
			Cs-134	<9.33E+00	0.00E+00	9.33E+00
			Cs-137	<8.62E+00	0.00E+00	8.62E+00
			BaLa-140	<1.15E+01	0.00E+00	1.15E+01
			Be-7	<7.56E+01	0.00E+00	7.56E+01
			K-40	2.58E+03	3.29E+02	1.47E+02

CATAWBA Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: CROPS Concentration (Activity): pCi/kg
 Sample Point 260 [INDICATOR - SSE @ 2 miles]

Sample ID:	Sample Dates:	MIXEDCROPS	Nuclide	Activity	2 Sigma Error	MDA
571625	8/2/2022 - 8/2/2022	MIXEDCROPS	Mn-54	<7.06E+00	0.00E+00	7.06E+00
			Co-58	<7.98E+00	0.00E+00	7.98E+00
			Fe-59	<1.50E+01	0.00E+00	1.50E+01
			Co-60	<7.82E+00	0.00E+00	7.82E+00
			Zn-65	<2.04E+01	0.00E+00	2.04E+01
			Zr-95	<1.35E+01	0.00E+00	1.35E+01
			Nb-95	<8.10E+00	0.00E+00	8.10E+00
			I-131	<7.42E+00	0.00E+00	7.42E+00
			Cs-134	<1.11E+01	0.00E+00	1.11E+01
			Cs-137	<7.84E+00	0.00E+00	7.84E+00
			BaLa-140	<8.34E+00	0.00E+00	8.34E+00
			Be-7	<6.83E+01	0.00E+00	6.83E+01
			K-40	2.11E+03	2.76E+02	1.44E+02
			574959	9/7/2022 - 9/7/2022	MIXEDCROPS	Mn-54
Co-58	<9.37E+00	0.00E+00				9.37E+00
Fe-59	<1.77E+01	0.00E+00				1.77E+01
Co-60	<1.30E+01	0.00E+00				1.30E+01
Zn-65	<2.22E+01	0.00E+00				2.22E+01
Zr-95	<1.20E+01	0.00E+00				1.20E+01
Nb-95	<9.30E+00	0.00E+00				9.30E+00
I-131	<9.77E+00	0.00E+00				9.77E+00
Cs-134	<1.19E+01	0.00E+00				1.19E+01
Cs-137	<8.69E+00	0.00E+00				8.69E+00
BaLa-140	<1.01E+01	0.00E+00				1.01E+01
Be-7	<8.69E+01	0.00E+00				8.69E+01
K-40	2.75E+03	3.48E+02				1.43E+02
576488	10/4/2022 - 10/4/2022	MIXEDCROPS				Mn-54
			Co-58	<1.04E+01	0.00E+00	1.04E+01
			Fe-59	<1.89E+01	0.00E+00	1.89E+01
			Co-60	<1.16E+01	0.00E+00	1.16E+01
			Zn-65	<2.68E+01	0.00E+00	2.68E+01
			Zr-95	<2.05E+01	0.00E+00	2.05E+01
			Nb-95	<1.09E+01	0.00E+00	1.09E+01
			I-131	<1.04E+01	0.00E+00	1.04E+01
			Cs-134	<1.03E+01	0.00E+00	1.03E+01
			Cs-137	<1.05E+01	0.00E+00	1.05E+01
			BaLa-140	<9.26E+00	0.00E+00	9.26E+00
			Be-7	<6.27E+01	0.00E+00	6.27E+01
			K-40	2.53E+03	3.40E+02	1.76E+02
			578831	11/1/2022 - 11/1/2022	MIXEDCROPS	Mn-54
Co-58	<1.23E+01	0.00E+00				1.23E+01
Fe-59	<2.47E+01	0.00E+00				2.47E+01
Co-60	<1.59E+01	0.00E+00				1.59E+01
Zn-65	<4.06E+01	0.00E+00				4.06E+01
Zr-95	<2.29E+01	0.00E+00				2.29E+01
Nb-95	<1.95E+01	0.00E+00				1.95E+01
I-131	<1.23E+01	0.00E+00				1.23E+01
Cs-134	<1.33E+01	0.00E+00				1.33E+01
Cs-137	<1.63E+01	0.00E+00				1.63E+01
BaLa-140	<1.09E+01	0.00E+00				1.09E+01
Be-7	<9.76E+01	0.00E+00				9.76E+01
K-40	2.65E+03	3.82E+02				2.02E+02
580883	12/6/2022 - 12/6/2022	MIXEDCROPS				Mn-54
			Co-58	<8.59E+00	0.00E+00	8.59E+00
			Fe-59	<1.91E+01	0.00E+00	1.91E+01
			Co-60	<1.07E+01	0.00E+00	1.07E+01
			Zn-65	<2.48E+01	0.00E+00	2.48E+01

CATAWBA Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: CROPS Concentration (Activity): pCi/kg

Sample Point 260 [INDICATOR - SSE @ 2 miles]

Sample ID:	Sample Dates:	MIXEDCROPS	Nuclide	Activity	2 Sigma Error	MDA
580883	12/6/2022 - 12/6/2022		Zr-95	<1.13E+01	0.00E+00	1.13E+01
			Nb-95	<7.46E+00	0.00E+00	7.46E+00
			I-131	<1.01E+01	0.00E+00	1.01E+01
			Cs-134	<1.02E+01	0.00E+00	1.02E+01
			Cs-137	<8.80E+00	0.00E+00	8.80E+00
			BaLa-140	<9.16E+00	0.00E+00	9.16E+00
			Be-7	<7.81E+01	0.00E+00	7.81E+01
			K-40	3.31E+03	3.92E+02	1.46E+02

Media Type: DRINKING WATER Concentration (Activity): pCi/l

Sample Point 214 [INDICATOR - SSE @ 7.3 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
559355	12/28/2021 - 1/25/2022	Beta	<3.26E+00	0.00E+00	3.26E+00
		Mn-54	<3.23E+00	0.00E+00	3.23E+00
		Co-58	<3.66E+00	0.00E+00	3.66E+00
		Fe-59	<5.28E+00	0.00E+00	5.28E+00
		Co-60	<3.46E+00	0.00E+00	3.46E+00
		Zn-65	<8.10E+00	0.00E+00	8.10E+00
		Zr-95	<6.63E+00	0.00E+00	6.63E+00
		Nb-95	<4.68E+00	0.00E+00	4.68E+00
		I-131	<1.13E+01	0.00E+00	1.13E+01
		Cs-134	<2.79E+00	0.00E+00	2.79E+00
		Cs-137	<3.82E+00	0.00E+00	3.82E+00
		BaLa-140	<5.44E+00	0.00E+00	5.44E+00
		Be-7	<2.98E+01	0.00E+00	2.98E+01
		K-40	8.31E+01	3.52E+01	4.43E+01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
560937	1/25/2022 - 2/22/2022	Beta	<3.20E+00	0.00E+00	3.20E+00
		Mn-54	<2.71E+00	0.00E+00	2.71E+00
		Co-58	<2.99E+00	0.00E+00	2.99E+00
		Fe-59	<8.96E+00	0.00E+00	8.96E+00
		Co-60	<3.88E+00	0.00E+00	3.88E+00
		Zn-65	<7.15E+00	0.00E+00	7.15E+00
		Zr-95	<6.08E+00	0.00E+00	6.08E+00
		Nb-95	<3.59E+00	0.00E+00	3.59E+00
		I-131	<1.13E+01	0.00E+00	1.13E+01
		Cs-134	<3.24E+00	0.00E+00	3.24E+00
		Cs-137	<3.51E+00	0.00E+00	3.51E+00
		BaLa-140	<1.09E+01	0.00E+00	1.09E+01
		Be-7	<2.80E+01	0.00E+00	2.80E+01
		K-40	<4.75E+01	0.00E+00	4.75E+01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
563132	2/22/2022 - 3/22/2022	Beta	<3.28E+00	0.00E+00	3.28E+00
		Mn-54	<3.47E+00	0.00E+00	3.47E+00
		Co-58	<4.13E+00	0.00E+00	4.13E+00
		Fe-59	<8.21E+00	0.00E+00	8.21E+00
		Co-60	<2.82E+00	0.00E+00	2.82E+00
		Zn-65	<8.00E+00	0.00E+00	8.00E+00
		Zr-95	<7.14E+00	0.00E+00	7.14E+00
		Nb-95	<4.48E+00	0.00E+00	4.48E+00
		I-131	<1.24E+01	0.00E+00	1.24E+01
		Cs-134	<4.52E+00	0.00E+00	4.52E+00
		Cs-137	<3.54E+00	0.00E+00	3.54E+00
		BaLa-140	<9.83E+00	0.00E+00	9.83E+00
		Be-7	<3.15E+01	0.00E+00	3.15E+01
		K-40	1.35E+02	5.00E+01	6.40E+01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
560623	12/28/2021 - 4/19/2022	H3DW	6.22E+02	1.20E+02	1.73E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
564643	3/22/2022 - 4/19/2022	Beta	<3.23E+00	0.00E+00	3.23E+00

CATAWBA Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: DRINKING WATER Concentration (Activity): pCi/l
 Sample Point 214 [INDICATOR - SSE @ 7.3 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
564643	3/22/2022 - 4/19/2022	Mn-54	<3.66E+00	0.00E+00	3.66E+00
		Co-58	<4.43E+00	0.00E+00	4.43E+00
		Fe-59	<7.89E+00	0.00E+00	7.89E+00
		Co-60	<3.34E+00	0.00E+00	3.34E+00
		Zn-65	<7.98E+00	0.00E+00	7.98E+00
		Zr-95	<7.69E+00	0.00E+00	7.69E+00
		Nb-95	<4.26E+00	0.00E+00	4.26E+00
		I-131	<1.17E+01	0.00E+00	1.17E+01
		Cs-134	<3.85E+00	0.00E+00	3.85E+00
		Cs-137	<3.65E+00	0.00E+00	3.65E+00
		BaLa-140	<6.33E+00	0.00E+00	6.33E+00
		Be-7	<3.04E+01	0.00E+00	3.04E+01
		K-40	1.09E+02	3.67E+01	3.54E+01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
566724	4/19/2022 - 5/17/2022	Beta	<3.20E+00	0.00E+00	3.20E+00
		Mn-54	<3.29E+00	0.00E+00	3.29E+00
		Co-58	<3.36E+00	0.00E+00	3.36E+00
		Fe-59	<9.14E+00	0.00E+00	9.14E+00
		Co-60	<3.69E+00	0.00E+00	3.69E+00
		Zn-65	<7.78E+00	0.00E+00	7.78E+00
		Zr-95	<6.66E+00	0.00E+00	6.66E+00
		Nb-95	<4.58E+00	0.00E+00	4.58E+00
		I-131	<1.18E+01	0.00E+00	1.18E+01
		Cs-134	<3.91E+00	0.00E+00	3.91E+00
		Cs-137	<2.55E+00	0.00E+00	2.55E+00
		BaLa-140	<7.36E+00	0.00E+00	7.36E+00
		Be-7	<3.36E+01	0.00E+00	3.36E+01
		K-40	1.04E+02	3.76E+01	3.89E+01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
568165	5/17/2022 - 6/14/2022	Beta	<3.17E+00	0.00E+00	3.17E+00
		Mn-54	<3.27E+00	0.00E+00	3.27E+00
		Co-58	<3.88E+00	0.00E+00	3.88E+00
		Fe-59	<7.80E+00	0.00E+00	7.80E+00
		Co-60	<3.80E+00	0.00E+00	3.80E+00
		Zn-65	<8.31E+00	0.00E+00	8.31E+00
		Zr-95	<6.15E+00	0.00E+00	6.15E+00
		Nb-95	<2.91E+00	0.00E+00	2.91E+00
		I-131	<1.15E+01	0.00E+00	1.15E+01
		Cs-134	<3.77E+00	0.00E+00	3.77E+00
		Cs-137	<2.64E+00	0.00E+00	2.64E+00
		BaLa-140	<6.84E+00	0.00E+00	6.84E+00
		Be-7	<3.15E+01	0.00E+00	3.15E+01
		K-40	7.51E+01	3.74E+01	4.85E+01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
566501	4/19/2022 - 7/12/2022	H3DW	6.25E+02	1.23E+02	1.79E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
569992	6/14/2022 - 7/12/2022	Beta	<3.19E+00	0.00E+00	3.19E+00
		Mn-54	<2.21E+00	0.00E+00	2.21E+00
		Co-58	<2.77E+00	0.00E+00	2.77E+00
		Fe-59	<4.64E+00	0.00E+00	4.64E+00
		Co-60	<2.69E+00	0.00E+00	2.69E+00
		Zn-65	<5.75E+00	0.00E+00	5.75E+00
		Zr-95	<4.32E+00	0.00E+00	4.32E+00
		Nb-95	<2.72E+00	0.00E+00	2.72E+00
		I-131	<9.08E+00	0.00E+00	9.08E+00
		Cs-134	<2.72E+00	0.00E+00	2.72E+00
		Cs-137	<2.49E+00	0.00E+00	2.49E+00
		BaLa-140	<6.29E+00	0.00E+00	6.29E+00
		Be-7	<2.48E+01	0.00E+00	2.48E+01
		K-40	8.06E+01	3.28E+01	4.35E+01

CATAWBA Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: DRINKING WATER Concentration (Activity): pCi/l
 Sample Point 214 [INDICATOR - SSE @ 7.3 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
571529	7/12/2022 - 8/9/2022	Beta	<3.23E+00	0.00E+00	3.23E+00
		Mn-54	<2.67E+00	0.00E+00	2.67E+00
		Co-58	<3.17E+00	0.00E+00	3.17E+00
		Fe-59	<6.50E+00	0.00E+00	6.50E+00
		Co-60	<2.65E+00	0.00E+00	2.65E+00
		Zn-65	<6.76E+00	0.00E+00	6.76E+00
		Zr-95	<7.13E+00	0.00E+00	7.13E+00
		Nb-95	<4.44E+00	0.00E+00	4.44E+00
		I-131	<1.20E+01	0.00E+00	1.20E+01
		Cs-134	<3.25E+00	0.00E+00	3.25E+00
		Cs-137	<2.93E+00	0.00E+00	2.93E+00
		BaLa-140	<7.42E+00	0.00E+00	7.42E+00
		Be-7	<2.60E+01	0.00E+00	2.60E+01
		K-40	6.91E+01	3.42E+01	4.63E+01
		574658	8/9/2022 - 9/7/2022	Beta	3.49E+00
Mn-54	<2.59E+00			0.00E+00	2.59E+00
Co-58	<2.33E+00			0.00E+00	2.33E+00
Fe-59	<4.35E+00			0.00E+00	4.35E+00
Co-60	<2.58E+00			0.00E+00	2.58E+00
Zn-65	<5.55E+00			0.00E+00	5.55E+00
Zr-95	<6.05E+00			0.00E+00	6.05E+00
Nb-95	<3.19E+00			0.00E+00	3.19E+00
I-131	<1.15E+01			0.00E+00	1.15E+01
Cs-134	<2.72E+00			0.00E+00	2.72E+00
Cs-137	<3.02E+00			0.00E+00	3.02E+00
BaLa-140	<6.71E+00			0.00E+00	6.71E+00
Be-7	<2.50E+01			0.00E+00	2.50E+01
K-40	8.80E+01			2.72E+01	2.41E+01
571704	7/12/2022 - 10/4/2022			Nuclide	Activity
		H3DW	1.63E+03	1.53E+02	1.82E+02
576373	9/7/2022 - 10/4/2022	Beta	<3.21E+00	0.00E+00	3.21E+00
		Mn-54	<4.01E+00	0.00E+00	4.01E+00
		Co-58	<3.59E+00	0.00E+00	3.59E+00
		Fe-59	<6.39E+00	0.00E+00	6.39E+00
		Co-60	<4.97E+00	0.00E+00	4.97E+00
		Zn-65	<6.61E+00	0.00E+00	6.61E+00
		Zr-95	<6.03E+00	0.00E+00	6.03E+00
		Nb-95	<4.73E+00	0.00E+00	4.73E+00
		I-131	<1.14E+01	0.00E+00	1.14E+01
		Cs-134	<4.30E+00	0.00E+00	4.30E+00
		Cs-137	<3.77E+00	0.00E+00	3.77E+00
		BaLa-140	<8.52E+00	0.00E+00	8.52E+00
		Be-7	<3.72E+01	0.00E+00	3.72E+01
		K-40	1.00E+02	4.66E+01	6.00E+01
		578722	10/4/2022 - 11/1/2022	Beta	<3.16E+00
Mn-54	<2.93E+00			0.00E+00	2.93E+00
Co-58	<3.86E+00			0.00E+00	3.86E+00
Fe-59	<6.74E+00			0.00E+00	6.74E+00
Co-60	<3.10E+00			0.00E+00	3.10E+00
Zn-65	<6.63E+00			0.00E+00	6.63E+00
Zr-95	<6.50E+00			0.00E+00	6.50E+00
Nb-95	<3.48E+00			0.00E+00	3.48E+00
I-131	<1.16E+01			0.00E+00	1.16E+01
Cs-134	<3.37E+00			0.00E+00	3.37E+00
Cs-137	<3.23E+00			0.00E+00	3.23E+00
BaLa-140	<5.93E+00			0.00E+00	5.93E+00
Be-7	<3.09E+01			0.00E+00	3.09E+01
K-40	1.09E+02			4.31E+01	5.49E+01

CATAWBA Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: DRINKING WATER Concentration (Activity): pCi/l

Sample Point 214 [INDICATOR - SSE @ 7.3 miles]

Sample ID:	580712	Sample Dates:	11/1/2022 - 11/29/2022	Nuclide	Activity	2 Sigma Error	MDA
				Beta	<3.18E+00	0.00E+00	3.18E+00
				Mn-54	<3.82E+00	0.00E+00	3.82E+00
				Co-58	<4.22E+00	0.00E+00	4.22E+00
				Fe-59	<8.39E+00	0.00E+00	8.39E+00
				Co-60	<3.53E+00	0.00E+00	3.53E+00
				Zn-65	<9.01E+00	0.00E+00	9.01E+00
				Zr-95	<9.95E+00	0.00E+00	9.95E+00
				Nb-95	<5.04E+00	0.00E+00	5.04E+00
				I-131	<1.29E+01	0.00E+00	1.29E+01
				Cs-134	<3.92E+00	0.00E+00	3.92E+00
				Cs-137	<1.83E+00	0.00E+00	1.83E+00
				BaLa-140	<7.78E+00	0.00E+00	7.78E+00
				Be-7	<3.93E+01	0.00E+00	3.93E+01
				K-40	9.35E+01	3.95E+01	4.43E+01

Sample ID:	579148	Sample Dates:	10/4/2022 - 12/28/2022	Nuclide	Activity	2 Sigma Error	MDA
				H3DW	8.36E+02	1.32E+02	1.82E+02

Sample ID:	582309	Sample Dates:	11/29/2022 - 12/28/2022	Nuclide	Activity	2 Sigma Error	MDA
				Beta	3.50E+00	4.25E+00	3.18E+00
				Mn-54	<2.25E+00	0.00E+00	2.25E+00
				Co-58	<2.24E+00	0.00E+00	2.24E+00
				Fe-59	<5.21E+00	0.00E+00	5.21E+00
				Co-60	<2.04E+00	0.00E+00	2.04E+00
				Zn-65	<5.13E+00	0.00E+00	5.13E+00
				Zr-95	<5.21E+00	0.00E+00	5.21E+00
				Nb-95	<3.99E+00	0.00E+00	3.99E+00
				I-131	<1.35E+01	0.00E+00	1.35E+01
				Cs-134	<2.47E+00	0.00E+00	2.47E+00
				Cs-137	<2.34E+00	0.00E+00	2.34E+00
				BaLa-140	<6.20E+00	0.00E+00	6.20E+00
				Be-7	<2.52E+01	0.00E+00	2.52E+01
				K-40	9.17E+01	2.90E+01	3.45E+01

Sample Point 218 [CONTROL - NNE @ 13.5 miles]

Sample ID:	559356	Sample Dates:	12/28/2021 - 1/25/2022	Nuclide	Activity	2 Sigma Error	MDA
				Beta	<3.26E+00	0.00E+00	3.26E+00
				Mn-54	<3.79E+00	0.00E+00	3.79E+00
				Co-58	<3.36E+00	0.00E+00	3.36E+00
				Fe-59	<8.32E+00	0.00E+00	8.32E+00
				Co-60	<3.21E+00	0.00E+00	3.21E+00
				Zn-65	<6.76E+00	0.00E+00	6.76E+00
				Zr-95	<6.49E+00	0.00E+00	6.49E+00
				Nb-95	<4.23E+00	0.00E+00	4.23E+00
				I-131	<1.18E+01	0.00E+00	1.18E+01
				Cs-134	<3.82E+00	0.00E+00	3.82E+00
				Cs-137	<2.96E+00	0.00E+00	2.96E+00
				BaLa-140	<9.12E+00	0.00E+00	9.12E+00
				Be-7	<3.20E+01	0.00E+00	3.20E+01
				K-40	8.14E+01	3.62E+01	4.26E+01

Sample ID:	560938	Sample Dates:	1/25/2022 - 2/22/2022	Nuclide	Activity	2 Sigma Error	MDA
				Beta	<3.20E+00	0.00E+00	3.20E+00
				Mn-54	<2.65E+00	0.00E+00	2.65E+00
				Co-58	<2.82E+00	0.00E+00	2.82E+00
				Fe-59	<6.10E+00	0.00E+00	6.10E+00
				Co-60	<2.81E+00	0.00E+00	2.81E+00
				Zn-65	<6.21E+00	0.00E+00	6.21E+00
				Zr-95	<5.29E+00	0.00E+00	5.29E+00
				Nb-95	<3.82E+00	0.00E+00	3.82E+00
				I-131	<1.16E+01	0.00E+00	1.16E+01
				Cs-134	<3.06E+00	0.00E+00	3.06E+00
				Cs-137	<2.96E+00	0.00E+00	2.96E+00
				BaLa-140	<5.98E+00	0.00E+00	5.98E+00

CATAWBA Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: DRINKING WATER Concentration (Activity): pCi/l
 Sample Point 218 [CONTROL - NNE @ 13.5 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
560938	1/25/2022 - 2/22/2022	Be-7	<2.86E+01	0.00E+00	2.86E+01
		K-40	7.97E+01	2.77E+01	3.54E+01
563133	2/22/2022 - 3/22/2022	Beta	<3.28E+00	0.00E+00	3.28E+00
		Mn-54	<3.67E+00	0.00E+00	3.67E+00
		Co-58	<3.06E+00	0.00E+00	3.06E+00
		Fe-59	<6.29E+00	0.00E+00	6.29E+00
		Co-60	<3.69E+00	0.00E+00	3.69E+00
		Zn-65	<6.52E+00	0.00E+00	6.52E+00
		Zr-95	<6.02E+00	0.00E+00	6.02E+00
		Nb-95	<4.70E+00	0.00E+00	4.70E+00
		I-131	<1.17E+01	0.00E+00	1.17E+01
		Cs-134	<4.33E+00	0.00E+00	4.33E+00
		Cs-137	<3.50E+00	0.00E+00	3.50E+00
		BaLa-140	<7.57E+00	0.00E+00	7.57E+00
		Be-7	<3.30E+01	0.00E+00	3.30E+01
		K-40	1.03E+02	3.84E+01	4.52E+01
560624	12/28/2021 - 4/19/2022	H3DW	4.61E+02	1.15E+02	1.73E+02
564644	3/22/2022 - 4/19/2022	Beta	<3.23E+00	0.00E+00	3.23E+00
		Mn-54	<4.18E+00	0.00E+00	4.18E+00
		Co-58	<4.16E+00	0.00E+00	4.16E+00
		Fe-59	<5.66E+00	0.00E+00	5.66E+00
		Co-60	<3.41E+00	0.00E+00	3.41E+00
		Zn-65	<7.41E+00	0.00E+00	7.41E+00
		Zr-95	<7.99E+00	0.00E+00	7.99E+00
		Nb-95	<5.59E+00	0.00E+00	5.59E+00
		I-131	<1.18E+01	0.00E+00	1.18E+01
		Cs-134	<3.80E+00	0.00E+00	3.80E+00
		Cs-137	<4.07E+00	0.00E+00	4.07E+00
		BaLa-140	<8.38E+00	0.00E+00	8.38E+00
		Be-7	<3.32E+01	0.00E+00	3.32E+01
		K-40	6.31E+01	4.31E+01	6.43E+01
566725	4/19/2022 - 5/17/2022	Beta	<3.20E+00	0.00E+00	3.20E+00
		Mn-54	<2.13E+00	0.00E+00	2.13E+00
		Co-58	<3.09E+00	0.00E+00	3.09E+00
		Fe-59	<5.58E+00	0.00E+00	5.58E+00
		Co-60	<2.08E+00	0.00E+00	2.08E+00
		Zn-65	<5.95E+00	0.00E+00	5.95E+00
		Zr-95	<5.62E+00	0.00E+00	5.62E+00
		Nb-95	<3.70E+00	0.00E+00	3.70E+00
		I-131	<1.13E+01	0.00E+00	1.13E+01
		Cs-134	<2.77E+00	0.00E+00	2.77E+00
		Cs-137	<2.59E+00	0.00E+00	2.59E+00
		BaLa-140	<5.95E+00	0.00E+00	5.95E+00
		Be-7	<2.82E+01	0.00E+00	2.82E+01
		K-40	8.52E+01	3.63E+01	4.79E+01
568166	5/17/2022 - 6/14/2022	Beta	3.42E+00	4.23E+00	3.17E+00
		Mn-54	<4.06E+00	0.00E+00	4.06E+00
		Co-58	<4.79E+00	0.00E+00	4.79E+00
		Fe-59	<7.96E+00	0.00E+00	7.96E+00
		Co-60	<2.70E+00	0.00E+00	2.70E+00
		Zn-65	<7.51E+00	0.00E+00	7.51E+00
		Zr-95	<9.23E+00	0.00E+00	9.23E+00
		Nb-95	<4.41E+00	0.00E+00	4.41E+00
		I-131	<1.14E+01	0.00E+00	1.14E+01
Cs-134	<3.60E+00	0.00E+00	3.60E+00		

CATAWBA Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: DRINKING WATER Concentration (Activity): pCi/l
 Sample Point 218 [CONTROL - NNE @ 13.5 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
568166	5/17/2022 - 6/14/2022	Cs-137	<3.49E+00	0.00E+00	3.49E+00
		BaLa-140	<8.24E+00	0.00E+00	8.24E+00
		Be-7	<3.35E+01	0.00E+00	3.35E+01
		K-40	8.16E+01	3.48E+01	3.27E+01
566502	4/19/2022 - 7/12/2022	H3DW	4.77E+02	1.19E+02	1.79E+02
569993	6/14/2022 - 7/12/2022	Beta	<3.19E+00	0.00E+00	3.19E+00
		Mn-54	<4.23E+00	0.00E+00	4.23E+00
		Co-58	<4.66E+00	0.00E+00	4.66E+00
		Fe-59	<1.05E+01	0.00E+00	1.05E+01
		Co-60	<3.67E+00	0.00E+00	3.67E+00
		Zn-65	<7.51E+00	0.00E+00	7.51E+00
		Zr-95	<7.43E+00	0.00E+00	7.43E+00
		Nb-95	<4.93E+00	0.00E+00	4.93E+00
		I-131	<1.18E+01	0.00E+00	1.18E+01
		Cs-134	<4.69E+00	0.00E+00	4.69E+00
		Cs-137	<4.79E+00	0.00E+00	4.79E+00
		BaLa-140	<1.08E+01	0.00E+00	1.08E+01
		Be-7	<3.81E+01	0.00E+00	3.81E+01
		K-40	<7.77E+01	0.00E+00	7.77E+01
		571530	7/12/2022 - 8/9/2022	Beta	3.44E+00
Mn-54	<2.67E+00			0.00E+00	2.67E+00
Co-58	<3.05E+00			0.00E+00	3.05E+00
Fe-59	<5.40E+00			0.00E+00	5.40E+00
Co-60	<2.86E+00			0.00E+00	2.86E+00
Zn-65	<5.25E+00			0.00E+00	5.25E+00
Zr-95	<4.70E+00			0.00E+00	4.70E+00
Nb-95	<3.26E+00			0.00E+00	3.26E+00
I-131	<1.11E+01			0.00E+00	1.11E+01
Cs-134	<3.04E+00			0.00E+00	3.04E+00
Cs-137	<2.39E+00			0.00E+00	2.39E+00
BaLa-140	<6.90E+00			0.00E+00	6.90E+00
Be-7	<2.89E+01			0.00E+00	2.89E+01
K-40	6.44E+01			2.87E+01	3.63E+01
574659	8/9/2022 - 9/7/2022			Beta	3.47E+00
		Mn-54	<3.05E+00	0.00E+00	3.05E+00
		Co-58	<2.61E+00	0.00E+00	2.61E+00
		Fe-59	<6.41E+00	0.00E+00	6.41E+00
		Co-60	<2.73E+00	0.00E+00	2.73E+00
		Zn-65	<5.98E+00	0.00E+00	5.98E+00
		Zr-95	<5.59E+00	0.00E+00	5.59E+00
		Nb-95	<3.35E+00	0.00E+00	3.35E+00
		I-131	<1.19E+01	0.00E+00	1.19E+01
		Cs-134	<3.74E+00	0.00E+00	3.74E+00
		Cs-137	<2.96E+00	0.00E+00	2.96E+00
		BaLa-140	<6.70E+00	0.00E+00	6.70E+00
		Be-7	<2.62E+01	0.00E+00	2.62E+01
		K-40	1.30E+02	3.42E+01	2.68E+01
		571705	7/12/2022 - 10/4/2022	H3DW	3.51E+02
576374	9/7/2022 - 10/4/2022	Beta	3.29E+00	4.28E+00	3.21E+00
		Mn-54	<2.96E+00	0.00E+00	2.96E+00
		Co-58	<4.17E+00	0.00E+00	4.17E+00
		Fe-59	<8.39E+00	0.00E+00	8.39E+00
		Co-60	<3.14E+00	0.00E+00	3.14E+00

CATAWBA Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: DRINKING WATER Concentration (Activity): pCi/l
 Sample Point 218 [CONTROL - NNE @ 13.5 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
576374	9/7/2022 - 10/4/2022	Zn-65	<6.96E+00	0.00E+00	6.96E+00
		Zr-95	<6.97E+00	0.00E+00	6.97E+00
		Nb-95	<4.75E+00	0.00E+00	4.75E+00
		I-131	<1.17E+01	0.00E+00	1.17E+01
		Cs-134	<3.13E+00	0.00E+00	3.13E+00
		Cs-137	<3.27E+00	0.00E+00	3.27E+00
		BaLa-140	<7.45E+00	0.00E+00	7.45E+00
		Be-7	<3.23E+01	0.00E+00	3.23E+01
		K-40	5.65E+01	3.16E+01	4.09E+01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
578723	10/4/2022 - 11/1/2022	Beta	<3.16E+00	0.00E+00	3.16E+00
		Mn-54	<3.41E+00	0.00E+00	3.41E+00
		Co-58	<3.21E+00	0.00E+00	3.21E+00
		Fe-59	<6.46E+00	0.00E+00	6.46E+00
		Co-60	<2.74E+00	0.00E+00	2.74E+00
		Zn-65	<5.84E+00	0.00E+00	5.84E+00
		Zr-95	<5.20E+00	0.00E+00	5.20E+00
		Nb-95	<3.37E+00	0.00E+00	3.37E+00
		I-131	<1.13E+01	0.00E+00	1.13E+01
		Cs-134	<3.40E+00	0.00E+00	3.40E+00
		Cs-137	<3.32E+00	0.00E+00	3.32E+00
		BaLa-140	<6.36E+00	0.00E+00	6.36E+00
		Be-7	<2.57E+01	0.00E+00	2.57E+01
		K-40	7.86E+01	3.37E+01	4.26E+01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
580713	11/1/2022 - 11/29/2022	Beta	<3.18E+00	0.00E+00	3.18E+00
		Mn-54	<3.81E+00	0.00E+00	3.81E+00
		Co-58	<4.67E+00	0.00E+00	4.67E+00
		Fe-59	<7.17E+00	0.00E+00	7.17E+00
		Co-60	<5.41E+00	0.00E+00	5.41E+00
		Zn-65	<9.40E+00	0.00E+00	9.40E+00
		Zr-95	<1.03E+01	0.00E+00	1.03E+01
		Nb-95	<4.69E+00	0.00E+00	4.69E+00
		I-131	<1.33E+01	0.00E+00	1.33E+01
		Cs-134	<5.11E+00	0.00E+00	5.11E+00
		Cs-137	<4.28E+00	0.00E+00	4.28E+00
		BaLa-140	<8.48E+00	0.00E+00	8.48E+00
		Be-7	<4.00E+01	0.00E+00	4.00E+01
		K-40	<8.62E+01	0.00E+00	8.62E+01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
579149	10/4/2022 - 12/28/2022	H3DW	3.55E+02	1.17E+02	1.82E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
582310	11/29/2022 - 12/28/2022	Beta	3.21E+00	4.25E+00	3.18E+00
		Mn-54	<2.42E+00	0.00E+00	2.42E+00
		Co-58	<2.63E+00	0.00E+00	2.63E+00
		Fe-59	<7.19E+00	0.00E+00	7.19E+00
		Co-60	<1.99E+00	0.00E+00	1.99E+00
		Zn-65	<4.41E+00	0.00E+00	4.41E+00
		Zr-95	<4.58E+00	0.00E+00	4.58E+00
		Nb-95	<2.60E+00	0.00E+00	2.60E+00
		I-131	<1.33E+01	0.00E+00	1.33E+01
		Cs-134	<2.61E+00	0.00E+00	2.61E+00
		Cs-137	<1.94E+00	0.00E+00	1.94E+00
		BaLa-140	<8.55E+00	0.00E+00	8.55E+00
		Be-7	<2.11E+01	0.00E+00	2.11E+01
		K-40	9.18E+01	2.77E+01	2.97E+01

CATAWBA Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: FISH Concentration (Activity): pCi/kg
 Sample Point 208 [INDICATOR - S @ 0.45 miles]

Sample ID:	Sample Dates:	PREDATOR	Nuclide	Activity	2 Sigma Error	MDA
564477	3/29/2022 - 3/29/2022	PREDATOR	Mn-54	<6.08E+01	0.00E+00	6.08E+01
			Co-58	<5.12E+01	0.00E+00	5.12E+01
			Fe-59	<1.09E+02	0.00E+00	1.09E+02
			Co-60	<4.27E+01	0.00E+00	4.27E+01
			Zn-65	<1.41E+02	0.00E+00	1.41E+02
			Nb-95	<6.13E+01	0.00E+00	6.13E+01
			I-131	<6.83E+01	0.00E+00	6.83E+01
			Cs-134	<6.85E+01	0.00E+00	6.85E+01
			Cs-137	<5.30E+01	0.00E+00	5.30E+01
			Be-7	<3.68E+02	0.00E+00	3.68E+02
			K-40	4.39E+03	1.05E+03	8.02E+02
			Ag-110M	<5.14E+01	0.00E+00	5.14E+01
			Sb-122	<1.28E+02	0.00E+00	1.28E+02
			Sb-125	<1.27E+02	0.00E+00	1.27E+02
			564478	3/29/2022 - 3/29/2022	FORAGER	Mn-54
Co-58	<4.43E+01	0.00E+00				4.43E+01
Fe-59	<9.93E+01	0.00E+00				9.93E+01
Co-60	<6.66E+01	0.00E+00				6.66E+01
Zn-65	<1.24E+02	0.00E+00				1.24E+02
Nb-95	<6.88E+01	0.00E+00				6.88E+01
I-131	<5.29E+01	0.00E+00				5.29E+01
Cs-134	<5.32E+01	0.00E+00				5.32E+01
Cs-137	<4.06E+01	0.00E+00				4.06E+01
Be-7	<4.00E+02	0.00E+00				4.00E+02
K-40	4.44E+03	1.06E+03				8.84E+02
Ag-110M	<5.00E+01	0.00E+00				5.00E+01
Sb-122	<1.14E+02	0.00E+00				1.14E+02
Sb-125	<1.27E+02	0.00E+00				1.27E+02
564490	3/29/2022 - 3/29/2022	BOTMFEEDER				Mn-54
			Co-58	<7.04E+01	0.00E+00	7.04E+01
			Fe-59	<1.43E+02	0.00E+00	1.43E+02
			Co-60	<8.02E+01	0.00E+00	8.02E+01
			Zn-65	<2.00E+02	0.00E+00	2.00E+02
			Nb-95	<7.58E+01	0.00E+00	7.58E+01
			I-131	<9.03E+01	0.00E+00	9.03E+01
			Cs-134	<1.03E+02	0.00E+00	1.03E+02
			Cs-137	<9.03E+01	0.00E+00	9.03E+01
			Be-7	<6.88E+02	0.00E+00	6.88E+02
			K-40	4.49E+03	1.06E+03	7.96E+02
			Ag-110M	<7.53E+01	0.00E+00	7.53E+01
			Sb-122	<1.71E+02	0.00E+00	1.71E+02
			Sb-125	<2.25E+02	0.00E+00	2.25E+02
			577108	10/5/2022 - 10/5/2022	PREDATOR	Mn-54
Co-58	<5.67E+01	0.00E+00				5.67E+01
Fe-59	<1.53E+02	0.00E+00				1.53E+02
Co-60	<7.84E+01	0.00E+00				7.84E+01
Zn-65	<1.85E+02	0.00E+00				1.85E+02
Nb-95	<8.13E+01	0.00E+00				8.13E+01
I-131	<8.33E+01	0.00E+00				8.33E+01
Cs-134	<4.09E+01	0.00E+00				4.09E+01
Cs-137	<6.69E+01	0.00E+00				6.69E+01
Be-7	<5.81E+02	0.00E+00				5.81E+02
K-40	4.82E+03	1.14E+03				6.21E+02
Ag-110M	<8.29E+01	0.00E+00				8.29E+01
Sb-122	<2.90E+02	0.00E+00				2.90E+02
Sb-125	<1.74E+02	0.00E+00				1.74E+02
577109	10/5/2022 - 10/5/2022	FORAGER				Nuclide
			Mn-54	<5.23E+01	0.00E+00	5.23E+01

CATAWBA Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: FISH Concentration (Activity): pCi/kg

Sample Point 208 [INDICATOR - S @ 0.45 miles]

Sample ID:	577109	Sample Dates:	10/5/2022 - 10/5/2022	FORAGER	Nuclide	Activity	2 Sigma Error	MDA
					Co-58	<5.62E+01	0.00E+00	5.62E+01
					Fe-59	<1.08E+02	0.00E+00	1.08E+02
					Co-60	<6.06E+01	0.00E+00	6.06E+01
					Zn-65	<8.85E+01	0.00E+00	8.85E+01
					Nb-95	<5.91E+01	0.00E+00	5.91E+01
					I-131	<7.58E+01	0.00E+00	7.58E+01
					Cs-134	<6.71E+01	0.00E+00	6.71E+01
					Cs-137	<5.11E+01	0.00E+00	5.11E+01
					Be-7	<4.18E+02	0.00E+00	4.18E+02
					K-40	3.12E+03	9.04E+02	8.20E+02
					Ag-110M	<4.60E+01	0.00E+00	4.60E+01
					Sb-122	<2.60E+02	0.00E+00	2.60E+02
					Sb-125	<1.89E+02	0.00E+00	1.89E+02

Sample ID:	577123	Sample Dates:	10/5/2022 - 10/5/2022	BOTMFEEDER	Nuclide	Activity	2 Sigma Error	MDA
					Mn-54	<6.71E+01	0.00E+00	6.71E+01
					Co-58	<4.73E+01	0.00E+00	4.73E+01
					Fe-59	<1.08E+02	0.00E+00	1.08E+02
					Co-60	<8.17E+01	0.00E+00	8.17E+01
					Zn-65	<1.16E+02	0.00E+00	1.16E+02
					Nb-95	<7.17E+01	0.00E+00	7.17E+01
					I-131	<6.73E+01	0.00E+00	6.73E+01
					Cs-134	<4.64E+01	0.00E+00	4.64E+01
					Cs-137	<7.33E+01	0.00E+00	7.33E+01
					Be-7	<4.33E+02	0.00E+00	4.33E+02
					K-40	4.52E+03	1.21E+03	1.10E+03
					Ag-110M	<5.07E+01	0.00E+00	5.07E+01
					Sb-122	<3.50E+02	0.00E+00	3.50E+02
					Sb-125	<1.45E+02	0.00E+00	1.45E+02

Sample Point 216 [CONTROL - NNE @ 4.19 miles]

Sample ID:	564479	Sample Dates:	3/29/2022 - 3/29/2022	PREDATOR	Nuclide	Activity	2 Sigma Error	MDA
					Mn-54	<4.86E+01	0.00E+00	4.86E+01
					Co-58	<4.86E+01	0.00E+00	4.86E+01
					Fe-59	<1.08E+02	0.00E+00	1.08E+02
					Co-60	<5.47E+01	0.00E+00	5.47E+01
					Zn-65	<1.13E+02	0.00E+00	1.13E+02
					Nb-95	<4.73E+01	0.00E+00	4.73E+01
					I-131	<6.04E+01	0.00E+00	6.04E+01
					Cs-134	<3.39E+01	0.00E+00	3.39E+01
					Cs-137	<7.15E+01	0.00E+00	7.15E+01
					Be-7	<4.59E+02	0.00E+00	4.59E+02
					K-40	3.89E+03	9.59E+02	6.81E+02
					Ag-110M	<4.50E+01	0.00E+00	4.50E+01
					Sb-122	<1.03E+02	0.00E+00	1.03E+02
					Sb-125	<1.46E+02	0.00E+00	1.46E+02

Sample ID:	564480	Sample Dates:	3/29/2022 - 3/29/2022	FORAGER	Nuclide	Activity	2 Sigma Error	MDA
					Mn-54	<6.55E+01	0.00E+00	6.55E+01
					Co-58	<6.14E+01	0.00E+00	6.14E+01
					Fe-59	<1.17E+02	0.00E+00	1.17E+02
					Co-60	<5.67E+01	0.00E+00	5.67E+01
					Zn-65	<1.80E+02	0.00E+00	1.80E+02
					Nb-95	<6.37E+01	0.00E+00	6.37E+01
					I-131	<6.88E+01	0.00E+00	6.88E+01
					Cs-134	<7.37E+01	0.00E+00	7.37E+01
					Cs-137	<5.61E+01	0.00E+00	5.61E+01
					Be-7	<4.45E+02	0.00E+00	4.45E+02
					K-40	3.89E+03	1.11E+03	8.83E+02
					Ag-110M	<5.73E+01	0.00E+00	5.73E+01
					Sb-122	<1.15E+02	0.00E+00	1.15E+02
					Sb-125	<1.61E+02	0.00E+00	1.61E+02

CATAWBA Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: FISH Concentration (Activity): pCi/kg
 Sample Point 216 [CONTROL - NNE @ 4.19 miles]

Sample ID:	Sample Dates:	BOTMFEEDER	Nuclide	Activity	2 Sigma Error	MDA
564491	3/29/2022 - 3/29/2022		Mn-54	<6.44E+01	0.00E+00	6.44E+01
			Co-58	<6.43E+01	0.00E+00	6.43E+01
			Fe-59	<9.69E+01	0.00E+00	9.69E+01
			Co-60	<6.57E+01	0.00E+00	6.57E+01
			Zn-65	<1.37E+02	0.00E+00	1.37E+02
			Nb-95	<6.85E+01	0.00E+00	6.85E+01
			I-131	<7.70E+01	0.00E+00	7.70E+01
			Cs-134	<6.48E+01	0.00E+00	6.48E+01
			Cs-137	<6.93E+01	0.00E+00	6.93E+01
			Be-7	<5.48E+02	0.00E+00	5.48E+02
			K-40	5.32E+03	1.16E+03	8.26E+02
			Ag-110M	<5.82E+01	0.00E+00	5.82E+01
			Sb-122	<1.21E+02	0.00E+00	1.21E+02
			Sb-125	<1.33E+02	0.00E+00	1.33E+02
			577110	10/5/2022 - 10/5/2022	PREDATOR	Mn-54
Co-58	<4.44E+01	0.00E+00				4.44E+01
Fe-59	<1.26E+02	0.00E+00				1.26E+02
Co-60	<6.09E+01	0.00E+00				6.09E+01
Zn-65	<1.70E+02	0.00E+00				1.70E+02
Nb-95	<7.46E+01	0.00E+00				7.46E+01
I-131	<7.77E+01	0.00E+00				7.77E+01
Cs-134	<7.90E+01	0.00E+00				7.90E+01
Cs-137	<6.88E+01	0.00E+00				6.88E+01
Be-7	<5.59E+02	0.00E+00				5.59E+02
K-40	5.74E+03	1.23E+03				7.75E+02
Ag-110M	<6.18E+01	0.00E+00				6.18E+01
Sb-122	<3.01E+02	0.00E+00				3.01E+02
Sb-125	<1.67E+02	0.00E+00				1.67E+02
577111	10/5/2022 - 10/5/2022	FORAGER				Mn-54
			Co-58	<4.78E+01	0.00E+00	4.78E+01
			Fe-59	<1.64E+02	0.00E+00	1.64E+02
			Co-60	<5.85E+01	0.00E+00	5.85E+01
			Zn-65	<1.16E+02	0.00E+00	1.16E+02
			Nb-95	<6.67E+01	0.00E+00	6.67E+01
			I-131	<6.61E+01	0.00E+00	6.61E+01
			Cs-134	<6.56E+01	0.00E+00	6.56E+01
			Cs-137	<7.88E+01	0.00E+00	7.88E+01
			Be-7	<4.66E+02	0.00E+00	4.66E+02
			K-40	3.97E+03	1.07E+03	8.51E+02
			Ag-110M	<6.43E+01	0.00E+00	6.43E+01
			Sb-122	<2.87E+02	0.00E+00	2.87E+02
			Sb-125	<1.95E+02	0.00E+00	1.95E+02
			577124	10/5/2022 - 10/5/2022	BOTMFEEDER	Mn-54
Co-58	<5.01E+01	0.00E+00				5.01E+01
Fe-59	<1.28E+02	0.00E+00				1.28E+02
Co-60	<5.85E+01	0.00E+00				5.85E+01
Zn-65	<1.04E+02	0.00E+00				1.04E+02
Nb-95	<5.35E+01	0.00E+00				5.35E+01
I-131	<6.55E+01	0.00E+00				6.55E+01
Cs-134	<5.85E+01	0.00E+00				5.85E+01
Cs-137	<5.66E+01	0.00E+00				5.66E+01
Be-7	<4.55E+02	0.00E+00				4.55E+02
K-40	3.70E+03	9.55E+02				6.62E+02
Ag-110M	<5.08E+01	0.00E+00				5.08E+01
Sb-122	<2.57E+02	0.00E+00				2.57E+02
Sb-125	<1.65E+02	0.00E+00				1.65E+02

CATAWBA Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: MILK Concentration (Activity): pCi/l

Sample Point 221 [CONTROL - NW @ 14.5 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
558940	1/5/2022 - 1/5/2022	LLI-131	<6.49E-01	0.00E+00	6.49E-01
		I-131	<7.97E+00	0.00E+00	7.97E+00
		Cs-134	<7.22E+00	0.00E+00	7.22E+00
		Cs-137	<1.12E+01	0.00E+00	1.12E+01
		BaLa-140	<7.32E+00	0.00E+00	7.32E+00
		Be-7	<7.35E+01	0.00E+00	7.35E+01
		K-40	1.77E+03	2.58E+02	1.79E+01
560024	1/19/2022 - 1/19/2022	LLI-131	<6.50E-01	0.00E+00	6.50E-01
		I-131	<4.65E+00	0.00E+00	4.65E+00
		Cs-134	<5.71E+00	0.00E+00	5.71E+00
		Cs-137	<6.77E+00	0.00E+00	6.77E+00
		BaLa-140	<5.22E+00	0.00E+00	5.22E+00
		Be-7	<4.78E+01	0.00E+00	4.78E+01
		K-40	1.52E+03	1.89E+02	6.10E+01
560512	2/1/2022 - 2/1/2022	LLI-131	<4.96E-01	0.00E+00	4.96E-01
		I-131	<6.06E+00	0.00E+00	6.06E+00
		Cs-134	<5.11E+00	0.00E+00	5.11E+00
		Cs-137	<8.13E+00	0.00E+00	8.13E+00
		BaLa-140	<9.48E+00	0.00E+00	9.48E+00
		Be-7	<5.33E+01	0.00E+00	5.33E+01
		K-40	1.61E+03	2.46E+02	8.70E+01
561153	2/15/2022 - 2/15/2022	LLI-131	<6.39E-01	0.00E+00	6.39E-01
		I-131	<7.24E+00	0.00E+00	7.24E+00
		Cs-134	<5.93E+00	0.00E+00	5.93E+00
		Cs-137	<7.73E+00	0.00E+00	7.73E+00
		BaLa-140	<9.52E+00	0.00E+00	9.52E+00
		Be-7	<4.79E+01	0.00E+00	4.79E+01
		K-40	1.36E+03	2.28E+02	1.35E+02
562254	3/1/2022 - 3/1/2022	LLI-131	<5.68E-01	0.00E+00	5.68E-01
		I-131	<8.53E+00	0.00E+00	8.53E+00
		Cs-134	<1.04E+01	0.00E+00	1.04E+01
		Cs-137	<8.60E+00	0.00E+00	8.60E+00
		BaLa-140	<7.22E+00	0.00E+00	7.22E+00
		Be-7	<5.47E+01	0.00E+00	5.47E+01
		K-40	1.45E+03	2.33E+02	1.13E+02
563447	3/15/2022 - 3/15/2022	LLI-131	<5.46E-01	0.00E+00	5.46E-01
		I-131	<6.15E+00	0.00E+00	6.15E+00
		Cs-134	<9.12E+00	0.00E+00	9.12E+00
		Cs-137	<8.05E+00	0.00E+00	8.05E+00
		BaLa-140	<7.25E+00	0.00E+00	7.25E+00
		Be-7	<6.30E+01	0.00E+00	6.30E+01
		K-40	1.77E+03	2.63E+02	1.13E+02
564009	3/29/2022 - 3/29/2022	LLI-131	<6.47E-01	0.00E+00	6.47E-01
		I-131	<7.11E+00	0.00E+00	7.11E+00
		Cs-134	<5.01E+00	0.00E+00	5.01E+00
		Cs-137	<7.61E+00	0.00E+00	7.61E+00
		BaLa-140	<5.78E+00	0.00E+00	5.78E+00
		Be-7	<5.79E+01	0.00E+00	5.79E+01
		K-40	1.58E+03	2.39E+02	1.77E+01
564813	4/12/2022 - 4/12/2022	LLI-131	<6.49E-01	0.00E+00	6.49E-01
		I-131	<1.10E+01	0.00E+00	1.10E+01
		Cs-134	<1.06E+01	0.00E+00	1.06E+01

CATAWBA Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: MILK Concentration (Activity): pCi/l

Sample Point 221 [CONTROL - NW @ 14.5 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
564813	4/12/2022 - 4/12/2022	Cs-137	<9.75E+00	0.00E+00	9.75E+00
		BaLa-140	<7.80E+00	0.00E+00	7.80E+00
		Be-7	<9.31E+01	0.00E+00	9.31E+01
		K-40	1.80E+03	2.66E+02	1.91E+01
565970	4/26/2022 - 4/26/2022	LLI-131	<6.38E-01	0.00E+00	6.38E-01
		I-131	<6.65E+00	0.00E+00	6.65E+00
		Cs-134	<8.29E+00	0.00E+00	8.29E+00
		Cs-137	<5.89E+00	0.00E+00	5.89E+00
		BaLa-140	<5.85E+00	0.00E+00	5.85E+00
		Be-7	<4.55E+01	0.00E+00	4.55E+01
		K-40	1.52E+03	2.42E+02	1.10E+02
566949	5/10/2022 - 5/10/2022	LLI-131	<6.23E-01	0.00E+00	6.23E-01
		I-131	<4.27E+00	0.00E+00	4.27E+00
		Cs-134	<8.29E+00	0.00E+00	8.29E+00
		Cs-137	<7.36E+00	0.00E+00	7.36E+00
		BaLa-140	<5.88E+00	0.00E+00	5.88E+00
		Be-7	<5.13E+01	0.00E+00	5.13E+01
		K-40	1.35E+03	2.25E+02	1.13E+02
567577	5/24/2022 - 5/24/2022	LLI-131	<6.10E-01	0.00E+00	6.10E-01
		I-131	<6.66E+00	0.00E+00	6.66E+00
		Cs-134	<5.12E+00	0.00E+00	5.12E+00
		Cs-137	<7.74E+00	0.00E+00	7.74E+00
		BaLa-140	<6.01E+00	0.00E+00	6.01E+00
		Be-7	<5.12E+01	0.00E+00	5.12E+01
		K-40	1.64E+03	2.60E+02	1.59E+02
568382	6/7/2022 - 6/7/2022	LLI-131	<6.47E-01	0.00E+00	6.47E-01
		I-131	<7.30E+00	0.00E+00	7.30E+00
		Cs-134	<9.99E+00	0.00E+00	9.99E+00
		Cs-137	<7.33E+00	0.00E+00	7.33E+00
		BaLa-140	<5.86E+00	0.00E+00	5.86E+00
		Be-7	<5.09E+01	0.00E+00	5.09E+01
		K-40	1.59E+03	2.40E+02	1.79E+01
568836	6/21/2022 - 6/21/2022	LLI-131	<6.24E-01	0.00E+00	6.24E-01
		I-131	<9.03E+00	0.00E+00	9.03E+00
		Cs-134	<6.63E+00	0.00E+00	6.63E+00
		Cs-137	<8.54E+00	0.00E+00	8.54E+00
		BaLa-140	<5.86E+00	0.00E+00	5.86E+00
		Be-7	<4.56E+01	0.00E+00	4.56E+01
		K-40	1.28E+03	2.15E+02	8.26E+01
570295	7/6/2022 - 7/6/2022	LLI-131	<6.24E-01	0.00E+00	6.24E-01
		I-131	<6.42E+00	0.00E+00	6.42E+00
		Cs-134	<9.18E+00	0.00E+00	9.18E+00
		Cs-137	<9.19E+00	0.00E+00	9.19E+00
		BaLa-140	<9.59E+00	0.00E+00	9.59E+00
		Be-7	<4.82E+01	0.00E+00	4.82E+01
		K-40	1.48E+03	2.49E+02	1.74E+02
571107	7/19/2022 - 7/19/2022	LLI-131	<5.89E-01	0.00E+00	5.89E-01
		I-131	<6.83E+00	0.00E+00	6.83E+00
		Cs-134	<8.82E+00	0.00E+00	8.82E+00
		Cs-137	<6.65E+00	0.00E+00	6.65E+00
		BaLa-140	<5.66E+00	0.00E+00	5.66E+00
		Be-7	<5.73E+01	0.00E+00	5.73E+01

CATAWBA Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: MILK Concentration (Activity): pCi/l
 Sample Point 221 [CONTROL - NW @ 14.5 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
571107	7/19/2022 - 7/19/2022	K-40	1.54E+03	2.45E+02	1.32E+02
571706	8/2/2022 - 8/2/2022	LLI-131	<5.99E-01	0.00E+00	5.99E-01
		I-131	<6.85E+00	0.00E+00	6.85E+00
		Cs-134	<9.18E+00	0.00E+00	9.18E+00
		Cs-137	<6.40E+00	0.00E+00	6.40E+00
		BaLa-140	<5.85E+00	0.00E+00	5.85E+00
		Be-7	<4.20E+01	0.00E+00	4.20E+01
		K-40	1.53E+03	2.41E+02	1.09E+02
560159	8/16/2022 - 8/16/2022	LLI-131	<5.96E-01	0.00E+00	5.96E-01
		I-131	<7.97E+00	0.00E+00	7.97E+00
		Cs-134	<7.22E+00	0.00E+00	7.22E+00
		Cs-137	<6.88E+00	0.00E+00	6.88E+00
		BaLa-140	<7.32E+00	0.00E+00	7.32E+00
		Be-7	<4.80E+01	0.00E+00	4.80E+01
		K-40	1.43E+03	2.29E+02	9.20E+01
573918	8/30/2022 - 8/30/2022	LLI-131	<6.22E-01	0.00E+00	6.22E-01
		I-131	<7.05E+00	0.00E+00	7.05E+00
		Cs-134	<1.04E+01	0.00E+00	1.04E+01
		Cs-137	<8.50E+00	0.00E+00	8.50E+00
		BaLa-140	<7.37E+00	0.00E+00	7.37E+00
		Be-7	<4.81E+01	0.00E+00	4.81E+01
		K-40	1.44E+03	2.36E+02	1.31E+02
575008	9/13/2022 - 9/13/2022	LLI-131	<5.76E-01	0.00E+00	5.76E-01
		I-131	<7.45E+00	0.00E+00	7.45E+00
		Cs-134	<8.27E+00	0.00E+00	8.27E+00
		Cs-137	<7.74E+00	0.00E+00	7.74E+00
		BaLa-140	<5.83E+00	0.00E+00	5.83E+00
		Be-7	<4.52E+01	0.00E+00	4.52E+01
		K-40	1.48E+03	2.37E+02	1.12E+02
576093	9/27/2022 - 9/27/2022	LLI-131	<6.46E-01	0.00E+00	6.46E-01
		I-131	<7.20E+00	0.00E+00	7.20E+00
		Cs-134	<8.74E+00	0.00E+00	8.74E+00
		Cs-137	<7.74E+00	0.00E+00	7.74E+00
		BaLa-140	<5.80E+00	0.00E+00	5.80E+00
		Be-7	<5.56E+01	0.00E+00	5.56E+01
		K-40	1.53E+03	2.47E+02	1.45E+02
577767	10/11/2022 - 10/11/2022	LLI-131	<6.33E-01	0.00E+00	6.33E-01
		I-131	<6.82E+00	0.00E+00	6.82E+00
		Cs-134	<9.18E+00	0.00E+00	9.18E+00
		Cs-137	<8.85E+00	0.00E+00	8.85E+00
		BaLa-140	<1.04E+01	0.00E+00	1.04E+01
		Be-7	<4.20E+01	0.00E+00	4.20E+01
		K-40	1.30E+03	2.21E+02	1.22E+02
578832	10/25/2022 - 10/25/2022	LLI-131	<6.61E-01	0.00E+00	6.61E-01
		I-131	<7.04E+00	0.00E+00	7.04E+00
		Cs-134	<9.18E+00	0.00E+00	9.18E+00
		Cs-137	<8.13E+00	0.00E+00	8.13E+00
		BaLa-140	<8.53E+00	0.00E+00	8.53E+00
		Be-7	<4.52E+01	0.00E+00	4.52E+01
		K-40	1.43E+03	2.33E+02	1.16E+02

CATAWBA Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: MILK Concentration (Activity): pCi/l

Sample Point 221 [CONTROL - NW @ 14.5 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
579791	11/8/2022 - 11/8/2022	LLI-131	<6.98E-01	0.00E+00	6.98E-01
		I-131	<6.15E+00	0.00E+00	6.15E+00
		Cs-134	<7.78E+00	0.00E+00	7.78E+00
		Cs-137	<8.89E+00	0.00E+00	8.89E+00
		BaLa-140	<7.38E+00	0.00E+00	7.38E+00
		Be-7	<5.62E+01	0.00E+00	5.62E+01
		K-40	1.51E+03	2.37E+02	8.35E+01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
580817	11/22/2022 - 11/22/2022	LLI-131	<7.10E-01	0.00E+00	7.10E-01
		I-131	<6.34E+00	0.00E+00	6.34E+00
		Cs-134	<9.60E+00	0.00E+00	9.60E+00
		Cs-137	<9.51E+00	0.00E+00	9.51E+00
		BaLa-140	<2.14E+00	0.00E+00	2.14E+00
		Be-7	<5.34E+01	0.00E+00	5.34E+01
		K-40	1.44E+03	2.29E+02	8.13E+01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
581704	12/6/2022 - 12/6/2022	LLI-131	<7.88E-01	0.00E+00	7.88E-01
		I-131	<6.31E+00	0.00E+00	6.31E+00
		Cs-134	<8.48E+00	0.00E+00	8.48E+00
		Cs-137	<7.52E+00	0.00E+00	7.52E+00
		BaLa-140	<5.72E+00	0.00E+00	5.72E+00
		Be-7	<5.23E+01	0.00E+00	5.23E+01
		K-40	1.46E+03	2.26E+02	1.75E+01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
582427	12/20/2022 - 12/20/2022	LLI-131	<7.51E-01	0.00E+00	7.51E-01
		I-131	<5.82E+00	0.00E+00	5.82E+00
		Cs-134	<8.27E+00	0.00E+00	8.27E+00
		Cs-137	<8.85E+00	0.00E+00	8.85E+00
		BaLa-140	<2.14E+00	0.00E+00	2.14E+00
		Be-7	<5.81E+01	0.00E+00	5.81E+01
		K-40	1.48E+03	2.33E+02	8.81E+01

Media Type: SEDIMENT_SHORE Concentration (Activity): pCi/kg

Sample Point 208 [INDICATOR - S @ 0.45 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
562848	4/12/2022 - 4/12/2022	Mn-54	<6.67E+01	0.00E+00	6.67E+01
		Co-58	<6.56E+01	0.00E+00	6.56E+01
		Fe-59	<2.21E+02	0.00E+00	2.21E+02
		Co-60	<1.20E+02	0.00E+00	1.20E+02
		Zn-65	<1.76E+02	0.00E+00	1.76E+02
		Zr-95	<1.38E+02	0.00E+00	1.38E+02
		Nb-95	<1.05E+02	0.00E+00	1.05E+02
		I-131	<3.09E+02	0.00E+00	3.09E+02
		Cs-134	<8.25E+01	0.00E+00	8.25E+01
		Cs-137	<7.09E+01	0.00E+00	7.09E+01
		Be-7	<7.29E+02	0.00E+00	7.29E+02
		K-40	1.83E+04	2.61E+03	1.40E+03
		Co-57	<5.73E+01	0.00E+00	5.73E+01
		Mo-99	<1.30E+05	0.00E+00	1.30E+05
		Ag-110M	<5.91E+01	0.00E+00	5.91E+01
		Sb-122	<2.56E+04	0.00E+00	2.56E+04
Sb-125	<1.41E+02	0.00E+00	1.41E+02		

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
575694	10/18/2022 - 10/18/2022	Mn-54	<6.05E+01	0.00E+00	6.05E+01
		Co-58	5.84E+01	4.53E+01	7.05E+01
		Fe-59	<1.05E+02	0.00E+00	1.05E+02
		Co-60	1.29E+02	5.83E+01	7.84E+01
		Zn-65	<1.31E+02	0.00E+00	1.31E+02
		Zr-95	<8.99E+01	0.00E+00	8.99E+01
		Nb-95	<5.54E+01	0.00E+00	5.54E+01

CATAWBA Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: SEDIMENT_SHORE Concentration (Activity): pCi/kg

Sample Point 208 [INDICATOR - S @ 0.45 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
575694	10/18/2022 - 10/18/2022	I-131	<4.64E+01	0.00E+00	4.64E+01
		Cs-134	<6.64E+01	0.00E+00	6.64E+01
		Cs-137	<5.25E+01	0.00E+00	5.25E+01
		Be-7	1.20E+02	2.46E+02	4.19E+02
		K-40	2.04E+04	2.29E+03	5.37E+02
		Co-57	<3.50E+01	0.00E+00	3.50E+01
		Mo-99	<6.93E+02	0.00E+00	6.93E+02
		Ag-110M	<4.45E+01	0.00E+00	4.45E+01
		Sb-122	<9.43E+01	0.00E+00	9.43E+01
		Sb-125	<1.06E+02	0.00E+00	1.06E+02

Sample Point 210 [INDICATOR - SE @ 2.31 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
562849	4/12/2022 - 4/12/2022	Mn-54	<5.89E+01	0.00E+00	5.89E+01
		Co-58	<5.91E+01	0.00E+00	5.91E+01
		Fe-59	<1.30E+02	0.00E+00	1.30E+02
		Co-60	<5.51E+01	0.00E+00	5.51E+01
		Zn-65	<1.35E+02	0.00E+00	1.35E+02
		Zr-95	<8.40E+01	0.00E+00	8.40E+01
		Nb-95	<7.83E+01	0.00E+00	7.83E+01
		I-131	<3.11E+02	0.00E+00	3.11E+02
		Cs-134	<6.98E+01	0.00E+00	6.98E+01
		Cs-137	<4.17E+01	0.00E+00	4.17E+01
		Be-7	<4.35E+02	0.00E+00	4.35E+02
		K-40	1.06E+04	1.65E+03	6.14E+02
		Co-57	<3.28E+01	0.00E+00	3.28E+01
		Mo-99	<6.16E+04	0.00E+00	6.16E+04
		Ag-110M	<4.76E+01	0.00E+00	4.76E+01
		Sb-122	<1.66E+04	0.00E+00	1.66E+04
		Sb-125	<1.23E+02	0.00E+00	1.23E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
575695	10/18/2022 - 10/18/2022	Mn-54	<3.59E+01	0.00E+00	3.59E+01
		Co-58	<3.69E+01	0.00E+00	3.69E+01
		Fe-59	<6.83E+01	0.00E+00	6.83E+01
		Co-60	<3.33E+01	0.00E+00	3.33E+01
		Zn-65	<9.14E+01	0.00E+00	9.14E+01
		Zr-95	<6.42E+01	0.00E+00	6.42E+01
		Nb-95	<3.70E+01	0.00E+00	3.70E+01
		I-131	<3.48E+01	0.00E+00	3.48E+01
		Cs-134	<4.25E+01	0.00E+00	4.25E+01
		Cs-137	<3.89E+01	0.00E+00	3.89E+01
		Be-7	<2.83E+02	0.00E+00	2.83E+02
		K-40	1.13E+04	1.39E+03	4.07E+02
		Co-57	<2.59E+01	0.00E+00	2.59E+01
		Mo-99	<5.18E+02	0.00E+00	5.18E+02
		Ag-110M	<2.77E+01	0.00E+00	2.77E+01
		Sb-122	<7.38E+01	0.00E+00	7.38E+01
		Sb-125	<8.62E+01	0.00E+00	8.62E+01

Sample Point 262 [CONTROL - NNE @ 4.19 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
562850	4/12/2022 - 4/12/2022	Mn-54	<5.46E+01	0.00E+00	5.46E+01
		Co-58	<5.97E+01	0.00E+00	5.97E+01
		Fe-59	<1.14E+02	0.00E+00	1.14E+02
		Co-60	<5.91E+01	0.00E+00	5.91E+01
		Zn-65	<8.49E+01	0.00E+00	8.49E+01
		Zr-95	<1.19E+02	0.00E+00	1.19E+02
		Nb-95	<8.80E+01	0.00E+00	8.80E+01
		I-131	<3.96E+02	0.00E+00	3.96E+02
		Cs-134	<9.79E+01	0.00E+00	9.79E+01
		Cs-137	<6.68E+01	0.00E+00	6.68E+01
		Be-7	<6.42E+02	0.00E+00	6.42E+02

CATAWBA Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: SEDIMENT_SHORE Concentration (Activity): pCi/kg

Sample Point 262 [CONTROL - NNE @ 4.19 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
562850	4/12/2022 - 4/12/2022	K-40	6.07E+03	1.32E+03	1.06E+03
		Co-57	<5.45E+01	0.00E+00	5.45E+01
		Mo-99	<1.45E+05	0.00E+00	1.45E+05
		Ag-110M	<6.49E+01	0.00E+00	6.49E+01
		Sb-122	<2.24E+04	0.00E+00	2.24E+04
		Sb-125	<1.78E+02	0.00E+00	1.78E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
575696	10/18/2022 - 10/18/2022	Mn-54	<8.38E+01	0.00E+00	8.38E+01
		Co-58	<7.55E+01	0.00E+00	7.55E+01
		Fe-59	<1.54E+02	0.00E+00	1.54E+02
		Co-60	<6.22E+01	0.00E+00	6.22E+01
		Zn-65	<1.28E+02	0.00E+00	1.28E+02
		Zr-95	<1.19E+02	0.00E+00	1.19E+02
		Nb-95	<8.55E+01	0.00E+00	8.55E+01
		I-131	<7.50E+01	0.00E+00	7.50E+01
		Cs-134	<1.10E+02	0.00E+00	1.10E+02
		Cs-137	<8.96E+01	0.00E+00	8.96E+01
		Be-7	<5.35E+02	0.00E+00	5.35E+02
		K-40	9.88E+03	1.79E+03	1.31E+03
		Co-57	<5.96E+01	0.00E+00	5.96E+01
		Mo-99	<9.54E+02	0.00E+00	9.54E+02
		Ag-110M	<6.62E+01	0.00E+00	6.62E+01
		Sb-122	<1.56E+02	0.00E+00	1.56E+02
		Sb-125	<2.11E+02	0.00E+00	2.11E+02

Media Type: SURFACE WATER Concentration (Activity): pCi/l

Sample Point 208 [INDICATOR - S @ 0.45 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
559357	12/28/2021 - 1/25/2022	Mn-54	<3.12E+00	0.00E+00	3.12E+00
		Co-58	<3.55E+00	0.00E+00	3.55E+00
		Fe-59	<6.11E+00	0.00E+00	6.11E+00
		Co-60	<3.64E+00	0.00E+00	3.64E+00
		Zn-65	<7.47E+00	0.00E+00	7.47E+00
		Zr-95	<6.65E+00	0.00E+00	6.65E+00
		Nb-95	<3.84E+00	0.00E+00	3.84E+00
		I-131	<1.12E+01	0.00E+00	1.12E+01
		Cs-134	<3.77E+00	0.00E+00	3.77E+00
		Cs-137	<3.12E+00	0.00E+00	3.12E+00
		BaLa-140	<6.69E+00	0.00E+00	6.69E+00
		Be-7	<3.17E+01	0.00E+00	3.17E+01
		K-40	4.97E+01	3.37E+01	4.95E+01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
560939	1/25/2022 - 2/22/2022	Mn-54	<3.23E+00	0.00E+00	3.23E+00
		Co-58	<3.02E+00	0.00E+00	3.02E+00
		Fe-59	<7.97E+00	0.00E+00	7.97E+00
		Co-60	<3.23E+00	0.00E+00	3.23E+00
		Zn-65	<6.46E+00	0.00E+00	6.46E+00
		Zr-95	<4.26E+00	0.00E+00	4.26E+00
		Nb-95	<4.40E+00	0.00E+00	4.40E+00
		I-131	<1.18E+01	0.00E+00	1.18E+01
		Cs-134	<3.98E+00	0.00E+00	3.98E+00
		Cs-137	<4.11E+00	0.00E+00	4.11E+00
		BaLa-140	<7.35E+00	0.00E+00	7.35E+00
		Be-7	<2.62E+01	0.00E+00	2.62E+01
		K-40	1.23E+02	4.10E+01	4.82E+01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
563134	2/22/2022 - 3/22/2022	Mn-54	<3.65E+00	0.00E+00	3.65E+00
		Co-58	<3.19E+00	0.00E+00	3.19E+00
		Fe-59	<6.90E+00	0.00E+00	6.90E+00
		Co-60	<3.35E+00	0.00E+00	3.35E+00
		Zn-65	<6.78E+00	0.00E+00	6.78E+00

CATAWBA Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: SURFACE WATER Concentration (Activity): pCi/l
 Sample Point 208 [INDICATOR - S @ 0.45 miles]

Sample ID	Sample Dates	Nuclide	Activity	2 Sigma Error	MDA
563134	2/22/2022 - 3/22/2022	Zr-95	<6.65E+00	0.00E+00	6.65E+00
		Nb-95	<4.61E+00	0.00E+00	4.61E+00
		I-131	<1.14E+01	0.00E+00	1.14E+01
		Cs-134	<3.55E+00	0.00E+00	3.55E+00
		Cs-137	<3.21E+00	0.00E+00	3.21E+00
		BaLa-140	<5.26E+00	0.00E+00	5.26E+00
		Be-7	<3.10E+01	0.00E+00	3.10E+01
		K-40	1.02E+02	4.19E+01	5.33E+01
560625	12/28/2021 - 4/19/2022	H3SW	4.72E+03	2.08E+02	1.71E+02
564645	3/22/2022 - 4/19/2022	Mn-54	<2.89E+00	0.00E+00	2.89E+00
		Co-58	<2.99E+00	0.00E+00	2.99E+00
		Fe-59	<6.82E+00	0.00E+00	6.82E+00
		Co-60	<2.07E+00	0.00E+00	2.07E+00
		Zn-65	<4.99E+00	0.00E+00	4.99E+00
		Zr-95	<5.49E+00	0.00E+00	5.49E+00
		Nb-95	<3.78E+00	0.00E+00	3.78E+00
		I-131	<1.13E+01	0.00E+00	1.13E+01
		Cs-134	<3.84E+00	0.00E+00	3.84E+00
		Cs-137	<2.90E+00	0.00E+00	2.90E+00
		BaLa-140	<6.72E+00	0.00E+00	6.72E+00
		Be-7	<3.12E+01	0.00E+00	3.12E+01
		K-40	5.73E+01	2.72E+01	3.29E+01
		566726	4/19/2022 - 5/17/2022	Mn-54	<3.13E+00
Co-58	<4.10E+00			0.00E+00	4.10E+00
Fe-59	<7.66E+00			0.00E+00	7.66E+00
Co-60	<3.89E+00			0.00E+00	3.89E+00
Zn-65	<6.44E+00			0.00E+00	6.44E+00
Zr-95	<7.96E+00			0.00E+00	7.96E+00
Nb-95	<4.75E+00			0.00E+00	4.75E+00
I-131	<1.20E+01			0.00E+00	1.20E+01
Cs-134	<3.48E+00			0.00E+00	3.48E+00
Cs-137	<3.66E+00			0.00E+00	3.66E+00
BaLa-140	<7.50E+00			0.00E+00	7.50E+00
Be-7	<3.10E+01			0.00E+00	3.10E+01
K-40	1.32E+02			4.63E+01	5.75E+01
568167	5/17/2022 - 6/14/2022			Mn-54	<2.95E+00
		Co-58	<3.76E+00	0.00E+00	3.76E+00
		Fe-59	<8.88E+00	0.00E+00	8.88E+00
		Co-60	<2.09E+00	0.00E+00	2.09E+00
		Zn-65	<6.91E+00	0.00E+00	6.91E+00
		Zr-95	<7.80E+00	0.00E+00	7.80E+00
		Nb-95	<4.80E+00	0.00E+00	4.80E+00
		I-131	<1.11E+01	0.00E+00	1.11E+01
		Cs-134	<3.27E+00	0.00E+00	3.27E+00
		Cs-137	<3.31E+00	0.00E+00	3.31E+00
		BaLa-140	<8.48E+00	0.00E+00	8.48E+00
		Be-7	<3.01E+01	0.00E+00	3.01E+01
		K-40	9.69E+01	4.27E+01	5.54E+01
		566503	4/19/2022 - 7/12/2022	H3SW	5.96E+03
569994	6/14/2022 - 7/12/2022	Mn-54	<2.94E+00	0.00E+00	2.94E+00
		Co-58	<3.25E+00	0.00E+00	3.25E+00
		Fe-59	<5.90E+00	0.00E+00	5.90E+00
		Co-60	<3.45E+00	0.00E+00	3.45E+00

CATAWBA Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: SURFACE WATER Concentration (Activity): pCi/l
 Sample Point 208 [INDICATOR - S @ 0.45 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
569994	6/14/2022 - 7/12/2022	Zn-65	<5.25E+00	0.00E+00	5.25E+00
		Zr-95	<5.93E+00	0.00E+00	5.93E+00
		Nb-95	<3.73E+00	0.00E+00	3.73E+00
		I-131	<1.12E+01	0.00E+00	1.12E+01
		Cs-134	<2.75E+00	0.00E+00	2.75E+00
		Cs-137	<2.94E+00	0.00E+00	2.94E+00
		BaLa-140	<7.16E+00	0.00E+00	7.16E+00
		Be-7	<2.83E+01	0.00E+00	2.83E+01
		K-40	5.41E+01	2.86E+01	3.77E+01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
571531	7/12/2022 - 8/9/2022	Mn-54	<3.66E+00	0.00E+00	3.66E+00
		Co-58	<3.69E+00	0.00E+00	3.69E+00
		Fe-59	<6.84E+00	0.00E+00	6.84E+00
		Co-60	<3.59E+00	0.00E+00	3.59E+00
		Zn-65	<6.64E+00	0.00E+00	6.64E+00
		Zr-95	<7.70E+00	0.00E+00	7.70E+00
		Nb-95	<4.49E+00	0.00E+00	4.49E+00
		I-131	<1.14E+01	0.00E+00	1.14E+01
		Cs-134	<4.15E+00	0.00E+00	4.15E+00
		Cs-137	<3.71E+00	0.00E+00	3.71E+00
		BaLa-140	<8.22E+00	0.00E+00	8.22E+00
		Be-7	<3.35E+01	0.00E+00	3.35E+01
		K-40	6.62E+01	3.56E+01	4.90E+01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
574660	8/9/2022 - 9/7/2022	Mn-54	<2.57E+00	0.00E+00	2.57E+00
		Co-58	<2.87E+00	0.00E+00	2.87E+00
		Fe-59	<5.45E+00	0.00E+00	5.45E+00
		Co-60	<2.46E+00	0.00E+00	2.46E+00
		Zn-65	<4.88E+00	0.00E+00	4.88E+00
		Zr-95	<4.81E+00	0.00E+00	4.81E+00
		Nb-95	<3.48E+00	0.00E+00	3.48E+00
		I-131	<1.00E+01	0.00E+00	1.00E+01
		Cs-134	<2.63E+00	0.00E+00	2.63E+00
		Cs-137	<2.48E+00	0.00E+00	2.48E+00
		BaLa-140	<5.36E+00	0.00E+00	5.36E+00
		Be-7	<2.38E+01	0.00E+00	2.38E+01
		K-40	7.46E+01	2.77E+01	3.42E+01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
571707	7/12/2022 - 10/4/2022	H3SW	1.85E+04	3.84E+02	1.82E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
576375	9/7/2022 - 10/4/2022	Mn-54	<2.74E+00	0.00E+00	2.74E+00
		Co-58	<2.81E+00	0.00E+00	2.81E+00
		Fe-59	<6.35E+00	0.00E+00	6.35E+00
		Co-60	<3.26E+00	0.00E+00	3.26E+00
		Zn-65	<6.49E+00	0.00E+00	6.49E+00
		Zr-95	<5.36E+00	0.00E+00	5.36E+00
		Nb-95	<3.78E+00	0.00E+00	3.78E+00
		I-131	<1.11E+01	0.00E+00	1.11E+01
		Cs-134	<3.34E+00	0.00E+00	3.34E+00
		Cs-137	<3.50E+00	0.00E+00	3.50E+00
		BaLa-140	<6.91E+00	0.00E+00	6.91E+00
		Be-7	<2.84E+01	0.00E+00	2.84E+01
		K-40	8.02E+01	3.47E+01	4.42E+01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
578724	10/4/2022 - 11/1/2022	Mn-54	<1.93E+00	0.00E+00	1.93E+00
		Co-58	<2.24E+00	0.00E+00	2.24E+00
		Fe-59	<4.85E+00	0.00E+00	4.85E+00
		Co-60	<1.78E+00	0.00E+00	1.78E+00
		Zn-65	<3.87E+00	0.00E+00	3.87E+00
		Zr-95	<3.68E+00	0.00E+00	3.68E+00

CATAWBA Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: SURFACE WATER Concentration (Activity): pCi/l
 Sample Point 208 [INDICATOR - S @ 0.45 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
578724	10/4/2022 - 11/1/2022	Nb-95	<2.70E+00	0.00E+00	2.70E+00
		I-131	<6.95E+00	0.00E+00	6.95E+00
		Cs-134	<2.25E+00	0.00E+00	2.25E+00
		Cs-137	<1.82E+00	0.00E+00	1.82E+00
		BaLa-140	<4.51E+00	0.00E+00	4.51E+00
		Be-7	<1.93E+01	0.00E+00	1.93E+01
		K-40	9.59E+01	2.48E+01	2.77E+01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
580714	11/1/2022 - 11/29/2022	Mn-54	<3.86E+00	0.00E+00	3.86E+00
		Co-58	<3.50E+00	0.00E+00	3.50E+00
		Fe-59	<7.68E+00	0.00E+00	7.68E+00
		Co-60	<3.17E+00	0.00E+00	3.17E+00
		Zn-65	<5.83E+00	0.00E+00	5.83E+00
		Zr-95	<5.74E+00	0.00E+00	5.74E+00
		Nb-95	<4.43E+00	0.00E+00	4.43E+00
		I-131	<1.20E+01	0.00E+00	1.20E+01
		Cs-134	<3.25E+00	0.00E+00	3.25E+00
		Cs-137	<3.66E+00	0.00E+00	3.66E+00
		BaLa-140	<6.53E+00	0.00E+00	6.53E+00
		Be-7	<2.88E+01	0.00E+00	2.88E+01
		K-40	2.40E+01	2.82E+01	4.57E+01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
579150	10/4/2022 - 12/28/2022	H3SW	6.23E+03	2.40E+02	1.81E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
582311	11/29/2022 - 12/28/2022	Mn-54	<1.97E+00	0.00E+00	1.97E+00
		Co-58	<2.54E+00	0.00E+00	2.54E+00
		Fe-59	<4.71E+00	0.00E+00	4.71E+00
		Co-60	<2.10E+00	0.00E+00	2.10E+00
		Zn-65	<4.00E+00	0.00E+00	4.00E+00
		Zr-95	<4.54E+00	0.00E+00	4.54E+00
		Nb-95	<3.40E+00	0.00E+00	3.40E+00
		I-131	<1.34E+01	0.00E+00	1.34E+01
		Cs-134	<2.65E+00	0.00E+00	2.65E+00
		Cs-137	<2.15E+00	0.00E+00	2.15E+00
		BaLa-140	<6.44E+00	0.00E+00	6.44E+00
		Be-7	<1.73E+01	0.00E+00	1.73E+01
		K-40	4.69E+01	2.32E+01	3.29E+01

Sample Point 211 [INDICATOR - ESE @ 4.06 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
559358	12/28/2021 - 1/25/2022	Mn-54	<4.15E+00	0.00E+00	4.15E+00
		Co-58	<3.23E+00	0.00E+00	3.23E+00
		Fe-59	<7.63E+00	0.00E+00	7.63E+00
		Co-60	<3.42E+00	0.00E+00	3.42E+00
		Zn-65	<7.98E+00	0.00E+00	7.98E+00
		Zr-95	<5.72E+00	0.00E+00	5.72E+00
		Nb-95	<4.51E+00	0.00E+00	4.51E+00
		I-131	<1.18E+01	0.00E+00	1.18E+01
		Cs-134	<3.60E+00	0.00E+00	3.60E+00
		Cs-137	<3.81E+00	0.00E+00	3.81E+00
		BaLa-140	<7.45E+00	0.00E+00	7.45E+00
		Be-7	<3.35E+01	0.00E+00	3.35E+01
		K-40	1.05E+02	3.91E+01	3.89E+01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
560940	1/25/2022 - 2/22/2022	Mn-54	<3.25E+00	0.00E+00	3.25E+00
		Co-58	<2.97E+00	0.00E+00	2.97E+00
		Fe-59	<6.45E+00	0.00E+00	6.45E+00
		Co-60	<2.61E+00	0.00E+00	2.61E+00
		Zn-65	<6.36E+00	0.00E+00	6.36E+00
		Zr-95	<4.36E+00	0.00E+00	4.36E+00

CATAWBA Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: SURFACE WATER Concentration (Activity): pCi/l
 Sample Point 211 [INDICATOR - ESE @ 4.06 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
560940	1/25/2022 - 2/22/2022	Nb-95	<3.43E+00	0.00E+00	3.43E+00
		I-131	<1.16E+01	0.00E+00	1.16E+01
		Cs-134	<2.87E+00	0.00E+00	2.87E+00
		Cs-137	<2.62E+00	0.00E+00	2.62E+00
		BaLa-140	<7.91E+00	0.00E+00	7.91E+00
		Be-7	<3.08E+01	0.00E+00	3.08E+01
		K-40	1.22E+02	3.56E+01	2.97E+01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
563135	2/22/2022 - 3/22/2022	Mn-54	<3.73E+00	0.00E+00	3.73E+00
		Co-58	<3.73E+00	0.00E+00	3.73E+00
		Fe-59	<5.44E+00	0.00E+00	5.44E+00
		Co-60	<2.56E+00	0.00E+00	2.56E+00
		Zn-65	<7.87E+00	0.00E+00	7.87E+00
		Zr-95	<6.96E+00	0.00E+00	6.96E+00
		Nb-95	<4.87E+00	0.00E+00	4.87E+00
		I-131	<1.15E+01	0.00E+00	1.15E+01
		Cs-134	<3.31E+00	0.00E+00	3.31E+00
		Cs-137	<3.45E+00	0.00E+00	3.45E+00
		BaLa-140	<8.48E+00	0.00E+00	8.48E+00
		Be-7	<2.46E+01	0.00E+00	2.46E+01
		K-40	6.98E+01	3.29E+01	4.10E+01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
560626	12/28/2021 - 4/19/2022	H3SW	5.73E+02	1.18E+02	1.72E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
564646	3/22/2022 - 4/19/2022	Mn-54	<4.20E+00	0.00E+00	4.20E+00
		Co-58	<3.34E+00	0.00E+00	3.34E+00
		Fe-59	<7.87E+00	0.00E+00	7.87E+00
		Co-60	<3.61E+00	0.00E+00	3.61E+00
		Zn-65	<1.20E+01	0.00E+00	1.20E+01
		Zr-95	<9.29E+00	0.00E+00	9.29E+00
		Nb-95	<5.17E+00	0.00E+00	5.17E+00
		I-131	<1.01E+01	0.00E+00	1.01E+01
		Cs-134	<4.44E+00	0.00E+00	4.44E+00
		Cs-137	<3.46E+00	0.00E+00	3.46E+00
		BaLa-140	<8.23E+00	0.00E+00	8.23E+00
		Be-7	<3.55E+01	0.00E+00	3.55E+01
		K-40	<6.02E+01	0.00E+00	6.02E+01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
566727	4/19/2022 - 5/17/2022	Mn-54	<2.85E+00	0.00E+00	2.85E+00
		Co-58	<3.44E+00	0.00E+00	3.44E+00
		Fe-59	<8.09E+00	0.00E+00	8.09E+00
		Co-60	<4.45E+00	0.00E+00	4.45E+00
		Zn-65	<6.99E+00	0.00E+00	6.99E+00
		Zr-95	<6.98E+00	0.00E+00	6.98E+00
		Nb-95	<4.64E+00	0.00E+00	4.64E+00
		I-131	<1.16E+01	0.00E+00	1.16E+01
		Cs-134	<3.46E+00	0.00E+00	3.46E+00
		Cs-137	<3.47E+00	0.00E+00	3.47E+00
		BaLa-140	<6.15E+00	0.00E+00	6.15E+00
		Be-7	<3.71E+01	0.00E+00	3.71E+01
		K-40	<5.67E+01	0.00E+00	5.67E+01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
568168	5/17/2022 - 6/14/2022	Mn-54	<3.51E+00	0.00E+00	3.51E+00
		Co-58	<4.18E+00	0.00E+00	4.18E+00
		Fe-59	<5.61E+00	0.00E+00	5.61E+00
		Co-60	<3.09E+00	0.00E+00	3.09E+00
		Zn-65	<6.05E+00	0.00E+00	6.05E+00
		Zr-95	<6.69E+00	0.00E+00	6.69E+00
		Nb-95	<4.44E+00	0.00E+00	4.44E+00
		I-131	<1.19E+01	0.00E+00	1.19E+01

CATAWBA Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: SURFACE WATER Concentration (Activity): pCi/l
 Sample Point 211 [INDICATOR - ESE @ 4.06 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
568168	5/17/2022 - 6/14/2022	Cs-134	<2.90E+00	0.00E+00	2.90E+00
		Cs-137	<3.42E+00	0.00E+00	3.42E+00
		BaLa-140	<7.01E+00	0.00E+00	7.01E+00
		Be-7	<3.14E+01	0.00E+00	3.14E+01
		K-40	4.65E+01	4.50E+01	7.19E+01
566504	4/19/2022 - 7/12/2022	H3SW	5.47E+02	1.21E+02	1.79E+02
569995	6/14/2022 - 7/12/2022	Mn-54	<3.38E+00	0.00E+00	3.38E+00
		Co-58	<3.97E+00	0.00E+00	3.97E+00
		Fe-59	<5.96E+00	0.00E+00	5.96E+00
		Co-60	<3.70E+00	0.00E+00	3.70E+00
		Zn-65	<6.04E+00	0.00E+00	6.04E+00
		Zr-95	<7.63E+00	0.00E+00	7.63E+00
		Nb-95	<3.88E+00	0.00E+00	3.88E+00
		I-131	<1.15E+01	0.00E+00	1.15E+01
		Cs-134	<4.00E+00	0.00E+00	4.00E+00
		Cs-137	<3.69E+00	0.00E+00	3.69E+00
		BaLa-140	<8.12E+00	0.00E+00	8.12E+00
		Be-7	<3.04E+01	0.00E+00	3.04E+01
		K-40	<6.71E+01	0.00E+00	6.71E+01
		571532	7/12/2022 - 8/9/2022	Mn-54	<2.59E+00
Co-58	<3.03E+00			0.00E+00	3.03E+00
Fe-59	<5.69E+00			0.00E+00	5.69E+00
Co-60	<2.88E+00			0.00E+00	2.88E+00
Zn-65	<6.39E+00			0.00E+00	6.39E+00
Zr-95	<5.11E+00			0.00E+00	5.11E+00
Nb-95	<3.91E+00			0.00E+00	3.91E+00
I-131	<1.19E+01			0.00E+00	1.19E+01
Cs-134	<3.28E+00			0.00E+00	3.28E+00
Cs-137	<3.10E+00			0.00E+00	3.10E+00
BaLa-140	<6.45E+00			0.00E+00	6.45E+00
Be-7	<3.09E+01			0.00E+00	3.09E+01
K-40	8.14E+01			2.94E+01	2.86E+01
574661	8/9/2022 - 9/7/2022			Mn-54	<2.42E+00
		Co-58	<3.87E+00	0.00E+00	3.87E+00
		Fe-59	<7.18E+00	0.00E+00	7.18E+00
		Co-60	<3.76E+00	0.00E+00	3.76E+00
		Zn-65	<6.46E+00	0.00E+00	6.46E+00
		Zr-95	<6.26E+00	0.00E+00	6.26E+00
		Nb-95	<4.06E+00	0.00E+00	4.06E+00
		I-131	<1.18E+01	0.00E+00	1.18E+01
		Cs-134	<3.79E+00	0.00E+00	3.79E+00
		Cs-137	<2.56E+00	0.00E+00	2.56E+00
		BaLa-140	<7.99E+00	0.00E+00	7.99E+00
		Be-7	<2.41E+01	0.00E+00	2.41E+01
		K-40	6.21E+01	3.33E+01	4.60E+01
		571708	7/12/2022 - 10/4/2022	H3SW	1.34E+03
576376	9/7/2022 - 10/4/2022	Mn-54	<2.32E+00	0.00E+00	2.32E+00
		Co-58	<3.18E+00	0.00E+00	3.18E+00
		Fe-59	<6.83E+00	0.00E+00	6.83E+00
		Co-60	<2.81E+00	0.00E+00	2.81E+00
		Zn-65	<5.45E+00	0.00E+00	5.45E+00
		Zr-95	<4.93E+00	0.00E+00	4.93E+00
		Nb-95	<3.53E+00	0.00E+00	3.53E+00

CATAWBA Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: SURFACE WATER Concentration (Activity): pCi/l
 Sample Point 211 [INDICATOR - ESE @ 4.06 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
576376	9/7/2022 - 10/4/2022	I-131	<1.09E+01	0.00E+00	1.09E+01
		Cs-134	<3.39E+00	0.00E+00	3.39E+00
		Cs-137	<2.64E+00	0.00E+00	2.64E+00
		BaLa-140	<5.83E+00	0.00E+00	5.83E+00
		Be-7	<2.60E+01	0.00E+00	2.60E+01
		K-40	7.98E+01	3.46E+01	4.41E+01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
578725	10/4/2022 - 11/1/2022	Mn-54	<2.91E+00	0.00E+00	2.91E+00
		Co-58	<3.75E+00	0.00E+00	3.75E+00
		Fe-59	<7.43E+00	0.00E+00	7.43E+00
		Co-60	<3.11E+00	0.00E+00	3.11E+00
		Zn-65	<6.80E+00	0.00E+00	6.80E+00
		Zr-95	<5.40E+00	0.00E+00	5.40E+00
		Nb-95	<5.02E+00	0.00E+00	5.02E+00
		I-131	<1.04E+01	0.00E+00	1.04E+01
		Cs-134	<3.62E+00	0.00E+00	3.62E+00
		Cs-137	<3.30E+00	0.00E+00	3.30E+00
		BaLa-140	<7.53E+00	0.00E+00	7.53E+00
		Be-7	<2.88E+01	0.00E+00	2.88E+01
		K-40	5.81E+01	3.46E+01	5.03E+01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
580715	11/1/2022 - 11/29/2022	Mn-54	<3.64E+00	0.00E+00	3.64E+00
		Co-58	<4.02E+00	0.00E+00	4.02E+00
		Fe-59	<5.30E+00	0.00E+00	5.30E+00
		Co-60	<3.80E+00	0.00E+00	3.80E+00
		Zn-65	<7.00E+00	0.00E+00	7.00E+00
		Zr-95	<6.04E+00	0.00E+00	6.04E+00
		Nb-95	<4.50E+00	0.00E+00	4.50E+00
		I-131	<1.32E+01	0.00E+00	1.32E+01
		Cs-134	<4.04E+00	0.00E+00	4.04E+00
		Cs-137	<3.85E+00	0.00E+00	3.85E+00
		BaLa-140	<8.40E+00	0.00E+00	8.40E+00
		Be-7	<3.91E+01	0.00E+00	3.91E+01
		K-40	1.06E+02	4.57E+01	5.42E+01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
579151	10/4/2022 - 12/28/2022	H3SW	8.36E+02	1.32E+02	1.82E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
582312	11/29/2022 - 12/28/2022	Mn-54	<1.95E+00	0.00E+00	1.95E+00
		Co-58	<1.85E+00	0.00E+00	1.85E+00
		Fe-59	<4.58E+00	0.00E+00	4.58E+00
		Co-60	<1.83E+00	0.00E+00	1.83E+00
		Zn-65	<3.50E+00	0.00E+00	3.50E+00
		Zr-95	<3.73E+00	0.00E+00	3.73E+00
		Nb-95	<2.75E+00	0.00E+00	2.75E+00
		I-131	<1.22E+01	0.00E+00	1.22E+01
		Cs-134	<2.17E+00	0.00E+00	2.17E+00
		Cs-137	<2.33E+00	0.00E+00	2.33E+00
		BaLa-140	<5.28E+00	0.00E+00	5.28E+00
		Be-7	<1.92E+01	0.00E+00	1.92E+01
		K-40	9.02E+01	2.59E+01	3.23E+01

Sample Point 263 [CONTROL - NNE @ 0.59 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
559359	12/28/2021 - 1/25/2022	Mn-54	<3.38E+00	0.00E+00	3.38E+00
		Co-58	<3.26E+00	0.00E+00	3.26E+00
		Fe-59	<5.56E+00	0.00E+00	5.56E+00
		Co-60	<2.33E+00	0.00E+00	2.33E+00
		Zn-65	<5.63E+00	0.00E+00	5.63E+00
		Zr-95	<5.06E+00	0.00E+00	5.06E+00
		Nb-95	<4.39E+00	0.00E+00	4.39E+00

CATAWBA Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: SURFACE WATER Concentration (Activity): pCi/l
 Sample Point 263 [CONTROL - NNE @ 0.59 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
559359	12/28/2021 - 1/25/2022	I-131	<1.20E+01	0.00E+00	1.20E+01
		Cs-134	<3.15E+00	0.00E+00	3.15E+00
		Cs-137	<2.64E+00	0.00E+00	2.64E+00
		BaLa-140	<7.54E+00	0.00E+00	7.54E+00
		Be-7	<2.55E+01	0.00E+00	2.55E+01
		K-40	<4.31E+01	0.00E+00	4.31E+01
560941	1/25/2022 - 2/22/2022	Mn-54	<2.94E+00	0.00E+00	2.94E+00
		Co-58	<3.97E+00	0.00E+00	3.97E+00
		Fe-59	<7.08E+00	0.00E+00	7.08E+00
		Co-60	<3.62E+00	0.00E+00	3.62E+00
		Zn-65	<7.46E+00	0.00E+00	7.46E+00
		Zr-95	<7.20E+00	0.00E+00	7.20E+00
		Nb-95	<3.99E+00	0.00E+00	3.99E+00
		I-131	<1.06E+01	0.00E+00	1.06E+01
		Cs-134	<3.15E+00	0.00E+00	3.15E+00
		Cs-137	<2.76E+00	0.00E+00	2.76E+00
		BaLa-140	<8.73E+00	0.00E+00	8.73E+00
		Be-7	<3.10E+01	0.00E+00	3.10E+01
		K-40	5.96E+01	2.26E+01	5.57E+00
		563136	2/22/2022 - 3/22/2022	Mn-54	<2.58E+00
Co-58	<2.85E+00			0.00E+00	2.85E+00
Fe-59	<6.74E+00			0.00E+00	6.74E+00
Co-60	<3.38E+00			0.00E+00	3.38E+00
Zn-65	<6.19E+00			0.00E+00	6.19E+00
Zr-95	<5.29E+00			0.00E+00	5.29E+00
Nb-95	<3.18E+00			0.00E+00	3.18E+00
I-131	<1.11E+01			0.00E+00	1.11E+01
Cs-134	<3.13E+00			0.00E+00	3.13E+00
Cs-137	<2.45E+00			0.00E+00	2.45E+00
BaLa-140	<7.13E+00			0.00E+00	7.13E+00
Be-7	<2.70E+01			0.00E+00	2.70E+01
K-40	7.43E+01			2.38E+01	2.80E+01
560627	12/28/2021 - 4/19/2022			H3SW	3.11E+02
564647	3/22/2022 - 4/19/2022	Mn-54	<2.15E+00	0.00E+00	2.15E+00
		Co-58	<2.75E+00	0.00E+00	2.75E+00
		Fe-59	<6.42E+00	0.00E+00	6.42E+00
		Co-60	<2.61E+00	0.00E+00	2.61E+00
		Zn-65	<5.38E+00	0.00E+00	5.38E+00
		Zr-95	<5.13E+00	0.00E+00	5.13E+00
		Nb-95	<3.70E+00	0.00E+00	3.70E+00
		I-131	<1.19E+01	0.00E+00	1.19E+01
		Cs-134	<2.91E+00	0.00E+00	2.91E+00
		Cs-137	<2.69E+00	0.00E+00	2.69E+00
		BaLa-140	<6.00E+00	0.00E+00	6.00E+00
		Be-7	<3.35E+01	0.00E+00	3.35E+01
		K-40	8.51E+01	3.27E+01	4.52E+01
		566728	4/19/2022 - 5/17/2022	Mn-54	<2.91E+00
Co-58	<3.21E+00			0.00E+00	3.21E+00
Fe-59	<7.38E+00			0.00E+00	7.38E+00
Co-60	<2.99E+00			0.00E+00	2.99E+00
Zn-65	<6.73E+00			0.00E+00	6.73E+00
Zr-95	<5.53E+00			0.00E+00	5.53E+00
Nb-95	<3.98E+00			0.00E+00	3.98E+00
I-131	<1.18E+01			0.00E+00	1.18E+01
Cs-134	<3.41E+00			0.00E+00	3.41E+00

CATAWBA Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: SURFACE WATER Concentration (Activity): pCi/l
 Sample Point 263 [CONTROL - NNE @ 0.59 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
566728	4/19/2022 - 5/17/2022	Cs-137	<3.00E+00	0.00E+00	3.00E+00
		BaLa-140	<8.35E+00	0.00E+00	8.35E+00
		Be-7	<3.46E+01	0.00E+00	3.46E+01
		K-40	6.31E+01	2.94E+01	3.67E+01
568169	5/17/2022 - 6/14/2022	Mn-54	<2.98E+00	0.00E+00	2.98E+00
		Co-58	<3.41E+00	0.00E+00	3.41E+00
		Fe-59	<6.45E+00	0.00E+00	6.45E+00
		Co-60	<3.83E+00	0.00E+00	3.83E+00
		Zn-65	<5.70E+00	0.00E+00	5.70E+00
		Zr-95	<5.60E+00	0.00E+00	5.60E+00
		Nb-95	<4.31E+00	0.00E+00	4.31E+00
		I-131	<1.11E+01	0.00E+00	1.11E+01
		Cs-134	<3.78E+00	0.00E+00	3.78E+00
		Cs-137	<3.32E+00	0.00E+00	3.32E+00
		BaLa-140	<6.33E+00	0.00E+00	6.33E+00
		Be-7	<2.97E+01	0.00E+00	2.97E+01
		K-40	9.23E+01	4.20E+01	5.55E+01
566505	4/19/2022 - 7/12/2022	H3SW	4.13E+02	1.17E+02	1.79E+02
569996	6/14/2022 - 7/12/2022	Mn-54	<3.40E+00	0.00E+00	3.40E+00
		Co-58	<3.76E+00	0.00E+00	3.76E+00
		Fe-59	<6.87E+00	0.00E+00	6.87E+00
		Co-60	<3.90E+00	0.00E+00	3.90E+00
		Zn-65	<7.80E+00	0.00E+00	7.80E+00
		Zr-95	<5.44E+00	0.00E+00	5.44E+00
		Nb-95	<3.91E+00	0.00E+00	3.91E+00
		I-131	<1.18E+01	0.00E+00	1.18E+01
		Cs-134	<2.91E+00	0.00E+00	2.91E+00
		Cs-137	<2.84E+00	0.00E+00	2.84E+00
		BaLa-140	<6.76E+00	0.00E+00	6.76E+00
		Be-7	<3.16E+01	0.00E+00	3.16E+01
		K-40	6.91E+01	3.52E+01	4.56E+01
571533	7/12/2022 - 8/9/2022	Mn-54	<3.11E+00	0.00E+00	3.11E+00
		Co-58	<3.61E+00	0.00E+00	3.61E+00
		Fe-59	<6.21E+00	0.00E+00	6.21E+00
		Co-60	<2.57E+00	0.00E+00	2.57E+00
		Zn-65	<6.62E+00	0.00E+00	6.62E+00
		Zr-95	<6.65E+00	0.00E+00	6.65E+00
		Nb-95	<4.64E+00	0.00E+00	4.64E+00
		I-131	<1.20E+01	0.00E+00	1.20E+01
		Cs-134	<4.56E+00	0.00E+00	4.56E+00
		Cs-137	<2.45E+00	0.00E+00	2.45E+00
		BaLa-140	<8.06E+00	0.00E+00	8.06E+00
		Be-7	<3.60E+01	0.00E+00	3.60E+01
		K-40	<6.58E+01	0.00E+00	6.58E+01
574662	8/9/2022 - 9/7/2022	Mn-54	<2.84E+00	0.00E+00	2.84E+00
		Co-58	<4.20E+00	0.00E+00	4.20E+00
		Fe-59	<6.93E+00	0.00E+00	6.93E+00
		Co-60	<3.30E+00	0.00E+00	3.30E+00
		Zn-65	<5.77E+00	0.00E+00	5.77E+00
		Zr-95	<7.31E+00	0.00E+00	7.31E+00
		Nb-95	<3.59E+00	0.00E+00	3.59E+00
		I-131	<1.17E+01	0.00E+00	1.17E+01
		Cs-134	<3.38E+00	0.00E+00	3.38E+00
		Cs-137	<3.32E+00	0.00E+00	3.32E+00
		BaLa-140	<8.97E+00	0.00E+00	8.97E+00

CATAWBA Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: SURFACE WATER Concentration (Activity): pCi/l
 Sample Point 263 [CONTROL - NNE @ 0.59 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
574662	8/9/2022 - 9/7/2022	Be-7	<3.20E+01	0.00E+00	3.20E+01
		K-40	8.68E+01	3.82E+01	4.90E+01
571709	7/12/2022 - 10/4/2022	H3SW	5.34E+02	1.23E+02	1.82E+02
576377	9/7/2022 - 10/4/2022	Mn-54	<3.56E+00	0.00E+00	3.56E+00
		Co-58	<4.28E+00	0.00E+00	4.28E+00
		Fe-59	<5.12E+00	0.00E+00	5.12E+00
		Co-60	<3.22E+00	0.00E+00	3.22E+00
		Zn-65	<9.06E+00	0.00E+00	9.06E+00
		Zr-95	<5.65E+00	0.00E+00	5.65E+00
		Nb-95	<4.20E+00	0.00E+00	4.20E+00
		I-131	<1.15E+01	0.00E+00	1.15E+01
		Cs-134	<3.95E+00	0.00E+00	3.95E+00
		Cs-137	<3.67E+00	0.00E+00	3.67E+00
		BaLa-140	<6.89E+00	0.00E+00	6.89E+00
		Be-7	<3.07E+01	0.00E+00	3.07E+01
		K-40	<7.27E+01	0.00E+00	7.27E+01
578726	10/4/2022 - 11/1/2022	Mn-54	<3.02E+00	0.00E+00	3.02E+00
		Co-58	<3.45E+00	0.00E+00	3.45E+00
		Fe-59	<8.19E+00	0.00E+00	8.19E+00
		Co-60	<2.95E+00	0.00E+00	2.95E+00
		Zn-65	<6.67E+00	0.00E+00	6.67E+00
		Zr-95	<5.30E+00	0.00E+00	5.30E+00
		Nb-95	<4.60E+00	0.00E+00	4.60E+00
		I-131	<1.20E+01	0.00E+00	1.20E+01
		Cs-134	<3.00E+00	0.00E+00	3.00E+00
		Cs-137	<3.32E+00	0.00E+00	3.32E+00
		BaLa-140	<6.72E+00	0.00E+00	6.72E+00
		Be-7	<3.03E+01	0.00E+00	3.03E+01
		K-40	5.79E+01	3.72E+01	5.45E+01
580716	11/1/2022 - 11/29/2022	Mn-54	<3.02E+00	0.00E+00	3.02E+00
		Co-58	<3.47E+00	0.00E+00	3.47E+00
		Fe-59	<6.58E+00	0.00E+00	6.58E+00
		Co-60	<3.17E+00	0.00E+00	3.17E+00
		Zn-65	<8.02E+00	0.00E+00	8.02E+00
		Zr-95	<6.78E+00	0.00E+00	6.78E+00
		Nb-95	<4.95E+00	0.00E+00	4.95E+00
		I-131	<1.26E+01	0.00E+00	1.26E+01
		Cs-134	<3.22E+00	0.00E+00	3.22E+00
		Cs-137	<3.56E+00	0.00E+00	3.56E+00
		BaLa-140	<9.08E+00	0.00E+00	9.08E+00
		Be-7	<2.75E+01	0.00E+00	2.75E+01
		K-40	6.12E+01	3.97E+01	5.84E+01
579152	10/4/2022 - 12/28/2022	H3SW	4.12E+02	1.18E+02	1.80E+02
582313	11/29/2022 - 12/28/2022	Mn-54	<2.10E+00	0.00E+00	2.10E+00
		Co-58	<2.67E+00	0.00E+00	2.67E+00
		Fe-59	<4.86E+00	0.00E+00	4.86E+00
		Co-60	<1.85E+00	0.00E+00	1.85E+00
		Zn-65	<4.75E+00	0.00E+00	4.75E+00
		Zr-95	<5.26E+00	0.00E+00	5.26E+00
		Nb-95	<3.23E+00	0.00E+00	3.23E+00
		I-131	<1.30E+01	0.00E+00	1.30E+01
		Cs-134	<2.66E+00	0.00E+00	2.66E+00
Cs-137	<2.45E+00	0.00E+00	2.45E+00		

CATAWBA Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: SURFACE WATER Concentration (Activity): pCi/l
 Sample Point 263 [CONTROL - NNE @ 0.59 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
582313	11/29/2022 - 12/28/2022	BaLa-140	<7.17E+00	0.00E+00	7.17E+00
		Be-7	<2.42E+01	0.00E+00	2.42E+01
		K-40	6.75E+01	1.92E+01	2.86E+01

Media Type: TLD Concentration (Activity): mR/Standard Quarter
 Sample Point 200 [INDICATOR - NNE @ 0.63 miles]

TLD RING TLD_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
562406	12/16/2021 - 3/17/2022	mR/Std Qtr	20.11
567898	3/17/2022 - 6/23/2022	mR/Std Qtr	17.77
575315	6/23/2022 - 9/15/2022	mR/Std Qtr	16.76
581386	9/15/2022 - 12/15/2022	mR/Std Qtr	17.34

Sample Point 201 [INDICATOR - NE @ 0.53 miles]

TLD RING TLD_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
562407	12/16/2021 - 3/17/2022	mR/Std Qtr	19.96
567899	3/17/2022 - 6/23/2022	mR/Std Qtr	17.38
575316	6/23/2022 - 9/15/2022	mR/Std Qtr	16.75
581387	9/15/2022 - 12/15/2022	mR/Std Qtr	18.23

Sample Point 203 [INDICATOR - ESE @ 0.38 miles]

TLD RING TLD_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
562408	12/16/2021 - 3/17/2022	mR/Std Qtr	21.68
567900	3/17/2022 - 6/23/2022	mR/Std Qtr	18.06
575317	6/23/2022 - 9/15/2022	mR/Std Qtr	17.63
581388	9/15/2022 - 12/15/2022	mR/Std Qtr	20.15

Sample Point 204 [INDICATOR - SSW @ 0.48 miles]

TLD RING TLD_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
562409	12/16/2021 - 3/17/2022	mR/Std Qtr	20.42
567901	3/17/2022 - 6/23/2022	mR/Std Qtr	16.80
575318	6/23/2022 - 9/15/2022	mR/Std Qtr	16.98
581389	9/15/2022 - 12/15/2022	mR/Std Qtr	18.36

Sample Point 205 [INDICATOR - SW @ 0.5 miles]

TLD RING TLD_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
562410	12/16/2021 - 3/17/2022	mR/Std Qtr	22.34
567902	3/17/2022 - 6/23/2022	mR/Std Qtr	17.04

CATAWBA Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: TLD Concentration (Activity): mR/Standard Quarter

Sample Point 205 [INDICATOR - SW @ 0.5 miles]

TLD RING TLD_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
575319	6/23/2022 - 9/15/2022	mR/Std Qtr	18.18

Sample ID:	Sample Dates:	Nuclide	Activity
581390	9/15/2022 - 12/15/2022	mR/Std Qtr	21.21

Sample Point 206 [INDICATOR - WNW @ 0.67 miles]

TLD RING TLD_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
562411	12/16/2021 - 3/17/2022	mR/Std Qtr	24.14

Sample ID:	Sample Dates:	Nuclide	Activity
567903	3/17/2022 - 6/23/2022	mR/Std Qtr	21.92

Sample ID:	Sample Dates:	Nuclide	Activity
575320	6/23/2022 - 9/15/2022	mR/Std Qtr	20.24

Sample ID:	Sample Dates:	Nuclide	Activity
581391	9/15/2022 - 12/15/2022	mR/Std Qtr	24.58

Sample Point 207 [INDICATOR - NNW @ 0.95 miles]

TLD RING TLD_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
562412	12/16/2021 - 3/17/2022	mR/Std Qtr	22.44

Sample ID:	Sample Dates:	Nuclide	Activity
567904	3/17/2022 - 6/23/2022	mR/Std Qtr	19.59

Sample ID:	Sample Dates:	Nuclide	Activity
575321	6/23/2022 - 9/15/2022	mR/Std Qtr	19.71

Sample ID:	Sample Dates:	Nuclide	Activity
581392	9/15/2022 - 12/15/2022	mR/Std Qtr	19.57

Sample Point 212 [INDICATOR - E @ 3.32 miles]

TLD RING TLD_SPEC

Sample ID:	Sample Dates:	Nuclide	Activity
562413	12/16/2021 - 3/17/2022	mR/Std Qtr	18.98

Sample ID:	Sample Dates:	Nuclide	Activity
567905	3/17/2022 - 6/23/2022	mR/Std Qtr	17.07

Sample ID:	Sample Dates:	Nuclide	Activity
575322	6/23/2022 - 9/15/2022	mR/Std Qtr	16.18

Sample ID:	Sample Dates:	Nuclide	Activity
581393	9/15/2022 - 12/15/2022	mR/Std Qtr	16.11

Sample Point 217 [CONTROL - SSE @ 10.3 miles]

TLD RING TLD_CTRL

Sample ID:	Sample Dates:	Nuclide	Activity
562414	12/16/2021 - 3/17/2022	mR/Std Qtr	14.22

Sample ID:	Sample Dates:	Nuclide	Activity
567906	3/17/2022 - 6/23/2022	mR/Std Qtr	11.21

Sample ID:	Sample Dates:	Nuclide	Activity
575323	6/23/2022 - 9/15/2022	mR/Std Qtr	12.22

Sample ID:	Sample Dates:	Nuclide	Activity
581394	9/15/2022 - 12/15/2022	mR/Std Qtr	11.24

Sample Point 222 [INDICATOR - N @ 0.71 miles]

TLD RING TLD_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
562415	12/16/2021 - 3/17/2022	mR/Std Qtr	21.80

Sample ID:	Sample Dates:	Nuclide	Activity
567907	3/17/2022 - 6/23/2022	mR/Std Qtr	16.87

CATAWBA Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: TLD Concentration (Activity): mR/Standard Quarter

Sample Point 222 [INDICATOR - N @ 0.71 miles]

TLD RING TLD_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
575324	6/23/2022 - 9/15/2022	mR/Std Qtr	17.35

Sample ID:	Sample Dates:	Nuclide	Activity
581395	9/15/2022 - 12/15/2022	mR/Std Qtr	18.09

Sample Point 223 [INDICATOR - E @ 0.57 miles]

TLD RING TLD_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
562416	12/16/2021 - 3/17/2022	mR/Std Qtr	24.79

Sample ID:	Sample Dates:	Nuclide	Activity
567908	3/17/2022 - 6/23/2022	mR/Std Qtr	20.42

Sample ID:	Sample Dates:	Nuclide	Activity
575325	6/23/2022 - 9/15/2022	mR/Std Qtr	19.70

Sample ID:	Sample Dates:	Nuclide	Activity
581396	9/15/2022 - 12/15/2022	mR/Std Qtr	21.84

Sample Point 225 [INDICATOR - SE @ 0.68 miles]

TLD RING TLD_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
562417	12/16/2021 - 3/17/2022	mR/Std Qtr	22.80

Sample ID:	Sample Dates:	Nuclide	Activity
567909	3/17/2022 - 6/23/2022	mR/Std Qtr	21.17

Sample ID:	Sample Dates:	Nuclide	Activity
575326	6/23/2022 - 9/15/2022	mR/Std Qtr	18.44

Sample ID:	Sample Dates:	Nuclide	Activity
581397	9/15/2022 - 12/15/2022	mR/Std Qtr	21.05

Sample Point 226 [INDICATOR - S @ 0.48 miles]

TLD RING TLD_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
562418	12/16/2021 - 3/17/2022	mR/Std Qtr	20.57

Sample ID:	Sample Dates:	Nuclide	Activity
567910	3/17/2022 - 6/23/2022	mR/Std Qtr	19.86

Sample ID:	Sample Dates:	Nuclide	Activity
575327	6/23/2022 - 9/15/2022	mR/Std Qtr	20.12

Sample ID:	Sample Dates:	Nuclide	Activity
581398	9/15/2022 - 12/15/2022	mR/Std Qtr	19.80

Sample Point 227 [INDICATOR - WSW @ 0.52 miles]

TLD RING TLD_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
562419	12/16/2021 - 3/17/2022	mR/Std Qtr	21.16

Sample ID:	Sample Dates:	Nuclide	Activity
567911	3/17/2022 - 6/23/2022	mR/Std Qtr	18.96

Sample ID:	Sample Dates:	Nuclide	Activity
575328	6/23/2022 - 9/15/2022	mR/Std Qtr	18.00

Sample ID:	Sample Dates:	Nuclide	Activity
581399	9/15/2022 - 12/15/2022	mR/Std Qtr	19.34

Sample Point 228 [INDICATOR - W @ 0.61 miles]

TLD RING TLD_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
562420	12/16/2021 - 3/17/2022	mR/Std Qtr	22.46

Sample ID:	Sample Dates:	Nuclide	Activity
567912	3/17/2022 - 6/23/2022	mR/Std Qtr	18.87

CATAWBA Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: TLD Concentration (Activity): mR/Standard Quarter

Sample Point 228 [INDICATOR - W @ 0.61 miles]

TLD RING TLD_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
575329	6/23/2022 - 9/15/2022	mR/Std Qtr	18.50

Sample ID:	Sample Dates:	Nuclide	Activity
581400	9/15/2022 - 12/15/2022	mR/Std Qtr	19.37

Sample Point 229 [INDICATOR - NW @ 0.84 miles]

TLD RING TLD_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
562421	12/16/2021 - 3/17/2022	mR/Std Qtr	24.62

Sample ID:	Sample Dates:	Nuclide	Activity
567913	3/17/2022 - 6/23/2022	mR/Std Qtr	21.09

Sample ID:	Sample Dates:	Nuclide	Activity
575330	6/23/2022 - 9/15/2022	mR/Std Qtr	21.28

Sample ID:	Sample Dates:	Nuclide	Activity
581401	9/15/2022 - 12/15/2022	mR/Std Qtr	23.69

Sample Point 230 [INDICATOR - N @ 4.37 miles]

TLD RING TLD_OUTER

Sample ID:	Sample Dates:	Nuclide	Activity
562422	12/16/2021 - 3/17/2022	mR/Std Qtr	16.39

Sample ID:	Sample Dates:	Nuclide	Activity
567914	3/17/2022 - 6/23/2022	mR/Std Qtr	13.16

Sample ID:	Sample Dates:	Nuclide	Activity
575331	6/23/2022 - 9/15/2022	mR/Std Qtr	12.40

Sample ID:	Sample Dates:	Nuclide	Activity
581402	9/15/2022 - 12/15/2022	mR/Std Qtr	14.40

Sample Point 231 [INDICATOR - NNE @ 4.21 miles]

TLD RING TLD_OUTER

Sample ID:	Sample Dates:	Nuclide	Activity
562423	12/16/2021 - 3/17/2022	mR/Std Qtr	20.31

Sample ID:	Sample Dates:	Nuclide	Activity
567915	3/17/2022 - 6/23/2022	mR/Std Qtr	18.83

Sample ID:	Sample Dates:	Nuclide	Activity
575332	6/23/2022 - 9/15/2022	mR/Std Qtr	19.29

Sample ID:	Sample Dates:	Nuclide	Activity
581403	9/15/2022 - 12/15/2022	mR/Std Qtr	19.53

Sample Point 232 [INDICATOR - NE @ 4.18 miles]

TLD RING TLD_OUTER

Sample ID:	Sample Dates:	Nuclide	Activity
562424	12/16/2021 - 3/17/2022	mR/Std Qtr	23.66

Sample ID:	Sample Dates:	Nuclide	Activity
575333	6/23/2022 - 9/15/2022	mR/Std Qtr	21.93

Sample ID:	Sample Dates:	Nuclide	Activity
581404	9/15/2022 - 12/15/2022	mR/Std Qtr	22.72

Sample Point 233 [INDICATOR - ENE @ 3.95 miles]

TLD RING TLD_OUTER

Sample ID:	Sample Dates:	Nuclide	Activity
562425	12/16/2021 - 3/17/2022	mR/Std Qtr	16.61

Sample ID:	Sample Dates:	Nuclide	Activity
567917	3/17/2022 - 6/23/2022	mR/Std Qtr	14.41

Sample ID:	Sample Dates:	Nuclide	Activity
575334	6/23/2022 - 9/15/2022	mR/Std Qtr	14.34

CATAWBA Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: TLD Concentration (Activity): mR/Standard Quarter

Sample Point 233 [INDICATOR - ENE @ 3.95 miles]

TLD RING TLD_OUTER

Sample ID:	Sample Dates:	Nuclide	Activity
581405	9/15/2022 - 12/15/2022	mR/Std Qtr	15.45

Sample Point 234 [INDICATOR - E @ 4.5 miles]

TLD RING TLD_OUTER

Sample ID:	Sample Dates:	Nuclide	Activity
562426	12/16/2021 - 3/17/2022	mR/Std Qtr	19.26

Sample ID:	Sample Dates:	Nuclide	Activity
567918	3/17/2022 - 6/23/2022	mR/Std Qtr	16.93

Sample ID:	Sample Dates:	Nuclide	Activity
575335	6/23/2022 - 9/15/2022	mR/Std Qtr	17.68

Sample ID:	Sample Dates:	Nuclide	Activity
581406	9/15/2022 - 12/15/2022	mR/Std Qtr	17.84

Sample Point 235 [INDICATOR - ESE @ 4.07 miles]

TLD RING TLD_OUTER

Sample ID:	Sample Dates:	Nuclide	Activity
562427	12/16/2021 - 3/17/2022	mR/Std Qtr	17.33

Sample ID:	Sample Dates:	Nuclide	Activity
567919	3/17/2022 - 6/23/2022	mR/Std Qtr	14.65

Sample ID:	Sample Dates:	Nuclide	Activity
575336	6/23/2022 - 9/15/2022	mR/Std Qtr	14.24

Sample ID:	Sample Dates:	Nuclide	Activity
581407	9/15/2022 - 12/15/2022	mR/Std Qtr	16.43

Sample Point 237 [INDICATOR - SSE @ 4.75 miles]

TLD RING TLD_OUTER

Sample ID:	Sample Dates:	Nuclide	Activity
562428	12/16/2021 - 3/17/2022	mR/Std Qtr	24.75

Sample ID:	Sample Dates:	Nuclide	Activity
567920	3/17/2022 - 6/23/2022	mR/Std Qtr	20.71

Sample ID:	Sample Dates:	Nuclide	Activity
575337	6/23/2022 - 9/15/2022	mR/Std Qtr	21.92

Sample ID:	Sample Dates:	Nuclide	Activity
581408	9/15/2022 - 12/15/2022	mR/Std Qtr	24.52

Sample Point 238 [INDICATOR - S @ 4.02 miles]

TLD RING TLD_OUTER

Sample ID:	Sample Dates:	Nuclide	Activity
562429	12/16/2021 - 3/17/2022	mR/Std Qtr	18.09

Sample ID:	Sample Dates:	Nuclide	Activity
567921	3/17/2022 - 6/23/2022	mR/Std Qtr	16.44

Sample ID:	Sample Dates:	Nuclide	Activity
575338	6/23/2022 - 9/15/2022	mR/Std Qtr	16.99

Sample ID:	Sample Dates:	Nuclide	Activity
581409	9/15/2022 - 12/15/2022	mR/Std Qtr	17.53

Sample Point 239 [INDICATOR - SSW @ 4.49 miles]

TLD RING TLD_OUTER

Sample ID:	Sample Dates:	Nuclide	Activity
562430	12/16/2021 - 3/17/2022	mR/Std Qtr	20.91

Sample ID:	Sample Dates:	Nuclide	Activity
567922	3/17/2022 - 6/23/2022	mR/Std Qtr	16.63

Sample ID:	Sample Dates:	Nuclide	Activity
575339	6/23/2022 - 9/15/2022	mR/Std Qtr	16.94

CATAWBA Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: TLD Concentration (Activity): mR/Standard Quarter

Sample Point 239 [INDICATOR - SSW @ 4.49 miles]

TLD RING TLD_OUTER

Sample ID:	Sample Dates:	Nuclide	Activity
581410	9/15/2022 - 12/15/2022	mR/Std Qtr	20.39

Sample Point 240 [INDICATOR - SW @ 4.07 miles]

TLD RING TLD_OUTER

Sample ID:	Sample Dates:	Nuclide	Activity
562431	12/16/2021 - 3/17/2022	mR/Std Qtr	16.38

Sample ID:	Sample Dates:	Nuclide	Activity
567923	3/17/2022 - 6/23/2022	mR/Std Qtr	12.37

Sample ID:	Sample Dates:	Nuclide	Activity
575340	6/23/2022 - 9/15/2022	mR/Std Qtr	11.91

Sample ID:	Sample Dates:	Nuclide	Activity
581411	9/15/2022 - 12/15/2022	mR/Std Qtr	15.04

Sample Point 241 [INDICATOR - WSW @ 4.58 miles]

TLD RING TLD_OUTER

Sample ID:	Sample Dates:	Nuclide	Activity
562432	12/16/2021 - 3/17/2022	mR/Std Qtr	18.13

Sample ID:	Sample Dates:	Nuclide	Activity
567924	3/17/2022 - 6/23/2022	mR/Std Qtr	14.87

Sample ID:	Sample Dates:	Nuclide	Activity
575341	6/23/2022 - 9/15/2022	mR/Std Qtr	14.28

Sample ID:	Sample Dates:	Nuclide	Activity
581412	9/15/2022 - 12/15/2022	mR/Std Qtr	16.16

Sample Point 242 [INDICATOR - W @ 4.56 miles]

TLD RING TLD_OUTER

Sample ID:	Sample Dates:	Nuclide	Activity
562433	12/16/2021 - 3/17/2022	mR/Std Qtr	19.70

Sample ID:	Sample Dates:	Nuclide	Activity
567925	3/17/2022 - 6/23/2022	mR/Std Qtr	16.30

Sample ID:	Sample Dates:	Nuclide	Activity
575342	6/23/2022 - 9/15/2022	mR/Std Qtr	14.77

Sample ID:	Sample Dates:	Nuclide	Activity
581413	9/15/2022 - 12/15/2022	mR/Std Qtr	16.06

Sample Point 243 [INDICATOR - WNW @ 4.39 miles]

TLD RING TLD_OUTER

Sample ID:	Sample Dates:	Nuclide	Activity
562434	12/16/2021 - 3/17/2022	mR/Std Qtr	21.01

Sample ID:	Sample Dates:	Nuclide	Activity
567926	3/17/2022 - 6/23/2022	mR/Std Qtr	16.92

Sample ID:	Sample Dates:	Nuclide	Activity
575343	6/23/2022 - 9/15/2022	mR/Std Qtr	15.59

Sample ID:	Sample Dates:	Nuclide	Activity
581414	9/15/2022 - 12/15/2022	mR/Std Qtr	18.80

Sample Point 244 [INDICATOR - NW @ 4.02 miles]

TLD RING TLD_OUTER

Sample ID:	Sample Dates:	Nuclide	Activity
562435	12/16/2021 - 3/17/2022	mR/Std Qtr	24.40

Sample ID:	Sample Dates:	Nuclide	Activity
567927	3/17/2022 - 6/23/2022	mR/Std Qtr	19.65

Sample ID:	Sample Dates:	Nuclide	Activity
575344	6/23/2022 - 9/15/2022	mR/Std Qtr	18.42

CATAWBA Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: TLD Concentration (Activity): mR/Standard Quarter

Sample Point 244 [INDICATOR - NW @ 4.02 miles]

TLD RING TLD_OUTER

Sample ID:	Sample Dates:	Nuclide	Activity
581415	9/15/2022 - 12/15/2022	mR/Std Qtr	21.90

Sample Point 245 [INDICATOR - NNW @ 4.01 miles]

TLD RING TLD_OUTER

Sample ID:	Sample Dates:	Nuclide	Activity
562436	12/16/2021 - 3/17/2022	mR/Std Qtr	20.41

Sample ID:	Sample Dates:	Nuclide	Activity
567928	3/17/2022 - 6/23/2022	mR/Std Qtr	15.00

Sample ID:	Sample Dates:	Nuclide	Activity
575345	6/23/2022 - 9/15/2022	mR/Std Qtr	14.77

Sample ID:	Sample Dates:	Nuclide	Activity
581416	9/15/2022 - 12/15/2022	mR/Std Qtr	16.31

Sample Point 246 [INDICATOR - ENE @ 7.87 miles]

TLD RING TLD_SPEC

Sample ID:	Sample Dates:	Nuclide	Activity
562437	12/16/2021 - 3/17/2022	mR/Std Qtr	18.00

Sample ID:	Sample Dates:	Nuclide	Activity
567929	3/17/2022 - 6/23/2022	mR/Std Qtr	12.65

Sample ID:	Sample Dates:	Nuclide	Activity
575346	6/23/2022 - 9/15/2022	mR/Std Qtr	12.82

Sample ID:	Sample Dates:	Nuclide	Activity
581417	9/15/2022 - 12/15/2022	mR/Std Qtr	14.32

Sample Point 247 [CONTROL - ESE @ 7.33 miles]

TLD RING TLD_CTRL

Sample ID:	Sample Dates:	Nuclide	Activity
562438	12/16/2021 - 3/17/2022	mR/Std Qtr	16.16

Sample ID:	Sample Dates:	Nuclide	Activity
567930	3/17/2022 - 6/23/2022	mR/Std Qtr	14.14

Sample ID:	Sample Dates:	Nuclide	Activity
575347	6/23/2022 - 9/15/2022	mR/Std Qtr	12.59

Sample ID:	Sample Dates:	Nuclide	Activity
581418	9/15/2022 - 12/15/2022	mR/Std Qtr	15.29

Sample Point 248 [INDICATOR - S @ 6.54 miles]

TLD RING TLD_SPEC

Sample ID:	Sample Dates:	Nuclide	Activity
562439	12/16/2021 - 3/17/2022	mR/Std Qtr	15.19

Sample ID:	Sample Dates:	Nuclide	Activity
567931	3/17/2022 - 6/23/2022	mR/Std Qtr	15.13

Sample ID:	Sample Dates:	Nuclide	Activity
575348	6/23/2022 - 9/15/2022	mR/Std Qtr	13.66

Sample ID:	Sample Dates:	Nuclide	Activity
581419	9/15/2022 - 12/15/2022	mR/Std Qtr	14.61

Sample Point 249 [INDICATOR - S @ 7.17 miles]

TLD RING TLD_SPEC

Sample ID:	Sample Dates:	Nuclide	Activity
562440	12/16/2021 - 3/17/2022	mR/Std Qtr	19.37

Sample ID:	Sample Dates:	Nuclide	Activity
567932	3/17/2022 - 6/23/2022	mR/Std Qtr	15.62

Sample ID:	Sample Dates:	Nuclide	Activity
575349	6/23/2022 - 9/15/2022	mR/Std Qtr	16.92

CATAWBA Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: TLD Concentration (Activity): mR/Standard Quarter

Sample Point 249 [INDICATOR - S @ 7.17 miles]

TLD RING TLD_SPEC

Sample ID:	Sample Dates:	Nuclide	Activity
581420	9/15/2022 - 12/15/2022	mR/Std Qtr	16.27

Sample Point 250 [INDICATOR - WSW @ 10.4 miles]

TLD RING TLD_SPEC

Sample ID:	Sample Dates:	Nuclide	Activity
562441	12/16/2021 - 3/17/2022	mR/Std Qtr	18.48

Sample ID:	Sample Dates:	Nuclide	Activity
567933	3/17/2022 - 6/23/2022	mR/Std Qtr	15.67

Sample ID:	Sample Dates:	Nuclide	Activity
575350	6/23/2022 - 9/15/2022	mR/Std Qtr	15.79

Sample ID:	Sample Dates:	Nuclide	Activity
581421	9/15/2022 - 12/15/2022	mR/Std Qtr	16.93

Sample Point 251 [CONTROL - WNW @ 9.72 miles]

TLD RING TLD_CTRL

Sample ID:	Sample Dates:	Nuclide	Activity
562442	12/16/2021 - 3/17/2022	mR/Std Qtr	22.64

Sample ID:	Sample Dates:	Nuclide	Activity
567934	3/17/2022 - 6/23/2022	mR/Std Qtr	16.43

Sample ID:	Sample Dates:	Nuclide	Activity
575351	6/23/2022 - 9/15/2022	mR/Std Qtr	16.75

Sample ID:	Sample Dates:	Nuclide	Activity
581422	9/15/2022 - 12/15/2022	mR/Std Qtr	17.76

Sample Point 255 [INDICATOR - ENE @ 0.61 miles]

TLD RING TLD_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
562443	12/16/2021 - 3/17/2022	mR/Std Qtr	24.00

Sample ID:	Sample Dates:	Nuclide	Activity
567935	3/17/2022 - 6/23/2022	mR/Std Qtr	20.87

Sample ID:	Sample Dates:	Nuclide	Activity
575352	6/23/2022 - 9/15/2022	mR/Std Qtr	21.81

Sample ID:	Sample Dates:	Nuclide	Activity
581423	9/15/2022 - 12/15/2022	mR/Std Qtr	21.27

Sample Point 256 [INDICATOR - SSE @ 0.58 miles]

TLD RING TLD_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
562444	12/16/2021 - 3/17/2022	mR/Std Qtr	21.92

Sample ID:	Sample Dates:	Nuclide	Activity
567936	3/17/2022 - 6/23/2022	mR/Std Qtr	20.72

Sample ID:	Sample Dates:	Nuclide	Activity
575353	6/23/2022 - 9/15/2022	mR/Std Qtr	20.72

Sample ID:	Sample Dates:	Nuclide	Activity
581424	9/15/2022 - 12/15/2022	mR/Std Qtr	20.91

Sample Point 258 [INDICATOR - W @ 9.84 miles]

TLD RING TLD_SPEC

Sample ID:	Sample Dates:	Nuclide	Activity
562445	12/16/2021 - 3/17/2022	mR/Std Qtr	21.69

Sample ID:	Sample Dates:	Nuclide	Activity
567937	3/17/2022 - 6/23/2022	mR/Std Qtr	19.70

Sample ID:	Sample Dates:	Nuclide	Activity
575354	6/23/2022 - 9/15/2022	mR/Std Qtr	18.65

CATAWBA Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: TLD Concentration (Activity): mR/Standard Quarter

Sample Point 258 [INDICATOR - W @ 9.84 miles]

TLD RING TLD_SPEC

Sample ID:	Sample Dates:	Nuclide	Activity
581425	9/15/2022 - 12/15/2022	mR/Std Qtr	19.63

Sample Point 264 [INDICATOR - SE @ 4.32 miles]

TLD RING TLD_OUTER

Sample ID:	Sample Dates:	Nuclide	Activity
562446	12/16/2021 - 3/17/2022	mR/Std Qtr	31.58

Sample ID:	Sample Dates:	Nuclide	Activity
567938	3/17/2022 - 6/23/2022	mR/Std Qtr	26.99

Sample ID:	Sample Dates:	Nuclide	Activity
575355	6/23/2022 - 9/15/2022	mR/Std Qtr	25.82

Sample ID:	Sample Dates:	Nuclide	Activity
581426	9/15/2022 - 12/15/2022	mR/Std Qtr	28.58

Media Type: VEGETATION Concentration (Activity): pCi/kg

Sample Point 200 [INDICATOR - NNE @ 0.63 miles]

Sample ID:	Sample Dates:	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
558162	1/5/2022 - 1/5/2022	MIXEDBLV	Mn-54	<1.62E+01	0.00E+00	1.62E+01
			Co-58	<1.39E+01	0.00E+00	1.39E+01
			Fe-59	<3.09E+01	0.00E+00	3.09E+01
			Co-60	<1.61E+01	0.00E+00	1.61E+01
			Zn-65	<3.44E+01	0.00E+00	3.44E+01
			Zr-95	<3.23E+01	0.00E+00	3.23E+01
			Nb-95	<1.54E+01	0.00E+00	1.54E+01
			I-131	<1.44E+01	0.00E+00	1.44E+01
			Cs-134	<1.82E+01	0.00E+00	1.82E+01
			Cs-137	<1.48E+01	0.00E+00	1.48E+01
			BaLa-140	<1.62E+01	0.00E+00	1.62E+01
			Be-7	1.87E+03	2.66E+02	1.89E+02
			K-40	3.45E+03	4.66E+02	2.10E+02

Sample ID:	Sample Dates:	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
559349	2/1/2022 - 2/1/2022	MIXEDBLV	Mn-54	<2.29E+01	0.00E+00	2.29E+01
			Co-58	<2.00E+01	0.00E+00	2.00E+01
			Fe-59	<3.53E+01	0.00E+00	3.53E+01
			Co-60	<2.37E+01	0.00E+00	2.37E+01
			Zn-65	<3.90E+01	0.00E+00	3.90E+01
			Zr-95	<3.14E+01	0.00E+00	3.14E+01
			Nb-95	<1.91E+01	0.00E+00	1.91E+01
			I-131	<1.81E+01	0.00E+00	1.81E+01
			Cs-134	<2.65E+01	0.00E+00	2.65E+01
			Cs-137	<1.94E+01	0.00E+00	1.94E+01
			BaLa-140	<1.62E+01	0.00E+00	1.62E+01
			Be-7	1.86E+03	2.43E+02	1.92E+02
			K-40	3.46E+03	5.25E+02	3.77E+02

Sample ID:	Sample Dates:	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
560709	3/1/2022 - 3/1/2022	MIXEDBLV	Mn-54	<2.26E+01	0.00E+00	2.26E+01
			Co-58	<2.12E+01	0.00E+00	2.12E+01
			Fe-59	<2.74E+01	0.00E+00	2.74E+01
			Co-60	<2.05E+01	0.00E+00	2.05E+01
			Zn-65	<4.92E+01	0.00E+00	4.92E+01
			Zr-95	<3.50E+01	0.00E+00	3.50E+01
			Nb-95	<1.98E+01	0.00E+00	1.98E+01
			I-131	<2.32E+01	0.00E+00	2.32E+01
			Cs-134	<2.79E+01	0.00E+00	2.79E+01
			Cs-137	<2.37E+01	0.00E+00	2.37E+01
			BaLa-140	<2.63E+01	0.00E+00	2.63E+01
			Be-7	1.89E+03	3.03E+02	2.49E+02
			K-40	4.21E+03	6.26E+02	3.68E+02

Sample ID:	Sample Dates:	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
562791	4/5/2022 - 4/5/2022	MIXEDBLV	Mn-54	<3.22E+01	0.00E+00	3.22E+01

CATAWBA Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: VEGETATION Concentration (Activity): pCi/kg
 Sample Point 200 [INDICATOR - NNE @ 0.63 miles]

Sample ID:	Sample Dates:	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
562791	4/5/2022 - 4/5/2022	MIXEDBLV	Co-58	<2.70E+01	0.00E+00	2.70E+01
			Fe-59	<5.45E+01	0.00E+00	5.45E+01
			Co-60	<3.57E+01	0.00E+00	3.57E+01
			Zn-65	<5.36E+01	0.00E+00	5.36E+01
			Zr-95	<6.77E+01	0.00E+00	6.77E+01
			Nb-95	<3.57E+01	0.00E+00	3.57E+01
			I-131	<3.41E+01	0.00E+00	3.41E+01
			Cs-134	<3.86E+01	0.00E+00	3.86E+01
			Cs-137	<1.64E+01	0.00E+00	1.64E+01
			BaLa-140	<4.82E+01	0.00E+00	4.82E+01
			Be-7	1.30E+03	3.63E+02	3.91E+02
			K-40	3.90E+03	8.27E+02	5.16E+02
			566555	5/3/2022 - 5/3/2022	MIXEDBLV	Mn-54
Co-58	<2.00E+01	0.00E+00				2.00E+01
Fe-59	<4.46E+01	0.00E+00				4.46E+01
Co-60	<2.54E+01	0.00E+00				2.54E+01
Zn-65	<5.46E+01	0.00E+00				5.46E+01
Zr-95	<3.71E+01	0.00E+00				3.71E+01
Nb-95	<2.33E+01	0.00E+00				2.33E+01
I-131	<2.30E+01	0.00E+00				2.30E+01
Cs-134	<2.31E+01	0.00E+00				2.31E+01
Cs-137	<2.33E+01	0.00E+00				2.33E+01
BaLa-140	<2.59E+01	0.00E+00				2.59E+01
Be-7	5.01E+02	1.65E+02				2.10E+02
K-40	4.59E+03	6.44E+02				3.37E+02
567833	6/7/2022 - 6/7/2022	MIXEDBLV	Mn-54	<1.76E+01	0.00E+00	1.76E+01
			Co-58	<1.94E+01	0.00E+00	1.94E+01
			Fe-59	<3.60E+01	0.00E+00	3.60E+01
			Co-60	<1.75E+01	0.00E+00	1.75E+01
			Zn-65	<4.34E+01	0.00E+00	4.34E+01
			Zr-95	<3.03E+01	0.00E+00	3.03E+01
			Nb-95	<1.88E+01	0.00E+00	1.88E+01
			I-131	<1.80E+01	0.00E+00	1.80E+01
			Cs-134	<2.49E+01	0.00E+00	2.49E+01
			Cs-137	<1.78E+01	0.00E+00	1.78E+01
			BaLa-140	<2.34E+01	0.00E+00	2.34E+01
			Be-7	3.40E+02	1.55E+02	2.26E+02
			K-40	5.46E+03	6.81E+02	2.46E+02
569987	7/6/2022 - 7/6/2022	MIXEDBLV	Mn-54	<1.63E+01	0.00E+00	1.63E+01
			Co-58	<1.47E+01	0.00E+00	1.47E+01
			Fe-59	<3.65E+01	0.00E+00	3.65E+01
			Co-60	<1.70E+01	0.00E+00	1.70E+01
			Zn-65	<3.30E+01	0.00E+00	3.30E+01
			Zr-95	<2.67E+01	0.00E+00	2.67E+01
			Nb-95	<1.83E+01	0.00E+00	1.83E+01
			I-131	<1.98E+01	0.00E+00	1.98E+01
			Cs-134	<2.17E+01	0.00E+00	2.17E+01
			Cs-137	<1.32E+01	0.00E+00	1.32E+01
			BaLa-140	<1.72E+01	0.00E+00	1.72E+01
			Be-7	6.71E+02	1.68E+02	2.04E+02
			K-40	2.66E+03	3.84E+02	1.09E+02
571597	8/2/2022 - 8/2/2022	MIXEDBLV	Mn-54	<3.20E+01	0.00E+00	3.20E+01
			Co-58	<2.25E+01	0.00E+00	2.25E+01
			Fe-59	<5.49E+01	0.00E+00	5.49E+01
			Co-60	<3.43E+01	0.00E+00	3.43E+01
			Zn-65	<6.58E+01	0.00E+00	6.58E+01
			Zr-95	<4.94E+01	0.00E+00	4.94E+01

CATAWBA Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: VEGETATION Concentration (Activity): pCi/kg
 Sample Point 200 [INDICATOR - NNE @ 0.63 miles]

Sample ID:	Sample Dates:	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
571597	8/2/2022 - 8/2/2022	MIXEDBLV	Nb-95	<2.93E+01	0.00E+00	2.93E+01
			I-131	<2.93E+01	0.00E+00	2.93E+01
			Cs-134	<3.72E+01	0.00E+00	3.72E+01
			Cs-137	<2.45E+01	0.00E+00	2.45E+01
			BaLa-140	<3.04E+01	0.00E+00	3.04E+01
			Be-7	1.02E+03	2.78E+02	3.35E+02
			K-40	5.31E+03	7.77E+02	3.02E+02
574951	9/7/2022 - 9/7/2022	MIXEDBLV	Mn-54	<1.77E+01	0.00E+00	1.77E+01
			Co-58	<1.56E+01	0.00E+00	1.56E+01
			Fe-59	<3.21E+01	0.00E+00	3.21E+01
			Co-60	<1.06E+01	0.00E+00	1.06E+01
			Zn-65	<3.57E+01	0.00E+00	3.57E+01
			Zr-95	<3.11E+01	0.00E+00	3.11E+01
			Nb-95	<1.91E+01	0.00E+00	1.91E+01
			I-131	<1.80E+01	0.00E+00	1.80E+01
			Cs-134	<1.49E+01	0.00E+00	1.49E+01
			Cs-137	<2.02E+01	0.00E+00	2.02E+01
			BaLa-140	<1.22E+01	0.00E+00	1.22E+01
			Be-7	8.35E+02	1.90E+02	2.19E+02
			K-40	4.33E+03	5.49E+02	1.71E+02
			576472	10/4/2022 - 10/4/2022	MIXEDBLV	Mn-54
Co-58	<2.32E+01	0.00E+00				2.32E+01
Fe-59	<3.99E+01	0.00E+00				3.99E+01
Co-60	<2.45E+01	0.00E+00				2.45E+01
Zn-65	<4.74E+01	0.00E+00				4.74E+01
Zr-95	<4.10E+01	0.00E+00				4.10E+01
Nb-95	<2.30E+01	0.00E+00				2.30E+01
I-131	<2.32E+01	0.00E+00				2.32E+01
Cs-134	<2.66E+01	0.00E+00				2.66E+01
Cs-137	<2.07E+01	0.00E+00				2.07E+01
BaLa-140	<3.28E+01	0.00E+00				3.28E+01
Be-7	6.96E+02	2.06E+02				2.62E+02
K-40	4.35E+03	6.47E+02				4.19E+02
578783	11/1/2022 - 11/1/2022	MIXEDBLV				Mn-54
			Co-58	<2.69E+01	0.00E+00	2.69E+01
			Fe-59	<4.94E+01	0.00E+00	4.94E+01
			Co-60	<2.60E+01	0.00E+00	2.60E+01
			Zn-65	<6.91E+01	0.00E+00	6.91E+01
			Zr-95	<3.89E+01	0.00E+00	3.89E+01
			Nb-95	<2.92E+01	0.00E+00	2.92E+01
			I-131	<2.72E+01	0.00E+00	2.72E+01
			Cs-134	<3.03E+01	0.00E+00	3.03E+01
			Cs-137	<2.56E+01	0.00E+00	2.56E+01
			BaLa-140	<2.68E+01	0.00E+00	2.68E+01
			Be-7	7.70E+02	2.21E+02	2.72E+02
			K-40	3.89E+03	6.09E+02	3.00E+02
			580812	12/6/2022 - 12/6/2022	MIXEDBLV	Mn-54
Co-58	<1.65E+01	0.00E+00				1.65E+01
Fe-59	<3.64E+01	0.00E+00				3.64E+01
Co-60	<1.75E+01	0.00E+00				1.75E+01
Zn-65	<3.79E+01	0.00E+00				3.79E+01
Zr-95	<3.50E+01	0.00E+00				3.50E+01
Nb-95	<2.27E+01	0.00E+00				2.27E+01
I-131	<1.54E+01	0.00E+00				1.54E+01
Cs-134	<2.39E+01	0.00E+00				2.39E+01
Cs-137	<2.07E+01	0.00E+00				2.07E+01
BaLa-140	<2.23E+01	0.00E+00				2.23E+01

CATAWBA Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: VEGETATION Concentration (Activity): pCi/kg

Sample Point 200 [INDICATOR - NNE @ 0.63 miles]

Sample ID:	Sample Dates:	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
580812	12/6/2022 - 12/6/2022		Be-7	1.00E+03	2.13E+02	2.39E+02
			K-40	3.38E+03	5.02E+02	3.36E+02

Sample Point 201 [INDICATOR - NE @ 0.53 miles]

Sample ID:	Sample Dates:	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
558163	1/5/2022 - 1/5/2022		Mn-54	<1.94E+01	0.00E+00	1.94E+01
			Co-58	<1.75E+01	0.00E+00	1.75E+01
			Fe-59	<3.34E+01	0.00E+00	3.34E+01
			Co-60	<1.94E+01	0.00E+00	1.94E+01
			Zn-65	<4.08E+01	0.00E+00	4.08E+01
			Zr-95	<3.28E+01	0.00E+00	3.28E+01
			Nb-95	<1.73E+01	0.00E+00	1.73E+01
			I-131	<1.83E+01	0.00E+00	1.83E+01
			Cs-134	<2.53E+01	0.00E+00	2.53E+01
			Cs-137	<2.01E+01	0.00E+00	2.01E+01
			BaLa-140	<2.20E+01	0.00E+00	2.20E+01
			Be-7	3.38E+03	4.12E+02	2.36E+02
			K-40	3.40E+03	5.13E+02	3.59E+02

Sample ID:	Sample Dates:	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
559350	2/1/2022 - 2/1/2022		Mn-54	<1.82E+01	0.00E+00	1.82E+01
			Co-58	<1.76E+01	0.00E+00	1.76E+01
			Fe-59	<3.74E+01	0.00E+00	3.74E+01
			Co-60	<1.56E+01	0.00E+00	1.56E+01
			Zn-65	<4.35E+01	0.00E+00	4.35E+01
			Zr-95	<2.37E+01	0.00E+00	2.37E+01
			Nb-95	<1.31E+01	0.00E+00	1.31E+01
			I-131	<1.73E+01	0.00E+00	1.73E+01
			Cs-134	<2.09E+01	0.00E+00	2.09E+01
			Cs-137	<1.56E+01	0.00E+00	1.56E+01
			BaLa-140	<2.01E+01	0.00E+00	2.01E+01
			Be-7	1.53E+03	2.46E+02	2.15E+02
			K-40	3.39E+03	4.95E+02	2.94E+02

Sample ID:	Sample Dates:	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
560710	3/1/2022 - 3/1/2022		Mn-54	<2.21E+01	0.00E+00	2.21E+01
			Co-58	<2.02E+01	0.00E+00	2.02E+01
			Fe-59	<3.87E+01	0.00E+00	3.87E+01
			Co-60	<1.97E+01	0.00E+00	1.97E+01
			Zn-65	<5.03E+01	0.00E+00	5.03E+01
			Zr-95	<3.85E+01	0.00E+00	3.85E+01
			Nb-95	<2.03E+01	0.00E+00	2.03E+01
			I-131	<1.95E+01	0.00E+00	1.95E+01
			Cs-134	<2.48E+01	0.00E+00	2.48E+01
			Cs-137	<2.47E+01	0.00E+00	2.47E+01
			BaLa-140	<2.22E+01	0.00E+00	2.22E+01
			Be-7	9.94E+02	2.32E+02	2.63E+02
			K-40	2.48E+03	4.48E+02	2.84E+02

Sample ID:	Sample Dates:	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
562792	4/5/2022 - 4/5/2022		Mn-54	<2.19E+01	0.00E+00	2.19E+01
			Co-58	<2.32E+01	0.00E+00	2.32E+01
			Fe-59	<4.39E+01	0.00E+00	4.39E+01
			Co-60	<2.42E+01	0.00E+00	2.42E+01
			Zn-65	<5.83E+01	0.00E+00	5.83E+01
			Zr-95	<3.38E+01	0.00E+00	3.38E+01
			Nb-95	<2.14E+01	0.00E+00	2.14E+01
			I-131	<2.28E+01	0.00E+00	2.28E+01
			Cs-134	<2.57E+01	0.00E+00	2.57E+01
			Cs-137	<2.59E+01	0.00E+00	2.59E+01
			BaLa-140	<1.91E+01	0.00E+00	1.91E+01
			Be-7	3.76E+02	1.58E+02	2.29E+02
			K-40	4.02E+03	5.33E+02	2.43E+02

CATAWBA Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: VEGETATION Concentration (Activity): pCi/kg
 Sample Point 201 [INDICATOR - NE @ 0.53 miles]

Sample ID:	Sample Dates:	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
566556	5/3/2022 - 5/3/2022	MIXEDBLV	Mn-54	<2.99E+01	0.00E+00	2.99E+01
			Co-58	<2.57E+01	0.00E+00	2.57E+01
			Fe-59	<3.51E+01	0.00E+00	3.51E+01
			Co-60	<2.52E+01	0.00E+00	2.52E+01
			Zn-65	<5.03E+01	0.00E+00	5.03E+01
			Zr-95	<4.35E+01	0.00E+00	4.35E+01
			Nb-95	<1.76E+01	0.00E+00	1.76E+01
			I-131	<3.00E+01	0.00E+00	3.00E+01
			Cs-134	<3.13E+01	0.00E+00	3.13E+01
			Cs-137	<2.71E+01	0.00E+00	2.71E+01
			BaLa-140	<2.27E+01	0.00E+00	2.27E+01
			Be-7	<2.87E+02	0.00E+00	2.87E+02
			K-40	4.02E+03	6.31E+02	3.36E+02
			567834	6/7/2022 - 6/7/2022	MIXEDBLV	Mn-54
Co-58	<2.19E+01	0.00E+00				2.19E+01
Fe-59	<4.58E+01	0.00E+00				4.58E+01
Co-60	<2.27E+01	0.00E+00				2.27E+01
Zn-65	<4.42E+01	0.00E+00				4.42E+01
Zr-95	<3.79E+01	0.00E+00				3.79E+01
Nb-95	<2.33E+01	0.00E+00				2.33E+01
I-131	<2.59E+01	0.00E+00				2.59E+01
Cs-134	<2.83E+01	0.00E+00				2.83E+01
Cs-137	<3.00E+01	0.00E+00				3.00E+01
BaLa-140	<2.47E+01	0.00E+00				2.47E+01
Be-7	6.58E+02	2.07E+02				2.74E+02
K-40	4.10E+03	6.10E+02				3.92E+02
569988	7/6/2022 - 7/6/2022	MIXEDBLV				Mn-54
			Co-58	<1.21E+01	0.00E+00	1.21E+01
			Fe-59	<2.99E+01	0.00E+00	2.99E+01
			Co-60	<1.53E+01	0.00E+00	1.53E+01
			Zn-65	<3.54E+01	0.00E+00	3.54E+01
			Zr-95	<2.36E+01	0.00E+00	2.36E+01
			Nb-95	<1.72E+01	0.00E+00	1.72E+01
			I-131	<1.91E+01	0.00E+00	1.91E+01
			Cs-134	<1.97E+01	0.00E+00	1.97E+01
			Cs-137	2.34E+01	1.54E+01	2.35E+01
			BaLa-140	<1.67E+01	0.00E+00	1.67E+01
			Be-7	7.16E+02	1.51E+02	1.53E+02
			K-40	2.74E+03	4.04E+02	2.34E+02
			571598	8/2/2022 - 8/2/2022	MIXEDBLV	Mn-54
Co-58	<3.67E+01	0.00E+00				3.67E+01
Fe-59	<7.93E+01	0.00E+00				7.93E+01
Co-60	<4.06E+01	0.00E+00				4.06E+01
Zn-65	<1.09E+02	0.00E+00				1.09E+02
Zr-95	<7.12E+01	0.00E+00				7.12E+01
Nb-95	<3.57E+01	0.00E+00				3.57E+01
I-131	<4.71E+01	0.00E+00				4.71E+01
Cs-134	<4.62E+01	0.00E+00				4.62E+01
Cs-137	<4.30E+01	0.00E+00				4.30E+01
BaLa-140	<3.93E+01	0.00E+00				3.93E+01
Be-7	9.74E+02	3.70E+02				5.17E+02
K-40	5.52E+03	8.98E+02				4.65E+02
574952	9/7/2022 - 9/7/2022	MIXEDBLV				Mn-54
			Co-58	<2.32E+01	0.00E+00	2.32E+01
			Fe-59	<4.67E+01	0.00E+00	4.67E+01
			Co-60	<2.16E+01	0.00E+00	2.16E+01
			Zn-65	<6.28E+01	0.00E+00	6.28E+01

CATAWBA Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: VEGETATION Concentration (Activity): pCi/kg
 Sample Point 201 [INDICATOR - NE @ 0.53 miles]

Sample ID:	574952	Sample Dates:	9/7/2022 - 9/7/2022	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
					Zr-95	<4.82E+01	0.00E+00	4.82E+01
					Nb-95	<2.97E+01	0.00E+00	2.97E+01
					I-131	<2.59E+01	0.00E+00	2.59E+01
					Cs-134	<2.55E+01	0.00E+00	2.55E+01
					Cs-137	<3.55E+01	0.00E+00	3.55E+01
					BaLa-140	<3.36E+01	0.00E+00	3.36E+01
					Be-7	1.29E+03	2.02E+02	2.20E+02
					K-40	3.61E+03	5.65E+02	2.59E+02

Sample ID:	576473	Sample Dates:	10/4/2022 - 10/4/2022	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
					Mn-54	<2.37E+01	0.00E+00	2.37E+01
					Co-58	<1.87E+01	0.00E+00	1.87E+01
					Fe-59	<3.78E+01	0.00E+00	3.78E+01
					Co-60	<2.31E+01	0.00E+00	2.31E+01
					Zn-65	<4.85E+01	0.00E+00	4.85E+01
					Zr-95	<3.94E+01	0.00E+00	3.94E+01
					Nb-95	<2.33E+01	0.00E+00	2.33E+01
					I-131	<2.31E+01	0.00E+00	2.31E+01
					Cs-134	<2.67E+01	0.00E+00	2.67E+01
					Cs-137	<2.61E+01	0.00E+00	2.61E+01
					BaLa-140	<2.37E+01	0.00E+00	2.37E+01
					Be-7	1.57E+03	2.74E+02	2.89E+02
					K-40	3.83E+03	5.30E+02	3.22E+02

Sample ID:	578784	Sample Dates:	11/1/2022 - 11/1/2022	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
					Mn-54	<2.67E+01	0.00E+00	2.67E+01
					Co-58	<2.57E+01	0.00E+00	2.57E+01
					Fe-59	<5.81E+01	0.00E+00	5.81E+01
					Co-60	<2.48E+01	0.00E+00	2.48E+01
					Zn-65	<5.95E+01	0.00E+00	5.95E+01
					Zr-95	<4.83E+01	0.00E+00	4.83E+01
					Nb-95	<3.26E+01	0.00E+00	3.26E+01
					I-131	<2.27E+01	0.00E+00	2.27E+01
					Cs-134	<2.79E+01	0.00E+00	2.79E+01
					Cs-137	<2.13E+01	0.00E+00	2.13E+01
					BaLa-140	<2.43E+01	0.00E+00	2.43E+01
					Be-7	1.16E+03	2.68E+02	2.97E+02
					K-40	2.85E+03	5.83E+02	5.56E+02

Sample ID:	580813	Sample Dates:	12/6/2022 - 12/6/2022	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
					Mn-54	<1.61E+01	0.00E+00	1.61E+01
					Co-58	<1.53E+01	0.00E+00	1.53E+01
					Fe-59	<2.57E+01	0.00E+00	2.57E+01
					Co-60	<1.80E+01	0.00E+00	1.80E+01
					Zn-65	<3.12E+01	0.00E+00	3.12E+01
					Zr-95	<3.35E+01	0.00E+00	3.35E+01
					Nb-95	<1.50E+01	0.00E+00	1.50E+01
					I-131	<1.68E+01	0.00E+00	1.68E+01
					Cs-134	<2.34E+01	0.00E+00	2.34E+01
					Cs-137	<2.05E+01	0.00E+00	2.05E+01
					BaLa-140	<1.46E+01	0.00E+00	1.46E+01
					Be-7	1.71E+03	2.54E+02	1.94E+02
					K-40	4.42E+03	5.62E+02	1.66E+02

Sample Point 222 [INDICATOR - N @ 0.71 miles]

Sample ID:	558164	Sample Dates:	1/5/2022 - 1/5/2022	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
					Mn-54	<2.39E+01	0.00E+00	2.39E+01
					Co-58	<2.28E+01	0.00E+00	2.28E+01
					Fe-59	<4.56E+01	0.00E+00	4.56E+01
					Co-60	<2.04E+01	0.00E+00	2.04E+01
					Zn-65	<5.66E+01	0.00E+00	5.66E+01
					Zr-95	<3.56E+01	0.00E+00	3.56E+01
					Nb-95	<1.60E+01	0.00E+00	1.60E+01
					I-131	<2.15E+01	0.00E+00	2.15E+01

CATAWBA Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: VEGETATION Concentration (Activity): pCi/kg
 Sample Point 222 [INDICATOR - N @ 0.71 miles]

Sample ID:	Sample Dates:	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
558164	1/5/2022 - 1/5/2022	MIXEDBLV	Cs-134	<2.74E+01	0.00E+00	2.74E+01
			Cs-137	<1.87E+01	0.00E+00	1.87E+01
			BaLa-140	<2.90E+01	0.00E+00	2.90E+01
			Be-7	1.79E+03	3.17E+02	3.08E+02
			K-40	4.31E+03	6.57E+02	4.24E+02
559351	2/1/2022 - 2/1/2022	MIXEDBLV	Mn-54	<2.06E+01	0.00E+00	2.06E+01
			Co-58	<1.63E+01	0.00E+00	1.63E+01
			Fe-59	<4.28E+01	0.00E+00	4.28E+01
			Co-60	<2.14E+01	0.00E+00	2.14E+01
			Zn-65	<4.87E+01	0.00E+00	4.87E+01
			Zr-95	<3.10E+01	0.00E+00	3.10E+01
			Nb-95	<2.29E+01	0.00E+00	2.29E+01
			I-131	<2.00E+01	0.00E+00	2.00E+01
			Cs-134	<3.19E+01	0.00E+00	3.19E+01
			Cs-137	<2.09E+01	0.00E+00	2.09E+01
			BaLa-140	<1.68E+01	0.00E+00	1.68E+01
			Be-7	1.36E+03	2.56E+02	2.51E+02
			K-40	4.63E+03	6.28E+02	2.59E+02
560711	3/1/2022 - 3/1/2022	MIXEDBLV	Mn-54	<2.91E+01	0.00E+00	2.91E+01
			Co-58	<2.98E+01	0.00E+00	2.98E+01
			Fe-59	<4.59E+01	0.00E+00	4.59E+01
			Co-60	<3.40E+01	0.00E+00	3.40E+01
			Zn-65	<6.31E+01	0.00E+00	6.31E+01
			Zr-95	<5.56E+01	0.00E+00	5.56E+01
			Nb-95	<3.94E+01	0.00E+00	3.94E+01
			I-131	<2.42E+01	0.00E+00	2.42E+01
			Cs-134	<3.67E+01	0.00E+00	3.67E+01
			Cs-137	<3.28E+01	0.00E+00	3.28E+01
			BaLa-140	<3.10E+01	0.00E+00	3.10E+01
			Be-7	1.38E+03	3.27E+02	3.85E+02
			K-40	5.41E+03	8.14E+02	5.24E+02
562793	4/5/2022 - 4/5/2022	MIXEDBLV	Mn-54	<3.63E+01	0.00E+00	3.63E+01
			Co-58	<2.96E+01	0.00E+00	2.96E+01
			Fe-59	<4.33E+01	0.00E+00	4.33E+01
			Co-60	<4.19E+01	0.00E+00	4.19E+01
			Zn-65	<7.98E+01	0.00E+00	7.98E+01
			Zr-95	<5.79E+01	0.00E+00	5.79E+01
			Nb-95	<3.51E+01	0.00E+00	3.51E+01
			I-131	<3.03E+01	0.00E+00	3.03E+01
			Cs-134	<4.33E+01	0.00E+00	4.33E+01
			Cs-137	<2.93E+01	0.00E+00	2.93E+01
			BaLa-140	<2.36E+01	0.00E+00	2.36E+01
			Be-7	7.30E+02	2.82E+02	3.71E+02
			K-40	6.59E+03	1.02E+03	4.69E+02
566557	5/3/2022 - 5/3/2022	MIXEDBLV	Mn-54	<3.05E+01	0.00E+00	3.05E+01
			Co-58	<2.97E+01	0.00E+00	2.97E+01
			Fe-59	<4.81E+01	0.00E+00	4.81E+01
			Co-60	<2.77E+01	0.00E+00	2.77E+01
			Zn-65	<7.04E+01	0.00E+00	7.04E+01
			Zr-95	<5.25E+01	0.00E+00	5.25E+01
			Nb-95	<3.06E+01	0.00E+00	3.06E+01
			I-131	<2.64E+01	0.00E+00	2.64E+01
			Cs-134	<4.01E+01	0.00E+00	4.01E+01
			Cs-137	<3.41E+01	0.00E+00	3.41E+01
			BaLa-140	<2.95E+01	0.00E+00	2.95E+01
			Be-7	<2.81E+02	0.00E+00	2.81E+02
			K-40	4.40E+03	7.27E+02	5.12E+02

CATAWBA Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: VEGETATION Concentration (Activity): pCi/kg
 Sample Point 222 [INDICATOR - N @ 0.71 miles]

Sample ID:	Sample Dates:	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
567835	6/7/2022 - 6/7/2022	MIXEDBLV	Mn-54	<2.19E+01	0.00E+00	2.19E+01
			Co-58	<1.22E+01	0.00E+00	1.22E+01
			Fe-59	<3.99E+01	0.00E+00	3.99E+01
			Co-60	<2.25E+01	0.00E+00	2.25E+01
			Zn-65	<5.54E+01	0.00E+00	5.54E+01
			Zr-95	<4.92E+01	0.00E+00	4.92E+01
			Nb-95	<2.30E+01	0.00E+00	2.30E+01
			I-131	<2.12E+01	0.00E+00	2.12E+01
			Cs-134	<2.61E+01	0.00E+00	2.61E+01
			Cs-137	<1.81E+01	0.00E+00	1.81E+01
			BaLa-140	<2.37E+01	0.00E+00	2.37E+01
			Be-7	3.40E+02	1.90E+02	2.88E+02
			K-40	3.15E+03	5.22E+02	3.40E+02
			569989	7/6/2022 - 7/6/2022	MIXEDBLV	Mn-54
Co-58	<1.60E+01	0.00E+00				1.60E+01
Fe-59	<3.10E+01	0.00E+00				3.10E+01
Co-60	<1.63E+01	0.00E+00				1.63E+01
Zn-65	<2.62E+01	0.00E+00				2.62E+01
Zr-95	<2.17E+01	0.00E+00				2.17E+01
Nb-95	<1.46E+01	0.00E+00				1.46E+01
I-131	<1.96E+01	0.00E+00				1.96E+01
Cs-134	<2.08E+01	0.00E+00				2.08E+01
Cs-137	<1.33E+01	0.00E+00				1.33E+01
BaLa-140	<2.22E+01	0.00E+00				2.22E+01
Be-7	5.21E+02	1.41E+02				1.67E+02
K-40	2.65E+03	3.96E+02				1.89E+02
571599	8/2/2022 - 8/2/2022	MIXEDBLV				Mn-54
			Co-58	<2.45E+01	0.00E+00	2.45E+01
			Fe-59	<5.12E+01	0.00E+00	5.12E+01
			Co-60	<2.92E+01	0.00E+00	2.92E+01
			Zn-65	<5.70E+01	0.00E+00	5.70E+01
			Zr-95	<3.88E+01	0.00E+00	3.88E+01
			Nb-95	<2.85E+01	0.00E+00	2.85E+01
			I-131	<3.00E+01	0.00E+00	3.00E+01
			Cs-134	<3.70E+01	0.00E+00	3.70E+01
			Cs-137	<2.68E+01	0.00E+00	2.68E+01
			BaLa-140	<2.95E+01	0.00E+00	2.95E+01
			Be-7	6.78E+02	2.36E+02	3.16E+02
			K-40	3.80E+03	6.42E+02	4.48E+02
			574953	9/7/2022 - 9/7/2022	MIXEDBLV	Mn-54
Co-58	<1.19E+01	0.00E+00				1.19E+01
Fe-59	<2.35E+01	0.00E+00				2.35E+01
Co-60	<1.22E+01	0.00E+00				1.22E+01
Zn-65	<2.70E+01	0.00E+00				2.70E+01
Zr-95	<2.35E+01	0.00E+00				2.35E+01
Nb-95	<1.33E+01	0.00E+00				1.33E+01
I-131	<1.68E+01	0.00E+00				1.68E+01
Cs-134	<1.52E+01	0.00E+00				1.52E+01
Cs-137	<1.24E+01	0.00E+00				1.24E+01
BaLa-140	<1.33E+01	0.00E+00				1.33E+01
Be-7	9.13E+02	1.46E+02				1.38E+02
K-40	3.20E+03	3.85E+02				2.11E+02
576474	10/4/2022 - 10/4/2022	MIXEDBLV				Mn-54
			Co-58	<2.59E+01	0.00E+00	2.59E+01
			Fe-59	<5.05E+01	0.00E+00	5.05E+01
			Co-60	<3.11E+01	0.00E+00	3.11E+01
			Zn-65	<6.85E+01	0.00E+00	6.85E+01

CATAWBA Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: VEGETATION Concentration (Activity): pCi/kg
 Sample Point 222 [INDICATOR - N @ 0.71 miles]

Sample ID:	Sample Dates:	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
576474	10/4/2022 - 10/4/2022		Zr-95	<4.17E+01	0.00E+00	4.17E+01
			Nb-95	<2.21E+01	0.00E+00	2.21E+01
			I-131	<2.86E+01	0.00E+00	2.86E+01
			Cs-134	<3.84E+01	0.00E+00	3.84E+01
			Cs-137	<2.62E+01	0.00E+00	2.62E+01
			BaLa-140	<4.03E+01	0.00E+00	4.03E+01
			Be-7	6.05E+02	2.23E+02	3.05E+02
			K-40	3.18E+03	5.58E+02	3.70E+02

Sample ID:	Sample Dates:	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
578785	11/1/2022 - 11/1/2022		Mn-54	<3.42E+01	0.00E+00	3.42E+01
			Co-58	<2.74E+01	0.00E+00	2.74E+01
			Fe-59	<6.03E+01	0.00E+00	6.03E+01
			Co-60	<3.48E+01	0.00E+00	3.48E+01
			Zn-65	<8.66E+01	0.00E+00	8.66E+01
			Zr-95	<4.36E+01	0.00E+00	4.36E+01
			Nb-95	<2.99E+01	0.00E+00	2.99E+01
			I-131	<2.72E+01	0.00E+00	2.72E+01
			Cs-134	<3.78E+01	0.00E+00	3.78E+01
			Cs-137	<3.27E+01	0.00E+00	3.27E+01
			BaLa-140	<3.17E+01	0.00E+00	3.17E+01
			Be-7	5.43E+02	2.92E+02	4.44E+02
			K-40	4.69E+03	7.63E+02	5.26E+02

Sample ID:	Sample Dates:	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
580814	12/6/2022 - 12/6/2022		Mn-54	<1.92E+01	0.00E+00	1.92E+01
			Co-58	<1.86E+01	0.00E+00	1.86E+01
			Fe-59	<4.71E+01	0.00E+00	4.71E+01
			Co-60	<2.37E+01	0.00E+00	2.37E+01
			Zn-65	<4.75E+01	0.00E+00	4.75E+01
			Zr-95	<3.30E+01	0.00E+00	3.30E+01
			Nb-95	<1.75E+01	0.00E+00	1.75E+01
			I-131	<1.79E+01	0.00E+00	1.79E+01
			Cs-134	<2.06E+01	0.00E+00	2.06E+01
			Cs-137	<1.95E+01	0.00E+00	1.95E+01
			BaLa-140	<1.67E+01	0.00E+00	1.67E+01
			Be-7	1.53E+03	2.59E+02	2.16E+02
			K-40	5.00E+03	6.60E+02	2.81E+02

Sample Point 226 [INDICATOR - S @ 0.48 miles]

Sample ID:	Sample Dates:	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
558165	1/5/2022 - 1/5/2022		Mn-54	<2.00E+01	0.00E+00	2.00E+01
			Co-58	<1.87E+01	0.00E+00	1.87E+01
			Fe-59	<3.30E+01	0.00E+00	3.30E+01
			Co-60	<1.70E+01	0.00E+00	1.70E+01
			Zn-65	<4.49E+01	0.00E+00	4.49E+01
			Zr-95	<3.30E+01	0.00E+00	3.30E+01
			Nb-95	<2.02E+01	0.00E+00	2.02E+01
			I-131	<1.98E+01	0.00E+00	1.98E+01
			Cs-134	<2.72E+01	0.00E+00	2.72E+01
			Cs-137	<1.94E+01	0.00E+00	1.94E+01
			BaLa-140	<1.73E+01	0.00E+00	1.73E+01
			Be-7	5.86E+02	1.75E+02	2.20E+02
			K-40	5.09E+03	6.46E+02	1.55E+02

Sample ID:	Sample Dates:	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
559352	2/1/2022 - 2/1/2022		Mn-54	<1.62E+01	0.00E+00	1.62E+01
			Co-58	<1.40E+01	0.00E+00	1.40E+01
			Fe-59	<3.23E+01	0.00E+00	3.23E+01
			Co-60	<1.60E+01	0.00E+00	1.60E+01
			Zn-65	<2.88E+01	0.00E+00	2.88E+01
			Zr-95	<2.67E+01	0.00E+00	2.67E+01
			Nb-95	<1.39E+01	0.00E+00	1.39E+01
			I-131	<1.51E+01	0.00E+00	1.51E+01

CATAWBA Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: VEGETATION Concentration (Activity): pCi/kg
 Sample Point 226 [INDICATOR - S @ 0.48 miles]

Sample ID:	Sample Dates:	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
559352	2/1/2022 - 2/1/2022	MIXEDBLV	Cs-134	<1.70E+01	0.00E+00	1.70E+01
			Cs-137	<1.38E+01	0.00E+00	1.38E+01
			BaLa-140	<1.51E+01	0.00E+00	1.51E+01
			Be-7	5.43E+02	1.47E+02	1.85E+02
			K-40	4.38E+03	5.52E+02	2.47E+02
560712	3/1/2022 - 3/1/2022	MIXEDBLV	Mn-54	<3.51E+01	0.00E+00	3.51E+01
			Co-58	<3.27E+01	0.00E+00	3.27E+01
			Fe-59	<5.50E+01	0.00E+00	5.50E+01
			Co-60	<3.78E+01	0.00E+00	3.78E+01
			Zn-65	<7.62E+01	0.00E+00	7.62E+01
			Zr-95	<5.14E+01	0.00E+00	5.14E+01
			Nb-95	<3.55E+01	0.00E+00	3.55E+01
			I-131	<3.01E+01	0.00E+00	3.01E+01
			Cs-134	<3.91E+01	0.00E+00	3.91E+01
			Cs-137	<3.59E+01	0.00E+00	3.59E+01
			BaLa-140	<3.43E+01	0.00E+00	3.43E+01
			Be-7	4.42E+02	2.31E+02	3.46E+02
			K-40	5.41E+03	7.88E+02	4.51E+02
562794	4/5/2022 - 4/5/2022	MIXEDBLV	Mn-54	<1.44E+01	0.00E+00	1.44E+01
			Co-58	<1.19E+01	0.00E+00	1.19E+01
			Fe-59	<2.95E+01	0.00E+00	2.95E+01
			Co-60	<1.56E+01	0.00E+00	1.56E+01
			Zn-65	<3.49E+01	0.00E+00	3.49E+01
			Zr-95	<2.49E+01	0.00E+00	2.49E+01
			Nb-95	<1.37E+01	0.00E+00	1.37E+01
			I-131	<1.07E+01	0.00E+00	1.07E+01
			Cs-134	<1.78E+01	0.00E+00	1.78E+01
			Cs-137	<1.27E+01	0.00E+00	1.27E+01
			BaLa-140	<9.05E+00	0.00E+00	9.05E+00
			Be-7	5.52E+02	1.39E+02	1.70E+02
			K-40	4.59E+03	5.53E+02	2.70E+02
566558	5/3/2022 - 5/3/2022	MIXEDBLV	Mn-54	<2.23E+01	0.00E+00	2.23E+01
			Co-58	<1.75E+01	0.00E+00	1.75E+01
			Fe-59	<4.01E+01	0.00E+00	4.01E+01
			Co-60	<2.35E+01	0.00E+00	2.35E+01
			Zn-65	<3.98E+01	0.00E+00	3.98E+01
			Zr-95	<2.88E+01	0.00E+00	2.88E+01
			Nb-95	<1.66E+01	0.00E+00	1.66E+01
			I-131	<1.94E+01	0.00E+00	1.94E+01
			Cs-134	<2.21E+01	0.00E+00	2.21E+01
			Cs-137	<1.91E+01	0.00E+00	1.91E+01
			BaLa-140	<2.47E+01	0.00E+00	2.47E+01
			Be-7	2.96E+02	1.58E+02	2.36E+02
			K-40	4.80E+03	6.27E+02	1.94E+02
567836	6/7/2022 - 6/7/2022	MIXEDBLV	Mn-54	<1.65E+01	0.00E+00	1.65E+01
			Co-58	<1.51E+01	0.00E+00	1.51E+01
			Fe-59	<3.83E+01	0.00E+00	3.83E+01
			Co-60	<1.60E+01	0.00E+00	1.60E+01
			Zn-65	<3.59E+01	0.00E+00	3.59E+01
			Zr-95	<2.77E+01	0.00E+00	2.77E+01
			Nb-95	<1.78E+01	0.00E+00	1.78E+01
			I-131	<2.45E+01	0.00E+00	2.45E+01
			Cs-134	<1.88E+01	0.00E+00	1.88E+01
			Cs-137	<1.55E+01	0.00E+00	1.55E+01
			BaLa-140	<2.30E+01	0.00E+00	2.30E+01
			Be-7	6.10E+02	1.60E+02	1.87E+02
			K-40	4.53E+03	5.90E+02	2.85E+02

CATAWBA Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: VEGETATION Concentration (Activity): pCi/kg
 Sample Point 226 [INDICATOR - S @ 0.48 miles]

Sample ID:	Sample Dates:	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
56990	7/6/2022 - 7/6/2022	MIXEDBLV	Mn-54	<1.23E+01	0.00E+00	1.23E+01
			Co-58	<1.29E+01	0.00E+00	1.29E+01
			Fe-59	<2.92E+01	0.00E+00	2.92E+01
			Co-60	<1.12E+01	0.00E+00	1.12E+01
			Zn-65	<2.62E+01	0.00E+00	2.62E+01
			Zr-95	<2.52E+01	0.00E+00	2.52E+01
			Nb-95	<1.69E+01	0.00E+00	1.69E+01
			I-131	<1.78E+01	0.00E+00	1.78E+01
			Cs-134	<1.59E+01	0.00E+00	1.59E+01
			Cs-137	<1.24E+01	0.00E+00	1.24E+01
			BaLa-140	<1.35E+01	0.00E+00	1.35E+01
			Be-7	5.66E+02	1.46E+02	1.79E+02
			K-40	3.84E+03	4.72E+02	1.52E+02
			571600	8/2/2022 - 8/2/2022	MIXEDBLV	Mn-54
Co-58	<2.50E+01	0.00E+00				2.50E+01
Fe-59	<4.96E+01	0.00E+00				4.96E+01
Co-60	<2.84E+01	0.00E+00				2.84E+01
Zn-65	<5.33E+01	0.00E+00				5.33E+01
Zr-95	<4.33E+01	0.00E+00				4.33E+01
Nb-95	<2.54E+01	0.00E+00				2.54E+01
I-131	<2.12E+01	0.00E+00				2.12E+01
Cs-134	<2.94E+01	0.00E+00				2.94E+01
Cs-137	<2.95E+01	0.00E+00				2.95E+01
BaLa-140	<2.86E+01	0.00E+00				2.86E+01
Be-7	9.82E+02	2.55E+02				3.02E+02
K-40	4.77E+03	7.04E+02				3.74E+02
574954	9/7/2022 - 9/7/2022	MIXEDBLV				Mn-54
			Co-58	<1.17E+01	0.00E+00	1.17E+01
			Fe-59	<2.16E+01	0.00E+00	2.16E+01
			Co-60	5.61E+01	1.44E+01	1.63E+01
			Zn-65	<2.49E+01	0.00E+00	2.49E+01
			Zr-95	<2.09E+01	0.00E+00	2.09E+01
			Nb-95	<1.26E+01	0.00E+00	1.26E+01
			I-131	<1.79E+01	0.00E+00	1.79E+01
			Cs-134	<1.65E+01	0.00E+00	1.65E+01
			Cs-137	<1.22E+01	0.00E+00	1.22E+01
			BaLa-140	<1.60E+01	0.00E+00	1.60E+01
			Be-7	1.18E+03	1.21E+02	1.22E+02
			K-40	4.52E+03	4.85E+02	1.72E+02
			564498	9/15/2022 - 9/15/2022	MIXEDBLV	Mn-54
Co-58	<1.50E+01	0.00E+00				1.50E+01
Fe-59	<3.08E+01	0.00E+00				3.08E+01
Co-60	<1.20E+01	0.00E+00				1.20E+01
Zn-65	<3.80E+01	0.00E+00				3.80E+01
Zr-95	<2.50E+01	0.00E+00				2.50E+01
Nb-95	<1.86E+01	0.00E+00				1.86E+01
I-131	<1.93E+01	0.00E+00				1.93E+01
Cs-134	<1.91E+01	0.00E+00				1.91E+01
Cs-137	<1.31E+01	0.00E+00				1.31E+01
BaLa-140	<1.40E+01	0.00E+00				1.40E+01
Be-7	5.00E+02	1.46E+02				1.96E+02
K-40	5.81E+03	6.42E+02				2.23E+02
576475	10/4/2022 - 10/4/2022	MIXEDBLV				Mn-54
			Co-58	<2.60E+01	0.00E+00	2.60E+01
			Fe-59	<4.79E+01	0.00E+00	4.79E+01
			Co-60	<2.64E+01	0.00E+00	2.64E+01
			Zn-65	<6.23E+01	0.00E+00	6.23E+01

CATAWBA Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: VEGETATION Concentration (Activity): pCi/kg
 Sample Point 226 [INDICATOR - S @ 0.48 miles]

Sample ID:	Sample Dates:	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
576475	10/4/2022 - 10/4/2022		Zr-95	<4.68E+01	0.00E+00	4.68E+01
			Nb-95	<2.72E+01	0.00E+00	2.72E+01
			I-131	<2.35E+01	0.00E+00	2.35E+01
			Cs-134	<3.20E+01	0.00E+00	3.20E+01
			Cs-137	<2.58E+01	0.00E+00	2.58E+01
			BaLa-140	<3.06E+01	0.00E+00	3.06E+01
			Be-7	6.37E+02	2.19E+02	2.93E+02
			K-40	5.36E+03	7.49E+02	4.11E+02

Sample ID:	Sample Dates:	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
578786	11/1/2022 - 11/1/2022		Mn-54	<2.65E+01	0.00E+00	2.65E+01
			Co-58	<2.80E+01	0.00E+00	2.80E+01
			Fe-59	<4.90E+01	0.00E+00	4.90E+01
			Co-60	<2.81E+01	0.00E+00	2.81E+01
			Zn-65	<5.98E+01	0.00E+00	5.98E+01
			Zr-95	<4.02E+01	0.00E+00	4.02E+01
			Nb-95	<3.44E+01	0.00E+00	3.44E+01
			I-131	<2.69E+01	0.00E+00	2.69E+01
			Cs-134	<3.66E+01	0.00E+00	3.66E+01
			Cs-137	<3.00E+01	0.00E+00	3.00E+01
			BaLa-140	<3.05E+01	0.00E+00	3.05E+01
			Be-7	5.09E+02	9.00E+01	2.78E+02
			K-40	4.17E+03	6.89E+02	4.74E+02

Sample ID:	Sample Dates:	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
580815	12/6/2022 - 12/6/2022		Mn-54	<1.72E+01	0.00E+00	1.72E+01
			Co-58	<1.77E+01	0.00E+00	1.77E+01
			Fe-59	<3.07E+01	0.00E+00	3.07E+01
			Co-60	<2.17E+01	0.00E+00	2.17E+01
			Zn-65	<4.07E+01	0.00E+00	4.07E+01
			Zr-95	<2.77E+01	0.00E+00	2.77E+01
			Nb-95	<1.92E+01	0.00E+00	1.92E+01
			I-131	<1.61E+01	0.00E+00	1.61E+01
			Cs-134	<1.97E+01	0.00E+00	1.97E+01
			Cs-137	<1.77E+01	0.00E+00	1.77E+01
			BaLa-140	<1.40E+01	0.00E+00	1.40E+01
			Be-7	6.33E+02	1.93E+02	2.61E+02
			K-40	3.38E+03	4.78E+02	2.42E+02

Sample Point 258 [CONTROL - W @ 9.84 miles]

Sample ID:	Sample Dates:	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
558166	1/5/2022 - 1/5/2022		Mn-54	<1.90E+01	0.00E+00	1.90E+01
			Co-58	<1.98E+01	0.00E+00	1.98E+01
			Fe-59	<3.28E+01	0.00E+00	3.28E+01
			Co-60	<2.00E+01	0.00E+00	2.00E+01
			Zn-65	<4.21E+01	0.00E+00	4.21E+01
			Zr-95	<4.48E+01	0.00E+00	4.48E+01
			Nb-95	<2.32E+01	0.00E+00	2.32E+01
			I-131	<2.39E+01	0.00E+00	2.39E+01
			Cs-134	<2.76E+01	0.00E+00	2.76E+01
			Cs-137	<2.26E+01	0.00E+00	2.26E+01
			BaLa-140	<2.28E+01	0.00E+00	2.28E+01
			Be-7	9.81E+02	2.34E+02	2.85E+02
			K-40	4.58E+03	6.49E+02	4.42E+02

Sample ID:	Sample Dates:	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
559353	2/1/2022 - 2/1/2022		Mn-54	<2.57E+01	0.00E+00	2.57E+01
			Co-58	<2.35E+01	0.00E+00	2.35E+01
			Fe-59	<4.56E+01	0.00E+00	4.56E+01
			Co-60	<2.84E+01	0.00E+00	2.84E+01
			Zn-65	<6.21E+01	0.00E+00	6.21E+01
			Zr-95	<4.49E+01	0.00E+00	4.49E+01
			Nb-95	<2.89E+01	0.00E+00	2.89E+01
I-131	<2.81E+01	0.00E+00	2.81E+01			

CATAWBA Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: VEGETATION Concentration (Activity): pCi/kg
 Sample Point 258 [CONTROL - W @ 9.84 miles]

Sample ID:	Sample Dates:	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
559353	2/1/2022 - 2/1/2022	MIXEDBLV	Cs-134	<3.54E+01	0.00E+00	3.54E+01
			Cs-137	<3.05E+01	0.00E+00	3.05E+01
			BaLa-140	<2.45E+01	0.00E+00	2.45E+01
			Be-7	5.23E+02	4.86E+02	2.14E+02
			K-40	4.12E+03	6.19E+02	4.44E+02
560713	3/1/2022 - 3/1/2022	MIXEDBLV	Mn-54	<2.29E+01	0.00E+00	2.29E+01
			Co-58	<2.12E+01	0.00E+00	2.12E+01
			Fe-59	<3.93E+01	0.00E+00	3.93E+01
			Co-60	<2.38E+01	0.00E+00	2.38E+01
			Zn-65	<5.70E+01	0.00E+00	5.70E+01
			Zr-95	<3.75E+01	0.00E+00	3.75E+01
			Nb-95	<3.20E+01	0.00E+00	3.20E+01
			I-131	<2.38E+01	0.00E+00	2.38E+01
			Cs-134	<2.47E+01	0.00E+00	2.47E+01
			Cs-137	<2.36E+01	0.00E+00	2.36E+01
			BaLa-140	<2.35E+01	0.00E+00	2.35E+01
			Be-7	7.97E+02	2.11E+02	2.57E+02
			K-40	4.57E+03	6.53E+02	3.37E+02
562795	4/5/2022 - 4/5/2022	MIXEDBLV	Mn-54	<1.98E+01	0.00E+00	1.98E+01
			Co-58	<1.50E+01	0.00E+00	1.50E+01
			Fe-59	<3.07E+01	0.00E+00	3.07E+01
			Co-60	<2.07E+01	0.00E+00	2.07E+01
			Zn-65	<4.45E+01	0.00E+00	4.45E+01
			Zr-95	<3.14E+01	0.00E+00	3.14E+01
			Nb-95	<1.86E+01	0.00E+00	1.86E+01
			I-131	<1.97E+01	0.00E+00	1.97E+01
			Cs-134	<2.46E+01	0.00E+00	2.46E+01
			Cs-137	<2.01E+01	0.00E+00	2.01E+01
			BaLa-140	<1.78E+01	0.00E+00	1.78E+01
			Be-7	8.64E+02	1.37E+02	1.72E+02
			K-40	5.29E+03	6.60E+02	3.75E+02
566559	5/3/2022 - 5/3/2022	MIXEDBLV	Mn-54	<2.17E+01	0.00E+00	2.17E+01
			Co-58	<1.93E+01	0.00E+00	1.93E+01
			Fe-59	<5.08E+01	0.00E+00	5.08E+01
			Co-60	<2.27E+01	0.00E+00	2.27E+01
			Zn-65	<5.30E+01	0.00E+00	5.30E+01
			Zr-95	<4.52E+01	0.00E+00	4.52E+01
			Nb-95	<1.88E+01	0.00E+00	1.88E+01
			I-131	<2.31E+01	0.00E+00	2.31E+01
			Cs-134	<3.19E+01	0.00E+00	3.19E+01
			Cs-137	<2.48E+01	0.00E+00	2.48E+01
			BaLa-140	<2.57E+01	0.00E+00	2.57E+01
			Be-7	<1.98E+02	0.00E+00	1.98E+02
			K-40	3.32E+03	5.41E+02	1.91E+02
567837	6/7/2022 - 6/7/2022	MIXEDBLV	Mn-54	<1.72E+01	0.00E+00	1.72E+01
			Co-58	<1.73E+01	0.00E+00	1.73E+01
			Fe-59	<3.54E+01	0.00E+00	3.54E+01
			Co-60	<1.87E+01	0.00E+00	1.87E+01
			Zn-65	<3.82E+01	0.00E+00	3.82E+01
			Zr-95	<2.87E+01	0.00E+00	2.87E+01
			Nb-95	<1.77E+01	0.00E+00	1.77E+01
			I-131	<2.96E+01	0.00E+00	2.96E+01
			Cs-134	<2.35E+01	0.00E+00	2.35E+01
			Cs-137	<2.22E+01	0.00E+00	2.22E+01
			BaLa-140	<1.38E+01	0.00E+00	1.38E+01
			Be-7	3.39E+02	1.67E+02	2.47E+02
			K-40	3.29E+03	4.93E+02	3.06E+02

CATAWBA Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: VEGETATION Concentration (Activity): pCi/kg
 Sample Point 258 [CONTROL - W @ 9.84 miles]

Sample ID:	Sample Dates:	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
569991	7/6/2022 - 7/6/2022	MIXEDBLV	Mn-54	<1.37E+01	0.00E+00	1.37E+01
			Co-58	<1.31E+01	0.00E+00	1.31E+01
			Fe-59	<2.75E+01	0.00E+00	2.75E+01
			Co-60	<9.69E+00	0.00E+00	9.69E+00
			Zn-65	<3.02E+01	0.00E+00	3.02E+01
			Zr-95	<1.99E+01	0.00E+00	1.99E+01
			Nb-95	<1.28E+01	0.00E+00	1.28E+01
			I-131	<1.71E+01	0.00E+00	1.71E+01
			Cs-134	<1.84E+01	0.00E+00	1.84E+01
			Cs-137	<1.44E+01	0.00E+00	1.44E+01
			BaLa-140	<1.38E+01	0.00E+00	1.38E+01
			Be-7	8.59E+02	1.68E+02	1.75E+02
			K-40	3.11E+03	4.26E+02	2.17E+02
			571601	8/2/2022 - 8/2/2022	MIXEDBLV	Mn-54
Co-58	<3.76E+01	0.00E+00				3.76E+01
Fe-59	<7.52E+01	0.00E+00				7.52E+01
Co-60	<4.52E+01	0.00E+00				4.52E+01
Zn-65	<7.91E+01	0.00E+00				7.91E+01
Zr-95	<5.70E+01	0.00E+00				5.70E+01
Nb-95	<3.28E+01	0.00E+00				3.28E+01
I-131	<4.13E+01	0.00E+00				4.13E+01
Cs-134	<4.84E+01	0.00E+00				4.84E+01
Cs-137	<3.43E+01	0.00E+00				3.43E+01
BaLa-140	<3.16E+01	0.00E+00				3.16E+01
Be-7	1.16E+03	3.26E+02				4.00E+02
K-40	3.95E+03	7.12E+02				4.46E+02
574955	9/7/2022 - 9/7/2022	MIXEDBLV				Mn-54
			Co-58	<1.36E+01	0.00E+00	1.36E+01
			Fe-59	<3.50E+01	0.00E+00	3.50E+01
			Co-60	<2.15E+01	0.00E+00	2.15E+01
			Zn-65	<3.90E+01	0.00E+00	3.90E+01
			Zr-95	<3.47E+01	0.00E+00	3.47E+01
			Nb-95	<1.94E+01	0.00E+00	1.94E+01
			I-131	<2.39E+01	0.00E+00	2.39E+01
			Cs-134	<2.43E+01	0.00E+00	2.43E+01
			Cs-137	<2.13E+01	0.00E+00	2.13E+01
			BaLa-140	<2.08E+01	0.00E+00	2.08E+01
			Be-7	1.37E+03	2.63E+02	2.76E+02
			K-40	3.08E+03	5.06E+02	3.80E+02
			576476	10/4/2022 - 10/4/2022	MIXEDBLV	Mn-54
Co-58	<1.77E+01	0.00E+00				1.77E+01
Fe-59	<3.88E+01	0.00E+00				3.88E+01
Co-60	<1.70E+01	0.00E+00				1.70E+01
Zn-65	<5.69E+01	0.00E+00				5.69E+01
Zr-95	<3.60E+01	0.00E+00				3.60E+01
Nb-95	<2.17E+01	0.00E+00				2.17E+01
I-131	<2.39E+01	0.00E+00				2.39E+01
Cs-134	<2.74E+01	0.00E+00				2.74E+01
Cs-137	<2.54E+01	0.00E+00				2.54E+01
BaLa-140	<2.69E+01	0.00E+00				2.69E+01
Be-7	2.01E+03	3.38E+02				3.04E+02
K-40	3.20E+03	5.59E+02				4.46E+02
578787	11/1/2022 - 11/1/2022	MIXEDBLV				Mn-54
			Co-58	<4.78E+01	0.00E+00	4.78E+01
			Fe-59	<6.27E+01	0.00E+00	6.27E+01
			Co-60	<4.68E+01	0.00E+00	4.68E+01
			Zn-65	<1.01E+02	0.00E+00	1.01E+02

CATAWBA Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: VEGETATION Concentration (Activity): pCi/kg

Sample Point 258 [CONTROL - W @ 9.84 miles]

Sample ID:	Sample Dates:	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
578787	11/1/2022 - 11/1/2022	MIXEDBLV	Zr-95	<6.44E+01	0.00E+00	6.44E+01
			Nb-95	<4.34E+01	0.00E+00	4.34E+01
			I-131	<3.75E+01	0.00E+00	3.75E+01
			Cs-134	<3.62E+01	0.00E+00	3.62E+01
			Cs-137	<4.56E+01	0.00E+00	4.56E+01
			BaLa-140	<4.46E+01	0.00E+00	4.46E+01
			Be-7	1.13E+03	3.75E+02	4.97E+02
			K-40	3.91E+03	8.34E+02	7.82E+02
			580816	12/6/2022 - 12/6/2022	MIXEDBLV	Mn-54
Co-58	<1.88E+01	0.00E+00				1.88E+01
Fe-59	<3.45E+01	0.00E+00				3.45E+01
Co-60	<1.97E+01	0.00E+00				1.97E+01
Zn-65	<4.37E+01	0.00E+00				4.37E+01
Zr-95	<3.73E+01	0.00E+00				3.73E+01
Nb-95	<1.91E+01	0.00E+00				1.91E+01
I-131	<1.80E+01	0.00E+00				1.80E+01
Cs-134	<2.17E+01	0.00E+00				2.17E+01
Cs-137	<1.64E+01	0.00E+00				1.64E+01
BaLa-140	<2.35E+01	0.00E+00				2.35E+01
Be-7	2.99E+03	3.85E+02				2.46E+02
K-40	3.44E+03	5.08E+02				3.14E+02

APPENDIX F

**ERRATA TO
PREVIOUS REPORTS**

2022

There Are No Known Errata
To The 2022 AREOR.

Enclosure 3
RA-23-0047

ENCLOSURE 3: [HNP Annual Radiological Environmental Operating Report](#)



ANNUAL RADIOLOGICAL ENVIRONMENTAL OPERATING REPORT

DUKE ENERGY PROGRESS, LLC

SHEARON HARRIS NUCLEAR POWER PLANT

2022



TABLE OF CONTENTS

1.0 Executive Summary	1-1
2.0 Introduction	2-1
2.1 Site Description and Sample Locations	2-1
2.2 Scope and Requirements of the REMP	2-1
2.3 Statistical and Calculational Methodology	2-2
2.3.1 Estimation of the Mean Value	2-2
2.3.2 Lower Limit of Detection and Minimum Detectable Activity	2-3
2.3.3 Trend Identification	2-3
3.0 Interpretation of Results	3-1
3.1 Airborne Radioiodine and Particulates	3-2
3.2 Drinking Water	3-5
3.3 Surface Water	3-8
3.4 Ground Water	3-10
3.5 Milk	3-11
3.6 Broadleaf Vegetation	3-12
3.7 Food Products	3-13
3.8 Aquatic Vegetation	3-14
3.9 Fish	3-15
3.10 Shoreline Sediment	3-16
3.11 Bottom Sediment	3-17
3.12 Direct Gamma Radiation	3-19
3.12.1 Environmental TLD	3-19
3.13 Land Use Census	3-22
4.0 Quality Assurance	4-1
4.1 Sample Collection	4-1
4.2 Sample Analysis	4-1
4.3 Dosimetry Analysis	4-1
4.4 Laboratory Equipment Quality Assurance	4-1
4.4.1 Daily Quality Control	4-1
4.4.2 Calibration Verification	4-1
4.4.3 Batch Processing	4-1
4.5 Duke Energy Interlaboratory Comparison Program	4-1
4.5.1 Eckert & Ziegler Analytics Cross Check Program	4-2
4.6 State of North Carolina Intercomparison Program	4-2
4.7 TLD Intercomparison Program	4-2

Appendices

Appendix A: Environmental Sampling and Analysis Procedures	A-1
I. Change of Sampling Procedures	A-2
II. Description of Analysis Procedures	A-3
III. Change of Analysis Procedures	A-3
Appendix B: Radiological Environmental Monitoring Program – Summary of Results 2022	B-1
Radiological Environmental Monitoring Program Data Summary.	B-2
Footnotes to Appendix B	B-5
Appendix C: Sampling Deviations & Unavailable Analyses	C-1
C.1 Sampling Deviations.	C-2
C.2 Unavailable Analyses	C-3
Appendix D: Analytical Deviations	D-1
Appendix E: Radiological Environmental Monitoring Program Results 2022	E-1
Appendix F: Errata to Previous Reports	F-1
F.1 Errata to 2014-2021 Reports	F-2

LIST OF FIGURES

2.1-1	Map of Site Boundary	2-5
2.1-2	Harris Nuclear Plant Sampling Locations - One Mile Radius.	2-6
2.1-3	Harris Nuclear Plant Sampling Locations - Ten Mile Radius.	2-7
2.1-4	Harris Nuclear Plant Sampling Locations - >10 Mile Radius.	2-8
3.1	Concentration of Gross Beta in Air Particulate.	3-3
3.2-1	Concentration of Gross Beta in Drinking Water	3-6
3.2-2	Concentration of Tritium in Drinking Water.	3-6
3.3	Concentration of Tritium in Surface Water.	3-8
3.11	Concentration of Co-60 and Cs-137 in Bottom Sediment	3-17
3.12	Direct Gamma Radiation (TLD) Results.	3-20
3.13	Harris Nuclear Plant 2022 Land Use Census Map.	3-24

LIST OF TABLES

2.1-A	Radiological Monitoring Program Sampling Locations	2-9
2.1-B	Radiological Monitoring Program Sampling Locations (TLD Sites)	2-11
2.2-A	Reporting Levels for Radioactivity Concentrations in Environmental Samples	2-12
2.2-B	REMP Analysis Frequency	2-13
2.2-C	Detection Capabilities for the <i>A Priori</i> Lower Limit of Detection.	2-14
3.1-A	Mean Concentration of Gross Beta in Air Particulate	3-3
3.1-B	Mean Concentration of Air Radioiodine (I-131).	3-4
3.2	Mean Concentration of Radionuclides in Drinking Water.	3-7
3.3	Mean Concentration of Tritium in Surface Water.	3-9
3.6	Mean Concentration of Cs-137 in Broadleaf Vegetation	3-12
3.11	Mean Concentration of Radionuclides in Bottom Sediment.	3-18
3.12	Direct Gamma Radiation (TLD) Results.	3-21
3.13	Harris Land Use Census Comparison (2021 – 2022).	3-23
4.0-A	Eckert & Ziegler Analytics Cross Check Program	4-3
4.0-B	2022 Environmental Dosimeter Cross Check Results	4-5

LIST OF ACRONYMS USED IN THIS TEXT *(in alphabetical order)*

A	Annually
APAC	Air Particulate Air Cartridge/Radioiodine
AR	Action Request - Corrective Action Program
AREOR	Annual Radiological Environmental Operating Report
BLV	Broadleaf Vegetation
BW	Biweekly
C	Control
CM	Community
DRR	Document Revision Request
DW	Drinking Water
EZA	Eckert and Ziegler Analytics
GPS	Global Positioning System
GW	Ground Water
HNP	Harris Nuclear Plant or Shearon Harris Nuclear Plant
LLD	Lower Limit of Detection
LUC	Land Use Census
M	Monthly
MAPEP	Department of Energy Mixed Analyte Performance Evaluation Program
MDA	Minimum Detectable Activity
mR/STD Qtr	milliroentgen per standard quarter
MWe	Mega Watts electric
NIST	National Institute of Standards and Technology
NCR	Nuclear Condition Report - Corrective Action Program
NRC	Nuclear Regulatory Commission
ODCM	Offsite Dose Calculation Manual
pCi/kg	picocurie per kilogram
pCi/l	picocurie per liter
pCi/m ³	picocurie per cubic meter
Q	Quarterly
REMP	Radiological Environmental Monitoring Program
SA	Semiannually
SB	Site Boundary
SHNPP	Shearon Harris Nuclear Power Plant
SM	Semimonthly
SW	Surface Water
TLD	Thermoluminescent Dosimeter
UFSAR	Updated Final Safety Analysis Report
W	Weekly

1.0 EXECUTIVE SUMMARY

This Annual Radiological Environmental Operating Report describes the Shearon Harris Nuclear Plant Radiological Environmental Monitoring Program (REMP), and the program results for the calendar year 2022.

Included in the report are the identification of sampling locations, descriptions of environmental sampling and analysis procedures, comparisons of present environmental radioactivity levels and pre-operational environmental data, analysis of trends in environmental radiological data as potentially affected by plant operations, and a summary of environmental radiological sampling results. Quality assurance practices, sampling deviations, unavailable samples, and program changes are also discussed.

Sampling activities were conducted as prescribed by the Harris Nuclear Plant Offsite Dose Calculation Manual (ODCM). One thousand two hundred and eighty-five samples were analyzed comprising one thousand three hundred and fifty-five test results in order to compile data for the 2022 report. Based on the annual land use census, the current number of sampling sites for Harris Nuclear Plant is sufficient.

Concentrations observed in the environment in 2022 for plant related radionuclides were generally within the ranges of concentrations observed in the past. Inspection of the data showed that radioactivity concentrations in drinking water, ground water, surface water, and bottom sediment are higher than the activities reported for samples collected prior to the operation of the station. Measured concentrations, including tritium, were not higher than expected and all positively identified measurements attributable to station operation were within limits as specified in the HNP ODCM and regulatory limits, thus presenting no significant impact on the environment or public health and safety.

2.0 INTRODUCTION

2.1 SITE DESCRIPTION AND SAMPLE LOCATIONS

Duke Energy Progress, LLC (Duke Energy), Shearon Harris Nuclear Power Plant, is a single-unit facility located on the shore of Harris Lake in southwest Wake County, North Carolina. The pressurized water reactor nuclear steam supply system furnished by Westinghouse Electric Corporation is designed to produce a net electrical output of approximately 930 MWe. Initial criticality was achieved on January 3, 1987.

Condenser cooling is accomplished utilizing a closed system incorporating a cooling tower, instead of using lake water directly. Liquid effluents are released into Harris Lake via the station discharge canal and are not accompanied by the large additional dilution water flow associated with “once-through” condenser cooling. This design results in greater radionuclide concentrations in the discharge canal given comparable liquid effluent source terms.

Sampling locations are chosen based upon meteorological factors, preoperational monitoring, and results of the land use surveys. Figure 2.1-1 is a map of the HNP site boundary. Sample points beyond the site boundary are considered offsite. Figures 2.1-2, 2.1-3, and 2.1-4 are maps depicting the Thermoluminescent Dosimeter (TLD) monitoring locations and the sampling locations. The location numbers shown on these maps correspond to those listed in Tables 2.1-A and 2.1-B. Figure 2.1-2 comprises all sample locations within a one-mile radius of HNP. Figure 2.1-3 comprises all sample locations within a 10-mile radius of HNP. Figure 2.1-4 comprises all sample locations beyond a 10-mile radius of HNP.

The Shearon Harris Nuclear Plant centerline used for GPS measurements was referenced from the Shearon Harris Nuclear Plant Updated Final Safety Analysis Report (UFSAR), section 2.1.1.1, Specification of Location. Waypoint coordinates used for HNP GPS measurements were latitude 35°-38'-00"N and longitude 78°-57'-22"W. Maps and tables were generated using North American Datum (NAD) 27. Data normally reflect accuracy to within 2 to 5 meters from point of measurement. All GPS field measurements were taken as close as possible to the item of interest. Distances for the locations are displayed using three significant figures.

2.2 SCOPE AND REQUIREMENTS OF THE REMP

An environmental monitoring program has been in effect at Harris Nuclear Plant since 1982, five years prior to commencing operation. The preoperational program provides data on the existing environmental radioactivity levels for the site and vicinity, which may be used to determine whether increases in environmental levels are attributable to the station. The operational program provides surveillance and backup support of detailed effluent monitoring which is necessary to evaluate the significance, if any, of the contributions to the existing environmental radioactivity levels that result from station operation.

This monitoring program is based on NRC guidance and is conducted in accordance with Operational Requirement 3.12.1 in the HNP Offsite Dose Calculation Manual and applicable procedures; with regards to sample media, sampling locations, sampling frequency, and analytical sensitivity requirements. Indicator and control locations were established for comparison purposes to distinguish radioactivity of plant origin from natural or other “man-made” environmental radioactivity. The environmental monitoring program also verifies projected and anticipated radionuclide concentrations in the environment and related exposures from releases of radionuclides from Shearon Harris Nuclear Plant. This program satisfies the requirements of Section IV.B.2 of Appendix I to 10CFR50 and provides surveillance of all appropriate critical exposure pathways to man and protects vital interests of the company, public and state and federal agencies concerned with the environment. Reporting levels for activity found in environmental samples are listed in Table 2.2-A. Table 2.2-B lists the REMP analysis and frequency schedule.

The Annual Land Use Census, required by the HNP Offsite Dose Calculation Manual, is performed to ensure that changes in the use of areas at or beyond the site boundary are identified and that modifications to the REMP are made if required by changes in land use. This census satisfies the requirements of Section IV.B.3 of Appendix I to 10CFR50. Results are shown in Table 3.13.

Participation in an interlaboratory comparison program is performed in fulfillment of HNP ODCM Operational Requirements. The comparison program provides for independent checks on the precision and accuracy of measurements of radioactive material in REMP sample matrices. Such checks are performed as part of the quality assurance program for environmental monitoring in order to demonstrate that the results are valid for the purposes of Section IV.B.2 of Appendix I to 10CFR50. A summary of the results obtained as part of this comparison program are in Section 4 of this annual report.

2.3 STATISTICAL AND CALCULATIONAL METHODOLOGY

2.3.1 ESTIMATION OF THE MEAN VALUE

There was one (1) basic statistical calculation performed on the raw data resulting from the environmental sample analysis program. The calculation involved the determination of the mean value for the indicator and the control samples for each sample medium. The mean is a widely used statistic. This value was used in the reduction of the data generated by the sampling and analysis of the various media in the Radiological Environmental Monitoring Program. “Net activity (or concentration)” is the activity (or concentration) determined to be present in the sample. No “Minimum Detectable Activity”, “Lower Limit of Detection”, “Less Than Level”, or negative activities or concentrations are included in the calculation of the mean. The following equation was used to estimate the mean:

$$\bar{x} = \frac{\sum_{i=1}^N x_i}{N}$$

Where:

\bar{x} = estimate of the mean,

i = individual sample,

N = total number of samples with a net activity (or concentration),

χ_i = net activity (or concentration) for sample i .

2.3.2 LOWER LIMIT OF DETECTION AND MINIMUM DETECTABLE ACTIVITY

The Lower Limit of Detection (LLD) and Minimum Detectable Activity (MDA) are used throughout the REMP.

LLD - The LLD, as defined in the ODCM as the smallest concentration of radioactive material in a sample that will yield a net count, above the system background, that will be detected with 95% probability with only 5% probability of falsely concluding that a blank observation represents a "real" signal. The LLD is an *a priori* (before the fact) lower limit of detection. The actual LLD is dependent upon the standard deviation of the background-counting rate, the counting efficiency, the sample size (mass or volume), the radiochemical yield and the radioactive decay of the sample between sample collection and counting. The "required" LLDs for each sample medium and selected radionuclides are given in the ODCM and are listed in Table 2.2-C.

MDA - The MDA is the net counting rate (sample after subtraction of background) that must be surpassed before a sample is considered to contain a scientifically measurable amount of a radioactive material exceeding background amounts. The MDA is calculated using a sample background and may be thought of as an "actual" LLD for a particular sample measurement. Certain gross counting measurements display a calculated negative value, indicating background is greater than sample activity.

2.3.3 TREND IDENTIFICATION

One of the purposes of an environmental monitoring program is to determine if there is a buildup of radionuclides in the environment due to the operation of the nuclear plant. Visual inspection of tabular or graphical presentations of data (including preoperational) is used to determine if a trend exists. A decrease in a particular radionuclide's concentration in an environmental medium does not indicate that reactor operations are removing radioactivity from the environment, but that reactor operations are not adding that radionuclide to the environment in quantities exceeding the preoperational level and that the normal removal processes (radioactive decay, deposition, resuspension, etc.) are influencing the concentration.

Substantial increases or decreases in the amount of a particular radionuclide's release from the nuclear plant will greatly affect the resulting environmental levels; therefore, a knowledge of the release of a radionuclide from the nuclear plant is necessary to

completely interpret the trends, or lack of trends, determined from the environmental data. Factors that may affect environmental levels of radionuclides include prevailing weather conditions (periods of drought, solar cycles or heavier than normal precipitation), construction in or around either the nuclear plant or the sampling location, and addition or deletion of other sources of radioactive materials (such as the 1986 Chernobyl accident and the Japan earthquake and tsunami, which triggered the 2011 Fukushima Dai-ichi Nuclear Power Plant incident). Some of these factors may be obvious while others are sometimes unknown. Therefore, how trends are identified will include some judgment by plant personnel.

Figure 2.1-1

Map of Site Boundary

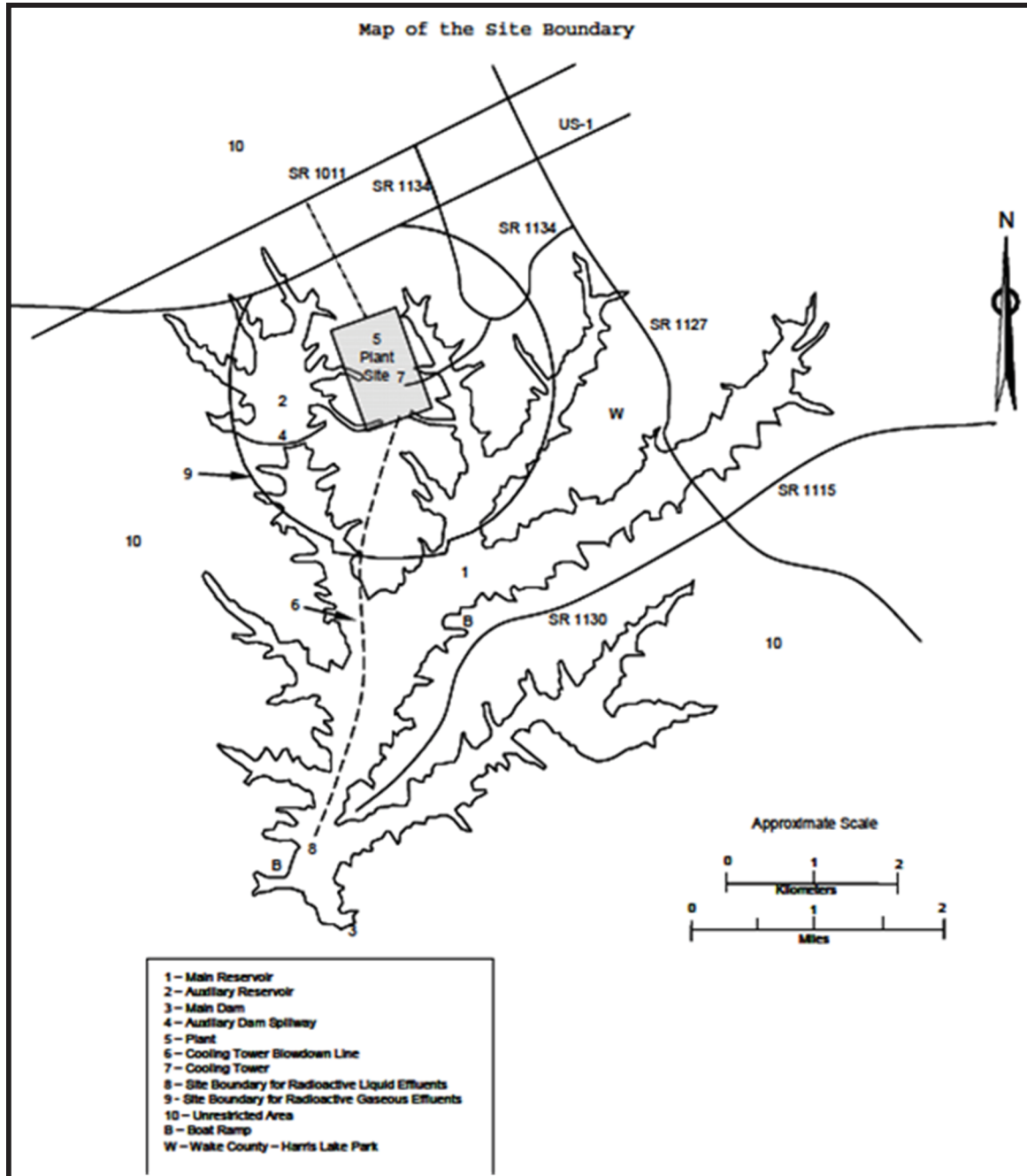


Figure 2.1-2

Harris Nuclear Plant Sampling Locations - One Mile Radius

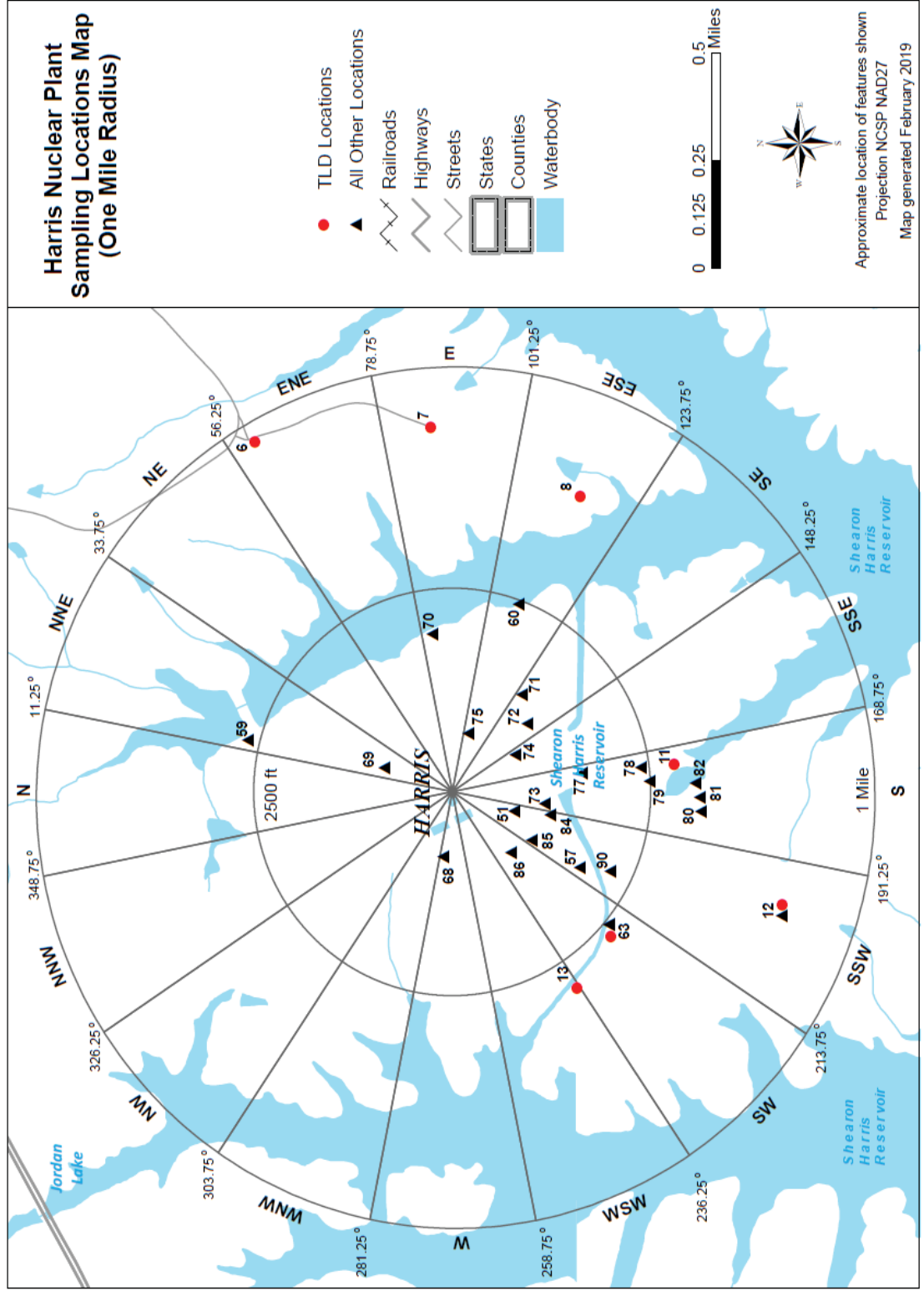
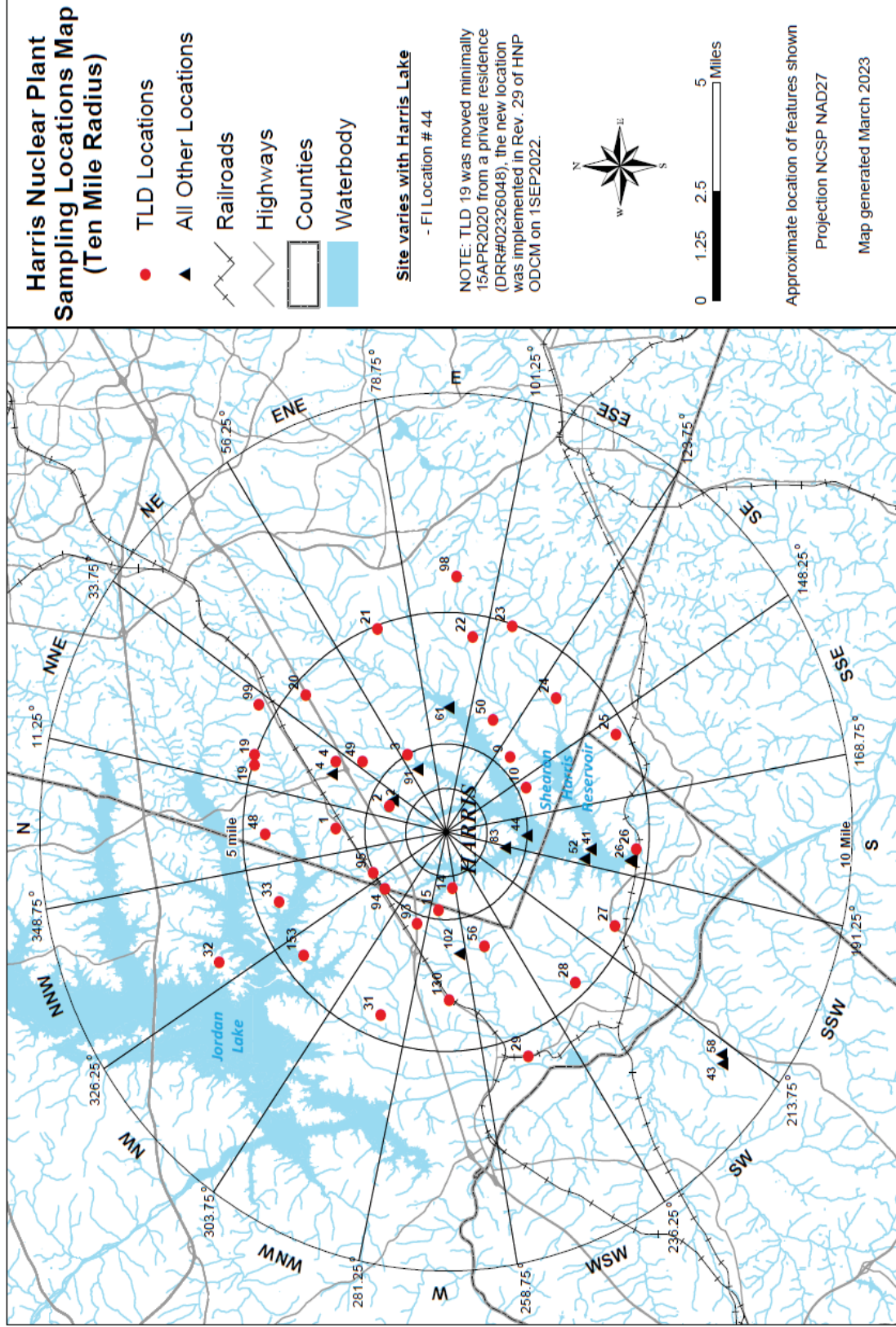


Figure 2.1-3
Harris Nuclear Plant Sampling Locations - Ten Mile Radius



**Figure 2.1-4
Harris Nuclear Plant Sampling Locations – >10 Mile Radius**

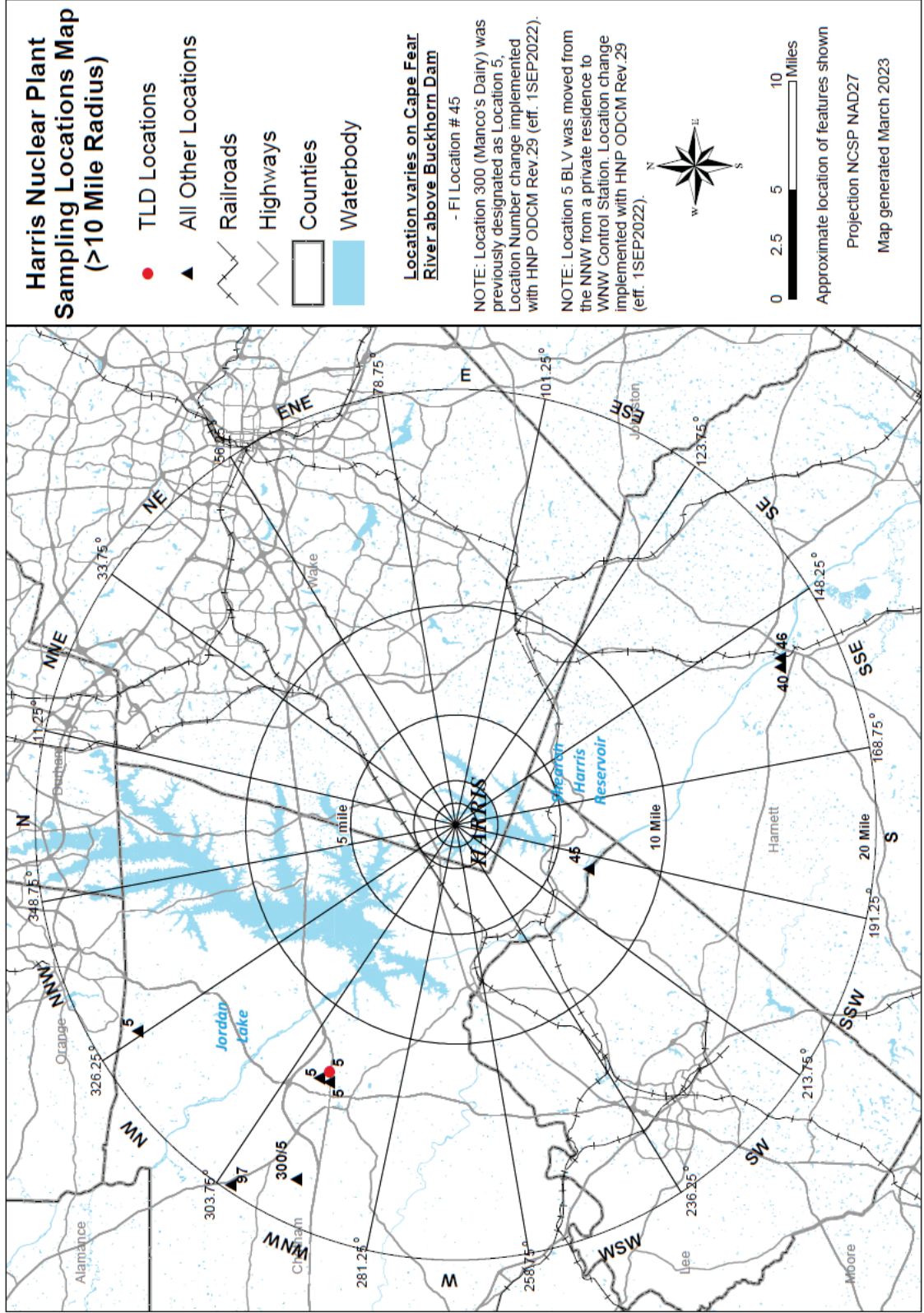


TABLE 2.1-A

HARRIS NUCLEAR PLANT

RADIOLOGICAL MONITORING PROGRAM SAMPLING LOCATIONS

Table 2.1-A Codes									
A	Annual	BW	BiWeekly	FP	Food Product	Q	Quarterly	SS	Sediment Shoreline
AC	Air Cartridge	C	Control ⁽⁵⁾	GW	Ground Water	SA	Semiannually	SW	Surface Water
AP	Air Particulate	CM	Community	I	Indicator	SB	Site Boundary	W	Weekly
AV	Aquatic Vegetation	DW	Drinking Water	M	Monthly	SBT	Sediment Bottom		
BLV	Broadleaf Vegetation	FI	Fish	MK	Milk	SM	Semimonthly		

Site#	Type	Location Description ⁽⁴⁾	AC & AP	SW	DW	SS	SBT	AV	FP ⁽¹⁾	Fish (FI)	Milk ⁽³⁾ (Mk)	BLV	GW
2	I	1.4 miles NNE	W/Q/SB										
4	I	3.1 miles NNE	W/Q/CM										
5	C	>12 miles WNW – Pittsboro >12 miles NNW – Pittsboro (BLV)	W/Q								SM/M ⁽⁷⁾	M ⁽²⁾⁽⁶⁾	
12	I	0.9 miles SSW										M ⁽²⁾	
26	I	4.7 miles S	W/Q	BW ^{(10)/ M/Q⁽⁹⁾}		SA		A					
40	I	17.2 miles SSE - Lillington		M/Q									
41	I	3.8 miles S				SA		A					
43	C	8.5 miles SW		M/Q									
44	I	Site varies in Harris Lake								SA			
45	C	Site varies in Cape Fear River above Buckhorn Dam								SA			
46	I	17.2 miles SSE - Lillington			M/Q								
51	I	Water Treatment Building (On Site)			BW ^{(10)/ M⁽⁹⁾}								
52	I	3.8 miles S					SA						
57	I	0.4 miles SSW											Q
58	C	8.5 miles SW			M/Q								
59	I	0.5 miles NNE											Q
60	I	0.5 miles ESE											Q
61	C	2.5 miles E						A					
63	I	0.6 miles SW	W/Q/SB									M ⁽²⁾	
68	I	0.2 miles W											Q
69	I	0.2 miles NNE											Q
70	I	0.4 miles E											Q
71	I	0.3 miles SE											Q
72	I	0.2 miles SE											Q
73	I	0.2 miles S											Q
74	I	0.2 miles SSE											Q
75	I	0.1 miles ESE											Q
77	I	0.4 miles S											Q
78	I	0.5 miles S											Q
79	I	0.5 miles S											Q
80	I	0.6 miles S											Q
81	I	0.6 miles S											Q
82	I	0.6 miles S											Q
83	I	1.6 miles SSW											Q
84	I	0.2 miles SSW											Q
85	I	0.2 miles SSW											Q
86	I	0.2 miles SW											Q
90	I	0.5 miles SSW	W/Q/SB										
91	I	1.6 miles ENE	W/Q										
97 ⁽⁸⁾	C	19.1 miles NW Granite Springs Farm ⁽¹¹⁾							M ⁽¹⁾				
102	I	2.82 miles W									SM ⁽³⁾		

(1) When Available, during Harvest/Growing Season (Rev. 28 HNP ODCM)

(2) Broadleaf vegetation refers to any natural vegetation, plants, shrubs, or trees that have wide, flat leaves or leaves with veins which branch from a main vein. Typically leaves are only present during the growing season May through October.

(3) Goat milk is seasonally available. Typically, goats lactate during the spring, summer, and early fall (April through October).

(4) GPS data reflect approximate accuracy to within 2-5 meters. GPS field measurements were taken as close as possible to the item of interest.

- (5) Control sample stations (or background stations) are located in areas that are unaffected by plant operations. All other stations that have the potential to be affected by radioactive emissions from plant operations are considered indicator locations.
- (6) BLV is sampled in the NNW Sector but is designated as Location 5 in the HNP ODCM as Pittsboro, >12 mi. from site (HNP ODCM Rev. 28). The location was relocated to the WNW Sector with REV.29 of the HNP ODCM (eff. 1SEP2022). DRR #02443229 written for sector discrepancy between Table 4.1 & Table 4.2 of HNP ODCM Rev. 29.
- (7) Milk Location 5, Manco's Dairy is not physically located at the same geographic location as all other Location 5 Control Attributes, with HNP ODCM Rev. 29 (eff. 1SEP2022) Manco's Dairy, formerly Location 5, was given new Control Dairy Location 300.
- (8) Location 97 Granite Springs Farm was removed from the REMP with Rev. 29 of HNP ODCM (eff. 1SEP2022) as this location is not an irrigated garden and a replacement irrigated garden could not be located.
- (9) Revision 29 of HNP ODCM (eff. 1SEP2022) updated the sampling frequency to match ODCM Table 4.1. However, Quarterly H-3 is not performed, it is performed more often, on a monthly basis, DRR#02463891 was written to reconcile the discrepancy between HNP ODCM Table 4.2 and Table 4.1.
- (10) Sampling frequency displayed in Table 4.2 of Rev. 28 of HNP ODCM.
- (11) Revision 28 (and previous revisions) of the HNP ODCM show location 97's sector as being located in the NW sector, however, upon creation of <10 mile maps (NCR#2428007) for the AREOR (figure 2.1-4), it was determined that location 97 is actually located in the WNW sector. NCR#2467848 was initiated at the time of discovery.

TABLE 2.1-B

HARRIS NUCLEAR PLANT

RADIOLOGICAL MONITORING PROGRAM SAMPLING LOCATIONS (TLD SITES)

Table 2.1-B Codes			
C	Control	OR	Outer Ring
IR	Inner Ring	SI	Special Interest

Site #	Measure Type	Location ⁽¹⁾⁽³⁾	Distance (miles)	Sector	Site #	Measure Type	Location ⁽¹⁾⁽³⁾	Distance (miles)	Sector
1	IR	0.1 mi. S on SR 1134 from SR 1011 intersection ⁽⁴⁾	2.6	N	25	OR	0.2 mi. W on SR 1402 from intersection of SR 1400 ⁽⁴⁾	4.7	SSE
2	IR	1.4 mi. S on SR 1134 from SR 1011 intersection ⁽⁴⁾	1.4	NNE	26	OR	Harris Lake Spillway ⁽⁴⁾	4.7	S
3	SI	HE&EC Visitor Center (Population Center)	1.9	ENE	27	OR	NC 42 @ Buckhorn United Methodist Church ⁽⁴⁾	4.8	SSW
4	SI	New Hill (Population Center)	3.1	NNE	28	OR	0.6 mi. on SR 1924 from intersection of SR 1916 ⁽⁴⁾	4.8	SW
5	C	Pittsboro (Control Station)	13.3	WNW	29	OR	Parking lot on SR 1916 ⁽⁴⁾	5.7	WSW
6	IR	Intersection of SR 1134 & SR 1135 ⁽⁴⁾	0.8	ENE	31	OR	At intersection of SR 1908, 1909, 1910 ⁽⁴⁾	4.7	WNW
7	IR	Extension of SR 1134 ⁽⁴⁾	0.7	E	32	SI	Jordan Lake (Population Center)	6.4	NNW
8	IR	Dead end of road, Extension of SR 1134 ⁽⁴⁾	0.6	ESE	33	OR	SR 1142, 1.7 mi. from intersection of SR 1141 ⁽⁴⁾	4.5	NNW
9	IR	1 mi. S on SR 1130 from intersection of SR 1127, 1115, and 1130 ⁽⁴⁾	2.2	SE	48	OR	SR 1142, 1.5 mi. from intersection of SR 1141 ⁽⁴⁾	4.5	N
10	IR	SR 1130 S of intersection of SR 1127, 1115, and 1130 ⁽⁴⁾	2.2	SSE	49	IR	SR 1127, 0.3 mi. S from intersection with US 1 ⁽⁴⁾	2.5	NE
11	IR	SHNPP Site ⁽⁴⁾	0.6	S	50	SI	Holleman Crossroads (Population Center)	2.6	ESE
12	IR	SHNPP Site ⁽⁴⁾	0.9	SSW	56	IR	SR 1912 at intersection of SR 1912 and SR 1924 ⁽⁴⁾	3.0	WSW
13	IR	SHNPP Site ⁽⁴⁾	0.7	WSW	63	IR	SHNPP Site ⁽⁴⁾	0.6	SW
14	IR	SHNPP Site ⁽⁴⁾	1.5	W	93	IR	SR 1911 ⁽⁴⁾	2.2	WNW
15	IR	SR 1911 ⁽⁴⁾	2.0	W	94	IR	Old US HWY 1 ⁽⁴⁾	2.0	NW
19 ⁽²⁾	OR	Cross Country Lane and Humie Olive Rd ⁽⁴⁾	5.0	NNE	95	IR	Bonsal Road ⁽⁴⁾	2.0	NNW
20	OR	US 1 at intersection SR 1149 ⁽⁴⁾	4.5	NE	98	SI	Holly Springs School Complex (Population Center)	5.9	E
21	OR	1.2 mi. W on SR 1152 from intersection SR 1153 ⁽⁴⁾	4.8	ENE	99	SI	Friendship School (Population Center)	5.5	NNE
22	OR	Formerly Ragan's Dairy on SR 1115 ⁽⁴⁾	4.3	E	130	OR	Old US Hwy 1 ⁽⁴⁾	3.9	W
23	OR	Intersection of SR 1127 and SR 1116 ⁽⁴⁾	4.8	ESE	153	OR	Beaver Creek Road ⁽⁴⁾	4.5	NW
24	OR	Sweet Springs Church on SR 1116 ⁽⁴⁾	4.0	SE					

(1) GPS data reflect approximate accuracy to within 2-5 meters. GPS field measurements were taken as close as possible to the item of interest.

(2) Location listed reflects current revision of HNP ODCM. TLD #19 was moved minimally, DRR #02326048 initiated to document change.

(3) One or more instruments, such as a pressurized ion chamber, for measuring and recording dose rate continuously may be used in place of, or in addition to, integrating dosimeters. For the purposes of this table, a thermoluminescent dosimeter (TLD) is considered to be one phosphor; two or more phosphors in a packet are considered as two or more dosimeters. Film badges shall not be used as dosimeters for measuring direct radiation. (The 40 stations is not an absolute number. The number of direct radiation monitoring stations may be reduced according to geographical limitations; e.g., at an ocean site, some sectors will be over water so that the number of dosimeters may be reduced accordingly. The frequency of analysis or readout for TLD systems will depend upon the characteristics of the specific system used and should be selected to obtain optimum dose information within minimal fading.)

(4) Location descriptions updated in HNP ODCM Rev.29 (eff. 1SEP2022).

TABLE 2.2-A

**REPORTING LEVELS FOR RADIOACTIVITY
CONCENTRATIONS IN ENVIRONMENTAL SAMPLES**

Analysis	Water (pCi/liter)	Airborne Particulate or Gases (pCi/m ³)	Fish (pCi/kg-wet)	Milk (pCi/liter)	Food Products (pCi/kg-wet)
H-3	20,000 ^(a)				
Mn-54	1,000		30,000		
Fe-59	400		10,000		
Co-58	1,000		30,000		
Co-60	300		10,000		
Zn-65	300		20,000		
Zr-Nb-95	400				
I-131	2 ^(b)	0.9		3	100
Cs-134	30	10	1,000	60	1,000
Cs-137	50	20	2,000	70	2,000
Ba-La-140	200			300	

(a) For drinking water samples. This is 40 CFR Part 141 value. If no drinking water pathway exists, a value of 30,000 pCi/liter may be used.

(b) If no drinking water pathway exists, a value of 20 pCi/liter may be used.

TABLE 2.2-B

REMP ANALYSIS FREQUENCY

Sample Medium	Analysis Schedule	Gamma Isotopic ^(c)	Tritium	Low Level I-131	Gross Beta	TLD
Air Radioiodine	Weekly	X				
Air Particulate	Weekly				(d)	
	Quarterly	X				
Direct Radiation	Quarterly					X
Surface Water	Monthly Composite ^{(f) (h)}	X	X			
Drinking Water	Monthly Composite ^{(c) (f) (i)}	X	X		X	
Ground Water	Quarterly ^(g)	X	X			
Bottom Sediment	Semiannually	X				
Shoreline Sediment	Semiannually	X				
Milk	Semimonthly/Monthly ^{(j) (k)}	X		X		
Fish	Semiannually	X				
Aquatic Vegetation	Annually	X				
Broadleaf Vegetation	Monthly ^(a)	X				
Food Products	Monthly ^{(b) (l)}	X				

- (a) During growing season per ODCM - May through October.
- (b) If harvest occurs more than once a year, sampling shall be performed during each discrete harvest. If harvest occurs continuously, sampling shall be monthly.
- (c) Low-level I-131 will be analyzed on each composite when the dose calculated for the consumption of the water is greater than 1 mrem/yr.
- (d) Airborne particulate sample filters shall be analyzed for gross beta radioactivity 24 hours or more after sampling to allow for radon and thoron daughter decay. If gross beta activity in air particulate samples is greater than 10 times the yearly mean of control samples, gamma isotopic analysis shall be performed on the individual samples.
- (e) Gamma isotopic analysis means the identification and quantification of gamma emitting radionuclides that may be attributable to the effluents from the facility.
- (f) A composite sample is one in which the rate at which the liquid sampled is uniform and in which the method of sampling employed results in a specimen that is representative of the time-averages concentration at the location being sampled. In this program composite sample aliquots shall be collected at time intervals that are very short (e.g. hourly) relative to the composite period (e.g. monthly) in order to assure obtaining a representative sample.
- (g) Groundwater samples shall be taken when the source is tapped for drinking or irrigation purposes in areas where the hydraulic gradient or recharge properties are suitable for contamination. None of the previously identified locations have been used for drinking water since pre-operational days of Harris Nuclear Project nor have these wells ever been used for irrigation purposes. These wells were abandoned for drinking water purposes prior to plant operations. Since that time, these wells have been used to monitor the hydraulic gradient or gradient properties for the Harris Site and for the operational Radiological Environmental Monitoring Program.
- (h) The “upstream sample” shall be taken at a distance beyond significant influence of the discharge. The “downstream” sample shall be taken in an area beyond the but near the mixing zone. “Upstream” samples in an estuary must be taken far enough upstream to be beyond the plant influence. Salt water shall be sampled only when the receiving water is utilized for recreational activities.
- (i) The dose shall be calculated for the maximum organ and age group, using the methodology and parameters in the ODCM.
- (j) If milk animals are not present or unavailable for sampling at indicator locations, sampling of BLV can be substituted.
- (k) When no milk animals are available at indicator locations, milk sampling of the control location can be reduced to once per month to maintain historical data.
- (l) Attention shall be paid to including samples of tuberous and root food products.

TABLE 2.2-C

DETECTION CAPABILITIES FOR THE *A PRIORI* LOWER LIMIT OF DETECTION

Analysis	Water (pCi/liter)	Airborne Particulates or Gases (pCi/m ³)	Fish (pCi/kg-wet)	Milk (pCi/liter)	Food Products (pCi/kg-wet)	Sediment (pCi/kg-dry)
Gross Beta	4	0.01				
H-3	2000 ^(a)					
Mn-54	15		130			
Fe-59	30		260			
Co-58, 60	15		130			
Zn-65	30		260			
Zr-Nb-95	15					
I-131	1 ^(b)	0.07		1	60	
Cs-134	15	0.05	130	15	60	150
Cs-137	18	0.06	150	18	80	180
Ba-La-140	15			15		

(a) If no drinking water pathway exists, a value of 3000 pCi/liter may be used.

(b) If no drinking water pathway exists, a value of 15 pCi/liter may be used.

3.0 INTERPRETATION OF RESULTS

Review of all 2022 REMP analysis results was performed to identify changes in environmental levels as a result of plant operations. The following section depicts and explains the review of these results. Sample data for 2022 was compared to historical data. Over the years of operation, analysis and collection changes have taken place that do not allow direct comparisons for some data collected from 1984 (preoperational) through 2022. Summary tables containing 2022 information required by Technical Specifications 6.9.1.3 and HNP ODCM E.3 are located in Appendix B. REMP results for 2022 are located in Appendix E.

Evaluation for significant trends was performed for radionuclides that are listed as required within the HNP ODCM. The radionuclides include: H-3, Mn-54, Fe-59, Co-58, Co-60, Zn-65, Zr-95, Nb-95, I-131, Cs-134, Cs-137, Ba-140 and La-140. Other radionuclides detected that are the result of plant operation, but not required for reporting, are trended.

The HNP ODCM addresses actions to be taken if radionuclides other than those required are detected in samples collected. The occurrences of these radionuclides could be the result of HNP liquid effluents which contained the radionuclides.

All 2022 sample analysis results were reviewed to detect and identify any significant trends. All negative concentration values were replaced with zero for calculation purposes. Any zero concentrations used in tables or graphs represent activity measurements less than detectable levels.

Review of the 2022 data presented in this section supports the conclusion that there were no significant changes in environmental sample radionuclide concentrations of samples collected and analyzed from HNP and surrounding areas that were attributable to plant operations. Inspection of the data showed that radioactivity concentrations were as expected and all positively identified measurements attributed to plant operations were within HNP ODCM regulatory limits; thus, presenting no significant impact to the environment or public health and safety.

Data presented in Sections 3.1 through 3.12 support the conclusion that there was no significant increase in radioactivity in the environment around Harris Nuclear Plant due to station operations in 2022. Similarly, there was no significant increase in ambient background radiation levels in the surrounding areas. The 2022 land use census data, shown in Section 3.13, indicates that no program changes are required as a result of the census.

3.1 AIRBORNE RADIOIODINE AND PARTICULATES

Airborne particulate and radioiodine samples were composited by means of continuous air samplers. Air particulates were collected on a particulate filter and radioiodines were collected in a charcoal cartridge positioned behind the filter in the sampler. The samplers are designed to operate at a constant flow rate (in order to compensate for any filter loading) and are set to sample approximately 2 cubic feet per minute. Filters and cartridges were collected weekly.

In 2022, 364 radioiodine and particulate samples were collected and analyzed, 312 from six indicator locations and 52 at the control location. Particulate samples were analyzed weekly for gross beta. A quarterly gamma analysis was performed on the quarterly filter composite (by location). The radioiodine samples received a weekly gamma analysis.

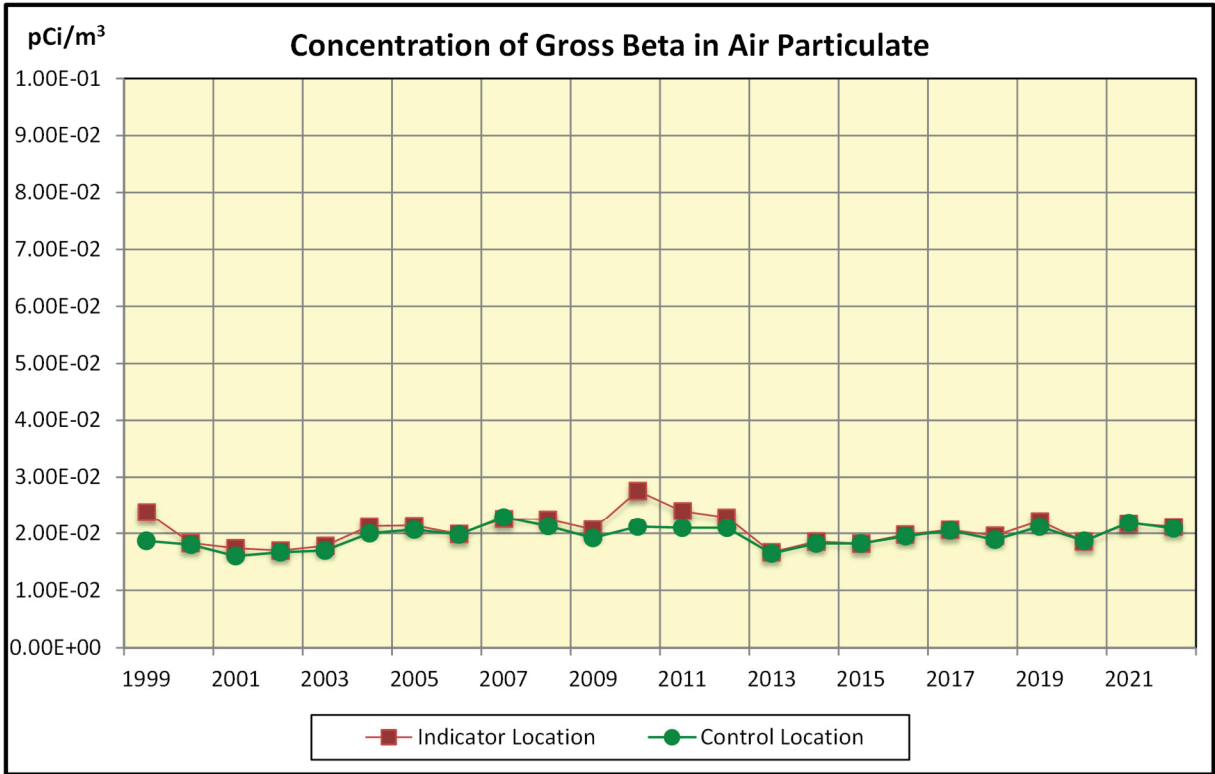
Figure 3.1 shows individual sample gross beta results for the indicator location with highest annual mean and the control location samples during 2022. The two sample locations' results are similar in concentration and have varied negligibly.

There were no detectable gamma emitters attributable to plant operations identified for particulate filters analyzed during 2022. Table 3.1-A shows the highest indicator annual mean and control location annual mean for gross beta in air particulate.

There was no detectable I-131 in air radioiodine samples analyzed in 2022. Table 3.1-B shows the highest indicator annual mean and control location annual mean for I-131 since 1999. No I-131 activity due to HNP operations has been detected during the entire operating history of the plant.

K-40 and Be-7 were observed in air samples and quarterly particulate composites but are naturally occurring radionuclides.

Figure 3.1



There is no reporting level for gross beta in air particulate

Table 3.1-A Mean Concentration of Gross Beta in Air Particulate

Year	Indicator Location (pCi/m ³)	Control Location (pCi/m ³)
1999	2.38E-2	1.87E-2
2000	1.83E-2	1.80E-2
2001	1.74E-2	1.60E-2
2002	1.70E-2	1.67E-2
2003	1.78E-2	1.70E-2
2004	2.13E-2	2.00E-2
2005	2.14E-2	2.07E-2
2006	1.99E-2	1.98E-2
2007	2.26E-2	2.29E-2
2008	2.25E-2	2.13E-2
2009	2.07E-2	1.92E-2
2010	2.76E-2	2.12E-2
2011	2.40E-2	2.10E-2
2012	2.29E-2	2.10E-2
2013	1.67E-2	1.65E-2
2014	1.86E-2	1.82E-2
2015	1.82E-2	1.82E-2
2016	1.98E-2	1.95E-2
2017	2.06E-2	2.05E-2
2018	1.96E-2	1.89E-2
2019	2.22E-2	2.12E-2
2020	1.86E-2	1.87E-2
2021	2.18E-2	2.19E-2
2022	2.12E-2	2.09E-2

Table 3.1-B Mean Concentration of Air Radioiodine (I-131)

Year	Indicator Location (pCi/m³)	Control Location (pCi/m³)
1999	0.00E+0	0.00E+0
2000	0.00E+0	0.00E+0
2001	0.00E+0	0.00E+0
2002	0.00E+0	0.00E+0
2003	0.00E+0	0.00E+0
2004	0.00E+0	0.00E+0
2005	0.00E+0	0.00E+0
2006	0.00E+0	0.00E+0
2007	0.00E+0	0.00E+0
2008	0.00E+0	0.00E+0
2009	0.00E+0	0.00E+0
2010	0.00E+0	0.00E+0
2011 ⁽¹⁾	1.66E-1	1.08E-1
2012	0.00E+0	0.00E+0
2013	0.00E+0	0.00E+0
2014 ⁽²⁾	0.00E+0	0.00E+0
2015	0.00E+0	0.00E+0
2016	0.00E+0	0.00E+0
2017	0.00E+0	0.00E+0
2018	0.00E+0	0.00E+0
2019	0.00E+0	0.00E+0
2020	0.00E+0	0.00E+0
2021	0.00E+0	0.00E+0
2022	0.00E+0	0.00E+0

0.00E+0 indicates no detectable measurements

(1) 2011 concentrations affected by Fukushima Dai-ichi

(2) 2014 Gamma spectroscopy system was replaced 10JUL2014. Gamma spectroscopy system hardware, detector cooling apparatus, software, electronics, nuclide identification libraries, and analytical test matrix components for test matrices were modified (NCR # 0739995). No analytical changes were observed due to the 2014 gamma spectroscopy system change.

3.2 DRINKING WATER

Gross beta analysis and gamma spectroscopy were performed on 39 drinking water monthly composite samples. Two indicator locations were sampled, along with one control location. Indicator location 51 was analyzed monthly for tritium, while the two remaining locations analyses consisted of a quarterly composite.

No gamma emitting radionuclides attributable to plant operations were identified in any 2022 drinking water samples. There have been no gamma emitting radionuclides attributable to plant operations identified in drinking water samples during the entire operating history of the plant.

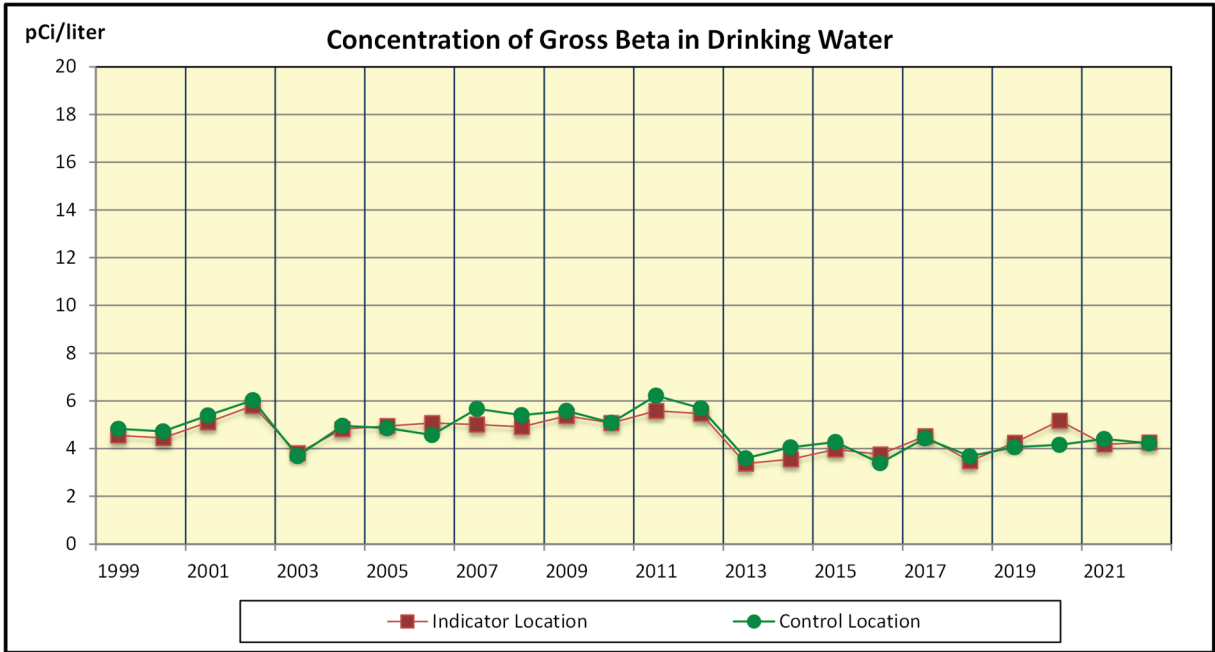
Figure 3.2-1 and Table 3.2 shows highest annual mean gross beta concentrations for the indicator location and control location since 1999. The highest annual mean for the indicator location (downstream of the plant effluent release point) was 4.26 pCi/l in 2022 and the control location concentration was 4.23 pCi/l. The gross beta mean indicator activity and mean control activity increased in 2019 due to an analytical method change affecting analytical sensitivities (NCR # 02303027).

Tritium was detected in thirteen indicator samples from Location 51 and in no control samples during 2022. The mean indicator tritium concentration for 2022 was 1,497 pCi/l, 7.49% of reporting level. Figure 3.2-2 and Table 3.2 display the highest indicator and control location annual mean concentrations for tritium since 1999.

The dose for consumption of water was less than one mrem per year, historically and for 2022; therefore, low-level iodine analysis is not required.

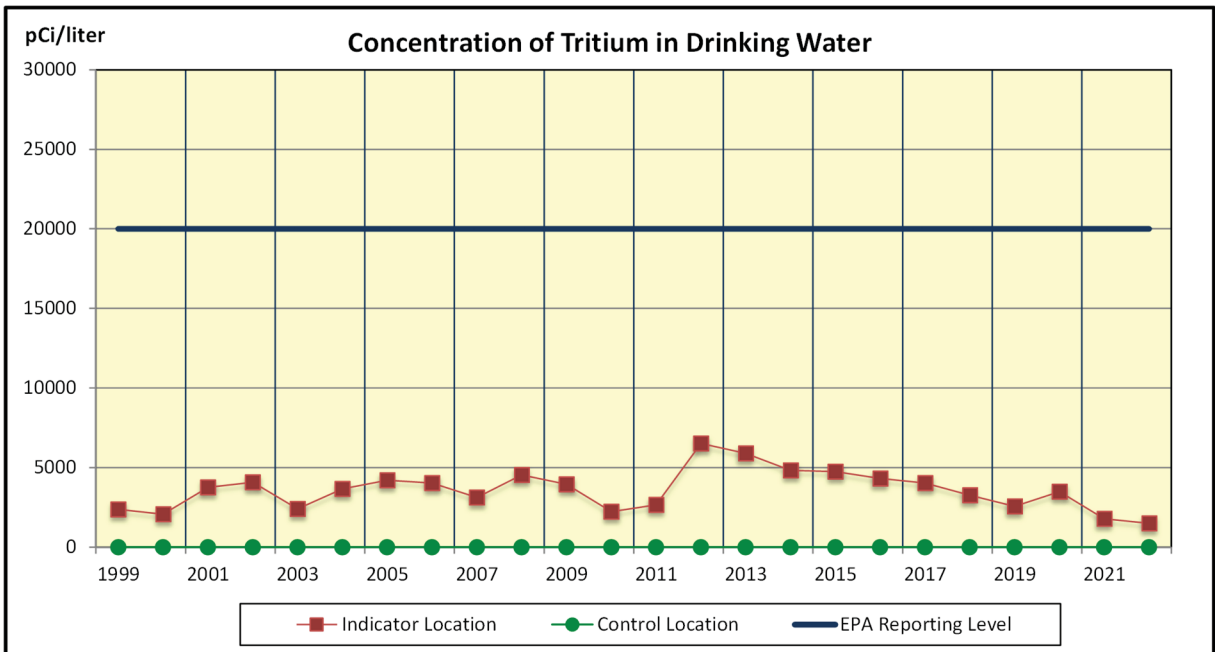
K-40 is a naturally occurring radionuclides that was observed in drinking water samples in 2022.

Figure 3.2-1



There is no reporting level for gross beta in drinking water

Figure 3.2-2



Prior to 2009, drinking water indicator location # 51 was previously not classified as a public drinking water source. In 2009, location # 51 was classified as a public drinking water source; however, it is not a community drinking water source.

Table 3.2 Mean Concentration of Radionuclides in Drinking Water

YEAR	Gross Beta (pCi/l)		Tritium (pCi/l)	
	Indicator Location	Control Location	Indicator Location	Control Location
1999	4.55E+0	4.83E+0	2.37E+3	0.00E+0
2000	4.45E+0	4.73E+0	2.06E+3	0.00E+0
2001	5.11E+0	5.39E+0	3.76E+3	0.00E+0
2002	5.80E+0	6.03E+0	4.07E+3	0.00E+0
2003	3.81E+0	3.69E+0	2.40E+3	0.00E+0
2004	4.82E+0	4.96E+0	3.66E+3	0.00E+0
2005	4.95E+0	4.86E+0	4.20E+3	0.00E+0
2006	5.07E+0	4.58E+0	4.03E+3	0.00E+0
2007	5.01E+0	5.67E+0	3.12E+3	0.00E+0
2008	4.92E+0	5.40E+0	4.54E+3	0.00E+0
2009	5.37E+0	5.58E+0	3.95E+3	0.00E+0
2010	5.07E+0	5.09E+0	2.23E+3	0.00E+0
2011	5.58E+0	6.22E+0	2.65E+3	0.00E+0
2012	5.47E+0	5.69E+0	6.51E+3	0.00E+0
2013	3.37E+0	3.60E+0	5.89E+3	0.00E+0
2014	3.56E+0	4.06E+0	4.83E+3	0.00E+0
2015	3.97E+0	4.28E+0	4.74E+3	0.00E+0
2016	3.76E+0	3.40E+0	4.32E+3	0.00E+0
2017	4.52E+0	4.44E+0	4.02E+3	0.00E+0
2018	3.48E+0	3.68E+0	3.27E+3	0.00E+0
2019 ⁽¹⁾	4.25E+0	4.07E+0	2.57E+3	0.00E+0
2020	5.17E+0	4.16E+0	3.48E+3	0.00E+0
2021	4.18E+0	4.41E+0	1.77E+3	0.00E+0
2022	4.26E+0	4.23E+0	1.50E+3	0.00E+0

0.00E+0 indicates no detectable measurements

Prior to 2009, drinking water indicator location # 51 was previously not classified as a public drinking water source. In 2009, location # 51 was classified as a public drinking water source; however, it is not a community drinking water source.

(1) Gross beta preparation/analysis methodology change (NCR # 02303027).

3.3 SURFACE WATER

A total of 39 monthly surface water samples were analyzed for gamma emitting radionuclides from two indicator locations and one control location. Indicator location 26 was analyzed monthly for tritium, while the two remaining locations analyses consisted of a quarterly composite.

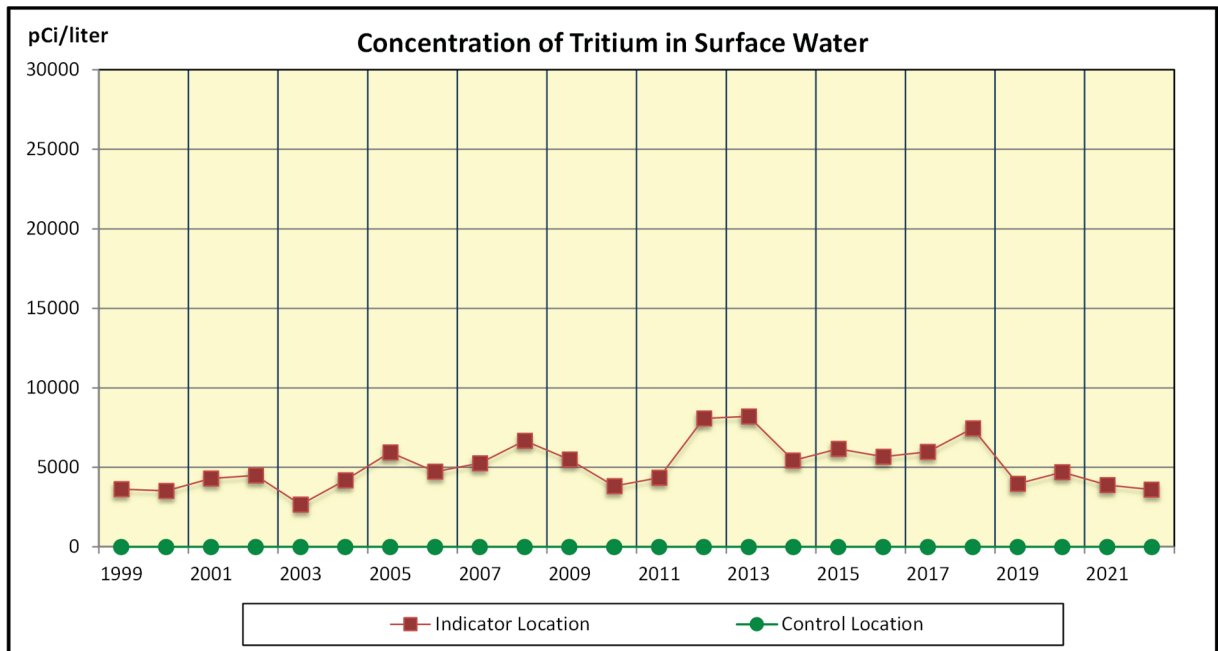
Location 26, Harris Lake Spillway, is the only indicator location sample that contained tritium with an average concentration of 3,600 pCi/l and showed a range of activities from 2,620 to 6,330 pCi/l. Tritium was not detected in the four control samples collected during 2022.

No gamma emitting radionuclides attributable to plant operations were identified in 2022 surface water samples.

Table 3.3 and Figure 3.3 display the highest indicator and control annual means for tritium since 1999.

K-40 is a naturally occurring radionuclide that was observed in some surface water samples in 2022.

Figure 3.3



There is no reporting level for tritium in surface water, however, if no drinking water pathway exists, a value of 30,000 pCi/l may be used.

Table 3.3 Mean Concentrations of Tritium in Surface Water

Year	Indicator Location (pCi/l)	Control Location (pCi/l)
1999	3.63E+3	0.00E+0
2000	3.52E+3	0.00E+0
2001	4.31E+3	0.00E+0
2002	4.49E+3	0.00E+0
2003	2.67E+3	0.00E+0
2004	4.20E+3	0.00E+0
2005	5.94E+3	0.00E+0
2006	4.73E+3	0.00E+0
2007	5.26E+3	0.00E+0
2008	6.68E+3	0.00E+0
2009	5.50E+3	0.00E+0
2010	3.83E+3	0.00E+0
2011	4.36E+3	0.00E+0
2012	8.08E+3	0.00E+0
2013	8.21E+3	0.00E+0
2014	5.44E+3	0.00E+0
2015	6.17E+3	0.00E+0
2016	5.68E+3	0.00E+0
2017	5.98E+3	0.00E+0
2018	7.46E+3	0.00E+0
2019	3.97E+3	0.00E+0
2020	4.71E+3	0.00E+0
2021	3.89E+3	0.00E+0
2022	3.60E+3	0.00E+0

0.00E+0 indicates no detectable measurements

3.4 GROUND WATER

Twenty-one indicator ground water sample locations were sampled quarterly via grab samples on site at HNP, there is no control location. In total, eighty-four ground water samples were analyzed for gamma emitters and tritium in 2022. The measured ground water gamma and tritium concentrations were below environmental requirements stated in the HNP ODCM.

Three new ground water wells were added to the program in 2019 (AR # 02173466). Locations 84, 85, and 86 were installed outside of the protected area and are more representative of the ground water close to the plant.

No gamma emitting radionuclides attributable to plant operations were identified in 2022 ground water samples.

Tritium was detected in some ground water samples, ranging from 178 pCi/l to 885 pCi/l in 2022; however, the results are well below the EPA reportable drinking water limit (20,000 pCi/l) and non-drinking water limit (30,000 pCi/l). The ground water wells, located on site at HNP, are monitoring wells and are not a water supply for drinking or irrigation. Therefore, there is no radiological dose via this pathway.

K-40 is a naturally occurring radionuclides that was observed in some ground water samples in 2022.

3.5 MILK

Semimonthly grab samples are collected from the control location and indicator location from late spring to late fall. When the indicator location is not available, the control location is sampled monthly via grab samples.

A total of 31 milk samples were analyzed by gamma spectroscopy and low-level iodine during 2022. One indicator goat milk location was sampled from late spring to late fall and one control cow milk location was sampled the entire year.

On September 1, 2022, the effective date of Revision 29 of the HNP ODCM, Manco's Dairy, formerly known as location 5 was newly designated as Location 300. The dairy did not physically move; however, it did not reside at the same physical location as all other REMP control attribute locations designated as location 5. A new location number was assigned (300) to Manco's Dairy to indicate its geographical distance from the other control attributes.

There were no gamma emitting radionuclides attributable to plant operations identified in milk samples in 2022. However, it is not unusual for Cs-137 to be present in milk samples. It is a constituent of nuclear weapons test fallout and nuclear plant accidents and has been observed in samples from the indicator goat milk location in the past.

K-40 is a naturally occurring radionuclide that was observed in milk samples in 2022.

3.6 BROADLEAF VEGETATION

Gamma spectroscopy was performed on 18 broadleaf vegetation samples collected in 2022 during the growing season (May through October). Two indicator locations and one control location were sampled.

Control broadleaf vegetation location 5 was physically relocated from the NNW sector (>12 miles, Pittsboro) where it was sampled in the yard of a private resident to the WNW sector (13.3 miles, Pittsboro) at the same physical location as the other location 5 control attributes. This change was effective with the implementation of Revision 29 of the HNP ODCM (1SEP2022).

No gamma emitting radionuclides, other than naturally occurring, were reported in vegetation samples. However, it is not unusual for Cs-137 to be present in vegetation. It is a constituent of nuclear weapons test fallout and nuclear plant accidents and has been observed in samples from indicator and control locations in the past. Table 3.6 shows the mean activity of Cs-137 at the indicator and control locations.

K-40 and Be-7 are naturally occurring radionuclides that were observed in broadleaf vegetation samples in 2022.

Table 3.6 Mean Concentration of Cs-137 in Broadleaf Vegetation

Year	Indicator Location (pCi/kg)	Control Location (pCi/kg)
1999	0.00E+0	0.00E+0
2000	0.00E+0	0.00E+0
2001	7.39E+1	0.00E+0
2002	6.86E+1	0.00E+0
2003	0.00E+0	0.00E+0
2004	0.00E+0	0.00E+0
2005	0.00E+0	0.00E+0
2006	7.35E+1	0.00E+0
2007	3.77E+1	0.00E+0
2008	6.23E+1	0.00E+0
2009	0.00E+0	0.00E+0
2010	0.00E+0	0.00E+0
2011	0.00E+0	0.00E+0
2012	0.00E+0	0.00E+0
2013	0.00E+0	0.00E+0
2014 ⁽¹⁾	4.77E+0	2.20E+1
2015	0.00E+0	0.00E+0
2016	0.00E+0	0.00E+0
2017	0.00E+0	0.00E+0
2018	0.00E+0	0.00E+0
2019	0.00E+0	0.00E+0
2020	0.00E+0	0.00E+0
2021	0.00E+0	0.00E+0
2022	0.00E+0	0.00E+0

(1) 2014 Gamma spectroscopy system was replaced 10JUL2014. Gamma spectroscopy system hardware, detector cooling apparatus, software, electronics, nuclide identification libraries, and analytical test matrix components for test matrices were modified (NCR # 0739995). No analytical changes were observed due to the 2014 gamma spectroscopy system change.

3.7 FOOD PRODUCTS

The HNP Land Use Census (LUC) has never identified any gardens irrigated by water in which liquid plant wastes have been discharged; therefore, food product collection is not required. There is no indicator location for this media type and sampling at a control location is maintained for historical integrity.

With the implementation of Revision 29 of the HNP ODCM (1SEP2022) location 97, Granite Springs Farm (19.1 miles NW) was eliminated from the HNP REMF. Granite Springs Farm was not an irrigated garden as required by Table 3.12-1 of the HNP ODCM. A search was conducted for an irrigated garden prior to eliminating this exposure pathway, but one could not be located, therefore food product collection is not required.

There were no gamma emitting radionuclides attributable to plant operations identified in any of the nine food products samples analyzed via gamma spectroscopy during the 2022 growing season.

K-40 and Be-7 are naturally occurring radionuclides that were observed in food product samples in 2022.

3.8 AQUATIC VEGETATION

In 2022 three aquatic vegetation samples were collected from Harris Lake, two indicator locations and one control location were sampled. The aquatic vegetation samples are sampled annually. The aquatic vegetation samples (Lyngbya and Hydrilla) from Harris Lake are not consumed by humans, thus pose no radiological dose to the general public by the ingestion pathway.

There were no gamma emitting radionuclides attributable to plant operations identified in any aquatic vegetation samples in 2022.

No long-term trends have been readily observed in these samples.

K-40 and Be-7 are naturally occurring radionuclides that were observed in aquatic vegetation samples in 2022.

3.9 FISH

Gamma spectroscopy was performed on the edible portions of the 12 fish samples collected semiannually during 2022; four samples of bottom-feeding species (catfish) and eight samples of free-swimming species (sunfish and largemouth bass) from the indicator and control locations.

There were no gamma emitting radionuclides attributable to plant operations identified in any fish samples in 2022.

K-40 is a naturally occurring radionuclide that was observed in fish samples collected during 2022.

3.10 SHORELINE SEDIMENT

Shoreline sediment samples were collected semiannually in 2022 from two indicator locations. There is no control location for this sample media type.

Samples were dried, then sifted to remove rocks and clams prior to analysis. Gamma analyses of the four shoreline sediments detected natural activity in the samples collected during 2022. No long-term trends are readily observed in these samples.

K-40 is a naturally occurring radionuclide that was observed in shoreline sediment samples collected during 2022.

3.11 BOTTOM SEDIMENT

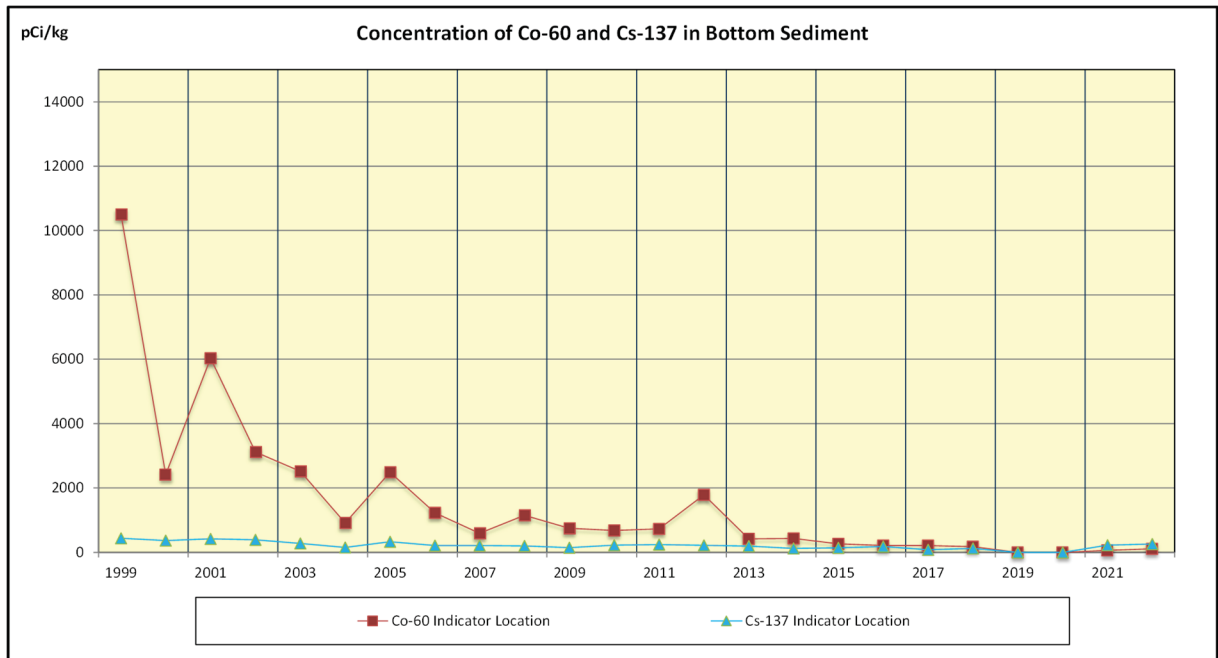
During 2022, a total of two bottom sediment samples were analyzed from the indicator location. There is no control location for bottom sediment.

In 2022, one of the two semiannual samples obtained indicated an activity of 112 pCi/kg of Co-60, and 261 pCi/kg of Cs-137. The bottom sediment sample from Harris Lake poses no radiological dose to the general public via this pathway due to the fact that it is not easily accessible (i.e. bottom sediment is approximately forty to sixty feet underwater). The positive detection most likely is from past nuclear weapons testing and historical plant discharges. These samples are for long-term trends for liquid effluent monitoring.

Samples were dried, then sifted to remove rocks and clams prior to gamma analysis. Figure 3.11 and Table 3.11 provide individual sample gamma results for the highest annual mean indicator location concentrations since 1999 for Co-60 and Cs-137.

Naturally occurring K-40 was observed in some bottom sediment samples collected during 2022.

Figure 3.11



There is no reporting level for Co-60 or Cs-137 in Bottom Sediment.

Table 3.11 Mean Concentration of Radionuclides in Bottom Sediment

YEAR	Control Location	Co-60 (pCi/kg) Indicator Location	Cs-137 (pCi/kg) Indicator Location
1999	No Control	1.05E+4	4.40E+2
2000	No Control	2.42E+3	3.69E+2
2001	No Control	6.03E+3	4.20E+2
2002	No Control	3.12E+3	3.91E+2
2003	No Control	2.52E+3	2.78E+2
2004	No Control	9.17E+2	1.52E+2
2005	No Control	2.49E+3	3.33E+2
2006	No Control	1.23E+3	2.11E+2
2007	No Control	5.92E+2	2.15E+2
2008	No Control	1.15E+3	1.99E+2
2009	No Control	7.50E+2	1.50E+2
2010	No Control	6.84E+2	2.23E+2
2011	No Control	7.30E+2	2.43E+2
2012	No Control	1.79E+3	2.19E+2
2013	No Control	4.20E+2	1.94E+2
2014 ⁽¹⁾	No Control	4.31E+2	1.26E+2
2015	No Control	2.66E+2	1.39E+2
2016	No Control	2.13E+2	1.85E+2
2017	No Control	2.14E+2	8.35E+1
2018	No Control	1.77E+2	1.25E+2
2019	No Control	0.00E+0	0.00E+0
2020	No Control	0.00E+0	0.00E+0
2021	No Control	6.40E+1	2.23E+2
2022	No Control	1.12E+2	2.61E+2

(1) 2014 Gamma spectroscopy system was replaced 10JUL2014. Gamma spectroscopy system hardware, detector cooling apparatus, software, electronics, nuclide identification libraries, and analytical test matrix components for test matrices were modified (NCR # 0739995). No analytical changes were observed due to the 2014 gamma spectroscopy system change.

3.12 DIRECT GAMMA RADIATION

3.12.1 ENVIRONMENTAL TLD

The Harris Updated Final Safety Analysis Report (UFSAR) Section 2.1.1.2 identifies that the minimum distance (± 25 ft.) and direction from the reactor to an exclusion area boundary is 6790 ft. ESE. This is the same boundary established for determining radioactive effluent release limits. No permanent public access is permitted within the exclusion area. Harris has forty-one routine monitoring stations. Thermoluminescent dosimeter (TLD) locations designated as "inner ring" are located in each of the sixteen meteorological sectors in the general area of the Site Boundary. The eighteen inner ring TLDs are used as indicators. TLD locations designated as "outer ring" are outside the Site Boundary, in each of the sixteen meteorological sectors, and are within 6 – 8 km from the site. All sixteen of the outer ring TLD locations are used as indicators. The balance of the stations are placed in locations such as population centers, nearby residences, or schools and are designated as "special interest" and one "control" location. These locations were chosen to reduce the probability of influence from Harris operation on data. The control location is not used as background subtraction in the TLD analysis. Its purpose is to provide a comparison to indicator locations.

TLDs were used to monitor ambient radiation exposures in the plant environs. In 2022, 162 TLDs were analyzed, 158 at indicator locations and 4 at the control location. TLDs are collected and analyzed quarterly. The TLD with the highest annual mean of 17.5 mR/Std Qtr. was at indicator location #63, (SHNPP Site) located 0.6 miles SW of the plant.

On 8JAN2020 dual TLDs (alpha and bravo) at each sampling location were implemented at HNP to meet American National Standard ANSI/HPS N13.37-2014, "Environmental Dosimetry – Criteria for System Design and Implementation, for environmental Thermoluminescent Dosimeters (TLD)."

REMP TLD Location #19 (0.6 mi. E on SR 1142 from Intersection of SR 1141, NNE Sector, 5.0 mi. from site) was minimally moved on 15APR2020 from the yard of a private residence to a power pole nearby in the same sector (Humie Olive Rd, NNE Sector 4.95 mi. from site). DRR # 02326048 was initiated to document the location change of TLD #19 and was incorporated in Revision 29 of the HNP ODCM (eff. 1SEP2022). An additional change occurred in Rev. 29 of the HNP ODCM, more descriptive names for physical TLD locations were added to ODCM Table 4.3 and HNP AREOR Table 2.1-B.

Comparison of the average annual TLD exposure within the area of the Site Boundary (inner ring) of the plant with a distance of 6 – 8 km (outer ring) and the "special interest" and control since 1999 is presented in Figure 3.12 and Table 3.12.

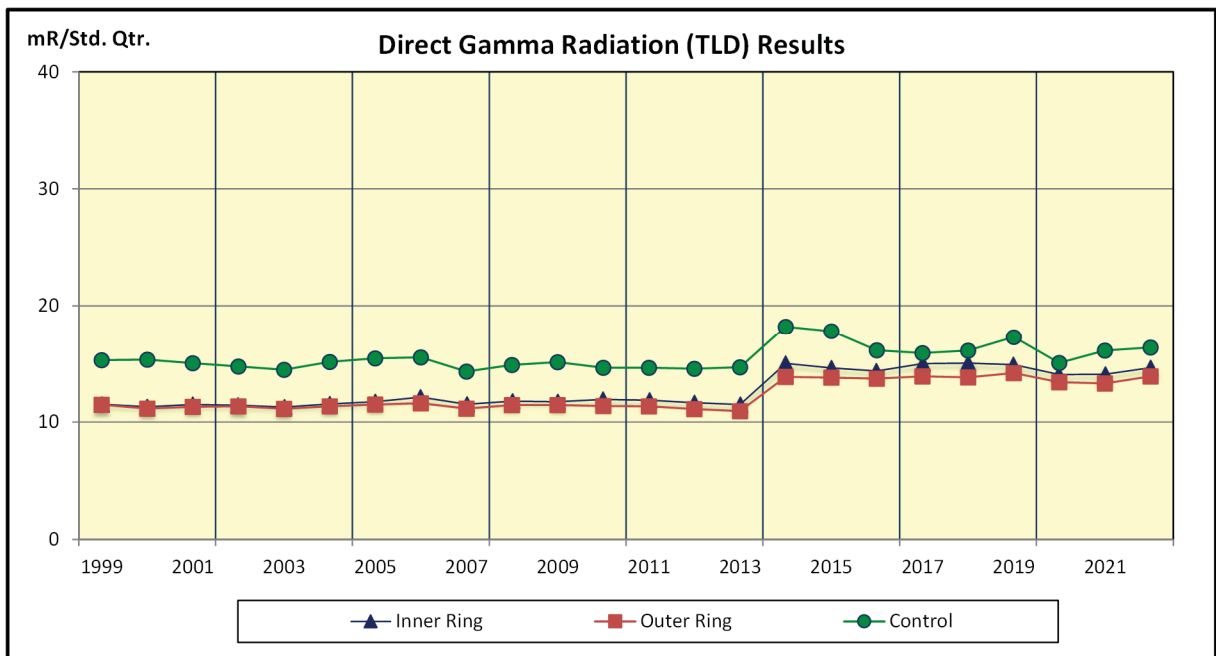
Quarterly, environmental ODCM TLD results are compared by location to its historical data to evaluate any significant changes. The comparison utilizes the location's average exposure history to determine if quarterly results fall within low and high ranges and provides a reliable indication of potential changes occurring at a specific TLD location. The

low and high ranges are determined by the historical average \pm two standard deviations. The quarterly TLD evaluation implements portions of American National Standard ANSI/HPS N13.37-2014, “Environmental Dosimetry – Criteria for System Design and Implementation, for environmental Thermoluminescent Dosimeters (TLD).” The WP-RP-ALL-0030 – Updated Radiological Environmental Monitoring Program TLD Analytical Method, describes the process implemented in late 2018 for the fleet TLD programs.

TLD values identified as < Low Range or > High Range are evaluated in consideration of factors including possible TLD damage, sampling deviations, glow curve irregularities, and any known environmental location changes which may affect results. No 2022 ODCM TLD location exceeded the quarterly investigation level therefore no additional evaluation was performed. Quarterly TLD results are in Appendix E.

A TLD intercomparison program is conducted as part of the quality assurance program. Results of this program are included in Section 4.7.

Figure 3.12



There is no reporting level for Direct Radiation (TLD).

Table 3.12 Direct Gamma Radiation (TLD) Results

Year	Inner Ring Average (mR/Std. Qtr.)	Outer Ring Average (mR/Std. Qtr.)	Control Average (mR/Std. Qtr.)
1999	1.15E+1	1.15E+1	1.53E+1
2000	1.13E+1	1.12E+1	1.54E+1
2001	1.15E+1	1.13E+1	1.50E+1
2002	1.14E+1	1.14E+1	1.48E+1
2003	1.13E+1	1.11E+1	1.45E+1
2004	1.16E+1	1.14E+1	1.52E+1
2005	1.18E+1	1.15E+1	1.55E+1
2006	1.21E+1	1.16E+1	1.55E+1
2007	1.15E+1	1.12E+1	1.43E+1
2008	1.18E+1	1.15E+1	1.49E+1
2009	1.18E+1	1.15E+1	1.51E+1
2010	1.19E+1	1.14E+1	1.47E+1
2011	1.19E+1	1.14E+1	1.47E+1
2012	1.17E+1	1.11E+1	1.46E+1
2013	1.15E+1	1.09E+1	1.47E+1
2014 ⁽¹⁾	1.50E+1	1.39E+1	1.82E+1
2015	1.46E+1	1.38E+1	1.78E+1
2016	1.44E+1	1.37E+1	1.61E+1
2017	1.50E+1	1.39E+1	1.59E+1
2018	1.50E+1	1.38E+1	1.61E+1
2019	1.49E+1	1.42E+1	1.73E+1
2020	1.41E+1	1.34E+1	1.51E+1
2021	1.41E+1	1.33E+1	1.61E+1
2022	1.47E+1	1.39E+1	1.64E+1

(1) In 1Q2014 Panasonic TLDs were replaced with Harshaw TLDs causing a step change in activity (NCR # 01982479).

3.13 LAND USE CENSUS

The 2022 HNP Annual Land Use Census was conducted July 12, 2022, as required by the HNP ODCM 4.12.2. The Land Use Census was conducted to identify within a distance of 8 kilometers (5.0 miles) from the plant, the nearest location from the site boundary in each of the sixteen meteorological sectors, which includes: the nearest residence, the nearest garden greater than 50 square meters (500 square feet), the nearest milk-giving animal, and the nearest meat animal (only identified at the nearest garden or closer in each sector). Poultry and egg laying animals were not classified as meat animals for the purposes of the Land Use Census.

Table 3.13 summarizes the comparison between the 2021 and 2022 census results. A map indicating identified locations is shown in Figure 3.13.

During the 2022 census no new meat animals nearer than existing gardens, or new milk locations were identified. The nearest residence is located in the NNW sector at 1.55 miles. No environmental program changes were required as a result of the 2022 land use census.

Table 3.13 Harris Land Use Census Comparison (2021 – 2022)

Nearest Pathway (Miles)

SECTOR	RESIDENCE		GARDEN		MEAT ANIMAL ⁽¹⁾		MILK ANIMAL	
	2021	2022	2021	2022	2021	2022	2021	2022
North	2.21	2.21	2.29	2.29	2.21	2.21	4.14 ⁽²⁾	---*
North-Northeast	1.81	1.81	1.81	1.81	---	---	---	---
Northeast	2.29	2.29	2.92	2.92	---	---	---	---
East-Northeast	1.78	1.78	2.16	1.78*	2.01	---*	---	---
East	1.88	1.88	2.15	2.15	---	---	---	---
East-Southeast	2.56	2.56	2.83	4.83*	---	---	---	---
Southeast	4.11	4.11	---	---	---	---	---	---
South-Southeast	4.26	4.26	4.82	4.82	---	---	---	---
South	---	---	---	---	---	---	---	---
South-Southwest	3.82	3.82	3.94	3.94	---	---	---	---
Southwest	2.76	2.76	4.32	4.32	---	---	---	---
West-Southwest	4.29	4.29	4.29	4.29	---	---	---	---
West	2.75	2.75	2.82	2.82	---	---	2.82 ⁽³⁾	2.82 ⁽³⁾
West-Northwest	2.13	2.13	2.91	2.91	---	---	---	---
Northwest	2.11	2.11	2.58	2.58	---	---	---	---
North-Northwest	1.55	1.55	1.82	1.82	1.82	1.82	---	---

Sector and distance determined by Global Positioning System.

* Represents a change from the previous year.

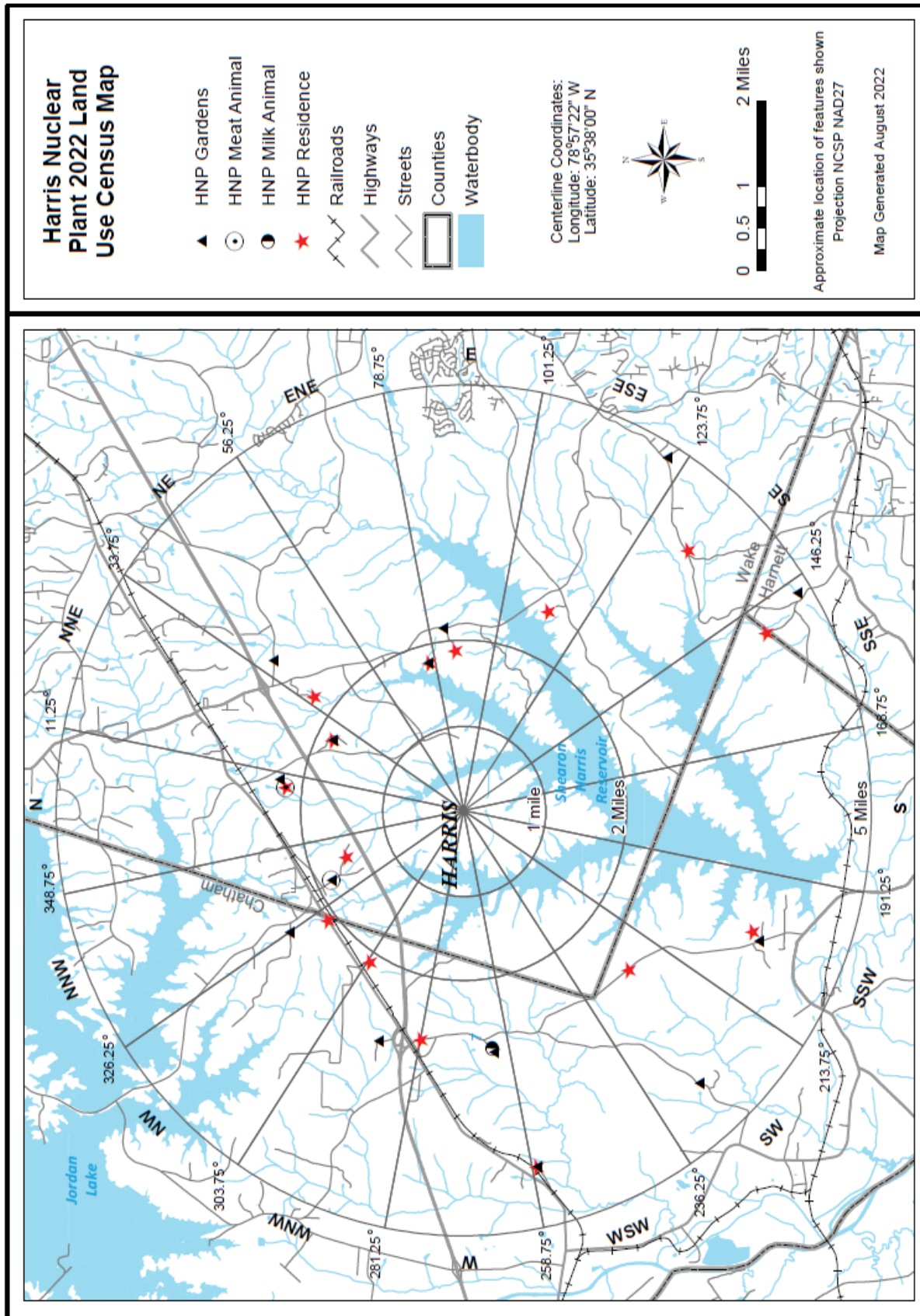
--- Indicates no occurrences within the 5-mile radius

(1) Meat animal was only identified at the nearest garden or closer in each sector. Poultry and egg laying animals were not classified as meat animals for the 2022 census.

(2) Goat Milk - Milk is used to feed goat kids, make a small quantity of cheese, and to make soap for personal use. Owner said they can now supply enough milk to participate in the HNP REMP. This dairy is not required due to HNP already having a dairy within 5 km (3.11 miles) and the dose being <1.0 mRem/year.

(3) Goat Milk - Milk is used to feed goat kids during the breeding months and the family consumes what is left. The milk that is not suitable for consumption is given to someone to make soap. This location participates in the REMP and milk is collected for 4 - 6 consecutive months per year (Late-Spring to Late-Fall months).

Figure 3.13



4.0 QUALITY ASSURANCE

4.1 SAMPLE COLLECTION

EnRad Laboratories and the Environmental Services Group performed the environmental sample collections as specified by approved sample collection procedures.

4.2 SAMPLE ANALYSIS

EnRad Laboratories performed the environmental sample analyses as specified by approved analysis procedures. EnRad Laboratories is in Huntersville, North Carolina, at Duke Energy's Environmental Center.

4.3 DOSIMETRY ANALYSIS

The Dosimetry and Records group performed the environmental dosimetry measurements as specified by approved dosimetry analysis procedures. The Dosimetry and Records Laboratory is in Huntersville, North Carolina, at Duke Energy's Environmental Center.

4.4 LABORATORY EQUIPMENT QUALITY ASSURANCE

4.4.1 DAILY QUALITY CONTROL

EnRad Laboratories has an internal quality assurance program which monitors each type of instrumentation for reliability and accuracy. Daily quality control checks ensure that instruments are in proper working order and these checks are used to monitor instrument performance.

4.4.2 CALIBRATION VERIFICATION

National Institute of Standards and Technology (NIST) standards that represent counting geometries are analyzed as unknowns at various frequencies ranging from weekly to annually to verify that efficiency calibrations are valid. The frequency is dependent upon instrument use and performance. Investigations are performed and documented should calibration verification data fall outside of the acceptable limits.

4.4.3 BATCH PROCESSING

Method quality control samples are analyzed with sample analyses that are processed in batches. These include tritium analyses in drinking water, surface water, and ground water samples; beta analysis in drinking water samples, and Low-Level Iodine-131 analysis in milk samples.

4.5 DUKE ENERGY INTERLABORATORY COMPARISON PROGRAM

In 2022 Duke Energy Environmental Laboratory (EnRad) participated in interlaboratory programs to satisfy Radiological Environmental Monitoring Program requirements in Duke Energy nuclear

plant Offsite Dose Calculation Manuals and Selected Licensee Commitments Manuals, as applicable.

EnRad Laboratory participated in an interlaboratory program with Eckert & Ziegler Analytics (EZA) in 2022. EZA results were evaluated against the NRC Inspection Manual Procedure 84750 (IP 84750) acceptance criteria stated in EnRad Procedure 515, Cross Check Program Administration. All regulatory requirements continue to be met by the EZA Cross Check Program.

4.5.1 ECKERT & ZIEGLER ANALYTICS CROSS CHECK PROGRAM

EZA mixed gamma in liquid, mixed gamma in vegetation, mixed gamma in soil, low-level I-131 in liquid, mixed gamma air filter composites, I-131 air cartridges, gross beta in water, gross beta in filters, and tritium in water were analyzed at various times of the year at EnRad Laboratories. A summary of the applicable REMP EnRad Laboratory program results for 2022 is documented in Table 4.0-A.

Interlaboratory cross check samples from EZA were received and analyzed in two of the four quarters of 2022. Table 4.0-A lists the performance for specific samples. Forty-one nuclide results were reported to EZA of which forty-one (100 %) met the acceptance criteria based on IP 84750.

4.6 STATE OF NORTH CAROLINA INTERCOMPARISON PROGRAM

EnRad Laboratories routinely participates with the North Carolina Department of Health and Human Services in an intercomparison program. EnRad Laboratories sends Harris Nuclear Plant Radiological Environmental Monitoring Program surface water, ground water, cow milk, air particulate, air radioiodine, fish, bottom sediment, and shoreline sediment samples to the North Carolina Department of Health and Human Services, Division of Public Health for intercomparison analysis.

4.7 TLD INTERCOMPARISON PROGRAM

Radiation Dosimetry and Records participates in a quarterly TLD internal comparison program administered internally by the Dosimetry Lab. The Dosimetry Lab Staff irradiates environmental dosimeters quarterly using the NIST-traceable Hopewell and submits them for analysis of the unknown estimated delivered exposure. The TLD results were evaluated against Radiation Dosimetry and Records Procedure RD/0/B/2000/09, Harshaw TLD Dose Algorithm Verification. Forty TLD results were evaluated of which forty (100%) met the acceptance criteria. A summary of the 2022 Internal Cross Check (Duke Energy) Program is documented in Table 4.0-B.

TABLE 4.0-A

ECKERT & ZIEGLER ANALYTICS

CROSS CHECK PROGRAM

2022 Cross Check Results for EnRad Laboratories

Interlaboratory cross check samples from EZA were received and analyzed in two of the four quarters of 2022. Results are reported directly to Eckert & Ziegler Analytics. Environmental cross check samples were analyzed in replicate, and the result closest to the mean is reported to Eckert & Ziegler Analytics. The acceptance criteria for the program was based on the NRC Inspection Manual Procedure 84750 (IP 84750). Table 4.0-A lists the performance for specific samples. Forty-one nuclide results were reported to EZA of which forty-one (100 %) met the acceptance criteria based on IP 84750.

Sample	Sample ID	Nuclide	Quarter	Units	EnRad Value	EZA Value	EnRad/EZA Ratio	Evaluation
Beta Filter in Planchet	E13558	Cs-137	2	pCi	211	223	0.94	Agreement
I-131 in Charcoal Cartridge	E13556	I-131	2	pCi	86.0	84.8	1.01	Agreement
Gamma in Soil	E13557	Ce-141	2	pCi/g	0.198	0.195	1.01	Agreement
		Co-58	2	pCi/g	0.162	0.181	0.90	Agreement
		Co-60	2	pCi/g	0.340	0.340	1.00	Agreement
		Cr-51	2	pCi/g	0.529	0.484	1.09	Agreement
		Cs-134	2	pCi/g	0.258	0.241	1.07	Agreement
		Cs-137	2	pCi/g	0.316	0.360	0.88	Agreement
		Fe-59	2	pCi/g	0.203	0.220	0.92	Agreement
		Mn-54	2	pCi/g	0.349	0.322	1.08	Agreement
		Zn-65	2	pCi/g	0.448	0.417	1.08	Agreement
Gamma in Simulated Vegetation	E13564	Ce-141	3	pCi/g	0.196	0.208	0.94	Agreement
		Co-58	3	pCi/g	0.232	0.244	0.95	Agreement
		Co-60	3	pCi/g	0.305	0.336	0.91	Agreement
		Cr-51	3	pCi/g	0.551	0.590	0.93	Agreement
		Cs-134	3	pCi/g	0.264	0.326	0.81	Agreement
		Cs-137	3	pCi/g	0.261	0.287	0.91	Agreement
		Fe-59	3	pCi/g	0.223	0.224	1.00	Agreement
		Mn-54	3	pCi/g	0.348	0.365	0.95	Agreement
		Zn-65	3	pCi/g	0.477	0.483	0.99	Agreement

TABLE 4.0-A (Cont.)

Sample	Sample ID	Nuclide	Quarter	Units	EnRad Value	EZA Value	EnRad/EZA Ratio	Evaluation
Gamma in Composite Filter	E13562	Ce-141	3	pCi	112	108	1.04	Agreement
		Co-58	3	pCi	130	126	1.03	Agreement
		Co-60	3	pCi	179	174	1.03	Agreement
		Cr-51	3	pCi	309	305	1.01	Agreement
		Cs-134	3	pCi	162	169	0.96	Agreement
		Cs-137	3	pCi	151	148	1.02	Agreement
		Fe-59	3	pCi	126	116	1.09	Agreement
		Mn-54	3	pCi	199	189	1.05	Agreement
		Zn-65	3	pCi	269	250	1.08	Agreement
Gamma in Water	E13563	Ce-141	3	pCi/L	168	157	1.07	Agreement
		Co-58	3	pCi/L	192	184	1.04	Agreement
		Co-60	3	pCi/L	266	253	1.05	Agreement
		Cr-51	3	pCi/L	490	444	1.10	Agreement
		Cs-134	3	pCi/L	233	246	0.95	Agreement
		Cs-137	3	pCi/L	231	216	1.07	Agreement
		Fe-59	3	pCi/L	190	168	1.13	Agreement
		Mn-54	3	pCi/L	297	275	1.08	Agreement
		Zn-65	3	pCi/L	396	364	1.09	Agreement
Milk LLI-131	E13559	I-131	2	pCi/L	100	93.3	1.07	Agreement
Gross Beta in Water	E13561	Cs-137	2	pCi/L	252	279	0.90	Agreement
Tritium in Water	E13565	H-3	3	pCi/L	11600	12500	0.93	Agreement

TABLE 4.0-B

2022 ENVIRONMENTAL DOSIMETER

CROSS CHECK RESULTS

Internal Crosscheck (Duke Energy)

Radiation Dosimetry and Records participates in a quarterly TLD internal comparison program administered internally by the Dosimetry Lab. The Dosimetry Lab Staff irradiates environmental dosimetry quarterly and submits them for analysis of the unknown estimated delivered exposure. The TLD results were evaluated against Radiation Dosimetry and Records Procedure RD/0/B/2000/09, Harshaw TLD Dose Algorithm Verification. Forty TLD results were evaluated of which forty (100%) met the acceptance criteria.

1st Quarter 2022						2nd Quarter 2022					
TLD Number	Reported (mR)	Delivered (mR)	Bias (% diff)	Pass/Fail Criteria	Pass/Fail	TLD Number	Reported (mR)	Delivered (mR)	Bias (% diff)	Pass/Fail Criteria	Pass/Fail
103615	59.74	58.21	2.63	<+/-20%	Pass	102931	19.48	18.49	5.35	<+/-20%	Pass
102059	56.77	58.21	-2.47	<+/-20%	Pass	100029	18.10	18.49	-2.11	<+/-20%	Pass
100164	55.78	58.21	-4.17	<+/-20%	Pass	100033	17.98	18.49	-2.76	<+/-20%	Pass
102407	57.37	58.21	-1.44	<+/-20%	Pass	103721	19.90	18.49	7.63	<+/-20%	Pass
103098	60.15	58.21	3.33	<+/-20%	Pass	103212	19.62	18.49	6.11	<+/-20%	Pass
100007	56.16	58.21	-3.52	<+/-20%	Pass	100224	18.18	18.49	-1.68	<+/-20%	Pass
100038	56.16	58.21	-3.52	<+/-20%	Pass	100074	18.32	18.49	-0.92	<+/-20%	Pass
100245	54.99	58.21	-5.53	<+/-20%	Pass	102018	19.49	18.49	5.41	<+/-20%	Pass
102442	55.54	58.21	-4.59	<+/-20%	Pass	100068	18.12	18.49	-2.00	<+/-20%	Pass
100170	55.95	58.21	-3.88	<+/-20%	Pass	100028	18.22	18.49	-1.46	<+/-20%	Pass
Average Bias (B)			-2.32			Average Bias (B)			1.36		
Standard Deviation (S)			3.01			Standard Deviation (S)			4.17		
Measure Performance B +S			5.33	<20%	Pass	Measure Performance B +S			5.53	<20%	Pass
3rd Quarter 2022						4th Quarter 2022					
TLD Number	Reported (mR)	Delivered (mR)	Bias (% diff)	Pass/Fail Criteria	Pass/Fail	TLD Number	Reported (mR)	Delivered (mR)	Bias (% diff)	Pass/Fail Criteria	Pass/Fail
104776	37.17	40.39	-7.97	<+/-20%	Pass	104757	27.93	29.67	-5.86	<+/-20%	Pass
104826	37.06	40.39	-8.24	<+/-20%	Pass	104823	28.05	29.67	-5.46	<+/-20%	Pass
104474	37.27	40.39	-7.72	<+/-20%	Pass	104475	27.76	29.67	-6.44	<+/-20%	Pass
104775	36.47	40.39	-9.71	<+/-20%	Pass	104824	28.14	29.67	-5.16	<+/-20%	Pass
104827	38.17	40.39	-5.50	<+/-20%	Pass	104750	28.20	29.67	-4.95	<+/-20%	Pass
104357	36.64	40.39	-9.28	<+/-20%	Pass	104776	28.03	29.67	-5.53	<+/-20%	Pass
104353	37.42	40.39	-7.35	<+/-20%	Pass	104755	28.25	29.67	-4.79	<+/-20%	Pass
104358	35.99	40.39	-10.89	<+/-20%	Pass	104355	28.04	29.67	-5.49	<+/-20%	Pass
104355	38.17	40.39	-5.50	<+/-20%	Pass	104828	27.20	29.67	-8.32	<+/-20%	Pass
104475	36.55	40.39	-9.51	<+/-20%	Pass	104354	27.63	29.67	-6.88	<+/-20%	Pass
Average Bias (B)			-8.17			Average Bias (B)			-5.89		
Standard Deviation (S)			1.76			Standard Deviation (S)			1.07		
Measure Performance B +S			9.93	<20%	Pass	Measure Performance B +S			6.96	<20%	Pass

APPENDIX A

ENVIRONMENTAL SAMPLING

&

ANALYSIS PROCEDURES

2022

APPENDIX A

ENVIRONMENTAL SAMPLING AND ANALYSIS PROCEDURES

Adherence to established procedures for sampling and analysis of environmental media at Harris Nuclear Plant was required to ensure compliance with the Harris Nuclear Plant Offsite Dose Calculation Manual. Analytical procedures were employed to ensure that the ODCM detection capabilities were achieved.

Environmental sampling was performed by EnRad Laboratories and Environmental Services. Environmental analysis was performed by EnRad Laboratories and Dosimetry and Records.

This appendix provides a description of the specific analyses performed on samples collected in the field. Changes to the sampling procedures and analyses procedures are also discussed in the section.

I. CHANGE OF SAMPLING PROCEDURES

Procedure 753, Milk Sampling at Harris Nuclear Plant was revised to incorporate the newly designated location number, 300, for Manco's Dairy (previously designated as location 5). This change was initiated with Revision 29 of the HNP ODCM (effective 1SEP2022) due to several attributes having the same location number but being in different geographical locations.

Procedure 751, Broadleaf Vegetation Sampling at Harris Nuclear Plant was revised moving the control station location (5) to the same geographical location as the air sampling and TLD control stations and away from a private residence. This change was initiated with Revision 29 of the HNP ODCM (effective 1SEP2022). The location number did not change.

Procedure 750, Food Products Sampling at Harris Nuclear Plant was revised to delete location 97, Granite Springs Farm. The farm was not an irrigated garden and was removed from the REMP with Revision 29 of the HNP ODCM (effective 1SEP2022).

During the creation of the 2022 AREOR >10 maps (NCR#2428007) it was discovered that location 97 was actually in the WNW Sector (19.1 miles, 302 degrees azimuth). This was the first time this location had been displayed on a map. In HNP ODCM Revisions 25-28 Location 97 was designated as being in the NW Sector, 19.1 miles (See Appendix F). NCR#2467858 was initiated to document this finding.

II. DESCRIPTION OF ANALYSIS PROCEDURES

Gamma spectroscopy analyses are performed using high purity germanium gamma detectors and Mirion analytical software. Designated sample volumes are transferred to appropriate counting geometries and analyzed by gamma spectroscopy. Perishable samples such as fish, food products, aquatic vegetation, and broadleaf vegetation are ground to achieve a homogeneous mixture. Soils and sediments are dried, sifted to remove foreign objects (rocks, clams, glass, etc.), and then transferred to an appropriate counting geometry.

Low-level iodine analyses are performed by passing a designated sample aliquot through a pre-determined amount of ion exchange resin to remove and concentrate any iodine in the aqueous sample (milk). The resin is then dried and mixed thoroughly before being transferred to appropriate counting geometry and analyzed by gamma spectroscopy.

Tritium analyses are performed by using low-level environmental liquid scintillation analysis technique on a Perkin-Elmer 4910TR liquid scintillation system or Perkin-Elmer 3100TR liquid scintillation system. Tritium samples are distilled and batch processed with a laboratory fortified blank, matrix spike, matrix spike duplicate, and blank to verify instrument performance and sample preparation technique are acceptable, and sample contamination has not occurred.

Gross beta analysis of air filters is performed by analyzing filters on Tennelec XLB Series 5 gas-flow proportional counters. Samples are batch processed with a blank to ensure sample contamination has not occurred.

Gross beta analysis of liquid samples is performed by concentrating a designated aliquot of sample and analyzing by Perkin-Elmer 4910TR liquid scintillation system. Samples are batch processed with a laboratory fortified blank and blank to verify instrument performance and ensure sample contamination has not occurred.

III. CHANGE OF ANALYSIS PROCEDURES

There were no changes to analysis procedures implemented during 2022.

APPENDIX B

**RADIOLOGICAL
ENVIRONMENTAL MONITORING
PROGRAM**

SUMMARY OF RESULTS

2022

**HARRIS NUCLEAR PLANT
RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM DATA SUMMARY**

Shearon Harris Nuclear Power Plant
Wake County, North Carolina

Docket Numbers: STN 50-400
Calendar Year: 2022

Medium or Pathway Sampled or Measured (Unit of Measurement)	Type and Total No. of Measurements Performed	Lower Limit of Detection (LLD) ⁽¹⁾	All Indicator Locations Mean ⁽²⁾⁽³⁾ Range ⁽²⁾	Location w/Highest Annual Mean ⁽²⁾ Name, Distance, and Direction	Mean ⁽²⁾⁽³⁾ Range ⁽²⁾	Control Locations Mean ⁽²⁾⁽³⁾ Range ⁽²⁾	No. of Non-Routine Report Meas.
Air Particulate (pCi/m ³)	Gross Beta 364 ⁽⁴⁾	See Table 2.2-C	2.06E-02 (3.12/3.12) 8.92E-03 – 3.93E-02	Loc. # 63 0.6 miles SW	2.12E-02 (52/52) 9.89E-03 – 3.66E-02	Loc. # 5 2.09E-02 (52/52) 1.02E-02 – 3.33E-02	0
	Gamma 28	See Table 2.2-C	All less than LLD	-----	-----	All less than LLD	0
Air Radioiodine (pCi/m ³)	I-131 364 ⁽⁴⁾	See Table 2.2-C	All less than LLD	-----	-----	All less than LLD	0
	Gross Beta 39	See Table 2.2-C	4.26E+00 (8/26) 3.51E+00 – 5.24E+00	Loc. # 46 NE Harnett Metro Water Treatment Plant - Lillington 17.2 miles SSE	4.26E+00 (8/13) 3.51E+00 – 5.24E+00	Loc. # 58 4.23E+00 (7/13) 3.31E+00 – 6.16E+00	0
Drinking Water ⁽⁷⁾ (pCi/l)	Gamma 39	See Table 2.2-C	All less than LLD	-----	-----	All less than LLD	0
	Tritium ⁽⁵⁾ 21	See Table 2.2-C	1.50E+03 (13/17) 9.98E+02 – 3.63E+03	Loc. # 51 Water Treatment Building on Site	1.50E+03 (13/13) 9.98E+02 – 3.63E+03	All less than LLD	0
Surface Water (pCi/l)	Gamma 39	See Table 2.2-C	All less than LLD	-----	-----	All less than LLD	0
	Tritium ⁽⁵⁾ 21	See Table 2.2-C	3.60E+03 (13/17) 2.62E+03 – 6.33E+03	Loc. # 26 Harris Lake Spillway 4.7 miles S	3.60E+3 (13/13) 2.62E+03 – 6.33E+03	All less than LLD	0

**HARRIS NUCLEAR PLANT
RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM DATA SUMMARY (cont.)**

Shearon Harris Nuclear Power Plant
Wake County, North Carolina

Docket Numbers: STN 50-400
Calendar Year: 2022

Medium or Pathway Sampled or Measured (Unit of Measurement)	Type and Total No. of Measurements Performed	Lower Limit of Detection (LLD) ⁽¹⁾	All Indicator Locations Mean ⁽²⁾⁽³⁾ Range ⁽²⁾	Location w/Highest Annual Mean ⁽²⁾ Name, Distance, and Direction	Mean ⁽²⁾⁽³⁾ Range ⁽²⁾	Control Locations Mean ⁽²⁾⁽³⁾ Range ⁽²⁾	No. of Non-Routine Report Meas.
Ground Water (pCi/l)	Gamma 84	See Table 2.2-C	All less than LLD	-----	-----	No Control	0
Milk (pCi/l)	Tritium 84	See Table 2.2-C	4.09E+02 (16/72) 1.78E+02 – 8.85E+02	Loc. # 83 On Site (BD-MW16) along Cooling Tower Blowdown line 1.6 miles SSW	7.77E+02 (4/4) 6.22E+02 – 8.85E+02	No Control	0
	I-131 31	See Table 2.2-C	All less than LLD	-----	-----	All less than LLD	0
	Gamma 31	See Table 2.2-C	All less than LLD	-----	-----	All less than LLD	0
Broadleaf Vegetation (pCi/kg, wet)	Gamma 18	See Table 2.2-C	All less than LLD	-----	-----	All less than LLD	0
Food Products (pCi/kg, wet)	Gamma 9	See Table 2.2-C	All less than LLD	-----	-----	All less than LLD	0
Aquatic Vegetation (pCi/kg, wet)	Gamma 3	See Table 2.2-C	All less than LLD	-----	-----	All less than LLD	0
Fish (pCi/kg, wet)	Gamma 12	See Table 2.2-C	All less than LLD	-----	-----	All less than LLD	0

**HARRIS NUCLEAR PLANT
RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM DATA SUMMARY (cont.)**

Shearon Harris Nuclear Plant
Wake County, North Carolina

Docket Numbers: STN 50-400
Calendar Year: 2022

Medium or Pathway Sampled or Measured (Unit of Measurement)	Type and Total No. of Measurements Performed	Lower Limit of Detection (LLD) ⁽¹⁾	All Indicator Locations Mean ⁽²⁾⁽³⁾ Range ⁽²⁾	Location w/Highest Annual Mean ⁽²⁾ Name, Distance, and Direction	Mean ⁽²⁾⁽³⁾ Range ⁽²⁾	Control Locations Mean ⁽²⁾⁽³⁾ Range ⁽²⁾	No. of Non-Routine Report Meas.
Sediments -- Shoreline (pCi/kg, dry)	Gamma 4	See Table 2.2-C	All less than LLD	-----	-----	No Control	0
Sediments -- Bottom (pCi/kg, dry)	Gamma 2	See Table 2.2-C Co-60 Cs-137	1.12E+02 (1/2) 1.12E+02 – 1.12E+02 2.61E+02 (1/2) 2.61E+02 – 2.61E+02	3.8 miles S -- Harris Lake vicinity of Mixing Zone of Cooling Tower (Bottom Sed.)	1.12E+02 (1/2) 1.12E+02 – 1.12E+02 2.61E+02 (1/2) 2.61E+02 – 2.61E+02	No Control	0
Direct Radiation (TLD) (mR/Std Qtr) ⁽⁶⁾	TLD Readout 162 ⁽⁴⁾	-----	1.42E+01 (158/158) 9.79E+00 – 1.96E+01	Loc. # 63 SHNPP Site, 0.6 mi SW	1.75E+01 (4/4) 1.46E+01 – 1.96E+01	Loc. # 5 1.64E+01 (4/4) 1.50E+01 – 1.88E+01	0

Footnotes to Appendix B

1. The Lower Limit of Detection (LLD) is the smallest concentration of radioactive material in a sample that will yield a net count above system background, which will be detected with 95 percent probability and with only 5 percent probability of falsely concluding that a blank observation represents a "real" signal. Due to counting statistics and varying volumes, occasionally lower LLDs are achieved. Refer to Section 2.3.2 for an explanation of how LLD values were derived.
2. Mean and range are based on detectable measurements only.
3. The fractions of all samples with detectable activities at specific locations are indicated in parentheses.
4. Missing samples or surveillances are discussed in Appendix C or Appendix D.
5. Although quarterly composite samples are required, monthly composite samples are used to provide more frequent and sensitive analyses for some locations.
6. TLD exposure is reported in milliroentgen (mR) per standard quarter (91 days).
7. Drinking Water 51 (DW-51) has been included, as of 2009, in the Data Summary even though it does not meet the EPA (Environmental Protection Agency) definition of a public drinking water supply.

APPENDIX C

SAMPLING DEVIATIONS

&

UNAVAILABLE ANALYSES

2022

APPENDIX C

HARRIS NUCLEAR PLANT SAMPLING DEVIATIONS & UNAVAILABLE ANALYSES

DEVIATION & UNAVAILABLE REASON CODES			
BF	Blown Fuse	PM	Preventive Maintenance
CN	Construction	PO	Power Outage
FZ	Sample Frozen	PS	Pump out of service / Undergoing repair
IV	Insufficient Volume	SL	Sample Loss/Lost due to Lab Accident
IW	Inclement Weather	SM	Motor / Rotor Seized
LC	Line Clog to Sampler	SU	Seasonally Unavailable
OT	Other	TF	Torn Filter
PI	Power Interrupt	VN	Vandalism

C.1 SAMPLING DEVIATIONS

Air Particulate and Air Radioiodine

REMP weekly air samples (Air Particulate (AP) or Air Radioiodine (AR)) that experience any downtime during a surveillance period are reported as a Deviation and classified as a “Sampling Deviation.” However, the sample is counted and the data reported, whereas a Deviation with no available sample is classified as an “Unavailable Analyses” and does not have any data reported. The Harris REMP air samplers operated for a total of 99.76% availability in 2022.

Location	Scheduled Collection Dates	Code	Description & Action to Prevent Recurrence	Corrective Action
2	4/26-5/2/2022	PI	12.61 hours of downtime due to power interruption, storms in the area. See NCR# 02425675 for more info.	NCR# 02425905
26	5/9-5/16/2022	OT	Small dead spider found stuck in rotameter column interfering with flow of air sampler. Flowmeter ball was stuck at the time of collection possibly indicating an erroneous air flow. Air Sampler had operated for 170.58 hours (579.80 m ³ volume) at the time of discovery, no downtime was recorded for this deviation. Air sampler was removed from service and replaced.	NCR# 02427763
26	5/16-5/23/2022	PI	2.17 hours of downtime due to power interruption, storms in the area.	NCR# 02428567
26	6/13-6/20/2022	PI	1.43 hours of downtime due to power interruption, storms in the area.	NCR# 02431959
26	7/18-7/25/2022	PI	1.74 hours of downtime due to power interruption, storms in the area.	NCR# 02435533
26	12/19-12/27/2022	PI	3.51 hours of downtime due to unknown power interruption.	NCR# 02454200
4	2/14-2/21/2022	PI	1.42 hours of downtime due to unknown power interruption.	NCR# 02417124
4	9/26-10/3/2022	IW	1.96 hours of downtime due to power interruption, Hurricane Ian.	NCR# 02444187
5	9/26-10/3/2022	IW	3.03 hours of downtime due to power interruption, Hurricane Ian.	NCR# 02444188
5	12/19 – 12/27/2022	PI	77.67 hours of downtime due to power interruption from GFCI outlet malfunction.	NCR # 02454185
63	9/12-9/19/2022	PI	2.21 hours of downtime due to power interruption, New Hill feeder line forest fire.	NCR # 02442251

90	9/12-9/19/2022	PI	2.21 hours of downtime due to power interruption, New Hill feeder line forest fire.	NCR # 02442253
91	4/25-5/2/2022	PI	12.63 hours of downtime due to power interruption, storms in the area. See NCR# 02425675 for more info.	NCR # 02425900
91	12/19-12/27/2022	PI	24.88 hours of downtime due to unknown power interruption.	NCR # 02454203

Drinking Water and Surface Water

REMP monthly drinking water samples (Drinking Water (DW)) or surface water samples (Surface Water (SW)) that experience any downtime during a surveillance period are reported as a Deviation and classified as a “Sampling Deviation.” The sample is counted and the data reported, whereas a Deviation with no available sample is classified as an “Unavailable Analyses” and does not have any data reported. The Harris REMP water samplers operated for a total of 100% availability in 2022.

There were no drinking water or surface water deviations in 2022.

C.2 UNAVAILABLE ANALYSES

TLDs

Location	Scheduled Collection Dates	Code	Description & Action to Prevent Recurrence	Corrective Action
21	7/21-10/19/2022	CN	TLDs (alpha and bravo) were unavailable at the time of collection. The utility pole that the TLDs are suspended on had been replaced during the quarter with a new pole.	NCR# 02446388
6	10/19/2022-1/12/2023	CN	TLDs (alpha and bravo) were unavailable at the time of collection. The fence that the TLDs are suspended on had been replaced during the quarter. The TLDs were installed on a nearby power pole.	NCR# 02455939

APPENDIX D

ANALYTICAL DEVIATIONS

2022

No Analytical deviations were incurred for the 2022 HNP Radiological
Environmental Monitoring Program.

APPENDIX E

**RADIOLOGICAL
ENVIRONMENTAL MONITORING
PROGRAM RESULTS**

2022

This appendix includes sample analysis report summaries and supportive data generated from each sample medium for 2022.

HARRIS Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR PARTICULATE Concentration (Activity): pCi/m3

Sample Point 2 [INDICATOR - NNE @ 1.4 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
558911	1/4/2022 - 1/10/2022	Beta	2.27E-02	3.51E-03	3.68E-03
559120	1/10/2022 - 1/18/2022	Beta	2.12E-02	2.84E-03	2.80E-03
559360	1/18/2022 - 1/24/2022	Beta	1.84E-02	3.25E-03	3.68E-03
560051	1/24/2022 - 1/31/2022	Beta	2.46E-02	3.38E-03	3.43E-03
560268	1/31/2022 - 2/7/2022	Beta	1.83E-02	2.99E-03	3.30E-03
560513	2/7/2022 - 2/14/2022	Beta	2.26E-02	3.11E-03	2.99E-03
560817	2/14/2022 - 2/21/2022	Beta	2.23E-02	2.69E-03	2.46E-03
561154	2/21/2022 - 2/28/2022	Beta	1.90E-02	3.22E-03	3.74E-03
561653	2/28/2022 - 3/7/2022	Beta	2.84E-02	3.52E-03	3.43E-03
562255	3/7/2022 - 3/14/2022	Beta	1.26E-02	2.21E-03	2.40E-03
562851	3/14/2022 - 3/21/2022	Beta	1.48E-02	2.43E-03	2.73E-03
563448	3/21/2022 - 3/28/2022	Beta	1.61E-02	2.51E-03	2.61E-03
563781	3/28/2022 - 4/4/2022	Beta	1.53E-02	2.88E-03	3.46E-03
564017	1/4/2022 - 4/4/2022	Cs-134	<1.30E-03	0.00E+00	1.30E-03
		Cs-137	<1.51E-03	0.00E+00	1.51E-03
		Be-7	1.28E-01	3.43E-02	3.28E-02
		K-40	<3.51E-02	0.00E+00	3.51E-02
564010	4/4/2022 - 4/11/2022	Beta	1.22E-02	2.59E-03	3.19E-03
564546	4/11/2022 - 4/18/2022	Beta	1.39E-02	2.82E-03	3.51E-03
564814	4/18/2022 - 4/26/2022	Beta	2.21E-02	3.04E-03	3.16E-03
565305	4/26/2022 - 5/2/2022	Beta	1.71E-02	3.35E-03	3.89E-03
565971	5/2/2022 - 5/9/2022	Beta	1.52E-02	2.82E-03	3.32E-03
566560	5/9/2022 - 5/16/2022	Beta	9.10E-03	2.44E-03	3.27E-03
566950	5/16/2022 - 5/23/2022	Beta	1.87E-02	3.11E-03	3.55E-03
567140	5/23/2022 - 5/31/2022	Beta	1.16E-02	2.12E-03	2.51E-03
567578	5/31/2022 - 6/6/2022	Beta	2.66E-02	3.72E-03	3.83E-03

HARRIS Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR PARTICULATE Concentration (Activity): pCi/m3

Sample Point 2 [INDICATOR - NNE @ 1.4 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
567746	6/6/2022 - 6/13/2022	Beta	1.85E-02	2.71E-03	2.99E-03
568383	6/13/2022 - 6/20/2022	Beta	2.03E-02	2.79E-03	2.88E-03
568621	6/20/2022 - 6/27/2022	Beta	2.08E-02	2.84E-03	3.04E-03
568837	6/27/2022 - 7/5/2022	Beta	1.60E-02	2.21E-03	2.16E-03
569081	4/4/2022 - 7/5/2022	Cs-134	<1.78E-03	0.00E+00	1.78E-03
		Cs-137	<1.20E-03	0.00E+00	1.20E-03
		Be-7	1.28E-01	3.45E-02	3.37E-02
		K-40	<2.66E-02	0.00E+00	2.66E-02
569074	7/5/2022 - 7/11/2022	Beta	1.42E-02	2.59E-03	2.96E-03
570296	7/11/2022 - 7/18/2022	Beta	1.85E-02	3.05E-03	3.32E-03
570859	7/18/2022 - 7/25/2022	Beta	1.82E-02	2.92E-03	3.15E-03
571108	7/25/2022 - 8/1/2022	Beta	1.63E-02	2.91E-03	3.40E-03
571427	8/1/2022 - 8/8/2022	Beta	1.77E-02	2.71E-03	2.63E-03
571710	8/8/2022 - 8/15/2022	Beta	1.37E-02	3.08E-03	4.05E-03
572719	8/15/2022 - 8/22/2022	Beta	1.86E-02	3.09E-03	3.51E-03
573919	8/22/2022 - 8/29/2022	Beta	2.93E-02	3.01E-03	2.42E-03
574538	8/29/2022 - 9/6/2022	Beta	2.36E-02	2.92E-03	2.80E-03
575009	9/6/2022 - 9/12/2022	Beta	8.92E-03	2.89E-03	4.06E-03
575697	9/12/2022 - 9/19/2022	Beta	3.03E-02	3.53E-03	3.23E-03
576094	9/19/2022 - 9/26/2022	Beta	2.92E-02	3.14E-03	2.85E-03
576265	9/26/2022 - 10/3/2022	Beta	1.58E-02	2.82E-03	3.25E-03
576553	7/5/2022 - 10/3/2022	Cs-134	<1.83E-03	0.00E+00	1.83E-03
		Cs-137	<1.06E-03	0.00E+00	1.06E-03
		Be-7	1.37E-01	4.15E-02	4.87E-02
		K-40	<4.48E-02	0.00E+00	4.48E-02
576546	10/3/2022 - 10/10/2022	Beta	2.08E-02	3.21E-03	3.44E-03
577170	10/10/2022 - 10/17/2022	Beta	3.20E-02	3.52E-03	2.88E-03
577768	10/17/2022 - 10/24/2022	Beta	2.26E-02	2.85E-03	2.84E-03

HARRIS Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR PARTICULATE Concentration (Activity): pCi/m3

Sample Point 2 [INDICATOR - NNE @ 1.4 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
578121	10/24/2022 - 10/31/2022	Beta	1.75E-02	2.90E-03	3.20E-03
578833	10/31/2022 - 11/7/2022	Beta	1.87E-02	2.99E-03	3.12E-03
579032	11/7/2022 - 11/14/2022	Beta	1.26E-02	2.67E-03	3.26E-03
579792	11/14/2022 - 11/21/2022	Beta	2.85E-02	3.44E-03	3.17E-03
580605	11/21/2022 - 11/28/2022	Beta	2.92E-02	2.97E-03	2.43E-03
580818	11/28/2022 - 12/5/2022	Beta	2.43E-02	3.28E-03	3.28E-03
581137	12/5/2022 - 12/12/2022	Beta	2.80E-02	3.41E-03	3.22E-03
581705	12/12/2022 - 12/19/2022	Beta	2.69E-02	3.39E-03	3.24E-03
582240	12/19/2022 - 12/27/2022	Beta	2.18E-02	2.85E-03	2.79E-03
582428	12/27/2022 - 1/3/2023	Beta	1.58E-02	2.86E-03	3.26E-03
582681	10/3/2022 - 1/3/2023	Cs-134	<2.18E-03	0.00E+00	2.18E-03
		Cs-137	<1.35E-03	0.00E+00	1.35E-03
		Be-7	1.15E-01	3.23E-02	3.02E-02
		K-40	<3.61E-02	0.00E+00	3.61E-02

Sample Point 4 [INDICATOR - NNE @ 3.1 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
558913	1/4/2022 - 1/10/2022	Beta	2.36E-02	3.55E-03	3.68E-03
559122	1/10/2022 - 1/18/2022	Beta	2.12E-02	2.84E-03	2.80E-03
559366	1/18/2022 - 1/24/2022	Beta	2.07E-02	3.37E-03	3.68E-03
560053	1/24/2022 - 1/31/2022	Beta	2.40E-02	3.35E-03	3.43E-03
560270	1/31/2022 - 2/7/2022	Beta	2.00E-02	3.08E-03	3.30E-03
560515	2/7/2022 - 2/14/2022	Beta	2.32E-02	3.15E-03	2.99E-03
560819	2/14/2022 - 2/21/2022	Beta	2.47E-02	2.81E-03	2.47E-03
561156	2/21/2022 - 2/28/2022	Beta	1.51E-02	3.03E-03	3.75E-03
561655	2/28/2022 - 3/7/2022	Beta	3.09E-02	3.62E-03	3.42E-03
562257	3/7/2022 - 3/14/2022	Beta	1.30E-02	2.24E-03	2.40E-03
562853	3/14/2022 - 3/21/2022	Beta	1.80E-02	2.59E-03	2.73E-03
563450	3/21/2022 - 3/28/2022	Beta	1.91E-02	2.65E-03	2.61E-03

HARRIS Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR PARTICULATE Concentration (Activity): pCi/m3

Sample Point 4 [INDICATOR - NNE @ 3.1 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
563783	3/28/2022 - 4/4/2022	Beta	1.93E-02	3.08E-03	3.46E-03
564019	1/4/2022 - 4/4/2022	Cs-134	<1.97E-03	0.00E+00	1.97E-03
		Cs-137	<1.73E-03	0.00E+00	1.73E-03
		Be-7	1.98E-01	4.07E-02	2.87E-02
		K-40	<2.75E-02	0.00E+00	2.75E-02
564012	4/4/2022 - 4/11/2022	Beta	1.59E-02	2.79E-03	3.19E-03
564548	4/11/2022 - 4/18/2022	Beta	1.76E-02	3.01E-03	3.50E-03
564816	4/18/2022 - 4/25/2022	Beta	2.19E-02	3.29E-03	3.59E-03
565307	4/25/2022 - 5/2/2022	Beta	2.00E-02	2.99E-03	3.06E-03
565973	5/2/2022 - 5/9/2022	Beta	1.74E-02	2.95E-03	3.33E-03
566562	5/9/2022 - 5/16/2022	Beta	1.18E-02	2.60E-03	3.26E-03
566952	5/16/2022 - 5/23/2022	Beta	2.38E-02	3.35E-03	3.55E-03
567142	5/23/2022 - 5/31/2022	Beta	1.23E-02	2.16E-03	2.51E-03
567580	5/31/2022 - 6/6/2022	Beta	2.64E-02	3.71E-03	3.82E-03
567748	6/6/2022 - 6/13/2022	Beta	1.98E-02	2.77E-03	3.00E-03
568385	6/13/2022 - 6/20/2022	Beta	2.08E-02	2.81E-03	2.88E-03
568623	6/20/2022 - 6/27/2022	Beta	2.05E-02	2.83E-03	3.04E-03
568839	6/27/2022 - 7/5/2022	Beta	1.61E-02	2.22E-03	2.15E-03
569083	4/4/2022 - 7/5/2022	Cs-134	<1.47E-03	0.00E+00	1.47E-03
		Cs-137	<1.35E-03	0.00E+00	1.35E-03
		Be-7	1.75E-01	4.00E-02	3.51E-02
		K-40	<3.43E-02	0.00E+00	3.43E-02
569076	7/5/2022 - 7/11/2022	Beta	1.46E-02	2.62E-03	2.97E-03
570298	7/11/2022 - 7/18/2022	Beta	1.94E-02	3.09E-03	3.32E-03
570861	7/18/2022 - 7/25/2022	Beta	1.68E-02	2.85E-03	3.15E-03
571110	7/25/2022 - 8/1/2022	Beta	1.59E-02	2.88E-03	3.39E-03
571429	8/1/2022 - 8/8/2022	Beta	2.03E-02	2.86E-03	2.64E-03
571712	8/8/2022 - 8/15/2022	Beta	1.20E-02	2.98E-03	4.05E-03

HARRIS Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR PARTICULATE Concentration (Activity): pCi/m3

Sample Point 4 [INDICATOR - NNE @ 3.1 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
572721	8/15/2022 - 8/22/2022	Beta	1.80E-02	3.06E-03	3.51E-03
573921	8/22/2022 - 8/29/2022	Beta	3.02E-02	3.05E-03	2.42E-03
574540	8/29/2022 - 9/6/2022	Beta	2.41E-02	2.94E-03	2.80E-03
575011	9/6/2022 - 9/12/2022	Beta	1.20E-02	3.09E-03	4.07E-03
575699	9/12/2022 - 9/19/2022	Beta	3.18E-02	3.60E-03	3.23E-03
576096	9/19/2022 - 9/26/2022	Beta	3.18E-02	3.24E-03	2.85E-03
576267	9/26/2022 - 10/3/2022	Beta	1.38E-02	2.74E-03	3.29E-03
576555	7/5/2022 - 10/3/2022	Cs-134	<2.06E-03	0.00E+00	2.06E-03
		Cs-137	<1.22E-03	0.00E+00	1.22E-03
		Be-7	1.34E-01	3.72E-02	3.95E-02
		K-40	2.22E-02	1.57E-02	2.05E-02
576548	10/3/2022 - 10/10/2022	Beta	2.46E-02	3.39E-03	3.44E-03
577172	10/10/2022 - 10/17/2022	Beta	3.30E-02	3.56E-03	2.89E-03
577770	10/17/2022 - 10/24/2022	Beta	2.40E-02	2.91E-03	2.83E-03
578123	10/24/2022 - 10/31/2022	Beta	1.77E-02	2.91E-03	3.20E-03
578835	10/31/2022 - 11/7/2022	Beta	1.99E-02	3.04E-03	3.12E-03
579034	11/7/2022 - 11/14/2022	Beta	1.52E-02	2.80E-03	3.26E-03
579794	11/14/2022 - 11/21/2022	Beta	2.26E-02	3.17E-03	3.16E-03
580607	11/21/2022 - 11/28/2022	Beta	3.22E-02	3.09E-03	2.43E-03
580820	11/28/2022 - 12/5/2022	Beta	2.37E-02	3.26E-03	3.28E-03
581139	12/5/2022 - 12/12/2022	Beta	3.01E-02	3.51E-03	3.22E-03
581707	12/12/2022 - 12/19/2022	Beta	2.43E-02	3.28E-03	3.24E-03
582242	12/19/2022 - 12/27/2022	Beta	2.14E-02	2.83E-03	2.79E-03
582430	12/27/2022 - 1/3/2023	Beta	2.02E-02	3.08E-03	3.26E-03
582683	10/3/2022 - 1/3/2023	Cs-134	<1.90E-03	0.00E+00	1.90E-03
		Cs-137	<1.03E-03	0.00E+00	1.03E-03
		Be-7	1.22E-01	3.06E-02	2.28E-02
		K-40	3.43E-02	1.67E-02	1.53E-02

HARRIS Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR PARTICULATE Concentration (Activity): pCi/m3

Sample Point 5 [CONTROL - WNW @ 12 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
558914	1/4/2022 - 1/10/2022	Beta	2.19E-02	3.47E-03	3.67E-03
559123	1/10/2022 - 1/18/2022	Beta	2.04E-02	2.81E-03	2.80E-03
559369	1/18/2022 - 1/24/2022	Beta	2.13E-02	3.45E-03	3.74E-03
560054	1/24/2022 - 1/31/2022	Beta	2.46E-02	3.34E-03	3.36E-03
560271	1/31/2022 - 2/7/2022	Beta	1.82E-02	2.99E-03	3.30E-03
560516	2/7/2022 - 2/14/2022	Beta	2.34E-02	3.15E-03	2.98E-03
560820	2/14/2022 - 2/21/2022	Beta	2.21E-02	2.71E-03	2.49E-03
561157	2/21/2022 - 2/28/2022	Beta	1.52E-02	3.00E-03	3.69E-03
561656	2/28/2022 - 3/7/2022	Beta	3.33E-02	3.72E-03	3.42E-03
562258	3/7/2022 - 3/14/2022	Beta	1.30E-02	2.24E-03	2.40E-03
562854	3/14/2022 - 3/21/2022	Beta	1.70E-02	2.56E-03	2.77E-03
563451	3/21/2022 - 3/28/2022	Beta	1.84E-02	2.60E-03	2.58E-03
563784	3/28/2022 - 4/4/2022	Beta	1.73E-02	2.98E-03	3.46E-03
564020	1/4/2022 - 4/4/2022	Cs-134	<2.60E-03	0.00E+00	2.60E-03
		Cs-137	<2.05E-03	0.00E+00	2.05E-03
		Be-7	1.97E-01	4.10E-02	2.36E-02
		K-40	2.95E-02	1.49E-02	5.00E-03
564013	4/4/2022 - 4/11/2022	Beta	1.33E-02	2.64E-03	3.19E-03
564549	4/11/2022 - 4/18/2022	Beta	1.88E-02	3.10E-03	3.56E-03
564817	4/18/2022 - 4/25/2022	Beta	2.28E-02	3.31E-03	3.54E-03
565308	4/25/2022 - 5/2/2022	Beta	2.37E-02	3.15E-03	3.04E-03
565974	5/2/2022 - 5/9/2022	Beta	1.83E-02	3.00E-03	3.35E-03
566563	5/9/2022 - 5/16/2022	Beta	1.05E-02	2.56E-03	3.32E-03
566953	5/16/2022 - 5/23/2022	Beta	2.36E-02	3.30E-03	3.49E-03
567143	5/23/2022 - 5/31/2022	Beta	1.29E-02	2.18E-03	2.51E-03
567581	5/31/2022 - 6/6/2022	Beta	2.96E-02	3.85E-03	3.81E-03

HARRIS Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR PARTICULATE Concentration (Activity): pCi/m3

Sample Point 5 [CONTROL - WNW @ 12 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
567749	6/6/2022 - 6/13/2022	Beta	1.91E-02	2.77E-03	3.05E-03
568386	6/13/2022 - 6/20/2022	Beta	2.31E-02	2.89E-03	2.84E-03
568624	6/20/2022 - 6/27/2022	Beta	2.10E-02	2.85E-03	3.04E-03
568840	6/27/2022 - 7/5/2022	Beta	1.56E-02	2.19E-03	2.14E-03
569084	4/4/2022 - 7/5/2022	Cs-134	<9.75E-04	0.00E+00	9.75E-04
		Cs-137	<1.17E-03	0.00E+00	1.17E-03
		Be-7	1.76E-01	4.01E-02	3.68E-02
		K-40	<2.49E-02	0.00E+00	2.49E-02
569077	7/5/2022 - 7/11/2022	Beta	1.51E-02	2.68E-03	3.03E-03
570299	7/11/2022 - 7/18/2022	Beta	1.72E-02	2.94E-03	3.27E-03
570862	7/18/2022 - 7/25/2022	Beta	1.90E-02	2.96E-03	3.14E-03
571111	7/25/2022 - 8/1/2022	Beta	1.53E-02	2.85E-03	3.39E-03
571430	8/1/2022 - 8/8/2022	Beta	1.80E-02	2.75E-03	2.68E-03
571713	8/8/2022 - 8/15/2022	Beta	1.39E-02	3.04E-03	3.97E-03
572722	8/15/2022 - 8/22/2022	Beta	2.14E-02	3.23E-03	3.52E-03
573922	8/22/2022 - 8/29/2022	Beta	2.97E-02	3.04E-03	2.43E-03
574541	8/29/2022 - 9/6/2022	Beta	2.35E-02	2.89E-03	2.76E-03
575012	9/6/2022 - 9/12/2022	Beta	1.02E-02	3.03E-03	4.16E-03
575700	9/12/2022 - 9/19/2022	Beta	3.21E-02	3.61E-03	3.23E-03
576097	9/19/2022 - 9/26/2022	Beta	2.86E-02	3.11E-03	2.84E-03
576268	9/26/2022 - 10/3/2022	Beta	1.46E-02	2.84E-03	3.38E-03
576556	7/5/2022 - 10/3/2022	Cs-134	<1.83E-03	0.00E+00	1.83E-03
		Cs-137	<1.82E-03	0.00E+00	1.82E-03
		Be-7	1.60E-01	3.94E-02	3.77E-02
		K-40	<2.44E-02	0.00E+00	2.44E-02
576549	10/3/2022 - 10/10/2022	Beta	2.69E-02	3.44E-03	3.36E-03
577173	10/10/2022 - 10/17/2022	Beta	3.13E-02	3.49E-03	2.88E-03
577771	10/17/2022 - 10/24/2022	Beta	2.45E-02	2.94E-03	2.84E-03

HARRIS Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR PARTICULATE Concentration (Activity): pCi/m3

Sample Point 5 [CONTROL - WNW @ 12 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
578124	10/24/2022 - 10/31/2022	Beta	1.71E-02	2.91E-03	3.25E-03
578836	10/31/2022 - 11/7/2022	Beta	2.56E-02	3.29E-03	3.07E-03
579035	11/7/2022 - 11/14/2022	Beta	1.34E-02	2.70E-03	3.26E-03
579795	11/14/2022 - 11/21/2022	Beta	2.54E-02	3.30E-03	3.17E-03
580608	11/21/2022 - 11/28/2022	Beta	2.95E-02	3.01E-03	2.47E-03
580821	11/28/2022 - 12/5/2022	Beta	2.53E-02	3.30E-03	3.23E-03
581140	12/5/2022 - 12/12/2022	Beta	2.69E-02	3.35E-03	3.21E-03
581708	12/12/2022 - 12/19/2022	Beta	2.38E-02	3.26E-03	3.26E-03
582243	12/19/2022 - 12/27/2022	Beta	2.14E-02	4.05E-03	4.70E-03
582431	12/27/2022 - 1/3/2023	Beta	1.87E-02	2.97E-03	3.21E-03
582684	10/3/2022 - 1/3/2023	Cs-134	<1.85E-03	0.00E+00	1.85E-03
		Cs-137	<1.64E-03	0.00E+00	1.64E-03
		Be-7	9.88E-02	2.99E-02	2.94E-02
		K-40	3.05E-02	1.65E-02	1.65E-02

Sample Point 26 [INDICATOR - S @ 4.7 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
558912	1/4/2022 - 1/10/2022	Beta	2.12E-02	3.43E-03	3.68E-03
559121	1/10/2022 - 1/18/2022	Beta	2.04E-02	2.80E-03	2.79E-03
559363	1/18/2022 - 1/24/2022	Beta	2.08E-02	3.42E-03	3.74E-03
560052	1/24/2022 - 1/31/2022	Beta	2.42E-02	3.33E-03	3.37E-03
560269	1/31/2022 - 2/7/2022	Beta	2.15E-02	3.17E-03	3.31E-03
560514	2/7/2022 - 2/14/2022	Beta	2.17E-02	3.07E-03	2.98E-03
560818	2/14/2022 - 2/21/2022	Beta	2.16E-02	2.68E-03	2.49E-03
561155	2/21/2022 - 2/28/2022	Beta	1.56E-02	3.03E-03	3.69E-03
561654	2/28/2022 - 3/7/2022	Beta	2.95E-02	3.57E-03	3.42E-03
562256	3/7/2022 - 3/14/2022	Beta	1.22E-02	2.19E-03	2.40E-03
562852	3/14/2022 - 3/21/2022	Beta	1.73E-02	2.59E-03	2.79E-03
563449	3/21/2022 - 3/28/2022	Beta	1.86E-02	2.59E-03	2.55E-03

HARRIS Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR PARTICULATE Concentration (Activity): pCi/m3

Sample Point 26 [INDICATOR - S @ 4.7 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
563782	3/28/2022 - 4/4/2022	Beta	1.76E-02	3.00E-03	3.46E-03
564018	1/4/2022 - 4/4/2022	Cs-134	<1.46E-03	0.00E+00	1.46E-03
		Cs-137	<3.02E-04	0.00E+00	3.02E-04
		Be-7	1.88E-01	5.55E-02	1.99E-02
		K-40	<3.52E-02	0.00E+00	3.52E-02
564011	4/4/2022 - 4/11/2022	Beta	1.38E-02	2.63E-03	3.11E-03
564547	4/11/2022 - 4/18/2022	Beta	2.03E-02	3.22E-03	3.63E-03
564815	4/18/2022 - 4/25/2022	Beta	2.37E-02	3.35E-03	3.54E-03
565306	4/25/2022 - 5/2/2022	Beta	2.34E-02	3.13E-03	3.03E-03
565972	5/2/2022 - 5/9/2022	Beta	1.64E-02	2.92E-03	3.37E-03
566561	5/9/2022 - 5/16/2022	Beta	1.09E-02	2.58E-03	3.31E-03
566951	5/16/2022 - 5/23/2022	Beta	1.96E-02	3.16E-03	3.57E-03
567141	5/23/2022 - 5/31/2022	Beta	1.13E-02	2.10E-03	2.50E-03
567579	5/31/2022 - 6/6/2022	Beta	2.36E-02	3.54E-03	3.78E-03
567747	6/6/2022 - 6/13/2022	Beta	1.78E-02	2.72E-03	3.06E-03
568384	6/13/2022 - 6/20/2022	Beta	2.01E-02	2.78E-03	2.87E-03
568622	6/20/2022 - 6/27/2022	Beta	1.84E-02	2.74E-03	3.04E-03
568838	6/27/2022 - 7/5/2022	Beta	1.35E-02	2.08E-03	2.13E-03
569082	4/4/2022 - 7/5/2022	Cs-134	<1.47E-03	0.00E+00	1.47E-03
		Cs-137	<1.78E-03	0.00E+00	1.78E-03
		Be-7	1.74E-01	3.81E-02	2.85E-02
		K-40	<3.06E-02	0.00E+00	3.06E-02
569075	7/5/2022 - 7/11/2022	Beta	1.10E-02	2.47E-03	3.06E-03
570297	7/11/2022 - 7/18/2022	Beta	1.54E-02	2.84E-03	3.26E-03
570860	7/18/2022 - 7/25/2022	Beta	1.79E-02	2.92E-03	3.18E-03
571109	7/25/2022 - 8/1/2022	Beta	1.21E-02	2.67E-03	3.36E-03
571428	8/1/2022 - 8/8/2022	Beta	1.87E-02	2.83E-03	2.72E-03
571711	8/8/2022 - 8/15/2022	Beta	1.17E-02	2.92E-03	3.96E-03

HARRIS Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR PARTICULATE Concentration (Activity): pCi/m3

Sample Point 26 [INDICATOR - S @ 4.7 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
572720	8/15/2022 - 8/22/2022	Beta	1.87E-02	3.10E-03	3.52E-03
573920	8/22/2022 - 8/29/2022	Beta	2.83E-02	2.97E-03	2.42E-03
574539	8/29/2022 - 9/6/2022	Beta	1.89E-02	2.66E-03	2.73E-03
575010	9/6/2022 - 9/12/2022	Beta	9.09E-03	2.98E-03	4.20E-03
575698	9/12/2022 - 9/19/2022	Beta	2.87E-02	3.45E-03	3.22E-03
576095	9/19/2022 - 9/26/2022	Beta	3.13E-02	3.22E-03	2.86E-03
576266	9/26/2022 - 10/3/2022	Beta	1.05E-02	2.57E-03	3.31E-03
576554	7/5/2022 - 10/3/2022	Cs-134	<1.77E-03	0.00E+00	1.77E-03
		Cs-137	<8.16E-04	0.00E+00	8.16E-04
		Be-7	1.39E-01	3.37E-02	2.62E-02
		K-40	<3.15E-02	0.00E+00	3.15E-02
576547	10/3/2022 - 10/10/2022	Beta	2.51E-02	3.36E-03	3.37E-03
577171	10/10/2022 - 10/17/2022	Beta	3.13E-02	3.48E-03	2.88E-03
577769	10/17/2022 - 10/24/2022	Beta	2.38E-02	2.90E-03	2.84E-03
578122	10/24/2022 - 10/31/2022	Beta	1.69E-02	2.90E-03	3.25E-03
578834	10/31/2022 - 11/7/2022	Beta	2.01E-02	3.02E-03	3.07E-03
579033	11/7/2022 - 11/14/2022	Beta	1.46E-02	2.77E-03	3.26E-03
579793	11/14/2022 - 11/21/2022	Beta	2.87E-02	3.45E-03	3.17E-03
580606	11/21/2022 - 11/28/2022	Beta	2.99E-02	3.05E-03	2.49E-03
580819	11/28/2022 - 12/5/2022	Beta	2.51E-02	3.28E-03	3.22E-03
581138	12/5/2022 - 12/12/2022	Beta	2.81E-02	3.40E-03	3.20E-03
581706	12/12/2022 - 12/19/2022	Beta	2.46E-02	3.28E-03	3.24E-03
582241	12/19/2022 - 12/27/2022	Beta	2.29E-02	2.96E-03	2.88E-03
582429	12/27/2022 - 1/3/2023	Beta	1.97E-02	3.02E-03	3.21E-03
582682	10/3/2022 - 1/3/2023	Cs-134	<3.57E-04	0.00E+00	3.57E-04
		Cs-137	<1.01E-03	0.00E+00	1.01E-03
		Be-7	1.17E-01	3.10E-02	2.70E-02
		K-40	2.70E-02	1.49E-02	1.50E-02

HARRIS Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR PARTICULATE Concentration (Activity): pCi/m3

Sample Point 63 [INDICATOR - SW @ 0.6 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
558915	1/4/2022 - 1/10/2022	Beta	2.89E-02	3.81E-03	3.68E-03
559124	1/10/2022 - 1/18/2022	Beta	1.99E-02	2.78E-03	2.80E-03
559372	1/18/2022 - 1/24/2022	Beta	2.05E-02	3.36E-03	3.66E-03
560055	1/24/2022 - 1/31/2022	Beta	2.10E-02	3.22E-03	3.44E-03
560272	1/31/2022 - 2/7/2022	Beta	1.88E-02	3.02E-03	3.30E-03
560517	2/7/2022 - 2/14/2022	Beta	2.42E-02	3.19E-03	2.99E-03
560821	2/14/2022 - 2/21/2022	Beta	2.54E-02	2.82E-03	2.45E-03
561158	2/21/2022 - 2/28/2022	Beta	1.67E-02	3.12E-03	3.76E-03
561657	2/28/2022 - 3/7/2022	Beta	2.95E-02	3.57E-03	3.43E-03
562259	3/7/2022 - 3/14/2022	Beta	1.37E-02	2.27E-03	2.40E-03
562855	3/14/2022 - 3/21/2022	Beta	1.67E-02	2.51E-03	2.72E-03
563452	3/21/2022 - 3/28/2022	Beta	2.00E-02	2.71E-03	2.63E-03
563785	3/28/2022 - 4/4/2022	Beta	1.75E-02	3.00E-03	3.46E-03
564021	1/4/2022 - 4/4/2022	Cs-134	<2.10E-03	0.00E+00	2.10E-03
		Cs-137	<1.73E-03	0.00E+00	1.73E-03
		Be-7	1.97E-01	4.26E-02	3.20E-02
		K-40	<3.97E-02	0.00E+00	3.97E-02
564014	4/4/2022 - 4/11/2022	Beta	1.42E-02	2.77E-03	3.28E-03
564550	4/11/2022 - 4/18/2022	Beta	1.84E-02	2.98E-03	3.39E-03
564818	4/18/2022 - 4/25/2022	Beta	2.35E-02	3.39E-03	3.61E-03
565309	4/25/2022 - 5/2/2022	Beta	2.33E-02	3.16E-03	3.08E-03
565975	5/2/2022 - 5/9/2022	Beta	1.72E-02	2.92E-03	3.31E-03
566564	5/9/2022 - 5/16/2022	Beta	1.10E-02	2.53E-03	3.23E-03
566954	5/16/2022 - 5/23/2022	Beta	2.21E-02	3.30E-03	3.59E-03
567144	5/23/2022 - 5/31/2022	Beta	1.28E-02	2.19E-03	2.51E-03
567582	5/31/2022 - 6/6/2022	Beta	2.29E-02	3.56E-03	3.86E-03

HARRIS Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR PARTICULATE Concentration (Activity): pCi/m3

Sample Point 63 [INDICATOR - SW @ 0.6 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
567750	6/6/2022 - 6/13/2022	Beta	1.90E-02	2.71E-03	2.96E-03
568387	6/13/2022 - 6/20/2022	Beta	1.99E-02	2.79E-03	2.90E-03
568625	6/20/2022 - 6/27/2022	Beta	2.42E-02	2.99E-03	3.04E-03
568841	6/27/2022 - 7/5/2022	Beta	1.67E-02	2.26E-03	2.16E-03
569085	4/4/2022 - 7/5/2022	Cs-134	<1.72E-03	0.00E+00	1.72E-03
		Cs-137	<8.68E-04	0.00E+00	8.68E-04
		Be-7	1.40E-01	3.93E-02	4.29E-02
		K-40	<4.05E-02	0.00E+00	4.05E-02
569078	7/5/2022 - 7/11/2022	Beta	1.50E-02	2.61E-03	2.93E-03
570300	7/11/2022 - 7/18/2022	Beta	1.96E-02	3.11E-03	3.34E-03
570863	7/18/2022 - 7/25/2022	Beta	1.94E-02	2.98E-03	3.15E-03
571112	7/25/2022 - 8/1/2022	Beta	1.47E-02	2.83E-03	3.41E-03
571431	8/1/2022 - 8/8/2022	Beta	2.23E-02	2.94E-03	2.61E-03
571714	8/8/2022 - 8/15/2022	Beta	1.60E-02	3.20E-03	4.07E-03
572723	8/15/2022 - 8/22/2022	Beta	2.04E-02	3.17E-03	3.50E-03
573923	8/22/2022 - 8/29/2022	Beta	3.12E-02	3.10E-03	2.43E-03
574542	8/29/2022 - 9/6/2022	Beta	1.92E-02	2.74E-03	2.84E-03
575013	9/6/2022 - 9/12/2022	Beta	9.89E-03	2.92E-03	4.00E-03
575701	9/12/2022 - 9/19/2022	Beta	3.26E-02	3.66E-03	3.27E-03
576098	9/19/2022 - 9/26/2022	Beta	2.94E-02	3.14E-03	2.85E-03
576269	9/26/2022 - 10/3/2022	Beta	1.49E-02	2.76E-03	3.22E-03
576557	7/5/2022 - 10/3/2022	Cs-134	<1.67E-03	0.00E+00	1.67E-03
		Cs-137	<1.50E-03	0.00E+00	1.50E-03
		Be-7	1.25E-01	3.25E-02	2.75E-02
		K-40	1.51E-02	1.51E-02	2.28E-02
576550	10/3/2022 - 10/10/2022	Beta	2.51E-02	3.42E-03	3.47E-03
577174	10/10/2022 - 10/17/2022	Beta	3.66E-02	3.71E-03	2.88E-03
577772	10/17/2022 - 10/24/2022	Beta	2.37E-02	2.90E-03	2.84E-03

HARRIS Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR PARTICULATE Concentration (Activity): pCi/m3

Sample Point 63 [INDICATOR - SW @ 0.6 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
578125	10/24/2022 - 10/31/2022	Beta	1.69E-02	2.85E-03	3.18E-03
578837	10/31/2022 - 11/7/2022	Beta	2.17E-02	3.15E-03	3.14E-03
579036	11/7/2022 - 11/14/2022	Beta	1.25E-02	2.66E-03	3.26E-03
579796	11/14/2022 - 11/21/2022	Beta	2.97E-02	3.50E-03	3.17E-03
580609	11/21/2022 - 11/28/2022	Beta	3.15E-02	3.05E-03	2.42E-03
580822	11/28/2022 - 12/5/2022	Beta	2.74E-02	3.44E-03	3.31E-03
581141	12/5/2022 - 12/12/2022	Beta	2.93E-02	3.46E-03	3.21E-03
581709	12/12/2022 - 12/19/2022	Beta	2.52E-02	3.32E-03	3.25E-03
582244	12/19/2022 - 12/27/2022	Beta	2.24E-02	2.86E-03	2.77E-03
582432	12/27/2022 - 1/3/2023	Beta	1.78E-02	2.97E-03	3.28E-03
582685	10/3/2022 - 1/3/2023	Cs-134	<1.80E-03	0.00E+00	1.80E-03
		Cs-137	<1.48E-03	0.00E+00	1.48E-03
		Be-7	1.33E-01	3.31E-02	2.75E-02
		K-40	<3.23E-02	0.00E+00	3.23E-02

Sample Point 90 [INDICATOR - SSW @ 0.5 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
558916	1/4/2022 - 1/10/2022	Beta	2.38E-02	3.57E-03	3.67E-03
559125	1/10/2022 - 1/18/2022	Beta	2.32E-02	2.93E-03	2.80E-03
559375	1/18/2022 - 1/24/2022	Beta	1.44E-02	3.02E-03	3.66E-03
560056	1/24/2022 - 1/31/2022	Beta	2.03E-02	3.18E-03	3.44E-03
560273	1/31/2022 - 2/7/2022	Beta	1.88E-02	3.02E-03	3.30E-03
560518	2/7/2022 - 2/14/2022	Beta	2.18E-02	3.08E-03	2.99E-03
560822	2/14/2022 - 2/21/2022	Beta	2.28E-02	2.70E-03	2.45E-03
561159	2/21/2022 - 2/28/2022	Beta	1.35E-02	2.95E-03	3.76E-03
561658	2/28/2022 - 3/7/2022	Beta	3.26E-02	3.70E-03	3.43E-03
562260	3/7/2022 - 3/14/2022	Beta	1.06E-02	2.09E-03	2.40E-03
562856	3/14/2022 - 3/21/2022	Beta	1.61E-02	2.49E-03	2.72E-03
563453	3/21/2022 - 3/28/2022	Beta	1.79E-02	2.60E-03	2.63E-03

HARRIS Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR PARTICULATE Concentration (Activity): pCi/m3

Sample Point 90 [INDICATOR - SSW @ 0.5 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
563786	3/28/2022 - 4/4/2022	Beta	1.88E-02	3.06E-03	3.46E-03
564022	1/4/2022 - 4/4/2022	Cs-134	<2.60E-03	0.00E+00	2.60E-03
		Cs-137	<2.15E-03	0.00E+00	2.15E-03
		Be-7	1.69E-01	4.17E-02	3.91E-02
		K-40	3.93E-02	1.91E-02	1.84E-02
564015	4/4/2022 - 4/11/2022	Beta	1.53E-02	2.81E-03	3.28E-03
564551	4/11/2022 - 4/18/2022	Beta	1.72E-02	2.92E-03	3.39E-03
564819	4/18/2022 - 4/25/2022	Beta	2.16E-02	3.29E-03	3.61E-03
565310	4/25/2022 - 5/2/2022	Beta	2.51E-02	3.25E-03	3.08E-03
565976	5/2/2022 - 5/9/2022	Beta	1.68E-02	2.90E-03	3.31E-03
566565	5/9/2022 - 5/16/2022	Beta	1.21E-02	2.60E-03	3.23E-03
566955	5/16/2022 - 5/23/2022	Beta	2.15E-02	3.27E-03	3.59E-03
567145	5/23/2022 - 5/31/2022	Beta	1.18E-02	2.14E-03	2.51E-03
567583	5/31/2022 - 6/6/2022	Beta	2.68E-02	3.75E-03	3.86E-03
567751	6/6/2022 - 6/13/2022	Beta	2.02E-02	2.76E-03	2.96E-03
568388	6/13/2022 - 6/20/2022	Beta	2.10E-02	2.83E-03	2.90E-03
568626	6/20/2022 - 6/27/2022	Beta	1.98E-02	2.79E-03	3.04E-03
568842	6/27/2022 - 7/5/2022	Beta	1.83E-02	2.33E-03	2.16E-03
569086	4/4/2022 - 7/5/2022	Cs-134	<2.06E-03	0.00E+00	2.06E-03
		Cs-137	<1.69E-03	0.00E+00	1.69E-03
		Be-7	1.84E-01	4.30E-02	3.91E-02
		K-40	<4.39E-02	0.00E+00	4.39E-02
569079	7/5/2022 - 7/11/2022	Beta	1.63E-02	2.68E-03	2.93E-03
570301	7/11/2022 - 7/18/2022	Beta	1.78E-02	3.02E-03	3.34E-03
570864	7/18/2022 - 7/25/2022	Beta	1.78E-02	2.89E-03	3.15E-03
571113	7/25/2022 - 8/1/2022	Beta	1.57E-02	2.88E-03	3.41E-03
571432	8/1/2022 - 8/8/2022	Beta	1.89E-02	2.76E-03	2.61E-03
571715	8/8/2022 - 8/15/2022	Beta	1.40E-02	3.10E-03	4.07E-03

HARRIS Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR PARTICULATE Concentration (Activity): pCi/m3

Sample Point 90 [INDICATOR - SSW @ 0.5 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
572724	8/15/2022 - 8/22/2022	Beta	2.05E-02	3.18E-03	3.50E-03
573924	8/22/2022 - 8/29/2022	Beta	3.00E-02	3.05E-03	2.43E-03
574543	8/29/2022 - 9/6/2022	Beta	2.15E-02	2.86E-03	2.84E-03
575014	9/6/2022 - 9/12/2022	Beta	1.22E-02	3.05E-03	4.00E-03
575702	9/12/2022 - 9/19/2022	Beta	3.09E-02	3.59E-03	3.27E-03
576099	9/19/2022 - 9/26/2022	Beta	2.97E-02	3.15E-03	2.85E-03
576270	9/26/2022 - 10/3/2022	Beta	1.39E-02	2.71E-03	3.22E-03
576558	7/5/2022 - 10/3/2022	Cs-134	<1.28E-03	0.00E+00	1.28E-03
		Cs-137	<1.60E-03	0.00E+00	1.60E-03
		Be-7	1.33E-01	3.70E-02	3.97E-02
		K-40	2.08E-02	1.77E-02	2.60E-02
576551	10/3/2022 - 10/10/2022	Beta	2.33E-02	3.34E-03	3.46E-03
577175	10/10/2022 - 10/17/2022	Beta	3.72E-02	3.74E-03	2.88E-03
577773	10/17/2022 - 10/24/2022	Beta	2.23E-02	2.84E-03	2.84E-03
578126	10/24/2022 - 10/31/2022	Beta	2.37E-02	3.19E-03	3.18E-03
578838	10/31/2022 - 11/7/2022	Beta	2.08E-02	3.10E-03	3.14E-03
579037	11/7/2022 - 11/14/2022	Beta	1.55E-02	2.82E-03	3.26E-03
579797	11/14/2022 - 11/21/2022	Beta	2.64E-02	3.35E-03	3.17E-03
580610	11/21/2022 - 11/28/2022	Beta	2.99E-02	3.00E-03	2.42E-03
580823	11/28/2022 - 12/5/2022	Beta	2.35E-02	3.26E-03	3.31E-03
581142	12/5/2022 - 12/12/2022	Beta	3.28E-02	3.60E-03	3.21E-03
581710	12/12/2022 - 12/19/2022	Beta	2.64E-02	3.38E-03	3.25E-03
582245	12/19/2022 - 12/27/2022	Beta	2.13E-02	2.82E-03	2.77E-03
582433	12/27/2022 - 1/3/2023	Beta	1.84E-02	3.00E-03	3.28E-03
582686	10/3/2022 - 1/3/2023	Cs-134	<1.78E-03	0.00E+00	1.78E-03
		Cs-137	<1.34E-03	0.00E+00	1.34E-03
		Be-7	9.61E-02	2.59E-02	3.15E-02
		K-40	<2.80E-02	0.00E+00	2.80E-02

HARRIS Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR PARTICULATE Concentration (Activity): pCi/m3

Sample Point 91 [INDICATOR - ENE @ 1.6 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
558917	1/4/2022 - 1/10/2022	Beta	2.19E-02	3.46E-03	3.67E-03
559126	1/10/2022 - 1/18/2022	Beta	2.32E-02	2.95E-03	2.80E-03
559378	1/18/2022 - 1/24/2022	Beta	2.05E-02	3.36E-03	3.66E-03
560057	1/24/2022 - 1/31/2022	Beta	2.66E-02	3.48E-03	3.43E-03
560274	1/31/2022 - 2/7/2022	Beta	2.08E-02	3.13E-03	3.31E-03
560519	2/7/2022 - 2/14/2022	Beta	2.42E-02	3.19E-03	2.99E-03
560823	2/14/2022 - 2/21/2022	Beta	2.43E-02	2.77E-03	2.45E-03
561160	2/21/2022 - 2/28/2022	Beta	1.59E-02	3.08E-03	3.76E-03
561659	2/28/2022 - 3/7/2022	Beta	2.99E-02	3.58E-03	3.42E-03
562261	3/7/2022 - 3/14/2022	Beta	1.47E-02	2.33E-03	2.40E-03
562857	3/14/2022 - 3/21/2022	Beta	1.69E-02	2.53E-03	2.72E-03
563454	3/21/2022 - 3/28/2022	Beta	2.44E-02	2.93E-03	2.63E-03
563787	3/28/2022 - 4/4/2022	Beta	2.19E-02	3.22E-03	3.46E-03
564023	1/4/2022 - 4/4/2022	Cs-134	<2.10E-03	0.00E+00	2.10E-03
		Cs-137	<1.62E-03	0.00E+00	1.62E-03
		Be-7	1.52E-01	4.12E-02	4.37E-02
		K-40	4.06E-02	1.84E-02	1.60E-02
564016	4/4/2022 - 4/11/2022	Beta	1.23E-02	2.64E-03	3.26E-03
564552	4/11/2022 - 4/18/2022	Beta	1.78E-02	2.97E-03	3.41E-03
564820	4/18/2022 - 4/25/2022	Beta	2.34E-02	3.39E-03	3.61E-03
565311	4/25/2022 - 5/2/2022	Beta	2.48E-02	3.39E-03	3.33E-03
565977	5/2/2022 - 5/9/2022	Beta	1.61E-02	2.87E-03	3.31E-03
566566	5/9/2022 - 5/16/2022	Beta	1.08E-02	2.53E-03	3.23E-03
566956	5/16/2022 - 5/23/2022	Beta	2.23E-02	3.30E-03	3.59E-03
567146	5/23/2022 - 5/31/2022	Beta	1.14E-02	2.11E-03	2.51E-03
567584	5/31/2022 - 6/6/2022	Beta	2.34E-02	3.55E-03	3.81E-03

HARRIS Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR PARTICULATE Concentration (Activity): pCi/m3

Sample Point 91 [INDICATOR - ENE @ 1.6 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
567752	6/6/2022 - 6/13/2022	Beta	1.62E-02	2.60E-03	2.99E-03
568389	6/13/2022 - 6/20/2022	Beta	1.94E-02	2.76E-03	2.90E-03
568627	6/20/2022 - 6/27/2022	Beta	1.95E-02	2.79E-03	3.04E-03
568843	6/27/2022 - 7/5/2022	Beta	1.58E-02	2.19E-03	2.14E-03
569087	4/4/2022 - 7/5/2022	Cs-134	<1.94E-03	0.00E+00	1.94E-03
		Cs-137	<1.70E-03	0.00E+00	1.70E-03
		Be-7	1.59E-01	3.87E-02	3.39E-02
		K-40	3.99E-02	2.15E-02	2.67E-02
569080	7/5/2022 - 7/11/2022	Beta	1.38E-02	2.56E-03	2.96E-03
570302	7/11/2022 - 7/18/2022	Beta	1.81E-02	3.04E-03	3.34E-03
570865	7/18/2022 - 7/25/2022	Beta	1.89E-02	2.95E-03	3.14E-03
571114	7/25/2022 - 8/1/2022	Beta	1.32E-02	2.74E-03	3.38E-03
571433	8/1/2022 - 8/8/2022	Beta	1.85E-02	2.75E-03	2.63E-03
571716	8/8/2022 - 8/15/2022	Beta	1.12E-02	2.94E-03	4.04E-03
572725	8/15/2022 - 8/22/2022	Beta	1.39E-02	2.86E-03	3.52E-03
573925	8/22/2022 - 8/29/2022	Beta	2.93E-02	3.02E-03	2.43E-03
574544	8/29/2022 - 9/6/2022	Beta	2.10E-02	2.75E-03	2.72E-03
575015	9/6/2022 - 9/12/2022	Beta	1.33E-02	3.28E-03	4.24E-03
575703	9/12/2022 - 9/19/2022	Beta	3.40E-02	3.71E-03	3.23E-03
576100	9/19/2022 - 9/26/2022	Beta	2.92E-02	3.13E-03	2.84E-03
576271	9/26/2022 - 10/3/2022	Beta	1.52E-02	2.78E-03	3.23E-03
576559	7/5/2022 - 10/3/2022	Cs-134	<1.91E-03	0.00E+00	1.91E-03
		Cs-137	<1.29E-03	0.00E+00	1.29E-03
		Be-7	1.32E-01	3.67E-02	3.73E-02
		K-40	<2.21E-02	0.00E+00	2.21E-02
576552	10/3/2022 - 10/10/2022	Beta	2.41E-02	3.38E-03	3.46E-03
577176	10/10/2022 - 10/17/2022	Beta	3.93E-02	3.84E-03	2.88E-03
577774	10/17/2022 - 10/24/2022	Beta	2.13E-02	2.80E-03	2.84E-03

HARRIS Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR PARTICULATE Concentration (Activity): pCi/m3

Sample Point 91 [INDICATOR - ENE @ 1.6 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
578127	10/24/2022 - 10/31/2022	Beta	1.88E-02	2.96E-03	3.19E-03
578839	10/31/2022 - 11/7/2022	Beta	2.09E-02	3.10E-03	3.13E-03
579038	11/7/2022 - 11/14/2022	Beta	2.34E-02	3.24E-03	3.26E-03
579798	11/14/2022 - 11/21/2022	Beta	2.57E-02	3.31E-03	3.16E-03
580611	11/21/2022 - 11/28/2022	Beta	3.20E-02	3.08E-03	2.42E-03
580824	11/28/2022 - 12/5/2022	Beta	2.37E-02	3.27E-03	3.30E-03
581143	12/5/2022 - 12/12/2022	Beta	3.01E-02	3.49E-03	3.20E-03
581711	12/12/2022 - 12/19/2022	Beta	2.33E-02	3.23E-03	3.25E-03
582246	12/19/2022 - 12/27/2022	Beta	2.23E-02	3.13E-03	3.18E-03
582434	12/27/2022 - 1/3/2023	Beta	2.00E-02	3.09E-03	3.28E-03
582687	10/3/2022 - 1/3/2023	Cs-134	<1.74E-03	0.00E+00	1.74E-03
		Cs-137	<1.69E-03	0.00E+00	1.69E-03
		Be-7	1.09E-01	3.00E-02	2.42E-02
		K-40	<2.58E-02	0.00E+00	2.58E-02

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 2 [INDICATOR - NNE @ 1.4 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
558918	1/4/2022 - 1/10/2022	I-131	<3.09E-02	0.00E+00	3.09E-02
		Cs-134	<2.95E-02	0.00E+00	2.95E-02
		Cs-137	<2.71E-02	0.00E+00	2.71E-02
		Be-7	<1.98E-01	0.00E+00	1.98E-01
		K-40	6.07E-01	3.35E-01	3.98E-01
559127	1/10/2022 - 1/18/2022	I-131	<2.79E-02	0.00E+00	2.79E-02
		Cs-134	<2.36E-02	0.00E+00	2.36E-02
		Cs-137	<2.26E-02	0.00E+00	2.26E-02
		Be-7	<1.49E-01	0.00E+00	1.49E-01
		K-40	6.43E-01	2.44E-01	6.01E-02
559381	1/18/2022 - 1/24/2022	I-131	<3.47E-02	0.00E+00	3.47E-02
		Cs-134	<2.03E-02	0.00E+00	2.03E-02
		Cs-137	<2.63E-02	0.00E+00	2.63E-02
		Be-7	<1.71E-01	0.00E+00	1.71E-01
		K-40	3.99E-01	2.88E-01	3.89E-01
560058	1/24/2022 - 1/31/2022	I-131	<3.46E-02	0.00E+00	3.46E-02
		Cs-134	<3.86E-02	0.00E+00	3.86E-02
		Cs-137	<2.82E-02	0.00E+00	2.82E-02
		Be-7	<1.84E-01	0.00E+00	1.84E-01
		K-40	5.25E-01	2.39E-01	7.12E-02
560275	1/31/2022 - 2/7/2022	I-131	<3.76E-02	0.00E+00	3.76E-02
		Cs-134	<2.30E-02	0.00E+00	2.30E-02
		Cs-137	<2.15E-02	0.00E+00	2.15E-02

HARRIS Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 2 [INDICATOR - NNE @ 1.4 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
560275	1/31/2022 - 2/7/2022	Be-7	<2.01E-01	0.00E+00	2.01E-01
		K-40	5.60E-01	2.74E-01	2.78E-01
560520	2/7/2022 - 2/14/2022	I-131	<2.52E-02	0.00E+00	2.52E-02
		Cs-134	<3.21E-02	0.00E+00	3.22E-02
		Cs-137	<2.47E-02	0.00E+00	2.47E-02
		Be-7	<1.61E-01	0.00E+00	1.61E-01
		K-40	<6.16E-01	0.00E+00	6.16E-01
560824	2/14/2022 - 2/21/2022	I-131	<2.98E-02	0.00E+00	2.98E-02
		Cs-134	<2.44E-02	0.00E+00	2.44E-02
		Cs-137	<1.91E-02	0.00E+00	1.91E-02
		Be-7	<1.96E-01	0.00E+00	1.96E-01
		K-40	5.21E-01	3.03E-01	3.91E-01
561161	2/21/2022 - 2/28/2022	I-131	<3.10E-02	0.00E+00	3.10E-02
		Cs-134	<2.39E-02	0.00E+00	2.39E-02
		Cs-137	<2.69E-02	0.00E+00	2.69E-02
		Be-7	<1.56E-01	0.00E+00	1.56E-01
		K-40	<6.21E-01	0.00E+00	6.21E-01
561660	2/28/2022 - 3/7/2022	I-131	<3.57E-02	0.00E+00	3.57E-02
		Cs-134	<2.08E-02	0.00E+00	2.08E-02
		Cs-137	<2.75E-02	0.00E+00	2.75E-02
		Be-7	<1.62E-01	0.00E+00	1.62E-01
		K-40	6.38E-01	3.21E-01	3.77E-01
562262	3/7/2022 - 3/14/2022	I-131	<3.20E-02	0.00E+00	3.20E-02
		Cs-134	<1.41E-02	0.00E+00	1.41E-02
		Cs-137	<2.60E-02	0.00E+00	2.60E-02
		Be-7	<1.50E-01	0.00E+00	1.50E-01
		K-40	7.10E-01	3.06E-01	2.90E-01
562858	3/14/2022 - 3/21/2022	I-131	<2.79E-02	0.00E+00	2.79E-02
		Cs-134	<2.44E-02	0.00E+00	2.44E-02
		Cs-137	<2.65E-02	0.00E+00	2.65E-02
		Be-7	<1.65E-01	0.00E+00	1.65E-01
		K-40	7.78E-01	3.00E-01	2.27E-01
563455	3/21/2022 - 3/28/2022	I-131	<2.92E-02	0.00E+00	2.92E-02
		Cs-134	<1.85E-02	0.00E+00	1.85E-02
		Cs-137	<1.83E-02	0.00E+00	1.83E-02
		Be-7	<1.57E-01	0.00E+00	1.57E-01
		K-40	6.45E-01	2.89E-01	2.57E-01
563788	3/28/2022 - 4/4/2022	I-131	<3.04E-02	0.00E+00	3.04E-02
		Cs-134	<2.71E-02	0.00E+00	2.71E-02
		Cs-137	<2.74E-02	0.00E+00	2.74E-02
		Be-7	<2.41E-01	0.00E+00	2.41E-01
		K-40	5.36E-01	2.38E-01	6.92E-02
564024	4/4/2022 - 4/11/2022	I-131	<3.41E-02	0.00E+00	3.41E-02
		Cs-134	<2.66E-02	0.00E+00	2.66E-02
		Cs-137	<2.11E-02	0.00E+00	2.11E-02
		Be-7	<1.85E-01	0.00E+00	1.85E-01
		K-40	5.66E-01	2.84E-01	3.14E-01
564553	4/11/2022 - 4/18/2022	I-131	<3.05E-02	0.00E+00	3.05E-02

HARRIS Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 2 [INDICATOR - NNE @ 1.4 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
564553	4/11/2022 - 4/18/2022	Cs-134	<3.03E-02	0.00E+00	3.03E-02
		Cs-137	<2.44E-02	0.00E+00	2.44E-02
		Be-7	<2.00E-01	0.00E+00	2.00E-01
		K-40	<6.09E-01	0.00E+00	6.09E-01
564821	4/18/2022 - 4/26/2022	I-131	<3.33E-02	0.00E+00	3.33E-02
		Cs-134	<2.39E-02	0.00E+00	2.39E-02
		Cs-137	<2.62E-02	0.00E+00	2.62E-02
		Be-7	<2.33E-01	0.00E+00	2.33E-01
		K-40	5.31E-01	2.45E-01	2.14E-01
565312	4/26/2022 - 5/2/2022	I-131	<5.12E-02	0.00E+00	5.12E-02
		Cs-134	<3.92E-02	0.00E+00	3.92E-02
		Cs-137	<4.52E-02	0.00E+00	4.52E-02
		Be-7	<2.46E-01	0.00E+00	2.46E-01
		K-40	5.82E-01	3.57E-01	4.48E-01
565978	5/2/2022 - 5/9/2022	I-131	<2.17E-02	0.00E+00	2.17E-02
		Cs-134	<2.02E-02	0.00E+00	2.02E-02
		Cs-137	<2.29E-02	0.00E+00	2.29E-02
		Be-7	<9.97E-02	0.00E+00	9.97E-02
		K-40	7.22E-01	2.94E-01	2.57E-01
566567	5/9/2022 - 5/16/2022	I-131	<3.01E-02	0.00E+00	3.01E-02
		Cs-134	<2.91E-02	0.00E+00	2.91E-02
		Cs-137	<2.08E-02	0.00E+00	2.08E-02
		Be-7	<1.49E-01	0.00E+00	1.49E-01
		K-40	4.59E-01	2.34E-01	2.29E-01
566957	5/16/2022 - 5/23/2022	I-131	<3.12E-02	0.00E+00	3.12E-02
		Cs-134	<2.36E-02	0.00E+00	2.36E-02
		Cs-137	<2.69E-02	0.00E+00	2.69E-02
		Be-7	<2.33E-01	0.00E+00	2.33E-01
		K-40	7.47E-01	3.01E-01	2.44E-01
567147	5/23/2022 - 5/31/2022	I-131	<3.18E-02	0.00E+00	3.18E-02
		Cs-134	<2.21E-02	0.00E+00	2.21E-02
		Cs-137	<2.29E-02	0.00E+00	2.29E-02
		Be-7	<1.58E-01	0.00E+00	1.58E-01
		K-40	<4.37E-01	0.00E+00	4.37E-01
567585	5/31/2022 - 6/6/2022	I-131	<3.02E-02	0.00E+00	3.02E-02
		Cs-134	<2.70E-02	0.00E+00	2.70E-02
		Cs-137	<3.74E-02	0.00E+00	3.74E-02
		Be-7	<2.18E-01	0.00E+00	2.18E-01
		K-40	8.13E-01	4.04E-01	4.90E-01
567753	6/6/2022 - 6/13/2022	I-131	<2.46E-02	0.00E+00	2.46E-02
		Cs-134	<2.12E-02	0.00E+00	2.12E-02
		Cs-137	<1.41E-02	0.00E+00	1.41E-02
		Be-7	<1.09E-01	0.00E+00	1.09E-01
		K-40	2.73E-01	1.75E-01	1.80E-01
568390	6/13/2022 - 6/20/2022	I-131	<3.06E-02	0.00E+00	3.06E-02
		Cs-134	<2.58E-02	0.00E+00	2.58E-02
		Cs-137	<2.81E-02	0.00E+00	2.81E-02
		Be-7	<1.55E-01	0.00E+00	1.55E-01
		K-40	<6.02E-01	0.00E+00	6.02E-01

HARRIS Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 2 [INDICATOR - NNE @ 1.4 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
568628	6/20/2022 - 6/27/2022	I-131	<2.59E-02	0.00E+00	2.59E-02
		Cs-134	<1.68E-02	0.00E+00	1.68E-02
		Cs-137	<1.68E-02	0.00E+00	1.68E-02
		Be-7	<1.56E-01	0.00E+00	1.56E-01
		K-40	5.33E-01	2.68E-01	2.95E-01
568844	6/27/2022 - 7/5/2022	I-131	<1.92E-02	0.00E+00	1.92E-02
		Cs-134	<1.75E-02	0.00E+00	1.75E-02
		Cs-137	<2.23E-02	0.00E+00	2.23E-02
		Be-7	<1.25E-01	0.00E+00	1.25E-01
		K-40	3.75E-01	2.25E-01	2.78E-01
569088	7/5/2022 - 7/11/2022	I-131	<2.83E-02	0.00E+00	2.83E-02
		Cs-134	<3.07E-02	0.00E+00	3.07E-02
		Cs-137	<2.31E-02	0.00E+00	2.31E-02
		Be-7	<2.06E-01	0.00E+00	2.06E-01
		K-40	5.56E-01	2.87E-01	3.14E-01
570306	7/11/2022 - 7/18/2022	I-131	<3.67E-02	0.00E+00	3.67E-02
		Cs-134	<2.39E-02	0.00E+00	2.39E-02
		Cs-137	<2.04E-02	0.00E+00	2.04E-02
		Be-7	<1.66E-01	0.00E+00	1.66E-01
		K-40	3.90E-01	2.77E-01	3.77E-01
570866	7/18/2022 - 7/25/2022	I-131	<2.77E-02	0.00E+00	2.77E-02
		Cs-134	<2.00E-02	0.00E+00	2.00E-02
		Cs-137	<2.67E-02	0.00E+00	2.67E-02
		Be-7	<1.42E-01	0.00E+00	1.42E-01
		K-40	4.56E-01	2.29E-01	2.03E-01
571115	7/25/2022 - 8/1/2022	I-131	<3.25E-02	0.00E+00	3.25E-02
		Cs-134	<2.07E-02	0.00E+00	2.07E-02
		Cs-137	<2.31E-02	0.00E+00	2.31E-02
		Be-7	<1.87E-01	0.00E+00	1.87E-01
		K-40	3.57E-01	2.38E-01	2.99E-01
571434	8/1/2022 - 8/8/2022	I-131	<2.46E-02	0.00E+00	2.46E-02
		Cs-134	<1.99E-02	0.00E+00	1.99E-02
		Cs-137	<2.09E-02	0.00E+00	2.09E-02
		Be-7	<1.39E-01	0.00E+00	1.39E-01
		K-40	5.31E-01	2.56E-01	2.50E-01
571717	8/8/2022 - 8/15/2022	I-131	<3.14E-02	0.00E+00	3.14E-02
		Cs-134	<1.85E-02	0.00E+00	1.85E-02
		Cs-137	<2.97E-02	0.00E+00	2.97E-02
		Be-7	<1.85E-01	0.00E+00	1.85E-01
		K-40	6.36E-01	2.94E-01	2.85E-01
572726	8/15/2022 - 8/22/2022	I-131	<2.65E-02	0.00E+00	2.65E-02
		Cs-134	<3.04E-02	0.00E+00	3.04E-02
		Cs-137	<2.60E-02	0.00E+00	2.60E-02
		Be-7	<1.51E-01	0.00E+00	1.51E-01
		K-40	6.17E-01	3.55E-01	4.75E-01
573926	8/22/2022 - 8/29/2022	I-131	<3.23E-02	0.00E+00	3.23E-02
		Cs-134	<2.72E-02	0.00E+00	2.72E-02
		Cs-137	<2.74E-02	0.00E+00	2.74E-02
		Be-7	<1.95E-01	0.00E+00	1.95E-01
		K-40	<6.28E-01	0.00E+00	6.28E-01

HARRIS Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 2 [INDICATOR - NNE @ 1.4 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
574545	8/29/2022 - 9/6/2022	I-131	<2.58E-02	0.00E+00	2.58E-02
		Cs-134	<2.10E-02	0.00E+00	2.10E-02
		Cs-137	<1.62E-02	0.00E+00	1.62E-02
		Be-7	<1.66E-01	0.00E+00	1.66E-01
		K-40	3.43E-01	2.29E-01	2.99E-01
575016	9/6/2022 - 9/12/2022	I-131	<2.42E-02	0.00E+00	2.42E-02
		Cs-134	<3.18E-02	0.00E+00	3.18E-02
		Cs-137	<2.89E-02	0.00E+00	2.89E-02
		Be-7	<1.97E-01	0.00E+00	1.97E-01
		K-40	<6.90E-01	0.00E+00	6.90E-01
575704	9/12/2022 - 9/19/2022	I-131	<3.69E-02	0.00E+00	3.69E-02
		Cs-134	<2.06E-02	0.00E+00	2.06E-02
		Cs-137	<2.60E-02	0.00E+00	2.60E-02
		Be-7	<2.08E-01	0.00E+00	2.08E-01
		K-40	<4.97E-01	0.00E+00	4.97E-01
576101	9/19/2022 - 9/26/2022	I-131	<2.57E-02	0.00E+00	2.57E-02
		Cs-134	<2.44E-02	0.00E+00	2.44E-02
		Cs-137	<2.27E-02	0.00E+00	2.27E-02
		Be-7	<1.40E-01	0.00E+00	1.40E-01
		K-40	4.39E-01	2.42E-01	2.65E-01
576272	9/26/2022 - 10/3/2022	I-131	<2.33E-02	0.00E+00	2.33E-02
		Cs-134	<2.00E-02	0.00E+00	2.00E-02
		Cs-137	<1.92E-02	0.00E+00	1.92E-02
		Be-7	<9.99E-02	0.00E+00	9.99E-02
		K-40	<4.70E-01	0.00E+00	4.70E-01
576560	10/3/2022 - 10/10/2022	I-131	<2.99E-02	0.00E+00	2.99E-02
		Cs-134	<2.73E-02	0.00E+00	2.73E-02
		Cs-137	<2.34E-02	0.00E+00	2.34E-02
		Be-7	<2.62E-01	0.00E+00	2.62E-01
		K-40	<5.88E-01	0.00E+00	5.88E-01
577177	10/10/2022 - 10/17/2022	I-131	<3.80E-02	0.00E+00	3.80E-02
		Cs-134	<1.87E-02	0.00E+00	1.87E-02
		Cs-137	<1.86E-02	0.00E+00	1.86E-02
		Be-7	<1.98E-01	0.00E+00	1.98E-01
		K-40	<5.54E-01	0.00E+00	5.54E-01
577775	10/17/2022 - 10/24/2022	I-131	<2.35E-02	0.00E+00	2.35E-02
		Cs-134	<2.47E-02	0.00E+00	2.47E-02
		Cs-137	<1.20E-02	0.00E+00	1.20E-02
		Be-7	<1.97E-01	0.00E+00	1.97E-01
		K-40	<5.47E-01	0.00E+00	5.47E-01
578128	10/24/2022 - 10/31/2022	I-131	<3.28E-02	0.00E+00	3.28E-02
		Cs-134	<2.11E-02	0.00E+00	2.11E-02
		Cs-137	<2.66E-02	0.00E+00	2.66E-02
		Be-7	<2.29E-01	0.00E+00	2.29E-01
		K-40	3.59E-01	2.12E-01	2.08E-01
578840	10/31/2022 - 11/7/2022	I-131	<3.81E-02	0.00E+00	3.81E-02
		Cs-134	<2.93E-02	0.00E+00	2.93E-02
		Cs-137	<2.33E-02	0.00E+00	2.33E-02
		Be-7	<2.03E-01	0.00E+00	2.03E-01
		K-40	3.61E-01	2.51E-01	3.21E-01

HARRIS Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 2 [INDICATOR - NNE @ 1.4 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
579039	11/7/2022 - 11/14/2022	I-131	<3.56E-02	0.00E+00	3.56E-02
		Cs-134	<1.87E-02	0.00E+00	1.87E-02
		Cs-137	<2.74E-02	0.00E+00	2.74E-02
		Be-7	<2.26E-01	0.00E+00	2.26E-01
		K-40	<7.17E-01	0.00E+00	7.17E-01
579799	11/14/2022 - 11/21/2022	I-131	<2.52E-02	0.00E+00	2.52E-02
		Cs-134	<3.02E-02	0.00E+00	3.02E-02
		Cs-137	<2.73E-02	0.00E+00	2.73E-02
		Be-7	<2.03E-01	0.00E+00	2.03E-01
		K-40	<5.68E-01	0.00E+00	5.68E-01
580612	11/21/2022 - 11/28/2022	I-131	<3.74E-02	0.00E+00	3.74E-02
		Cs-134	<2.10E-02	0.00E+00	2.10E-02
		Cs-137	<2.90E-02	0.00E+00	2.90E-02
		Be-7	<1.93E-01	0.00E+00	1.93E-01
		K-40	<5.49E-01	0.00E+00	5.49E-01
580825	11/28/2022 - 12/5/2022	I-131	<1.92E-02	0.00E+00	1.92E-02
		Cs-134	<3.59E-02	0.00E+00	3.59E-02
		Cs-137	<1.77E-02	0.00E+00	1.77E-02
		Be-7	<1.56E-01	0.00E+00	1.56E-01
		K-40	5.24E-01	2.90E-01	3.52E-01
581144	12/5/2022 - 12/12/2022	I-131	<3.48E-02	0.00E+00	3.48E-02
		Cs-134	<2.44E-02	0.00E+00	2.44E-02
		Cs-137	<2.09E-02	0.00E+00	2.09E-02
		Be-7	<1.90E-01	0.00E+00	1.90E-01
		K-40	<4.88E-01	0.00E+00	4.88E-01
581712	12/12/2022 - 12/19/2022	I-131	<2.69E-02	0.00E+00	2.69E-02
		Cs-134	<3.16E-02	0.00E+00	3.16E-02
		Cs-137	<1.45E-02	0.00E+00	1.45E-02
		Be-7	<1.25E-01	0.00E+00	1.25E-01
		K-40	3.64E-01	2.10E-01	2.21E-01
582247	12/19/2022 - 12/27/2022	I-131	<1.82E-02	0.00E+00	1.82E-02
		Cs-134	<2.28E-02	0.00E+00	2.28E-02
		Cs-137	<2.43E-02	0.00E+00	2.43E-02
		Be-7	<1.14E-01	0.00E+00	1.14E-01
		K-40	5.09E-01	2.27E-01	1.99E-01
582435	12/27/2022 - 1/3/2023	I-131	<2.33E-02	0.00E+00	2.33E-02
		Cs-134	<2.24E-02	0.00E+00	2.24E-02
		Cs-137	<2.27E-02	0.00E+00	2.27E-02
		Be-7	<1.52E-01	0.00E+00	1.52E-01
		K-40	4.60E-01	2.14E-01	6.56E-02

Sample Point 4 [INDICATOR - NNE @ 3.1 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
558920	1/4/2022 - 1/10/2022	I-131	<3.56E-02	0.00E+00	3.56E-02
		Cs-134	<2.68E-02	0.00E+00	2.68E-02
		Cs-137	<2.72E-02	0.00E+00	2.72E-02
		Be-7	<2.13E-01	0.00E+00	2.13E-01
		K-40	7.19E-01	2.93E-01	7.79E-02
559129	1/10/2022 - 1/18/2022	I-131	<2.17E-02	0.00E+00	2.17E-02
		Cs-134	<1.16E-02	0.00E+00	1.16E-02
		Cs-137	<1.63E-02	0.00E+00	1.63E-02

HARRIS Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 4 [INDICATOR - NNE @ 3.1 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
559129	1/10/2022 - 1/18/2022	Be-7	<1.37E-01	0.00E+00	1.37E-01
		K-40	<4.24E-01	0.00E+00	4.24E-01
559387	1/18/2022 - 1/24/2022	I-131	<3.70E-02	0.00E+00	3.70E-02
		Cs-134	<2.84E-02	0.00E+00	2.84E-02
		Cs-137	<2.45E-02	0.00E+00	2.45E-02
		Be-7	<1.97E-01	0.00E+00	1.97E-01
		K-40	4.00E-01	2.45E-01	2.72E-01
560060	1/24/2022 - 1/31/2022	I-131	<2.65E-02	0.00E+00	2.65E-02
		Cs-134	<1.37E-02	0.00E+00	1.37E-02
		Cs-137	<2.26E-02	0.00E+00	2.26E-02
		Be-7	<1.50E-01	0.00E+00	1.50E-01
		K-40	<5.17E-01	0.00E+00	5.17E-01
560277	1/31/2022 - 2/7/2022	I-131	<2.60E-02	0.00E+00	2.60E-02
		Cs-134	<2.50E-02	0.00E+00	2.50E-02
		Cs-137	<2.16E-02	0.00E+00	2.16E-02
		Be-7	<1.64E-01	0.00E+00	1.64E-01
		K-40	3.60E-01	2.54E-01	3.43E-01
560522	2/7/2022 - 2/14/2022	I-131	<2.36E-02	0.00E+00	2.36E-02
		Cs-134	<2.88E-02	0.00E+00	2.88E-02
		Cs-137	<3.00E-02	0.00E+00	3.00E-02
		Be-7	<1.32E-01	0.00E+00	1.32E-01
		K-40	2.86E-01	1.93E-01	2.18E-01
560826	2/14/2022 - 2/21/2022	I-131	<2.81E-02	0.00E+00	2.81E-02
		Cs-134	<2.63E-02	0.00E+00	2.63E-02
		Cs-137	<1.73E-02	0.00E+00	1.73E-02
		Be-7	<1.79E-01	0.00E+00	1.79E-01
		K-40	5.76E-01	2.39E-01	6.50E-02
561163	2/21/2022 - 2/28/2022	I-131	<2.54E-02	0.00E+00	2.54E-02
		Cs-134	<2.97E-02	0.00E+00	2.97E-02
		Cs-137	<2.24E-02	0.00E+00	2.24E-02
		Be-7	<1.80E-01	0.00E+00	1.80E-01
		K-40	<6.25E-01	0.00E+00	6.25E-01
561662	2/28/2022 - 3/7/2022	I-131	<1.89E-02	0.00E+00	1.89E-02
		Cs-134	<3.20E-02	0.00E+00	3.20E-02
		Cs-137	<2.17E-02	0.00E+00	2.17E-02
		Be-7	<1.83E-01	0.00E+00	1.83E-01
		K-40	3.98E-01	2.02E-01	6.74E-02
562264	3/7/2022 - 3/14/2022	I-131	<2.65E-02	0.00E+00	2.65E-02
		Cs-134	<2.86E-02	0.00E+00	2.86E-02
		Cs-137	<2.34E-02	0.00E+00	2.34E-02
		Be-7	<1.35E-01	0.00E+00	1.35E-01
		K-40	<5.15E-01	0.00E+00	5.15E-01
562860	3/14/2022 - 3/21/2022	I-131	<1.76E-02	0.00E+00	1.76E-02
		Cs-134	<2.63E-02	0.00E+00	2.63E-02
		Cs-137	<2.26E-02	0.00E+00	2.26E-02
		Be-7	<1.75E-01	0.00E+00	1.75E-01
		K-40	4.79E-01	2.40E-01	2.45E-01
563457	3/21/2022 - 3/28/2022	Nuclide	Activity	2 Sigma Error	MDA
		I-131	<2.39E-02	0.00E+00	2.39E-02

HARRIS Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 4 [INDICATOR - NNE @ 3.1 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
563457	3/21/2022 - 3/28/2022	Cs-134	<1.79E-02	0.00E+00	1.79E-02
		Cs-137	<2.64E-02	0.00E+00	2.64E-02
		Be-7	<1.34E-01	0.00E+00	1.34E-01
		K-40	6.05E-01	2.52E-01	6.83E-02
563790	3/28/2022 - 4/4/2022	I-131	<2.37E-02	0.00E+00	2.37E-02
		Cs-134	<1.95E-02	0.00E+00	1.95E-02
		Cs-137	<1.87E-02	0.00E+00	1.87E-02
		Be-7	<1.46E-01	0.00E+00	1.46E-01
		K-40	<4.88E-01	0.00E+00	4.88E-01
564026	4/4/2022 - 4/11/2022	I-131	<2.81E-02	0.00E+00	2.81E-02
		Cs-134	<2.66E-02	0.00E+00	2.66E-02
		Cs-137	<2.41E-02	0.00E+00	2.41E-02
		Be-7	<1.60E-01	0.00E+00	1.60E-01
		K-40	<6.73E-01	0.00E+00	6.73E-01
564555	4/11/2022 - 4/18/2022	I-131	<2.20E-02	0.00E+00	2.20E-02
		Cs-134	<2.21E-02	0.00E+00	2.21E-02
		Cs-137	<2.64E-02	0.00E+00	2.64E-02
		Be-7	<1.40E-01	0.00E+00	1.40E-01
		K-40	5.38E-01	2.53E-01	2.31E-01
564823	4/18/2022 - 4/25/2022	I-131	<2.23E-02	0.00E+00	2.23E-02
		Cs-134	<2.51E-02	0.00E+00	2.51E-02
		Cs-137	<1.22E-02	0.00E+00	1.22E-02
		Be-7	<1.55E-01	0.00E+00	1.55E-01
		K-40	7.01E-01	2.83E-01	2.18E-01
565314	4/25/2022 - 5/2/2022	I-131	<2.67E-02	0.00E+00	2.67E-02
		Cs-134	<3.08E-02	0.00E+00	3.08E-02
		Cs-137	<2.34E-02	0.00E+00	2.34E-02
		Be-7	<1.72E-01	0.00E+00	1.72E-01
		K-40	4.63E-01	2.64E-01	3.06E-01
565980	5/2/2022 - 5/9/2022	I-131	<3.02E-02	0.00E+00	3.02E-02
		Cs-134	<1.75E-02	0.00E+00	1.75E-02
		Cs-137	<2.29E-02	0.00E+00	2.29E-02
		Be-7	<1.88E-01	0.00E+00	1.88E-01
		K-40	<4.38E-01	0.00E+00	4.38E-01
566569	5/9/2022 - 5/16/2022	I-131	<2.31E-02	0.00E+00	2.31E-02
		Cs-134	<3.27E-02	0.00E+00	3.27E-02
		Cs-137	<1.87E-02	0.00E+00	1.87E-02
		Be-7	<1.57E-01	0.00E+00	1.57E-01
		K-40	2.90E-01	2.26E-01	3.14E-01
566959	5/16/2022 - 5/23/2022	I-131	<2.82E-02	0.00E+00	2.82E-02
		Cs-134	<2.72E-02	0.00E+00	2.72E-02
		Cs-137	<2.18E-02	0.00E+00	2.18E-02
		Be-7	<1.92E-01	0.00E+00	1.92E-01
		K-40	<5.68E-01	0.00E+00	5.68E-01
567149	5/23/2022 - 5/31/2022	I-131	<2.60E-02	0.00E+00	2.60E-02
		Cs-134	<2.09E-02	0.00E+00	2.09E-02
		Cs-137	<1.80E-02	0.00E+00	1.80E-02
		Be-7	<1.30E-01	0.00E+00	1.30E-01
		K-40	<4.16E-01	0.00E+00	4.16E-01

HARRIS Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 4 [INDICATOR - NNE @ 3.1 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
567587	5/31/2022 - 6/6/2022	I-131	<3.13E-02	0.00E+00	3.13E-02
		Cs-134	<3.37E-02	0.00E+00	3.37E-02
		Cs-137	<2.87E-02	0.00E+00	2.87E-02
		Be-7	<1.98E-01	0.00E+00	1.98E-01
		K-40	<8.01E-01	0.00E+00	8.01E-01
567755	6/6/2022 - 6/13/2022	I-131	<3.12E-02	0.00E+00	3.12E-02
		Cs-134	<2.65E-02	0.00E+00	2.65E-02
		Cs-137	<2.91E-02	0.00E+00	2.91E-02
		Be-7	<1.67E-01	0.00E+00	1.67E-01
		K-40	4.47E-01	2.50E-01	2.80E-01
568392	6/13/2022 - 6/20/2022	I-131	<2.84E-02	0.00E+00	2.84E-02
		Cs-134	<2.62E-02	0.00E+00	2.62E-02
		Cs-137	<1.73E-02	0.00E+00	1.73E-02
		Be-7	<1.29E-01	0.00E+00	1.29E-01
		K-40	<5.15E-01	0.00E+00	5.15E-01
568630	6/20/2022 - 6/27/2022	I-131	<2.41E-02	0.00E+00	2.41E-02
		Cs-134	<2.02E-02	0.00E+00	2.02E-02
		Cs-137	<1.95E-02	0.00E+00	1.95E-02
		Be-7	<1.94E-01	0.00E+00	1.94E-01
		K-40	3.53E-01	2.06E-01	2.10E-01
568846	6/27/2022 - 7/5/2022	I-131	<2.36E-02	0.00E+00	2.36E-02
		Cs-134	<2.52E-02	0.00E+00	2.52E-02
		Cs-137	<1.64E-02	0.00E+00	1.64E-02
		Be-7	<1.21E-01	0.00E+00	1.21E-01
		K-40	4.94E-01	2.05E-01	5.57E-02
569090	7/5/2022 - 7/11/2022	I-131	<3.50E-02	0.00E+00	3.50E-02
		Cs-134	<3.26E-02	0.00E+00	3.26E-02
		Cs-137	<2.78E-02	0.00E+00	2.78E-02
		Be-7	<2.03E-01	0.00E+00	2.03E-01
		K-40	9.22E-01	3.34E-01	7.81E-02
570308	7/11/2022 - 7/18/2022	I-131	<2.32E-02	0.00E+00	2.32E-02
		Cs-134	<2.92E-02	0.00E+00	2.92E-02
		Cs-137	<2.14E-02	0.00E+00	2.14E-02
		Be-7	<2.04E-01	0.00E+00	2.04E-01
		K-40	4.77E-01	2.28E-01	7.18E-02
570868	7/18/2022 - 7/25/2022	I-131	<2.10E-02	0.00E+00	2.10E-02
		Cs-134	<3.03E-02	0.00E+00	3.03E-02
		Cs-137	<1.53E-02	0.00E+00	1.53E-02
		Be-7	<1.74E-01	0.00E+00	1.74E-01
		K-40	5.50E-01	2.64E-01	2.57E-01
571117	7/25/2022 - 8/1/2022	I-131	<2.40E-02	0.00E+00	2.40E-02
		Cs-134	<2.55E-02	0.00E+00	2.55E-02
		Cs-137	<1.45E-02	0.00E+00	1.45E-02
		Be-7	<1.25E-01	0.00E+00	1.25E-01
		K-40	3.89E-01	2.13E-01	2.09E-01
571436	8/1/2022 - 8/8/2022	I-131	<3.21E-02	0.00E+00	3.21E-02
		Cs-134	<2.24E-02	0.00E+00	2.24E-02
		Cs-137	<1.91E-02	0.00E+00	1.91E-02
		Be-7	<1.82E-01	0.00E+00	1.82E-01
		K-40	5.48E-01	2.92E-01	3.48E-01

HARRIS Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 4 [INDICATOR - NNE @ 3.1 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
571719	8/8/2022 - 8/15/2022	I-131	<2.80E-02	0.00E+00	2.80E-02
		Cs-134	<2.02E-02	0.00E+00	2.02E-02
		Cs-137	<2.12E-02	0.00E+00	2.12E-02
		Be-7	<1.79E-01	0.00E+00	1.79E-01
		K-40	<4.91E-01	0.00E+00	4.91E-01
572728	8/15/2022 - 8/22/2022	I-131	<1.97E-02	0.00E+00	1.97E-02
		Cs-134	<2.37E-02	0.00E+00	2.37E-02
		Cs-137	<1.67E-02	0.00E+00	1.67E-02
		Be-7	<1.56E-01	0.00E+00	1.56E-01
		K-40	<5.40E-01	0.00E+00	5.40E-01
573928	8/22/2022 - 8/29/2022	I-131	<2.11E-02	0.00E+00	2.11E-02
		Cs-134	<2.37E-02	0.00E+00	2.37E-02
		Cs-137	<2.04E-02	0.00E+00	2.04E-02
		Be-7	<1.47E-01	0.00E+00	1.47E-01
		K-40	5.79E-01	2.80E-01	3.06E-01
574547	8/29/2022 - 9/6/2022	I-131	<1.74E-02	0.00E+00	1.74E-02
		Cs-134	<2.15E-02	0.00E+00	2.15E-02
		Cs-137	<1.53E-02	0.00E+00	1.53E-02
		Be-7	<1.66E-01	0.00E+00	1.66E-01
		K-40	4.88E-01	2.07E-01	5.75E-02
575018	9/6/2022 - 9/12/2022	I-131	<2.40E-02	0.00E+00	2.40E-02
		Cs-134	<2.56E-02	0.00E+00	2.56E-02
		Cs-137	<1.70E-02	0.00E+00	1.70E-02
		Be-7	<1.70E-01	0.00E+00	1.70E-01
		K-40	6.23E-01	2.89E-01	2.57E-01
575706	9/12/2022 - 9/19/2022	I-131	<2.50E-02	0.00E+00	2.50E-02
		Cs-134	<2.55E-02	0.00E+00	2.55E-02
		Cs-137	<2.05E-02	0.00E+00	2.05E-02
		Be-7	<1.47E-01	0.00E+00	1.47E-01
		K-40	6.12E-01	2.69E-01	2.50E-01
576103	9/19/2022 - 9/26/2022	I-131	<2.17E-02	0.00E+00	2.17E-02
		Cs-134	<1.75E-02	0.00E+00	1.75E-02
		Cs-137	<1.20E-02	0.00E+00	1.20E-02
		Be-7	<1.40E-01	0.00E+00	1.40E-01
		K-40	4.82E-01	2.19E-01	6.52E-02
576274	9/26/2022 - 10/3/2022	I-131	<2.24E-02	0.00E+00	2.24E-02
		Cs-134	<2.12E-02	0.00E+00	2.12E-02
		Cs-137	<1.82E-02	0.00E+00	1.82E-02
		Be-7	<1.88E-01	0.00E+00	1.88E-01
		K-40	<4.00E-01	0.00E+00	4.00E-01
576562	10/3/2022 - 10/10/2022	I-131	<2.50E-02	0.00E+00	2.50E-02
		Cs-134	<2.33E-02	0.00E+00	2.33E-02
		Cs-137	<2.01E-02	0.00E+00	2.01E-02
		Be-7	<1.45E-01	0.00E+00	1.45E-01
		K-40	<5.98E-01	0.00E+00	5.98E-01
577179	10/10/2022 - 10/17/2022	I-131	<2.83E-02	0.00E+00	2.83E-02
		Cs-134	<3.03E-02	0.00E+00	3.03E-02
		Cs-137	<1.46E-02	0.00E+00	1.46E-02
		Be-7	<1.38E-01	0.00E+00	1.38E-01
		K-40	<5.30E-01	0.00E+00	5.30E-01

HARRIS Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 4 [INDICATOR - NNE @ 3.1 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
577777	10/17/2022 - 10/24/2022	I-131	<2.50E-02	0.00E+00	2.50E-02
		Cs-134	<2.50E-02	0.00E+00	2.50E-02
		Cs-137	<1.97E-02	0.00E+00	1.97E-02
		Be-7	<1.18E-01	0.00E+00	1.18E-01
		K-40	<5.14E-01	0.00E+00	5.14E-01
578130	10/24/2022 - 10/31/2022	I-131	<2.03E-02	0.00E+00	2.03E-02
		Cs-134	<2.80E-02	0.00E+00	2.80E-02
		Cs-137	<1.49E-02	0.00E+00	1.49E-02
		Be-7	<1.15E-01	0.00E+00	1.15E-01
		K-40	<5.43E-01	0.00E+00	5.43E-01
578842	10/31/2022 - 11/7/2022	I-131	<3.04E-02	0.00E+00	3.04E-02
		Cs-134	<2.64E-02	0.00E+00	2.64E-02
		Cs-137	<1.74E-02	0.00E+00	1.74E-02
		Be-7	<1.41E-01	0.00E+00	1.41E-01
		K-40	6.06E-01	2.47E-01	6.57E-02
579041	11/7/2022 - 11/14/2022	I-131	<2.15E-02	0.00E+00	2.15E-02
		Cs-134	<2.38E-02	0.00E+00	2.38E-02
		Cs-137	<1.88E-02	0.00E+00	1.88E-02
		Be-7	<1.73E-01	0.00E+00	1.73E-01
		K-40	<4.75E-01	0.00E+00	4.75E-01
579801	11/14/2022 - 11/21/2022	I-131	<2.45E-02	0.00E+00	2.45E-02
		Cs-134	<1.99E-02	0.00E+00	1.99E-02
		Cs-137	<1.92E-02	0.00E+00	1.92E-02
		Be-7	<1.93E-01	0.00E+00	1.93E-01
		K-40	3.71E-01	2.19E-01	2.41E-01
580614	11/21/2022 - 11/28/2022	I-131	<2.36E-02	0.00E+00	2.36E-02
		Cs-134	<2.61E-02	0.00E+00	2.61E-02
		Cs-137	<2.40E-02	0.00E+00	2.40E-02
		Be-7	<1.79E-01	0.00E+00	1.79E-01
		K-40	4.94E-01	3.11E-01	4.25E-01
580827	11/28/2022 - 12/5/2022	I-131	<1.93E-02	0.00E+00	1.93E-02
		Cs-134	<2.11E-02	0.00E+00	2.11E-02
		Cs-137	<2.03E-02	0.00E+00	2.03E-02
		Be-7	<1.78E-01	0.00E+00	1.78E-01
		K-40	<5.29E-01	0.00E+00	5.29E-01
581146	12/5/2022 - 12/12/2022	I-131	<3.29E-02	0.00E+00	3.29E-02
		Cs-134	<2.64E-02	0.00E+00	2.64E-02
		Cs-137	<2.43E-02	0.00E+00	2.43E-02
		Be-7	<1.73E-01	0.00E+00	1.73E-01
		K-40	3.02E-01	2.18E-01	2.82E-01
581714	12/12/2022 - 12/19/2022	I-131	<3.16E-02	0.00E+00	3.17E-02
		Cs-134	<2.30E-02	0.00E+00	2.30E-02
		Cs-137	<1.77E-02	0.00E+00	1.77E-02
		Be-7	<1.72E-01	0.00E+00	1.72E-01
		K-40	5.55E-01	2.72E-01	2.82E-01
582249	12/19/2022 - 12/27/2022	I-131	<2.74E-02	0.00E+00	2.74E-02
		Cs-134	<2.08E-02	0.00E+00	2.08E-02
		Cs-137	<9.27E-03	0.00E+00	9.27E-03
		Be-7	<1.01E-01	0.00E+00	1.01E-01
		K-40	4.96E-01	2.33E-01	2.33E-01

HARRIS Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 4 [INDICATOR - NNE @ 3.1 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
582437	12/27/2022 - 1/3/2023	I-131	<2.56E-02	0.00E+00	2.56E-02
		Cs-134	<1.83E-02	0.00E+00	1.83E-02
		Cs-137	<2.22E-02	0.00E+00	2.22E-02
		Be-7	<1.35E-01	0.00E+00	1.35E-01
		K-40	<4.98E-01	0.00E+00	4.98E-01

Sample Point 5 [CONTROL - WNW @ 12 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
558921	1/4/2022 - 1/10/2022	I-131	<1.88E-02	0.00E+00	1.88E-02
		Cs-134	<2.40E-02	0.00E+00	2.40E-02
		Cs-137	<2.89E-02	0.00E+00	2.89E-02
		Be-7	<1.79E-01	0.00E+00	1.79E-01
		K-40	4.63E-01	2.35E-01	7.85E-02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
559130	1/10/2022 - 1/18/2022	I-131	<2.59E-02	0.00E+00	2.59E-02
		Cs-134	<2.19E-02	0.00E+00	2.19E-02
		Cs-137	<2.16E-02	0.00E+00	2.16E-02
		Be-7	<1.35E-01	0.00E+00	1.35E-01
		K-40	<3.93E-01	0.00E+00	3.93E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
559390	1/18/2022 - 1/24/2022	I-131	<2.65E-02	0.00E+00	2.65E-02
		Cs-134	<2.90E-02	0.00E+00	2.90E-02
		Cs-137	<2.50E-02	0.00E+00	2.50E-02
		Be-7	<2.00E-01	0.00E+00	2.00E-01
		K-40	<5.60E-01	0.00E+00	5.60E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
560061	1/24/2022 - 1/31/2022	I-131	<2.61E-02	0.00E+00	2.61E-02
		Cs-134	<2.73E-02	0.00E+00	2.73E-02
		Cs-137	<2.00E-02	0.00E+00	2.00E-02
		Be-7	<8.13E-02	0.00E+00	8.13E-02
		K-40	3.22E-01	2.00E-01	2.07E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
560278	1/31/2022 - 2/7/2022	I-131	<2.22E-02	0.00E+00	2.22E-02
		Cs-134	<1.68E-02	0.00E+00	1.68E-02
		Cs-137	<2.04E-02	0.00E+00	2.04E-02
		Be-7	<1.46E-01	0.00E+00	1.46E-01
		K-40	<5.53E-01	0.00E+00	5.53E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
560523	2/7/2022 - 2/14/2022	I-131	<1.67E-02	0.00E+00	1.67E-02
		Cs-134	<2.88E-02	0.00E+00	2.88E-02
		Cs-137	<2.16E-02	0.00E+00	2.16E-02
		Be-7	<1.18E-01	0.00E+00	1.18E-01
		K-40	<4.85E-01	0.00E+00	4.85E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
560827	2/14/2022 - 2/21/2022	I-131	<1.95E-02	0.00E+00	1.95E-02
		Cs-134	<1.31E-02	0.00E+00	1.31E-02
		Cs-137	<2.30E-02	0.00E+00	2.30E-02
		Be-7	<1.53E-01	0.00E+00	1.53E-01
		K-40	<5.68E-01	0.00E+00	5.68E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
561164	2/21/2022 - 2/28/2022	I-131	<3.10E-02	0.00E+00	3.10E-02
		Cs-134	<2.76E-02	0.00E+00	2.76E-02
		Cs-137	<1.90E-02	0.00E+00	1.90E-02
		Be-7	<1.58E-01	0.00E+00	1.58E-01
		K-40	4.75E-01	2.30E-01	1.93E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
561663	2/28/2022 - 3/7/2022	I-131	<2.10E-02	0.00E+00	2.10E-02
		Cs-134	<1.81E-02	0.00E+00	1.81E-02
		Cs-137	<1.81E-02	0.00E+00	1.81E-02

HARRIS Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 5 [CONTROL - WNW @ 12 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
561663	2/28/2022 - 3/7/2022	Be-7	<8.25E-02	0.00E+00	8.25E-02
		K-40	3.00E-01	2.37E-01	3.31E-01
562265	3/7/2022 - 3/14/2022	I-131	<2.77E-02	0.00E+00	2.77E-02
		Cs-134	<1.78E-02	0.00E+00	1.78E-02
		Cs-137	<2.87E-02	0.00E+00	2.87E-02
		Be-7	<1.63E-01	0.00E+00	1.63E-01
		K-40	3.98E-01	2.01E-01	6.73E-02
562861	3/14/2022 - 3/21/2022	I-131	<2.92E-02	0.00E+00	2.92E-02
		Cs-134	<1.74E-02	0.00E+00	1.74E-02
		Cs-137	<2.57E-02	0.00E+00	2.57E-02
		Be-7	<1.62E-01	0.00E+00	1.62E-01
		K-40	<6.33E-01	0.00E+00	6.33E-01
563458	3/21/2022 - 3/28/2022	I-131	<2.51E-02	0.00E+00	2.51E-02
		Cs-134	<2.93E-02	0.00E+00	2.93E-02
		Cs-137	<2.25E-02	0.00E+00	2.25E-02
		Be-7	<1.14E-01	0.00E+00	1.14E-01
		K-40	5.63E-01	2.57E-01	2.30E-01
563791	3/28/2022 - 4/4/2022	I-131	<2.19E-02	0.00E+00	2.19E-02
		Cs-134	<2.06E-02	0.00E+00	2.06E-02
		Cs-137	<2.16E-02	0.00E+00	2.16E-02
		Be-7	<8.05E-02	0.00E+00	8.05E-02
		K-40	5.13E-01	2.74E-01	3.14E-01
564027	4/4/2022 - 4/11/2022	I-131	<3.01E-02	0.00E+00	3.01E-02
		Cs-134	<2.03E-02	0.00E+00	2.03E-02
		Cs-137	<2.55E-02	0.00E+00	2.55E-02
		Be-7	<1.50E-01	0.00E+00	1.50E-01
		K-40	<6.26E-01	0.00E+00	6.26E-01
564556	4/11/2022 - 4/18/2022	I-131	<2.64E-02	0.00E+00	2.64E-02
		Cs-134	<2.19E-02	0.00E+00	2.19E-02
		Cs-137	<1.46E-02	0.00E+00	1.46E-02
		Be-7	<1.26E-01	0.00E+00	1.26E-01
		K-40	5.85E-01	2.54E-01	2.02E-01
564824	4/18/2022 - 4/25/2022	I-131	<2.25E-02	0.00E+00	2.25E-02
		Cs-134	<2.31E-02	0.00E+00	2.31E-02
		Cs-137	<2.17E-02	0.00E+00	2.17E-02
		Be-7	<1.66E-01	0.00E+00	1.66E-01
		K-40	7.50E-01	2.80E-01	6.77E-02
565315	4/25/2022 - 5/2/2022	I-131	<2.83E-02	0.00E+00	2.83E-02
		Cs-134	<2.03E-02	0.00E+00	2.03E-02
		Cs-137	<2.30E-02	0.00E+00	2.30E-02
		Be-7	<1.31E-01	0.00E+00	1.31E-01
		K-40	4.40E-01	2.10E-01	6.62E-02
565981	5/2/2022 - 5/9/2022	I-131	<3.07E-02	0.00E+00	3.07E-02
		Cs-134	<2.36E-02	0.00E+00	2.36E-02
		Cs-137	<2.39E-02	0.00E+00	2.39E-02
		Be-7	<1.48E-01	0.00E+00	1.48E-01
		K-40	<4.24E-01	0.00E+00	4.24E-01
566570	5/9/2022 - 5/16/2022	Nuclide	Activity	2 Sigma Error	MDA
		I-131	<2.50E-02	0.00E+00	2.50E-02

HARRIS Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 5 [CONTROL - WNW @ 12 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
566570	5/9/2022 - 5/16/2022	Cs-134	<1.66E-02	0.00E+00	1.66E-02
		Cs-137	<1.13E-02	0.00E+00	1.13E-02
		Be-7	<1.63E-01	0.00E+00	1.63E-01
		K-40	<4.68E-01	0.00E+00	4.68E-01
566960	5/16/2022 - 5/23/2022	I-131	<2.36E-02	0.00E+00	2.36E-02
		Cs-134	<1.79E-02	0.00E+00	1.79E-02
		Cs-137	<2.50E-02	0.00E+00	2.50E-02
		Be-7	<1.84E-01	0.00E+00	1.84E-01
		K-40	<5.34E-01	0.00E+00	5.34E-01
567150	5/23/2022 - 5/31/2022	I-131	<2.12E-02	0.00E+00	2.12E-02
		Cs-134	<2.13E-02	0.00E+00	2.13E-02
		Cs-137	<1.98E-02	0.00E+00	1.98E-02
		Be-7	<1.14E-01	0.00E+00	1.14E-01
		K-40	2.84E-01	2.10E-01	2.87E-01
567588	5/31/2022 - 6/6/2022	I-131	<3.72E-02	0.00E+00	3.72E-02
		Cs-134	<3.73E-02	0.00E+00	3.73E-02
		Cs-137	<2.87E-02	0.00E+00	2.87E-02
		Be-7	<1.49E-01	0.00E+00	1.49E-01
		K-40	<6.83E-01	0.00E+00	6.83E-01
567756	6/6/2022 - 6/13/2022	I-131	<2.74E-02	0.00E+00	2.74E-02
		Cs-134	<2.02E-02	0.00E+00	2.02E-02
		Cs-137	<2.57E-02	0.00E+00	2.57E-02
		Be-7	<7.97E-02	0.00E+00	7.97E-02
		K-40	<5.32E-01	0.00E+00	5.32E-01
568393	6/13/2022 - 6/20/2022	I-131	<3.09E-02	0.00E+00	3.09E-02
		Cs-134	<2.25E-02	0.00E+00	2.25E-02
		Cs-137	<2.29E-02	0.00E+00	2.29E-02
		Be-7	<2.12E-01	0.00E+00	2.12E-01
		K-40	4.05E-01	2.24E-01	2.28E-01
568631	6/20/2022 - 6/27/2022	I-131	<2.23E-02	0.00E+00	2.23E-02
		Cs-134	<1.47E-02	0.00E+00	1.47E-02
		Cs-137	<2.59E-02	0.00E+00	2.59E-02
		Be-7	<1.48E-01	0.00E+00	1.48E-01
		K-40	<5.00E-01	0.00E+00	5.00E-01
568847	6/27/2022 - 7/5/2022	I-131	<2.72E-02	0.00E+00	2.72E-02
		Cs-134	<2.32E-02	0.00E+00	2.32E-02
		Cs-137	<1.86E-02	0.00E+00	1.86E-02
		Be-7	<1.43E-01	0.00E+00	1.43E-01
		K-40	4.74E-01	2.24E-01	2.10E-01
569091	7/5/2022 - 7/11/2022	I-131	<3.43E-02	0.00E+00	3.43E-02
		Cs-134	<3.13E-02	0.00E+00	3.13E-02
		Cs-137	<2.04E-02	0.00E+00	2.04E-02
		Be-7	<1.63E-01	0.00E+00	1.63E-01
		K-40	9.65E-01	3.80E-01	3.40E-01
570309	7/11/2022 - 7/18/2022	I-131	<2.31E-02	0.00E+00	2.31E-02
		Cs-134	<1.40E-02	0.00E+00	1.40E-02
		Cs-137	<1.98E-02	0.00E+00	1.98E-02
		Be-7	<1.73E-01	0.00E+00	1.73E-01
		K-40	<5.07E-01	0.00E+00	5.07E-01

HARRIS Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 5 [CONTROL - WNW @ 12 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
570869	7/18/2022 - 7/25/2022	I-131	<1.96E-02	0.00E+00	1.96E-02
		Cs-134	<1.86E-02	0.00E+00	1.86E-02
		Cs-137	<2.26E-02	0.00E+00	2.26E-02
		Be-7	<1.70E-01	0.00E+00	1.70E-01
		K-40	4.36E-01	2.14E-01	6.95E-02
571118	7/25/2022 - 8/1/2022	I-131	<2.03E-02	0.00E+00	2.03E-02
		Cs-134	<2.61E-02	0.00E+00	2.61E-02
		Cs-137	<2.54E-02	0.00E+00	2.54E-02
		Be-7	<1.41E-01	0.00E+00	1.41E-01
		K-40	<5.31E-01	0.00E+00	5.31E-01
571437	8/1/2022 - 8/8/2022	I-131	<2.95E-02	0.00E+00	2.95E-02
		Cs-134	<2.00E-02	0.00E+00	2.00E-02
		Cs-137	<1.73E-02	0.00E+00	1.73E-02
		Be-7	<1.41E-01	0.00E+00	1.41E-01
		K-40	7.13E-01	3.44E-01	4.21E-01
571720	8/8/2022 - 8/15/2022	I-131	<2.97E-02	0.00E+00	2.97E-02
		Cs-134	<1.80E-02	0.00E+00	1.80E-02
		Cs-137	<1.80E-02	0.00E+00	1.80E-02
		Be-7	<1.33E-01	0.00E+00	1.33E-01
		K-40	4.77E-01	2.36E-01	1.97E-01
572729	8/15/2022 - 8/22/2022	I-131	<2.74E-02	0.00E+00	2.74E-02
		Cs-134	<2.06E-02	0.00E+00	2.06E-02
		Cs-137	<2.33E-02	0.00E+00	2.33E-02
		Be-7	<1.44E-01	0.00E+00	1.44E-01
		K-40	<5.45E-01	0.00E+00	5.45E-01
573929	8/22/2022 - 8/29/2022	I-131	<1.87E-02	0.00E+00	1.87E-02
		Cs-134	<1.78E-02	0.00E+00	1.78E-02
		Cs-137	<1.53E-02	0.00E+00	1.53E-02
		Be-7	<1.91E-01	0.00E+00	1.91E-01
		K-40	6.43E-01	2.98E-01	3.11E-01
574548	8/29/2022 - 9/6/2022	I-131	<1.92E-02	0.00E+00	1.92E-02
		Cs-134	<1.45E-02	0.00E+00	1.45E-02
		Cs-137	<3.63E-03	0.00E+00	3.63E-03
		Be-7	<1.19E-01	0.00E+00	1.19E-01
		K-40	2.56E-01	2.03E-01	2.89E-01
575019	9/6/2022 - 9/12/2022	I-131	<2.75E-02	0.00E+00	2.75E-02
		Cs-134	<2.90E-02	0.00E+00	2.90E-02
		Cs-137	<2.93E-02	0.00E+00	2.93E-02
		Be-7	<1.89E-01	0.00E+00	1.89E-01
		K-40	5.93E-01	3.23E-01	3.64E-01
575707	9/12/2022 - 9/19/2022	I-131	<2.88E-02	0.00E+00	2.88E-02
		Cs-134	<2.36E-02	0.00E+00	2.36E-02
		Cs-137	<1.44E-02	0.00E+00	1.44E-02
		Be-7	<1.72E-01	0.00E+00	1.72E-01
		K-40	6.36E-01	2.73E-01	2.45E-01
576104	9/19/2022 - 9/26/2022	I-131	<2.39E-02	0.00E+00	2.39E-02
		Cs-134	<2.41E-02	0.00E+00	2.41E-02
		Cs-137	<2.26E-02	0.00E+00	2.26E-02
		Be-7	<1.69E-01	0.00E+00	1.69E-01
		K-40	<3.62E-01	0.00E+00	3.62E-01

HARRIS Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 5 [CONTROL - WNW @ 12 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
576275	9/26/2022 - 10/3/2022	I-131	<2.87E-02	0.00E+00	2.87E-02
		Cs-134	<2.08E-02	0.00E+00	2.08E-02
		Cs-137	<2.51E-02	0.00E+00	2.51E-02
		Be-7	<1.04E-01	0.00E+00	1.04E-01
		K-40	6.25E-01	2.55E-01	6.77E-02
576563	10/3/2022 - 10/10/2022	I-131	<2.80E-02	0.00E+00	2.80E-02
		Cs-134	<3.21E-02	0.00E+00	3.21E-02
		Cs-137	<2.09E-02	0.00E+00	2.09E-02
		Be-7	<1.37E-01	0.00E+00	1.37E-01
		K-40	<4.71E-01	0.00E+00	4.71E-01
577180	10/10/2022 - 10/17/2022	I-131	<1.48E-02	0.00E+00	1.48E-02
		Cs-134	<2.44E-02	0.00E+00	2.44E-02
		Cs-137	<2.41E-02	0.00E+00	2.41E-02
		Be-7	<1.72E-01	0.00E+00	1.72E-01
		K-40	6.83E-01	2.88E-01	2.59E-01
577778	10/17/2022 - 10/24/2022	I-131	<2.86E-02	0.00E+00	2.86E-02
		Cs-134	<2.82E-02	0.00E+00	2.82E-02
		Cs-137	<2.28E-02	0.00E+00	2.28E-02
		Be-7	<1.70E-01	0.00E+00	1.70E-01
		K-40	<4.53E-01	0.00E+00	4.53E-01
578131	10/24/2022 - 10/31/2022	I-131	<3.07E-02	0.00E+00	3.07E-02
		Cs-134	<1.75E-02	0.00E+00	1.75E-02
		Cs-137	<1.92E-02	0.00E+00	1.92E-02
		Be-7	<1.59E-01	0.00E+00	1.59E-01
		K-40	<5.47E-01	0.00E+00	5.47E-01
578843	10/31/2022 - 11/7/2022	I-131	<2.87E-02	0.00E+00	2.87E-02
		Cs-134	<2.83E-02	0.00E+00	2.83E-02
		Cs-137	<1.95E-02	0.00E+00	1.95E-02
		Be-7	<1.54E-01	0.00E+00	1.54E-01
		K-40	4.77E-01	2.98E-01	3.98E-01
579042	11/7/2022 - 11/14/2022	I-131	<3.20E-02	0.00E+00	3.20E-02
		Cs-134	<1.72E-02	0.00E+00	1.72E-02
		Cs-137	<1.49E-02	0.00E+00	1.49E-02
		Be-7	<1.78E-01	0.00E+00	1.78E-01
		K-40	3.94E-01	2.27E-01	2.47E-01
579802	11/14/2022 - 11/21/2022	I-131	<2.34E-02	0.00E+00	2.34E-02
		Cs-134	<2.37E-02	0.00E+00	2.37E-02
		Cs-137	<2.20E-02	0.00E+00	2.20E-02
		Be-7	<1.35E-01	0.00E+00	1.35E-01
		K-40	5.88E-01	2.40E-01	6.37E-02
580615	11/21/2022 - 11/28/2022	I-131	<3.89E-02	0.00E+00	3.89E-02
		Cs-134	<2.59E-02	0.00E+00	2.59E-02
		Cs-137	<2.53E-02	0.00E+00	2.53E-02
		Be-7	<2.46E-01	0.00E+00	2.46E-01
		K-40	6.26E-01	2.60E-01	7.07E-02
580828	11/28/2022 - 12/5/2022	I-131	<2.69E-02	0.00E+00	2.69E-02
		Cs-134	<1.77E-02	0.00E+00	1.77E-02
		Cs-137	<1.97E-02	0.00E+00	1.97E-02
		Be-7	<1.63E-01	0.00E+00	1.63E-01
		K-40	4.07E-01	2.19E-01	2.07E-01

HARRIS Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 5 [CONTROL - WNW @ 12 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
581147	12/5/2022 - 12/12/2022	I-131	<2.07E-02	0.00E+00	2.07E-02
		Cs-134	<1.78E-02	0.00E+00	1.78E-02
		Cs-137	<1.99E-02	0.00E+00	1.99E-02
		Be-7	<1.02E-01	0.00E+00	1.02E-01
		K-40	3.82E-01	2.34E-01	2.74E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
581715	12/12/2022 - 12/19/2022	I-131	<2.51E-02	0.00E+00	2.51E-02
		Cs-134	<2.99E-02	0.00E+00	2.99E-02
		Cs-137	<2.14E-02	0.00E+00	2.14E-02
		Be-7	<1.28E-01	0.00E+00	1.28E-01
		K-40	7.49E-01	2.75E-01	6.55E-02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
582250	12/19/2022 - 12/27/2022	I-131	<2.76E-02	0.00E+00	2.76E-02
		Cs-134	<2.97E-02	0.00E+00	2.97E-02
		Cs-137	<3.12E-02	0.00E+00	3.12E-02
		Be-7	<1.73E-01	0.00E+00	1.73E-01
		K-40	<5.69E-01	0.00E+00	5.69E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
582438	12/27/2022 - 1/3/2023	I-131	<2.17E-02	0.00E+00	2.17E-02
		Cs-134	<2.05E-02	0.00E+00	2.05E-02
		Cs-137	<1.97E-02	0.00E+00	1.97E-02
		Be-7	<1.53E-01	0.00E+00	1.53E-01
		K-40	4.78E-01	2.63E-01	3.05E-01

Sample Point 26 [INDICATOR - S @ 4.7 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
558919	1/4/2022 - 1/10/2022	I-131	<3.32E-02	0.00E+00	3.32E-02
		Cs-134	<3.68E-02	0.00E+00	3.68E-02
		Cs-137	<2.86E-02	0.00E+00	2.86E-02
		Be-7	<2.11E-01	0.00E+00	2.11E-01
		K-40	4.45E-01	2.53E-01	2.59E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
559128	1/10/2022 - 1/18/2022	I-131	<2.51E-02	0.00E+00	2.51E-02
		Cs-134	<1.99E-02	0.00E+00	1.99E-02
		Cs-137	<1.88E-02	0.00E+00	1.88E-02
		Be-7	<1.35E-01	0.00E+00	1.35E-01
		K-40	4.06E-01	1.89E-01	5.79E-02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
559384	1/18/2022 - 1/24/2022	I-131	<3.45E-02	0.00E+00	3.45E-02
		Cs-134	<2.35E-02	0.00E+00	2.35E-02
		Cs-137	<3.28E-02	0.00E+00	3.28E-02
		Be-7	<2.27E-01	0.00E+00	2.27E-01
		K-40	3.70E-01	2.77E-01	3.81E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
560059	1/24/2022 - 1/31/2022	I-131	<2.08E-02	0.00E+00	2.08E-02
		Cs-134	<2.90E-02	0.00E+00	2.90E-02
		Cs-137	<2.35E-02	0.00E+00	2.35E-02
		Be-7	<1.57E-01	0.00E+00	1.57E-01
		K-40	6.01E-01	3.02E-01	3.49E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
560276	1/31/2022 - 2/7/2022	I-131	<2.84E-02	0.00E+00	2.84E-02
		Cs-134	<2.27E-02	0.00E+00	2.27E-02
		Cs-137	<2.30E-02	0.00E+00	2.30E-02
		Be-7	<1.63E-01	0.00E+00	1.63E-01
		K-40	<4.44E-01	0.00E+00	4.44E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
560521	2/7/2022 - 2/14/2022	I-131	<2.83E-02	0.00E+00	2.83E-02
		Cs-134	<2.47E-02	0.00E+00	2.47E-02
		Cs-137	<2.44E-02	0.00E+00	2.44E-02

HARRIS Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 26 [INDICATOR - S @ 4.7 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
560521	2/7/2022 - 2/14/2022	Be-7	<2.11E-01	0.00E+00	2.11E-01
		K-40	4.73E-01	2.40E-01	2.32E-01
560825	2/14/2022 - 2/21/2022	I-131	<2.48E-02	0.00E+00	2.48E-02
		Cs-134	<3.09E-02	0.00E+00	3.09E-02
		Cs-137	<2.10E-02	0.00E+00	2.10E-02
		Be-7	<1.40E-01	0.00E+00	1.40E-01
		K-40	3.68E-01	2.48E-01	3.28E-01
561162	2/21/2022 - 2/28/2022	I-131	<2.51E-02	0.00E+00	2.51E-02
		Cs-134	<2.07E-02	0.00E+00	2.07E-02
		Cs-137	<2.18E-02	0.00E+00	2.18E-02
		Be-7	<1.85E-01	0.00E+00	1.85E-01
		K-40	5.89E-01	2.89E-01	3.16E-01
561661	2/28/2022 - 3/7/2022	I-131	<2.73E-02	0.00E+00	2.73E-02
		Cs-134	<2.27E-02	0.00E+00	2.27E-02
		Cs-137	<2.30E-02	0.00E+00	2.30E-02
		Be-7	<1.90E-01	0.00E+00	1.90E-01
		K-40	5.66E-01	2.65E-01	2.53E-01
562263	3/7/2022 - 3/14/2022	I-131	<2.45E-02	0.00E+00	2.45E-02
		Cs-134	<2.94E-02	0.00E+00	2.94E-02
		Cs-137	<1.72E-02	0.00E+00	1.72E-02
		Be-7	<1.60E-01	0.00E+00	1.60E-01
		K-40	3.48E-01	2.13E-01	2.37E-01
562859	3/14/2022 - 3/21/2022	I-131	<2.36E-02	0.00E+00	2.36E-02
		Cs-134	<2.59E-02	0.00E+00	2.59E-02
		Cs-137	<2.08E-02	0.00E+00	2.08E-02
		Be-7	<1.69E-01	0.00E+00	1.69E-01
		K-40	7.44E-01	2.74E-01	6.50E-02
563456	3/21/2022 - 3/28/2022	I-131	<3.45E-02	0.00E+00	3.45E-02
		Cs-134	<2.70E-02	0.00E+00	2.70E-02
		Cs-137	<1.98E-02	0.00E+00	1.98E-02
		Be-7	<1.83E-01	0.00E+00	1.83E-01
		K-40	<5.28E-01	0.00E+00	5.28E-01
563789	3/28/2022 - 4/4/2022	I-131	<2.20E-02	0.00E+00	2.20E-02
		Cs-134	<2.23E-02	0.00E+00	2.23E-02
		Cs-137	<2.67E-02	0.00E+00	2.67E-02
		Be-7	<1.71E-01	0.00E+00	1.71E-01
		K-40	<5.85E-01	0.00E+00	5.85E-01
564025	4/4/2022 - 4/11/2022	I-131	<2.41E-02	0.00E+00	2.41E-02
		Cs-134	<2.17E-02	0.00E+00	2.17E-02
		Cs-137	<1.87E-02	0.00E+00	1.87E-02
		Be-7	<1.48E-01	0.00E+00	1.48E-01
		K-40	2.30E-01	1.81E-01	2.36E-01
564554	4/11/2022 - 4/18/2022	I-131	<2.43E-02	0.00E+00	2.43E-02
		Cs-134	<2.73E-02	0.00E+00	2.73E-02
		Cs-137	<2.19E-02	0.00E+00	2.19E-02
		Be-7	<1.95E-01	0.00E+00	1.95E-01
		K-40	6.45E-01	2.93E-01	2.92E-01
564822	4/18/2022 - 4/25/2022	I-131	<2.63E-02	0.00E+00	2.63E-02

HARRIS Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 26 [INDICATOR - S @ 4.7 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
564822	4/18/2022 - 4/25/2022	Cs-134	<1.82E-02	0.00E+00	1.82E-02
		Cs-137	<2.22E-02	0.00E+00	2.22E-02
		Be-7	<8.33E-02	0.00E+00	8.34E-02
		K-40	4.13E-01	2.35E-01	2.52E-01
565313	4/25/2022 - 5/2/2022	I-131	<3.07E-02	0.00E+00	3.07E-02
		Cs-134	<2.51E-02	0.00E+00	2.51E-02
		Cs-137	<2.33E-02	0.00E+00	2.33E-02
		Be-7	<1.74E-01	0.00E+00	1.74E-01
		K-40	7.90E-01	3.13E-01	2.76E-01
565979	5/2/2022 - 5/9/2022	I-131	<2.82E-02	0.00E+00	2.82E-02
		Cs-134	<1.81E-02	0.00E+00	1.81E-02
		Cs-137	<2.35E-02	0.00E+00	2.35E-02
		Be-7	<2.05E-01	0.00E+00	2.05E-01
		K-40	<5.68E-01	0.00E+00	5.68E-01
566568	5/9/2022 - 5/16/2022	I-131	<2.29E-02	0.00E+00	2.29E-02
		Cs-134	<2.34E-02	0.00E+00	2.34E-02
		Cs-137	<1.85E-02	0.00E+00	1.85E-02
		Be-7	<1.55E-01	0.00E+00	1.55E-01
		K-40	<4.95E-01	0.00E+00	4.95E-01
566958	5/16/2022 - 5/23/2022	I-131	<3.74E-02	0.00E+00	3.74E-02
		Cs-134	<3.33E-02	0.00E+00	3.33E-02
		Cs-137	<3.15E-02	0.00E+00	3.15E-02
		Be-7	<2.17E-01	0.00E+00	2.17E-01
		K-40	3.31E-01	2.27E-01	2.75E-01
567148	5/23/2022 - 5/31/2022	I-131	<2.59E-02	0.00E+00	2.59E-02
		Cs-134	<2.33E-02	0.00E+00	2.33E-02
		Cs-137	<2.14E-02	0.00E+00	2.14E-02
		Be-7	<8.89E-02	0.00E+00	8.89E-02
		K-40	4.27E-01	2.27E-01	2.51E-01
567586	5/31/2022 - 6/6/2022	I-131	<3.19E-02	0.00E+00	3.19E-02
		Cs-134	<3.45E-02	0.00E+00	3.45E-02
		Cs-137	<2.46E-02	0.00E+00	2.46E-02
		Be-7	<2.08E-01	0.00E+00	2.08E-01
		K-40	<6.91E-01	0.00E+00	6.91E-01
567754	6/6/2022 - 6/13/2022	I-131	<2.65E-02	0.00E+00	2.65E-02
		Cs-134	<3.46E-02	0.00E+00	3.46E-02
		Cs-137	<1.77E-02	0.00E+00	1.77E-02
		Be-7	<1.54E-01	0.00E+00	1.54E-01
		K-40	5.69E-01	2.42E-01	6.70E-02
568391	6/13/2022 - 6/20/2022	I-131	<2.71E-02	0.00E+00	2.71E-02
		Cs-134	<2.32E-02	0.00E+00	2.32E-02
		Cs-137	<2.00E-02	0.00E+00	2.00E-02
		Be-7	<1.20E-01	0.00E+00	1.20E-01
		K-40	6.33E-01	3.03E-01	3.33E-01
568629	6/20/2022 - 6/27/2022	I-131	<2.49E-02	0.00E+00	2.49E-02
		Cs-134	<2.51E-02	0.00E+00	2.51E-02
		Cs-137	<1.53E-02	0.00E+00	1.53E-02
		Be-7	<1.18E-01	0.00E+00	1.18E-01
		K-40	<4.33E-01	0.00E+00	4.33E-01

HARRIS Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 26 [INDICATOR - S @ 4.7 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
568845	6/27/2022 - 7/5/2022	I-131	<2.43E-02	0.00E+00	2.43E-02
		Cs-134	<1.99E-02	0.00E+00	1.99E-02
		Cs-137	<2.49E-02	0.00E+00	2.49E-02
		Be-7	<1.52E-01	0.00E+00	1.52E-01
		K-40	5.81E-01	2.28E-01	5.83E-02
569089	7/5/2022 - 7/11/2022	I-131	<3.25E-02	0.00E+00	3.25E-02
		Cs-134	<2.41E-02	0.00E+00	2.41E-02
		Cs-137	<2.69E-02	0.00E+00	2.69E-02
		Be-7	<1.89E-01	0.00E+00	1.89E-01
		K-40	<7.15E-01	0.00E+00	7.15E-01
570307	7/11/2022 - 7/18/2022	I-131	<2.79E-02	0.00E+00	2.79E-02
		Cs-134	<2.92E-02	0.00E+00	2.92E-02
		Cs-137	<2.52E-02	0.00E+00	2.52E-02
		Be-7	<1.94E-01	0.00E+00	1.94E-01
		K-40	<6.53E-01	0.00E+00	6.53E-01
570867	7/18/2022 - 7/25/2022	I-131	<2.03E-02	0.00E+00	2.03E-02
		Cs-134	<1.97E-02	0.00E+00	1.97E-02
		Cs-137	<1.89E-02	0.00E+00	1.89E-02
		Be-7	<1.27E-01	0.00E+00	1.27E-01
		K-40	3.25E-01	2.27E-01	2.98E-01
571116	7/25/2022 - 8/1/2022	I-131	<3.03E-02	0.00E+00	3.03E-02
		Cs-134	<2.24E-02	0.00E+00	2.24E-02
		Cs-137	<2.27E-02	0.00E+00	2.27E-02
		Be-7	<1.87E-01	0.00E+00	1.87E-01
		K-40	<5.55E-01	0.00E+00	5.55E-01
571435	8/1/2022 - 8/8/2022	I-131	<2.93E-02	0.00E+00	2.93E-02
		Cs-134	<2.51E-02	0.00E+00	2.51E-02
		Cs-137	<2.48E-02	0.00E+00	2.48E-02
		Be-7	<1.19E-01	0.00E+00	1.19E-01
		K-40	7.84E-01	3.40E-01	3.70E-01
571718	8/8/2022 - 8/15/2022	I-131	<2.76E-02	0.00E+00	2.76E-02
		Cs-134	<2.65E-02	0.00E+00	2.65E-02
		Cs-137	<1.75E-02	0.00E+00	1.75E-02
		Be-7	<1.64E-01	0.00E+00	1.64E-01
		K-40	4.16E-01	2.33E-01	2.48E-01
572727	8/15/2022 - 8/22/2022	I-131	<2.87E-02	0.00E+00	2.87E-02
		Cs-134	<2.62E-02	0.00E+00	2.62E-02
		Cs-137	<1.93E-02	0.00E+00	1.93E-02
		Be-7	<1.71E-01	0.00E+00	1.71E-01
		K-40	6.84E-01	2.88E-01	2.54E-01
573927	8/22/2022 - 8/29/2022	I-131	<2.20E-02	0.00E+00	2.20E-02
		Cs-134	<2.23E-02	0.00E+00	2.23E-02
		Cs-137	<2.10E-02	0.00E+00	2.10E-02
		Be-7	<1.29E-01	0.00E+00	1.29E-01
		K-40	6.95E-01	3.03E-01	3.05E-01
574546	8/29/2022 - 9/6/2022	I-131	<2.84E-02	0.00E+00	2.84E-02
		Cs-134	<1.97E-02	0.00E+00	1.97E-02
		Cs-137	<2.10E-02	0.00E+00	2.10E-02
		Be-7	<1.11E-01	0.00E+00	1.11E-01
		K-40	<5.23E-01	0.00E+00	5.23E-01

HARRIS Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 26 [INDICATOR - S @ 4.7 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
575017	9/6/2022 - 9/12/2022	I-131	<1.99E-02	0.00E+00	1.99E-02
		Cs-134	<2.89E-02	0.00E+00	2.89E-02
		Cs-137	<2.49E-02	0.00E+00	2.49E-02
		Be-7	<1.88E-01	0.00E+00	1.88E-01
		K-40	7.74E-01	3.33E-01	3.03E-01
575705	9/12/2022 - 9/19/2022	I-131	<3.13E-02	0.00E+00	3.13E-02
		Cs-134	<2.46E-02	0.00E+00	2.46E-02
		Cs-137	<1.50E-02	0.00E+00	1.50E-02
		Be-7	<1.42E-01	0.00E+00	1.42E-01
		K-40	<6.08E-01	0.00E+00	6.08E-01
576102	9/19/2022 - 9/26/2022	I-131	<2.87E-02	0.00E+00	2.87E-02
		Cs-134	<2.88E-02	0.00E+00	2.88E-02
		Cs-137	<2.05E-02	0.00E+00	2.05E-02
		Be-7	<1.36E-01	0.00E+00	1.36E-01
		K-40	2.70E-01	1.89E-01	2.27E-01
576273	9/26/2022 - 10/3/2022	I-131	<2.48E-02	0.00E+00	2.48E-02
		Cs-134	<2.00E-02	0.00E+00	2.00E-02
		Cs-137	<2.54E-02	0.00E+00	2.54E-02
		Be-7	<1.61E-01	0.00E+00	1.61E-01
		K-40	6.75E-01	2.86E-01	2.63E-01
576561	10/3/2022 - 10/10/2022	I-131	<2.53E-02	0.00E+00	2.53E-02
		Cs-134	<1.42E-02	0.00E+00	1.42E-02
		Cs-137	<2.65E-02	0.00E+00	2.65E-02
		Be-7	<1.76E-01	0.00E+00	1.76E-01
		K-40	2.99E-01	2.36E-01	3.29E-01
577178	10/10/2022 - 10/17/2022	I-131	<2.43E-02	0.00E+00	2.43E-02
		Cs-134	<3.43E-02	0.00E+00	3.43E-02
		Cs-137	<2.14E-02	0.00E+00	2.14E-02
		Be-7	<1.74E-01	0.00E+00	1.74E-01
		K-40	4.15E-01	2.44E-01	2.87E-01
577776	10/17/2022 - 10/24/2022	I-131	<2.26E-02	0.00E+00	2.26E-02
		Cs-134	<2.17E-02	0.00E+00	2.17E-02
		Cs-137	<1.87E-02	0.00E+00	1.87E-02
		Be-7	<1.65E-01	0.00E+00	1.65E-01
		K-40	<4.87E-01	0.00E+00	4.87E-01
578129	10/24/2022 - 10/31/2022	I-131	<2.37E-02	0.00E+00	2.37E-02
		Cs-134	<1.98E-02	0.00E+00	1.98E-02
		Cs-137	<2.08E-02	0.00E+00	2.08E-02
		Be-7	<1.28E-01	0.00E+00	1.28E-01
		K-40	4.32E-01	2.07E-01	6.51E-02
578841	10/31/2022 - 11/7/2022	I-131	<2.90E-02	0.00E+00	2.90E-02
		Cs-134	<2.50E-02	0.00E+00	2.50E-02
		Cs-137	<1.78E-02	0.00E+00	1.78E-02
		Be-7	<1.92E-01	0.00E+00	1.92E-01
		K-40	6.33E-01	2.71E-01	2.17E-01
579040	11/7/2022 - 11/14/2022	I-131	<2.58E-02	0.00E+00	2.58E-02
		Cs-134	<1.39E-02	0.00E+00	1.39E-02
		Cs-137	<1.96E-02	0.00E+00	1.96E-02
		Be-7	<1.52E-01	0.00E+00	1.52E-01
		K-40	2.36E-01	2.30E-01	3.50E-01

HARRIS Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 26 [INDICATOR - S @ 4.7 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
579800	11/14/2022 - 11/21/2022	I-131	<2.49E-02	0.00E+00	2.49E-02
		Cs-134	<1.95E-02	0.00E+00	1.95E-02
		Cs-137	<1.45E-02	0.00E+00	1.45E-02
		Be-7	<1.36E-01	0.00E+00	1.36E-01
		K-40	<4.74E-01	0.00E+00	4.74E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
580613	11/21/2022 - 11/28/2022	I-131	<2.32E-02	0.00E+00	2.32E-02
		Cs-134	<2.14E-02	0.00E+00	2.14E-02
		Cs-137	<2.05E-02	0.00E+00	2.05E-02
		Be-7	<1.23E-01	0.00E+00	1.23E-01
		K-40	1.70E-01	2.63E-01	4.43E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
580826	11/28/2022 - 12/5/2022	I-131	<2.30E-02	0.00E+00	2.30E-02
		Cs-134	<2.19E-02	0.00E+00	2.19E-02
		Cs-137	<1.69E-02	0.00E+00	1.69E-02
		Be-7	<1.48E-01	0.00E+00	1.48E-01
		K-40	<4.14E-01	0.00E+00	4.14E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
581145	12/5/2022 - 12/12/2022	I-131	<2.99E-02	0.00E+00	2.99E-02
		Cs-134	<2.03E-02	0.00E+00	2.03E-02
		Cs-137	<1.96E-02	0.00E+00	1.96E-02
		Be-7	<1.64E-01	0.00E+00	1.64E-01
		K-40	<5.75E-01	0.00E+00	5.75E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
581713	12/12/2022 - 12/19/2022	I-131	<2.57E-02	0.00E+00	2.57E-02
		Cs-134	<1.36E-02	0.00E+00	1.36E-02
		Cs-137	<2.41E-02	0.00E+00	2.41E-02
		Be-7	<2.15E-01	0.00E+00	2.15E-01
		K-40	<5.32E-01	0.00E+00	5.32E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
582248	12/19/2022 - 12/27/2022	I-131	<2.15E-02	0.00E+00	2.15E-02
		Cs-134	<2.10E-02	0.00E+00	2.10E-02
		Cs-137	<1.66E-02	0.00E+00	1.66E-02
		Be-7	<1.90E-01	0.00E+00	1.90E-01
		K-40	<4.05E-01	0.00E+00	4.05E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
582436	12/27/2022 - 1/3/2023	I-131	<3.06E-02	0.00E+00	3.06E-02
		Cs-134	<2.20E-02	0.00E+00	2.20E-02
		Cs-137	<2.07E-02	0.00E+00	2.07E-02
		Be-7	<1.67E-01	0.00E+00	1.67E-01
		K-40	5.47E-01	2.32E-01	6.45E-02

Sample Point 63 [INDICATOR - SW @ 0.6 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
558922	1/4/2022 - 1/10/2022	I-131	<3.22E-02	0.00E+00	3.22E-02
		Cs-134	<2.04E-02	0.00E+00	2.04E-02
		Cs-137	<1.39E-02	0.00E+00	1.39E-02
		Be-7	<1.76E-01	0.00E+00	1.76E-01
		K-40	<6.46E-01	0.00E+00	6.46E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
559131	1/10/2022 - 1/18/2022	I-131	<1.97E-02	0.00E+00	1.97E-02
		Cs-134	<1.76E-02	0.00E+00	1.76E-02
		Cs-137	<1.52E-02	0.00E+00	1.52E-02
		Be-7	<1.49E-01	0.00E+00	1.49E-01
		K-40	<4.58E-01	0.00E+00	4.58E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
559393	1/18/2022 - 1/24/2022	I-131	<2.92E-02	0.00E+00	2.92E-02
		Cs-134	<1.56E-02	0.00E+00	1.56E-02
		Cs-137	<1.97E-02	0.00E+00	1.97E-02

HARRIS Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 63 [INDICATOR - SW @ 0.6 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
559393	1/18/2022 - 1/24/2022	Be-7	<1.45E-01	0.00E+00	1.45E-01
		K-40	8.84E-01	3.34E-01	2.45E-01
560062	1/24/2022 - 1/31/2022	I-131	<2.71E-02	0.00E+00	2.71E-02
		Cs-134	<2.55E-02	0.00E+00	2.55E-02
		Cs-137	<1.56E-02	0.00E+00	1.56E-02
		Be-7	<1.66E-01	0.00E+00	1.66E-01
		K-40	4.97E-01	2.25E-01	6.73E-02
560279	1/31/2022 - 2/7/2022	I-131	<2.59E-02	0.00E+00	2.59E-02
		Cs-134	<2.29E-02	0.00E+00	2.29E-02
		Cs-137	<2.32E-02	0.00E+00	2.32E-02
		Be-7	<1.31E-01	0.00E+00	1.31E-01
		K-40	<4.50E-01	0.00E+00	4.50E-01
560524	2/7/2022 - 2/14/2022	I-131	<2.11E-02	0.00E+00	2.11E-02
		Cs-134	<2.75E-02	0.00E+00	2.75E-02
		Cs-137	<1.24E-02	0.00E+00	1.24E-02
		Be-7	<1.69E-01	0.00E+00	1.69E-01
		K-40	1.46E-01	2.05E-01	3.40E-01
560828	2/14/2022 - 2/21/2022	I-131	<2.29E-02	0.00E+00	2.29E-02
		Cs-134	<2.60E-02	0.00E+00	2.60E-02
		Cs-137	<2.08E-02	0.00E+00	2.08E-02
		Be-7	<9.82E-02	0.00E+00	9.82E-02
		K-40	3.87E-01	2.24E-01	2.47E-01
561165	2/21/2022 - 2/28/2022	I-131	<2.25E-02	0.00E+00	2.25E-02
		Cs-134	<2.14E-02	0.00E+00	2.14E-02
		Cs-137	<1.84E-02	0.00E+00	1.84E-02
		Be-7	<1.60E-01	0.00E+00	1.60E-01
		K-40	6.44E-01	2.63E-01	6.98E-02
561664	2/28/2022 - 3/7/2022	I-131	<3.72E-02	0.00E+00	3.72E-02
		Cs-134	<2.20E-02	0.00E+00	2.20E-02
		Cs-137	<2.93E-02	0.00E+00	2.93E-02
		Be-7	<2.68E-01	0.00E+00	2.68E-01
		K-40	3.71E-01	2.37E-01	2.81E-01
562266	3/7/2022 - 3/14/2022	I-131	<2.98E-02	0.00E+00	2.98E-02
		Cs-134	<1.78E-02	0.00E+00	1.78E-02
		Cs-137	<2.33E-02	0.00E+00	2.33E-02
		Be-7	<1.53E-01	0.00E+00	1.53E-01
		K-40	6.48E-01	2.82E-01	2.51E-01
562862	3/14/2022 - 3/21/2022	I-131	<2.46E-02	0.00E+00	2.46E-02
		Cs-134	<1.95E-02	0.00E+00	1.95E-02
		Cs-137	<1.87E-02	0.00E+00	1.87E-02
		Be-7	<1.35E-01	0.00E+00	1.35E-01
		K-40	5.62E-01	2.53E-01	2.28E-01
563459	3/21/2022 - 3/28/2022	I-131	<2.68E-02	0.00E+00	2.68E-02
		Cs-134	<2.40E-02	0.00E+00	2.40E-02
		Cs-137	<2.87E-02	0.00E+00	2.87E-02
		Be-7	<1.81E-01	0.00E+00	1.81E-01
		K-40	<5.97E-01	0.00E+00	5.97E-01
563792	3/28/2022 - 4/4/2022	I-131	<2.15E-02	0.00E+00	2.15E-02

HARRIS Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 63 [INDICATOR - SW @ 0.6 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
563792	3/28/2022 - 4/4/2022	Cs-134	<1.75E-02	0.00E+00	1.75E-02
		Cs-137	<1.74E-02	0.00E+00	1.74E-02
		Be-7	<1.61E-01	0.00E+00	1.61E-01
		K-40	<5.90E-01	0.00E+00	5.90E-01
564028	4/4/2022 - 4/11/2022	I-131	<3.04E-02	0.00E+00	3.04E-02
		Cs-134	<2.91E-02	0.00E+00	2.91E-02
		Cs-137	<1.22E-02	0.00E+00	1.22E-02
		Be-7	<1.74E-01	0.00E+00	1.74E-01
564557	4/11/2022 - 4/18/2022	K-40	<5.92E-01	0.00E+00	5.92E-01
		I-131	<2.42E-02	0.00E+00	2.42E-02
		Cs-134	<1.97E-02	0.00E+00	1.97E-02
		Cs-137	<1.90E-02	0.00E+00	1.90E-02
564825	4/18/2022 - 4/25/2022	Be-7	<1.38E-01	0.00E+00	1.38E-01
		K-40	<4.64E-01	0.00E+00	4.64E-01
		I-131	<2.58E-02	0.00E+00	2.58E-02
		Cs-134	<2.43E-02	0.00E+00	2.43E-02
565316	4/25/2022 - 5/2/2022	Cs-137	<1.48E-02	0.00E+00	1.48E-02
		Be-7	<1.78E-01	0.00E+00	1.78E-01
		K-40	6.14E-01	2.93E-01	3.22E-01
		I-131	<2.25E-02	0.00E+00	2.25E-02
565982	5/2/2022 - 5/9/2022	Cs-134	<2.06E-02	0.00E+00	2.06E-02
		Cs-137	<1.99E-02	0.00E+00	1.99E-02
		Be-7	<1.84E-01	0.00E+00	1.84E-01
		K-40	<5.43E-01	0.00E+00	5.43E-01
566571	5/9/2022 - 5/16/2022	I-131	<3.18E-02	0.00E+00	3.18E-02
		Cs-134	<2.30E-02	0.00E+00	2.30E-02
		Cs-137	<2.15E-02	0.00E+00	2.15E-02
		Be-7	<1.61E-01	0.00E+00	1.61E-01
566961	5/16/2022 - 5/23/2022	K-40	<5.72E-01	0.00E+00	5.72E-01
		I-131	<2.55E-02	0.00E+00	2.55E-02
		Cs-134	<2.81E-02	0.00E+00	2.81E-02
		Cs-137	<1.94E-02	0.00E+00	1.94E-02
567151	5/23/2022 - 5/31/2022	Be-7	<1.70E-01	0.00E+00	1.70E-01
		K-40	4.23E-01	2.31E-01	2.37E-01
		I-131	<2.37E-02	0.00E+00	2.37E-02
		Cs-134	<1.17E-02	0.00E+00	1.17E-02
567589	5/31/2022 - 6/6/2022	Cs-137	<1.64E-02	0.00E+00	1.64E-02
		Be-7	<1.29E-01	0.00E+00	1.29E-01
		K-40	<4.40E-01	0.00E+00	4.40E-01
		I-131	<2.98E-02	0.00E+00	2.98E-02
		Cs-134	<3.33E-02	0.00E+00	3.33E-02
		Cs-137	<2.30E-02	0.00E+00	2.30E-02
		Be-7	<9.37E-02	0.00E+00	9.37E-02
		K-40	5.04E-01	3.78E-01	5.54E-01

HARRIS Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 63 [INDICATOR - SW @ 0.6 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
567757	6/6/2022 - 6/13/2022	I-131	<2.55E-02	0.00E+00	2.55E-02
		Cs-134	<2.21E-02	0.00E+00	2.21E-02
		Cs-137	<2.24E-02	0.00E+00	2.24E-02
		Be-7	<1.76E-01	0.00E+00	1.76E-01
		K-40	<4.97E-01	0.00E+00	4.97E-01
568394	6/13/2022 - 6/20/2022	I-131	<2.34E-02	0.00E+00	2.34E-02
		Cs-134	<2.96E-02	0.00E+00	2.96E-02
		Cs-137	<1.93E-02	0.00E+00	1.93E-02
		Be-7	<1.51E-01	0.00E+00	1.51E-01
		K-40	5.01E-01	2.42E-01	2.14E-01
568632	6/20/2022 - 6/27/2022	I-131	<2.34E-02	0.00E+00	2.34E-02
		Cs-134	<2.06E-02	0.00E+00	2.06E-02
		Cs-137	<1.99E-02	0.00E+00	1.99E-02
		Be-7	<2.27E-01	0.00E+00	2.27E-01
		K-40	5.20E-01	2.31E-01	6.71E-02
568848	6/27/2022 - 7/5/2022	I-131	<2.71E-02	0.00E+00	2.71E-02
		Cs-134	<2.18E-02	0.00E+00	2.18E-02
		Cs-137	<1.33E-02	0.00E+00	1.33E-02
		Be-7	<1.46E-01	0.00E+00	1.46E-01
		K-40	6.65E-01	2.45E-01	5.81E-02
569092	7/5/2022 - 7/11/2022	I-131	<3.64E-02	0.00E+00	3.64E-02
		Cs-134	<3.02E-02	0.00E+00	3.02E-02
		Cs-137	<3.31E-02	0.00E+00	3.31E-02
		Be-7	<1.69E-01	0.00E+00	1.69E-01
		K-40	<8.26E-01	0.00E+00	8.26E-01
570310	7/11/2022 - 7/18/2022	I-131	<1.50E-02	0.00E+00	1.50E-02
		Cs-134	<2.98E-02	0.00E+00	2.98E-02
		Cs-137	<1.59E-02	0.00E+00	1.59E-02
		Be-7	<1.71E-01	0.00E+00	1.71E-01
		K-40	3.44E-01	2.57E-01	3.54E-01
570870	7/18/2022 - 7/25/2022	I-131	<3.12E-02	0.00E+00	3.12E-02
		Cs-134	<3.49E-02	0.00E+00	3.49E-02
		Cs-137	<1.97E-02	0.00E+00	1.97E-02
		Be-7	<1.29E-01	0.00E+00	1.29E-01
		K-40	<4.81E-01	0.00E+00	4.81E-01
571119	7/25/2022 - 8/1/2022	I-131	<2.84E-02	0.00E+00	2.84E-02
		Cs-134	<1.68E-02	0.00E+00	1.68E-02
		Cs-137	<1.88E-02	0.00E+00	1.88E-02
		Be-7	<1.56E-01	0.00E+00	1.56E-01
		K-40	<6.13E-01	0.00E+00	6.13E-01
571438	8/1/2022 - 8/8/2022	I-131	<1.92E-02	0.00E+00	1.92E-02
		Cs-134	<2.27E-02	0.00E+00	2.27E-02
		Cs-137	<1.79E-02	0.00E+00	1.79E-02
		Be-7	<1.74E-01	0.00E+00	1.74E-01
		K-40	3.30E-01	2.21E-01	2.84E-01
571721	8/8/2022 - 8/15/2022	I-131	<2.37E-02	0.00E+00	2.37E-02
		Cs-134	<2.35E-02	0.00E+00	2.35E-02
		Cs-137	<1.24E-02	0.00E+00	1.24E-02
		Be-7	<1.86E-01	0.00E+00	1.86E-01
		K-40	5.52E-01	2.39E-01	6.80E-02

HARRIS Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 63 [INDICATOR - SW @ 0.6 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
572730	8/15/2022 - 8/22/2022	I-131	<2.66E-02	0.00E+00	2.66E-02
		Cs-134	<2.24E-02	0.00E+00	2.24E-02
		Cs-137	<1.93E-02	0.00E+00	1.93E-02
		Be-7	<1.50E-01	0.00E+00	1.50E-01
		K-40	2.39E-01	1.81E-01	2.27E-01
573930	8/22/2022 - 8/29/2022	I-131	<2.54E-02	0.00E+00	2.54E-02
		Cs-134	<2.99E-02	0.00E+00	2.99E-02
		Cs-137	<1.75E-02	0.00E+00	1.75E-02
		Be-7	<1.52E-01	0.00E+00	1.52E-01
		K-40	5.31E-01	2.30E-01	6.54E-02
574549	8/29/2022 - 9/6/2022	I-131	<2.35E-02	0.00E+00	2.35E-02
		Cs-134	<1.72E-02	0.00E+00	1.72E-02
		Cs-137	<2.29E-02	0.00E+00	2.29E-02
		Be-7	<1.39E-01	0.00E+00	1.39E-01
		K-40	4.57E-01	1.98E-01	5.63E-02
575020	9/6/2022 - 9/12/2022	I-131	<3.62E-02	0.00E+00	3.62E-02
		Cs-134	<2.66E-02	0.00E+00	2.66E-02
		Cs-137	<2.70E-02	0.00E+00	2.70E-02
		Be-7	<2.60E-01	0.00E+00	2.60E-01
		K-40	7.57E-01	3.23E-01	2.72E-01
575708	9/12/2022 - 9/19/2022	I-131	<2.37E-02	0.00E+00	2.37E-02
		Cs-134	<2.73E-02	0.00E+00	2.73E-02
		Cs-137	<2.18E-02	0.00E+00	2.18E-02
		Be-7	<1.33E-01	0.00E+00	1.33E-01
		K-40	<6.16E-01	0.00E+00	6.16E-01
576105	9/19/2022 - 9/26/2022	I-131	<2.48E-02	0.00E+00	2.48E-02
		Cs-134	<2.88E-02	0.00E+00	2.88E-02
		Cs-137	<2.17E-02	0.00E+00	2.17E-02
		Be-7	<1.73E-01	0.00E+00	1.73E-01
		K-40	3.42E-01	2.47E-01	3.34E-01
576276	9/26/2022 - 10/3/2022	I-131	<4.33E-02	0.00E+00	4.33E-02
		Cs-134	<3.51E-02	0.00E+00	3.51E-02
		Cs-137	<2.63E-02	0.00E+00	2.63E-02
		Be-7	<1.92E-01	0.00E+00	1.92E-01
		K-40	<5.75E-01	0.00E+00	5.75E-01
576564	10/3/2022 - 10/10/2022	I-131	<2.58E-02	0.00E+00	2.58E-02
		Cs-134	<3.33E-02	0.00E+00	3.33E-02
		Cs-137	<2.26E-02	0.00E+00	2.26E-02
		Be-7	<1.72E-01	0.00E+00	1.72E-01
		K-40	5.93E-01	2.52E-01	6.99E-02
577181	10/10/2022 - 10/17/2022	I-131	<2.79E-02	0.00E+00	2.79E-02
		Cs-134	<2.38E-02	0.00E+00	2.38E-02
		Cs-137	<2.20E-02	0.00E+00	2.20E-02
		Be-7	<1.25E-01	0.00E+00	1.25E-01
		K-40	4.01E-01	1.97E-01	6.39E-02
577779	10/17/2022 - 10/24/2022	I-131	<2.41E-02	0.00E+00	2.41E-02
		Cs-134	<2.63E-02	0.00E+00	2.63E-02
		Cs-137	<2.43E-02	0.00E+00	2.43E-02
		Be-7	<1.22E-01	0.00E+00	1.22E-01
		K-40	3.84E-01	2.01E-01	6.94E-02

HARRIS Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 63 [INDICATOR - SW @ 0.6 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
578132	10/24/2022 - 10/31/2022	I-131	<1.89E-02	0.00E+00	1.89E-02
		Cs-134	<2.74E-02	0.00E+00	2.74E-02
		Cs-137	<2.19E-02	0.00E+00	2.19E-02
		Be-7	<1.55E-01	0.00E+00	1.55E-01
		K-40	4.40E-01	2.59E-01	3.12E-01
578844	10/31/2022 - 11/7/2022	I-131	<2.18E-02	0.00E+00	2.18E-02
		Cs-134	<2.46E-02	0.00E+00	2.46E-02
		Cs-137	<2.81E-02	0.00E+00	2.81E-02
		Be-7	<1.79E-01	0.00E+00	1.79E-01
		K-40	5.21E-01	2.51E-01	2.35E-01
579043	11/7/2022 - 11/14/2022	I-131	<2.12E-02	0.00E+00	2.12E-02
		Cs-134	<2.37E-02	0.00E+00	2.37E-02
		Cs-137	<1.68E-02	0.00E+00	1.68E-02
		Be-7	<1.55E-01	0.00E+00	1.55E-01
		K-40	<3.74E-01	0.00E+00	3.74E-01
579803	11/14/2022 - 11/21/2022	I-131	<2.46E-02	0.00E+00	2.46E-02
		Cs-134	<2.06E-02	0.00E+00	2.06E-02
		Cs-137	<2.61E-02	0.00E+00	2.61E-02
		Be-7	<1.72E-01	0.00E+00	1.72E-01
		K-40	<3.94E-01	0.00E+00	3.94E-01
580616	11/21/2022 - 11/28/2022	I-131	<2.04E-02	0.00E+00	2.04E-02
		Cs-134	<2.72E-02	0.00E+00	2.72E-02
		Cs-137	<2.63E-02	0.00E+00	2.63E-02
		Be-7	<1.33E-01	0.00E+00	1.33E-01
		K-40	<2.96E-01	0.00E+00	2.96E-01
580829	11/28/2022 - 12/5/2022	I-131	<2.48E-02	0.00E+00	2.48E-02
		Cs-134	<2.24E-02	0.00E+00	2.24E-02
		Cs-137	<2.84E-02	0.00E+00	2.84E-02
		Be-7	<1.41E-01	0.00E+00	1.41E-01
		K-40	2.91E-01	2.42E-01	3.44E-01
581148	12/5/2022 - 12/12/2022	I-131	<2.32E-02	0.00E+00	2.32E-02
		Cs-134	<2.48E-02	0.00E+00	2.48E-02
		Cs-137	<2.13E-02	0.00E+00	2.13E-02
		Be-7	<1.62E-01	0.00E+00	1.62E-01
		K-40	4.92E-01	2.55E-01	2.73E-01
581716	12/12/2022 - 12/19/2022	I-131	<2.28E-02	0.00E+00	2.28E-02
		Cs-134	<1.48E-02	0.00E+00	1.48E-02
		Cs-137	<2.89E-02	0.00E+00	2.89E-02
		Be-7	<1.59E-01	0.00E+00	1.59E-01
		K-40	7.29E-01	3.26E-01	3.44E-01
582251	12/19/2022 - 12/27/2022	I-131	<2.77E-02	0.00E+00	2.77E-02
		Cs-134	<2.54E-02	0.00E+00	2.54E-02
		Cs-137	<2.07E-02	0.00E+00	2.07E-02
		Be-7	<1.47E-01	0.00E+00	1.47E-01
		K-40	4.70E-01	1.99E-01	5.54E-02
582439	12/27/2022 - 1/3/2023	I-131	<2.94E-02	0.00E+00	2.94E-02
		Cs-134	<3.31E-02	0.00E+00	3.31E-02
		Cs-137	<2.85E-02	0.00E+00	2.85E-02
		Be-7	<2.35E-01	0.00E+00	2.35E-01
		K-40	3.72E-01	2.62E-01	3.54E-01

HARRIS Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 90 [INDICATOR - SSW @ 0.5 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
558923	1/4/2022 - 1/10/2022	I-131	<1.94E-02	0.00E+00	1.94E-02
		Cs-134	<2.98E-02	0.00E+00	2.98E-02
		Cs-137	<1.82E-02	0.00E+00	1.82E-02
		Be-7	<1.56E-01	0.00E+00	1.56E-01
		K-40	<3.54E-01	0.00E+00	3.54E-01
559132	1/10/2022 - 1/18/2022	I-131	<1.93E-02	0.00E+00	1.93E-02
		Cs-134	<1.57E-02	0.00E+00	1.57E-02
		Cs-137	<1.92E-02	0.00E+00	1.92E-02
		Be-7	<1.06E-01	0.00E+00	1.06E-01
		K-40	<2.64E-01	0.00E+00	2.64E-01
559396	1/18/2022 - 1/24/2022	I-131	<2.95E-02	0.00E+00	2.95E-02
		Cs-134	<2.37E-02	0.00E+00	2.37E-02
		Cs-137	<2.68E-02	0.00E+00	2.68E-02
		Be-7	<1.52E-01	0.00E+00	1.52E-01
		K-40	<4.53E-01	0.00E+00	4.53E-01
560063	1/24/2022 - 1/31/2022	I-131	<2.32E-02	0.00E+00	2.32E-02
		Cs-134	<2.64E-02	0.00E+00	2.64E-02
		Cs-137	<1.87E-02	0.00E+00	1.87E-02
		Be-7	<1.52E-01	0.00E+00	1.52E-01
		K-40	2.34E-01	1.57E-01	7.06E-02
560280	1/31/2022 - 2/7/2022	I-131	<2.95E-02	0.00E+00	2.95E-02
		Cs-134	<2.81E-02	0.00E+00	2.81E-02
		Cs-137	<2.28E-02	0.00E+00	2.28E-02
		Be-7	<1.78E-01	0.00E+00	1.78E-01
		K-40	3.98E-01	2.17E-01	2.14E-01
560525	2/7/2022 - 2/14/2022	I-131	<3.43E-02	0.00E+00	3.43E-02
		Cs-134	<2.31E-02	0.00E+00	2.31E-02
		Cs-137	<2.17E-02	0.00E+00	2.17E-02
		Be-7	<1.65E-01	0.00E+00	1.65E-01
		K-40	4.51E-01	2.44E-01	2.57E-01
560829	2/14/2022 - 2/21/2022	I-131	<2.23E-02	0.00E+00	2.23E-02
		Cs-134	<1.33E-02	0.00E+00	1.33E-02
		Cs-137	<1.68E-02	0.00E+00	1.68E-02
		Be-7	<1.55E-01	0.00E+00	1.55E-01
		K-40	4.63E-01	2.10E-01	6.28E-02
561166	2/21/2022 - 2/28/2022	I-131	<2.47E-02	0.00E+00	2.47E-02
		Cs-134	<2.75E-02	0.00E+00	2.75E-02
		Cs-137	<2.20E-02	0.00E+00	2.20E-02
		Be-7	<1.56E-01	0.00E+00	1.56E-01
		K-40	<5.17E-01	0.00E+00	5.17E-01
561665	2/28/2022 - 3/7/2022	I-131	<2.36E-02	0.00E+00	2.36E-02
		Cs-134	<3.05E-02	0.00E+00	3.05E-02
		Cs-137	<2.76E-02	0.00E+00	2.76E-02
		Be-7	<1.84E-01	0.00E+00	1.84E-01
		K-40	5.06E-01	2.79E-01	3.32E-01
562267	3/7/2022 - 3/14/2022	I-131	<2.83E-02	0.00E+00	2.83E-02
		Cs-134	<2.88E-02	0.00E+00	2.88E-02
		Cs-137	<2.86E-02	0.00E+00	2.86E-02
		Be-7	<1.70E-01	0.00E+00	1.70E-01
		K-40	4.67E-01	2.76E-01	3.40E-01

HARRIS Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 90 [INDICATOR - SSW @ 0.5 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
562863	3/14/2022 - 3/21/2022	I-131	<2.60E-02	0.00E+00	2.60E-02
		Cs-134	<2.02E-02	0.00E+00	2.02E-02
		Cs-137	<2.12E-02	0.00E+00	2.12E-02
		Be-7	<1.52E-01	0.00E+00	1.52E-01
		K-40	<5.45E-01	0.00E+00	5.45E-01
563460	3/21/2022 - 3/28/2022	I-131	<2.95E-02	0.00E+00	2.95E-02
		Cs-134	<1.82E-02	0.00E+00	1.82E-02
		Cs-137	<2.03E-02	0.00E+00	2.03E-02
		Be-7	<1.58E-01	0.00E+00	1.58E-01
		K-40	5.54E-01	2.68E-01	2.67E-01
563793	3/28/2022 - 4/4/2022	I-131	<2.41E-02	0.00E+00	2.41E-02
		Cs-134	<2.09E-02	0.00E+00	2.09E-02
		Cs-137	<1.24E-02	0.00E+00	1.24E-02
		Be-7	<1.47E-01	0.00E+00	1.47E-01
		K-40	<4.40E-01	0.00E+00	4.40E-01
564029	4/4/2022 - 4/11/2022	I-131	<3.67E-02	0.00E+00	3.67E-02
		Cs-134	<2.33E-02	0.00E+00	2.33E-02
		Cs-137	<2.17E-02	0.00E+00	2.17E-02
		Be-7	<1.32E-01	0.00E+00	1.32E-01
		K-40	6.97E-01	2.99E-01	2.70E-01
564558	4/11/2022 - 4/18/2022	I-131	<2.36E-02	0.00E+00	2.36E-02
		Cs-134	<2.54E-02	0.00E+00	2.54E-02
		Cs-137	<2.33E-02	0.00E+00	2.33E-02
		Be-7	<1.63E-01	0.00E+00	1.63E-01
		K-40	6.22E-01	2.44E-01	6.24E-02
564826	4/18/2022 - 4/25/2022	I-131	<1.94E-02	0.00E+00	1.94E-02
		Cs-134	<2.50E-02	0.00E+00	2.50E-02
		Cs-137	<2.47E-02	0.00E+00	2.47E-02
		Be-7	<1.45E-01	0.00E+00	1.45E-01
		K-40	6.80E-01	2.88E-01	2.48E-01
565317	4/25/2022 - 5/2/2022	I-131	<3.41E-02	0.00E+00	3.41E-02
		Cs-134	<3.28E-02	0.00E+00	3.28E-02
		Cs-137	<3.10E-02	0.00E+00	3.10E-02
		Be-7	<2.37E-01	0.00E+00	2.37E-01
		K-40	4.52E-01	2.23E-01	7.21E-02
565983	5/2/2022 - 5/9/2022	I-131	<2.85E-02	0.00E+00	2.85E-02
		Cs-134	<1.99E-02	0.00E+00	1.99E-02
		Cs-137	<2.40E-02	0.00E+00	2.40E-02
		Be-7	<1.61E-01	0.00E+00	1.61E-01
		K-40	5.01E-01	2.40E-01	2.07E-01
566572	5/9/2022 - 5/16/2022	I-131	<3.54E-02	0.00E+00	3.54E-02
		Cs-134	<2.76E-02	0.00E+00	2.76E-02
		Cs-137	<2.94E-02	0.00E+00	2.94E-02
		Be-7	<2.03E-01	0.00E+00	2.03E-01
		K-40	4.17E-01	2.57E-01	3.17E-01
566962	5/16/2022 - 5/23/2022	I-131	<2.90E-02	0.00E+00	2.90E-02
		Cs-134	<2.35E-02	0.00E+00	2.35E-02
		Cs-137	<1.82E-02	0.00E+00	1.82E-02
		Be-7	<1.47E-01	0.00E+00	1.47E-01
		K-40	4.59E-01	2.66E-01	3.18E-01

HARRIS Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 90 [INDICATOR - SSW @ 0.5 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
567152	5/23/2022 - 5/31/2022	I-131	<2.49E-02	0.00E+00	2.49E-02
		Cs-134	<1.81E-02	0.00E+00	1.81E-02
		Cs-137	<2.29E-02	0.00E+00	2.29E-02
		Be-7	<1.45E-01	0.00E+00	1.45E-01
		K-40	2.61E-01	1.94E-01	2.56E-01
567590	5/31/2022 - 6/6/2022	I-131	<2.74E-02	0.00E+00	2.74E-02
		Cs-134	<2.43E-02	0.00E+00	2.43E-02
		Cs-137	<2.90E-02	0.00E+00	2.90E-02
		Be-7	<2.09E-01	0.00E+00	2.09E-01
		K-40	7.61E-01	3.64E-01	4.01E-01
567758	6/6/2022 - 6/13/2022	I-131	<2.69E-02	0.00E+00	2.69E-02
		Cs-134	<2.78E-02	0.00E+00	2.78E-02
		Cs-137	<2.76E-02	0.00E+00	2.76E-02
		Be-7	<1.95E-01	0.00E+00	1.95E-01
		K-40	3.10E-01	2.54E-01	3.68E-01
568395	6/13/2022 - 6/20/2022	I-131	<2.72E-02	0.00E+00	2.72E-02
		Cs-134	<2.13E-02	0.00E+00	2.13E-02
		Cs-137	<2.40E-02	0.00E+00	2.40E-02
		Be-7	<1.60E-01	0.00E+00	1.60E-01
		K-40	5.97E-01	2.76E-01	2.54E-01
568633	6/20/2022 - 6/27/2022	I-131	<2.63E-02	0.00E+00	2.63E-02
		Cs-134	<2.71E-02	0.00E+00	2.71E-02
		Cs-137	<2.74E-02	0.00E+00	2.74E-02
		Be-7	<1.94E-01	0.00E+00	1.94E-01
		K-40	3.63E-01	2.47E-01	3.18E-01
568849	6/27/2022 - 7/5/2022	I-131	<2.40E-02	0.00E+00	2.40E-02
		Cs-134	<1.78E-02	0.00E+00	1.78E-02
		Cs-137	<1.71E-02	0.00E+00	1.71E-02
		Be-7	<1.34E-01	0.00E+00	1.34E-01
		K-40	5.23E-01	2.26E-01	1.78E-01
569093	7/5/2022 - 7/11/2022	I-131	<3.41E-02	0.00E+00	3.41E-02
		Cs-134	<2.81E-02	0.00E+00	2.81E-02
		Cs-137	<2.74E-02	0.00E+00	2.74E-02
		Be-7	<1.90E-01	0.00E+00	1.90E-01
		K-40	6.73E-01	3.57E-01	4.40E-01
570311	7/11/2022 - 7/18/2022	I-131	<2.41E-02	0.00E+00	2.41E-02
		Cs-134	<2.57E-02	0.00E+00	2.57E-02
		Cs-137	<2.39E-02	0.00E+00	2.39E-02
		Be-7	<1.69E-01	0.00E+00	1.69E-01
		K-40	5.58E-01	2.42E-01	6.87E-02
570871	7/18/2022 - 7/25/2022	I-131	<2.66E-02	0.00E+00	2.66E-02
		Cs-134	<2.47E-02	0.00E+00	2.47E-02
		Cs-137	<2.14E-02	0.00E+00	2.14E-02
		Be-7	<1.54E-01	0.00E+00	1.54E-01
		K-40	4.15E-01	2.04E-01	6.61E-02
571120	7/25/2022 - 8/1/2022	I-131	<1.90E-02	0.00E+00	1.90E-02
		Cs-134	<1.41E-02	0.00E+00	1.41E-02
		Cs-137	<1.53E-02	0.00E+00	1.53E-02
		Be-7	<1.18E-01	0.00E+00	1.18E-01
		K-40	4.68E-01	2.89E-01	3.79E-01

HARRIS Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 90 [INDICATOR - SSW @ 0.5 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
571439	8/1/2022 - 8/8/2022	I-131	<2.67E-02	0.00E+00	2.67E-02
		Cs-134	<2.58E-02	0.00E+00	2.58E-02
		Cs-137	<1.90E-02	0.00E+00	1.90E-02
		Be-7	<1.13E-01	0.00E+00	1.13E-01
		K-40	<4.32E-01	0.00E+00	4.32E-01
571722	8/8/2022 - 8/15/2022	I-131	<2.58E-02	0.00E+00	2.58E-02
		Cs-134	<3.00E-02	0.00E+00	3.00E-02
		Cs-137	<3.57E-02	0.00E+00	3.57E-02
		Be-7	<1.72E-01	0.00E+00	1.72E-01
		K-40	6.69E-01	3.00E-01	2.90E-01
572731	8/15/2022 - 8/22/2022	I-131	<2.96E-02	0.00E+00	2.96E-02
		Cs-134	<3.59E-02	0.00E+00	3.59E-02
		Cs-137	<1.77E-02	0.00E+00	1.77E-02
		Be-7	<1.64E-01	0.00E+00	1.64E-01
		K-40	6.48E-01	3.03E-01	3.28E-01
573931	8/22/2022 - 8/29/2022	I-131	<2.91E-02	0.00E+00	2.91E-02
		Cs-134	<2.42E-02	0.00E+00	2.42E-02
		Cs-137	<1.61E-02	0.00E+00	1.61E-02
		Be-7	<1.90E-01	0.00E+00	1.90E-01
		K-40	5.92E-01	2.83E-01	2.84E-01
574550	8/29/2022 - 9/6/2022	I-131	<1.78E-02	0.00E+00	1.78E-02
		Cs-134	<2.03E-02	0.00E+00	2.03E-02
		Cs-137	<1.75E-02	0.00E+00	1.75E-02
		Be-7	<1.55E-01	0.00E+00	1.55E-01
		K-40	<4.81E-01	0.00E+00	4.81E-01
575021	9/6/2022 - 9/12/2022	I-131	<3.22E-02	0.00E+00	3.22E-02
		Cs-134	<3.34E-02	0.00E+00	3.34E-02
		Cs-137	<3.93E-02	0.00E+00	3.93E-02
		Be-7	<1.60E-01	0.00E+00	1.60E-01
		K-40	<6.30E-01	0.00E+00	6.30E-01
575709	9/12/2022 - 9/19/2022	I-131	<2.99E-02	0.00E+00	2.99E-02
		Cs-134	<2.04E-02	0.00E+00	2.04E-02
		Cs-137	<1.97E-02	0.00E+00	1.97E-02
		Be-7	<1.89E-01	0.00E+00	1.89E-01
		K-40	<6.31E-01	0.00E+00	6.31E-01
576106	9/19/2022 - 9/26/2022	I-131	<2.00E-02	0.00E+00	2.00E-02
		Cs-134	<1.87E-02	0.00E+00	1.87E-02
		Cs-137	<1.27E-02	0.00E+00	1.27E-02
		Be-7	<1.69E-01	0.00E+00	1.69E-01
		K-40	<3.87E-01	0.00E+00	3.87E-01
576277	9/26/2022 - 10/3/2022	I-131	<2.73E-02	0.00E+00	2.73E-02
		Cs-134	<2.22E-02	0.00E+00	2.22E-02
		Cs-137	<2.77E-02	0.00E+00	2.77E-02
		Be-7	<2.01E-01	0.00E+00	2.01E-01
		K-40	<4.80E-01	0.00E+00	4.80E-01
576565	10/3/2022 - 10/10/2022	I-131	<3.55E-02	0.00E+00	3.55E-02
		Cs-134	<2.52E-02	0.00E+00	2.52E-02
		Cs-137	<2.35E-02	0.00E+00	2.35E-02
		Be-7	<2.94E-01	0.00E+00	2.94E-01
		K-40	4.71E-01	2.32E-01	7.51E-02

HARRIS Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 90 [INDICATOR - SSW @ 0.5 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
577182	10/10/2022 - 10/17/2022	I-131	<2.92E-02	0.00E+00	2.92E-02
		Cs-134	<2.70E-02	0.00E+00	2.70E-02
		Cs-137	<1.98E-02	0.00E+00	1.98E-02
		Be-7	<1.02E-01	0.00E+00	1.02E-01
		K-40	5.22E-01	2.72E-01	3.03E-01
577780	10/17/2022 - 10/24/2022	I-131	<2.22E-02	0.00E+00	2.22E-02
		Cs-134	<2.30E-02	0.00E+00	2.30E-02
		Cs-137	<1.98E-02	0.00E+00	1.98E-02
		Be-7	<1.74E-01	0.00E+00	1.74E-01
		K-40	<2.98E-01	0.00E+00	2.98E-01
578133	10/24/2022 - 10/31/2022	I-131	<3.38E-02	0.00E+00	3.38E-02
		Cs-134	<2.95E-02	0.00E+00	2.95E-02
		Cs-137	<2.79E-02	0.00E+00	2.79E-02
		Be-7	<1.28E-01	0.00E+00	1.28E-01
		K-40	3.16E-01	2.40E-01	3.34E-01
578845	10/31/2022 - 11/7/2022	I-131	<2.95E-02	0.00E+00	2.95E-02
		Cs-134	<2.13E-02	0.00E+00	2.13E-02
		Cs-137	<2.24E-02	0.00E+00	2.24E-02
		Be-7	<1.89E-01	0.00E+00	1.89E-01
		K-40	5.01E-01	2.53E-01	2.41E-01
579044	11/7/2022 - 11/14/2022	I-131	<2.16E-02	0.00E+00	2.16E-02
		Cs-134	<2.02E-02	0.00E+00	2.02E-02
		Cs-137	<1.74E-02	0.00E+00	1.74E-02
		Be-7	<1.93E-01	0.00E+00	1.93E-01
		K-40	4.26E-01	2.52E-01	3.06E-01
579804	11/14/2022 - 11/21/2022	I-131	<1.89E-02	0.00E+00	1.89E-02
		Cs-134	<1.74E-02	0.00E+00	1.74E-02
		Cs-137	<1.74E-02	0.00E+00	1.74E-02
		Be-7	<1.85E-01	0.00E+00	1.85E-01
		K-40	4.80E-01	2.18E-01	6.50E-02
580617	11/21/2022 - 11/28/2022	I-131	<3.01E-02	0.00E+00	3.01E-02
		Cs-134	<2.92E-02	0.00E+00	2.92E-02
		Cs-137	<2.38E-02	0.00E+00	2.38E-02
		Be-7	<1.28E-01	0.00E+00	1.28E-01
		K-40	<5.72E-01	0.00E+00	5.72E-01
580830	11/28/2022 - 12/5/2022	I-131	<3.16E-02	0.00E+00	3.16E-02
		Cs-134	<3.15E-02	0.00E+00	3.15E-02
		Cs-137	<2.06E-02	0.00E+00	2.06E-02
		Be-7	<1.49E-01	0.00E+00	1.49E-01
		K-40	4.94E-01	2.68E-01	2.99E-01
581149	12/5/2022 - 12/12/2022	I-131	<2.12E-02	0.00E+00	2.12E-02
		Cs-134	<2.42E-02	0.00E+00	2.42E-02
		Cs-137	<1.61E-02	0.00E+00	1.61E-02
		Be-7	<1.99E-01	0.00E+00	1.99E-01
		K-40	3.35E-01	2.35E-01	3.03E-01
581717	12/12/2022 - 12/19/2022	I-131	<2.48E-02	0.00E+00	2.48E-02
		Cs-134	<2.31E-02	0.00E+00	2.31E-02
		Cs-137	<2.77E-02	0.00E+00	2.77E-02
		Be-7	<1.43E-01	0.00E+00	1.43E-01
		K-40	6.29E-01	2.77E-01	2.45E-01

HARRIS Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 90 [INDICATOR - SSW @ 0.5 miles]

Sample ID: 582252	Sample Dates: 12/19/2022 - 12/27/2022	Nuclide	Activity	2 Sigma Error	MDA
		I-131	<2.02E-02	0.00E+00	2.02E-02
		Cs-134	<2.05E-02	0.00E+00	2.05E-02
		Cs-137	<2.07E-02	0.00E+00	2.07E-02
		Be-7	<1.56E-01	0.00E+00	1.56E-01
		K-40	4.58E-01	2.03E-01	5.92E-02

Sample ID: 582440	Sample Dates: 12/27/2022 - 1/3/2023	Nuclide	Activity	2 Sigma Error	MDA
		I-131	<4.13E-02	0.00E+00	4.13E-02
		Cs-134	<3.31E-02	0.00E+00	3.31E-02
		Cs-137	<2.83E-02	0.00E+00	2.83E-02
		Be-7	<1.95E-01	0.00E+00	1.95E-01
		K-40	6.61E-01	2.75E-01	7.47E-02

Sample Point 91 [INDICATOR - ENE @ 1.6 miles]

Sample ID: 558924	Sample Dates: 1/4/2022 - 1/10/2022	Nuclide	Activity	2 Sigma Error	MDA
		I-131	<3.43E-02	0.00E+00	3.43E-02
		Cs-134	<2.69E-02	0.00E+00	2.69E-02
		Cs-137	<2.32E-02	0.00E+00	2.32E-02
		Be-7	<1.53E-01	0.00E+00	1.53E-01
		K-40	6.65E-01	2.82E-01	7.83E-02

Sample ID: 559133	Sample Dates: 1/10/2022 - 1/18/2022	Nuclide	Activity	2 Sigma Error	MDA
		I-131	<3.56E-02	0.00E+00	3.56E-02
		Cs-134	<2.96E-02	0.00E+00	2.96E-02
		Cs-137	<1.83E-02	0.00E+00	1.83E-02
		Be-7	<2.17E-01	0.00E+00	2.17E-01
		K-40	3.77E-01	2.09E-01	2.11E-01

Sample ID: 559399	Sample Dates: 1/18/2022 - 1/24/2022	Nuclide	Activity	2 Sigma Error	MDA
		I-131	<3.65E-02	0.00E+00	3.65E-02
		Cs-134	<2.14E-02	0.00E+00	2.14E-02
		Cs-137	<2.98E-02	0.00E+00	2.98E-02
		Be-7	<2.28E-01	0.00E+00	2.28E-01
		K-40	7.28E-01	3.22E-01	2.72E-01

Sample ID: 560064	Sample Dates: 1/24/2022 - 1/31/2022	Nuclide	Activity	2 Sigma Error	MDA
		I-131	<3.16E-02	0.00E+00	3.16E-02
		Cs-134	<3.15E-02	0.00E+00	3.15E-02
		Cs-137	<1.94E-02	0.00E+00	1.94E-02
		Be-7	<1.89E-01	0.00E+00	1.89E-01
		K-40	5.30E-01	2.63E-01	2.40E-01

Sample ID: 560281	Sample Dates: 1/31/2022 - 2/7/2022	Nuclide	Activity	2 Sigma Error	MDA
		I-131	<2.26E-02	0.00E+00	2.26E-02
		Cs-134	<2.34E-02	0.00E+00	2.34E-02
		Cs-137	<1.56E-02	0.00E+00	1.56E-02
		Be-7	<1.47E-01	0.00E+00	1.47E-01
		K-40	<4.58E-01	0.00E+00	4.58E-01

Sample ID: 560526	Sample Dates: 2/7/2022 - 2/14/2022	Nuclide	Activity	2 Sigma Error	MDA
		I-131	<3.22E-02	0.00E+00	3.22E-02
		Cs-134	<2.72E-02	0.00E+00	2.72E-02
		Cs-137	<2.98E-02	0.00E+00	2.98E-02
		Be-7	<2.02E-01	0.00E+00	2.02E-01
		K-40	<6.16E-01	0.00E+00	6.16E-01

Sample ID: 560830	Sample Dates: 2/14/2022 - 2/21/2022	Nuclide	Activity	2 Sigma Error	MDA
		I-131	<3.26E-02	0.00E+00	3.26E-02
		Cs-134	<1.99E-02	0.00E+00	1.99E-02
		Cs-137	<2.39E-02	0.00E+00	2.39E-02
		Be-7	<1.77E-01	0.00E+00	1.77E-01
		K-40	6.56E-01	2.99E-01	3.21E-01

Sample ID: 561167	Sample Dates: 2/21/2022 - 2/28/2022	Nuclide	Activity	2 Sigma Error	MDA
		I-131	<1.97E-02	0.00E+00	1.97E-02
		Cs-134	<2.65E-02	0.00E+00	2.65E-02
		Cs-137	<2.46E-02	0.00E+00	2.46E-02

HARRIS Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 91 [INDICATOR - ENE @ 1.6 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
561167	2/21/2022 - 2/28/2022	Be-7	<1.25E-01	0.00E+00	1.25E-01
		K-40	<5.26E-01	0.00E+00	5.26E-01
561666	2/28/2022 - 3/7/2022	I-131	<2.76E-02	0.00E+00	2.76E-02
		Cs-134	<2.08E-02	0.00E+00	2.08E-02
		Cs-137	<1.77E-02	0.00E+00	1.77E-02
		Be-7	<1.87E-01	0.00E+00	1.87E-01
		K-40	<7.00E-01	0.00E+00	7.00E-01
562268	3/7/2022 - 3/14/2022	I-131	<2.18E-02	0.00E+00	2.18E-02
		Cs-134	<1.36E-02	0.00E+00	1.36E-02
		Cs-137	<1.72E-02	0.00E+00	1.72E-02
		Be-7	<1.16E-01	0.00E+00	1.16E-01
		K-40	<4.41E-01	0.00E+00	4.41E-01
562864	3/14/2022 - 3/21/2022	I-131	<3.60E-02	0.00E+00	3.60E-02
		Cs-134	<3.27E-02	0.00E+00	3.27E-02
		Cs-137	<1.57E-02	0.00E+00	1.57E-02
		Be-7	<1.87E-01	0.00E+00	1.87E-01
		K-40	4.29E-01	2.75E-01	3.57E-01
563461	3/21/2022 - 3/28/2022	I-131	<2.75E-02	0.00E+00	2.75E-02
		Cs-134	<2.86E-02	0.00E+00	2.86E-02
		Cs-137	<1.63E-02	0.00E+00	1.63E-02
		Be-7	<1.75E-01	0.00E+00	1.75E-01
		K-40	<4.78E-01	0.00E+00	4.78E-01
563794	3/28/2022 - 4/4/2022	I-131	<3.51E-02	0.00E+00	3.51E-02
		Cs-134	<3.06E-02	0.00E+00	3.06E-02
		Cs-137	<2.64E-02	0.00E+00	2.64E-02
		Be-7	<2.19E-01	0.00E+00	2.19E-01
		K-40	5.09E-01	3.16E-01	4.20E-01
564030	4/4/2022 - 4/11/2022	I-131	<3.14E-02	0.00E+00	3.14E-02
		Cs-134	<2.53E-02	0.00E+00	2.53E-02
		Cs-137	<2.47E-02	0.00E+00	2.47E-02
		Be-7	<2.05E-01	0.00E+00	2.05E-01
		K-40	3.06E-01	2.70E-01	4.04E-01
564559	4/11/2022 - 4/18/2022	I-131	<1.69E-02	0.00E+00	1.69E-02
		Cs-134	<2.97E-02	0.00E+00	2.97E-02
		Cs-137	<1.19E-02	0.00E+00	1.19E-02
		Be-7	<1.63E-01	0.00E+00	1.63E-01
		K-40	<4.89E-01	0.00E+00	4.89E-01
564827	4/18/2022 - 4/25/2022	I-131	<2.43E-02	0.00E+00	2.43E-02
		Cs-134	<2.32E-02	0.00E+00	2.32E-02
		Cs-137	<4.52E-03	0.00E+00	4.52E-03
		Be-7	<1.94E-01	0.00E+00	1.94E-01
		K-40	5.06E-01	2.90E-01	3.62E-01
565318	4/25/2022 - 5/2/2022	I-131	<3.25E-02	0.00E+00	3.25E-02
		Cs-134	<2.76E-02	0.00E+00	2.76E-02
		Cs-137	<2.36E-02	0.00E+00	2.36E-02
		Be-7	<1.77E-01	0.00E+00	1.77E-01
		K-40	4.89E-01	3.25E-01	4.43E-01
565984	5/2/2022 - 5/9/2022	I-131	<2.63E-02	0.00E+00	2.63E-02

HARRIS Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 91 [INDICATOR - ENE @ 1.6 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
565984	5/2/2022 - 5/9/2022	Cs-134	<2.71E-02	0.00E+00	2.71E-02
		Cs-137	<1.87E-02	0.00E+00	1.87E-02
		Be-7	<1.56E-01	0.00E+00	1.56E-01
		K-40	4.31E-01	2.54E-01	3.13E-01
566573	5/9/2022 - 5/16/2022	I-131	<2.88E-02	0.00E+00	2.88E-02
		Cs-134	<2.42E-02	0.00E+00	2.42E-02
		Cs-137	<2.52E-02	0.00E+00	2.52E-02
		Be-7	<1.39E-01	0.00E+00	1.39E-01
		K-40	5.25E-01	2.28E-01	6.46E-02
566963	5/16/2022 - 5/23/2022	I-131	<3.12E-02	0.00E+00	3.12E-02
		Cs-134	<3.16E-02	0.00E+00	3.16E-02
		Cs-137	<2.40E-02	0.00E+00	2.40E-02
		Be-7	<1.93E-01	0.00E+00	1.93E-01
		K-40	4.06E-01	2.38E-01	2.58E-01
567153	5/23/2022 - 5/31/2022	I-131	<1.67E-02	0.00E+00	1.67E-02
		Cs-134	<2.32E-02	0.00E+00	2.32E-02
		Cs-137	<1.86E-02	0.00E+00	1.86E-02
		Be-7	<1.58E-01	0.00E+00	1.58E-01
		K-40	<4.62E-01	0.00E+00	4.62E-01
567591	5/31/2022 - 6/6/2022	I-131	<2.92E-02	0.00E+00	2.92E-02
		Cs-134	<3.30E-02	0.00E+00	3.30E-02
		Cs-137	<2.85E-02	0.00E+00	2.85E-02
		Be-7	<2.00E-01	0.00E+00	2.00E-01
		K-40	<5.72E-01	0.00E+00	5.72E-01
567759	6/6/2022 - 6/13/2022	I-131	<2.90E-02	0.00E+00	2.90E-02
		Cs-134	<2.76E-02	0.00E+00	2.76E-02
		Cs-137	<1.47E-02	0.00E+00	1.47E-02
		Be-7	<1.85E-01	0.00E+00	1.85E-01
		K-40	<5.34E-01	0.00E+00	5.34E-01
568396	6/13/2022 - 6/20/2022	I-131	<2.52E-02	0.00E+00	2.52E-02
		Cs-134	<2.74E-02	0.00E+00	2.74E-02
		Cs-137	<2.36E-02	0.00E+00	2.36E-02
		Be-7	<1.66E-01	0.00E+00	1.66E-01
		K-40	5.21E-01	2.31E-01	6.73E-02
568634	6/20/2022 - 6/27/2022	I-131	<2.47E-02	0.00E+00	2.47E-02
		Cs-134	<2.99E-02	0.00E+00	2.99E-02
		Cs-137	<2.30E-02	0.00E+00	2.30E-02
		Be-7	<1.53E-01	0.00E+00	1.53E-01
		K-40	<5.21E-01	0.00E+00	5.21E-01
568850	6/27/2022 - 7/5/2022	I-131	<1.79E-02	0.00E+00	1.79E-02
		Cs-134	<2.47E-02	0.00E+00	2.47E-02
		Cs-137	<1.97E-02	0.00E+00	1.97E-02
		Be-7	<1.58E-01	0.00E+00	1.58E-01
		K-40	<3.90E-01	0.00E+00	3.90E-01
569094	7/5/2022 - 7/11/2022	I-131	<3.95E-02	0.00E+00	3.95E-02
		Cs-134	<3.61E-02	0.00E+00	3.61E-02
		Cs-137	<3.08E-02	0.00E+00	3.08E-02
		Be-7	<2.11E-01	0.00E+00	2.11E-01
		K-40	3.81E-01	3.34E-01	5.03E-01

HARRIS Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 91 [INDICATOR - ENE @ 1.6 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
570312	7/11/2022 - 7/18/2022	I-131	<3.04E-02	0.00E+00	3.04E-02
		Cs-134	<2.62E-02	0.00E+00	2.62E-02
		Cs-137	<2.41E-02	0.00E+00	2.41E-02
		Be-7	<1.85E-01	0.00E+00	1.85E-01
		K-40	<5.34E-01	0.00E+00	5.34E-01
570872	7/18/2022 - 7/25/2022	I-131	<2.17E-02	0.00E+00	2.17E-02
		Cs-134	<2.56E-02	0.00E+00	2.56E-02
		Cs-137	<1.45E-02	0.00E+00	1.45E-02
		Be-7	<1.26E-01	0.00E+00	1.26E-01
		K-40	6.04E-01	2.76E-01	2.80E-01
571121	7/25/2022 - 8/1/2022	I-131	<2.54E-02	0.00E+00	2.54E-02
		Cs-134	<1.74E-02	0.00E+00	1.74E-02
		Cs-137	<1.94E-02	0.00E+00	1.94E-02
		Be-7	<1.86E-01	0.00E+00	1.86E-01
		K-40	5.02E-01	2.59E-01	2.81E-01
571440	8/1/2022 - 8/8/2022	I-131	<2.91E-02	0.00E+00	2.91E-02
		Cs-134	<2.00E-02	0.00E+00	2.00E-02
		Cs-137	<2.66E-02	0.00E+00	2.66E-02
		Be-7	<1.69E-01	0.00E+00	1.69E-01
		K-40	6.73E-01	3.50E-01	4.52E-01
571723	8/8/2022 - 8/15/2022	I-131	<3.03E-02	0.00E+00	3.03E-02
		Cs-134	<2.81E-02	0.00E+00	2.81E-02
		Cs-137	<2.40E-02	0.00E+00	2.40E-02
		Be-7	<2.01E-01	0.00E+00	2.01E-01
		K-40	<5.48E-01	0.00E+00	5.48E-01
572732	8/15/2022 - 8/22/2022	I-131	<3.16E-02	0.00E+00	3.16E-02
		Cs-134	<3.06E-02	0.00E+00	3.06E-02
		Cs-137	<2.74E-02	0.00E+00	2.74E-02
		Be-7	<1.71E-01	0.00E+00	1.71E-01
		K-40	<5.30E-01	0.00E+00	5.30E-01
573932	8/22/2022 - 8/29/2022	I-131	<2.49E-02	0.00E+00	2.49E-02
		Cs-134	<2.52E-02	0.00E+00	2.52E-02
		Cs-137	<2.89E-02	0.00E+00	2.89E-02
		Be-7	<1.19E-01	0.00E+00	1.19E-01
		K-40	7.18E-01	3.03E-01	2.82E-01
574551	8/29/2022 - 9/6/2022	I-131	<2.37E-02	0.00E+00	2.37E-02
		Cs-134	<1.91E-02	0.00E+00	1.91E-02
		Cs-137	<1.01E-02	0.00E+00	1.01E-02
		Be-7	<1.37E-01	0.00E+00	1.37E-01
		K-40	3.79E-01	2.17E-01	2.58E-01
575022	9/6/2022 - 9/12/2022	I-131	<3.35E-02	0.00E+00	3.35E-02
		Cs-134	<2.67E-02	0.00E+00	2.67E-02
		Cs-137	<5.19E-03	0.00E+00	5.19E-03
		Be-7	<1.52E-01	0.00E+00	1.52E-01
		K-40	<6.95E-01	0.00E+00	6.95E-01
575710	9/12/2022 - 9/19/2022	I-131	<2.65E-02	0.00E+00	2.65E-02
		Cs-134	<3.33E-02	0.00E+00	3.33E-02
		Cs-137	<2.26E-02	0.00E+00	2.26E-02
		Be-7	<1.36E-01	0.00E+00	1.36E-01
		K-40	6.45E-01	2.87E-01	2.63E-01

HARRIS Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 91 [INDICATOR - ENE @ 1.6 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
576107	9/19/2022 - 9/26/2022	I-131	<2.59E-02	0.00E+00	2.59E-02
		Cs-134	<3.34E-02	0.00E+00	3.34E-02
		Cs-137	<1.53E-02	0.00E+00	1.53E-02
		Be-7	<1.31E-01	0.00E+00	1.31E-01
		K-40	5.35E-01	3.04E-01	3.86E-01
576278	9/26/2022 - 10/3/2022	I-131	<3.47E-02	0.00E+00	3.47E-02
		Cs-134	<2.33E-02	0.00E+00	2.33E-02
		Cs-137	<2.18E-02	0.00E+00	2.18E-02
		Be-7	<1.84E-01	0.00E+00	1.84E-01
		K-40	6.42E-01	2.62E-01	6.96E-02
576566	10/3/2022 - 10/10/2022	I-131	<2.56E-02	0.00E+00	2.56E-02
		Cs-134	<2.94E-02	0.00E+00	2.94E-02
		Cs-137	<2.22E-02	0.00E+00	2.22E-02
		Be-7	<1.48E-01	0.00E+00	1.48E-01
		K-40	4.33E-01	2.81E-01	3.71E-01
577183	10/10/2022 - 10/17/2022	I-131	<1.88E-02	0.00E+00	1.88E-02
		Cs-134	<2.47E-02	0.00E+00	2.47E-02
		Cs-137	<2.29E-02	0.00E+00	2.29E-02
		Be-7	<1.52E-01	0.00E+00	1.52E-01
		K-40	<5.14E-01	0.00E+00	5.14E-01
577781	10/17/2022 - 10/24/2022	I-131	<4.01E-02	0.00E+00	4.01E-02
		Cs-134	<2.42E-02	0.00E+00	2.42E-02
		Cs-137	<2.73E-02	0.00E+00	2.73E-02
		Be-7	<2.13E-01	0.00E+00	2.13E-01
		K-40	5.19E-01	2.61E-01	2.46E-01
578134	10/24/2022 - 10/31/2022	I-131	<3.63E-02	0.00E+00	3.63E-02
		Cs-134	<2.94E-02	0.00E+00	2.94E-02
		Cs-137	<2.36E-02	0.00E+00	2.36E-02
		Be-7	<1.99E-01	0.00E+00	1.99E-01
		K-40	2.67E-01	2.18E-01	2.99E-01
578846	10/31/2022 - 11/7/2022	I-131	<2.63E-02	0.00E+00	2.63E-02
		Cs-134	<1.81E-02	0.00E+00	1.81E-02
		Cs-137	<2.20E-02	0.00E+00	2.20E-02
		Be-7	<1.67E-01	0.00E+00	1.67E-01
		K-40	3.90E-01	2.48E-01	3.12E-01
579045	11/7/2022 - 11/14/2022	I-131	<1.98E-02	0.00E+00	1.98E-02
		Cs-134	<1.48E-02	0.00E+00	1.48E-02
		Cs-137	<2.08E-02	0.00E+00	2.08E-02
		Be-7	<1.59E-01	0.00E+00	1.59E-01
		K-40	4.62E-01	2.21E-01	6.96E-02
579805	11/14/2022 - 11/21/2022	I-131	<2.13E-02	0.00E+00	2.13E-02
		Cs-134	<1.86E-02	0.00E+00	1.86E-02
		Cs-137	<2.73E-02	0.00E+00	2.73E-02
		Be-7	<1.78E-01	0.00E+00	1.78E-01
		K-40	2.64E-01	2.45E-01	3.66E-01
580618	11/21/2022 - 11/28/2022	I-131	<3.91E-02	0.00E+00	3.91E-02
		Cs-134	<3.07E-02	0.00E+00	3.07E-02
		Cs-137	<2.17E-02	0.00E+00	2.17E-02
		Be-7	<2.07E-01	0.00E+00	2.07E-01
		K-40	<5.75E-01	0.00E+00	5.75E-01

HARRIS Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 91 [INDICATOR - ENE @ 1.6 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
580831	11/28/2022 - 12/5/2022	I-131	<3.13E-02	0.00E+00	3.13E-02
		Cs-134	<2.07E-02	0.00E+00	2.07E-02
		Cs-137	<1.99E-02	0.00E+00	1.99E-02
		Be-7	<1.57E-01	0.00E+00	1.57E-01
		K-40	<5.65E-01	0.00E+00	5.65E-01
581150	12/5/2022 - 12/12/2022	I-131	<2.64E-02	0.00E+00	2.64E-02
		Cs-134	<2.31E-02	0.00E+00	2.31E-02
		Cs-137	<1.99E-02	0.00E+00	1.99E-02
		Be-7	<1.75E-01	0.00E+00	1.75E-01
		K-40	7.42E-01	3.14E-01	3.09E-01
581718	12/12/2022 - 12/19/2022	I-131	<1.94E-02	0.00E+00	1.94E-02
		Cs-134	<3.00E-02	0.00E+00	3.00E-02
		Cs-137	<2.85E-02	0.00E+00	2.85E-02
		Be-7	<1.52E-01	0.00E+00	1.52E-01
		K-40	4.65E-01	2.17E-01	6.64E-02
582253	12/19/2022 - 12/27/2022	I-131	<2.60E-02	0.00E+00	2.60E-02
		Cs-134	<2.45E-02	0.00E+00	2.45E-02
		Cs-137	<2.42E-02	0.00E+00	2.42E-02
		Be-7	<1.90E-01	0.00E+00	1.90E-01
		K-40	5.21E-01	3.01E-01	3.88E-01
582441	12/27/2022 - 1/3/2023	I-131	<4.13E-02	0.00E+00	4.13E-02
		Cs-134	<2.73E-02	0.00E+00	2.73E-02
		Cs-137	<2.34E-02	0.00E+00	2.34E-02
		Be-7	<1.26E-01	0.00E+00	1.26E-01
		K-40	6.61E-01	2.75E-01	7.46E-02

Media Type: AQUATIC VEGETATION Concentration (Activity): pCi/kg wet

Sample Point 26 [INDICATOR - S @ 4.7 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
570303	7/26/2022 - 7/26/2022	Mn-54	<4.19E+01	0.00E+00	4.19E+01
		Co-58	<3.30E+01	0.00E+00	3.30E+01
		Fe-59	<6.71E+01	0.00E+00	6.71E+01
		Co-60	<4.27E+01	0.00E+00	4.27E+01
		Zn-65	<8.81E+01	0.00E+00	8.81E+01
		Zr-95	<8.09E+01	0.00E+00	8.09E+01
		Nb-95	<3.37E+01	0.00E+00	3.37E+01
		I-131	<3.99E+01	0.00E+00	3.99E+01
		Cs-134	<3.51E+01	0.00E+00	3.51E+01
		Cs-137	<4.53E+01	0.00E+00	4.53E+01
		BaLa-140	<3.78E+01	0.00E+00	3.78E+01
		Be-7	2.98E+02	2.03E+02	2.96E+02
		K-40	5.83E+03	9.79E+02	3.31E+02

Sample Point 41 [INDICATOR - S @ 3.8 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
570304	7/26/2022 - 7/26/2022	Mn-54	<2.48E+01	0.00E+00	2.48E+01
		Co-58	<3.57E+01	0.00E+00	3.57E+01
		Fe-59	<5.37E+01	0.00E+00	5.37E+01
		Co-60	<2.00E+01	0.00E+00	2.00E+01
		Zn-65	<8.02E+01	0.00E+00	8.02E+01
		Zr-95	<3.63E+01	0.00E+00	3.63E+01
		Nb-95	<2.72E+01	0.00E+00	2.72E+01
		I-131	<2.65E+01	0.00E+00	2.65E+01
		Cs-134	<3.25E+01	0.00E+00	3.25E+01
		Cs-137	<2.40E+01	0.00E+00	2.40E+01
		BaLa-140	<2.69E+01	0.00E+00	2.69E+01
		Be-7	4.22E+02	1.93E+02	2.59E+02

HARRIS Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AQUATIC VEGETATION Concentration (Activity): pCi/kg wet

Sample Point 41 [INDICATOR - S @ 3.8 miles]

Sample ID:	Sample Dates:		Nuclide	Activity	2 Sigma Error	MDA
570304	7/26/2022 - 7/26/2022		K-40	3.41E+03	6.38E+02	3.60E+02

Sample Point 61 [CONTROL - E @ 2.5 miles]

Sample ID:	Sample Dates:		Nuclide	Activity	2 Sigma Error	MDA
570305	7/26/2022 - 7/26/2022		Mn-54	<3.55E+01	0.00E+00	3.55E+01
			Co-58	<3.10E+01	0.00E+00	3.10E+01
			Fe-59	<5.38E+01	0.00E+00	5.38E+01
			Co-60	<3.42E+01	0.00E+00	3.42E+01
			Zn-65	<5.97E+01	0.00E+00	5.97E+01
			Zr-95	<5.64E+01	0.00E+00	5.64E+01
			Nb-95	<3.17E+01	0.00E+00	3.17E+01
			I-131	<3.34E+01	0.00E+00	3.34E+01
			Cs-134	<3.49E+01	0.00E+00	3.49E+01
			Cs-137	<2.85E+01	0.00E+00	2.85E+01
			BaLa-140	<3.57E+01	0.00E+00	3.57E+01
			Be-7	1.01E+02	2.05E+02	3.50E+02
			K-40	4.60E+03	8.41E+02	4.27E+02

Media Type: CROPS Concentration (Activity): pCi/kg wet

Sample Point 97 [CONTROL - NW @ 19.1 miles]

Sample ID:	Sample Dates:	MIXEDCROPS	Nuclide	Activity	2 Sigma Error	MDA
558910	1/4/2022 - 1/4/2022		Co-58	<8.43E+00	0.00E+00	8.43E+00
			Fe-59	<1.67E+01	0.00E+00	1.67E+01
			Co-60	<8.06E+00	0.00E+00	8.06E+00
			Zn-65	<1.82E+01	0.00E+00	1.82E+01
			Zr-95	<1.55E+01	0.00E+00	1.55E+01
			Nb-95	<8.15E+00	0.00E+00	8.15E+00
			I-131	<1.06E+01	0.00E+00	1.06E+01
			Cs-134	<7.75E+00	0.00E+00	7.75E+00
			Cs-137	<9.33E+00	0.00E+00	9.33E+00
			BaLa-140	<1.05E+01	0.00E+00	1.05E+01
			Be-7	2.06E+02	7.28E+01	9.84E+01
			K-40	2.34E+03	2.92E+02	1.29E+02

Sample ID:	Sample Dates:	MIXEDCROPS	Nuclide	Activity	2 Sigma Error	MDA
560831	2/7/2022 - 2/7/2022		Co-58	<8.49E+00	0.00E+00	8.49E+00
			Fe-59	<1.92E+01	0.00E+00	1.92E+01
			Co-60	<1.01E+01	0.00E+00	1.01E+01
			Zn-65	<2.00E+01	0.00E+00	2.00E+01
			Zr-95	<1.81E+01	0.00E+00	1.81E+01
			Nb-95	<1.03E+01	0.00E+00	1.03E+01
			I-131	<6.35E+00	0.00E+00	6.35E+00
			Cs-134	<9.84E+00	0.00E+00	9.84E+00
			Cs-137	<9.63E+00	0.00E+00	9.63E+00
			BaLa-140	<1.02E+01	0.00E+00	1.02E+01
			Be-7	<7.28E+01	0.00E+00	7.28E+01
			K-40	2.89E+03	3.44E+02	1.65E+02

Sample ID:	Sample Dates:	MIXEDCROPS	Nuclide	Activity	2 Sigma Error	MDA
562865	3/7/2022 - 3/7/2022		Co-58	<1.05E+01	0.00E+00	1.05E+01
			Fe-59	<2.31E+01	0.00E+00	2.31E+01
			Co-60	<1.01E+01	0.00E+00	1.01E+01
			Zn-65	<2.79E+01	0.00E+00	2.79E+01
			Zr-95	<1.85E+01	0.00E+00	1.85E+01
			Nb-95	<1.09E+01	0.00E+00	1.09E+01
			I-131	<1.06E+01	0.00E+00	1.06E+01
			Cs-134	<1.29E+01	0.00E+00	1.29E+01
			Cs-137	<1.15E+01	0.00E+00	1.15E+01
			BaLa-140	<1.03E+01	0.00E+00	1.03E+01
			Be-7	<8.26E+01	0.00E+00	8.26E+01
			K-40	5.47E+03	5.73E+02	1.74E+02

Sample ID:	Sample Dates:	MIXEDCROPS	Nuclide	Activity	2 Sigma Error	MDA
564560	4/4/2022 - 4/4/2022		Mn-54	<1.83E+01	0.00E+00	1.83E+01
			Co-58	<1.47E+01	0.00E+00	1.47E+01

HARRIS Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: CROPS Concentration (Activity): pCi/kg wet

Sample Point 97 [CONTROL - NW @ 19.1 miles]

Sample ID:	Sample Dates:	MIXEDCROPS	Nuclide	Activity	2 Sigma Error	MDA
564560	4/4/2022 - 4/4/2022	MIXEDCROPS	Fe-59	<3.83E+01	0.00E+00	3.83E+01
			Co-60	<1.94E+01	0.00E+00	1.94E+01
			Zn-65	<3.78E+01	0.00E+00	3.78E+01
			Zr-95	<2.80E+01	0.00E+00	2.80E+01
			Nb-95	<1.49E+01	0.00E+00	1.49E+01
			I-131	<1.49E+01	0.00E+00	1.49E+01
			Cs-134	<2.25E+01	0.00E+00	2.25E+01
			Cs-137	<1.90E+01	0.00E+00	1.90E+01
			BaLa-140	<1.27E+01	0.00E+00	1.27E+01
			Be-7	<1.32E+02	0.00E+00	1.32E+02
			K-40	4.51E+03	6.50E+02	3.67E+02
			566577	5/2/2022 - 5/2/2022	MIXEDCROPS	Mn-54
Co-58	<7.95E+00	0.00E+00				7.95E+00
Fe-59	<1.81E+01	0.00E+00				1.81E+01
Co-60	<9.82E+00	0.00E+00				9.82E+00
Zn-65	<1.77E+01	0.00E+00				1.77E+01
Zr-95	<1.53E+01	0.00E+00				1.53E+01
Nb-95	<8.85E+00	0.00E+00				8.85E+00
I-131	<8.75E+00	0.00E+00				8.75E+00
Cs-134	<8.34E+00	0.00E+00				8.34E+00
Cs-137	<9.02E+00	0.00E+00				9.02E+00
BaLa-140	<4.87E+00	0.00E+00				4.87E+00
Be-7	<7.62E+01	0.00E+00				7.62E+01
K-40	4.40E+03	4.82E+02	1.51E+02			
568400	6/6/2022 - 6/6/2022	MIXEDCROPS	Mn-54	<9.82E+00	0.00E+00	9.82E+00
			Co-58	<9.05E+00	0.00E+00	9.05E+00
			Fe-59	<1.67E+01	0.00E+00	1.67E+01
			Co-60	<1.08E+01	0.00E+00	1.08E+01
			Zn-65	<2.28E+01	0.00E+00	2.28E+01
			Zr-95	<1.62E+01	0.00E+00	1.62E+01
			Nb-95	<8.52E+00	0.00E+00	8.52E+00
			I-131	<7.69E+00	0.00E+00	7.69E+00
			Cs-134	<9.06E+00	0.00E+00	9.06E+00
			Cs-137	<1.08E+01	0.00E+00	1.08E+01
			BaLa-140	<7.06E+00	0.00E+00	7.06E+00
			Be-7	<6.93E+01	0.00E+00	6.93E+01
K-40	2.98E+03	3.62E+02	1.68E+02			
570316	7/5/2022 - 7/5/2022	MIXEDCROPS	Mn-54	<8.22E+00	0.00E+00	8.22E+00
			Co-58	<8.01E+00	0.00E+00	8.01E+00
			Fe-59	<1.48E+01	0.00E+00	1.48E+01
			Co-60	<7.29E+00	0.00E+00	7.29E+00
			Zn-65	<1.81E+01	0.00E+00	1.81E+01
			Zr-95	<1.09E+01	0.00E+00	1.09E+01
			Nb-95	<8.07E+00	0.00E+00	8.07E+00
			I-131	<7.95E+00	0.00E+00	7.95E+00
			Cs-134	<9.04E+00	0.00E+00	9.04E+00
			Cs-137	<8.44E+00	0.00E+00	8.44E+00
			BaLa-140	<5.91E+00	0.00E+00	5.91E+00
			Be-7	<6.74E+01	0.00E+00	6.74E+01
K-40	1.94E+03	2.62E+02	1.32E+02			
571727	8/1/2022 - 8/1/2022	MIXEDCROPS	Mn-54	<7.68E+00	0.00E+00	7.68E+00
			Co-58	<7.16E+00	0.00E+00	7.16E+00
			Fe-59	<1.56E+01	0.00E+00	1.56E+01
			Co-60	<6.84E+00	0.00E+00	6.84E+00
			Zn-65	<1.51E+01	0.00E+00	1.51E+01
			Zr-95	<1.35E+01	0.00E+00	1.35E+01
			Nb-95	<7.10E+00	0.00E+00	7.10E+00
			I-131	<7.69E+00	0.00E+00	7.69E+00
			Cs-134	<9.60E+00	0.00E+00	9.60E+00

HARRIS Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: CROPS Concentration (Activity): pCi/kg wet

Sample Point 97 [CONTROL - NW @ 19.1 miles]

Sample ID:	571727	Sample Dates:	8/1/2022 - 8/1/2022	MIXEDCROPS	Nuclide	Activity	2 Sigma Error	MDA
					Cs-137	<8.43E+00	0.00E+00	8.43E+00
					BaLa-140	<8.46E+00	0.00E+00	8.46E+00
					Be-7	<5.11E+01	0.00E+00	5.11E+01
					K-40	1.34E+03	1.97E+02	9.26E+01
Sample ID:	575714	Sample Dates:	9/6/2022 - 9/6/2022	MIXEDCROPS	Nuclide	Activity	2 Sigma Error	MDA
					Mn-54	<4.89E+00	0.00E+00	4.89E+00
					Co-58	<5.41E+00	0.00E+00	5.41E+00
					Fe-59	<9.44E+00	0.00E+00	9.44E+00
					Co-60	<5.80E+00	0.00E+00	5.80E+00
					Zn-65	<1.16E+01	0.00E+00	1.16E+01
					Zr-95	<9.72E+00	0.00E+00	9.72E+00
					Nb-95	<5.76E+00	0.00E+00	5.76E+00
					I-131	<7.13E+00	0.00E+00	7.13E+00
					Cs-134	<6.08E+00	0.00E+00	6.08E+00
					Cs-137	<5.12E+00	0.00E+00	5.12E+00
					BaLa-140	<7.30E+00	0.00E+00	7.30E+00
					Be-7	<4.84E+01	0.00E+00	4.84E+01
					K-40	1.46E+03	1.77E+02	9.77E+01

Media Type: DRINKING WATER Concentration (Activity): pCi/l

Sample Point 46 [INDICATOR - SSE @ 17.2 miles]

Sample ID:	560163	Sample Dates:	12/27/2021 - 1/24/2022	Nuclide	Activity	2 Sigma Error	MDA
				Beta	3.64E+00	4.43E+00	3.25E+00
				Mn-54	<3.59E+00	0.00E+00	3.59E+00
				Co-58	<2.84E+00	0.00E+00	2.84E+00
				Fe-59	<8.64E+00	0.00E+00	8.64E+00
				Co-60	<3.25E+00	0.00E+00	3.25E+00
				Zn-65	<6.56E+00	0.00E+00	6.56E+00
				Zr-95	<5.89E+00	0.00E+00	5.89E+00
				Nb-95	<4.20E+00	0.00E+00	4.20E+00
				I-131	<1.20E+01	0.00E+00	1.20E+01
				Cs-134	<3.41E+00	0.00E+00	3.41E+00
				Cs-137	<2.99E+00	0.00E+00	2.99E+00
				BaLa-140	<8.65E+00	0.00E+00	8.65E+00
				Be-7	<2.86E+01	0.00E+00	2.86E+01
				K-40	7.56E+01	3.09E+01	3.42E+01
Sample ID:	561199	Sample Dates:	1/24/2022 - 2/21/2022	Nuclide	Activity	2 Sigma Error	MDA
				Beta	3.85E+00	4.40E+00	3.22E+00
				Mn-54	<2.57E+00	0.00E+00	2.57E+00
				Co-58	<2.58E+00	0.00E+00	2.58E+00
				Fe-59	<5.63E+00	0.00E+00	5.63E+00
				Co-60	<2.41E+00	0.00E+00	2.41E+00
				Zn-65	<6.13E+00	0.00E+00	6.13E+00
				Zr-95	<5.51E+00	0.00E+00	5.51E+00
				Nb-95	<3.76E+00	0.00E+00	3.76E+00
				I-131	<1.20E+01	0.00E+00	1.20E+01
				Cs-134	<3.02E+00	0.00E+00	3.02E+00
				Cs-137	<2.57E+00	0.00E+00	2.57E+00
				BaLa-140	<5.73E+00	0.00E+00	5.73E+00
				Be-7	<1.75E+01	0.00E+00	1.75E+01
				K-40	7.59E+01	3.21E+01	4.07E+01
Sample ID:	563493	Sample Dates:	2/21/2022 - 3/21/2022	Nuclide	Activity	2 Sigma Error	MDA
				Beta	5.04E+00	4.41E+00	3.22E+00
				Mn-54	<3.73E+00	0.00E+00	3.73E+00
				Co-58	<3.51E+00	0.00E+00	3.51E+00
				Fe-59	<7.73E+00	0.00E+00	7.73E+00
				Co-60	<3.23E+00	0.00E+00	3.23E+00
				Zn-65	<6.61E+00	0.00E+00	6.61E+00
				Zr-95	<6.82E+00	0.00E+00	6.82E+00
				Nb-95	<5.72E+00	0.00E+00	5.72E+00
				I-131	<1.30E+01	0.00E+00	1.30E+01
				Cs-134	<3.62E+00	0.00E+00	3.62E+00

HARRIS Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: DRINKING WATER Concentration (Activity): pCi/l

Sample Point 46 [INDICATOR - SSE @ 17.2 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
563493	2/21/2022 - 3/21/2022	Cs-137	<4.31E+00	0.00E+00	4.31E+00
		BaLa-140	<7.87E+00	0.00E+00	7.87E+00
		Be-7	<2.79E+01	0.00E+00	2.79E+01
		K-40	1.19E+02	4.06E+01	4.41E+01
561741	12/27/2021 - 4/18/2022	H3DW	<-2.4E+00	0.00E+00	1.79E+02
564859	3/21/2022 - 4/18/2022	Beta	<3.26E+00	0.00E+00	3.26E+00
		Mn-54	<2.63E+00	0.00E+00	2.63E+00
		Co-58	<3.57E+00	0.00E+00	3.57E+00
		Fe-59	<6.98E+00	0.00E+00	6.98E+00
		Co-60	<3.40E+00	0.00E+00	3.40E+00
		Zn-65	<4.87E+00	0.00E+00	4.87E+00
		Zr-95	<5.54E+00	0.00E+00	5.54E+00
		Nb-95	<3.51E+00	0.00E+00	3.51E+00
		I-131	<1.12E+01	0.00E+00	1.12E+01
		Cs-134	<3.02E+00	0.00E+00	3.02E+00
		Cs-137	<3.76E+00	0.00E+00	3.76E+00
		BaLa-140	<7.40E+00	0.00E+00	7.40E+00
		Be-7	<2.83E+01	0.00E+00	2.83E+01
		K-40	5.14E+01	2.99E+01	4.16E+01
566995	4/18/2022 - 5/16/2022	Beta	<3.25E+00	0.00E+00	3.25E+00
		Mn-54	<3.13E+00	0.00E+00	3.13E+00
		Co-58	<3.80E+00	0.00E+00	3.80E+00
		Fe-59	<7.66E+00	0.00E+00	7.66E+00
		Co-60	<3.00E+00	0.00E+00	3.00E+00
		Zn-65	<5.90E+00	0.00E+00	5.90E+00
		Zr-95	<7.61E+00	0.00E+00	7.61E+00
		Nb-95	<4.40E+00	0.00E+00	4.40E+00
		I-131	<1.12E+01	0.00E+00	1.12E+01
		Cs-134	<3.35E+00	0.00E+00	3.35E+00
		Cs-137	<3.23E+00	0.00E+00	3.23E+00
		BaLa-140	<7.15E+00	0.00E+00	7.15E+00
		Be-7	<3.09E+01	0.00E+00	3.09E+01
		K-40	1.11E+02	3.44E+01	2.70E+01
568437	5/16/2022 - 6/13/2022	Beta	4.45E+00	4.25E+00	3.17E+00
		Mn-54	<2.28E+00	0.00E+00	2.28E+00
		Co-58	<2.78E+00	0.00E+00	2.78E+00
		Fe-59	<6.03E+00	0.00E+00	6.03E+00
		Co-60	<2.71E+00	0.00E+00	2.71E+00
		Zn-65	<5.76E+00	0.00E+00	5.76E+00
		Zr-95	<4.13E+00	0.00E+00	4.13E+00
		Nb-95	<2.99E+00	0.00E+00	2.99E+00
		I-131	<1.14E+01	0.00E+00	1.14E+01
		Cs-134	<2.32E+00	0.00E+00	2.32E+00
		Cs-137	<2.43E+00	0.00E+00	2.43E+00
		BaLa-140	<6.76E+00	0.00E+00	6.76E+00
		Be-7	<2.09E+01	0.00E+00	2.09E+01
		K-40	9.50E+01	3.54E+01	4.64E+01
567669	4/18/2022 - 7/11/2022	H3DW	<9.00E+00	0.00E+00	1.79E+02
570353	6/13/2022 - 7/11/2022	Beta	<3.33E+00	0.00E+00	3.33E+00
		Mn-54	<2.63E+00	0.00E+00	2.63E+00
		Co-58	<3.24E+00	0.00E+00	3.24E+00
		Fe-59	<4.78E+00	0.00E+00	4.78E+00
		Co-60	<2.28E+00	0.00E+00	2.28E+00
		Zn-65	<5.46E+00	0.00E+00	5.46E+00
		Zr-95	<4.95E+00	0.00E+00	4.95E+00

HARRIS Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: DRINKING WATER Concentration (Activity): pCi/l

Sample Point 46 [INDICATOR - SSE @ 17.2 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
570353	6/13/2022 - 7/11/2022	Nb-95	<3.65E+00	0.00E+00	3.65E+00
		I-131	<1.10E+01	0.00E+00	1.10E+01
		Cs-134	<3.11E+00	0.00E+00	3.11E+00
		Cs-137	<2.61E+00	0.00E+00	2.61E+00
		BaLa-140	<6.67E+00	0.00E+00	6.67E+00
		Be-7	<2.50E+01	0.00E+00	2.50E+01
		K-40	8.37E+01	3.17E+01	3.92E+01
571773	7/11/2022 - 8/8/2022	Beta	3.51E+00	4.25E+00	3.18E+00
		Mn-54	<2.41E+00	0.00E+00	2.41E+00
		Co-58	<2.99E+00	0.00E+00	2.99E+00
		Fe-59	<5.74E+00	0.00E+00	5.74E+00
		Co-60	<3.19E+00	0.00E+00	3.19E+00
		Zn-65	<5.11E+00	0.00E+00	5.11E+00
		Zr-95	<5.56E+00	0.00E+00	5.56E+00
		Nb-95	<3.12E+00	0.00E+00	3.12E+00
		I-131	<1.06E+01	0.00E+00	1.06E+01
		Cs-134	<2.92E+00	0.00E+00	2.92E+00
		Cs-137	<2.60E+00	0.00E+00	2.60E+00
		BaLa-140	<6.74E+00	0.00E+00	6.74E+00
		Be-7	<2.30E+01	0.00E+00	2.30E+01
		K-40	8.23E+01	3.46E+01	4.58E+01
575058	8/8/2022 - 9/6/2022	Beta	<3.21E+00	0.00E+00	3.21E+00
		Mn-54	<2.14E+00	0.00E+00	2.14E+00
		Co-58	<2.32E+00	0.00E+00	2.32E+00
		Fe-59	<5.04E+00	0.00E+00	5.04E+00
		Co-60	<2.70E+00	0.00E+00	2.70E+00
		Zn-65	<4.66E+00	0.00E+00	4.66E+00
		Zr-95	<5.77E+00	0.00E+00	5.77E+00
		Nb-95	<3.35E+00	0.00E+00	3.35E+00
		I-131	<1.05E+01	0.00E+00	1.05E+01
		Cs-134	<2.89E+00	0.00E+00	2.89E+00
		Cs-137	<2.86E+00	0.00E+00	2.86E+00
		BaLa-140	<5.06E+00	0.00E+00	5.06E+00
		Be-7	<1.95E+01	0.00E+00	1.95E+01
		K-40	9.83E+01	2.96E+01	3.18E+01
574699	7/11/2022 - 10/3/2022	Nuclide	Activity	2 Sigma Error	MDA
		H3DW	<1.86E+01	0.00E+00	1.83E+02
576624	9/6/2022 - 10/3/2022	Beta	5.24E+00	4.35E+00	3.23E+00
		Mn-54	<3.19E+00	0.00E+00	3.19E+00
		Co-58	<3.94E+00	0.00E+00	3.94E+00
		Fe-59	<7.56E+00	0.00E+00	7.56E+00
		Co-60	<3.54E+00	0.00E+00	3.54E+00
		Zn-65	<5.50E+00	0.00E+00	5.50E+00
		Zr-95	<5.65E+00	0.00E+00	5.65E+00
		Nb-95	<3.57E+00	0.00E+00	3.57E+00
		I-131	<1.19E+01	0.00E+00	1.19E+01
		Cs-134	<3.75E+00	0.00E+00	3.75E+00
		Cs-137	<3.45E+00	0.00E+00	3.45E+00
		BaLa-140	<6.93E+00	0.00E+00	6.93E+00
		Be-7	<2.72E+01	0.00E+00	2.72E+01
		K-40	6.08E+01	3.86E+01	5.66E+01
578879	10/3/2022 - 10/31/2022	Nuclide	Activity	2 Sigma Error	MDA
		Beta	3.52E+00	4.27E+00	3.20E+00
		Mn-54	<3.42E+00	0.00E+00	3.42E+00
		Co-58	<2.33E+00	0.00E+00	2.33E+00
		Fe-59	<6.70E+00	0.00E+00	6.70E+00
		Co-60	<3.25E+00	0.00E+00	3.25E+00
		Zn-65	<4.50E+00	0.00E+00	4.50E+00
		Zr-95	<5.87E+00	0.00E+00	5.87E+00

HARRIS Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: DRINKING WATER Concentration (Activity): pCi/l

Sample Point 46 [INDICATOR - SSE @ 17.2 miles]

Sample ID:	578879	Sample Dates:	10/3/2022 - 10/31/2022	Nuclide	Activity	2 Sigma Error	MDA
				Nb-95	<3.52E+00	0.00E+00	3.52E+00
				I-131	<1.19E+01	0.00E+00	1.19E+01
				Cs-134	<3.47E+00	0.00E+00	3.47E+00
				Cs-137	<3.26E+00	0.00E+00	3.26E+00
				BaLa-140	<6.88E+00	0.00E+00	6.88E+00
				Be-7	<2.77E+01	0.00E+00	2.77E+01
				K-40	9.36E+01	3.76E+01	4.76E+01

Sample ID:	580861	Sample Dates:	10/31/2022 - 11/28/2022	Nuclide	Activity	2 Sigma Error	MDA
				Beta	4.81E+00	4.27E+00	3.18E+00
				Mn-54	<3.31E+00	0.00E+00	3.31E+00
				Co-58	<3.59E+00	0.00E+00	3.59E+00
				Fe-59	<6.55E+00	0.00E+00	6.55E+00
				Co-60	<2.93E+00	0.00E+00	2.93E+00
				Zn-65	<6.67E+00	0.00E+00	6.67E+00
				Zr-95	<5.98E+00	0.00E+00	5.98E+00
				Nb-95	<3.25E+00	0.00E+00	3.25E+00
				I-131	<1.29E+01	0.00E+00	1.29E+01
				Cs-134	<3.87E+00	0.00E+00	3.87E+00
				Cs-137	<3.12E+00	0.00E+00	3.12E+00
				BaLa-140	<5.46E+00	0.00E+00	5.46E+00
				Be-7	<3.66E+01	0.00E+00	3.66E+01
				K-40	4.52E+01	2.89E+01	4.07E+01

Sample ID:	581032	Sample Dates:	10/3/2022 - 12/27/2022	Nuclide	Activity	2 Sigma Error	MDA
				H3DW	<-5.4E+01	0.00E+00	1.81E+02

Sample ID:	582469	Sample Dates:	11/28/2022 - 12/27/2022	Nuclide	Activity	2 Sigma Error	MDA
				Beta	<3.20E+00	0.00E+00	3.20E+00
				Mn-54	<2.13E+00	0.00E+00	2.13E+00
				Co-58	<2.27E+00	0.00E+00	2.27E+00
				Fe-59	<5.04E+00	0.00E+00	5.04E+00
				Co-60	<1.92E+00	0.00E+00	1.92E+00
				Zn-65	<4.57E+00	0.00E+00	4.57E+00
				Zr-95	<3.89E+00	0.00E+00	3.89E+00
				Nb-95	<2.80E+00	0.00E+00	2.80E+00
				I-131	<1.33E+01	0.00E+00	1.33E+01
				Cs-134	<2.38E+00	0.00E+00	2.38E+00
				Cs-137	<1.90E+00	0.00E+00	1.90E+00
				BaLa-140	<6.98E+00	0.00E+00	6.98E+00
				Be-7	<1.97E+01	0.00E+00	1.97E+01
				K-40	7.86E+01	2.72E+01	3.50E+01

Sample Point 51 [INDICATOR - -- @ 0 miles]

Sample ID:	560165	Sample Dates:	12/27/2021 - 1/24/2022	Nuclide	Activity	2 Sigma Error	MDA
				Beta	<3.25E+00	0.00E+00	3.25E+00
				Mn-54	<2.19E+00	0.00E+00	2.19E+00
				Co-58	<3.23E+00	0.00E+00	3.23E+00
				Fe-59	<6.20E+00	0.00E+00	6.20E+00
				Co-60	<3.86E+00	0.00E+00	3.86E+00
				Zn-65	<6.15E+00	0.00E+00	6.15E+00
				Zr-95	<5.23E+00	0.00E+00	5.23E+00
				Nb-95	<4.20E+00	0.00E+00	4.20E+00
				I-131	<1.11E+01	0.00E+00	1.11E+01
				Cs-134	<3.95E+00	0.00E+00	3.95E+00
				Cs-137	<3.06E+00	0.00E+00	3.06E+00
				BaLa-140	<1.03E+01	0.00E+00	1.03E+01
				Be-7	<2.55E+01	0.00E+00	2.55E+01
				K-40	<4.93E+01	0.00E+00	4.93E+01
				H3DW	1.87E+03	1.55E+02	1.74E+02

Sample ID:	561200	Sample Dates:	1/24/2022 - 2/21/2022	Nuclide	Activity	2 Sigma Error	MDA
				Beta	<3.22E+00	0.00E+00	3.22E+00
				Mn-54	<2.02E+00	0.00E+00	2.02E+00
				Co-58	<2.51E+00	0.00E+00	2.51E+00
				Fe-59	<5.02E+00	0.00E+00	5.02E+00

HARRIS Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: DRINKING WATER Concentration (Activity): pCi/l

Sample Point 51 [INDICATOR - -- @ 0 miles]

Sample ID:	561200	Sample Dates:	1/24/2022 - 2/21/2022	Nuclide	Activity	2 Sigma Error	MDA
				Co-60	<2.55E+00	0.00E+00	2.55E+00
				Zn-65	<4.51E+00	0.00E+00	4.51E+00
				Zr-95	<5.06E+00	0.00E+00	5.06E+00
				Nb-95	<3.14E+00	0.00E+00	3.14E+00
				I-131	<1.07E+01	0.00E+00	1.07E+01
				Cs-134	<3.15E+00	0.00E+00	3.15E+00
				Cs-137	<2.67E+00	0.00E+00	2.67E+00
				BaLa-140	<6.24E+00	0.00E+00	6.24E+00
				Be-7	<2.18E+01	0.00E+00	2.18E+01
				K-40	6.74E+01	3.22E+01	4.56E+01
				H3DW	1.05E+03	1.41E+02	1.89E+02

Sample ID:	563494	Sample Dates:	2/21/2022 - 3/21/2022	Nuclide	Activity	2 Sigma Error	MDA
				Beta	<3.22E+00	0.00E+00	3.22E+00
				Mn-54	<3.28E+00	0.00E+00	3.28E+00
				Co-58	<3.84E+00	0.00E+00	3.84E+00
				Fe-59	<6.26E+00	0.00E+00	6.26E+00
				Co-60	<3.18E+00	0.00E+00	3.18E+00
				Zn-65	<5.50E+00	0.00E+00	5.50E+00
				Zr-95	<5.86E+00	0.00E+00	5.86E+00
				Nb-95	<3.57E+00	0.00E+00	3.57E+00
				I-131	<1.18E+01	0.00E+00	1.18E+01
				Cs-134	<3.42E+00	0.00E+00	3.42E+00
				Cs-137	<2.89E+00	0.00E+00	2.89E+00
				BaLa-140	<5.39E+00	0.00E+00	5.39E+00
				Be-7	<3.45E+01	0.00E+00	3.45E+01
				K-40	6.62E+01	3.42E+01	4.56E+01
				H3DW	1.47E+03	1.42E+02	1.71E+02

Sample ID:	564860	Sample Dates:	3/21/2022 - 4/18/2022	Nuclide	Activity	2 Sigma Error	MDA
				Beta	<3.26E+00	0.00E+00	3.26E+00
				Mn-54	<2.68E+00	0.00E+00	2.68E+00
				Co-58	<2.91E+00	0.00E+00	2.91E+00
				Fe-59	<6.19E+00	0.00E+00	6.19E+00
				Co-60	<2.94E+00	0.00E+00	2.94E+00
				Zn-65	<5.01E+00	0.00E+00	5.01E+00
				Zr-95	<5.29E+00	0.00E+00	5.29E+00
				Nb-95	<3.64E+00	0.00E+00	3.64E+00
				I-131	<1.01E+01	0.00E+00	1.01E+01
				Cs-134	<2.84E+00	0.00E+00	2.84E+00
				Cs-137	<2.49E+00	0.00E+00	2.49E+00
				BaLa-140	<7.51E+00	0.00E+00	7.51E+00
				Be-7	<3.00E+01	0.00E+00	3.00E+01
				K-40	9.59E+01	2.97E+01	2.93E+01
				H3DW	1.55E+03	1.49E+02	1.78E+02

Sample ID:	566996	Sample Dates:	4/18/2022 - 5/16/2022	Nuclide	Activity	2 Sigma Error	MDA
				Beta	<3.25E+00	0.00E+00	3.25E+00
				Mn-54	<2.76E+00	0.00E+00	2.76E+00
				Co-58	<3.32E+00	0.00E+00	3.32E+00
				Fe-59	<6.61E+00	0.00E+00	6.61E+00
				Co-60	<2.83E+00	0.00E+00	2.83E+00
				Zn-65	<6.39E+00	0.00E+00	6.39E+00
				Zr-95	<5.27E+00	0.00E+00	5.27E+00
				Nb-95	<3.23E+00	0.00E+00	3.23E+00
				I-131	<1.18E+01	0.00E+00	1.18E+01
				Cs-134	<3.62E+00	0.00E+00	3.62E+00
				Cs-137	<2.76E+00	0.00E+00	2.76E+00
				BaLa-140	<5.88E+00	0.00E+00	5.88E+00
				Be-7	<3.08E+01	0.00E+00	3.08E+01
				K-40	5.09E+01	3.37E+01	5.02E+01
				H3DW	1.34E+03	1.47E+02	1.85E+02

Sample ID:	568438	Sample Dates:	5/16/2022 - 6/13/2022	Nuclide	Activity	2 Sigma Error	MDA
				Beta	<3.17E+00	0.00E+00	3.17E+00
				Mn-54	<2.55E+00	0.00E+00	2.55E+00
				Co-58	<2.75E+00	0.00E+00	2.75E+00

HARRIS Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: DRINKING WATER Concentration (Activity): pCi/l

Sample Point 51 [INDICATOR - -- @ 0 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
568438	5/16/2022 - 6/13/2022	Fe-59	<5.90E+00	0.00E+00	5.90E+00
		Co-60	<3.43E+00	0.00E+00	3.43E+00
		Zn-65	<6.29E+00	0.00E+00	6.29E+00
		Zr-95	<5.94E+00	0.00E+00	5.94E+00
		Nb-95	<3.76E+00	0.00E+00	3.76E+00
		I-131	<1.13E+01	0.00E+00	1.13E+01
		Cs-134	<2.83E+00	0.00E+00	2.83E+00
		Cs-137	<2.56E+00	0.00E+00	2.56E+00
		BaLa-140	<4.24E+00	0.00E+00	4.24E+00
		Be-7	<2.60E+01	0.00E+00	2.60E+01
		K-40	7.78E+01	2.71E+01	2.69E+01
		H3DW	1.25E+03	1.38E+02	1.75E+02
		570354	6/13/2022 - 7/11/2022	Beta	<3.33E+00
Mn-54	<2.23E+00			0.00E+00	2.23E+00
Co-58	<3.79E+00			0.00E+00	3.79E+00
Fe-59	<5.32E+00			0.00E+00	5.32E+00
Co-60	<2.86E+00			0.00E+00	2.86E+00
Zn-65	<3.97E+00			0.00E+00	3.97E+00
Zr-95	<5.14E+00			0.00E+00	5.14E+00
Nb-95	<3.75E+00			0.00E+00	3.75E+00
I-131	<1.15E+01			0.00E+00	1.15E+01
Cs-134	<3.49E+00			0.00E+00	3.49E+00
Cs-137	<2.27E+00			0.00E+00	2.27E+00
BaLa-140	<5.36E+00			0.00E+00	5.36E+00
Be-7	<2.84E+01			0.00E+00	2.84E+01
K-40	5.93E+01	2.47E+01	2.58E+01		
H3DW	1.25E+03	1.45E+02	1.85E+02		
571774	7/11/2022 - 8/8/2022	Beta	<3.18E+00	0.00E+00	3.18E+00
		Mn-54	<2.73E+00	0.00E+00	2.73E+00
		Co-58	<2.71E+00	0.00E+00	2.71E+00
		Fe-59	<5.57E+00	0.00E+00	5.57E+00
		Co-60	<2.66E+00	0.00E+00	2.66E+00
		Zn-65	<6.02E+00	0.00E+00	6.02E+00
		Zr-95	<5.38E+00	0.00E+00	5.38E+00
		Nb-95	<3.52E+00	0.00E+00	3.52E+00
		I-131	<1.10E+01	0.00E+00	1.10E+01
		Cs-134	<3.73E+00	0.00E+00	3.73E+00
		Cs-137	<3.06E+00	0.00E+00	3.06E+00
		BaLa-140	<9.15E+00	0.00E+00	9.15E+00
		Be-7	<2.75E+01	0.00E+00	2.75E+01
K-40	5.85E+01	3.10E+01	4.19E+01		
H3DW	1.11E+03	1.42E+02	1.87E+02		
575059	8/8/2022 - 9/6/2022	Beta	<3.21E+00	0.00E+00	3.21E+00
		Mn-54	<2.55E+00	0.00E+00	2.55E+00
		Co-58	<3.72E+00	0.00E+00	3.72E+00
		Fe-59	<5.50E+00	0.00E+00	5.50E+00
		Co-60	<2.75E+00	0.00E+00	2.75E+00
		Zn-65	<5.35E+00	0.00E+00	5.35E+00
		Zr-95	<6.49E+00	0.00E+00	6.49E+00
		Nb-95	<4.13E+00	0.00E+00	4.13E+00
		I-131	<1.20E+01	0.00E+00	1.20E+01
		Cs-134	<2.83E+00	0.00E+00	2.83E+00
		Cs-137	<3.23E+00	0.00E+00	3.23E+00
		BaLa-140	<5.96E+00	0.00E+00	5.96E+00
		Be-7	<2.85E+01	0.00E+00	2.85E+01
K-40	8.84E+01	3.84E+01	5.18E+01		
H3DW	1.25E+03	1.42E+02	1.80E+02		
576625	9/6/2022 - 10/3/2022	Beta	<3.23E+00	0.00E+00	3.23E+00
		Mn-54	<2.55E+00	0.00E+00	2.55E+00

HARRIS Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: DRINKING WATER Concentration (Activity): pCi/l

Sample Point 51 [INDICATOR - -- @ 0 miles]

Sample ID:	576625	Sample Dates:	9/6/2022 - 10/3/2022	Nuclide	Activity	2 Sigma Error	MDA
				Co-58	<2.86E+00	0.00E+00	2.86E+00
				Fe-59	<6.04E+00	0.00E+00	6.04E+00
				Co-60	<3.09E+00	0.00E+00	3.09E+00
				Zn-65	<6.03E+00	0.00E+00	6.03E+00
				Zr-95	<7.52E+00	0.00E+00	7.52E+00
				Nb-95	<4.74E+00	0.00E+00	4.74E+00
				I-131	<1.15E+01	0.00E+00	1.15E+01
				Cs-134	<4.25E+00	0.00E+00	4.25E+00
				Cs-137	<3.19E+00	0.00E+00	3.19E+00
				BaLa-140	<7.14E+00	0.00E+00	7.14E+00
				Be-7	<3.12E+01	0.00E+00	3.12E+01
				K-40	8.99E+01	3.42E+01	3.60E+01
				H3DW	1.31E+03	1.44E+02	1.81E+02

Sample ID:	578880	Sample Dates:	10/3/2022 - 10/31/2022	Nuclide	Activity	2 Sigma Error	MDA
				Beta	<3.20E+00	0.00E+00	3.20E+00
				Mn-54	<2.60E+00	0.00E+00	2.60E+00
				Co-58	<3.53E+00	0.00E+00	3.53E+00
				Fe-59	<5.49E+00	0.00E+00	5.49E+00
				Co-60	<2.22E+00	0.00E+00	2.22E+00
				Zn-65	<5.68E+00	0.00E+00	5.68E+00
				Zr-95	<6.94E+00	0.00E+00	6.94E+00
				Nb-95	<4.56E+00	0.00E+00	4.56E+00
				I-131	<1.17E+01	0.00E+00	1.17E+01
				Cs-134	<3.18E+00	0.00E+00	3.18E+00
				Cs-137	<3.08E+00	0.00E+00	3.08E+00
				BaLa-140	<7.70E+00	0.00E+00	7.70E+00
				Be-7	<2.66E+01	0.00E+00	2.66E+01
				K-40	9.25E+01	3.44E+01	4.00E+01
				H3DW	9.98E+02	1.37E+02	1.85E+02

Sample ID:	580862	Sample Dates:	10/31/2022 - 11/28/2022	Nuclide	Activity	2 Sigma Error	MDA
				Beta	<3.18E+00	0.00E+00	3.18E+00
				Mn-54	<3.08E+00	0.00E+00	3.08E+00
				Co-58	<3.81E+00	0.00E+00	3.81E+00
				Fe-59	<9.88E+00	0.00E+00	9.88E+00
				Co-60	<5.20E+00	0.00E+00	5.20E+00
				Zn-65	<8.84E+00	0.00E+00	8.84E+00
				Zr-95	<7.90E+00	0.00E+00	7.90E+00
				Nb-95	<6.05E+00	0.00E+00	6.05E+00
				I-131	<1.35E+01	0.00E+00	1.35E+01
				Cs-134	<4.29E+00	0.00E+00	4.29E+00
				Cs-137	<3.01E+00	0.00E+00	3.01E+00
				BaLa-140	<9.28E+00	0.00E+00	9.28E+00
				Be-7	<3.79E+01	0.00E+00	3.79E+01
				K-40	<8.07E+01	0.00E+00	8.07E+01
				H3DW	1.38E+03	1.51E+02	1.93E+02

Sample ID:	582470	Sample Dates:	11/28/2022 - 12/27/2022	Nuclide	Activity	2 Sigma Error	MDA
				Beta	<3.20E+00	0.00E+00	3.20E+00
				Mn-54	<2.35E+00	0.00E+00	2.35E+00
				Co-58	<2.22E+00	0.00E+00	2.22E+00
				Fe-59	<5.25E+00	0.00E+00	5.25E+00
				Co-60	<2.03E+00	0.00E+00	2.03E+00
				Zn-65	<4.65E+00	0.00E+00	4.65E+00
				Zr-95	<3.97E+00	0.00E+00	3.97E+00
				Nb-95	<2.99E+00	0.00E+00	2.99E+00
				I-131	<1.33E+01	0.00E+00	1.33E+01
				Cs-134	<2.04E+00	0.00E+00	2.04E+00
				Cs-137	<2.00E+00	0.00E+00	2.00E+00
				BaLa-140	<7.99E+00	0.00E+00	7.99E+00
				Be-7	<2.04E+01	0.00E+00	2.04E+01
				K-40	7.87E+01	2.79E+01	3.70E+01
				H3DW	3.63E+03	2.12E+02	2.01E+02

HARRIS Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: DRINKING WATER Concentration (Activity): pCi/l

Sample Point 58 [CONTROL - SW @ 8.47 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
560166	12/27/2021 - 1/24/2022	Beta	<3.25E+00	0.00E+00	3.25E+00
		Mn-54	<2.71E+00	0.00E+00	2.71E+00
		Co-58	<2.89E+00	0.00E+00	2.89E+00
		Fe-59	<6.20E+00	0.00E+00	6.20E+00
		Co-60	<2.84E+00	0.00E+00	2.84E+00
		Zn-65	<5.59E+00	0.00E+00	5.59E+00
		Zr-95	<4.75E+00	0.00E+00	4.75E+00
		Nb-95	<3.40E+00	0.00E+00	3.40E+00
		I-131	<1.11E+01	0.00E+00	1.11E+01
		Cs-134	<2.81E+00	0.00E+00	2.81E+00
		Cs-137	<2.63E+00	0.00E+00	2.63E+00
		BaLa-140	<5.97E+00	0.00E+00	5.97E+00
		Be-7	<2.58E+01	0.00E+00	2.58E+01
		K-40	6.79E+01	2.93E+01	3.80E+01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
561201	1/24/2022 - 2/21/2022	Beta	<3.22E+00	0.00E+00	3.22E+00
		Mn-54	<2.26E+00	0.00E+00	2.26E+00
		Co-58	<4.21E+00	0.00E+00	4.21E+00
		Fe-59	<7.86E+00	0.00E+00	7.86E+00
		Co-60	<3.96E+00	0.00E+00	3.96E+00
		Zn-65	<8.04E+00	0.00E+00	8.04E+00
		Zr-95	<8.74E+00	0.00E+00	8.74E+00
		Nb-95	<5.15E+00	0.00E+00	5.15E+00
		I-131	<1.18E+01	0.00E+00	1.18E+01
		Cs-134	<3.64E+00	0.00E+00	3.64E+00
		Cs-137	<4.30E+00	0.00E+00	4.30E+00
		BaLa-140	<1.10E+01	0.00E+00	1.10E+01
		Be-7	<3.44E+01	0.00E+00	3.44E+01
		K-40	9.57E+01	4.02E+01	4.77E+01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
563495	2/21/2022 - 3/21/2022	Beta	<3.22E+00	0.00E+00	3.22E+00
		Mn-54	<3.05E+00	0.00E+00	3.05E+00
		Co-58	<2.70E+00	0.00E+00	2.70E+00
		Fe-59	<6.44E+00	0.00E+00	6.44E+00
		Co-60	<2.85E+00	0.00E+00	2.85E+00
		Zn-65	<7.53E+00	0.00E+00	7.53E+00
		Zr-95	<6.98E+00	0.00E+00	6.98E+00
		Nb-95	<3.52E+00	0.00E+00	3.52E+00
		I-131	<1.27E+01	0.00E+00	1.27E+01
		Cs-134	<3.62E+00	0.00E+00	3.62E+00
		Cs-137	<3.52E+00	0.00E+00	3.52E+00
		BaLa-140	<8.48E+00	0.00E+00	8.48E+00
		Be-7	<2.97E+01	0.00E+00	2.97E+01
		K-40	6.38E+01	3.13E+01	3.90E+01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
561742	12/27/2021 - 4/18/2022	H3DW	<4.70E+00	0.00E+00	1.79E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
564861	3/21/2022 - 4/18/2022	Beta	<3.26E+00	0.00E+00	3.26E+00
		Mn-54	<4.18E+00	0.00E+00	4.18E+00
		Co-58	<2.96E+00	0.00E+00	2.96E+00
		Fe-59	<9.72E+00	0.00E+00	9.72E+00
		Co-60	<2.74E+00	0.00E+00	2.74E+00
		Zn-65	<7.67E+00	0.00E+00	7.67E+00
		Zr-95	<8.24E+00	0.00E+00	8.24E+00
		Nb-95	<4.16E+00	0.00E+00	4.16E+00
		I-131	<1.13E+01	0.00E+00	1.13E+01
		Cs-134	<3.48E+00	0.00E+00	3.48E+00
		Cs-137	<3.24E+00	0.00E+00	3.24E+00
		BaLa-140	<9.79E+00	0.00E+00	9.79E+00
		Be-7	<3.61E+01	0.00E+00	3.61E+01
		K-40	2.61E+01	2.49E+01	3.70E+01

HARRIS Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: DRINKING WATER Concentration (Activity): pCi/l

Sample Point 58 [CONTROL - SW @ 8.47 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
566997	4/18/2022 - 5/16/2022	Beta	4.91E+00	4.37E+00	3.25E+00
		Mn-54	<2.50E+00	0.00E+00	2.50E+00
		Co-58	<2.02E+00	0.00E+00	2.02E+00
		Fe-59	<4.62E+00	0.00E+00	4.62E+00
		Co-60	<1.76E+00	0.00E+00	1.76E+00
		Zn-65	<5.55E+00	0.00E+00	5.55E+00
		Zr-95	<4.53E+00	0.00E+00	4.53E+00
		Nb-95	<3.06E+00	0.00E+00	3.06E+00
		I-131	<1.02E+01	0.00E+00	1.02E+01
		Cs-134	<2.88E+00	0.00E+00	2.88E+00
		Cs-137	<2.42E+00	0.00E+00	2.42E+00
		BaLa-140	<6.22E+00	0.00E+00	6.22E+00
		Be-7	<2.42E+01	0.00E+00	2.42E+01
		K-40	9.89E+01	2.77E+01	2.57E+01
568439	5/16/2022 - 6/13/2022	Beta	3.46E+00	4.23E+00	3.17E+00
		Mn-54	<2.65E+00	0.00E+00	2.65E+00
		Co-58	<3.31E+00	0.00E+00	3.31E+00
		Fe-59	<7.41E+00	0.00E+00	7.41E+00
		Co-60	<2.86E+00	0.00E+00	2.86E+00
		Zn-65	<5.55E+00	0.00E+00	5.55E+00
		Zr-95	<6.45E+00	0.00E+00	6.45E+00
		Nb-95	<3.42E+00	0.00E+00	3.42E+00
		I-131	<1.08E+01	0.00E+00	1.08E+01
		Cs-134	<3.04E+00	0.00E+00	3.04E+00
		Cs-137	<2.20E+00	0.00E+00	2.20E+00
		BaLa-140	<6.58E+00	0.00E+00	6.58E+00
		Be-7	<3.05E+01	0.00E+00	3.05E+01
		K-40	6.16E+01	3.56E+01	5.15E+01
567670	4/18/2022 - 7/11/2022	Nuclide	Activity	2 Sigma Error	MDA
		H3DW	<1.36E+01	0.00E+00	1.79E+02
570355	6/13/2022 - 7/11/2022	Nuclide	Activity	2 Sigma Error	MDA
		Beta	<3.33E+00	0.00E+00	3.33E+00
		Mn-54	<3.21E+00	0.00E+00	3.21E+00
		Co-58	<3.39E+00	0.00E+00	3.39E+00
		Fe-59	<6.22E+00	0.00E+00	6.22E+00
		Co-60	<2.60E+00	0.00E+00	2.60E+00
		Zn-65	<5.23E+00	0.00E+00	5.23E+00
		Zr-95	<4.94E+00	0.00E+00	4.94E+00
		Nb-95	<3.67E+00	0.00E+00	3.67E+00
		I-131	<1.05E+01	0.00E+00	1.05E+01
		Cs-134	<2.93E+00	0.00E+00	2.93E+00
		Cs-137	<2.29E+00	0.00E+00	2.29E+00
		BaLa-140	<6.12E+00	0.00E+00	6.12E+00
		Be-7	<2.62E+01	0.00E+00	2.62E+01
K-40	1.42E+02	3.81E+01	3.91E+01		
571775	7/11/2022 - 8/8/2022	Nuclide	Activity	2 Sigma Error	MDA
		Beta	<3.18E+00	0.00E+00	3.18E+00
		Mn-54	<2.19E+00	0.00E+00	2.19E+00
		Co-58	<3.25E+00	0.00E+00	3.25E+00
		Fe-59	<4.87E+00	0.00E+00	4.87E+00
		Co-60	<3.24E+00	0.00E+00	3.24E+00
		Zn-65	<4.53E+00	0.00E+00	4.53E+00
		Zr-95	<5.17E+00	0.00E+00	5.17E+00
		Nb-95	<3.80E+00	0.00E+00	3.80E+00
		I-131	<1.14E+01	0.00E+00	1.14E+01
		Cs-134	<3.42E+00	0.00E+00	3.42E+00
		Cs-137	<2.94E+00	0.00E+00	2.94E+00
		BaLa-140	<7.57E+00	0.00E+00	7.57E+00
		Be-7	<2.16E+01	0.00E+00	2.16E+01
K-40	7.46E+01	3.22E+01	4.25E+01		

HARRIS Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: DRINKING WATER Concentration (Activity): pCi/l

Sample Point 58 [CONTROL - SW @ 8.47 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
575060	8/8/2022 - 9/6/2022	Beta	4.87E+00	4.31E+00	3.21E+00
		Mn-54	<3.13E+00	0.00E+00	3.13E+00
		Co-58	<2.14E+00	0.00E+00	2.14E+00
		Fe-59	<6.15E+00	0.00E+00	6.15E+00
		Co-60	<2.97E+00	0.00E+00	2.97E+00
		Zn-65	<5.47E+00	0.00E+00	5.47E+00
		Zr-95	<5.53E+00	0.00E+00	5.53E+00
		Nb-95	<3.43E+00	0.00E+00	3.43E+00
		I-131	<1.17E+01	0.00E+00	1.17E+01
		Cs-134	<2.57E+00	0.00E+00	2.57E+00
		Cs-137	<2.98E+00	0.00E+00	2.98E+00
		BaLa-140	<9.17E+00	0.00E+00	9.17E+00
		Be-7	<2.49E+01	0.00E+00	2.49E+01
		K-40	9.24E+01	3.36E+01	3.96E+01
574700	7/11/2022 - 10/3/2022	H3DW	<1.39E+01	0.00E+00	1.83E+02
576626	9/6/2022 - 10/3/2022	Beta	3.31E+00	4.31E+00	3.23E+00
		Mn-54	<3.26E+00	0.00E+00	3.26E+00
		Co-58	<3.11E+00	0.00E+00	3.11E+00
		Fe-59	<7.82E+00	0.00E+00	7.82E+00
		Co-60	<3.30E+00	0.00E+00	3.30E+00
		Zn-65	<9.30E+00	0.00E+00	9.30E+00
		Zr-95	<5.51E+00	0.00E+00	5.51E+00
		Nb-95	<4.80E+00	0.00E+00	4.80E+00
		I-131	<1.19E+01	0.00E+00	1.19E+01
		Cs-134	<4.05E+00	0.00E+00	4.05E+00
		Cs-137	<3.53E+00	0.00E+00	3.53E+00
		BaLa-140	<9.62E+00	0.00E+00	9.62E+00
		Be-7	<3.63E+01	0.00E+00	3.63E+01
		K-40	3.10E+01	3.31E+01	5.27E+01
578881	10/3/2022 - 10/31/2022	Beta	3.50E+00	4.27E+00	3.20E+00
		Mn-54	<2.64E+00	0.00E+00	2.64E+00
		Co-58	<3.57E+00	0.00E+00	3.57E+00
		Fe-59	<6.47E+00	0.00E+00	6.47E+00
		Co-60	<2.22E+00	0.00E+00	2.22E+00
		Zn-65	<5.46E+00	0.00E+00	5.46E+00
		Zr-95	<5.68E+00	0.00E+00	5.68E+00
		Nb-95	<3.75E+00	0.00E+00	3.75E+00
		I-131	<9.94E+00	0.00E+00	9.94E+00
		Cs-134	<3.67E+00	0.00E+00	3.67E+00
		Cs-137	<2.55E+00	0.00E+00	2.55E+00
		BaLa-140	<7.71E+00	0.00E+00	7.71E+00
		Be-7	<2.51E+01	0.00E+00	2.51E+01
		K-40	8.03E+01	2.95E+01	3.40E+01
580863	10/31/2022 - 11/28/2022	Beta	3.40E+00	4.25E+00	3.18E+00
		Mn-54	<4.42E+00	0.00E+00	4.42E+00
		Co-58	<3.88E+00	0.00E+00	3.88E+00
		Fe-59	<9.23E+00	0.00E+00	9.23E+00
		Co-60	<3.16E+00	0.00E+00	3.16E+00
		Zn-65	<6.50E+00	0.00E+00	6.50E+00
		Zr-95	<6.12E+00	0.00E+00	6.12E+00
		Nb-95	<5.37E+00	0.00E+00	5.37E+00
		I-131	<1.32E+01	0.00E+00	1.32E+01
		Cs-134	<3.66E+00	0.00E+00	3.66E+00
		Cs-137	<3.21E+00	0.00E+00	3.21E+00
		BaLa-140	<6.09E+00	0.00E+00	6.09E+00
		Be-7	<3.72E+01	0.00E+00	3.72E+01
		K-40	1.02E+02	4.07E+01	4.11E+01

HARRIS Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: DRINKING WATER Concentration (Activity): pCi/l

Sample Point 58 [CONTROL - SW @ 8.47 miles]

Sample ID:	581033	Sample Dates:	10/3/2022 - 12/27/2022	Nuclide	Activity	2 Sigma Error	MDA
				H3DW	<-1.9E+01	0.00E+00	1.81E+02

Sample ID:	582471	Sample Dates:	11/28/2022 - 12/27/2022	Nuclide	Activity	2 Sigma Error	MDA
				Beta	6.16E+00	4.32E+00	3.20E+00
				Mn-54	<1.84E+00	0.00E+00	1.84E+00
				Co-58	<2.85E+00	0.00E+00	2.85E+00
				Fe-59	<5.39E+00	0.00E+00	5.39E+00
				Co-60	<2.05E+00	0.00E+00	2.05E+00
				Zn-65	<4.93E+00	0.00E+00	4.93E+00
				Zr-95	<5.40E+00	0.00E+00	5.40E+00
				Nb-95	<3.33E+00	0.00E+00	3.33E+00
				I-131	<1.34E+01	0.00E+00	1.34E+01
				Cs-134	<2.63E+00	0.00E+00	2.63E+00
				Cs-137	<2.85E+00	0.00E+00	2.85E+00
				BaLa-140	<6.20E+00	0.00E+00	6.20E+00
				Be-7	<2.29E+01	0.00E+00	2.29E+01
				K-40	8.87E+01	2.95E+01	3.64E+01

Media Type: FISH Concentration (Activity): pCi/kg wet

Sample Point 44 [INDICATOR - -- @ 0 miles]

Sample ID:	563937	Sample Dates:	4/8/2022 - 4/8/2022	FREESWIM	Nuclide	Activity	2 Sigma Error	MDA
					Mn-54	<6.46E+01	0.00E+00	6.46E+01
					Co-58	<8.18E+01	0.00E+00	8.18E+01
					Fe-59	<1.25E+02	0.00E+00	1.25E+02
					Co-60	<7.51E+01	0.00E+00	7.51E+01
					Zn-65	<1.41E+02	0.00E+00	1.41E+02
					Nb-95	<6.90E+01	0.00E+00	6.90E+01
					I-131	<8.98E+01	0.00E+00	8.98E+01
					Cs-134	<7.78E+01	0.00E+00	7.78E+01
					Cs-137	<7.22E+01	0.00E+00	7.22E+01
					Be-7	<5.52E+02	0.00E+00	5.52E+02
					K-40	4.69E+03	1.19E+03	1.11E+03
					Ag-110M	<5.89E+01	0.00E+00	5.89E+01
					Sb-122	<3.07E+02	0.00E+00	3.07E+02
					Sb-125	<1.77E+02	0.00E+00	1.77E+02

Sample ID:	563938	Sample Dates:	4/8/2022 - 4/8/2022	FREESWIM	Nuclide	Activity	2 Sigma Error	MDA
					Mn-54	<6.79E+01	0.00E+00	6.79E+01
					Co-58	<4.83E+01	0.00E+00	4.83E+01
					Fe-59	<7.78E+01	0.00E+00	7.78E+01
					Co-60	<4.66E+01	0.00E+00	4.66E+01
					Zn-65	<1.17E+02	0.00E+00	1.17E+02
					Nb-95	<6.46E+01	0.00E+00	6.46E+01
					I-131	<9.07E+01	0.00E+00	9.07E+01
					Cs-134	<7.33E+01	0.00E+00	7.33E+01
					Cs-137	<4.61E+01	0.00E+00	4.61E+01
					Be-7	<3.61E+02	0.00E+00	3.61E+02
					K-40	4.29E+03	1.05E+03	7.47E+02
					Ag-110M	<3.80E+01	0.00E+00	3.80E+01
					Sb-122	<1.69E+02	0.00E+00	1.69E+02
					Sb-125	<1.33E+02	0.00E+00	1.33E+02

Sample ID:	563941	Sample Dates:	4/8/2022 - 4/8/2022	BOTMFEEDER	Nuclide	Activity	2 Sigma Error	MDA
					Mn-54	<4.37E+01	0.00E+00	4.37E+01
					Co-58	<5.03E+01	0.00E+00	5.03E+01
					Fe-59	<1.31E+02	0.00E+00	1.31E+02
					Co-60	<5.22E+01	0.00E+00	5.22E+01
					Zn-65	<8.31E+01	0.00E+00	8.31E+01
					Nb-95	<4.18E+01	0.00E+00	4.18E+01
					I-131	<7.32E+01	0.00E+00	7.32E+01
					Cs-134	<5.79E+01	0.00E+00	5.79E+01
					Cs-137	<5.28E+01	0.00E+00	5.28E+01
					Be-7	<3.79E+02	0.00E+00	3.79E+02
					K-40	4.45E+03	9.75E+02	4.87E+02
					Ag-110M	<5.12E+01	0.00E+00	5.12E+01

HARRIS Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: FISH Concentration (Activity): pCi/kg wet

Sample Point 44 [INDICATOR - -- @ 0 miles]

Sample ID:	Sample Dates:		Nuclide	Activity	2 Sigma Error	MDA
563941	4/8/2022 - 4/8/2022	BOTMFEEDER	Sb-122	<2.13E+02	0.00E+00	2.13E+02
			Sb-125	<1.51E+02	0.00E+00	1.51E+02
576477	10/10/2022 - 10/10/2022	FREESWIM	Mn-54	<6.31E+01	0.00E+00	6.31E+01
			Co-58	<6.99E+01	0.00E+00	6.99E+01
			Fe-59	<1.49E+02	0.00E+00	1.49E+02
			Co-60	<1.61E+01	0.00E+00	1.61E+01
			Zn-65	<1.57E+02	0.00E+00	1.57E+02
			Nb-95	<7.69E+01	0.00E+00	7.69E+01
			I-131	<8.15E+01	0.00E+00	8.15E+01
			Cs-134	<9.22E+01	0.00E+00	9.22E+01
			Cs-137	<6.57E+01	0.00E+00	6.57E+01
			Be-7	<4.79E+02	0.00E+00	4.79E+02
			K-40	4.51E+03	1.10E+03	1.61E+02
			Ag-110M	<5.85E+01	0.00E+00	5.85E+01
			Sb-122	<1.03E+02	0.00E+00	1.03E+02
Sb-125	<1.65E+02	0.00E+00	1.65E+02			
576478	10/10/2022 - 10/10/2022	FREESWIM	Mn-54	<4.71E+01	0.00E+00	4.71E+01
			Co-58	<4.70E+01	0.00E+00	4.70E+01
			Fe-59	<9.76E+01	0.00E+00	9.76E+01
			Co-60	<5.05E+01	0.00E+00	5.05E+01
			Zn-65	<1.09E+02	0.00E+00	1.09E+02
			Nb-95	<5.41E+01	0.00E+00	5.41E+01
			I-131	<5.77E+01	0.00E+00	5.77E+01
			Cs-134	<4.52E+01	0.00E+00	4.52E+01
			Cs-137	<5.21E+01	0.00E+00	5.21E+01
			Be-7	<4.21E+02	0.00E+00	4.21E+02
			K-40	3.67E+03	9.79E+02	8.29E+02
			Ag-110M	<5.31E+01	0.00E+00	5.31E+01
			Sb-122	<1.01E+02	0.00E+00	1.01E+02
Sb-125	<1.09E+02	0.00E+00	1.09E+02			
576486	10/10/2022 - 10/10/2022	BOTMFEEDER	Mn-54	<6.83E+01	0.00E+00	6.83E+01
			Co-58	<5.64E+01	0.00E+00	5.64E+01
			Fe-59	<1.01E+02	0.00E+00	1.01E+02
			Co-60	<3.89E+01	0.00E+00	3.89E+01
			Zn-65	<1.99E+02	0.00E+00	1.99E+02
			Nb-95	<7.13E+01	0.00E+00	7.13E+01
			I-131	<6.12E+01	0.00E+00	6.12E+01
			Cs-134	<9.04E+01	0.00E+00	9.04E+01
			Cs-137	<8.10E+01	0.00E+00	8.10E+01
			Be-7	<3.42E+02	0.00E+00	3.42E+02
			K-40	4.44E+03	1.18E+03	1.07E+03
			Ag-110M	<7.40E+01	0.00E+00	7.40E+01
			Sb-122	<1.39E+02	0.00E+00	1.39E+02
Sb-125	<1.77E+02	0.00E+00	1.77E+02			

Sample Point 45 [CONTROL - -- @ 0 miles]

Sample ID:	Sample Dates:		Nuclide	Activity	2 Sigma Error	MDA
563939	4/7/2022 - 4/7/2022	FREESWIM	Mn-54	<9.16E+01	0.00E+00	9.16E+01
			Co-58	<9.14E+01	0.00E+00	9.14E+01
			Fe-59	<1.60E+02	0.00E+00	1.60E+02
			Co-60	<9.46E+01	0.00E+00	9.46E+01
			Zn-65	<2.00E+02	0.00E+00	2.00E+02
			Nb-95	<1.02E+02	0.00E+00	1.02E+02
			I-131	<1.72E+02	0.00E+00	1.72E+02
			Cs-134	<1.03E+02	0.00E+00	1.03E+02
			Cs-137	<1.11E+02	0.00E+00	1.11E+02
			Be-7	<7.25E+02	0.00E+00	7.25E+02
			K-40	4.39E+03	1.37E+03	1.49E+03
			Ag-110M	<9.63E+01	0.00E+00	9.63E+01
			Sb-122	<5.54E+02	0.00E+00	5.54E+02

HARRIS Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: FISH Concentration (Activity): pCi/kg wet

Sample Point 45 [CONTROL - -- @ 0 miles]

Sample ID:	Sample Dates:	Location:	Nuclide	Activity	2 Sigma Error	MDA
563939	4/7/2022 - 4/7/2022	FREESWIM	Sb-125	<2.54E+02	0.00E+00	2.54E+02
563940	4/7/2022 - 4/7/2022	FREESWIM	Mn-54	<4.93E+01	0.00E+00	4.93E+01
			Co-58	<5.08E+01	0.00E+00	5.08E+01
			Fe-59	<8.40E+01	0.00E+00	8.40E+01
			Co-60	<4.55E+01	0.00E+00	4.55E+01
			Zn-65	<7.27E+01	0.00E+00	7.27E+01
			Nb-95	<4.01E+01	0.00E+00	4.01E+01
			I-131	<6.35E+01	0.00E+00	6.35E+01
			Cs-134	<4.57E+01	0.00E+00	4.57E+01
			Cs-137	<3.98E+01	0.00E+00	3.98E+01
			Be-7	<3.70E+02	0.00E+00	3.70E+02
			K-40	4.06E+03	8.93E+02	5.63E+02
			Ag-110M	<5.48E+01	0.00E+00	5.48E+01
			Sb-122	<2.06E+02	0.00E+00	2.06E+02
			Sb-125	<1.22E+02	0.00E+00	1.22E+02
563942	4/7/2022 - 4/7/2022	BOTMFEEDER	Mn-54	<6.05E+01	0.00E+00	6.05E+01
			Co-58	<5.99E+01	0.00E+00	5.99E+01
			Fe-59	<8.52E+01	0.00E+00	8.52E+01
			Co-60	<7.06E+01	0.00E+00	7.06E+01
			Zn-65	<1.33E+02	0.00E+00	1.33E+02
			Nb-95	<5.54E+01	0.00E+00	5.54E+01
			I-131	<9.39E+01	0.00E+00	9.39E+01
			Cs-134	<6.22E+01	0.00E+00	6.22E+01
			Cs-137	<6.54E+01	0.00E+00	6.54E+01
			Be-7	<4.44E+02	0.00E+00	4.44E+02
			K-40	4.04E+03	1.01E+03	7.75E+02
			Ag-110M	<5.71E+01	0.00E+00	5.71E+01
			Sb-122	<3.07E+02	0.00E+00	3.07E+02
			Sb-125	<1.30E+02	0.00E+00	1.30E+02
576479	10/10/2022 - 10/10/2022	FREESWIM	Mn-54	<7.20E+01	0.00E+00	7.20E+01
			Co-58	<6.48E+01	0.00E+00	6.48E+01
			Fe-59	<1.54E+02	0.00E+00	1.54E+02
			Co-60	<1.66E+01	0.00E+00	1.66E+01
			Zn-65	<1.96E+02	0.00E+00	1.96E+02
			Nb-95	<5.05E+01	0.00E+00	5.05E+01
			I-131	<8.22E+01	0.00E+00	8.22E+01
			Cs-134	<5.84E+01	0.00E+00	5.84E+01
			Cs-137	<6.74E+01	0.00E+00	6.74E+01
			Be-7	<4.70E+02	0.00E+00	4.70E+02
			K-40	5.11E+03	1.23E+03	6.10E+02
			Ag-110M	<7.62E+01	0.00E+00	7.62E+01
			Sb-122	<1.59E+02	0.00E+00	1.59E+02
			Sb-125	<1.75E+02	0.00E+00	1.75E+02
576480	10/10/2022 - 10/10/2022	FREESWIM	Mn-54	<6.34E+01	0.00E+00	6.34E+01
			Co-58	<6.65E+01	0.00E+00	6.65E+01
			Fe-59	<9.62E+01	0.00E+00	9.62E+01
			Co-60	<7.39E+01	0.00E+00	7.39E+01
			Zn-65	<1.49E+02	0.00E+00	1.49E+02
			Nb-95	<8.94E+01	0.00E+00	8.94E+01
			I-131	<7.72E+01	0.00E+00	7.72E+01
			Cs-134	<9.85E+01	0.00E+00	9.85E+01
			Cs-137	<8.15E+01	0.00E+00	8.15E+01
			Be-7	<5.84E+02	0.00E+00	5.84E+02
			K-40	4.11E+03	1.22E+03	1.26E+03
			Ag-110M	<5.84E+01	0.00E+00	5.84E+01
			Sb-122	<1.55E+02	0.00E+00	1.55E+02
			Sb-125	<2.23E+02	0.00E+00	2.23E+02

HARRIS Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: FISH Concentration (Activity): pCi/kg wet

Sample Point 45 [CONTROL - -- @ 0 miles]

Sample ID:	576487	Sample Dates:	10/10/2022 - 10/10/2022	BOTMFEEDER	Nuclide	Activity	2 Sigma Error	MDA
					Mn-54	<6.17E+01	0.00E+00	6.17E+01
					Co-58	<5.70E+01	0.00E+00	5.70E+01
					Fe-59	<1.03E+02	0.00E+00	1.03E+02
					Co-60	<6.93E+01	0.00E+00	6.93E+01
					Zn-65	<1.22E+02	0.00E+00	1.22E+02
					Nb-95	<4.50E+01	0.00E+00	4.50E+01
					I-131	<4.97E+01	0.00E+00	4.97E+01
					Cs-134	<5.54E+01	0.00E+00	5.54E+01
					Cs-137	<5.37E+01	0.00E+00	5.37E+01
					Be-7	<3.20E+02	0.00E+00	3.20E+02
					K-40	5.09E+03	1.12E+03	7.42E+02
					Ag-110M	<7.77E+00	0.00E+00	7.77E+00
					Sb-122	<1.01E+02	0.00E+00	1.01E+02
					Sb-125	<1.53E+02	0.00E+00	1.53E+02

Media Type: GROUND WATER Concentration (Activity): pCi/l

Sample Point 57 [INDICATOR - SSW @ 0.4 miles]

Sample ID:	560311	Sample Dates:	2/23/2022 - 2/23/2022		Nuclide	Activity	2 Sigma Error	MDA
					Mn-54	<6.19E+00	0.00E+00	6.19E+00
					Co-58	<6.18E+00	0.00E+00	6.18E+00
					Fe-59	<1.02E+01	0.00E+00	1.02E+01
					Co-60	<6.72E+00	0.00E+00	6.72E+00
					Zn-65	<1.37E+01	0.00E+00	1.37E+01
					Zr-95	<1.19E+01	0.00E+00	1.19E+01
					Nb-95	<6.96E+00	0.00E+00	6.96E+00
					I-131	<6.85E+00	0.00E+00	6.85E+00
					Cs-134	<7.32E+00	0.00E+00	7.32E+00
					Cs-137	<6.79E+00	0.00E+00	6.79E+00
					BaLa-140	<8.06E+00	0.00E+00	8.06E+00
					Be-7	<4.65E+01	0.00E+00	4.65E+01
					K-40	2.58E+02	8.52E+01	1.13E+02
					H3GW	<9.32E+01	0.00E+00	1.74E+02

Sample ID:	565901	Sample Dates:	5/23/2022 - 5/23/2022		Nuclide	Activity	2 Sigma Error	MDA
					Mn-54	<6.72E+00	0.00E+00	6.72E+00
					Co-58	<5.88E+00	0.00E+00	5.88E+00
					Fe-59	<1.09E+01	0.00E+00	1.09E+01
					Co-60	<6.70E+00	0.00E+00	6.70E+00
					Zn-65	<1.25E+01	0.00E+00	1.25E+01
					Zr-95	<1.28E+01	0.00E+00	1.28E+01
					Nb-95	<7.24E+00	0.00E+00	7.24E+00
					I-131	<9.06E+00	0.00E+00	9.06E+00
					Cs-134	<6.92E+00	0.00E+00	6.92E+00
					Cs-137	<5.99E+00	0.00E+00	5.99E+00
					BaLa-140	<8.31E+00	0.00E+00	8.31E+00
					Be-7	<4.47E+01	0.00E+00	4.47E+01
					K-40	1.97E+02	6.75E+01	6.32E+01
					H3GW	<9.86E+01	0.00E+00	1.85E+02

Sample ID:	571368	Sample Dates:	8/22/2022 - 8/22/2022		Nuclide	Activity	2 Sigma Error	MDA
					Mn-54	<6.13E+00	0.00E+00	6.13E+00
					Co-58	<6.57E+00	0.00E+00	6.57E+00
					Fe-59	<1.35E+01	0.00E+00	1.35E+01
					Co-60	<3.25E+00	0.00E+00	3.25E+00
					Zn-65	<1.36E+01	0.00E+00	1.36E+01
					Zr-95	<1.00E+01	0.00E+00	1.00E+01
					Nb-95	<6.83E+00	0.00E+00	6.83E+00
					I-131	<7.28E+00	0.00E+00	7.28E+00
					Cs-134	<5.61E+00	0.00E+00	5.61E+00
					Cs-137	<8.73E+00	0.00E+00	8.73E+00
					BaLa-140	<8.23E+00	0.00E+00	8.23E+00
					Be-7	<4.94E+01	0.00E+00	4.94E+01
					K-40	1.52E+02	7.14E+01	9.03E+01
					H3GW	<1.28E+02	0.00E+00	1.77E+02

HARRIS Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: GROUND WATER Concentration (Activity): pCi/l

Sample Point 57 [INDICATOR - SSW @ 0.4 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
578920	11/14/2022 - 11/14/2022	Mn-54	<8.06E+00	0.00E+00	8.06E+00
		Co-58	<7.02E+00	0.00E+00	7.02E+00
		Fe-59	<1.09E+01	0.00E+00	1.09E+01
		Co-60	<8.51E+00	0.00E+00	8.51E+00
		Zn-65	<1.50E+01	0.00E+00	1.50E+01
		Zr-95	<1.17E+01	0.00E+00	1.17E+01
		Nb-95	<7.46E+00	0.00E+00	7.46E+00
		I-131	<8.58E+00	0.00E+00	8.58E+00
		Cs-134	<7.50E+00	0.00E+00	7.50E+00
		Cs-137	<7.38E+00	0.00E+00	7.38E+00
		BaLa-140	<8.53E+00	0.00E+00	8.53E+00
		Be-7	<5.85E+01	0.00E+00	5.85E+01
		K-40	3.14E+02	1.10E+02	1.23E+02
		H3GW	<5.99E+01	0.00E+00	2.05E+02

Sample Point 59 [INDICATOR - NNE @ 0.5 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
560312	2/23/2022 - 2/23/2022	Mn-54	<6.83E+00	0.00E+00	6.83E+00
		Co-58	<6.66E+00	0.00E+00	6.66E+00
		Fe-59	<1.42E+01	0.00E+00	1.42E+01
		Co-60	<8.47E+00	0.00E+00	8.47E+00
		Zn-65	<1.85E+01	0.00E+00	1.85E+01
		Zr-95	<1.21E+01	0.00E+00	1.21E+01
		Nb-95	<1.02E+01	0.00E+00	1.02E+01
		I-131	<9.32E+00	0.00E+00	9.32E+00
		Cs-134	<8.36E+00	0.00E+00	8.36E+00
		Cs-137	<9.98E+00	0.00E+00	9.98E+00
		BaLa-140	<8.40E+00	0.00E+00	8.40E+00
		Be-7	<7.29E+01	0.00E+00	7.29E+01
		K-40	1.69E+02	7.19E+01	8.69E+01
		H3GW	<1.40E+01	0.00E+00	1.74E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
565902	5/23/2022 - 5/23/2022	Mn-54	<5.00E+00	0.00E+00	5.00E+00
		Co-58	<5.74E+00	0.00E+00	5.74E+00
		Fe-59	<1.07E+01	0.00E+00	1.07E+01
		Co-60	<4.88E+00	0.00E+00	4.88E+00
		Zn-65	<1.21E+01	0.00E+00	1.21E+01
		Zr-95	<1.19E+01	0.00E+00	1.19E+01
		Nb-95	<7.01E+00	0.00E+00	7.01E+00
		I-131	<8.94E+00	0.00E+00	8.94E+00
		Cs-134	<5.16E+00	0.00E+00	5.16E+00
		Cs-137	<5.61E+00	0.00E+00	5.61E+00
		BaLa-140	<1.02E+01	0.00E+00	1.02E+01
		Be-7	<4.43E+01	0.00E+00	4.43E+01
		K-40	1.12E+02	5.67E+01	7.35E+01
		H3GW	<-3.7E+01	0.00E+00	1.84E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
571369	8/22/2022 - 8/22/2022	Mn-54	<6.63E+00	0.00E+00	6.63E+00
		Co-58	<6.67E+00	0.00E+00	6.67E+00
		Fe-59	<1.04E+01	0.00E+00	1.04E+01
		Co-60	<6.47E+00	0.00E+00	6.47E+00
		Zn-65	<1.25E+01	0.00E+00	1.25E+01
		Zr-95	<1.18E+01	0.00E+00	1.18E+01
		Nb-95	<7.33E+00	0.00E+00	7.33E+00
		I-131	<6.82E+00	0.00E+00	6.82E+00
		Cs-134	<5.40E+00	0.00E+00	5.40E+00
		Cs-137	<6.73E+00	0.00E+00	6.73E+00
		BaLa-140	<8.16E+00	0.00E+00	8.16E+00
		Be-7	<4.90E+01	0.00E+00	4.90E+01
		K-40	<9.34E+01	0.00E+00	9.34E+01
		H3GW	<2.31E+01	0.00E+00	1.77E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
578921	11/14/2022 - 11/14/2022	Mn-54	<7.42E+00	0.00E+00	7.42E+00

HARRIS Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: GROUND WATER Concentration (Activity): pCi/l

Sample Point 59 [INDICATOR - NNE @ 0.5 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
578921	11/14/2022 - 11/14/2022	Co-58	<5.73E+00	0.00E+00	5.73E+00
		Fe-59	<1.42E+01	0.00E+00	1.42E+01
		Co-60	<6.44E+00	0.00E+00	6.44E+00
		Zn-65	<1.13E+01	0.00E+00	1.13E+01
		Zr-95	<1.16E+01	0.00E+00	1.16E+01
		Nb-95	<7.48E+00	0.00E+00	7.48E+00
		I-131	<7.89E+00	0.00E+00	7.89E+00
		Cs-134	<7.81E+00	0.00E+00	7.81E+00
		Cs-137	<7.25E+00	0.00E+00	7.25E+00
		BaLa-140	<9.50E+00	0.00E+00	9.50E+00
		Be-7	<4.71E+01	0.00E+00	4.71E+01
		K-40	1.84E+02	7.23E+01	8.27E+01
		H3GW	<3.51E+01	0.00E+00	2.03E+02

Sample Point 60 [INDICATOR - ESE @ 0.5 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
560313	2/22/2022 - 2/22/2022	Mn-54	<6.03E+00	0.00E+00	6.03E+00
		Co-58	<5.46E+00	0.00E+00	5.46E+00
		Fe-59	<1.08E+01	0.00E+00	1.08E+01
		Co-60	<6.00E+00	0.00E+00	6.00E+00
		Zn-65	<1.41E+01	0.00E+00	1.41E+01
		Zr-95	<1.05E+01	0.00E+00	1.05E+01
		Nb-95	<7.82E+00	0.00E+00	7.82E+00
		I-131	<6.38E+00	0.00E+00	6.38E+00
		Cs-134	<6.98E+00	0.00E+00	6.98E+00
		Cs-137	<6.26E+00	0.00E+00	6.26E+00
		BaLa-140	<1.04E+01	0.00E+00	1.04E+01
		Be-7	<4.42E+01	0.00E+00	4.42E+01
		K-40	9.19E+01	5.65E+01	7.70E+01
		H3GW	<6.52E+01	0.00E+00	1.74E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
565903	5/24/2022 - 5/24/2022	Mn-54	<3.76E+00	0.00E+00	3.76E+00
		Co-58	<5.60E+00	0.00E+00	5.60E+00
		Fe-59	<1.15E+01	0.00E+00	1.15E+01
		Co-60	<4.85E+00	0.00E+00	4.85E+00
		Zn-65	<1.45E+01	0.00E+00	1.45E+01
		Zr-95	<1.04E+01	0.00E+00	1.04E+01
		Nb-95	<7.46E+00	0.00E+00	7.46E+00
		I-131	<1.08E+01	0.00E+00	1.08E+01
		Cs-134	<6.45E+00	0.00E+00	6.45E+00
		Cs-137	<3.91E+00	0.00E+00	3.91E+00
		BaLa-140	<9.89E+00	0.00E+00	9.89E+00
		Be-7	<4.11E+01	0.00E+00	4.11E+01
		K-40	1.22E+02	6.04E+01	7.68E+01
		H3GW	<-7.2E+01	0.00E+00	1.84E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
571370	8/22/2022 - 8/22/2022	Mn-54	<6.33E+00	0.00E+00	6.33E+00
		Co-58	<7.18E+00	0.00E+00	7.18E+00
		Fe-59	<1.31E+01	0.00E+00	1.31E+01
		Co-60	<6.66E+00	0.00E+00	6.66E+00
		Zn-65	<1.62E+01	0.00E+00	1.62E+01
		Zr-95	<1.14E+01	0.00E+00	1.14E+01
		Nb-95	<7.50E+00	0.00E+00	7.50E+00
		I-131	<8.34E+00	0.00E+00	8.34E+00
		Cs-134	<6.71E+00	0.00E+00	6.71E+00
		Cs-137	<7.27E+00	0.00E+00	7.27E+00
		BaLa-140	<1.15E+01	0.00E+00	1.15E+01
		Be-7	<4.74E+01	0.00E+00	4.74E+01
		K-40	2.30E+02	9.08E+01	1.16E+02
		H3GW	<9.75E+01	0.00E+00	1.77E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
578922	11/14/2022 - 11/14/2022	Mn-54	<6.14E+00	0.00E+00	6.14E+00
		Co-58	<5.04E+00	0.00E+00	5.04E+00

HARRIS Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: GROUND WATER Concentration (Activity): pCi/l

Sample Point 60 [INDICATOR - ESE @ 0.5 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
578922	11/14/2022 - 11/14/2022	Fe-59	<1.04E+01	0.00E+00	1.04E+01
		Co-60	<6.12E+00	0.00E+00	6.12E+00
		Zn-65	<1.08E+01	0.00E+00	1.08E+01
		Zr-95	<1.26E+01	0.00E+00	1.26E+01
		Nb-95	<7.39E+00	0.00E+00	7.39E+00
		I-131	<7.95E+00	0.00E+00	7.95E+00
		Cs-134	<6.70E+00	0.00E+00	6.70E+00
		Cs-137	<6.87E+00	0.00E+00	6.87E+00
		BaLa-140	<9.08E+00	0.00E+00	9.08E+00
		Be-7	<5.06E+01	0.00E+00	5.06E+01
		K-40	1.17E+02	5.89E+01	7.46E+01
		H3GW	<5.66E+01	0.00E+00	2.03E+02

Sample Point 68 [INDICATOR - W @ 0.2 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
560314	2/23/2022 - 2/23/2022	Mn-54	<7.08E+00	0.00E+00	7.08E+00
		Co-58	<5.22E+00	0.00E+00	5.22E+00
		Fe-59	<1.03E+01	0.00E+00	1.03E+01
		Co-60	<5.79E+00	0.00E+00	5.79E+00
		Zn-65	<1.49E+01	0.00E+00	1.49E+01
		Zr-95	<1.25E+01	0.00E+00	1.25E+01
		Nb-95	<5.27E+00	0.00E+00	5.27E+00
		I-131	<6.92E+00	0.00E+00	6.92E+00
		Cs-134	<6.33E+00	0.00E+00	6.33E+00
		Cs-137	<6.03E+00	0.00E+00	6.03E+00
		BaLa-140	<8.17E+00	0.00E+00	8.17E+00
		Be-7	<4.73E+01	0.00E+00	4.73E+01
		K-40	1.24E+02	6.19E+01	7.89E+01
		H3GW	<4.87E+01	0.00E+00	1.73E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
568529	6/6/2022 - 6/6/2022	Mn-54	<6.32E+00	0.00E+00	6.32E+00
		Co-58	<5.61E+00	0.00E+00	5.61E+00
		Fe-59	<1.22E+01	0.00E+00	1.22E+01
		Co-60	<5.93E+00	0.00E+00	5.93E+00
		Zn-65	<1.18E+01	0.00E+00	1.18E+01
		Zr-95	<1.04E+01	0.00E+00	1.04E+01
		Nb-95	<6.07E+00	0.00E+00	6.07E+00
		I-131	<7.12E+00	0.00E+00	7.12E+00
		Cs-134	<8.01E+00	0.00E+00	8.01E+00
		Cs-137	<5.26E+00	0.00E+00	5.26E+00
		BaLa-140	<5.45E+00	0.00E+00	5.45E+00
		Be-7	<4.81E+01	0.00E+00	4.81E+01
		K-40	<1.34E+02	0.00E+00	1.34E+02
		H3GW	<-1.2E+01	0.00E+00	1.82E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
571371	8/23/2022 - 8/23/2022	Mn-54	<5.86E+00	0.00E+00	5.86E+00
		Co-58	<4.10E+00	0.00E+00	4.10E+00
		Fe-59	<1.23E+01	0.00E+00	1.23E+01
		Co-60	<6.86E+00	0.00E+00	6.86E+00
		Zn-65	<1.36E+01	0.00E+00	1.36E+01
		Zr-95	<8.82E+00	0.00E+00	8.82E+00
		Nb-95	<6.05E+00	0.00E+00	6.05E+00
		I-131	<6.90E+00	0.00E+00	6.90E+00
		Cs-134	<7.17E+00	0.00E+00	7.17E+00
		Cs-137	<5.56E+00	0.00E+00	5.56E+00
		BaLa-140	<6.62E+00	0.00E+00	6.62E+00
		Be-7	<4.50E+01	0.00E+00	4.50E+01
		K-40	2.23E+02	7.48E+01	7.76E+01
		H3GW	<4.18E+01	0.00E+00	1.77E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
578923	11/14/2022 - 11/14/2022	Mn-54	<6.54E+00	0.00E+00	6.54E+00
		Co-58	<5.65E+00	0.00E+00	5.65E+00
		Fe-59	<1.23E+01	0.00E+00	1.23E+01

HARRIS Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: GROUND WATER Concentration (Activity): pCi/l

Sample Point 68 [INDICATOR - W @ 0.2 miles]

Sample ID:	578923	Sample Dates:	11/14/2022 - 11/14/2022	Nuclide	Activity	2 Sigma Error	MDA
				Co-60	<7.40E+00	0.00E+00	7.40E+00
				Zn-65	<1.25E+01	0.00E+00	1.25E+01
				Zr-95	<1.05E+01	0.00E+00	1.05E+01
				Nb-95	<7.66E+00	0.00E+00	7.66E+00
				I-131	<7.78E+00	0.00E+00	7.78E+00
				Cs-134	<8.06E+00	0.00E+00	8.06E+00
				Cs-137	<7.43E+00	0.00E+00	7.43E+00
				BaLa-140	<7.15E+00	0.00E+00	7.15E+00
				Be-7	<5.19E+01	0.00E+00	5.19E+01
				K-40	9.75E+01	6.68E+01	9.77E+01
				H3GW	<9.13E+01	0.00E+00	2.02E+02

Sample Point 69 [INDICATOR - NNE @ 0.2 miles]

Sample ID:	560315	Sample Dates:	2/23/2022 - 2/23/2022	Nuclide	Activity	2 Sigma Error	MDA
				Mn-54	<5.62E+00	0.00E+00	5.62E+00
				Co-58	<5.60E+00	0.00E+00	5.60E+00
				Fe-59	<1.00E+01	0.00E+00	1.00E+01
				Co-60	<5.55E+00	0.00E+00	5.55E+00
				Zn-65	<1.18E+01	0.00E+00	1.18E+01
				Zr-95	<1.01E+01	0.00E+00	1.01E+01
				Nb-95	<5.04E+00	0.00E+00	5.04E+00
				I-131	<6.22E+00	0.00E+00	6.22E+00
				Cs-134	<7.35E+00	0.00E+00	7.35E+00
				Cs-137	<6.22E+00	0.00E+00	6.22E+00
				BaLa-140	<7.34E+00	0.00E+00	7.34E+00
				Be-7	<4.48E+01	0.00E+00	4.48E+01
				K-40	8.91E+01	7.36E+01	1.14E+02
				H3GW	<2.79E+01	0.00E+00	1.74E+02

Sample ID:	565905	Sample Dates:	5/23/2022 - 5/23/2022	Nuclide	Activity	2 Sigma Error	MDA
				Mn-54	<5.96E+00	0.00E+00	5.96E+00
				Co-58	<6.04E+00	0.00E+00	6.04E+00
				Fe-59	<1.41E+01	0.00E+00	1.41E+01
				Co-60	<5.69E+00	0.00E+00	5.69E+00
				Zn-65	<9.46E+00	0.00E+00	9.46E+00
				Zr-95	<1.12E+01	0.00E+00	1.12E+01
				Nb-95	<6.80E+00	0.00E+00	6.80E+00
				I-131	<1.09E+01	0.00E+00	1.09E+01
				Cs-134	<6.45E+00	0.00E+00	6.45E+00
				Cs-137	<5.22E+00	0.00E+00	5.22E+00
				BaLa-140	<8.90E+00	0.00E+00	8.90E+00
				Be-7	<4.49E+01	0.00E+00	4.49E+01
				K-40	<1.10E+02	0.00E+00	1.10E+02
				H3GW	<-4.4E+01	0.00E+00	1.83E+02

Sample ID:	571372	Sample Dates:	8/22/2022 - 8/22/2022	Nuclide	Activity	2 Sigma Error	MDA
				Mn-54	<4.98E+00	0.00E+00	4.98E+00
				Co-58	<5.24E+00	0.00E+00	5.24E+00
				Fe-59	<1.32E+01	0.00E+00	1.32E+01
				Co-60	<5.97E+00	0.00E+00	5.97E+00
				Zn-65	<1.50E+01	0.00E+00	1.50E+01
				Zr-95	<8.72E+00	0.00E+00	8.72E+00
				Nb-95	<5.76E+00	0.00E+00	5.76E+00
				I-131	<7.24E+00	0.00E+00	7.24E+00
				Cs-134	<6.55E+00	0.00E+00	6.55E+00
				Cs-137	<5.87E+00	0.00E+00	5.87E+00
				BaLa-140	<1.60E+00	0.00E+00	1.60E+00
				Be-7	<4.44E+01	0.00E+00	4.44E+01
				K-40	1.42E+02	5.30E+01	3.91E+01
				H3GW	<8.78E+01	0.00E+00	1.77E+02

Sample ID:	578924	Sample Dates:	11/15/2022 - 11/15/2022	Nuclide	Activity	2 Sigma Error	MDA
				Mn-54	<6.88E+00	0.00E+00	6.88E+00
				Co-58	<7.16E+00	0.00E+00	7.16E+00
				Fe-59	<1.08E+01	0.00E+00	1.08E+01
				Co-60	<5.37E+00	0.00E+00	5.37E+00

HARRIS Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: GROUND WATER Concentration (Activity): pCi/l

Sample Point 69 [INDICATOR - NNE @ 0.2 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
578924	11/15/2022 - 11/15/2022	Zn-65	<1.35E+01	0.00E+00	1.35E+01
		Zr-95	<1.00E+01	0.00E+00	1.00E+01
		Nb-95	<6.70E+00	0.00E+00	6.70E+00
		I-131	<7.19E+00	0.00E+00	7.19E+00
		Cs-134	<6.67E+00	0.00E+00	6.67E+00
		Cs-137	<5.97E+00	0.00E+00	5.97E+00
		BaLa-140	<9.97E+00	0.00E+00	9.97E+00
		Be-7	<4.90E+01	0.00E+00	4.90E+01
		K-40	1.68E+02	6.90E+01	8.13E+01
		H3GW	<-3.8E+01	0.00E+00	2.03E+02

Sample Point 70 [INDICATOR - E @ 0.4 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
560316	2/23/2022 - 2/23/2022	Mn-54	<4.99E+00	0.00E+00	4.99E+00
		Co-58	<5.92E+00	0.00E+00	5.92E+00
		Fe-59	<7.75E+00	0.00E+00	7.75E+00
		Co-60	<4.41E+00	0.00E+00	4.41E+00
		Zn-65	<1.14E+01	0.00E+00	1.14E+01
		Zr-95	<9.67E+00	0.00E+00	9.67E+00
		Nb-95	<5.23E+00	0.00E+00	5.23E+00
		I-131	<6.42E+00	0.00E+00	6.42E+00
		Cs-134	<6.67E+00	0.00E+00	6.67E+00
		Cs-137	<5.08E+00	0.00E+00	5.08E+00
		BaLa-140	<5.05E+00	0.00E+00	5.05E+00
		Be-7	<5.29E+01	0.00E+00	5.29E+01
		K-40	1.37E+02	6.92E+01	9.22E+01
		H3GW	<4.89E+01	0.00E+00	1.74E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
565906	5/23/2022 - 5/23/2022	Mn-54	<5.21E+00	0.00E+00	5.21E+00
		Co-58	<5.86E+00	0.00E+00	5.86E+00
		Fe-59	<7.80E+00	0.00E+00	7.80E+00
		Co-60	<8.22E+00	0.00E+00	8.22E+00
		Zn-65	<1.19E+01	0.00E+00	1.19E+01
		Zr-95	<9.87E+00	0.00E+00	9.87E+00
		Nb-95	<8.32E+00	0.00E+00	8.32E+00
		I-131	<1.06E+01	0.00E+00	1.06E+01
		Cs-134	<6.72E+00	0.00E+00	6.72E+00
		Cs-137	<6.94E+00	0.00E+00	6.94E+00
		BaLa-140	<8.16E+00	0.00E+00	8.16E+00
		Be-7	<5.37E+01	0.00E+00	5.37E+01
		K-40	1.99E+02	7.26E+01	7.83E+01
		H3GW	<1.86E+01	0.00E+00	1.85E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
571373	8/22/2022 - 8/22/2022	Mn-54	<5.00E+00	0.00E+00	5.00E+00
		Co-58	<5.02E+00	0.00E+00	5.02E+00
		Fe-59	<1.28E+01	0.00E+00	1.28E+01
		Co-60	<6.51E+00	0.00E+00	6.51E+00
		Zn-65	<1.49E+01	0.00E+00	1.49E+01
		Zr-95	<7.53E+00	0.00E+00	7.53E+00
		Nb-95	<6.36E+00	0.00E+00	6.36E+00
		I-131	<5.96E+00	0.00E+00	5.96E+00
		Cs-134	<6.28E+00	0.00E+00	6.28E+00
		Cs-137	<5.08E+00	0.00E+00	5.08E+00
		BaLa-140	<6.89E+00	0.00E+00	6.89E+00
		Be-7	<3.65E+01	0.00E+00	3.65E+01
		K-40	1.51E+02	6.58E+01	7.89E+01
		H3GW	<5.78E+01	0.00E+00	1.77E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
578925	11/15/2022 - 11/15/2022	Mn-54	<6.19E+00	0.00E+00	6.19E+00
		Co-58	<5.20E+00	0.00E+00	5.20E+00
		Fe-59	<1.06E+01	0.00E+00	1.06E+01
		Co-60	<7.05E+00	0.00E+00	7.05E+00
		Zn-65	<1.24E+01	0.00E+00	1.24E+01

HARRIS Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: GROUND WATER Concentration (Activity): pCi/l

Sample Point 70 [INDICATOR - E @ 0.4 miles]

Sample ID:	578925	Sample Dates:	11/15/2022 - 11/15/2022	Nuclide	Activity	2 Sigma Error	MDA
				Zr-95	<1.19E+01	0.00E+00	1.19E+01
				Nb-95	<6.84E+00	0.00E+00	6.84E+00
				I-131	<7.04E+00	0.00E+00	7.04E+00
				Cs-134	<5.59E+00	0.00E+00	5.59E+00
				Cs-137	<5.69E+00	0.00E+00	5.69E+00
				BaLa-140	<6.81E+00	0.00E+00	6.81E+00
				Be-7	<4.49E+01	0.00E+00	4.49E+01
				K-40	1.45E+02	6.23E+01	7.06E+01
				H3GW	<9.66E+01	0.00E+00	2.02E+02

Sample Point 71 [INDICATOR - SE @ 0.3 miles]

Sample ID:	560317	Sample Dates:	2/23/2022 - 2/23/2022	Nuclide	Activity	2 Sigma Error	MDA
				Mn-54	<6.48E+00	0.00E+00	6.48E+00
				Co-58	<3.82E+00	0.00E+00	3.82E+00
				Fe-59	<1.22E+01	0.00E+00	1.22E+01
				Co-60	<6.69E+00	0.00E+00	6.69E+00
				Zn-65	<1.05E+01	0.00E+00	1.05E+01
				Zr-95	<1.16E+01	0.00E+00	1.16E+01
				Nb-95	<4.71E+00	0.00E+00	4.71E+00
				I-131	<6.32E+00	0.00E+00	6.32E+00
				Cs-134	<5.46E+00	0.00E+00	5.46E+00
				Cs-137	<6.14E+00	0.00E+00	6.14E+00
				BaLa-140	<6.85E+00	0.00E+00	6.85E+00
				Be-7	<4.19E+01	0.00E+00	4.19E+01
				K-40	1.68E+02	6.68E+01	8.25E+01
				H3GW	<6.08E+01	0.00E+00	1.74E+02

Sample ID:	565907	Sample Dates:	5/23/2022 - 5/23/2022	Nuclide	Activity	2 Sigma Error	MDA
				Mn-54	<6.21E+00	0.00E+00	6.21E+00
				Co-58	<6.66E+00	0.00E+00	6.66E+00
				Fe-59	<1.21E+01	0.00E+00	1.21E+01
				Co-60	<7.04E+00	0.00E+00	7.04E+00
				Zn-65	<1.06E+01	0.00E+00	1.06E+01
				Zr-95	<9.90E+00	0.00E+00	9.90E+00
				Nb-95	<7.41E+00	0.00E+00	7.41E+00
				I-131	<1.07E+01	0.00E+00	1.07E+01
				Cs-134	<7.86E+00	0.00E+00	7.86E+00
				Cs-137	<5.63E+00	0.00E+00	5.63E+00
				BaLa-140	<8.30E+00	0.00E+00	8.30E+00
				Be-7	<5.21E+01	0.00E+00	5.21E+01
				K-40	1.50E+02	6.82E+01	8.48E+01
				H3GW	<-2.1E+01	0.00E+00	1.84E+02

Sample ID:	571374	Sample Dates:	8/22/2022 - 8/22/2022	Nuclide	Activity	2 Sigma Error	MDA
				Mn-54	<5.77E+00	0.00E+00	5.77E+00
				Co-58	<6.68E+00	0.00E+00	6.68E+00
				Fe-59	<1.12E+01	0.00E+00	1.12E+01
				Co-60	<6.33E+00	0.00E+00	6.33E+00
				Zn-65	<1.18E+01	0.00E+00	1.18E+01
				Zr-95	<1.07E+01	0.00E+00	1.07E+01
				Nb-95	<8.12E+00	0.00E+00	8.12E+00
				I-131	<7.41E+00	0.00E+00	7.41E+00
				Cs-134	<6.89E+00	0.00E+00	6.89E+00
				Cs-137	<7.09E+00	0.00E+00	7.09E+00
				BaLa-140	<7.74E+00	0.00E+00	7.74E+00
				Be-7	<4.40E+01	0.00E+00	4.40E+01
				K-40	1.86E+02	6.49E+01	5.98E+01
				H3GW	<5.29E+01	0.00E+00	1.76E+02

Sample ID:	578926	Sample Dates:	11/15/2022 - 11/15/2022	Nuclide	Activity	2 Sigma Error	MDA
				Mn-54	<6.21E+00	0.00E+00	6.21E+00
				Co-58	<4.37E+00	0.00E+00	4.37E+00
				Fe-59	<1.09E+01	0.00E+00	1.09E+01
				Co-60	<7.17E+00	0.00E+00	7.17E+00
				Zn-65	<1.02E+01	0.00E+00	1.02E+01
				Zr-95	<9.86E+00	0.00E+00	9.86E+00

HARRIS Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: GROUND WATER Concentration (Activity): pCi/l

Sample Point 71 [INDICATOR - SE @ 0.3 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
578926	11/15/2022 - 11/15/2022	Nb-95	<6.36E+00	0.00E+00	6.36E+00
		I-131	<6.20E+00	0.00E+00	6.20E+00
		Cs-134	<6.17E+00	0.00E+00	6.17E+00
		Cs-137	<6.40E+00	0.00E+00	6.40E+00
		BaLa-140	<7.76E+00	0.00E+00	7.76E+00
		Be-7	<5.03E+01	0.00E+00	5.03E+01
		K-40	1.53E+02	7.34E+01	9.71E+01
		H3GW	<-2.7E+00	0.00E+00	2.02E+02

Sample Point 72 [INDICATOR - SE @ 0.2 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
560318	2/23/2022 - 2/23/2022	Mn-54	<7.11E+00	0.00E+00	7.11E+00
		Co-58	<6.82E+00	0.00E+00	6.82E+00
		Fe-59	<1.02E+01	0.00E+00	1.02E+01
		Co-60	<7.63E+00	0.00E+00	7.63E+00
		Zn-65	<1.34E+01	0.00E+00	1.34E+01
		Zr-95	<1.20E+01	0.00E+00	1.20E+01
		Nb-95	<7.60E+00	0.00E+00	7.60E+00
		I-131	<8.08E+00	0.00E+00	8.08E+00
		Cs-134	<7.10E+00	0.00E+00	7.10E+00
		Cs-137	<7.72E+00	0.00E+00	7.72E+00
		BaLa-140	<1.08E+01	0.00E+00	1.08E+01
		Be-7	<6.21E+01	0.00E+00	6.21E+01
		K-40	9.57E+01	1.58E+02	2.61E+02
		H3GW	<1.86E+01	0.00E+00	1.73E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
565908	5/23/2022 - 5/23/2022	Mn-54	<6.27E+00	0.00E+00	6.27E+00
		Co-58	<5.56E+00	0.00E+00	5.56E+00
		Fe-59	<1.39E+01	0.00E+00	1.39E+01
		Co-60	<6.56E+00	0.00E+00	6.56E+00
		Zn-65	<1.48E+01	0.00E+00	1.48E+01
		Zr-95	<1.11E+01	0.00E+00	1.11E+01
		Nb-95	<5.74E+00	0.00E+00	5.74E+00
		I-131	<1.16E+01	0.00E+00	1.16E+01
		Cs-134	<7.19E+00	0.00E+00	7.19E+00
		Cs-137	<6.07E+00	0.00E+00	6.07E+00
		BaLa-140	<9.84E+00	0.00E+00	9.84E+00
		Be-7	<5.50E+01	0.00E+00	5.50E+01
		K-40	9.78E+01	6.41E+01	9.24E+01
		H3GW	<-3.5E+01	0.00E+00	1.84E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
571375	8/22/2022 - 8/22/2022	Mn-54	<7.23E+00	0.00E+00	7.23E+00
		Co-58	<6.32E+00	0.00E+00	6.32E+00
		Fe-59	<1.25E+01	0.00E+00	1.25E+01
		Co-60	<8.70E+00	0.00E+00	8.70E+00
		Zn-65	<1.38E+01	0.00E+00	1.38E+01
		Zr-95	<1.20E+01	0.00E+00	1.20E+01
		Nb-95	<9.34E+00	0.00E+00	9.34E+00
		I-131	<9.36E+00	0.00E+00	9.36E+00
		Cs-134	<8.39E+00	0.00E+00	8.39E+00
		Cs-137	<7.28E+00	0.00E+00	7.28E+00
		BaLa-140	<9.82E+00	0.00E+00	9.82E+00
		Be-7	<5.32E+01	0.00E+00	5.32E+01
		K-40	<1.50E+02	0.00E+00	1.50E+02
		H3GW	<1.85E+01	0.00E+00	1.77E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
578927	11/15/2022 - 11/15/2022	Mn-54	<5.93E+00	0.00E+00	5.93E+00
		Co-58	<6.73E+00	0.00E+00	6.73E+00
		Fe-59	<1.18E+01	0.00E+00	1.18E+01
		Co-60	<6.22E+00	0.00E+00	6.22E+00
		Zn-65	<1.92E+01	0.00E+00	1.92E+01
		Zr-95	<1.15E+01	0.00E+00	1.15E+01
		Nb-95	<1.36E+01	0.00E+00	1.36E+01

HARRIS Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: GROUND WATER Concentration (Activity): pCi/l

Sample Point 72 [INDICATOR - SE @ 0.2 miles]

Sample ID:	578927	Sample Dates:	11/15/2022 - 11/15/2022	Nuclide	Activity	2 Sigma Error	MDA
				I-131	<7.37E+00	0.00E+00	7.37E+00
				Cs-134	<7.58E+00	0.00E+00	7.58E+00
				Cs-137	<8.12E+00	0.00E+00	8.12E+00
				BaLa-140	<7.49E+00	0.00E+00	7.49E+00
				Be-7	<5.35E+01	0.00E+00	5.35E+01
				K-40	2.02E+02	6.93E+01	8.97E+01
				H3GW	<3.22E+01	0.00E+00	2.02E+02

Sample Point 73 [INDICATOR - S @ 0.2 miles]

Sample ID:	560319	Sample Dates:	2/22/2022 - 2/22/2022	Nuclide	Activity	2 Sigma Error	MDA
				Mn-54	<5.79E+00	0.00E+00	5.79E+00
				Co-58	<5.41E+00	0.00E+00	5.41E+00
				Fe-59	<1.29E+01	0.00E+00	1.29E+01
				Co-60	<7.14E+00	0.00E+00	7.14E+00
				Zn-65	<1.61E+01	0.00E+00	1.61E+01
				Zr-95	<1.41E+01	0.00E+00	1.41E+01
				Nb-95	<7.13E+00	0.00E+00	7.13E+00
				I-131	<9.76E+00	0.00E+00	9.76E+00
				Cs-134	<7.36E+00	0.00E+00	7.36E+00
				Cs-137	<7.30E+00	0.00E+00	7.30E+00
				BaLa-140	<1.12E+01	0.00E+00	1.12E+01
				Be-7	<5.73E+01	0.00E+00	5.73E+01
				K-40	1.91E+02	8.00E+01	1.03E+02
				H3GW	<-9.4E+00	0.00E+00	1.74E+02

Sample ID:	565909	Sample Dates:	5/23/2022 - 5/23/2022	Nuclide	Activity	2 Sigma Error	MDA
				Mn-54	<5.48E+00	0.00E+00	5.48E+00
				Co-58	<6.91E+00	0.00E+00	6.91E+00
				Fe-59	<1.38E+01	0.00E+00	1.38E+01
				Co-60	<7.69E+00	0.00E+00	7.69E+00
				Zn-65	<1.57E+01	0.00E+00	1.57E+01
				Zr-95	<8.75E+00	0.00E+00	8.75E+00
				Nb-95	<6.94E+00	0.00E+00	6.94E+00
				I-131	<9.65E+00	0.00E+00	9.65E+00
				Cs-134	<6.58E+00	0.00E+00	6.58E+00
				Cs-137	<7.02E+00	0.00E+00	7.02E+00
				BaLa-140	<1.16E+01	0.00E+00	1.16E+01
				Be-7	<4.27E+01	0.00E+00	4.27E+01
				K-40	1.36E+02	5.45E+01	5.03E+01
				H3GW	<-1.0E+02	0.00E+00	1.84E+02

Sample ID:	571376	Sample Dates:	8/22/2022 - 8/22/2022	Nuclide	Activity	2 Sigma Error	MDA
				Mn-54	<5.40E+00	0.00E+00	5.40E+00
				Co-58	<5.91E+00	0.00E+00	5.91E+00
				Fe-59	<1.07E+01	0.00E+00	1.07E+01
				Co-60	<5.79E+00	0.00E+00	5.79E+00
				Zn-65	<1.28E+01	0.00E+00	1.28E+01
				Zr-95	<1.12E+01	0.00E+00	1.12E+01
				Nb-95	<5.81E+00	0.00E+00	5.81E+00
				I-131	<7.38E+00	0.00E+00	7.38E+00
				Cs-134	<6.47E+00	0.00E+00	6.47E+00
				Cs-137	<5.63E+00	0.00E+00	5.63E+00
				BaLa-140	<7.79E+00	0.00E+00	7.79E+00
				Be-7	<4.36E+01	0.00E+00	4.36E+01
				K-40	1.88E+02	5.66E+01	4.50E+01
				H3GW	<2.09E+01	0.00E+00	1.77E+02

Sample ID:	578928	Sample Dates:	11/15/2022 - 11/15/2022	Nuclide	Activity	2 Sigma Error	MDA
				Mn-54	<6.20E+00	0.00E+00	6.20E+00
				Co-58	<5.72E+00	0.00E+00	5.72E+00
				Fe-59	<1.01E+01	0.00E+00	1.01E+01
				Co-60	<6.54E+00	0.00E+00	6.54E+00
				Zn-65	<1.24E+01	0.00E+00	1.24E+01
				Zr-95	<1.20E+01	0.00E+00	1.20E+01
				Nb-95	<6.38E+00	0.00E+00	6.38E+00
				I-131	<7.09E+00	0.00E+00	7.09E+00

HARRIS Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: GROUND WATER Concentration (Activity): pCi/l

Sample Point 73 [INDICATOR - S @ 0.2 miles]

Sample ID:	578928	Sample Dates:	11/15/2022 - 11/15/2022	Nuclide	Activity	2 Sigma Error	MDA
				Cs-134	<7.27E+00	0.00E+00	7.27E+00
				Cs-137	<6.58E+00	0.00E+00	6.58E+00
				BaLa-140	<7.72E+00	0.00E+00	7.72E+00
				Be-7	<4.73E+01	0.00E+00	4.73E+01
				K-40	2.48E+02	7.94E+01	9.67E+01
				H3GW	<3.76E+01	0.00E+00	2.02E+02

Sample Point 74 [INDICATOR - SSE @ 0.2 miles]

Sample ID:	560320	Sample Dates:	2/22/2022 - 2/22/2022	Nuclide	Activity	2 Sigma Error	MDA
				Mn-54	<6.32E+00	0.00E+00	6.32E+00
				Co-58	<6.31E+00	0.00E+00	6.31E+00
				Fe-59	<9.87E+00	0.00E+00	9.87E+00
				Co-60	<6.29E+00	0.00E+00	6.29E+00
				Zn-65	<1.29E+01	0.00E+00	1.29E+01
				Zr-95	<1.07E+01	0.00E+00	1.07E+01
				Nb-95	<7.07E+00	0.00E+00	7.07E+00
				I-131	<9.50E+00	0.00E+00	9.50E+00
				Cs-134	<8.92E+00	0.00E+00	8.92E+00
				Cs-137	<6.31E+00	0.00E+00	6.31E+00
				BaLa-140	<1.02E+01	0.00E+00	1.02E+01
				Be-7	<5.28E+01	0.00E+00	5.28E+01
				K-40	2.33E+02	7.55E+01	7.37E+01
				H3GW	<3.96E+01	0.00E+00	1.74E+02

Sample ID:	565910	Sample Dates:	5/23/2022 - 5/23/2022	Nuclide	Activity	2 Sigma Error	MDA
				Mn-54	<5.46E+00	0.00E+00	5.46E+00
				Co-58	<6.96E+00	0.00E+00	6.96E+00
				Fe-59	<9.29E+00	0.00E+00	9.29E+00
				Co-60	<4.93E+00	0.00E+00	4.93E+00
				Zn-65	<1.10E+01	0.00E+00	1.10E+01
				Zr-95	<9.23E+00	0.00E+00	9.23E+00
				Nb-95	<6.10E+00	0.00E+00	6.10E+00
				I-131	<9.41E+00	0.00E+00	9.41E+00
				Cs-134	<6.90E+00	0.00E+00	6.90E+00
				Cs-137	<3.68E+00	0.00E+00	3.68E+00
				BaLa-140	<1.06E+01	0.00E+00	1.06E+01
				Be-7	<4.70E+01	0.00E+00	4.70E+01
				K-40	1.40E+02	6.00E+01	6.75E+01
				H3GW	<1.40E+01	0.00E+00	1.86E+02

Sample ID:	571377	Sample Dates:	8/22/2022 - 8/22/2022	Nuclide	Activity	2 Sigma Error	MDA
				Mn-54	<6.81E+00	0.00E+00	6.81E+00
				Co-58	<6.18E+00	0.00E+00	6.18E+00
				Fe-59	<9.54E+00	0.00E+00	9.54E+00
				Co-60	<5.06E+00	0.00E+00	5.06E+00
				Zn-65	<1.05E+01	0.00E+00	1.05E+01
				Zr-95	<1.11E+01	0.00E+00	1.11E+01
				Nb-95	<7.19E+00	0.00E+00	7.19E+00
				I-131	<7.29E+00	0.00E+00	7.29E+00
				Cs-134	<7.82E+00	0.00E+00	7.82E+00
				Cs-137	<6.32E+00	0.00E+00	6.32E+00
				BaLa-140	<9.43E+00	0.00E+00	9.43E+00
				Be-7	<5.24E+01	0.00E+00	5.24E+01
				K-40	1.43E+02	6.87E+01	8.83E+01
				H3GW	<5.34E+01	0.00E+00	1.77E+02

Sample ID:	578929	Sample Dates:	11/14/2022 - 11/14/2022	Nuclide	Activity	2 Sigma Error	MDA
				Mn-54	<6.50E+00	0.00E+00	6.50E+00
				Co-58	<7.89E+00	0.00E+00	7.89E+00
				Fe-59	<1.07E+01	0.00E+00	1.07E+01
				Co-60	<5.93E+00	0.00E+00	5.93E+00
				Zn-65	<1.29E+01	0.00E+00	1.29E+01
				Zr-95	<1.17E+01	0.00E+00	1.17E+01
				Nb-95	<8.03E+00	0.00E+00	8.03E+00
				I-131	<9.34E+00	0.00E+00	9.34E+00
				Cs-134	<8.01E+00	0.00E+00	8.01E+00

HARRIS Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: GROUND WATER Concentration (Activity): pCi/l

Sample Point 74 [INDICATOR - SSE @ 0.2 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
578929	11/14/2022 - 11/14/2022	Cs-137	<6.18E+00	0.00E+00	6.18E+00
		BaLa-140	<8.88E+00	0.00E+00	8.88E+00
		Be-7	<6.05E+01	0.00E+00	6.05E+01
		K-40	2.24E+02	8.29E+01	9.84E+01
		H3GW	<3.78E+01	0.00E+00	2.03E+02

Sample Point 75 [INDICATOR - ESE @ 0.1 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
560321	2/22/2022 - 2/22/2022	Mn-54	<5.24E+00	0.00E+00	5.24E+00
		Co-58	<5.43E+00	0.00E+00	5.43E+00
		Fe-59	<1.00E+01	0.00E+00	1.00E+01
		Co-60	<5.81E+00	0.00E+00	5.81E+00
		Zn-65	<1.08E+01	0.00E+00	1.08E+01
		Zr-95	<1.07E+01	0.00E+00	1.07E+01
		Nb-95	<7.51E+00	0.00E+00	7.51E+00
		I-131	<7.23E+00	0.00E+00	7.23E+00
		Cs-134	<7.54E+00	0.00E+00	7.54E+00
		Cs-137	<4.71E+00	0.00E+00	4.71E+00
		BaLa-140	<9.51E+00	0.00E+00	9.51E+00
		Be-7	<4.61E+01	0.00E+00	4.61E+01
		K-40	<9.26E+01	0.00E+00	9.26E+01
		H3GW	<3.94E+01	0.00E+00	1.73E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
565911	5/23/2022 - 5/23/2022	Mn-54	<5.41E+00	0.00E+00	5.41E+00
		Co-58	<5.84E+00	0.00E+00	5.84E+00
		Fe-59	<1.31E+01	0.00E+00	1.31E+01
		Co-60	<4.85E+00	0.00E+00	4.85E+00
		Zn-65	<1.08E+01	0.00E+00	1.08E+01
		Zr-95	<1.02E+01	0.00E+00	1.02E+01
		Nb-95	<7.88E+00	0.00E+00	7.88E+00
		I-131	<1.01E+01	0.00E+00	1.01E+01
		Cs-134	<7.02E+00	0.00E+00	7.02E+00
		Cs-137	<4.16E+00	0.00E+00	4.16E+00
		BaLa-140	<8.79E+00	0.00E+00	8.79E+00
		Be-7	<4.04E+01	0.00E+00	4.04E+01
		K-40	1.55E+02	6.72E+01	8.23E+01
		H3GW	<1.40E+01	0.00E+00	1.85E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
571378	8/22/2022 - 8/22/2022	Mn-54	<5.36E+00	0.00E+00	5.36E+00
		Co-58	<6.73E+00	0.00E+00	6.73E+00
		Fe-59	<1.08E+01	0.00E+00	1.08E+01
		Co-60	<4.34E+00	0.00E+00	4.34E+00
		Zn-65	<1.00E+01	0.00E+00	1.00E+01
		Zr-95	<1.14E+01	0.00E+00	1.14E+01
		Nb-95	<7.05E+00	0.00E+00	7.05E+00
		I-131	<7.34E+00	0.00E+00	7.34E+00
		Cs-134	<7.99E+00	0.00E+00	7.99E+00
		Cs-137	<6.37E+00	0.00E+00	6.37E+00
		BaLa-140	<8.00E+00	0.00E+00	8.00E+00
		Be-7	<5.24E+01	0.00E+00	5.24E+01
		K-40	6.04E+01	5.89E+01	9.28E+01
		H3GW	<3.93E+01	0.00E+00	1.77E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
578930	11/14/2022 - 11/14/2022	Mn-54	<6.76E+00	0.00E+00	6.76E+00
		Co-58	<6.80E+00	0.00E+00	6.80E+00
		Fe-59	<1.80E+01	0.00E+00	1.80E+01
		Co-60	<7.94E+00	0.00E+00	7.94E+00
		Zn-65	<1.53E+01	0.00E+00	1.53E+01
		Zr-95	<1.11E+01	0.00E+00	1.11E+01
		Nb-95	<7.09E+00	0.00E+00	7.09E+00
		I-131	<8.31E+00	0.00E+00	8.31E+00
		Cs-134	<6.58E+00	0.00E+00	6.58E+00
		Cs-137	<6.79E+00	0.00E+00	6.79E+00

HARRIS Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: GROUND WATER Concentration (Activity): pCi/l

Sample Point 75 [INDICATOR - ESE @ 0.1 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
578930	11/14/2022 - 11/14/2022	BaLa-140	<1.00E+01	0.00E+00	1.00E+01
		Be-7	<4.98E+01	0.00E+00	4.98E+01
		K-40	1.30E+02	6.48E+01	7.92E+01
		H3GW	<-2.4E+01	0.00E+00	2.03E+02

Sample Point 77 [INDICATOR - S @ 0.4 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
560323	2/22/2022 - 2/22/2022	Mn-54	<6.32E+00	0.00E+00	6.32E+00
		Co-58	<7.12E+00	0.00E+00	7.12E+00
		Fe-59	<1.19E+01	0.00E+00	1.19E+01
		Co-60	<7.15E+00	0.00E+00	7.15E+00
		Zn-65	<1.09E+01	0.00E+00	1.09E+01
		Zr-95	<1.13E+01	0.00E+00	1.13E+01
		Nb-95	<6.72E+00	0.00E+00	6.72E+00
		I-131	<8.79E+00	0.00E+00	8.79E+00
		Cs-134	<6.89E+00	0.00E+00	6.89E+00
		Cs-137	<4.45E+00	0.00E+00	4.45E+00
		BaLa-140	<8.77E+00	0.00E+00	8.77E+00
		Be-7	<5.13E+01	0.00E+00	5.13E+01
		K-40	8.47E+01	6.62E+01	1.01E+02
		H3GW	2.20E+02	1.08E+02	1.73E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
565912	5/24/2022 - 5/24/2022	Mn-54	<6.00E+00	0.00E+00	6.00E+00
		Co-58	<5.22E+00	0.00E+00	5.22E+00
		Fe-59	<1.21E+01	0.00E+00	1.21E+01
		Co-60	<8.26E+00	0.00E+00	8.26E+00
		Zn-65	<1.32E+01	0.00E+00	1.32E+01
		Zr-95	<1.02E+01	0.00E+00	1.02E+01
		Nb-95	<5.10E+00	0.00E+00	5.10E+00
		I-131	<9.01E+00	0.00E+00	9.01E+00
		Cs-134	<7.77E+00	0.00E+00	7.77E+00
		Cs-137	<5.98E+00	0.00E+00	5.98E+00
		BaLa-140	<6.58E+00	0.00E+00	6.58E+00
		Be-7	<4.83E+01	0.00E+00	4.83E+01
		K-40	<1.26E+02	0.00E+00	1.26E+02
		H3GW	<8.39E+01	0.00E+00	1.85E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
571380	8/22/2022 - 8/22/2022	Mn-54	<3.45E+00	0.00E+00	3.45E+00
		Co-58	<6.48E+00	0.00E+00	6.48E+00
		Fe-59	<8.45E+00	0.00E+00	8.45E+00
		Co-60	<4.93E+00	0.00E+00	4.93E+00
		Zn-65	<1.26E+01	0.00E+00	1.26E+01
		Zr-95	<7.96E+00	0.00E+00	7.96E+00
		Nb-95	<5.14E+00	0.00E+00	5.14E+00
		I-131	<6.71E+00	0.00E+00	6.71E+00
		Cs-134	<6.07E+00	0.00E+00	6.07E+00
		Cs-137	<3.37E+00	0.00E+00	3.37E+00
		BaLa-140	<7.55E+00	0.00E+00	7.55E+00
		Be-7	<4.50E+01	0.00E+00	4.50E+01
		K-40	1.36E+02	6.30E+01	7.75E+01
		H3GW	1.99E+02	1.09E+02	1.77E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA	
578931	11/14/2022 - 11/14/2022	Mn-54	<7.06E+00	0.00E+00	7.06E+00	
		Co-58	<5.65E+00	0.00E+00	5.65E+00	
		Fe-59	<1.44E+01	0.00E+00	1.44E+01	
		Co-60	<4.93E+00	0.00E+00	4.93E+00	
		Zn-65	<1.52E+01	0.00E+00	1.52E+01	
		Zr-95	<1.33E+01	0.00E+00	1.33E+01	
		Nb-95	<8.45E+00	0.00E+00	8.45E+00	
		I-131	<8.91E+00	0.00E+00	8.91E+00	
		Cs-134	<7.28E+00	0.00E+00	7.28E+00	
		Cs-137	<7.86E+00	0.00E+00	7.86E+00	
		BaLa-140	<8.54E+00	0.00E+00	8.54E+00	

HARRIS Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: GROUND WATER Concentration (Activity): pCi/l

Sample Point 77 [INDICATOR - S @ 0.4 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
578931	11/14/2022 - 11/14/2022	Be-7	<5.33E+01	0.00E+00	5.33E+01
		K-40	3.06E+02	8.26E+01	5.28E+01
		H3GW	<1.67E+02	0.00E+00	2.03E+02

Sample Point 78 [INDICATOR - S @ 0.5 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
560324	2/23/2022 - 2/23/2022	Mn-54	<5.34E+00	0.00E+00	5.34E+00
		Co-58	<5.96E+00	0.00E+00	5.96E+00
		Fe-59	<1.11E+01	0.00E+00	1.11E+01
		Co-60	<5.80E+00	0.00E+00	5.80E+00
		Zn-65	<1.46E+01	0.00E+00	1.46E+01
		Zr-95	<1.20E+01	0.00E+00	1.20E+01
		Nb-95	<8.87E+00	0.00E+00	8.87E+00
		I-131	<8.57E+00	0.00E+00	8.57E+00
		Cs-134	<7.22E+00	0.00E+00	7.22E+00
		Cs-137	<6.27E+00	0.00E+00	6.27E+00
		BaLa-140	<7.22E+00	0.00E+00	7.22E+00
		Be-7	<4.78E+01	0.00E+00	4.78E+01
		K-40	1.02E+02	6.22E+01	8.82E+01
		H3GW	4.40E+02	1.16E+02	1.74E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
565913	5/24/2022 - 5/24/2022	Mn-54	<6.81E+00	0.00E+00	6.81E+00
		Co-58	<6.56E+00	0.00E+00	6.56E+00
		Fe-59	<1.16E+01	0.00E+00	1.16E+01
		Co-60	<7.45E+00	0.00E+00	7.45E+00
		Zn-65	<1.47E+01	0.00E+00	1.47E+01
		Zr-95	<1.12E+01	0.00E+00	1.12E+01
		Nb-95	<6.53E+00	0.00E+00	6.53E+00
		I-131	<1.15E+01	0.00E+00	1.15E+01
		Cs-134	<8.40E+00	0.00E+00	8.40E+00
		Cs-137	<4.88E+00	0.00E+00	4.88E+00
		BaLa-140	<9.32E+00	0.00E+00	9.32E+00
		Be-7	<5.38E+01	0.00E+00	5.38E+01
		K-40	1.16E+02	6.96E+01	9.90E+01
		H3GW	3.33E+02	1.18E+02	1.85E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
571381	8/22/2022 - 8/22/2022	Mn-54	<6.33E+00	0.00E+00	6.33E+00
		Co-58	<7.02E+00	0.00E+00	7.02E+00
		Fe-59	<1.12E+01	0.00E+00	1.12E+01
		Co-60	<5.92E+00	0.00E+00	5.92E+00
		Zn-65	<1.06E+01	0.00E+00	1.06E+01
		Zr-95	<1.14E+01	0.00E+00	1.14E+01
		Nb-95	<7.49E+00	0.00E+00	7.49E+00
		I-131	<9.19E+00	0.00E+00	9.19E+00
		Cs-134	<8.35E+00	0.00E+00	8.35E+00
		Cs-137	<6.98E+00	0.00E+00	6.98E+00
		BaLa-140	<9.35E+00	0.00E+00	9.35E+00
		Be-7	<5.11E+01	0.00E+00	5.11E+01
		K-40	2.93E+02	9.22E+01	1.02E+02
		H3GW	4.88E+02	1.19E+02	1.77E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
578932	11/14/2022 - 11/14/2022	Mn-54	<7.70E+00	0.00E+00	7.70E+00
		Co-58	<6.02E+00	0.00E+00	6.02E+00
		Fe-59	<1.31E+01	0.00E+00	1.31E+01
		Co-60	<7.36E+00	0.00E+00	7.36E+00
		Zn-65	<1.56E+01	0.00E+00	1.56E+01
		Zr-95	<1.25E+01	0.00E+00	1.25E+01
		Nb-95	<6.63E+00	0.00E+00	6.63E+00
		I-131	<7.59E+00	0.00E+00	7.59E+00
		Cs-134	<8.21E+00	0.00E+00	8.21E+00
		Cs-137	<6.52E+00	0.00E+00	6.52E+00
		BaLa-140	<9.81E+00	0.00E+00	9.81E+00
		Be-7	<5.28E+01	0.00E+00	5.28E+01

HARRIS Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: GROUND WATER Concentration (Activity): pCi/l

Sample Point 78 [INDICATOR - S @ 0.5 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
578932	11/14/2022 - 11/14/2022	K-40	6.37E+01	8.56E+01	1.41E+02
		H3GW	4.08E+02	1.29E+02	1.99E+02

Sample Point 79 [INDICATOR - S @ 0.5 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
560325	2/22/2022 - 2/22/2022	Mn-54	<5.89E+00	0.00E+00	5.89E+00
		Co-58	<6.05E+00	0.00E+00	6.05E+00
		Fe-59	<1.43E+01	0.00E+00	1.43E+01
		Co-60	<5.42E+00	0.00E+00	5.42E+00
		Zn-65	<1.33E+01	0.00E+00	1.33E+01
		Zr-95	<8.74E+00	0.00E+00	8.74E+00
		Nb-95	<5.29E+00	0.00E+00	5.29E+00
		I-131	<8.30E+00	0.00E+00	8.30E+00
		Cs-134	<6.80E+00	0.00E+00	6.80E+00
		Cs-137	<4.96E+00	0.00E+00	4.96E+00
		BaLa-140	<8.79E+00	0.00E+00	8.79E+00
		Be-7	<5.27E+01	0.00E+00	5.27E+01
		K-40	2.01E+02	6.87E+01	6.68E+01
		H3GW	2.35E+02	1.09E+02	1.75E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
565914	5/24/2022 - 5/24/2022	Mn-54	<5.33E+00	0.00E+00	5.33E+00
		Co-58	<6.65E+00	0.00E+00	6.65E+00
		Fe-59	<1.61E+01	0.00E+00	1.61E+01
		Co-60	<6.89E+00	0.00E+00	6.89E+00
		Zn-65	<1.57E+01	0.00E+00	1.57E+01
		Zr-95	<1.10E+01	0.00E+00	1.10E+01
		Nb-95	<6.25E+00	0.00E+00	6.25E+00
		I-131	<9.92E+00	0.00E+00	9.92E+00
		Cs-134	<6.80E+00	0.00E+00	6.80E+00
		Cs-137	<6.23E+00	0.00E+00	6.23E+00
		BaLa-140	<1.07E+01	0.00E+00	1.07E+01
		Be-7	<5.52E+01	0.00E+00	5.52E+01
		K-40	1.60E+02	8.11E+01	1.12E+02
		H3GW	<1.29E+02	0.00E+00	1.86E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
571382	8/22/2022 - 8/22/2022	Mn-54	<5.87E+00	0.00E+00	5.87E+00
		Co-58	<5.11E+00	0.00E+00	5.11E+00
		Fe-59	<9.94E+00	0.00E+00	9.94E+00
		Co-60	<6.86E+00	0.00E+00	6.86E+00
		Zn-65	<1.42E+01	0.00E+00	1.42E+01
		Zr-95	<8.90E+00	0.00E+00	8.90E+00
		Nb-95	<6.16E+00	0.00E+00	6.16E+00
		I-131	<8.12E+00	0.00E+00	8.12E+00
		Cs-134	<6.79E+00	0.00E+00	6.79E+00
		Cs-137	<7.41E+00	0.00E+00	7.41E+00
		BaLa-140	<8.16E+00	0.00E+00	8.16E+00
		Be-7	<6.08E+01	0.00E+00	6.08E+01
		K-40	1.64E+02	7.38E+01	9.47E+01
		H3GW	<1.74E+02	0.00E+00	1.77E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
578933	11/14/2022 - 11/14/2022	Mn-54	<7.24E+00	0.00E+00	7.24E+00
		Co-58	<6.12E+00	0.00E+00	6.12E+00
		Fe-59	<1.19E+01	0.00E+00	1.19E+01
		Co-60	<7.41E+00	0.00E+00	7.41E+00
		Zn-65	<1.23E+01	0.00E+00	1.23E+01
		Zr-95	<1.37E+01	0.00E+00	1.37E+01
		Nb-95	<7.77E+00	0.00E+00	7.77E+00
		I-131	<1.05E+01	0.00E+00	1.05E+01
		Cs-134	<7.64E+00	0.00E+00	7.64E+00
		Cs-137	<8.85E+00	0.00E+00	8.85E+00
		BaLa-140	<7.52E+00	0.00E+00	7.52E+00
		Be-7	<5.31E+01	0.00E+00	5.31E+01
		K-40	1.29E+02	6.73E+01	8.49E+01

HARRIS Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: GROUND WATER Concentration (Activity): pCi/l

Sample Point 79 [INDICATOR - S @ 0.5 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
578933	11/14/2022 - 11/14/2022	H3GW	<8.95E+01	0.00E+00	1.98E+02

Sample Point 80 [INDICATOR - S @ 0.6 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
560326	2/22/2022 - 2/22/2022	Mn-54	<6.12E+00	0.00E+00	6.12E+00
		Co-58	<5.23E+00	0.00E+00	5.23E+00
		Fe-59	<1.27E+01	0.00E+00	1.27E+01
		Co-60	<6.83E+00	0.00E+00	6.83E+00
		Zn-65	<1.36E+01	0.00E+00	1.36E+01
		Zr-95	<1.04E+01	0.00E+00	1.04E+01
		Nb-95	<5.32E+00	0.00E+00	5.32E+00
		I-131	<7.44E+00	0.00E+00	7.44E+00
		Cs-134	<6.05E+00	0.00E+00	6.05E+00
		Cs-137	<3.02E+00	0.00E+00	3.02E+00
		BaLa-140	<7.48E+00	0.00E+00	7.48E+00
		Be-7	<5.03E+01	0.00E+00	5.03E+01
		K-40	1.11E+02	6.08E+01	8.10E+01
		H3GW	2.84E+02	1.11E+02	1.75E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
565915	5/24/2022 - 5/24/2022	Mn-54	<4.45E+00	0.00E+00	4.45E+00
		Co-58	<4.95E+00	0.00E+00	4.95E+00
		Fe-59	<1.25E+01	0.00E+00	1.25E+01
		Co-60	<4.86E+00	0.00E+00	4.86E+00
		Zn-65	<9.74E+00	0.00E+00	9.74E+00
		Zr-95	<1.19E+01	0.00E+00	1.19E+01
		Nb-95	<6.10E+00	0.00E+00	6.10E+00
		I-131	<8.42E+00	0.00E+00	8.42E+00
		Cs-134	<5.68E+00	0.00E+00	5.68E+00
		Cs-137	<4.78E+00	0.00E+00	4.78E+00
		BaLa-140	<4.38E+00	0.00E+00	4.38E+00
		Be-7	<4.15E+01	0.00E+00	4.15E+01
		K-40	1.91E+02	6.50E+01	7.03E+01
		H3GW	<1.03E+02	0.00E+00	1.85E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
571383	8/22/2022 - 8/22/2022	Mn-54	<5.40E+00	0.00E+00	5.40E+00
		Co-58	<6.16E+00	0.00E+00	6.16E+00
		Fe-59	<6.11E+00	0.00E+00	6.11E+00
		Co-60	<6.16E+00	0.00E+00	6.16E+00
		Zn-65	<1.45E+01	0.00E+00	1.45E+01
		Zr-95	<6.59E+00	0.00E+00	6.59E+00
		Nb-95	<5.72E+00	0.00E+00	5.72E+00
		I-131	<6.69E+00	0.00E+00	6.69E+00
		Cs-134	<4.84E+00	0.00E+00	4.84E+00
		Cs-137	<5.46E+00	0.00E+00	5.46E+00
		BaLa-140	<8.72E+00	0.00E+00	8.72E+00
		Be-7	<4.41E+01	0.00E+00	4.41E+01
		K-40	1.11E+02	5.97E+01	7.83E+01
		H3GW	2.27E+02	1.11E+02	1.77E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
578934	11/14/2022 - 11/14/2022	Mn-54	<7.65E+00	0.00E+00	7.65E+00
		Co-58	<7.12E+00	0.00E+00	7.12E+00
		Fe-59	<9.31E+00	0.00E+00	9.31E+00
		Co-60	<6.30E+00	0.00E+00	6.30E+00
		Zn-65	<1.35E+01	0.00E+00	1.35E+01
		Zr-95	<8.98E+00	0.00E+00	8.98E+00
		Nb-95	<6.14E+00	0.00E+00	6.14E+00
		I-131	<8.08E+00	0.00E+00	8.08E+00
		Cs-134	<6.38E+00	0.00E+00	6.38E+00
		Cs-137	<6.27E+00	0.00E+00	6.27E+00
		BaLa-140	<8.93E+00	0.00E+00	8.93E+00
		Be-7	<5.75E+01	0.00E+00	5.75E+01
		K-40	1.88E+02	8.09E+01	9.88E+01

HARRIS Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: GROUND WATER Concentration (Activity): pCi/l

Sample Point 80 [INDICATOR - S @ 0.6 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
578934	11/14/2022 - 11/14/2022	H3GW	<4.36E+01	0.00E+00	1.98E+02

Sample Point 81 [INDICATOR - S @ 0.6 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
560327	2/22/2022 - 2/22/2022	Mn-54	<6.87E+00	0.00E+00	6.87E+00
		Co-58	<6.58E+00	0.00E+00	6.58E+00
		Fe-59	<1.02E+01	0.00E+00	1.02E+01
		Co-60	<6.71E+00	0.00E+00	6.71E+00
		Zn-65	<1.12E+01	0.00E+00	1.12E+01
		Zr-95	<1.05E+01	0.00E+00	1.05E+01
		Nb-95	<6.11E+00	0.00E+00	6.11E+00
		I-131	<6.63E+00	0.00E+00	6.63E+00
		Cs-134	<6.76E+00	0.00E+00	6.76E+00
		Cs-137	<5.50E+00	0.00E+00	5.50E+00
		BaLa-140	<1.03E+01	0.00E+00	1.03E+01
		Be-7	<4.53E+01	0.00E+00	4.53E+01
		K-40	<1.12E+02	0.00E+00	1.12E+02
		H3GW	2.10E+02	1.09E+02	1.75E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
565916	5/24/2022 - 5/24/2022	Mn-54	<5.63E+00	0.00E+00	5.63E+00
		Co-58	<6.95E+00	0.00E+00	6.95E+00
		Fe-59	<1.13E+01	0.00E+00	1.13E+01
		Co-60	<5.93E+00	0.00E+00	5.93E+00
		Zn-65	<8.06E+00	0.00E+00	8.06E+00
		Zr-95	<1.15E+01	0.00E+00	1.15E+01
		Nb-95	<5.01E+00	0.00E+00	5.01E+00
		I-131	<9.60E+00	0.00E+00	9.60E+00
		Cs-134	<6.30E+00	0.00E+00	6.29E+00
		Cs-137	<6.01E+00	0.00E+00	6.01E+00
		BaLa-140	<8.68E+00	0.00E+00	8.68E+00
		Be-7	<4.19E+01	0.00E+00	4.19E+01
		K-40	<1.22E+02	0.00E+00	1.22E+02
		H3GW	<1.31E+02	0.00E+00	1.86E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
571384	8/22/2022 - 8/22/2022	Mn-54	<6.01E+00	0.00E+00	6.01E+00
		Co-58	<6.35E+00	0.00E+00	6.35E+00
		Fe-59	<1.26E+01	0.00E+00	1.26E+01
		Co-60	<6.80E+00	0.00E+00	6.80E+00
		Zn-65	<1.09E+01	0.00E+00	1.09E+01
		Zr-95	<1.16E+01	0.00E+00	1.16E+01
		Nb-95	<5.95E+00	0.00E+00	5.95E+00
		I-131	<7.28E+00	0.00E+00	7.28E+00
		Cs-134	<8.00E+00	0.00E+00	8.00E+00
		Cs-137	<5.86E+00	0.00E+00	5.86E+00
		BaLa-140	<6.65E+00	0.00E+00	6.65E+00
		Be-7	<4.54E+01	0.00E+00	4.54E+01
		K-40	1.65E+02	6.47E+01	7.29E+01
		H3GW	1.78E+02	1.08E+02	1.77E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
578935	11/14/2022 - 11/14/2022	Mn-54	<6.80E+00	0.00E+00	6.80E+00
		Co-58	<6.68E+00	0.00E+00	6.68E+00
		Fe-59	<1.38E+01	0.00E+00	1.38E+01
		Co-60	<6.16E+00	0.00E+00	6.16E+00
		Zn-65	<1.69E+01	0.00E+00	1.69E+01
		Zr-95	<1.19E+01	0.00E+00	1.19E+01
		Nb-95	<1.09E+01	0.00E+00	1.09E+01
		I-131	<7.43E+00	0.00E+00	7.43E+00
		Cs-134	<8.21E+00	0.00E+00	8.21E+00
		Cs-137	<8.54E+00	0.00E+00	8.54E+00
		BaLa-140	<7.46E+00	0.00E+00	7.46E+00
		Be-7	<4.89E+01	0.00E+00	4.89E+01
		K-40	1.63E+02	6.75E+01	7.64E+01

HARRIS Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: GROUND WATER Concentration (Activity): pCi/l

Sample Point 81 [INDICATOR - S @ 0.6 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
578935	11/14/2022 - 11/14/2022	H3GW	<1.82E+02	0.00E+00	1.99E+02

Sample Point 82 [INDICATOR - S @ 0.6 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
560328	2/22/2022 - 2/22/2022	Mn-54	<8.06E+00	0.00E+00	8.06E+00
		Co-58	<7.41E+00	0.00E+00	7.41E+00
		Fe-59	<1.41E+01	0.00E+00	1.41E+01
		Co-60	<7.69E+00	0.00E+00	7.69E+00
		Zn-65	<2.21E+01	0.00E+00	2.21E+01
		Zr-95	<1.18E+01	0.00E+00	1.18E+01
		Nb-95	<1.04E+01	0.00E+00	1.04E+01
		I-131	<1.09E+01	0.00E+00	1.09E+01
		Cs-134	<8.56E+00	0.00E+00	8.56E+00
		Cs-137	<8.78E+00	0.00E+00	8.78E+00
		BaLa-140	<1.00E+01	0.00E+00	1.00E+01
		Be-7	<6.85E+01	0.00E+00	6.85E+01
		K-40	1.90E+02	7.08E+01	8.08E+01
		H3GW	<1.56E+02	0.00E+00	1.75E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
565917	5/24/2022 - 5/24/2022	Mn-54	<6.59E+00	0.00E+00	6.59E+00
		Co-58	<6.49E+00	0.00E+00	6.49E+00
		Fe-59	<1.14E+01	0.00E+00	1.14E+01
		Co-60	<6.06E+00	0.00E+00	6.06E+00
		Zn-65	<1.30E+01	0.00E+00	1.30E+01
		Zr-95	<1.01E+01	0.00E+00	1.01E+01
		Nb-95	<6.95E+00	0.00E+00	6.95E+00
		I-131	<9.36E+00	0.00E+00	9.36E+00
		Cs-134	<5.58E+00	0.00E+00	5.58E+00
		Cs-137	<6.07E+00	0.00E+00	6.07E+00
		BaLa-140	<1.15E+01	0.00E+00	1.15E+01
		Be-7	<5.88E+01	0.00E+00	5.88E+01
		K-40	<1.20E+02	0.00E+00	1.20E+02
		H3GW	<4.7E+00	0.00E+00	1.86E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
571385	8/22/2022 - 8/22/2022	Mn-54	<7.43E+00	0.00E+00	7.43E+00
		Co-58	<7.74E+00	0.00E+00	7.74E+00
		Fe-59	<1.50E+01	0.00E+00	1.50E+01
		Co-60	<7.35E+00	0.00E+00	7.35E+00
		Zn-65	<1.25E+01	0.00E+00	1.25E+01
		Zr-95	<1.18E+01	0.00E+00	1.18E+01
		Nb-95	<6.95E+00	0.00E+00	6.95E+00
		I-131	<8.10E+00	0.00E+00	8.10E+00
		Cs-134	<7.56E+00	0.00E+00	7.56E+00
		Cs-137	<5.96E+00	0.00E+00	5.96E+00
		BaLa-140	<1.03E+01	0.00E+00	1.03E+01
		Be-7	<5.24E+01	0.00E+00	5.24E+01
		K-40	1.30E+02	7.04E+01	9.74E+01
		H3GW	2.05E+02	1.09E+02	1.76E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
578936	11/14/2022 - 11/14/2022	Mn-54	<6.67E+00	0.00E+00	6.67E+00
		Co-58	<6.88E+00	0.00E+00	6.88E+00
		Fe-59	<1.44E+01	0.00E+00	1.44E+01
		Co-60	<8.44E+00	0.00E+00	8.44E+00
		Zn-65	<1.49E+01	0.00E+00	1.49E+01
		Zr-95	<1.02E+01	0.00E+00	1.02E+01
		Nb-95	<7.66E+00	0.00E+00	7.66E+00
		I-131	<8.63E+00	0.00E+00	8.63E+00
		Cs-134	<8.18E+00	0.00E+00	8.18E+00
		Cs-137	<7.54E+00	0.00E+00	7.54E+00
		BaLa-140	<8.94E+00	0.00E+00	8.94E+00
		Be-7	<4.75E+01	0.00E+00	4.75E+01
		K-40	2.54E+02	9.06E+01	1.09E+02

HARRIS Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: GROUND WATER Concentration (Activity): pCi/l

Sample Point 82 [INDICATOR - S @ 0.6 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
578936	11/14/2022 - 11/14/2022	H3GW	<4.84E+00	0.00E+00	1.98E+02

Sample Point 83 [INDICATOR - SSW @ 1.6 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
560329	2/22/2022 - 2/22/2022	Mn-54	<6.60E+00	0.00E+00	6.60E+00
		Co-58	<5.62E+00	0.00E+00	5.62E+00
		Fe-59	<9.33E+00	0.00E+00	9.33E+00
		Co-60	<7.42E+00	0.00E+00	7.42E+00
		Zn-65	<1.32E+01	0.00E+00	1.32E+01
		Zr-95	<1.12E+01	0.00E+00	1.12E+01
		Nb-95	<7.52E+00	0.00E+00	7.52E+00
		I-131	<8.46E+00	0.00E+00	8.46E+00
		Cs-134	<5.36E+00	0.00E+00	5.36E+00
		Cs-137	<5.72E+00	0.00E+00	5.72E+00
		BaLa-140	<9.09E+00	0.00E+00	9.09E+00
		Be-7	<5.30E+01	0.00E+00	5.30E+01
		K-40	<9.34E+01	0.00E+00	9.34E+01
		H3GW	8.85E+02	1.30E+02	1.75E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
565918	5/24/2022 - 5/24/2022	Mn-54	<6.48E+00	0.00E+00	6.48E+00
		Co-58	<4.03E+00	0.00E+00	4.03E+00
		Fe-59	<1.03E+01	0.00E+00	1.03E+01
		Co-60	<7.10E+00	0.00E+00	7.10E+00
		Zn-65	<1.08E+01	0.00E+00	1.08E+01
		Zr-95	<1.17E+01	0.00E+00	1.17E+01
		Nb-95	<6.31E+00	0.00E+00	6.31E+00
		I-131	<1.03E+01	0.00E+00	1.03E+01
		Cs-134	<5.64E+00	0.00E+00	5.64E+00
		Cs-137	<4.37E+00	0.00E+00	4.37E+00
		BaLa-140	<8.94E+00	0.00E+00	8.94E+00
		Be-7	<4.80E+01	0.00E+00	4.80E+01
		K-40	<1.24E+02	0.00E+00	1.24E+02
		H3GW	7.25E+02	1.30E+02	1.85E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
571386	8/22/2022 - 8/22/2022	Mn-54	<5.69E+00	0.00E+00	5.69E+00
		Co-58	<5.13E+00	0.00E+00	5.13E+00
		Fe-59	<1.05E+01	0.00E+00	1.05E+01
		Co-60	<7.17E+00	0.00E+00	7.17E+00
		Zn-65	<1.51E+01	0.00E+00	1.51E+01
		Zr-95	<1.12E+01	0.00E+00	1.12E+01
		Nb-95	<5.05E+00	0.00E+00	5.05E+00
		I-131	<7.29E+00	0.00E+00	7.29E+00
		Cs-134	<6.60E+00	0.00E+00	6.60E+00
		Cs-137	<5.17E+00	0.00E+00	5.17E+00
		BaLa-140	<8.80E+00	0.00E+00	8.80E+00
		Be-7	<4.84E+01	0.00E+00	4.84E+01
		K-40	1.24E+02	7.03E+01	9.85E+01
		H3GW	8.77E+02	1.30E+02	1.76E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
578937	11/14/2022 - 11/14/2022	Mn-54	<6.98E+00	0.00E+00	6.98E+00
		Co-58	<7.03E+00	0.00E+00	7.03E+00
		Fe-59	<1.31E+01	0.00E+00	1.31E+01
		Co-60	<8.59E+00	0.00E+00	8.59E+00
		Zn-65	<1.13E+01	0.00E+00	1.13E+01
		Zr-95	<1.09E+01	0.00E+00	1.09E+01
		Nb-95	<7.07E+00	0.00E+00	7.07E+00
		I-131	<7.24E+00	0.00E+00	7.24E+00
		Cs-134	<7.84E+00	0.00E+00	7.84E+00
		Cs-137	<6.80E+00	0.00E+00	6.80E+00
		BaLa-140	<8.06E+00	0.00E+00	8.06E+00
		Be-7	<5.33E+01	0.00E+00	5.33E+01
		K-40	<1.17E+02	0.00E+00	1.17E+02

HARRIS Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: GROUND WATER Concentration (Activity): pCi/l

Sample Point 83 [INDICATOR - SSW @ 1.6 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
578937	11/14/2022 - 11/14/2022	H3GW	6.22E+02	1.35E+02	1.99E+02

Sample Point 84 [GWPI - SSW @ 0.24 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
560330	2/22/2022 - 2/22/2022	Mn-54	<6.58E+00	0.00E+00	6.58E+00
		Co-58	<6.71E+00	0.00E+00	6.71E+00
		Fe-59	<1.12E+01	0.00E+00	1.12E+01
		Co-60	<5.20E+00	0.00E+00	5.20E+00
		Zn-65	<1.54E+01	0.00E+00	1.54E+01
		Zr-95	<1.14E+01	0.00E+00	1.14E+01
		Nb-95	<5.99E+00	0.00E+00	5.99E+00
		I-131	<1.16E+01	0.00E+00	1.16E+01
		Cs-134	<7.79E+00	0.00E+00	7.79E+00
		Cs-137	<7.24E+00	0.00E+00	7.24E+00
		BaLa-140	<7.22E+00	0.00E+00	7.22E+00
		Be-7	<6.56E+01	0.00E+00	6.56E+01
		K-40	1.73E+02	5.68E+01	5.60E+01
		H3GW	<-4.7E+00	0.00E+00	1.75E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
565919	5/23/2022 - 5/23/2022	Mn-54	<5.07E+00	0.00E+00	5.07E+00
		Co-58	<5.30E+00	0.00E+00	5.30E+00
		Fe-59	<1.01E+01	0.00E+00	1.01E+01
		Co-60	<5.87E+00	0.00E+00	5.87E+00
		Zn-65	<1.22E+01	0.00E+00	1.22E+01
		Zr-95	<1.13E+01	0.00E+00	1.13E+01
		Nb-95	<5.89E+00	0.00E+00	5.89E+00
		I-131	<9.52E+00	0.00E+00	9.52E+00
		Cs-134	<6.10E+00	0.00E+00	6.10E+00
		Cs-137	<5.88E+00	0.00E+00	5.88E+00
		BaLa-140	<9.31E+00	0.00E+00	9.31E+00
		Be-7	<4.54E+01	0.00E+00	4.54E+01
		K-40	1.15E+02	5.59E+01	7.58E+01
		H3GW	<-6.5E+01	0.00E+00	1.85E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
571387	8/22/2022 - 8/22/2022	Mn-54	<5.83E+00	0.00E+00	5.83E+00
		Co-58	<6.07E+00	0.00E+00	6.07E+00
		Fe-59	<1.14E+01	0.00E+00	1.14E+01
		Co-60	<5.55E+00	0.00E+00	5.55E+00
		Zn-65	<1.25E+01	0.00E+00	1.25E+01
		Zr-95	<1.02E+01	0.00E+00	1.02E+01
		Nb-95	<6.83E+00	0.00E+00	6.83E+00
		I-131	<7.10E+00	0.00E+00	7.10E+00
		Cs-134	<5.05E+00	0.00E+00	5.05E+00
		Cs-137	<6.22E+00	0.00E+00	6.22E+00
		BaLa-140	<5.60E+00	0.00E+00	5.60E+00
		Be-7	<4.56E+01	0.00E+00	4.56E+01
		K-40	<1.10E+02	0.00E+00	1.10E+02
		H3GW	<-1.0E+02	0.00E+00	2.00E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
578938	11/15/2022 - 11/15/2022	Mn-54	<6.15E+00	0.00E+00	6.15E+00
		Co-58	<8.76E+00	0.00E+00	8.76E+00
		Fe-59	<1.18E+01	0.00E+00	1.18E+01
		Co-60	<7.50E+00	0.00E+00	7.50E+00
		Zn-65	<2.06E+01	0.00E+00	2.06E+01
		Zr-95	<1.14E+01	0.00E+00	1.14E+01
		Nb-95	<7.70E+00	0.00E+00	7.70E+00
		I-131	<9.49E+00	0.00E+00	9.49E+00
		Cs-134	<9.86E+00	0.00E+00	9.86E+00
		Cs-137	<6.41E+00	0.00E+00	6.41E+00
		BaLa-140	<1.10E+01	0.00E+00	1.10E+01
		Be-7	<6.17E+01	0.00E+00	6.17E+01
		K-40	<1.71E+02	0.00E+00	1.71E+02

HARRIS Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: GROUND WATER Concentration (Activity): pCi/l

Sample Point 84 [GWPI - SSW @ 0.24 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
578938	11/15/2022 - 11/15/2022	H3GW	<-7.6E+01	0.00E+00	2.00E+02

Sample Point 85 [GWPI - SSW @ 0.22 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
560331	2/22/2022 - 2/22/2022	Mn-54	<5.59E+00	0.00E+00	5.59E+00
		Co-58	<6.20E+00	0.00E+00	6.20E+00
		Fe-59	<1.16E+01	0.00E+00	1.16E+01
		Co-60	<5.20E+00	0.00E+00	5.20E+00
		Zn-65	<1.40E+01	0.00E+00	1.40E+01
		Zr-95	<1.18E+01	0.00E+00	1.18E+01
		Nb-95	<7.91E+00	0.00E+00	7.91E+00
		I-131	<8.51E+00	0.00E+00	8.51E+00
		Cs-134	<7.49E+00	0.00E+00	7.49E+00
		Cs-137	<7.30E+00	0.00E+00	7.30E+00
		BaLa-140	<5.59E+00	0.00E+00	5.59E+00
		Be-7	<5.04E+01	0.00E+00	5.04E+01
		K-40	2.23E+02	8.16E+01	1.01E+02
		H3GW	<2.80E+01	0.00E+00	1.75E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
565920	5/23/2022 - 5/23/2022	Mn-54	<4.36E+00	0.00E+00	4.36E+00
		Co-58	<5.28E+00	0.00E+00	5.28E+00
		Fe-59	<1.29E+01	0.00E+00	1.29E+01
		Co-60	<5.79E+00	0.00E+00	5.79E+00
		Zn-65	<1.38E+01	0.00E+00	1.38E+01
		Zr-95	<9.23E+00	0.00E+00	9.23E+00
		Nb-95	<6.29E+00	0.00E+00	6.29E+00
		I-131	<1.13E+01	0.00E+00	1.13E+01
		Cs-134	<7.61E+00	0.00E+00	7.61E+00
		Cs-137	<5.81E+00	0.00E+00	5.81E+00
		BaLa-140	<7.00E+00	0.00E+00	7.00E+00
		Be-7	<5.37E+01	0.00E+00	5.37E+01
		K-40	2.05E+02	6.96E+01	6.81E+01
		H3GW	<-5.8E+01	0.00E+00	1.85E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
571388	8/22/2022 - 8/22/2022	Mn-54	<5.50E+00	0.00E+00	5.50E+00
		Co-58	<5.57E+00	0.00E+00	5.57E+00
		Fe-59	<1.12E+01	0.00E+00	1.12E+01
		Co-60	<5.81E+00	0.00E+00	5.81E+00
		Zn-65	<1.21E+01	0.00E+00	1.21E+01
		Zr-95	<7.27E+00	0.00E+00	7.27E+00
		Nb-95	<6.43E+00	0.00E+00	6.43E+00
		I-131	<6.73E+00	0.00E+00	6.73E+00
		Cs-134	<4.63E+00	0.00E+00	4.63E+00
		Cs-137	<5.17E+00	0.00E+00	5.17E+00
		BaLa-140	<9.62E+00	0.00E+00	9.62E+00
		Be-7	<4.60E+01	0.00E+00	4.60E+01
		K-40	1.95E+02	6.71E+01	6.47E+01
		H3GW	<0.00E+00	0.00E+00	1.99E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
578939	11/15/2022 - 11/15/2022	Mn-54	<6.19E+00	0.00E+00	6.19E+00
		Co-58	<6.18E+00	0.00E+00	6.18E+00
		Fe-59	<1.17E+01	0.00E+00	1.17E+01
		Co-60	<5.97E+00	0.00E+00	5.97E+00
		Zn-65	<1.35E+01	0.00E+00	1.35E+01
		Zr-95	<8.64E+00	0.00E+00	8.64E+00
		Nb-95	<6.53E+00	0.00E+00	6.53E+00
		I-131	<6.13E+00	0.00E+00	6.13E+00
		Cs-134	<7.16E+00	0.00E+00	7.16E+00
		Cs-137	<6.05E+00	0.00E+00	6.05E+00
		BaLa-140	<6.11E+00	0.00E+00	6.11E+00
		Be-7	<4.78E+01	0.00E+00	4.78E+01
		K-40	1.47E+02	6.07E+01	6.50E+01

HARRIS Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: GROUND WATER Concentration (Activity): pCi/l

Sample Point 85 [GWPI - SSW @ 0.22 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
578939	11/15/2022 - 11/15/2022	H3GW	<-7.8E+01	0.00E+00	1.99E+02

Sample Point 86 [GWPI - SW @ 0.2 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
560332	2/22/2022 - 2/22/2022	Mn-54	<6.15E+00	0.00E+00	6.15E+00
		Co-58	<6.32E+00	0.00E+00	6.32E+00
		Fe-59	<1.27E+01	0.00E+00	1.27E+01
		Co-60	<7.30E+00	0.00E+00	7.30E+00
		Zn-65	<1.24E+01	0.00E+00	1.24E+01
		Zr-95	<1.19E+01	0.00E+00	1.19E+01
		Nb-95	<6.01E+00	0.00E+00	6.01E+00
		I-131	<9.51E+00	0.00E+00	9.51E+00
		Cs-134	<8.30E+00	0.00E+00	8.30E+00
		Cs-137	<5.98E+00	0.00E+00	5.98E+00
		BaLa-140	<5.05E+00	0.00E+00	5.05E+00
		Be-7	<5.10E+01	0.00E+00	5.10E+01
		K-40	1.68E+02	7.45E+01	9.48E+01
		H3GW	<1.12E+02	0.00E+00	1.75E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
565921	5/23/2022 - 5/23/2022	Mn-54	<4.52E+00	0.00E+00	4.52E+00
		Co-58	<5.95E+00	0.00E+00	5.95E+00
		Fe-59	<1.10E+01	0.00E+00	1.10E+01
		Co-60	<5.59E+00	0.00E+00	5.59E+00
		Zn-65	<9.25E+00	0.00E+00	9.25E+00
		Zr-95	<1.15E+01	0.00E+00	1.15E+01
		Nb-95	<5.45E+00	0.00E+00	5.45E+00
		I-131	<9.68E+00	0.00E+00	9.68E+00
		Cs-134	<6.47E+00	0.00E+00	6.47E+00
		Cs-137	<6.35E+00	0.00E+00	6.35E+00
		BaLa-140	<9.86E+00	0.00E+00	9.86E+00
		Be-7	<4.13E+01	0.00E+00	4.13E+01
		K-40	1.03E+02	5.55E+01	7.78E+01
		H3GW	<1.70E+02	0.00E+00	1.85E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
571389	8/22/2022 - 8/22/2022	Mn-54	<5.84E+00	0.00E+00	5.84E+00
		Co-58	<5.91E+00	0.00E+00	5.91E+00
		Fe-59	<1.30E+01	0.00E+00	1.30E+01
		Co-60	<1.15E+00	0.00E+00	1.15E+00
		Zn-65	<1.25E+01	0.00E+00	1.25E+01
		Zr-95	<9.95E+00	0.00E+00	9.95E+00
		Nb-95	<6.92E+00	0.00E+00	6.92E+00
		I-131	<7.95E+00	0.00E+00	7.95E+00
		Cs-134	<6.10E+00	0.00E+00	6.10E+00
		Cs-137	<6.71E+00	0.00E+00	6.71E+00
		BaLa-140	<6.71E+00	0.00E+00	6.71E+00
		Be-7	<4.49E+01	0.00E+00	4.49E+01
		K-40	1.00E+02	6.72E+01	9.80E+01
		H3GW	<-7.3E+00	0.00E+00	2.01E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
578940	11/15/2022 - 11/15/2022	Mn-54	<6.04E+00	0.00E+00	6.04E+00
		Co-58	<4.37E+00	0.00E+00	4.37E+00
		Fe-59	<1.04E+01	0.00E+00	1.04E+01
		Co-60	<8.02E+00	0.00E+00	8.02E+00
		Zn-65	<1.63E+01	0.00E+00	1.63E+01
		Zr-95	<1.16E+01	0.00E+00	1.16E+01
		Nb-95	<6.52E+00	0.00E+00	6.52E+00
		I-131	<7.44E+00	0.00E+00	7.44E+00
		Cs-134	<7.35E+00	0.00E+00	7.35E+00
		Cs-137	<6.40E+00	0.00E+00	6.40E+00
		BaLa-140	<7.78E+00	0.00E+00	7.78E+00
		Be-7	<4.77E+01	0.00E+00	4.77E+01
		K-40	2.09E+02	8.20E+01	1.02E+02

HARRIS Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: GROUND WATER Concentration (Activity): pCi/l

Sample Point 86 [GWPI - SW @ 0.2 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
578940	11/15/2022 - 11/15/2022	H3GW	<-4.9E+01	0.00E+00	1.99E+02

Media Type: MILK Concentration (Activity): pCi/l

Sample Point 5 [CONTROL - WNW @ 12 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
553773	1/4/2022 - 1/4/2022	LLI-131	<6.02E-01	0.00E+00	6.02E-01
		I-131	<8.10E+00	0.00E+00	8.10E+00
		Cs-134	<7.77E+00	0.00E+00	7.77E+00
		Cs-137	<7.74E+00	0.00E+00	7.74E+00
		BaLa-140	<6.04E+00	0.00E+00	6.04E+00
		Be-7	<6.08E+01	0.00E+00	6.08E+01
		K-40	1.36E+03	2.21E+02	8.24E+01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
554516	1/31/2022 - 1/31/2022	LLI-131	<6.33E-01	0.00E+00	6.33E-01
		I-131	<6.93E+00	0.00E+00	6.93E+00
		Cs-134	<1.07E+01	0.00E+00	1.07E+01
		Cs-137	<8.13E+00	0.00E+00	8.13E+00
		BaLa-140	<7.60E+00	0.00E+00	7.60E+00
		Be-7	<5.38E+01	0.00E+00	5.38E+01
		K-40	1.65E+03	2.51E+02	9.90E+01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
556688	2/28/2022 - 2/28/2022	LLI-131	<5.62E-01	0.00E+00	5.62E-01
		I-131	<1.15E+01	0.00E+00	1.15E+01
		Cs-134	<8.24E+00	0.00E+00	8.24E+00
		Cs-137	<1.10E+01	0.00E+00	1.10E+01
		BaLa-140	<8.09E+00	0.00E+00	8.09E+00
		Be-7	<8.08E+01	0.00E+00	8.08E+01
		K-40	1.40E+03	2.37E+02	1.32E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
560167	3/28/2022 - 3/28/2022	LLI-131	<5.86E-01	0.00E+00	5.86E-01
		I-131	<1.04E+01	0.00E+00	1.04E+01
		Cs-134	<1.02E+01	0.00E+00	1.02E+01
		Cs-137	<9.39E+00	0.00E+00	9.39E+00
		BaLa-140	<6.42E+00	0.00E+00	6.42E+00
		Be-7	<6.91E+01	0.00E+00	6.91E+01
		K-40	1.59E+03	2.51E+02	9.90E+01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
561107	4/25/2022 - 4/25/2022	LLI-131	<6.48E-01	0.00E+00	6.48E-01
		I-131	<6.46E+00	0.00E+00	6.46E+00
		Cs-134	<7.24E+00	0.00E+00	7.24E+00
		Cs-137	<6.42E+00	0.00E+00	6.42E+00
		BaLa-140	<6.04E+00	0.00E+00	6.04E+00
		Be-7	<5.16E+01	0.00E+00	5.16E+01
		K-40	1.34E+03	2.24E+02	1.15E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
563392	5/23/2022 - 5/23/2022	LLI-131	<6.44E-01	0.00E+00	6.44E-01
		I-131	<6.22E+00	0.00E+00	6.22E+00
		Cs-134	<1.04E+01	0.00E+00	1.04E+01
		Cs-137	<9.22E+00	0.00E+00	9.22E+00
		BaLa-140	<7.65E+00	0.00E+00	7.65E+00
		Be-7	<5.91E+01	0.00E+00	5.91E+01
		K-40	1.43E+03	2.30E+02	8.69E+01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
563944	6/6/2022 - 6/6/2022	LLI-131	<6.45E-01	0.00E+00	6.45E-01
		I-131	<6.48E+00	0.00E+00	6.48E+00
		Cs-134	<7.24E+00	0.00E+00	7.24E+00
		Cs-137	<7.77E+00	0.00E+00	7.77E+00
		BaLa-140	<8.84E+00	0.00E+00	8.84E+00
		Be-7	<3.91E+01	0.00E+00	3.91E+01
		K-40	1.46E+03	2.38E+02	1.27E+02

HARRIS Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: MILK Concentration (Activity): pCi/l

Sample Point 5 [CONTROL - WNW @ 12 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
564741	6/20/2022 - 6/20/2022	LLI-131	<5.97E-01	0.00E+00	5.97E-01
		I-131	<7.92E+00	0.00E+00	7.92E+00
		Cs-134	<5.76E+00	0.00E+00	5.76E+00
		Cs-137	<7.12E+00	0.00E+00	7.12E+00
		BaLa-140	<5.96E+00	0.00E+00	5.96E+00
		Be-7	<4.16E+01	0.00E+00	4.16E+01
		K-40	1.33E+03	2.18E+02	8.96E+01
565900	7/5/2022 - 7/5/2022	LLI-131	<6.33E-01	0.00E+00	6.33E-01
		I-131	<6.73E+00	0.00E+00	6.73E+00
		Cs-134	<8.03E+00	0.00E+00	8.03E+00
		Cs-137	<8.26E+00	0.00E+00	8.26E+00
		BaLa-140	<2.19E+00	0.00E+00	2.19E+00
		Be-7	<4.47E+01	0.00E+00	4.47E+01
		K-40	1.63E+03	2.48E+02	1.02E+02
566839	7/18/2022 - 7/18/2022	LLI-131	<6.23E-01	0.00E+00	6.23E-01
		I-131	<6.38E+00	0.00E+00	6.38E+00
		Cs-134	<5.76E+00	0.00E+00	5.76E+00
		Cs-137	<6.21E+00	0.00E+00	6.21E+00
		BaLa-140	<9.65E+00	0.00E+00	9.65E+00
		Be-7	<4.75E+01	0.00E+00	4.75E+01
		K-40	1.58E+03	2.38E+02	1.75E+01
567097	8/1/2022 - 8/1/2022	LLI-131	<5.81E-01	0.00E+00	5.81E-01
		I-131	<7.15E+00	0.00E+00	7.15E+00
		Cs-134	<6.43E+00	0.00E+00	6.43E+00
		Cs-137	<5.10E+00	0.00E+00	5.10E+00
		BaLa-140	<2.18E+00	0.00E+00	2.18E+00
		Be-7	<5.28E+01	0.00E+00	5.28E+01
		K-40	1.49E+03	2.42E+02	1.43E+02
567700	8/15/2022 - 8/15/2022	LLI-131	<6.49E-01	0.00E+00	6.49E-01
		I-131	<7.21E+00	0.00E+00	7.21E+00
		Cs-134	<8.74E+00	0.00E+00	8.74E+00
		Cs-137	<6.88E+00	0.00E+00	6.88E+00
		BaLa-140	<9.86E+00	0.00E+00	9.86E+00
		Be-7	<6.70E+01	0.00E+00	6.70E+01
		K-40	1.38E+03	2.24E+02	8.42E+01
568569	8/29/2022 - 8/29/2022	LLI-131	<6.41E-01	0.00E+00	6.41E-01
		I-131	<7.19E+00	0.00E+00	7.19E+00
		Cs-134	<7.77E+00	0.00E+00	7.77E+00
		Cs-137	<4.53E+00	0.00E+00	4.53E+00
		BaLa-140	<6.03E+00	0.00E+00	6.03E+00
		Be-7	<4.85E+01	0.00E+00	4.85E+01
		K-40	1.54E+03	2.41E+02	1.04E+02
569016	9/12/2022 - 9/12/2022	LLI-131	<6.40E-01	0.00E+00	6.40E-01
		I-131	<6.26E+00	0.00E+00	6.26E+00
		Cs-134	<5.75E+00	0.00E+00	5.75E+00
		Cs-137	<7.90E+00	0.00E+00	7.90E+00
		BaLa-140	<5.69E+00	0.00E+00	5.69E+00
		Be-7	<5.46E+01	0.00E+00	5.46E+01
		K-40	1.35E+03	2.25E+02	1.22E+02
570816	9/26/2022 - 9/26/2022	LLI-131	<6.26E-01	0.00E+00	6.26E-01
		I-131	<6.09E+00	0.00E+00	6.09E+00
		Cs-134	<8.74E+00	0.00E+00	8.74E+00
		Cs-137	<5.86E+00	0.00E+00	5.86E+00
		BaLa-140	<8.53E+00	0.00E+00	8.53E+00

HARRIS Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: MILK Concentration (Activity): pCi/l

Sample Point 5 [CONTROL - WNW @ 12 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
570816	9/26/2022 - 9/26/2022	Be-7	<5.34E+01	0.00E+00	5.34E+01
		K-40	1.33E+03	2.19E+02	8.36E+01

Sample Point 102 [INDICATOR - W @ 2.82 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
563391	5/23/2022 - 5/23/2022	LLI-131	<5.86E-01	0.00E+00	5.86E-01
		I-131	<7.84E+00	0.00E+00	7.84E+00
		Cs-134	<4.92E+00	0.00E+00	4.92E+00
		Cs-137	<6.65E+00	0.00E+00	6.65E+00
		BaLa-140	<5.94E+00	0.00E+00	5.94E+00
		Be-7	<5.80E+01	0.00E+00	5.80E+01
		K-40	1.96E+03	2.85E+02	1.41E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
563943	6/6/2022 - 6/6/2022	LLI-131	<5.39E-01	0.00E+00	5.39E-01
		I-131	<6.30E+00	0.00E+00	6.30E+00
		Cs-134	<7.95E+00	0.00E+00	7.95E+00
		Cs-137	<7.86E+00	0.00E+00	7.86E+00
		BaLa-140	<5.94E+00	0.00E+00	5.94E+00
		Be-7	<5.33E+01	0.00E+00	5.33E+01
		K-40	2.08E+03	2.99E+02	1.60E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
564740	6/20/2022 - 6/20/2022	LLI-131	<6.41E-01	0.00E+00	6.41E-01
		I-131	<7.94E+00	0.00E+00	7.94E+00
		Cs-134	<1.03E+01	0.00E+00	1.03E+01
		Cs-137	<8.21E+00	0.00E+00	8.21E+00
		BaLa-140	<2.20E+00	0.00E+00	2.20E+00
		Be-7	<5.08E+01	0.00E+00	5.08E+01
		K-40	2.00E+03	2.90E+02	1.43E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
565899	7/6/2022 - 7/6/2022	LLI-131	<5.72E-01	0.00E+00	5.72E-01
		I-131	<6.94E+00	0.00E+00	6.94E+00
		Cs-134	<8.82E+00	0.00E+00	8.82E+00
		Cs-137	<6.18E+00	0.00E+00	6.18E+00
		BaLa-140	<5.72E+00	0.00E+00	5.72E+00
		Be-7	<6.17E+01	0.00E+00	6.17E+01
		K-40	1.99E+03	2.84E+02	1.12E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
566838	7/18/2022 - 7/18/2022	LLI-131	<6.45E-01	0.00E+00	6.45E-01
		I-131	<7.64E+00	0.00E+00	7.64E+00
		Cs-134	<1.02E+01	0.00E+00	1.02E+01
		Cs-137	<7.21E+00	0.00E+00	7.21E+00
		BaLa-140	<1.18E+01	0.00E+00	1.18E+01
		Be-7	<5.98E+01	0.00E+00	5.98E+01
		K-40	2.00E+03	2.71E+02	8.51E+01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
567096	8/1/2022 - 8/1/2022	LLI-131	<6.45E-01	0.00E+00	6.45E-01
		I-131	<7.40E+00	0.00E+00	7.40E+00
		Cs-134	<7.24E+00	0.00E+00	7.24E+00
		Cs-137	<8.54E+00	0.00E+00	8.54E+00
		BaLa-140	<6.13E+00	0.00E+00	6.13E+00
		Be-7	<4.90E+01	0.00E+00	4.90E+01
		K-40	1.93E+03	2.80E+02	1.12E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
567699	8/15/2022 - 8/15/2022	LLI-131	<6.19E-01	0.00E+00	6.19E-01
		I-131	<6.88E+00	0.00E+00	6.88E+00
		Cs-134	<7.95E+00	0.00E+00	7.95E+00
		Cs-137	<6.18E+00	0.00E+00	6.18E+00
		BaLa-140	<2.19E+00	0.00E+00	2.19E+00
		Be-7	<4.19E+01	0.00E+00	4.19E+01
		K-40	1.97E+03	2.85E+02	1.36E+02

HARRIS Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: MILK Concentration (Activity): pCi/l

Sample Point 102 [INDICATOR - W @ 2.82 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
568568	8/29/2022 - 8/29/2022	LLI-131	<6.49E-01	0.00E+00	6.49E-01
		I-131	<8.25E+00	0.00E+00	8.25E+00
		Cs-134	<9.23E+00	0.00E+00	9.23E+00
		Cs-137	<8.21E+00	0.00E+00	8.21E+00
		BaLa-140	<5.92E+00	0.00E+00	5.92E+00
		Be-7	<5.80E+01	0.00E+00	5.80E+01
		K-40	1.98E+03	2.81E+02	9.62E+01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
569015	9/12/2022 - 9/12/2022	LLI-131	<5.44E-01	0.00E+00	5.44E-01
		I-131	<5.35E+00	0.00E+00	5.35E+00
		Cs-134	<8.82E+00	0.00E+00	8.82E+00
		Cs-137	<7.48E+00	0.00E+00	7.48E+00
		BaLa-140	<5.72E+00	0.00E+00	5.72E+00
		Be-7	<5.75E+01	0.00E+00	5.75E+01
		K-40	2.26E+03	3.05E+02	7.94E+01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
570815	9/26/2022 - 9/26/2022	LLI-131	<5.43E-01	0.00E+00	5.43E-01
		I-131	<5.95E+00	0.00E+00	5.95E+00
		Cs-134	<7.95E+00	0.00E+00	7.95E+00
		Cs-137	<7.48E+00	0.00E+00	7.48E+00
		BaLa-140	<2.11E+00	0.00E+00	2.11E+00
		Be-7	<5.03E+01	0.00E+00	5.03E+01
		K-40	2.14E+03	2.97E+02	1.06E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
571349	10/10/2022 - 10/10/2022	LLI-131	<5.98E-01	0.00E+00	5.98E-01
		I-131	<7.40E+00	0.00E+00	7.40E+00
		Cs-134	<7.95E+00	0.00E+00	7.95E+00
		Cs-137	<8.55E+00	0.00E+00	8.55E+00
		BaLa-140	<7.51E+00	0.00E+00	7.51E+00
		Be-7	<5.33E+01	0.00E+00	5.33E+01
		K-40	2.01E+03	2.83E+02	7.84E+01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
572548	10/24/2022 - 10/24/2022	LLI-131	<5.76E-01	0.00E+00	5.76E-01
		I-131	<7.08E+00	0.00E+00	7.08E+00
		Cs-134	<1.00E+01	0.00E+00	1.00E+01
		Cs-137	<8.85E+00	0.00E+00	8.85E+00
		BaLa-140	<8.93E+00	0.00E+00	8.93E+00
		Be-7	<4.25E+01	0.00E+00	4.25E+01
		K-40	2.05E+03	2.92E+02	1.35E+02

Sample Point 300 [CONTROL - WNW @ 12 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
577947	10/10/2022 - 10/10/2022	LLI-131	<6.49E-01	0.00E+00	6.49E-01
		I-131	<5.88E+00	0.00E+00	5.88E+00
		Cs-134	<6.62E+00	0.00E+00	6.62E+00
		Cs-137	<9.19E+00	0.00E+00	9.19E+00
		BaLa-140	<7.63E+00	0.00E+00	7.63E+00
		Be-7	<5.38E+01	0.00E+00	5.38E+01
		K-40	1.40E+03	2.25E+02	7.88E+01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
577948	10/24/2022 - 10/24/2022	LLI-131	<7.65E-01	0.00E+00	7.65E-01
		I-131	<6.80E+00	0.00E+00	6.80E+00
		Cs-134	<6.94E+00	0.00E+00	6.94E+00
		Cs-137	<5.07E+00	0.00E+00	5.07E+00
		BaLa-140	<7.45E+00	0.00E+00	7.45E+00
		Be-7	<6.99E+01	0.00E+00	6.99E+01
		K-40	1.34E+03	2.18E+02	7.33E+01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
578074	11/21/2022 - 11/21/2022	LLI-131	<5.38E-01	0.00E+00	5.38E-01
		I-131	<4.92E+00	0.00E+00	4.92E+00
		Cs-134	<9.18E+00	0.00E+00	9.18E+00

HARRIS Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: MILK Concentration (Activity): pCi/l

Sample Point 300 [CONTROL - WNW @ 12 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
578074	11/21/2022 - 11/21/2022	Cs-137	<7.74E+00	0.00E+00	7.74E+00
		BaLa-140	<9.51E+00	0.00E+00	9.51E+00
		Be-7	<5.34E+01	0.00E+00	5.34E+01
		K-40	1.29E+03	2.17E+02	1.04E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
578976	12/19/2022 - 12/19/2022	LLI-131	<7.59E-01	0.00E+00	7.59E-01
		I-131	<7.24E+00	0.00E+00	7.24E+00
		Cs-134	<9.18E+00	0.00E+00	9.18E+00
		Cs-137	<5.86E+00	0.00E+00	5.86E+00
		BaLa-140	<2.14E+00	0.00E+00	2.14E+00
		Be-7	<6.03E+01	0.00E+00	6.03E+01
		K-40	1.39E+03	2.32E+02	1.38E+02

Media Type: SEDIMENT_BOTTOM Concentration (Activity): pCi/kg dry

Sample Point 52 [INDICATOR - S @ 3.8 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
559402	1/11/2022 - 1/11/2022	Mn-54	<5.96E+01	0.00E+00	5.96E+01
		Co-58	<5.54E+01	0.00E+00	5.54E+01
		Fe-59	<1.07E+02	0.00E+00	1.07E+02
		Co-60	1.12E+02	4.72E+01	6.78E+01
		Zn-65	<1.05E+02	0.00E+00	1.05E+02
		Zr-95	<9.33E+01	0.00E+00	9.33E+01
		Nb-95	<7.07E+01	0.00E+00	7.07E+01
		I-131	<2.02E+02	0.00E+00	2.02E+02
		Cs-134	<5.42E+01	0.00E+00	5.42E+01
		Cs-137	2.61E+02	6.98E+01	9.51E+01
		Be-7	<7.30E+02	0.00E+00	7.30E+02
		K-40	1.20E+04	1.35E+03	7.36E+02
		Co-57	<4.88E+01	0.00E+00	4.88E+01
		Mo-99	<2.20E+04	0.00E+00	2.20E+04
		Ag-110M	<6.08E+01	0.00E+00	6.08E+01
		Sb-122	<3.96E+03	0.00E+00	3.96E+03
		Sb-125	<1.46E+02	0.00E+00	1.46E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
570873	7/26/2022 - 7/26/2022	Mn-54	<6.53E+01	0.00E+00	6.53E+01
		Co-58	<6.31E+01	0.00E+00	6.31E+01
		Fe-59	<1.51E+02	0.00E+00	1.51E+02
		Co-60	<6.84E+01	0.00E+00	6.84E+01
		Zn-65	<1.11E+02	0.00E+00	1.11E+02
		Zr-95	<1.85E+02	0.00E+00	1.85E+02
		Nb-95	<7.34E+01	0.00E+00	7.34E+01
		I-131	<1.94E+02	0.00E+00	1.94E+02
		Cs-134	<7.61E+01	0.00E+00	7.61E+01
		Cs-137	<9.30E+01	0.00E+00	9.30E+01
		Be-7	<5.73E+02	0.00E+00	5.73E+02
		K-40	6.79E+03	1.50E+03	1.19E+03
		Co-57	<3.86E+01	0.00E+00	3.86E+01
		Mo-99	<1.43E+04	0.00E+00	1.43E+04
		Ag-110M	<4.76E+01	0.00E+00	4.76E+01
		Sb-122	<2.00E+03	0.00E+00	2.00E+03
		Sb-125	<1.65E+02	0.00E+00	1.65E+02

Media Type: SEDIMENT_SHORE Concentration (Activity): pCi/kg dry

Sample Point 26 [INDICATOR - S @ 4.6 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
559403	1/11/2022 - 1/11/2022	Mn-54	<5.17E+01	0.00E+00	5.17E+01
		Co-58	<5.25E+01	0.00E+00	5.25E+01
		Fe-59	<1.59E+02	0.00E+00	1.59E+02
		Co-60	<7.08E+01	0.00E+00	7.08E+01
		Zn-65	<1.48E+02	0.00E+00	1.48E+02
		Zr-95	<1.09E+02	0.00E+00	1.09E+02
		Nb-95	<8.85E+01	0.00E+00	8.85E+01

HARRIS Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: SEDIMENT_SHORE Concentration (Activity): pCi/kg dry

Sample Point 26 [INDICATOR - S @ 4.6 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
559403	1/11/2022 - 1/11/2022	I-131	<1.29E+02	0.00E+00	1.29E+02
		Cs-134	<6.51E+01	0.00E+00	6.51E+01
		Cs-137	<6.56E+01	0.00E+00	6.56E+01
		Be-7	<5.37E+02	0.00E+00	5.37E+02
		K-40	7.87E+03	1.48E+03	6.27E+02
		Co-57	<4.42E+01	0.00E+00	4.42E+01
		Mo-99	<2.57E+04	0.00E+00	2.57E+04
		Ag-110M	<5.80E+01	0.00E+00	5.80E+01
		Sb-122	<2.85E+03	0.00E+00	2.85E+03
		Sb-125	<1.32E+02	0.00E+00	1.32E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
570874	7/26/2022 - 7/26/2022	Mn-54	<5.61E+01	0.00E+00	5.61E+01
		Co-58	<5.81E+01	0.00E+00	5.81E+01
		Fe-59	<1.05E+02	0.00E+00	1.05E+02
		Co-60	<5.59E+01	0.00E+00	5.59E+01
		Zn-65	<1.19E+02	0.00E+00	1.19E+02
		Zr-95	<1.21E+02	0.00E+00	1.21E+02
		Nb-95	<7.78E+01	0.00E+00	7.78E+01
		I-131	<1.53E+02	0.00E+00	1.53E+02
		Cs-134	<7.27E+01	0.00E+00	7.27E+01
		Cs-137	<6.69E+01	0.00E+00	6.69E+01
		Be-7	<5.13E+02	0.00E+00	5.13E+02
		K-40	7.69E+03	1.44E+03	9.94E+02
		Co-57	<4.51E+01	0.00E+00	4.51E+01
		Mo-99	<1.22E+04	0.00E+00	1.22E+04
		Ag-110M	<4.71E+01	0.00E+00	4.71E+01
		Sb-122	<2.02E+03	0.00E+00	2.02E+03
		Sb-125	<1.09E+02	0.00E+00	1.09E+02

Sample Point 41 [INDICATOR - S @ 3.8 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
559404	1/11/2022 - 1/11/2022	Mn-54	<5.62E+01	0.00E+00	5.62E+01
		Co-58	<4.71E+01	0.00E+00	4.71E+01
		Fe-59	<1.14E+02	0.00E+00	1.14E+02
		Co-60	<4.50E+01	0.00E+00	4.50E+01
		Zn-65	<1.61E+02	0.00E+00	1.61E+02
		Zr-95	<8.32E+01	0.00E+00	8.32E+01
		Nb-95	<6.18E+01	0.00E+00	6.18E+01
		I-131	<1.46E+02	0.00E+00	1.46E+02
		Cs-134	<6.53E+01	0.00E+00	6.53E+01
		Cs-137	<5.36E+01	0.00E+00	5.36E+01
		Be-7	<4.19E+02	0.00E+00	4.19E+02
		K-40	8.98E+03	1.52E+03	5.62E+02
		Co-57	<3.32E+01	0.00E+00	3.32E+01
		Mo-99	<1.42E+04	0.00E+00	1.42E+04
		Ag-110M	<4.69E+01	0.00E+00	4.69E+01
		Sb-122	<2.91E+03	0.00E+00	2.91E+03
		Sb-125	<1.23E+02	0.00E+00	1.23E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
570875	7/26/2022 - 7/26/2022	Mn-54	<4.91E+01	0.00E+00	4.91E+01
		Co-58	<5.65E+01	0.00E+00	5.65E+01
		Fe-59	<1.35E+02	0.00E+00	1.35E+02
		Co-60	<5.41E+01	0.00E+00	5.41E+01
		Zn-65	<1.36E+02	0.00E+00	1.36E+02
		Zr-95	<1.04E+02	0.00E+00	1.04E+02
		Nb-95	<6.16E+01	0.00E+00	6.16E+01
		I-131	<1.61E+02	0.00E+00	1.61E+02
		Cs-134	<6.83E+01	0.00E+00	6.83E+01
		Cs-137	<6.32E+01	0.00E+00	6.32E+01
		Be-7	<4.81E+02	0.00E+00	4.81E+02
		K-40	1.08E+04	1.64E+03	1.21E+02
		Co-57	<3.28E+01	0.00E+00	3.28E+01
		Mo-99	<1.02E+04	0.00E+00	1.02E+04
		Ag-110M	<4.07E+01	0.00E+00	4.07E+01

HARRIS Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: SEDIMENT_SHORE Concentration (Activity): pCi/kg dry

Sample Point 41 [INDICATOR - S @ 3.8 miles]

Sample ID:	570875	Sample Dates:	7/26/2022 - 7/26/2022	Nuclide	Activity	2 Sigma Error	MDA
				Sb-122	<1.31E+03	0.00E+00	1.31E+03
				Sb-125	<1.15E+02	0.00E+00	1.15E+02

Media Type: SURFACE WATER Concentration (Activity): pCi/l

Sample Point 26 [INDICATOR - S @ 4.7 miles]

Sample ID:	560160	Sample Dates:	12/27/2021 - 1/24/2022	Nuclide	Activity	2 Sigma Error	MDA
				Mn-54	<2.62E+00	0.00E+00	2.62E+00
				Co-58	<2.44E+00	0.00E+00	2.44E+00
				Fe-59	<5.56E+00	0.00E+00	5.56E+00
				Co-60	<2.56E+00	0.00E+00	2.56E+00
				Zn-65	<6.16E+00	0.00E+00	6.16E+00
				Zr-95	<5.54E+00	0.00E+00	5.54E+00
				Nb-95	<3.73E+00	0.00E+00	3.73E+00
				I-131	<1.06E+01	0.00E+00	1.06E+01
				Cs-134	<2.79E+00	0.00E+00	2.79E+00
				Cs-137	<2.79E+00	0.00E+00	2.79E+00
				BaLa-140	<7.18E+00	0.00E+00	7.18E+00
				Be-7	<2.78E+01	0.00E+00	2.78E+01
				K-40	1.09E+02	3.38E+01	4.30E+01
				H3SW	3.66E+03	1.93E+02	1.74E+02

Sample ID:	561196	Sample Dates:	1/24/2022 - 2/21/2022	Nuclide	Activity	2 Sigma Error	MDA
				Mn-54	<3.02E+00	0.00E+00	3.02E+00
				Co-58	<3.64E+00	0.00E+00	3.64E+00
				Fe-59	<6.69E+00	0.00E+00	6.69E+00
				Co-60	<3.35E+00	0.00E+00	3.35E+00
				Zn-65	<5.89E+00	0.00E+00	5.89E+00
				Zr-95	<5.95E+00	0.00E+00	5.95E+00
				Nb-95	<4.03E+00	0.00E+00	4.03E+00
				I-131	<1.16E+01	0.00E+00	1.16E+01
				Cs-134	<3.47E+00	0.00E+00	3.47E+00
				Cs-137	<3.17E+00	0.00E+00	3.17E+00
				BaLa-140	<7.42E+00	0.00E+00	7.42E+00
				Be-7	<2.84E+01	0.00E+00	2.84E+01
				K-40	1.48E+02	3.60E+01	3.09E+01
				H3SW	3.32E+03	1.92E+02	1.90E+02

Sample ID:	563490	Sample Dates:	2/21/2022 - 3/21/2022	Nuclide	Activity	2 Sigma Error	MDA
				Mn-54	<3.14E+00	0.00E+00	3.14E+00
				Co-58	<3.15E+00	0.00E+00	3.15E+00
				Fe-59	<6.55E+00	0.00E+00	6.55E+00
				Co-60	<3.14E+00	0.00E+00	3.14E+00
				Zn-65	<8.21E+00	0.00E+00	8.21E+00
				Zr-95	<5.14E+00	0.00E+00	5.14E+00
				Nb-95	<5.07E+00	0.00E+00	5.07E+00
				I-131	<1.16E+01	0.00E+00	1.16E+01
				Cs-134	<3.15E+00	0.00E+00	3.15E+00
				Cs-137	<3.24E+00	0.00E+00	3.24E+00
				BaLa-140	<8.20E+00	0.00E+00	8.20E+00
				Be-7	<3.49E+01	0.00E+00	3.49E+01
				K-40	1.05E+02	4.09E+01	5.02E+01
				H3SW	2.97E+03	1.76E+02	1.72E+02

Sample ID:	564856	Sample Dates:	3/21/2022 - 4/18/2022	Nuclide	Activity	2 Sigma Error	MDA
				Mn-54	<3.27E+00	0.00E+00	3.27E+00
				Co-58	<3.53E+00	0.00E+00	3.53E+00
				Fe-59	<8.07E+00	0.00E+00	8.07E+00
				Co-60	<3.92E+00	0.00E+00	3.92E+00
				Zn-65	<7.51E+00	0.00E+00	7.51E+00
				Zr-95	<6.84E+00	0.00E+00	6.84E+00
				Nb-95	<4.78E+00	0.00E+00	4.78E+00
				I-131	<1.20E+01	0.00E+00	1.20E+01
				Cs-134	<4.15E+00	0.00E+00	4.15E+00
				Cs-137	<3.37E+00	0.00E+00	3.37E+00
				BaLa-140	<7.88E+00	0.00E+00	7.88E+00

HARRIS Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: SURFACE WATER Concentration (Activity): pCi/l

Sample Point 26 [INDICATOR - S @ 4.7 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
564856	3/21/2022 - 4/18/2022	Be-7	<2.55E+01	0.00E+00	2.55E+01
		K-40	8.92E+01	3.77E+01	4.65E+01
		H3SW	3.04E+03	1.82E+02	1.78E+02
566992	4/18/2022 - 5/16/2022	Mn-54	<2.43E+00	0.00E+00	2.43E+00
		Co-58	<2.79E+00	0.00E+00	2.79E+00
		Fe-59	<5.90E+00	0.00E+00	5.90E+00
		Co-60	<3.20E+00	0.00E+00	3.20E+00
		Zn-65	<6.14E+00	0.00E+00	6.14E+00
		Zr-95	<6.36E+00	0.00E+00	6.36E+00
		Nb-95	<3.62E+00	0.00E+00	3.62E+00
		I-131	<1.10E+01	0.00E+00	1.10E+01
		Cs-134	<3.05E+00	0.00E+00	3.05E+00
		Cs-137	<3.67E+00	0.00E+00	3.67E+00
		BaLa-140	<5.67E+00	0.00E+00	5.67E+00
		Be-7	<3.07E+01	0.00E+00	3.07E+01
		K-40	1.29E+02	3.88E+01	4.26E+01
		H3SW	2.88E+03	1.82E+02	1.85E+02
568434	5/16/2022 - 6/13/2022	Mn-54	<3.52E+00	0.00E+00	3.52E+00
		Co-58	<3.57E+00	0.00E+00	3.57E+00
		Fe-59	<5.25E+00	0.00E+00	5.25E+00
		Co-60	<2.90E+00	0.00E+00	2.90E+00
		Zn-65	<5.74E+00	0.00E+00	5.74E+00
		Zr-95	<6.12E+00	0.00E+00	6.12E+00
		Nb-95	<4.51E+00	0.00E+00	4.51E+00
		I-131	<1.17E+01	0.00E+00	1.17E+01
		Cs-134	<4.20E+00	0.00E+00	4.20E+00
		Cs-137	<4.07E+00	0.00E+00	4.07E+00
		BaLa-140	<6.64E+00	0.00E+00	6.64E+00
		Be-7	<3.09E+01	0.00E+00	3.09E+01
		K-40	7.37E+01	3.85E+01	5.25E+01
		H3SW	2.86E+03	1.75E+02	1.76E+02
570350	6/13/2022 - 7/11/2022	Mn-54	<2.84E+00	0.00E+00	2.84E+00
		Co-58	<3.27E+00	0.00E+00	3.27E+00
		Fe-59	<7.74E+00	0.00E+00	7.74E+00
		Co-60	<2.08E+00	0.00E+00	2.08E+00
		Zn-65	<5.05E+00	0.00E+00	5.05E+00
		Zr-95	<6.24E+00	0.00E+00	6.24E+00
		Nb-95	<4.58E+00	0.00E+00	4.58E+00
		I-131	<1.07E+01	0.00E+00	1.07E+01
		Cs-134	<3.54E+00	0.00E+00	3.54E+00
		Cs-137	<2.76E+00	0.00E+00	2.76E+00
		BaLa-140	<7.66E+00	0.00E+00	7.66E+00
		Be-7	<3.01E+01	0.00E+00	3.01E+01
		K-40	9.35E+01	3.95E+01	5.16E+01
		H3SW	2.84E+03	1.82E+02	1.85E+02
571770	7/11/2022 - 8/8/2022	Mn-54	<2.53E+00	0.00E+00	2.53E+00
		Co-58	<2.61E+00	0.00E+00	2.61E+00
		Fe-59	<6.34E+00	0.00E+00	6.34E+00
		Co-60	<2.27E+00	0.00E+00	2.27E+00
		Zn-65	<5.77E+00	0.00E+00	5.77E+00
		Zr-95	<4.53E+00	0.00E+00	4.53E+00
		Nb-95	<3.34E+00	0.00E+00	3.34E+00
		I-131	<1.04E+01	0.00E+00	1.04E+01
		Cs-134	<2.48E+00	0.00E+00	2.48E+00
		Cs-137	<2.54E+00	0.00E+00	2.54E+00
		BaLa-140	<6.12E+00	0.00E+00	6.12E+00
		Be-7	<2.61E+01	0.00E+00	2.61E+01
		K-40	7.29E+01	3.24E+01	4.53E+01

HARRIS Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: SURFACE WATER Concentration (Activity): pCi/l

Sample Point 26 [INDICATOR - S @ 4.7 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
571770	7/11/2022 - 8/8/2022	H3SW	2.62E+03	1.78E+02	1.87E+02
575055	8/8/2022 - 9/6/2022	Mn-54	<2.66E+00	0.00E+00	2.66E+00
		Co-58	<2.87E+00	0.00E+00	2.87E+00
		Fe-59	<6.30E+00	0.00E+00	6.30E+00
		Co-60	<3.02E+00	0.00E+00	3.02E+00
		Zn-65	<5.25E+00	0.00E+00	5.25E+00
		Zr-95	<7.16E+00	0.00E+00	7.16E+00
		Nb-95	<4.20E+00	0.00E+00	4.20E+00
		I-131	<1.18E+01	0.00E+00	1.18E+01
		Cs-134	<2.73E+00	0.00E+00	2.73E+00
		Cs-137	<3.09E+00	0.00E+00	3.09E+00
		BaLa-140	<6.55E+00	0.00E+00	6.55E+00
		Be-7	<2.86E+01	0.00E+00	2.86E+01
		K-40	<5.93E+01	0.00E+00	5.93E+01
		H3SW	2.70E+03	1.77E+02	1.81E+02
576621	9/6/2022 - 10/3/2022	Mn-54	<2.76E+00	0.00E+00	2.76E+00
		Co-58	<3.06E+00	0.00E+00	3.06E+00
		Fe-59	<5.47E+00	0.00E+00	5.47E+00
		Co-60	<2.78E+00	0.00E+00	2.78E+00
		Zn-65	<5.13E+00	0.00E+00	5.13E+00
		Zr-95	<5.68E+00	0.00E+00	5.68E+00
		Nb-95	<3.27E+00	0.00E+00	3.27E+00
		I-131	<1.19E+01	0.00E+00	1.19E+01
		Cs-134	<3.28E+00	0.00E+00	3.28E+00
		Cs-137	<2.75E+00	0.00E+00	2.75E+00
		BaLa-140	<6.53E+00	0.00E+00	6.53E+00
		Be-7	<2.65E+01	0.00E+00	2.65E+01
		K-40	9.26E+01	3.94E+01	5.40E+01
		H3SW	3.74E+03	1.97E+02	1.82E+02
578876	10/3/2022 - 10/31/2022	Mn-54	<2.83E+00	0.00E+00	2.83E+00
		Co-58	<4.18E+00	0.00E+00	4.18E+00
		Fe-59	<5.94E+00	0.00E+00	5.94E+00
		Co-60	<2.39E+00	0.00E+00	2.39E+00
		Zn-65	<5.53E+00	0.00E+00	5.53E+00
		Zr-95	<5.97E+00	0.00E+00	5.97E+00
		Nb-95	<4.02E+00	0.00E+00	4.02E+00
		I-131	<1.20E+01	0.00E+00	1.20E+01
		Cs-134	<3.65E+00	0.00E+00	3.65E+00
		Cs-137	<4.06E+00	0.00E+00	4.06E+00
		BaLa-140	<7.90E+00	0.00E+00	7.90E+00
		Be-7	<3.23E+01	0.00E+00	3.23E+01
		K-40	6.19E+01	3.31E+01	4.51E+01
		H3SW	6.33E+03	2.42E+02	1.86E+02
580858	10/31/2022 - 11/28/2022	Mn-54	<3.10E+00	0.00E+00	3.10E+00
		Co-58	<3.73E+00	0.00E+00	3.73E+00
		Fe-59	<7.07E+00	0.00E+00	7.07E+00
		Co-60	<3.33E+00	0.00E+00	3.33E+00
		Zn-65	<6.93E+00	0.00E+00	6.93E+00
		Zr-95	<5.87E+00	0.00E+00	5.87E+00
		Nb-95	<4.90E+00	0.00E+00	4.90E+00
		I-131	<1.34E+01	0.00E+00	1.34E+01
		Cs-134	<4.21E+00	0.00E+00	4.21E+00
		Cs-137	<3.49E+00	0.00E+00	3.49E+00
		BaLa-140	<1.00E+01	0.00E+00	1.00E+01
		Be-7	<3.35E+01	0.00E+00	3.35E+01
		K-40	6.08E+01	3.88E+01	5.61E+01
		H3SW	4.89E+03	2.21E+02	1.94E+02

HARRIS Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: SURFACE WATER Concentration (Activity): pCi/l

Sample Point 26 [INDICATOR - S @ 4.7 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
582466	11/28/2022 - 12/27/2022	Mn-54	<1.90E+00	0.00E+00	1.90E+00
		Co-58	<2.32E+00	0.00E+00	2.32E+00
		Fe-59	<4.67E+00	0.00E+00	4.67E+00
		Co-60	<1.61E+00	0.00E+00	1.61E+00
		Zn-65	<3.89E+00	0.00E+00	3.89E+00
		Zr-95	<4.76E+00	0.00E+00	4.76E+00
		Nb-95	<3.08E+00	0.00E+00	3.08E+00
		I-131	<1.27E+01	0.00E+00	1.27E+01
		Cs-134	<1.94E+00	0.00E+00	1.94E+00
		Cs-137	<1.94E+00	0.00E+00	1.94E+00
		BaLa-140	<5.79E+00	0.00E+00	5.79E+00
		Be-7	<2.26E+01	0.00E+00	2.26E+01
		K-40	8.81E+01	2.78E+01	3.63E+01
		H3SW	4.95E+03	2.37E+02	2.01E+02

Sample Point 40 [INDICATOR - SSE @ 17.2 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
560161	12/27/2021 - 1/24/2022	Mn-54	<2.82E+00	0.00E+00	2.82E+00
		Co-58	<2.95E+00	0.00E+00	2.95E+00
		Fe-59	<5.57E+00	0.00E+00	5.57E+00
		Co-60	<2.65E+00	0.00E+00	2.65E+00
		Zn-65	<6.06E+00	0.00E+00	6.06E+00
		Zr-95	<5.15E+00	0.00E+00	5.15E+00
		Nb-95	<3.21E+00	0.00E+00	3.21E+00
		I-131	<1.15E+01	0.00E+00	1.15E+01
		Cs-134	<2.93E+00	0.00E+00	2.93E+00
		Cs-137	<2.61E+00	0.00E+00	2.61E+00
		BaLa-140	<5.92E+00	0.00E+00	5.92E+00
		Be-7	<2.74E+01	0.00E+00	2.74E+01
		K-40	6.53E+01	3.17E+01	4.51E+01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
561197	1/24/2022 - 2/21/2022	Mn-54	<2.88E+00	0.00E+00	2.88E+00
		Co-58	<3.39E+00	0.00E+00	3.39E+00
		Fe-59	<6.65E+00	0.00E+00	6.65E+00
		Co-60	<3.21E+00	0.00E+00	3.21E+00
		Zn-65	<7.06E+00	0.00E+00	7.06E+00
		Zr-95	<5.69E+00	0.00E+00	5.69E+00
		Nb-95	<3.61E+00	0.00E+00	3.61E+00
		I-131	<9.29E+00	0.00E+00	9.29E+00
		Cs-134	<3.86E+00	0.00E+00	3.86E+00
		Cs-137	<3.62E+00	0.00E+00	3.62E+00
		BaLa-140	<7.77E+00	0.00E+00	7.77E+00
		Be-7	<3.06E+01	0.00E+00	3.06E+01
		K-40	9.72E+01	3.51E+01	4.04E+01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
563491	2/21/2022 - 3/21/2022	Mn-54	<3.38E+00	0.00E+00	3.38E+00
		Co-58	<3.29E+00	0.00E+00	3.29E+00
		Fe-59	<8.54E+00	0.00E+00	8.54E+00
		Co-60	<3.71E+00	0.00E+00	3.71E+00
		Zn-65	<5.48E+00	0.00E+00	5.48E+00
		Zr-95	<5.83E+00	0.00E+00	5.83E+00
		Nb-95	<4.54E+00	0.00E+00	4.54E+00
		I-131	<1.14E+01	0.00E+00	1.14E+01
		Cs-134	<4.03E+00	0.00E+00	4.03E+00
		Cs-137	<2.17E+00	0.00E+00	2.17E+00
		BaLa-140	<6.39E+00	0.00E+00	6.39E+00
		Be-7	<3.28E+01	0.00E+00	3.28E+01
		K-40	<4.92E+01	0.00E+00	4.92E+01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
561743	12/27/2021 - 4/18/2022	H3SW	<1.64E+01	0.00E+00	1.79E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
564857	3/21/2022 - 4/18/2022	Mn-54	<3.70E+00	0.00E+00	3.70E+00

HARRIS Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: SURFACE WATER Concentration (Activity): pCi/l

Sample Point 40 [INDICATOR - SSE @ 17.2 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA		
564857	3/21/2022 - 4/18/2022	Co-58	<4.01E+00	0.00E+00	4.01E+00		
		Fe-59	<7.75E+00	0.00E+00	7.75E+00		
		Co-60	<3.56E+00	0.00E+00	3.56E+00		
		Zn-65	<6.90E+00	0.00E+00	6.90E+00		
		Zr-95	<5.82E+00	0.00E+00	5.82E+00		
		Nb-95	<5.30E+00	0.00E+00	5.30E+00		
		I-131	<1.13E+01	0.00E+00	1.13E+01		
		Cs-134	<3.53E+00	0.00E+00	3.53E+00		
		Cs-137	<4.03E+00	0.00E+00	4.03E+00		
		BaLa-140	<8.86E+00	0.00E+00	8.86E+00		
		Be-7	<3.05E+01	0.00E+00	3.05E+01		
		K-40	6.90E+01	3.72E+01	5.08E+01		
		566993	4/18/2022 - 5/16/2022	Mn-54	<2.23E+00	0.00E+00	2.23E+00
				Co-58	<3.11E+00	0.00E+00	3.11E+00
Fe-59	<5.25E+00			0.00E+00	5.25E+00		
Co-60	<3.67E+00			0.00E+00	3.67E+00		
Zn-65	<4.88E+00			0.00E+00	4.88E+00		
Zr-95	<5.27E+00			0.00E+00	5.27E+00		
Nb-95	<4.32E+00			0.00E+00	4.32E+00		
I-131	<1.17E+01			0.00E+00	1.17E+01		
Cs-134	<3.03E+00			0.00E+00	3.03E+00		
Cs-137	<2.78E+00			0.00E+00	2.78E+00		
BaLa-140	<6.74E+00			0.00E+00	6.74E+00		
Be-7	<2.29E+01			0.00E+00	2.29E+01		
K-40	8.87E+01			3.39E+01	4.25E+01		
568435	5/16/2022 - 6/13/2022			Mn-54	<3.25E+00	0.00E+00	3.25E+00
		Co-58	<3.86E+00	0.00E+00	3.86E+00		
		Fe-59	<6.84E+00	0.00E+00	6.84E+00		
		Co-60	<3.23E+00	0.00E+00	3.23E+00		
		Zn-65	<7.38E+00	0.00E+00	7.38E+00		
		Zr-95	<6.86E+00	0.00E+00	6.86E+00		
		Nb-95	<4.61E+00	0.00E+00	4.61E+00		
		I-131	<1.15E+01	0.00E+00	1.15E+01		
		Cs-134	<3.48E+00	0.00E+00	3.48E+00		
		Cs-137	<2.79E+00	0.00E+00	2.79E+00		
		BaLa-140	<9.61E+00	0.00E+00	9.61E+00		
		Be-7	<3.44E+01	0.00E+00	3.44E+01		
		K-40	7.57E+01	4.25E+01	6.04E+01		
		567671	4/18/2022 - 7/11/2022	H3SW	<-9.0E+00	0.00E+00	1.79E+02
570351	6/13/2022 - 7/11/2022	Mn-54	<1.94E+00	0.00E+00	1.94E+00		
		Co-58	<2.16E+00	0.00E+00	2.16E+00		
		Fe-59	<4.70E+00	0.00E+00	4.70E+00		
		Co-60	<2.37E+00	0.00E+00	2.37E+00		
		Zn-65	<5.71E+00	0.00E+00	5.71E+00		
		Zr-95	<3.73E+00	0.00E+00	3.73E+00		
		Nb-95	<2.56E+00	0.00E+00	2.56E+00		
		I-131	<1.19E+01	0.00E+00	1.19E+01		
		Cs-134	<2.32E+00	0.00E+00	2.32E+00		
		Cs-137	<2.38E+00	0.00E+00	2.38E+00		
		BaLa-140	<5.97E+00	0.00E+00	5.97E+00		
		Be-7	<2.13E+01	0.00E+00	2.13E+01		
		K-40	6.94E+01	2.89E+01	3.89E+01		
		571771	7/11/2022 - 8/8/2022	Mn-54	<2.31E+00	0.00E+00	2.31E+00
Co-58	<2.91E+00			0.00E+00	2.91E+00		
Fe-59	<6.57E+00			0.00E+00	6.57E+00		
Co-60	<2.47E+00			0.00E+00	2.47E+00		
Zn-65	<4.81E+00			0.00E+00	4.81E+00		

HARRIS Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: SURFACE WATER Concentration (Activity): pCi/l

Sample Point 40 [INDICATOR - SSE @ 17.2 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
571771	7/11/2022 - 8/8/2022	Zr-95	<4.56E+00	0.00E+00	4.56E+00
		Nb-95	<4.00E+00	0.00E+00	4.00E+00
		I-131	<1.04E+01	0.00E+00	1.04E+01
		Cs-134	<3.40E+00	0.00E+00	3.40E+00
		Cs-137	<3.08E+00	0.00E+00	3.08E+00
		BaLa-140	<6.58E+00	0.00E+00	6.58E+00
		Be-7	<2.10E+01	0.00E+00	2.10E+01
		K-40	6.52E+01	3.12E+01	4.20E+01
		575056	8/8/2022 - 9/6/2022	Mn-54	<3.67E+00
Co-58	<4.69E+00			0.00E+00	4.69E+00
Fe-59	<6.66E+00			0.00E+00	6.66E+00
Co-60	<4.07E+00			0.00E+00	4.07E+00
Zn-65	<8.06E+00			0.00E+00	8.06E+00
Zr-95	<9.77E+00			0.00E+00	9.77E+00
Nb-95	<4.63E+00			0.00E+00	4.63E+00
I-131	<1.14E+01			0.00E+00	1.14E+01
Cs-134	<2.76E+00			0.00E+00	2.76E+00
Cs-137	<3.90E+00			0.00E+00	3.90E+00
BaLa-140	<1.07E+01			0.00E+00	1.07E+01
Be-7	<3.29E+01			0.00E+00	3.29E+01
K-40	<5.34E+01			0.00E+00	5.34E+01
574701	7/11/2022 - 10/3/2022	H3SW	<2.08E+01	0.00E+00	1.82E+02
576622	9/6/2022 - 10/3/2022	Mn-54	<3.42E+00	0.00E+00	3.42E+00
		Co-58	<2.39E+00	0.00E+00	2.39E+00
		Fe-59	<6.17E+00	0.00E+00	6.17E+00
		Co-60	<3.15E+00	0.00E+00	3.15E+00
		Zn-65	<6.21E+00	0.00E+00	6.21E+00
		Zr-95	<5.12E+00	0.00E+00	5.12E+00
		Nb-95	<3.70E+00	0.00E+00	3.70E+00
		I-131	<1.13E+01	0.00E+00	1.13E+01
		Cs-134	<2.89E+00	0.00E+00	2.89E+00
		Cs-137	<2.00E+00	0.00E+00	2.00E+00
		BaLa-140	<9.52E+00	0.00E+00	9.52E+00
		Be-7	<2.93E+01	0.00E+00	2.93E+01
		K-40	8.49E+01	3.47E+01	4.41E+01
578877	10/3/2022 - 10/31/2022	Mn-54	<2.71E+00	0.00E+00	2.71E+00
		Co-58	<3.50E+00	0.00E+00	3.50E+00
		Fe-59	<6.30E+00	0.00E+00	6.30E+00
		Co-60	<2.92E+00	0.00E+00	2.92E+00
		Zn-65	<6.88E+00	0.00E+00	6.88E+00
		Zr-95	<3.39E+00	0.00E+00	3.39E+00
		Nb-95	<3.30E+00	0.00E+00	3.30E+00
		I-131	<1.15E+01	0.00E+00	1.15E+01
		Cs-134	<2.53E+00	0.00E+00	2.53E+00
		Cs-137	<2.85E+00	0.00E+00	2.85E+00
		BaLa-140	<5.30E+00	0.00E+00	5.30E+00
		Be-7	<2.82E+01	0.00E+00	2.82E+01
		K-40	7.81E+01	3.12E+01	3.75E+01
580859	10/31/2022 - 11/28/2022	Mn-54	<3.40E+00	0.00E+00	3.40E+00
		Co-58	<2.75E+00	0.00E+00	2.75E+00
		Fe-59	<6.25E+00	0.00E+00	6.25E+00
		Co-60	<3.15E+00	0.00E+00	3.15E+00
		Zn-65	<7.11E+00	0.00E+00	7.11E+00
		Zr-95	<6.23E+00	0.00E+00	6.23E+00
		Nb-95	<4.27E+00	0.00E+00	4.27E+00
		I-131	<1.32E+01	0.00E+00	1.32E+01
		Cs-134	<3.68E+00	0.00E+00	3.68E+00

HARRIS Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: SURFACE WATER Concentration (Activity): pCi/l

Sample Point 40 [INDICATOR - SSE @ 17.2 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
580859	10/31/2022 - 11/28/2022	Cs-137	<3.43E+00	0.00E+00	3.43E+00
		BaLa-140	<9.39E+00	0.00E+00	9.39E+00
		Be-7	<2.72E+01	0.00E+00	2.72E+01
		K-40	7.54E+01	4.03E+01	5.74E+01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
581034	10/3/2022 - 12/27/2022	H3SW	<-2.6E+01	0.00E+00	1.83E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
582467	11/28/2022 - 12/27/2022	Mn-54	<1.88E+00	0.00E+00	1.88E+00
		Co-58	<2.37E+00	0.00E+00	2.37E+00
		Fe-59	<3.67E+00	0.00E+00	3.67E+00
		Co-60	<2.09E+00	0.00E+00	2.09E+00
		Zn-65	<4.09E+00	0.00E+00	4.09E+00
		Zr-95	<4.10E+00	0.00E+00	4.10E+00
		Nb-95	<3.27E+00	0.00E+00	3.27E+00
		I-131	<1.33E+01	0.00E+00	1.33E+01
		Cs-134	<2.07E+00	0.00E+00	2.07E+00
		Cs-137	<1.87E+00	0.00E+00	1.87E+00
		BaLa-140	<6.17E+00	0.00E+00	6.17E+00
		Be-7	<2.02E+01	0.00E+00	2.02E+01
		K-40	8.34E+01	2.34E+01	2.45E+01

Sample Point 43 [CONTROL - SW @ 8.47 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
560162	12/27/2021 - 1/24/2022	Mn-54	<2.48E+00	0.00E+00	2.48E+00
		Co-58	<3.34E+00	0.00E+00	3.34E+00
		Fe-59	<6.55E+00	0.00E+00	6.55E+00
		Co-60	<3.48E+00	0.00E+00	3.48E+00
		Zn-65	<7.35E+00	0.00E+00	7.35E+00
		Zr-95	<5.69E+00	0.00E+00	5.69E+00
		Nb-95	<4.77E+00	0.00E+00	4.77E+00
		I-131	<1.02E+01	0.00E+00	1.02E+01
		Cs-134	<3.57E+00	0.00E+00	3.57E+00
		Cs-137	<2.26E+00	0.00E+00	2.26E+00
		BaLa-140	<9.24E+00	0.00E+00	9.24E+00
		Be-7	<3.19E+01	0.00E+00	3.19E+01
		K-40	2.96E+01	2.76E+01	4.27E+01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
561198	1/24/2022 - 2/21/2022	Mn-54	<2.62E+00	0.00E+00	2.62E+00
		Co-58	<2.57E+00	0.00E+00	2.57E+00
		Fe-59	<5.63E+00	0.00E+00	5.63E+00
		Co-60	<2.50E+00	0.00E+00	2.50E+00
		Zn-65	<4.59E+00	0.00E+00	4.59E+00
		Zr-95	<4.98E+00	0.00E+00	4.98E+00
		Nb-95	<2.51E+00	0.00E+00	2.51E+00
		I-131	<1.09E+01	0.00E+00	1.09E+01
		Cs-134	<2.36E+00	0.00E+00	2.36E+00
		Cs-137	<2.45E+00	0.00E+00	2.45E+00
		BaLa-140	<5.77E+00	0.00E+00	5.77E+00
		Be-7	<2.53E+01	0.00E+00	2.53E+01
		K-40	7.77E+01	2.93E+01	3.65E+01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
563492	2/21/2022 - 3/21/2022	Mn-54	<3.54E+00	0.00E+00	3.54E+00
		Co-58	<3.67E+00	0.00E+00	3.67E+00
		Fe-59	<7.53E+00	0.00E+00	7.53E+00
		Co-60	<2.87E+00	0.00E+00	2.87E+00
		Zn-65	<8.04E+00	0.00E+00	8.04E+00
		Zr-95	<6.02E+00	0.00E+00	6.02E+00
		Nb-95	<4.87E+00	0.00E+00	4.87E+00
		I-131	<1.32E+01	0.00E+00	1.32E+01
		Cs-134	<4.14E+00	0.00E+00	4.14E+00
		Cs-137	<3.24E+00	0.00E+00	3.24E+00
		BaLa-140	<8.17E+00	0.00E+00	8.17E+00

HARRIS Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: SURFACE WATER Concentration (Activity): pCi/l

Sample Point 43 [CONTROL - SW @ 8.47 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
563492	2/21/2022 - 3/21/2022	Be-7	<3.48E+01	0.00E+00	3.48E+01
		K-40	8.32E+01	2.14E+01	3.10E+01
561744	12/27/2021 - 4/18/2022	H3SW	<-3.5E+01	0.00E+00	1.79E+02
564858	3/21/2022 - 4/18/2022	Mn-54	<3.36E+00	0.00E+00	3.36E+00
		Co-58	<4.33E+00	0.00E+00	4.33E+00
		Fe-59	<6.36E+00	0.00E+00	6.36E+00
		Co-60	<3.59E+00	0.00E+00	3.59E+00
		Zn-65	<8.74E+00	0.00E+00	8.74E+00
		Zr-95	<4.09E+00	0.00E+00	4.09E+00
		Nb-95	<4.43E+00	0.00E+00	4.43E+00
		I-131	<1.19E+01	0.00E+00	1.19E+01
		Cs-134	<5.57E+00	0.00E+00	5.57E+00
		Cs-137	<3.06E+00	0.00E+00	3.06E+00
		BaLa-140	<6.09E+00	0.00E+00	6.09E+00
		Be-7	<3.95E+01	0.00E+00	3.95E+01
		K-40	<7.56E+01	0.00E+00	7.56E+01
		566994	4/18/2022 - 5/16/2022	Mn-54	<2.99E+00
Co-58	<3.48E+00			0.00E+00	3.48E+00
Fe-59	<8.44E+00			0.00E+00	8.44E+00
Co-60	<2.17E+00			0.00E+00	2.17E+00
Zn-65	<6.06E+00			0.00E+00	6.06E+00
Zr-95	<6.04E+00			0.00E+00	6.04E+00
Nb-95	<3.83E+00			0.00E+00	3.83E+00
I-131	<1.20E+01			0.00E+00	1.20E+01
Cs-134	<3.64E+00			0.00E+00	3.64E+00
Cs-137	<2.97E+00			0.00E+00	2.97E+00
BaLa-140	<8.00E+00			0.00E+00	8.00E+00
Be-7	<2.86E+01			0.00E+00	2.86E+01
K-40	5.96E+01			3.50E+01	5.08E+01
568436	5/16/2022 - 6/13/2022			Mn-54	<2.59E+00
		Co-58	<2.56E+00	0.00E+00	2.56E+00
		Fe-59	<6.47E+00	0.00E+00	6.47E+00
		Co-60	<2.87E+00	0.00E+00	2.87E+00
		Zn-65	<6.20E+00	0.00E+00	6.20E+00
		Zr-95	<4.97E+00	0.00E+00	4.97E+00
		Nb-95	<3.69E+00	0.00E+00	3.69E+00
		I-131	<1.18E+01	0.00E+00	1.18E+01
		Cs-134	<2.64E+00	0.00E+00	2.64E+00
		Cs-137	<2.70E+00	0.00E+00	2.70E+00
		BaLa-140	<6.20E+00	0.00E+00	6.20E+00
		Be-7	<2.98E+01	0.00E+00	2.98E+01
		K-40	9.77E+01	2.91E+01	2.61E+01
		567672	4/18/2022 - 7/11/2022	H3SW	<5.83E+01
570352	6/13/2022 - 7/11/2022	Mn-54	<2.83E+00	0.00E+00	2.83E+00
		Co-58	<3.23E+00	0.00E+00	3.23E+00
		Fe-59	<7.08E+00	0.00E+00	7.08E+00
		Co-60	<2.68E+00	0.00E+00	2.68E+00
		Zn-65	<5.71E+00	0.00E+00	5.71E+00
		Zr-95	<5.10E+00	0.00E+00	5.10E+00
		Nb-95	<4.31E+00	0.00E+00	4.31E+00
		I-131	<1.17E+01	0.00E+00	1.17E+01
		Cs-134	<2.67E+00	0.00E+00	2.67E+00
		Cs-137	<2.43E+00	0.00E+00	2.43E+00
		BaLa-140	<7.49E+00	0.00E+00	7.49E+00
		Be-7	<2.77E+01	0.00E+00	2.77E+01

HARRIS Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: SURFACE WATER Concentration (Activity): pCi/l

Sample Point 43 [CONTROL - SW @ 8.47 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
570352	6/13/2022 - 7/11/2022	K-40	9.00E+01	3.28E+01	3.71E+01
571772	7/11/2022 - 8/8/2022	Mn-54	<2.35E+00	0.00E+00	2.35E+00
		Co-58	<2.75E+00	0.00E+00	2.75E+00
		Fe-59	<5.51E+00	0.00E+00	5.51E+00
		Co-60	<2.89E+00	0.00E+00	2.89E+00
		Zn-65	<5.12E+00	0.00E+00	5.12E+00
		Zr-95	<5.65E+00	0.00E+00	5.65E+00
		Nb-95	<3.71E+00	0.00E+00	3.71E+00
		I-131	<1.17E+01	0.00E+00	1.17E+01
		Cs-134	<2.53E+00	0.00E+00	2.53E+00
		Cs-137	<2.29E+00	0.00E+00	2.29E+00
		BaLa-140	<5.89E+00	0.00E+00	5.89E+00
		Be-7	<2.64E+01	0.00E+00	2.64E+01
		K-40	7.09E+01	2.62E+01	2.93E+01
575057	8/8/2022 - 9/6/2022	Mn-54	<3.49E+00	0.00E+00	3.49E+00
		Co-58	<3.69E+00	0.00E+00	3.69E+00
		Fe-59	<7.70E+00	0.00E+00	7.70E+00
		Co-60	<3.01E+00	0.00E+00	3.01E+00
		Zn-65	<5.16E+00	0.00E+00	5.16E+00
		Zr-95	<6.36E+00	0.00E+00	6.36E+00
		Nb-95	<4.17E+00	0.00E+00	4.17E+00
		I-131	<1.09E+01	0.00E+00	1.09E+01
		Cs-134	<3.67E+00	0.00E+00	3.67E+00
		Cs-137	<2.46E+00	0.00E+00	2.46E+00
		BaLa-140	<7.30E+00	0.00E+00	7.30E+00
		Be-7	<2.97E+01	0.00E+00	2.97E+01
		K-40	6.83E+01	3.31E+01	4.22E+01
574702	7/11/2022 - 10/3/2022	H3SW	<1.16E+01	0.00E+00	1.83E+02
576623	9/6/2022 - 10/3/2022	Mn-54	<3.06E+00	0.00E+00	3.06E+00
		Co-58	<3.03E+00	0.00E+00	3.03E+00
		Fe-59	<5.69E+00	0.00E+00	5.69E+00
		Co-60	<3.32E+00	0.00E+00	3.32E+00
		Zn-65	<6.32E+00	0.00E+00	6.32E+00
		Zr-95	<6.56E+00	0.00E+00	6.56E+00
		Nb-95	<4.38E+00	0.00E+00	4.38E+00
		I-131	<1.16E+01	0.00E+00	1.16E+01
		Cs-134	<3.22E+00	0.00E+00	3.22E+00
		Cs-137	<3.56E+00	0.00E+00	3.56E+00
		BaLa-140	<8.25E+00	0.00E+00	8.25E+00
		Be-7	<4.34E+01	0.00E+00	4.34E+01
		K-40	7.41E+01	3.55E+01	4.80E+01
578878	10/3/2022 - 10/31/2022	Mn-54	<3.89E+00	0.00E+00	3.89E+00
		Co-58	<3.83E+00	0.00E+00	3.83E+00
		Fe-59	<5.90E+00	0.00E+00	5.90E+00
		Co-60	<2.98E+00	0.00E+00	2.98E+00
		Zn-65	<6.12E+00	0.00E+00	6.12E+00
		Zr-95	<6.11E+00	0.00E+00	6.11E+00
		Nb-95	<5.50E+00	0.00E+00	5.50E+00
		I-131	<1.16E+01	0.00E+00	1.16E+01
		Cs-134	<4.31E+00	0.00E+00	4.31E+00
		Cs-137	<4.26E+00	0.00E+00	4.26E+00
		BaLa-140	<8.35E+00	0.00E+00	8.35E+00
		Be-7	<3.53E+01	0.00E+00	3.53E+01
		K-40	6.59E+01	3.13E+01	3.22E+01
580860	10/31/2022 - 11/28/2022	Mn-54	<3.41E+00	0.00E+00	3.41E+00

HARRIS Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: SURFACE WATER Concentration (Activity): pCi/l

Sample Point 43 [CONTROL - SW @ 8.47 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
580860	10/31/2022 - 11/28/2022	Co-58	<3.46E+00	0.00E+00	3.46E+00
		Fe-59	<6.24E+00	0.00E+00	6.24E+00
		Co-60	<2.26E+00	0.00E+00	2.26E+00
		Zn-65	<5.79E+00	0.00E+00	5.79E+00
		Zr-95	<5.99E+00	0.00E+00	5.99E+00
		Nb-95	<5.03E+00	0.00E+00	5.03E+00
		I-131	<1.29E+01	0.00E+00	1.29E+01
		Cs-134	<3.70E+00	0.00E+00	3.70E+00
		Cs-137	<3.32E+00	0.00E+00	3.32E+00
		BaLa-140	<9.64E+00	0.00E+00	9.64E+00
		Be-7	<2.69E+01	0.00E+00	2.69E+01
		K-40	1.12E+02	4.07E+01	4.99E+01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
581035	10/3/2022 - 12/27/2022	H3SW	<9.31E+00	0.00E+00	1.81E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
582468	11/28/2022 - 12/27/2022	Mn-54	<2.17E+00	0.00E+00	2.17E+00
		Co-58	<2.87E+00	0.00E+00	2.87E+00
		Fe-59	<5.14E+00	0.00E+00	5.14E+00
		Co-60	<2.11E+00	0.00E+00	2.11E+00
		Zn-65	<4.46E+00	0.00E+00	4.46E+00
		Zr-95	<4.66E+00	0.00E+00	4.66E+00
		Nb-95	<3.16E+00	0.00E+00	3.16E+00
		I-131	<1.38E+01	0.00E+00	1.38E+01
		Cs-134	<2.44E+00	0.00E+00	2.44E+00
		Cs-137	<2.63E+00	0.00E+00	2.63E+00
		BaLa-140	<6.66E+00	0.00E+00	6.66E+00
		Be-7	<2.48E+01	0.00E+00	2.48E+01
		K-40	9.75E+01	2.46E+01	2.06E+01

Media Type: TLD Concentration (Activity): mR/Standard Quarter

Sample Point 1 [INDICATOR - N @ 2.6 miles]

TLD RING TLD_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
562447	1/13/2022 - 4/12/2022	mR/Std Qtr	17.87
567939	4/12/2022 - 7/21/2022	mR/Std Qtr	14.10
575356	7/21/2022 - 10/19/2022	mR/Std Qtr	14.41
581427	10/19/2022 - 1/12/2023	mR/Std Qtr	17.12

Sample Point 2 [INDICATOR - NNE @ 1.4 miles]

TLD RING TLD_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
562455	1/13/2022 - 4/12/2022	mR/Std Qtr	16.35
567947	4/12/2022 - 7/21/2022	mR/Std Qtr	14.86
575364	7/21/2022 - 10/19/2022	mR/Std Qtr	14.83
581435	10/19/2022 - 1/12/2023	mR/Std Qtr	15.42

Sample Point 3 [INDICATOR - ENE @ 1.9 miles]

TLD RING TLD_SPEC

Sample ID:	Sample Dates:	Nuclide	Activity
562466	1/13/2022 - 4/12/2022	mR/Std Qtr	14.96
567958	4/12/2022 - 7/21/2022	mR/Std Qtr	13.12

HARRIS Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: TLD Concentration (Activity): mR/Standard Quarter

Sample Point 3 [INDICATOR - ENE @ 1.9 miles]

TLD RING TLD_SPEC

Sample ID:	575375	Sample Dates:	7/21/2022 - 10/19/2022	Nuclide	Activity
				mR/Std Qtr	11.82

Sample ID:	581446	Sample Dates:	10/19/2022 - 1/12/2023	Nuclide	Activity
				mR/Std Qtr	14.69

Sample Point 4 [INDICATOR - NNE @ 3.1 miles] TLD RING TLD_SPEC

Sample ID:	562470	Sample Dates:	1/13/2022 - 4/12/2022	Nuclide	Activity
				mR/Std Qtr	15.47

Sample ID:	567962	Sample Dates:	4/12/2022 - 7/21/2022	Nuclide	Activity
				mR/Std Qtr	13.45

Sample ID:	575379	Sample Dates:	7/21/2022 - 10/19/2022	Nuclide	Activity
				mR/Std Qtr	12.10

Sample ID:	581450	Sample Dates:	10/19/2022 - 1/12/2023	Nuclide	Activity
				mR/Std Qtr	15.26

Sample Point 5 [CONTROL - WNW @ 12 miles] TLD RING TLD_CTRL

Sample ID:	562473	Sample Dates:	1/13/2022 - 4/12/2022	Nuclide	Activity
				mR/Std Qtr	18.80

Sample ID:	567965	Sample Dates:	4/12/2022 - 7/21/2022	Nuclide	Activity
				mR/Std Qtr	15.37

Sample ID:	575382	Sample Dates:	7/21/2022 - 10/19/2022	Nuclide	Activity
				mR/Std Qtr	14.95

Sample ID:	581453	Sample Dates:	10/19/2022 - 1/12/2023	Nuclide	Activity
				mR/Std Qtr	16.42

Sample Point 6 [INDICATOR - ENE @ 0.8 miles] TLD RING TLD_INNER

Sample ID:	562476	Sample Dates:	1/13/2022 - 4/12/2022	Nuclide	Activity
				mR/Std Qtr	17.05

Sample ID:	567968	Sample Dates:	4/12/2022 - 7/21/2022	Nuclide	Activity
				mR/Std Qtr	13.28

Sample ID:	575385	Sample Dates:	7/21/2022 - 10/19/2022	Nuclide	Activity
				mR/Std Qtr	14.74

Sample Point 7 [INDICATOR - E @ 0.7 miles] TLD RING TLD_INNER

Sample ID:	562478	Sample Dates:	1/13/2022 - 4/12/2022	Nuclide	Activity
				mR/Std Qtr	18.14

Sample ID:	567970	Sample Dates:	4/12/2022 - 7/21/2022	Nuclide	Activity
				mR/Std Qtr	15.14

Sample ID:	575387	Sample Dates:	7/21/2022 - 10/19/2022	Nuclide	Activity
				mR/Std Qtr	14.92

Sample ID:	581458	Sample Dates:	10/19/2022 - 1/12/2023	Nuclide	Activity
				mR/Std Qtr	17.81

Sample Point 8 [INDICATOR - ESE @ 0.6 miles] TLD RING TLD_INNER

Sample ID:	562483	Sample Dates:	1/13/2022 - 4/12/2022	Nuclide	Activity
				mR/Std Qtr	14.98

Sample ID:	567975	Sample Dates:	4/12/2022 - 7/21/2022	Nuclide	Activity
				mR/Std Qtr	13.34

Sample ID:	575392	Sample Dates:	7/21/2022 - 10/19/2022	Nuclide	Activity
				mR/Std Qtr	12.42

Sample ID:	581463	Sample Dates:	10/19/2022 - 1/12/2023	Nuclide	Activity
				mR/Std Qtr	13.98

HARRIS Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: TLD Concentration (Activity): mR/Standard Quarter

Sample Point 9 [INDICATOR - SE @ 2.2 miles]

TLD RING TLD_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
562484	1/13/2022 - 4/12/2022	mR/Std Qtr	13.99
567976	4/12/2022 - 7/21/2022	mR/Std Qtr	10.92
575393	7/21/2022 - 10/19/2022	mR/Std Qtr	11.01
581464	10/19/2022 - 1/12/2023	mR/Std Qtr	13.64

Sample Point 10 [INDICATOR - SSE @ 2.2 miles]

TLD RING TLD_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
562448	1/13/2022 - 4/12/2022	mR/Std Qtr	13.16
567940	4/12/2022 - 7/21/2022	mR/Std Qtr	10.63
575357	7/21/2022 - 10/19/2022	mR/Std Qtr	10.57
581428	10/19/2022 - 1/12/2023	mR/Std Qtr	14.00

Sample Point 11 [INDICATOR - S @ 0.6 miles]

TLD RING TLD_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
562449	1/13/2022 - 4/12/2022	mR/Std Qtr	14.62
567941	4/12/2022 - 7/21/2022	mR/Std Qtr	12.73
575358	7/21/2022 - 10/19/2022	mR/Std Qtr	12.34
581429	10/19/2022 - 1/12/2023	mR/Std Qtr	14.32

Sample Point 12 [INDICATOR - SSW @ 0.9 miles]

TLD RING TLD_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
562450	1/13/2022 - 4/12/2022	mR/Std Qtr	14.82
567942	4/12/2022 - 7/21/2022	mR/Std Qtr	11.25
575359	7/21/2022 - 10/19/2022	mR/Std Qtr	11.95
581430	10/19/2022 - 1/12/2023	mR/Std Qtr	14.01

Sample Point 13 [INDICATOR - WSW @ 0.7 miles]

TLD RING TLD_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
562451	1/13/2022 - 4/12/2022	mR/Std Qtr	15.00
567943	4/12/2022 - 7/21/2022	mR/Std Qtr	12.18
575360	7/21/2022 - 10/19/2022	mR/Std Qtr	11.39
581431	10/19/2022 - 1/12/2023	mR/Std Qtr	13.98

Sample Point 14 [INDICATOR - W @ 1.5 miles]

TLD RING TLD_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
562452	1/13/2022 - 4/12/2022	mR/Std Qtr	17.55

HARRIS Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: TLD Concentration (Activity): mR/Standard Quarter

Sample Point 14 [INDICATOR - W @ 1.5 miles]

TLD RING TLD_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
567944	4/12/2022 - 7/21/2022	mR/Std Qtr	15.19
575361	7/21/2022 - 10/19/2022	mR/Std Qtr	14.23
581432	10/19/2022 - 1/12/2023	mR/Std Qtr	16.21

Sample Point 15 [INDICATOR - W @ 2 miles]

TLD RING TLD_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
562453	1/13/2022 - 4/12/2022	mR/Std Qtr	13.26
567945	4/12/2022 - 7/21/2022	mR/Std Qtr	10.69
575362	7/21/2022 - 10/19/2022	mR/Std Qtr	10.62
581433	10/19/2022 - 1/12/2023	mR/Std Qtr	13.04

Sample Point 19 [INDICATOR - NNE @ 4.95 miles]

TLD RING TLD_OUTER

Sample ID:	Sample Dates:	Nuclide	Activity
562454	1/13/2022 - 4/12/2022	mR/Std Qtr	17.95
567946	4/12/2022 - 7/21/2022	mR/Std Qtr	14.35
575363	7/21/2022 - 10/19/2022	mR/Std Qtr	14.99
581434	10/19/2022 - 1/12/2023	mR/Std Qtr	16.38

Sample Point 20 [INDICATOR - NE @ 4.5 miles]

TLD RING TLD_OUTER

Sample ID:	Sample Dates:	Nuclide	Activity
562456	1/13/2022 - 4/12/2022	mR/Std Qtr	18.98
567948	4/12/2022 - 7/21/2022	mR/Std Qtr	14.76
575365	7/21/2022 - 10/19/2022	mR/Std Qtr	15.26
581436	10/19/2022 - 1/12/2023	mR/Std Qtr	17.19

Sample Point 21 [INDICATOR - ENE @ 4.8 miles]

TLD RING TLD_OUTER

Sample ID:	Sample Dates:	Nuclide	Activity
562457	1/13/2022 - 4/12/2022	mR/Std Qtr	16.51
567949	4/12/2022 - 7/21/2022	mR/Std Qtr	13.00
581437	10/19/2022 - 1/12/2023	mR/Std Qtr	16.39

Sample Point 22 [INDICATOR - E @ 4.3 miles]

TLD RING TLD_OUTER

Sample ID:	Sample Dates:	Nuclide	Activity
562458	1/13/2022 - 4/12/2022	mR/Std Qtr	14.59
567950	4/12/2022 - 7/21/2022	mR/Std Qtr	11.88
575367	7/21/2022 - 10/19/2022	mR/Std Qtr	12.22

HARRIS Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: TLD Concentration (Activity): mR/Standard Quarter

Sample Point 22 [INDICATOR - E @ 4.3 miles]

TLD RING TLD_OUTER

Sample ID:	581438	Sample Dates:	10/19/2022 - 1/12/2023	Nuclide	Activity
				mR/Std Qtr	12.60

Sample Point 23 [INDICATOR - ESE @ 4.8 miles]

TLD RING TLD_OUTER

Sample ID:	562459	Sample Dates:	1/13/2022 - 4/12/2022	Nuclide	Activity
				mR/Std Qtr	17.64

Sample ID:	567951	Sample Dates:	4/12/2022 - 7/21/2022	Nuclide	Activity
				mR/Std Qtr	13.48

Sample ID:	575368	Sample Dates:	7/21/2022 - 10/19/2022	Nuclide	Activity
				mR/Std Qtr	12.79

Sample ID:	581439	Sample Dates:	10/19/2022 - 1/12/2023	Nuclide	Activity
				mR/Std Qtr	15.62

Sample Point 24 [INDICATOR - SE @ 4 miles]

TLD RING TLD_OUTER

Sample ID:	562460	Sample Dates:	1/13/2022 - 4/12/2022	Nuclide	Activity
				mR/Std Qtr	16.24

Sample ID:	567952	Sample Dates:	4/12/2022 - 7/21/2022	Nuclide	Activity
				mR/Std Qtr	11.75

Sample ID:	575369	Sample Dates:	7/21/2022 - 10/19/2022	Nuclide	Activity
				mR/Std Qtr	11.62

Sample ID:	581440	Sample Dates:	10/19/2022 - 1/12/2023	Nuclide	Activity
				mR/Std Qtr	15.52

Sample Point 25 [INDICATOR - SSE @ 4.7 miles]

TLD RING TLD_OUTER

Sample ID:	562461	Sample Dates:	1/13/2022 - 4/12/2022	Nuclide	Activity
				mR/Std Qtr	16.35

Sample ID:	567953	Sample Dates:	4/12/2022 - 7/21/2022	Nuclide	Activity
				mR/Std Qtr	13.38

Sample ID:	575370	Sample Dates:	7/21/2022 - 10/19/2022	Nuclide	Activity
				mR/Std Qtr	12.49

Sample ID:	581441	Sample Dates:	10/19/2022 - 1/12/2023	Nuclide	Activity
				mR/Std Qtr	15.20

Sample Point 26 [INDICATOR - S @ 4.7 miles]

TLD RING TLD_OUTER

Sample ID:	562462	Sample Dates:	1/13/2022 - 4/12/2022	Nuclide	Activity
				mR/Std Qtr	13.47

Sample ID:	567954	Sample Dates:	4/12/2022 - 7/21/2022	Nuclide	Activity
				mR/Std Qtr	11.89

Sample ID:	575371	Sample Dates:	7/21/2022 - 10/19/2022	Nuclide	Activity
				mR/Std Qtr	12.14

Sample ID:	581442	Sample Dates:	10/19/2022 - 1/12/2023	Nuclide	Activity
				mR/Std Qtr	13.77

Sample Point 27 [INDICATOR - SSW @ 4.8 miles]

TLD RING TLD_OUTER

Sample ID:	562463	Sample Dates:	1/13/2022 - 4/12/2022	Nuclide	Activity
				mR/Std Qtr	13.89

Sample ID:	567955	Sample Dates:	4/12/2022 - 7/21/2022	Nuclide	Activity
				mR/Std Qtr	11.07

Sample ID:	575372	Sample Dates:	7/21/2022 - 10/19/2022	Nuclide	Activity
				mR/Std Qtr	10.42

Sample ID:	581443	Sample Dates:	10/19/2022 - 1/12/2023	Nuclide	Activity
				mR/Std Qtr	11.56

HARRIS Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: TLD Concentration (Activity): mR/Standard Quarter

Sample Point 28 [INDICATOR - SW @ 4.8 miles]

TLD RING TLD_OUTER

Sample ID:	Sample Dates:	Nuclide	Activity
562464	1/13/2022 - 4/12/2022	mR/Std Qtr	14.21
567956	4/12/2022 - 7/21/2022	mR/Std Qtr	11.51
575373	7/21/2022 - 10/19/2022	mR/Std Qtr	9.79
581444	10/19/2022 - 1/12/2023	mR/Std Qtr	13.14

Sample Point 29 [INDICATOR - WSW @ 5.7 miles]

TLD RING TLD_OUTER

Sample ID:	Sample Dates:	Nuclide	Activity
562465	1/13/2022 - 4/12/2022	mR/Std Qtr	16.93
567957	4/12/2022 - 7/21/2022	mR/Std Qtr	15.31
575374	7/21/2022 - 10/19/2022	mR/Std Qtr	14.95
581445	10/19/2022 - 1/12/2023	mR/Std Qtr	16.91

Sample Point 31 [INDICATOR - WNW @ 4.7 miles]

TLD RING TLD_OUTER

Sample ID:	Sample Dates:	Nuclide	Activity
562467	1/13/2022 - 4/12/2022	mR/Std Qtr	13.32
567959	4/12/2022 - 7/21/2022	mR/Std Qtr	11.07
575376	7/21/2022 - 10/19/2022	mR/Std Qtr	11.79
581447	10/19/2022 - 1/12/2023	mR/Std Qtr	11.77

Sample Point 32 [INDICATOR - NNW @ 6.4 miles]

TLD RING TLD_SPEC

Sample ID:	Sample Dates:	Nuclide	Activity
562468	1/13/2022 - 4/12/2022	mR/Std Qtr	14.76
567960	4/12/2022 - 7/21/2022	mR/Std Qtr	13.37
575377	7/21/2022 - 10/19/2022	mR/Std Qtr	12.59
581448	10/19/2022 - 1/12/2023	mR/Std Qtr	15.22

Sample Point 33 [INDICATOR - NNW @ 4.5 miles]

TLD RING TLD_OUTER

Sample ID:	Sample Dates:	Nuclide	Activity
562469	1/13/2022 - 4/12/2022	mR/Std Qtr	14.24
567961	4/12/2022 - 7/21/2022	mR/Std Qtr	12.01
575378	7/21/2022 - 10/19/2022	mR/Std Qtr	11.37
581449	10/19/2022 - 1/12/2023	mR/Std Qtr	12.58

Sample Point 48 [INDICATOR - N @ 4.5 miles]

TLD RING TLD_OUTER

Sample ID:	Sample Dates:	Nuclide	Activity
562471	1/13/2022 - 4/12/2022	mR/Std Qtr	16.57

HARRIS Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: TLD Concentration (Activity): mR/Standard Quarter

Sample Point 48 [INDICATOR - N @ 4.5 miles]

TLD RING TLD_OUTER

Sample ID:	567963	Sample Dates:	4/12/2022 - 7/21/2022	Nuclide	Activity
				mR/Std Qtr	14.81
Sample ID:	575380	Sample Dates:	7/21/2022 - 10/19/2022	Nuclide	Activity
				mR/Std Qtr	15.00
Sample ID:	581451	Sample Dates:	10/19/2022 - 1/12/2023	Nuclide	Activity
				mR/Std Qtr	16.66

Sample Point 49 [INDICATOR - NE @ 2.5 miles]

TLD RING TLD_INNER

Sample ID:	562472	Sample Dates:	1/13/2022 - 4/12/2022	Nuclide	Activity
				mR/Std Qtr	17.30
Sample ID:	567964	Sample Dates:	4/12/2022 - 7/21/2022	Nuclide	Activity
				mR/Std Qtr	16.52
Sample ID:	575381	Sample Dates:	7/21/2022 - 10/19/2022	Nuclide	Activity
				mR/Std Qtr	17.46
Sample ID:	581452	Sample Dates:	10/19/2022 - 1/12/2023	Nuclide	Activity
				mR/Std Qtr	18.40

Sample Point 50 [INDICATOR - ESE @ 2.6 miles]

TLD RING TLD_SPEC

Sample ID:	562474	Sample Dates:	1/13/2022 - 4/12/2022	Nuclide	Activity
				mR/Std Qtr	13.56
Sample ID:	567966	Sample Dates:	4/12/2022 - 7/21/2022	Nuclide	Activity
				mR/Std Qtr	11.34
Sample ID:	575383	Sample Dates:	7/21/2022 - 10/19/2022	Nuclide	Activity
				mR/Std Qtr	11.62
Sample ID:	581454	Sample Dates:	10/19/2022 - 1/12/2023	Nuclide	Activity
				mR/Std Qtr	12.88

Sample Point 56 [INDICATOR - WSW @ 3 miles]

TLD RING TLD_INNER

Sample ID:	562475	Sample Dates:	1/13/2022 - 4/12/2022	Nuclide	Activity
				mR/Std Qtr	13.29
Sample ID:	567967	Sample Dates:	4/12/2022 - 7/21/2022	Nuclide	Activity
				mR/Std Qtr	12.82
Sample ID:	575384	Sample Dates:	7/21/2022 - 10/19/2022	Nuclide	Activity
				mR/Std Qtr	10.66
Sample ID:	581455	Sample Dates:	10/19/2022 - 1/12/2023	Nuclide	Activity
				mR/Std Qtr	14.17

Sample Point 63 [INDICATOR - SW @ 0.6 miles]

TLD RING TLD_INNER

Sample ID:	562477	Sample Dates:	1/13/2022 - 4/12/2022	Nuclide	Activity
				mR/Std Qtr	19.01
Sample ID:	567969	Sample Dates:	4/12/2022 - 7/21/2022	Nuclide	Activity
				mR/Std Qtr	16.74
Sample ID:	575386	Sample Dates:	7/21/2022 - 10/19/2022	Nuclide	Activity
				mR/Std Qtr	14.62
Sample ID:	581457	Sample Dates:	10/19/2022 - 1/12/2023	Nuclide	Activity
				mR/Std Qtr	19.55

Sample Point 93 [INDICATOR - WNW @ 2.2 miles]

TLD RING TLD_INNER

Sample ID:	562485	Sample Dates:	1/13/2022 - 4/12/2022	Nuclide	Activity
				mR/Std Qtr	15.80
Sample ID:	567977	Sample Dates:	4/12/2022 - 7/21/2022	Nuclide	Activity
				mR/Std Qtr	15.02

HARRIS Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: TLD Concentration (Activity): mR/Standard Quarter

Sample Point 93 [INDICATOR - WNW @ 2.2 miles]

TLD RING TLD_INNER

Sample ID:	575394	Sample Dates:	7/21/2022 - 10/19/2022	Nuclide	Activity
				mR/Std Qtr	13.58
Sample ID:	581465	Sample Dates:	10/19/2022 - 1/12/2023	Nuclide	Activity
				mR/Std Qtr	17.18

Sample Point 94 [INDICATOR - NW @ 2 miles]

TLD RING TLD_INNER

Sample ID:	562486	Sample Dates:	1/13/2022 - 4/12/2022	Nuclide	Activity
				mR/Std Qtr	16.26
Sample ID:	567978	Sample Dates:	4/12/2022 - 7/21/2022	Nuclide	Activity
				mR/Std Qtr	15.79
Sample ID:	575395	Sample Dates:	7/21/2022 - 10/19/2022	Nuclide	Activity
				mR/Std Qtr	15.33
Sample ID:	581466	Sample Dates:	10/19/2022 - 1/12/2023	Nuclide	Activity
				mR/Std Qtr	17.56

Sample Point 95 [INDICATOR - NNW @ 2 miles]

TLD RING TLD_INNER

Sample ID:	562487	Sample Dates:	1/13/2022 - 4/12/2022	Nuclide	Activity
				mR/Std Qtr	18.90
Sample ID:	567979	Sample Dates:	4/12/2022 - 7/21/2022	Nuclide	Activity
				mR/Std Qtr	15.36
Sample ID:	575396	Sample Dates:	7/21/2022 - 10/19/2022	Nuclide	Activity
				mR/Std Qtr	14.09
Sample ID:	581467	Sample Dates:	10/19/2022 - 1/12/2023	Nuclide	Activity
				mR/Std Qtr	17.00

Sample Point 98 [INDICATOR - E @ 5.9 miles]

TLD RING TLD_SPEC

Sample ID:	562488	Sample Dates:	1/13/2022 - 4/12/2022	Nuclide	Activity
				mR/Std Qtr	16.65
Sample ID:	567980	Sample Dates:	4/12/2022 - 7/21/2022	Nuclide	Activity
				mR/Std Qtr	14.27
Sample ID:	575397	Sample Dates:	7/21/2022 - 10/19/2022	Nuclide	Activity
				mR/Std Qtr	13.59
Sample ID:	581468	Sample Dates:	10/19/2022 - 1/12/2023	Nuclide	Activity
				mR/Std Qtr	15.14

Sample Point 99 [INDICATOR - NNE @ 5.47 miles]

TLD RING TLD_SPEC

Sample ID:	562489	Sample Dates:	1/13/2022 - 4/12/2022	Nuclide	Activity
				mR/Std Qtr	16.75
Sample ID:	567981	Sample Dates:	4/12/2022 - 7/21/2022	Nuclide	Activity
				mR/Std Qtr	12.78
Sample ID:	575398	Sample Dates:	7/21/2022 - 10/19/2022	Nuclide	Activity
				mR/Std Qtr	12.20
Sample ID:	581469	Sample Dates:	10/19/2022 - 1/12/2023	Nuclide	Activity
				mR/Std Qtr	14.95

Sample Point 130 [INDICATOR - W @ 3.85 miles]

TLD RING TLD_OUTER

Sample ID:	562490	Sample Dates:	1/13/2022 - 4/12/2022	Nuclide	Activity
				mR/Std Qtr	14.65
Sample ID:	567982	Sample Dates:	4/12/2022 - 7/21/2022	Nuclide	Activity
				mR/Std Qtr	11.52
Sample ID:	575399	Sample Dates:	7/21/2022 - 10/19/2022	Nuclide	Activity
				mR/Std Qtr	10.87

HARRIS Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: TLD Concentration (Activity): mR/Standard Quarter

Sample Point 130 [INDICATOR - W @ 3.85 miles]

TLD RING TLD_OUTER

Sample ID:	Sample Dates:	Nuclide	Activity
581470	10/19/2022 - 1/12/2023	mR/Std Qtr	13.38

Sample Point 153 [INDICATOR - NW @ 4.51 miles]

TLD RING TLD_OUTER

Sample ID:	Sample Dates:	Nuclide	Activity
562491	1/13/2022 - 4/12/2022	mR/Std Qtr	14.24

Sample ID:	Sample Dates:	Nuclide	Activity
567983	4/12/2022 - 7/21/2022	mR/Std Qtr	12.53

Sample ID:	Sample Dates:	Nuclide	Activity
575400	7/21/2022 - 10/19/2022	mR/Std Qtr	12.38

Sample ID:	Sample Dates:	Nuclide	Activity
581471	10/19/2022 - 1/12/2023	mR/Std Qtr	14.79

Media Type: VEGETATION Concentration (Activity): pCi/kg wet

Sample Point 5 [CONTROL - NNW @ 12 miles]

Sample ID:	Sample Dates:	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
566575	5/2/2022 - 5/2/2022	MIXEDBLV	Mn-54	<1.58E+01	0.00E+00	1.58E+01
			Co-58	<1.30E+01	0.00E+00	1.30E+01
			Fe-59	<2.96E+01	0.00E+00	2.96E+01
			Co-60	<1.42E+01	0.00E+00	1.42E+01
			Zn-65	<3.64E+01	0.00E+00	3.64E+01
			Zr-95	<1.82E+01	0.00E+00	1.82E+01
			Nb-95	<1.31E+01	0.00E+00	1.31E+01
			I-131	<1.26E+01	0.00E+00	1.26E+01
			Cs-134	<1.74E+01	0.00E+00	1.74E+01
			Cs-137	<1.25E+01	0.00E+00	1.25E+01
			BaLa-140	<1.88E+01	0.00E+00	1.88E+01
			Be-7	3.06E+02	1.14E+02	1.56E+02
K-40	3.53E+03	4.79E+02	2.77E+02			

Sample ID:	Sample Dates:	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
568398	6/6/2022 - 6/6/2022	MIXEDBLV	Mn-54	<1.40E+01	0.00E+00	1.40E+01
			Co-58	<1.41E+01	0.00E+00	1.41E+01
			Fe-59	<2.92E+01	0.00E+00	2.92E+01
			Co-60	<1.68E+01	0.00E+00	1.68E+01
			Zn-65	<3.35E+01	0.00E+00	3.35E+01
			Zr-95	<2.79E+01	0.00E+00	2.79E+01
			Nb-95	<1.21E+01	0.00E+00	1.21E+01
			I-131	<1.19E+01	0.00E+00	1.19E+01
			Cs-134	<1.95E+01	0.00E+00	1.95E+01
			Cs-137	<1.54E+01	0.00E+00	1.54E+01
			BaLa-140	<1.31E+01	0.00E+00	1.31E+01
			Be-7	6.90E+02	1.53E+02	1.78E+02
K-40	3.83E+03	4.81E+02	2.15E+02			

Sample ID:	Sample Dates:	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
570314	7/5/2022 - 7/5/2022	MIXEDBLV	Mn-54	<1.23E+01	0.00E+00	1.23E+01
			Co-58	<1.53E+01	0.00E+00	1.53E+01
			Fe-59	<3.41E+01	0.00E+00	3.41E+01
			Co-60	<1.45E+01	0.00E+00	1.45E+01
			Zn-65	<4.01E+01	0.00E+00	4.01E+01
			Zr-95	<3.09E+01	0.00E+00	3.09E+01
			Nb-95	<1.76E+01	0.00E+00	1.76E+01
			I-131	<1.64E+01	0.00E+00	1.64E+01
			Cs-134	<2.20E+01	0.00E+00	2.20E+01
			Cs-137	<1.87E+01	0.00E+00	1.87E+01
			BaLa-140	<1.62E+01	0.00E+00	1.62E+01
			Be-7	5.67E+02	1.55E+02	1.88E+02
K-40	3.84E+03	5.29E+02	2.99E+02			

Sample ID:	Sample Dates:	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
571725	8/1/2022 - 8/1/2022	MIXEDBLV	Mn-54	<2.88E+01	0.00E+00	2.88E+01
			Co-58	<2.30E+01	0.00E+00	2.30E+01
			Fe-59	<4.56E+01	0.00E+00	4.56E+01

HARRIS Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: VEGETATION Concentration (Activity): pCi/kg wet

Sample Point 5 [CONTROL - NNW @ 12 miles]

Sample ID:	571725	Sample Dates:	8/1/2022 - 8/1/2022	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
					Co-60	<3.04E+01	0.00E+00	3.04E+01
					Zn-65	<6.72E+01	0.00E+00	6.72E+01
					Zr-95	<4.45E+01	0.00E+00	4.45E+01
					Nb-95	<2.55E+01	0.00E+00	2.55E+01
					I-131	<2.87E+01	0.00E+00	2.87E+01
					Cs-134	<3.10E+01	0.00E+00	3.10E+01
					Cs-137	<3.00E+01	0.00E+00	3.00E+01
					BaLa-140	<3.32E+01	0.00E+00	3.32E+01
					Be-7	1.31E+03	3.10E+02	3.64E+02
					K-40	4.36E+03	6.69E+02	3.37E+02

Sample ID:	575712	Sample Dates:	9/6/2022 - 9/6/2022	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
					Mn-54	<1.67E+01	0.00E+00	1.67E+01
					Co-58	<1.41E+01	0.00E+00	1.41E+01
					Fe-59	<2.94E+01	0.00E+00	2.94E+01
					Co-60	<1.81E+01	0.00E+00	1.81E+01
					Zn-65	<3.23E+01	0.00E+00	3.23E+01
					Zr-95	<2.35E+01	0.00E+00	2.35E+01
					Nb-95	<1.33E+01	0.00E+00	1.33E+01
					I-131	<1.46E+01	0.00E+00	1.46E+01
					Cs-134	<2.05E+01	0.00E+00	2.05E+01
					Cs-137	<1.41E+01	0.00E+00	1.41E+01
					BaLa-140	<1.41E+01	0.00E+00	1.41E+01
					Be-7	9.76E+02	2.82E+02	1.26E+02
					K-40	3.63E+03	4.85E+02	2.92E+02

Sample ID:	577185	Sample Dates:	10/3/2022 - 10/3/2022	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
					Mn-54	<1.65E+01	0.00E+00	1.65E+01
					Co-58	<1.25E+01	0.00E+00	1.25E+01
					Fe-59	<2.13E+01	0.00E+00	2.13E+01
					Co-60	<1.27E+01	0.00E+00	1.27E+01
					Zn-65	<3.54E+01	0.00E+00	3.54E+01
					Zr-95	<2.48E+01	0.00E+00	2.48E+01
					Nb-95	<1.57E+01	0.00E+00	1.57E+01
					I-131	<1.57E+01	0.00E+00	1.57E+01
					Cs-134	<1.57E+01	0.00E+00	1.57E+01
					Cs-137	<1.65E+01	0.00E+00	1.65E+01
					BaLa-140	<1.72E+01	0.00E+00	1.72E+01
					Be-7	1.28E+03	2.16E+02	2.01E+02
					K-40	1.70E+03	3.23E+02	2.73E+02

Sample Point 12 [INDICATOR - SSW @ 0.9 miles]

Sample ID:	566574	Sample Dates:	5/2/2022 - 5/2/2022	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
					Mn-54	<9.95E+00	0.00E+00	9.95E+00
					Co-58	<1.19E+01	0.00E+00	1.19E+01
					Fe-59	<2.59E+01	0.00E+00	2.59E+01
					Co-60	<1.12E+01	0.00E+00	1.12E+01
					Zn-65	<2.52E+01	0.00E+00	2.52E+01
					Zr-95	<2.11E+01	0.00E+00	2.11E+01
					Nb-95	<1.33E+01	0.00E+00	1.33E+01
					I-131	<1.18E+01	0.00E+00	1.18E+01
					Cs-134	<1.41E+01	0.00E+00	1.41E+01
					Cs-137	<1.44E+01	0.00E+00	1.44E+01
					BaLa-140	<1.43E+01	0.00E+00	1.43E+01
					Be-7	4.55E+02	1.23E+02	1.54E+02
					K-40	1.73E+03	2.80E+02	1.53E+02

Sample ID:	568397	Sample Dates:	6/6/2022 - 6/6/2022	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
					Mn-54	<1.77E+01	0.00E+00	1.77E+01
					Co-58	<1.51E+01	0.00E+00	1.51E+01
					Fe-59	<3.37E+01	0.00E+00	3.37E+01
					Co-60	<1.55E+01	0.00E+00	1.55E+01
					Zn-65	<3.71E+01	0.00E+00	3.71E+01
					Zr-95	<3.08E+01	0.00E+00	3.08E+01
					Nb-95	<1.55E+01	0.00E+00	1.55E+01
					I-131	<1.68E+01	0.00E+00	1.68E+01

HARRIS Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: VEGETATION Concentration (Activity): pCi/kg wet

Sample Point 12 [INDICATOR - SSW @ 0.9 miles]

Sample ID:	Sample Dates:	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
568397	6/6/2022 - 6/6/2022		Cs-134	<1.86E+01	0.00E+00	1.86E+01
			Cs-137	<1.80E+01	0.00E+00	1.80E+01
			BaLa-140	<1.78E+01	0.00E+00	1.78E+01
			Be-7	8.72E+02	1.84E+02	2.07E+02
			K-40	2.96E+03	7.36E+02	2.03E+02
570313	7/5/2022 - 7/5/2022		Mn-54	<1.55E+01	0.00E+00	1.55E+01
			Co-58	<1.20E+01	0.00E+00	1.20E+01
			Fe-59	<3.88E+01	0.00E+00	3.88E+01
			Co-60	<1.27E+01	0.00E+00	1.27E+01
			Zn-65	<4.72E+01	0.00E+00	4.72E+01
			Zr-95	<2.74E+01	0.00E+00	2.74E+01
			Nb-95	<1.49E+01	0.00E+00	1.49E+01
			I-131	<1.77E+01	0.00E+00	1.77E+01
			Cs-134	<1.59E+01	0.00E+00	1.59E+01
			Cs-137	<1.72E+01	0.00E+00	1.72E+01
			BaLa-140	<2.34E+01	0.00E+00	2.34E+01
			Be-7	1.03E+03	2.00E+02	2.02E+02
K-40	2.69E+03	4.21E+02	2.25E+02			
571724	8/1/2022 - 8/1/2022		Mn-54	<2.73E+01	0.00E+00	2.73E+01
			Co-58	<2.39E+01	0.00E+00	2.39E+01
			Fe-59	<4.70E+01	0.00E+00	4.70E+01
			Co-60	<2.82E+01	0.00E+00	2.82E+01
			Zn-65	<4.21E+01	0.00E+00	4.21E+01
			Zr-95	<3.67E+01	0.00E+00	3.67E+01
			Nb-95	<2.17E+01	0.00E+00	2.17E+01
			I-131	<2.42E+01	0.00E+00	2.42E+01
			Cs-134	<2.63E+01	0.00E+00	2.63E+01
			Cs-137	<1.94E+01	0.00E+00	1.94E+01
			BaLa-140	<2.89E+01	0.00E+00	2.89E+01
			Be-7	1.04E+03	2.51E+02	2.95E+02
			K-40	2.27E+03	4.45E+02	3.27E+02
			575711	9/6/2022 - 9/6/2022		Mn-54
Co-58	<1.76E+01	0.00E+00				1.76E+01
Fe-59	<3.88E+01	0.00E+00				3.88E+01
Co-60	<1.75E+01	0.00E+00				1.75E+01
Zn-65	<3.93E+01	0.00E+00				3.93E+01
Zr-95	<2.77E+01	0.00E+00				2.77E+01
Nb-95	<1.54E+01	0.00E+00				1.54E+01
I-131	<1.47E+01	0.00E+00				1.47E+01
Cs-134	<1.88E+01	0.00E+00				1.88E+01
Cs-137	<1.62E+01	0.00E+00				1.62E+01
BaLa-140	<2.10E+01	0.00E+00				2.10E+01
Be-7	2.12E+03	3.15E+02				2.38E+02
K-40	2.34E+03	4.05E+02				2.05E+02
577184	10/3/2022 - 10/3/2022					Mn-54
			Co-58	<1.49E+01	0.00E+00	1.49E+01
			Fe-59	<3.40E+01	0.00E+00	3.40E+01
			Co-60	<1.76E+01	0.00E+00	1.76E+01
			Zn-65	<3.45E+01	0.00E+00	3.45E+01
			Zr-95	<2.79E+01	0.00E+00	2.79E+01
			Nb-95	<2.40E+01	0.00E+00	2.40E+01
			I-131	<1.83E+01	0.00E+00	1.83E+01
			Cs-134	<1.94E+01	0.00E+00	1.94E+01
			Cs-137	<1.91E+01	0.00E+00	1.91E+01
			BaLa-140	<2.35E+01	0.00E+00	2.35E+01
			Be-7	2.43E+03	3.49E+02	2.40E+02
			K-40	2.16E+03	4.05E+02	2.91E+02

HARRIS Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: VEGETATION Concentration (Activity): pCi/kg wet

Sample Point 63 [INDICATOR - SW @ 0.6 miles]

Sample ID:	Sample Dates:	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
566576	5/2/2022 - 5/2/2022	MIXEDBLV	Mn-54	<1.18E+01	0.00E+00	1.18E+01
			Co-58	<1.34E+01	0.00E+00	1.34E+01
			Fe-59	<2.50E+01	0.00E+00	2.50E+01
			Co-60	<1.21E+01	0.00E+00	1.21E+01
			Zn-65	<2.90E+01	0.00E+00	2.90E+01
			Zr-95	<1.84E+01	0.00E+00	1.84E+01
			Nb-95	<1.03E+01	0.00E+00	1.03E+01
			I-131	<1.26E+01	0.00E+00	1.26E+01
			Cs-134	<1.42E+01	0.00E+00	1.42E+01
			Cs-137	<1.20E+01	0.00E+00	1.20E+01
			BaLa-140	<1.11E+01	0.00E+00	1.11E+01
			Be-7	4.33E+02	1.10E+02	1.21E+02
			K-40	2.15E+03	3.24E+02	1.52E+02
			568399	6/6/2022 - 6/6/2022	MIXEDBLV	Mn-54
Co-58	<1.25E+01	0.00E+00				1.25E+01
Fe-59	<3.32E+01	0.00E+00				3.32E+01
Co-60	<1.97E+01	0.00E+00				1.97E+01
Zn-65	<3.43E+01	0.00E+00				3.43E+01
Zr-95	<2.17E+01	0.00E+00				2.17E+01
Nb-95	<1.25E+01	0.00E+00				1.25E+01
I-131	<1.84E+01	0.00E+00				1.84E+01
Cs-134	<1.42E+01	0.00E+00				1.42E+01
Cs-137	<1.35E+01	0.00E+00				1.35E+01
BaLa-140	<1.35E+01	0.00E+00				1.35E+01
Be-7	5.00E+02	1.48E+02				1.88E+02
K-40	3.45E+03	4.84E+02				2.39E+02
570315	7/5/2022 - 7/5/2022	MIXEDBLV				Mn-54
			Co-58	<1.49E+01	0.00E+00	1.49E+01
			Fe-59	<1.81E+01	0.00E+00	1.81E+01
			Co-60	<1.79E+01	0.00E+00	1.79E+01
			Zn-65	<4.00E+01	0.00E+00	4.00E+01
			Zr-95	<3.02E+01	0.00E+00	3.02E+01
			Nb-95	<1.61E+01	0.00E+00	1.61E+01
			I-131	<1.88E+01	0.00E+00	1.88E+01
			Cs-134	<2.05E+01	0.00E+00	2.05E+01
			Cs-137	<1.58E+01	0.00E+00	1.58E+01
			BaLa-140	<2.02E+01	0.00E+00	2.02E+01
			Be-7	1.12E+03	2.15E+02	2.13E+02
			K-40	2.63E+03	4.28E+02	2.87E+02
			571726	8/1/2022 - 8/1/2022	MIXEDBLV	Mn-54
Co-58	<2.33E+01	0.00E+00				2.33E+01
Fe-59	<3.74E+01	0.00E+00				3.74E+01
Co-60	<3.09E+01	0.00E+00				3.09E+01
Zn-65	<6.52E+01	0.00E+00				6.52E+01
Zr-95	<3.80E+01	0.00E+00				3.80E+01
Nb-95	<2.06E+01	0.00E+00				2.06E+01
I-131	<2.75E+01	0.00E+00				2.75E+01
Cs-134	<2.23E+01	0.00E+00				2.23E+01
Cs-137	<2.00E+01	0.00E+00				2.00E+01
BaLa-140	<3.17E+01	0.00E+00				3.17E+01
Be-7	8.99E+02	2.48E+02				3.04E+02
K-40	2.53E+03	5.32E+02				5.07E+02
575713	9/6/2022 - 9/6/2022	MIXEDBLV				Mn-54
			Co-58	<1.20E+01	0.00E+00	1.20E+01
			Fe-59	<2.63E+01	0.00E+00	2.63E+01
			Co-60	<1.70E+01	0.00E+00	1.70E+01
			Zn-65	<3.28E+01	0.00E+00	3.28E+01
			Zr-95	<2.66E+01	0.00E+00	2.66E+01
			Nb-95	<1.45E+01	0.00E+00	1.45E+01

HARRIS Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: VEGETATION Concentration (Activity): pCi/kg wet

Sample Point 63 [INDICATOR - SW @ 0.6 miles]

Sample ID:	575713	Sample Dates:	9/6/2022 - 9/6/2022	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
					I-131	<1.37E+01	0.00E+00	1.37E+01
					Cs-134	<1.88E+01	0.00E+00	1.88E+01
					Cs-137	<1.18E+01	0.00E+00	1.18E+01
					BaLa-140	<1.58E+01	0.00E+00	1.58E+01
					Be-7	1.43E+03	2.24E+02	1.87E+02
					K-40	2.21E+03	3.64E+02	2.33E+02

Sample ID:	577186	Sample Dates:	10/3/2022 - 10/3/2022	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
					Mn-54	<1.88E+01	0.00E+00	1.88E+01
					Co-58	<1.95E+01	0.00E+00	1.95E+01
					Fe-59	<3.50E+01	0.00E+00	3.50E+01
					Co-60	<1.55E+01	0.00E+00	1.55E+01
					Zn-65	<4.41E+01	0.00E+00	4.41E+01
					Zr-95	<2.92E+01	0.00E+00	2.92E+01
					Nb-95	<1.94E+01	0.00E+00	1.94E+01
					I-131	<1.93E+01	0.00E+00	1.93E+01
					Cs-134	<2.15E+01	0.00E+00	2.15E+01
					Cs-137	<1.86E+01	0.00E+00	1.86E+01
					BaLa-140	<1.90E+01	0.00E+00	1.90E+01
					Be-7	1.35E+03	2.45E+02	2.36E+02
					K-40	3.23E+03	4.77E+02	1.42E+02

APPENDIX F

**ERRATA TO
PREVIOUS REPORTS**

2022

APPENDIX F

ERRATA TO THE 2014-2021 HNP AREOR

NCR#2428007 was initiated to create maps for locations in the 2022 AREOR greater than 10 miles. Location 97, Granite Springs Farm was listed in Revision 28 of the HNP ODCM (as well as revisions 25, 26, and 27) as being in the NW sector 19.1 miles from site. Location 97 was never physically located on a map; the description was written in the legend.

Upon creation of the maps for the 2022 AREOR, it was discovered that location 97 is actually in the WNW sector, 19.1 miles from site (302 degrees azimuth) not in the NW as had been shown in HNP ODCM Tables 4.1 and 4.2. NCR#2467858 was written to document this finding.

On 1SEP2022 HNP ODCM Revision 29 became effective, in that revision location 97 was removed from the REMP as it is not an irrigated garden (one could not be located) and therefore does not meet the HNP ODCM Table 3.12-1 requirements for a garden irrigated by water which liquid plant wastes have been discharged.

The newly discovered sector discrepancy affects HNP AREORs 2014-2021.

Enclosure 4
RA-23-0047

ENCLOSURE 4: [MNS Annual Radiological Environmental Operating Report](#)



ANNUAL RADIOLOGICAL ENVIRONMENTAL OPERATING REPORT

**DUKE ENERGY CORPORATION
MCGUIRE NUCLEAR STATION
Units 1 and 2**

2022



TABLE OF CONTENTS

1.0 Executive Summary	1-1
2.0 Introduction	2-1
2.1 Site Description and Sample Locations	2-1
2.2 Scope and Requirements of the REMP	2-1
2.3 Statistical and Computational Methodology	2-2
2.3.1 Estimation of the Mean Value	2-2
2.3.2 Lower Limit of Detection and Minimum Detectable Activity	2-3
2.3.3 Trend Identification	2-3
3.0 Interpretation of Results	3-1
3.1 Airborne Radioiodine and Particulates	3-3
3.2 Drinking Water	3-7
3.3 Surface Water	3-10
3.4 Milk	3-12
3.5 Broadleaf Vegetation	3-14
3.6 Food Products	3-16
3.7 Fish	3-18
3.8 Shoreline Sediment	3-20
3.9 Direct Gamma Radiation	3-22
3.9.1 Environmental TLD	3-22
3.9.2 ISFSI	3-23
3.10 Land Use Census	3-26
4.0 Quality Assurance	4-1
4.1 Sample Collection	4-1
4.2 Sample Analysis	4-1
4.3 Dosimetry Analysis	4-1
4.4 Laboratory Equipment Quality Assurance	4-1
4.4.1 Daily Quality Control	4-1
4.4.2 Calibration Verification	4-1
4.4.3 Batch Processing	4-1
4.5 Duke Energy Interlaboratory Comparison Program	4-1
4.5.1 Eckert & Ziegler Analytics Cross Check Program	4-2
4.6 State of North Carolina Intercomparison Program	4-2
4.7 TLD Intercomparison Program (Internal Duke Energy)	4-2
 Appendices	
Appendix A: Environmental Sampling & Analysis Procedures	A-1
I. Change of Sampling Procedures	A-2
II. Description of Analysis Procedures	A-2
III. Change of Analysis Procedures	A-3
Appendix B: Radiological Environmental Monitoring Program - Summary of Results	B-1
Air Particulate	B-2
Air Radioiodine	B-2
Drinking Water	B-2
Surface Water	B-2
Milk	B-2
Broadleaf Vegetation	B-3
Food Products	B-3
Fish	B-3
Shoreline Sediment	B-3

Direct Gamma Radiation (TLD)	B-3
Footnotes to Appendix B	B-4
Appendix C: Sampling Deviations & Unavailable Analyses	C-1
C.1 Sampling Deviations	C-2
C.2 Unavailable Analyses	C-3
Appendix D: Analytical Deviations	D-1
Appendix E: Radiological Environmental Monitoring Program Results	E-1
Appendix F: Errata to Previous Reports	F-1

LIST OF FIGURES

2.1-1	McGuire Nuclear Station Sampling Locations Map (0.5 Mile Radius)	2-5
2.1-2	McGuire Nuclear Station Sampling Locations Map (Ten Mile Radius)	2-6
2.1-3	McGuire Nuclear Station Sampling Locations Map (>Ten Mile Radius)	2-7
3.1	Concentration of Gross Beta in Air Particulate	3-4
3.2-1	Concentration of Gross Beta in Drinking Water	3-8
3.2-2	Concentration of Tritium in Drinking Water	3-8
3.3	Concentration of Tritium in Surface Water	3-10
3.7	Concentration of Cs-137 in Fish	3-18
3.8	Concentration of Cs-137 in Shoreline Sediment	3-20
3.9	Direct Gamma Radiation (TLD) Results	3-24
3.10	McGuire Nuclear Station 2022 Land Use Census Map	3-28

LIST OF TABLES

2.1-A	McGuire Radiological Monitoring Program Sampling Locations	2-8
2.1-B	McGuire Radiological Monitoring Program Sampling Locations (TLD Sites)	2-9
2.2-A	Reporting Levels for Radioactivity Concentrations in Environmental Samples	2-11
2.2-B	REMP Analysis Frequency	2-12
2.2-C	Maximum Values for the <i>A Priori</i> Lower Limits of Detection	2-13
3.1-A	Mean Concentrations of Radionuclides in Air Particulate	3-5
3.1-B	Mean Concentrations of Air Radioiodine (I-131)	3-6
3.2	Mean Concentrations of Radionuclides in Drinking Water	3-9
3.3	Mean Concentrations of Tritium in Surface Water	3-11
3.4	Mean Concentrations of Cs-137 in Milk	3-13
3.5	Mean Concentrations of Cs-137 in Broadleaf Vegetation	3-15
3.6	Mean Concentrations of Cs-137 in Food Products	3-17
3.7	Mean Concentrations of Radionuclides in Fish (pCi/kg)	3-19
3.8	Mean Concentrations of Radionuclides in Shoreline Sediment (pCi/kg)	3-21
3.9	Direct Gamma Radiation (TLD) Results	3-25
3.10	McGuire 2022 Land Use Census Results	3-27
4.0-A	Eckert & Ziegler Analytics Cross Check Program	4-3
4.0-B	2022 Environmental Dosimeter Cross-Check Results	4-5

LIST OF ACRONYMS USED IN THIS TEXT *(in alphabetical order)*

AREOR	Annual Radiological Environmental Operating Report
ARERR	Annual Radiological Effluent Release Report
BW	BiWeekly
C	Control
CM	Community
CR	Condition Report (analogous to Nuclear Condition Report (NCR))
EZA	Eckert & Ziegler Analytics
GPS	Global Positioning System
I	Indicator
IR	Inner Ring
ISFSI	Independent Spent Fuel Storage Installation
LLD	Lower Limit of Detection
LLI	Low Level Iodine
LUC	Land Use Census
M	Monthly
MAPEP	Department of Energy Mixed Analyte Performance Evaluation Program
MDA	Minimum Detectable Activity
MNS	McGuire Nuclear Station
mrem	Millirem
mR/Std Qtr	milliroentgen per standard quarter
MWe	Megawatt (electrical)
NIST	National Institute of Standards and Technology
NCR	Nuclear Condition Report (analogous to Condition Report (CR))
NRC	Nuclear Regulatory Commission
ODCM	Offsite Dose Calculation Manual
OR	Outer Ring
pCi/kg	picocurie per kilogram
pCi/l	picocurie per liter
pCi/m ³	picocurie per cubic meter
Q	Quarterly
REMP	Radiological Environmental Monitoring Program
SA	Semiannually
SB	Site Boundary
SI	Special Interest
SLCs	Selected Licensee Commitments
SM	Semimonthly
TECH SPECS	Technical Specifications
TLD	Thermoluminescent Dosimeter
UFSAR	Updated Final Safety Analysis Report
W	Weekly

1.0 EXECUTIVE SUMMARY

This Annual Radiological Environmental Operating Report describes the McGuire Nuclear Station Radiological Environmental Monitoring Program (REMP), and the program results for the calendar year 2022.

Included are the identification of sampling locations, descriptions of environmental sampling and analysis procedures, comparisons of present environmental radioactivity levels and pre-operational environmental data, analysis of trends in environmental radiological data as potentially affected by station operations, and a summary of environmental radiological sampling results. Quality assurance practices, sampling deviations, unavailable samples, and program changes are also discussed.

Sampling activities were conducted as prescribed by the McGuire Offsite Dose Calculation Manual (ODCM) and Selected Licensee Commitments (SLCs). Twelve-hundred fifty-six samples were analyzed comprising 1,347 test results to compile data for the 2022 report. Based on the annual land use census, the current number of sampling sites for McGuire Nuclear Station is sufficient.

Concentrations observed in the environment in 2022 for station related radionuclides were within the ranges of concentrations observed in the past. Inspection of data showed that radioactivity concentrations in drinking water and surface water are higher than the activities reported for samples collected prior to the operation of the station. Measured concentrations were not higher than expected, and all positively identified measurements attributable to station operation were within limits as specified in the ODCM and SLCs, thus presenting no significant impact on the environment or public health and safety.

2.0 INTRODUCTION

2.1 SITE DESCRIPTION AND SAMPLE LOCATIONS

McGuire Nuclear Station (MNS) is located geographically near the center of a highly industrialized region of the Carolinas. The land is predominantly rural non-farm with a small amount of land being used for farming. The McGuire site is in northwestern Mecklenburg County, North Carolina, 17 miles north-northwest of Charlotte, North Carolina. The site is bounded to the west by the Catawba River channel and to the north by 32,510 acre Lake Norman. Lake Norman is impounded by Duke Energy Corporation's Cowans Ford Dam Hydroelectric Station. The tailwater of Cowans Ford Dam is the upper limit of Mountain Island Reservoir. Mountain Island Dam is located 15 miles downstream from the site. Lookout Shoals Hydroelectric Station is at the upper reaches of Lake Norman. Marshall Steam Station is located on the western shore of Lake Norman, approximately 16 miles upstream from the site.

MNS consists of two pressurized water reactors. Each reactor unit is essentially a mirror image of the other joined by an auxiliary building housing both separate and common equipment. Each unit was designed to produce approximately 1200 gross MWe. Unit 1 achieved criticality August 8, 1981 and Unit 2 on May 8, 1983.

Sampling locations are chosen based upon meteorological factors, preoperational monitoring, and results of the land use surveys. Figures 2.1-1, 2.1-2, and 2.1-3 are maps depicting the Thermoluminescent Dosimeter (TLD) monitoring locations and the sampling locations. The location numbers shown on these maps correspond to those listed in Tables 2.1-A and 2.1-B. Figure 2.1-1 comprises all sample locations within 0.5 mile radius of MNS. Figures 2.1-2 and 2.1-3 comprise all sample locations within a ten-mile radius of MNS and beyond.

The McGuire site centerline used for GPS measurements was referenced from the McGuire Nuclear Station Updated Final Safety Analysis Report (UFSAR), section 2.1.1, Site Location. Waypoint coordinates used for MNS GPS measurements were latitude 35°-25'-59"N and longitude 80°-56'-55"W. Maps and tables were generated using North American Datum (NAD) 27. Data normally reflect accuracy to within 2 to 5 meters from point of measurement. GPS field measurements were taken as close as possible to the item of interest. Distances for the locations are displayed using two significant figures.

2.2 SCOPE AND REQUIREMENTS OF THE REMP

An environmental monitoring program has been in effect at McGuire Nuclear Station since 1977, four years prior to operation of Unit 1 in 1981. The preoperational program provides data on the existing environmental radioactivity levels for the site and vicinity which may be used to determine whether increases in environmental levels are attributable to the station. The operational program provides surveillance and backup support of detailed effluent monitoring which is necessary to evaluate the significance, if any, of the contributions to the existing environmental radioactivity levels that result from station operation.

This monitoring program is based on NRC guidance as reflected in the Selected Licensee Commitments Manual, with regard to sample media, sampling locations, sampling frequency, and analytical sensitivity requirements. Indicator and control locations were established for comparison purposes to distinguish radioactivity of station origin from natural or other “man-made” environmental radioactivity. The environmental monitoring program also verifies projected and anticipated radionuclide concentrations in the environment and related exposures from releases of radionuclides from McGuire Nuclear Station. This program satisfies the requirements of Section IV.B.2 of Appendix I to 10CFR50 and provides surveillance of all appropriate critical exposure pathways to man and protects vital interests of the company, public, and state and federal agencies concerned with the environment. Reporting levels for radioactivity found in environmental samples are listed in Table 2.2-A. Table 2.2-B lists the REMP analysis and frequency schedule.

The Annual Land Use Census, required by Selected Licensee Commitments, is performed to ensure that changes in the use of areas at or beyond the site boundary are identified and that modifications to the Radiological Environmental Monitoring Program are made if required by changes in land use. This census satisfies the requirements of Section IV.B.3 of Appendix I to 10CFR50. Results are shown in Table 3.10.

Participation in an interlaboratory comparison program as required by Selected Licensee Commitments provides for independent checks on the precision and accuracy of measurements of radioactive material in REMP sample matrices. Such checks are performed as part of the quality assurance program for environmental monitoring in order to demonstrate that the results are valid for the purposes of Section IV.B.2 of Appendix I to 10CFR50. A summary of the results obtained as part of this comparison program are in Section 4 of this annual report.

2.3 STATISTICAL AND CALCULATIONAL METHODOLOGY

2.3.1 ESTIMATION OF THE MEAN VALUE

There was one (1) basic statistical calculation performed on the raw data resulting from the environmental sample analysis program. The calculation involved the determination of the mean value for the indicator and the control samples for each sample medium. The mean is a widely used statistic. This value was used in the reduction of the data generated by the sampling and analysis of the various media in the Radiological Environmental Monitoring Program. “Net activity (or concentration)” is the activity (or concentration) determined to be present in the sample. No “Minimum Detectable Activity”, “Lower Limit of Detection”, “Less Than Level”, or negative activities or concentrations are included in the calculation of the mean. The following equation was used to estimate the mean:

$$\bar{x} = \frac{\sum_{i=1}^N x_i}{N}$$

Where:

\bar{x} = estimate of the mean,
i = individual sample,

N = total number of samples with a net activity (or concentration),
 χ_i = net activity (or concentration) for sample i .

2.3.2 LOWER LIMIT OF DETECTION AND MINIMUM DETECTABLE ACTIVITY

The Lower Limit of Detection (LLD) and Minimum Detectable Activity (MDA) are used throughout the Environmental Monitoring Program.

LLD - The LLD, as defined in the Selected Licensee Commitments Manual is the smallest concentration of radioactive material in a sample that will yield a net count, above the system background, that will be detected with 95% probability with only 5% probability of falsely concluding that a blank observation represents a "real" signal. The LLD is an *a priori* (before the fact) lower limit of detection. The actual LLD is dependent upon the standard deviation of the background counting rate, the counting efficiency, the sample size (mass or volume), the radiochemical yield, and the radioactive decay of the sample between sample collection and counting. The "required" LLDs for each sample medium and selected radionuclides are given in the Selected Licensee Commitments and are listed in Table 2.2-C.

MDA - The MDA is the net counting rate (sample after subtraction of background) that must be surpassed before a sample is considered to contain a scientifically measurable amount of a radioactive material exceeding background amounts. The MDA is calculated using a sample background and may be thought of as an "actual" LLD for a particular sample measurement. Certain gross counting measurements display a calculated negative value, indicating background is greater than sample activity.

2.3.3 TREND IDENTIFICATION

One of the purposes of an environmental monitoring program is to determine if there is a buildup of radionuclides in the environment due to the operation of the nuclear station. Visual inspection of tabular or graphical presentations of data (including preoperational) is used to determine if a trend exists. A decrease in a particular radionuclide's concentration in an environmental medium does not indicate that reactor operations are removing radioactivity from the environment but that reactor operations are not adding that radionuclide to the environment in quantities exceeding the preoperational level and that the normal removal processes (radioactive decay, deposition, resuspension, etc.) are influencing the concentration.

Substantial increases or decreases in the amount of a particular radionuclide's release from the nuclear plant will greatly affect the resulting environmental levels; therefore, a knowledge of the release of a radionuclide from the nuclear plant is necessary to completely interpret the trends, or lack of trends, determined from the environmental data. Some factors that may affect environmental levels of radionuclides include prevailing weather conditions (periods of drought, solar cycles or heavier than normal precipitation), construction in or around either the nuclear plant or the sampling location, and addition or deletion of other sources of radioactive materials (such as the 1986 Chernobyl accident and the 2011 Japan earthquake and tsunami, which triggered the Fukushima Dai-ichi Nuclear

Power Plant incident). Some of these factors may be obvious while others are sometimes unknown. Therefore, how trends are identified will include some judgment by plant personnel.

Figure 2.1-1

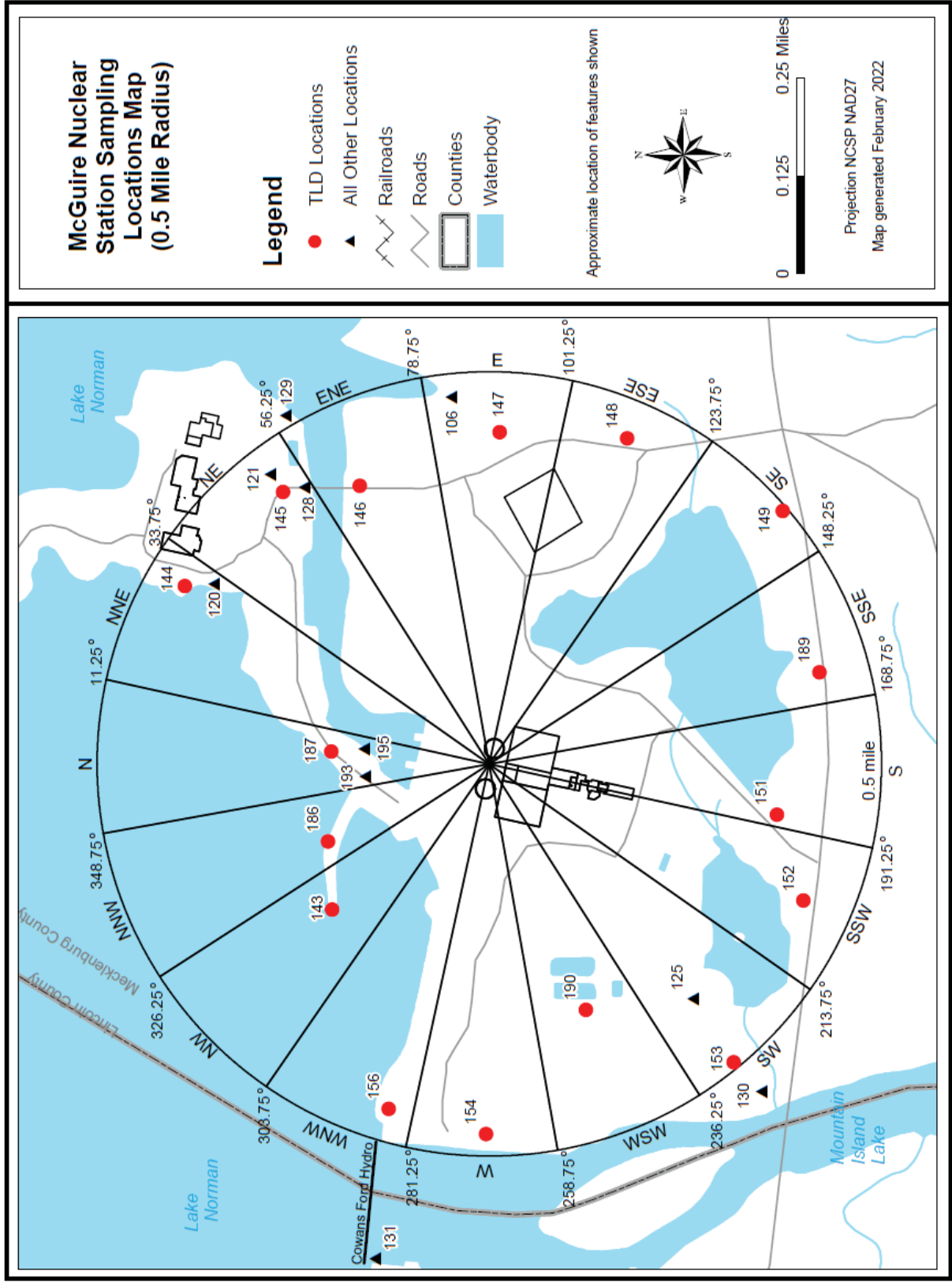


Figure 2.1-2

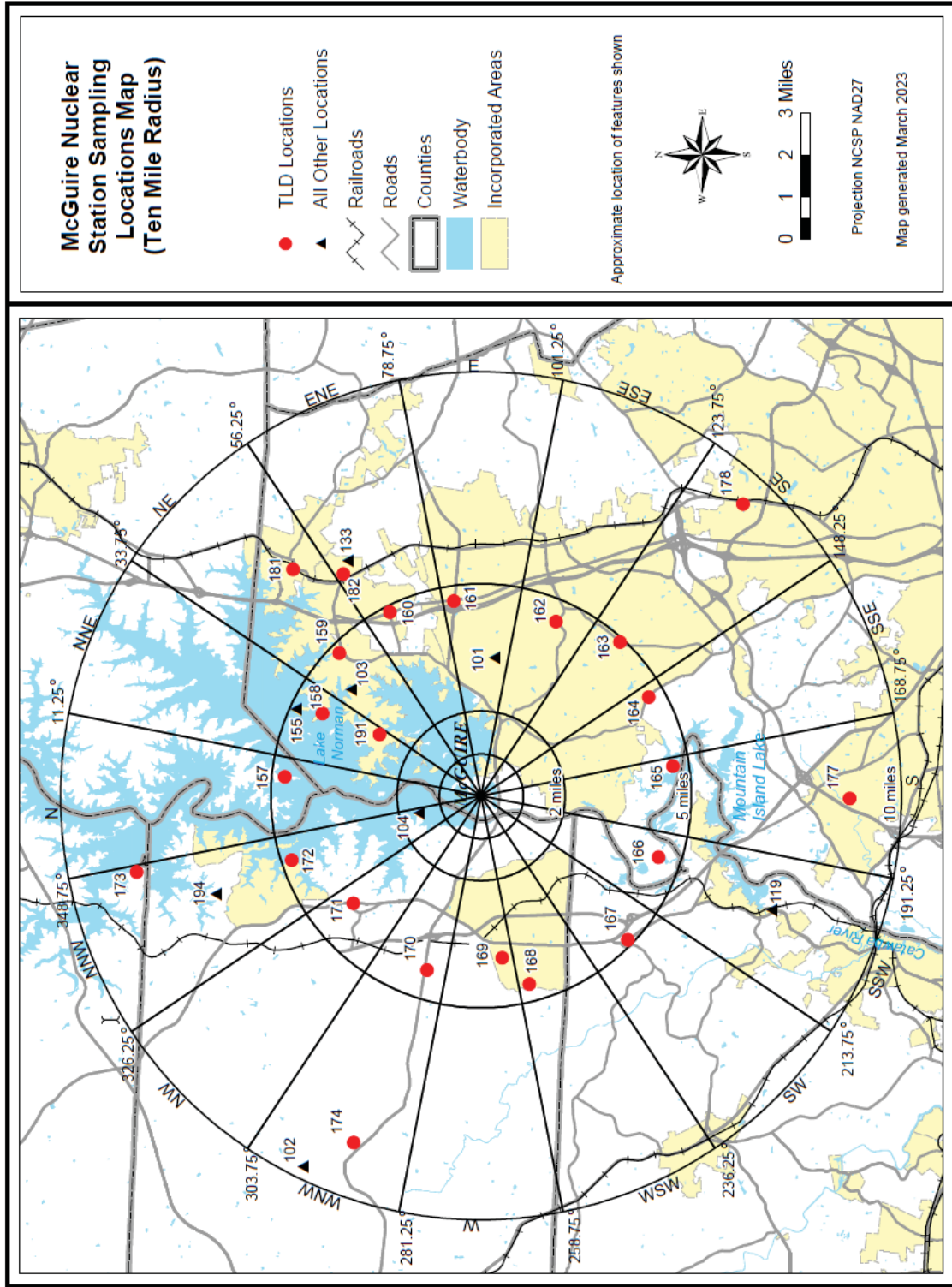


Figure 2.1-3

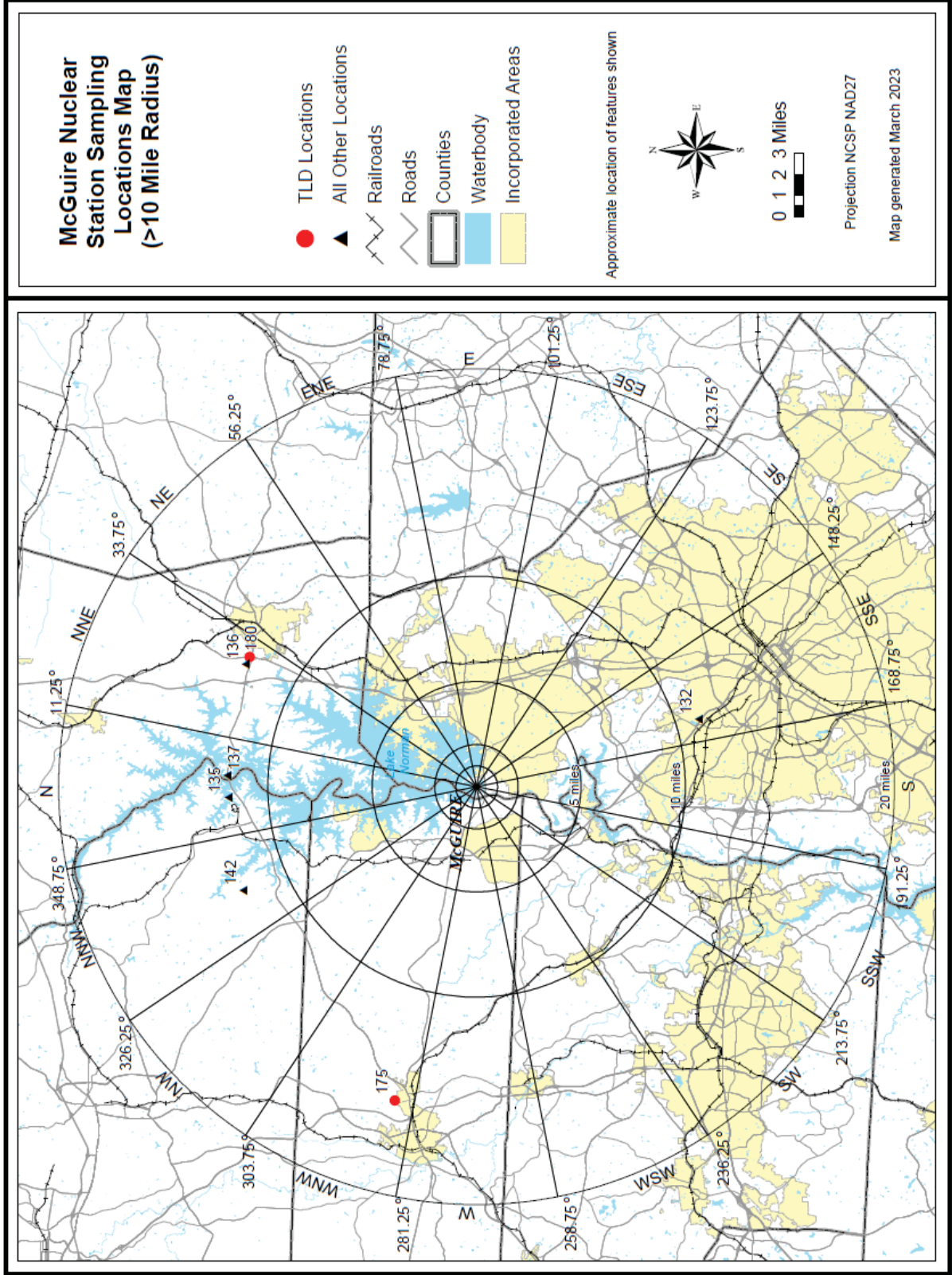


TABLE 2.1-A

**MCGUIRE RADIOLOGICAL MONITORING PROGRAM
SAMPLING LOCATIONS**

Table 2.1-A Codes			
C	Control ^(c)	SA	Semiannually
CM	Community	SB	Site Boundary
I	Indicator	W	Weekly
M	Monthly		

Site #	Measure Type	Location Description ^(e)	Air Rad. & Part.	Surface Water ^(d)	Drinking Water	Shoreline Sediment	Food Products	Fish	Milk	Broad Leaf Veg.
101	I	North Mecklenburg Water Treatment Facility (3.31 mi E)			M					
102	C	Amity Church Road (9.89 mi WNW)	W							M (b)
103	I	Cottonwood Substation (4.20 mi NE)	W, CM ^(f)							
106	I	Maintenance Training Facility (0.47 mi E)	W, CM ^(g)							
119	I	Mt. Holly Municipal Water Supply (7.40 mi SSW)			M					
120	I	HP Boathouse-Site Boundary (0.46 mi NNE)	W, SB							M (b)
121	I	Guardhouse-Site Boundary (0.47 mi NE)	W, SB							
125	I	Settling Ponds - Site Boundary (0.38 mi SW)	W, SB							M (b)
128	I	Discharge Canal Bridge (0.45 mi NE)		M						
129	I	Discharge Canal Entrance to Lake Norman (0.51 mi ENE)				SA		SA		
130	I	Hwy 73 Bridge Downstream (0.52 mi SW)				SA				
131	I	Cowans Ford Dam (0.64 mi WNW)		M						
132	I	Charlotte Municipal Water Supply (11.1 mi SSE)			M					
133	I	Cornelius (6.23 mi ENE)	W							
135	C	Plant Marshall Intake Canal (11.9 mi N)		M						
136	C	Mooresville Municipal Water Supply (12.7 mi NNE)			M					
137	C	Pinnacle Access Area (12.0 mi N)				SA		SA		
142	C	Lowman Farms-Cows (12.2 mi NNW)							SM	
155	I	Island Forest Drive (4.87 mi NNE)					M (a)			
193	I	Site Boundary (0.19 mi N)								M (b)
194	I	East Lincoln County Water Supply (6.73 mi NNW)			M					
195	I	Fishing Access Road (0.19 mi N)	W							

- (a) During Harvest Season
- (b) When Available
- (c) The purpose of this sample is to obtain background information. If it is not practical to establish control locations in accordance with the distance and wind direction criteria, other sites that provide valid background data may be substituted.
- (d) The "upstream sample" shall be taken at a distance beyond significant influence of the discharge. The "downstream" sample shall be taken in an area beyond but near the mixing zone. "Upstream" samples in an estuary must be taken far enough upstream to be beyond the plant influence. Saltwater shall be sampled only when the receiving water is utilized for recreational activities.
- (e) GPS data reflect approximate accuracy to within 2-5 meters. GPS field measurements were taken as close as possible to the item of interest.
- (f) Community air sampling location through 25SEP2022, NCR # 02335752. Location was eliminated from MNS REMP with implementation of Rev.61 of MNS ODCM (eff. 26SEP2022).
- (g) New community air sampling location with implementation of Rev. 61 of MNS ODCM (eff. 26SEP2022).

TABLE 2.1-B

**MCGUIRE RADIOLOGICAL MONITORING PROGRAM
SAMPLING LOCATIONS (TLD SITES) ^(b)**

Table 2.1-B Codes			
C	Control ^(a)	OR	Outer Ring
IR	Inner Ring	SI	Special Interest

Site #	Measure Type	Location	Distance ^(c) (miles)	Sector	Site #	Measure Type	Location	Distance ^(c) (miles)	Sector
143	IR	SITE BOUNDARY	0.27	NW	164	OR	HAMBRIGHT & BEATTIES FORD ROAD	4.64	SSE
144	IR	SITE BOUNDARY	0.46	NNE	165	OR	ARTHER AUTEN ROAD	4.57	S
145	IR	SITE BOUNDARY	0.47	NE	166	OR	NECK ROAD REFUGE BOUNDARY	4.44	SSW
146	IR	SITE BOUNDARY	0.42	ENE	167	OR	LUCIA RIVERBEND HWY/OLD FIREHOUSE	4.87	SW
147	IR	SITE BOUNDARY	0.44	E	168	OR	OLD PLANK ROAD BRIDGE	4.60	WSW
148	IR	SITE BOUNDARY	0.46	ESE	169	OR	GLOVER LANE	4.03	W
149	IR	SITE BOUNDARY	0.50	SE	170	OR	LITTLE EGYPT ROAD	4.32	WNW
151	IR	SITE BOUNDARY	0.37	S	171	OR	TRIANGLE ACE HARDWARE ^(e)	3.95	NW
152	IR	SITE BOUNDARY	0.44	SSW	172	OR	LAKESHORE S RD ISLAND VIEW COURT	4.69	NNW
153	IR	SITE BOUNDARY	0.47	SW	173	SI	KEISTLER STORE / GLENWOOD ROAD	8.39	NNW
154	IR	SITE BOUNDARY	0.45	W	174	SI	EAST LINCOLN JR. HIGH SCHOOL	8.85	WNW
156	IR	SITE BOUNDARY	0.44	WNW	175	C	BOGER CITY	15.5	WNW
189	IR	SITE BOUNDARY	0.43	SSE	177	SI	BELMALLOW RD / COULWOOD	8.77	S
190	IR	SITE BOUNDARY	0.37	WSW	178	SI	FLORIDA STEEL CORPORATION ^(f)	9.36	SE
157	OR	THE POINTE/ MOORESVILLE	4.69	N	180	SI	MOORESVILLE WATER TREATMENT FACILITY	12.7	NNE
158	OR	BETHEL CHURCH RD	4.33	NNE	181	SI	OLD DAVIDSON WATER FACILITY	7.02	NE
159	OR	HENDERSON ROAD	4.77	NE	182	SI	CORNELIUS AIR SITE # 133	6.23	ENE
160	OR	ANCHORAGE MARINE SHOWROOM ^(d)	4.89	ENE	186	SI	MCGUIRE FISHING ACCESS ROAD ON PENINSULA	0.24	NNW
161	OR	SAM FURR ROAD & HWY 21	4.70	E	187	SI	ENERGY EXPLORIUM / AIR SITE # 195	0.19	N
162	OR	RANSON ROAD	4.53	ESE	191	SI	PENINSULA DEV. / JOHN CONNOR ROAD	2.84	NNE
163	OR	MCCOY ROAD	4.94	SE					

- (a) The purpose of this sample is to obtain background information. If it is not practical to establish control locations in accordance with the distance and wind direction criteria, other sites that provide valid background data may be substituted.
- (b) One or more instruments, such as a pressurized ion chamber, for measuring and recording dose rate continuously may be used in place of, or in addition to, integrating dosimeters. For the purposes of this table, a thermoluminescent dosimeter (TLD) is considered to be one phosphor; two or more phosphors in a packet are considered as two or more dosimeters. Film badges shall not be used as dosimeters for measuring direct radiation. The forty stations is not an absolute number. The number of direct radiation monitoring stations may be reduced according to geographical limitations; e.g., at an ocean site, some sections will be over water so that the number of dosimeters may be reduced accordingly. The frequency of analysis or readout for TLD systems will depend upon the characteristics of the specific system used and should be selected to obtain optimum dose information with minimal fading.
- (c) GPS data reflect approximate accuracy to within 2-5 meters. GPS field measurements were taken as close as possible to the item of interest.

- (d) Location description was changed to non-business name location due to frequent business and community changes with implementation of Rev. 61 of MNS ODCM (eff. 26SEP2022). New location name is Intersection of Hwy 21 & Westmoreland Rd.
- (e) Location description was changed to non-business name location due to frequent business and community changes with implementation of Rev. 61 of MNS ODCM (eff. 26SEP2022). New location name is Old Hwy 16.
- (f) Location description was changed to non-business name location due to frequent business and community changes with implementation of Rev. 61 of MNS ODCM (eff. 26SEP2022). New location name is Apprx. .25 mi North of Lakeview Rd/David Cox Rd on Hwy 115.

TABLE 2.2-A

**REPORTING LEVELS FOR RADIOACTIVITY
CONCENTRATIONS IN ENVIRONMENTAL SAMPLES**

Analysis	Water (pCi/liter)	Air Particulates or Gases (pCi/m ³)	Fish (pCi/kg-wet)	Milk (pCi/liter)	BroadLeaf Vegetation (pCi/kg-wet)
H-3	20,000 ^{(a)(b)}				
Mn-54	1,000		30,000		
Fe-59	400		10,000		
Co-58	1,000		30,000		
Co-60	300		10,000		
Zn-65	300		20,000		
Zr-Nb-95	400				
I-131	2	0.9		3	100
Cs-134	30	10	1,000	60	1,000
Cs-137	50	20	2,000	70	2,000
Ba-La-140	200			300	

(a) For drinking water samples. This is 40CFR Part 141 value. If no drinking water pathway exists, a value of 30,000 pCi/liter may be used.

(b) H-3 Reporting level not applicable to surface water

TABLE 2.2-B

REMP ANALYSIS FREQUENCY

Sample Medium	Analysis Schedule	Gamma Isotopic ^(d)	Tritium	Low Level I-131	Gross Beta	TLD
Air Radioiodine	Weekly	X				
Air	Weekly				(c)	
Particulate	Quarterly Composite	X				
Direct Radiation (TLD)	Quarterly					X
Surface	Monthly Composite ^(e)	X				
Water	Quarterly Composite		X			
Drinking	Monthly Composite ^(e)	X		(a)	X	
Water	Quarterly Composite		X			
Shoreline Sediment	Semiannually	X				
Milk	Semimonthly	X		X		
Fish	Semiannually	X				
Broadleaf Vegetation	Monthly ^(b)	X				
Food Products	Monthly ^(f)	X				

- (a) Low-level I-131 analysis will be performed if the dose calculated for the consumption of drinking water is > 1 mrem per year. An LLD of 1 pCi/liter will be required for this analysis.
- (b) When Available
- (c) Airborne particulate sample filters shall be analyzed for gross beta radioactivity 24 hours or more after sampling to allow for radon and thoron daughter decay. If gross beta activity in air particulate samples is greater than ten times the yearly mean of control samples, gamma isotopic analysis shall be performed on the individual samples.
- (d) Gamma isotopic analysis means the identification and quantification of gamma-emitting radionuclides that may be attributable to the effluents from the facility.
- (e) A composite sample is one in which the quantity (aliquot) of liquid sampled is proportional to the quantity of flowing liquid and in which the method of sampling employed results in a specimen that is representative of the liquid flow. In this program composite sample aliquots shall be collected at time intervals that are very short (e.g., hourly) relative to the compositing period (e.g., monthly) in order to assure obtaining a representative sample.
- (f) If harvest occurs more than once a year, sampling shall be performed during each discrete harvest. If harvest occurs continuously, sampling shall be monthly. Attention shall be paid to including samples of tuberous and root food products.

TABLE 2.2-C**MAXIMUM VALUES FOR THE *A PRIORI* LOWER LIMITS OF DETECTION ^{(c)(d)}**

Analysis	Water (pCi/liter)	Air Particulates or Gases (pCi/m ³)	Fish (pCi/kg-wet)	Milk (pCi/liter)	BroadLeaf Vegetation (pCi/kg-wet)	Sediment (pCi/kg-dry)
Gross Beta	4	0.01				
H-3	2,000 ^(a)					
Mn-54	15		130			
Fe-59	30		260			
Co-58, 60	15		130			
Zn-65	30		260			
Zr-Nb-95	15					
I-131	1 ^(b)	0.07		1	60	
Cs-134	15	0.05	130	15	60	150
Cs-137	18	0.06	150	18	80	180
Ba-La-140	15			15		

(a) If no drinking water pathway exists, a value of 3,000 pCi/liter may be used.

(b) If no drinking water pathway exists, the LLD of gamma isotopic analysis may be used.

(c) Lower Limit of Detection is defined in Section 2.3.2

(d) This list does not mean that only these nuclides are to be considered. Other peaks that are identifiable, together with those of the above nuclides, shall also be analyzed and reported in the Annual Radiological Environmental Operating Report.

3.0 INTERPRETATION OF RESULTS

Review of 2022 REMP analysis results was performed to detect and identify changes in environmental levels as a result of station operation. The radionuclides with Selected Licensee Commitments reporting levels that indicate consistent detectable activity have been historically trended from preoperation to present. Analyses from 1977 - 1978 have been excluded since these results were much higher than the other preoperational years due to outside influences such as weapons testing. The preoperational analyses from 1981 were combined with the operational analyses from the latter part of 1981 and averaged to give one concentration for each radionuclide for that year. Summary tables containing 2022 information required by Technical Specification Administrative Control 5.6.2 are located in Appendix B. McGuire 2022 REMP results are located in Appendix E.

The highest annual mean concentration of applicable Selected Licensee Commitments radionuclides from the indicator locations for each media type was used for trending purposes. Trending was performed by comparing annual mean concentrations to historical results. Factors evaluated include the frequency of detection and the concentration in terms of the percent of the radionuclide's SLC reporting level (Table 2.2-A). All maximum percent of reporting level values attributable to MNS plant operation were well below the 100% action level. The highest value attributable to MNS plant operations during 2022 was 3.41% for drinking water tritium at the North Mecklenburg Water Treatment Facility (Location 101). Only Selected Licensee Commitments radionuclides were detected in 2022.

Ground water monitoring wells located on the MNS site are part of the Nuclear Energy Institute (NEI) 07-07 radiological groundwater monitoring wells and are reported in the MNS Annual Radioactive Effluent Release Report (ARERR). NEI 07-07 was developed to describe the industry's Ground Water Protection Initiative. NEI 07-07 radiological groundwater monitoring wells are used to assure timely detection and effective response to situations involving inadvertent radiological releases to ground water to prevent migration of licensed radioactive material off-site and to quantify impacts on decommissioning. These monitoring wells are not used for Radiological Environmental Monitoring Program (REMP), because they do not monitor water supply for drinking or irrigation purposes. These are not REMP wells because there is no dose associated with this pathway. The McGuire site is bounded to the west by the Catawba River channel and the hydraulic gradient for McGuire flows toward the Catawba River. Sentinel wells are installed and monitored at regular intervals for early detection purposes (NCR # 02035750).

Changes in sample location, analytical technique, and presentation of results must be considered when reviewing for trends. Calculation of the annual mean concentrations has been performed differently over the history of the REMP. During 1979-1986, all net results (sample minus background) positive and negative, were included in the calculation of the mean. Only positive net activity results were used to calculate the mean for the other years. All negative values were replaced with a zero for calculational and graphical purposes to properly represent environmental conditions. A change in gamma spectroscopy analysis systems in 1987 ended a period when many measurements yielded detectable low-level activity for both indicator and control location samples. It is possible that the method the previous system used to estimate net activity may have been vulnerable to false-positive results.

This section includes tables and graphs containing the highest annual mean concentrations of any effluent related radionuclide detected since the change in analysis systems in 1987. Any zero concentrations used in tables or graphs represent activity measurements less than detectable levels. Only the specific radionuclides that represent the highest dose contributors or demonstrate consistent detectable activity are shown graphically.

Data presented in Sections 3.1 through 3.9 support the conclusion that there was no significant increase in radioactivity in the environment around McGuire Nuclear Station due to station operations in 2022. Similarly, there was no significant increase in ambient background radiation levels in the surrounding areas. The 2022 land use census data, shown in Section 3.10, indicates that no program changes are required as a result of the census.

3.1 AIRBORNE RADIOIODINE AND PARTICULATES

Airborne particulate and radioiodine samples at each of seven ODCM locations were composited continuously by means of continuous air samplers. Location 106 (0.47 miles E, indicator) was officially added to the REMP as the new community location with the implementation of revision 61 of the MNS ODCM (eff. 26SEP2022). Location 103, Cottonwood Substation (4.20 miles NE) was removed from the REMP with the implementation of revision 61 of the MNS ODCM as it no longer served as the community air sampling location and was supplemental (NCR # 02335752).

Air particulates were collected on a particulate filter and radioiodines were collected in a charcoal cartridge positioned behind the filter in the sampler. The samplers are designed to operate at a constant flow rate (in order to compensate for any filter loading) and are set to sample approximately 2 cubic feet per minute. Filters and cartridges were collected weekly.

In 2022, 410 radioiodine and particulate samples were analyzed, 358 from 7 indicator locations and 52 from the control location. Particulate samples were analyzed weekly for gross beta. A quarterly gamma analysis was performed on the quarterly filter composite (by location). The radioiodine samples received a weekly gamma analysis. K-40 and Be-7 observed in air samples are naturally occurring radionuclides.

Gross beta analyses indicated $2.42\text{E-}2$ pCi/m³ at the location with the highest annual mean and $2.37\text{E-}2$ pCi/m³ at the control location. No detectable gamma activity attributable to MNS plant operation was detected in any air samples in 2022 and has not been detected since 2004. Figure 3.1 shows gross beta highest annual mean indicator and control location concentrations since 1985. There is no reporting level for gross beta. Table 3.1-A shows indicator and control location highest annual means for Cs-137 and gross beta.

Table 3.1-B gives indicator location highest annual means and control means since 1979 for I-131. No I-131 activity due to MNS plant operation has been detected since 1989. Since no activity was detected in 2022, no reporting levels were approached.

Figure 3.1

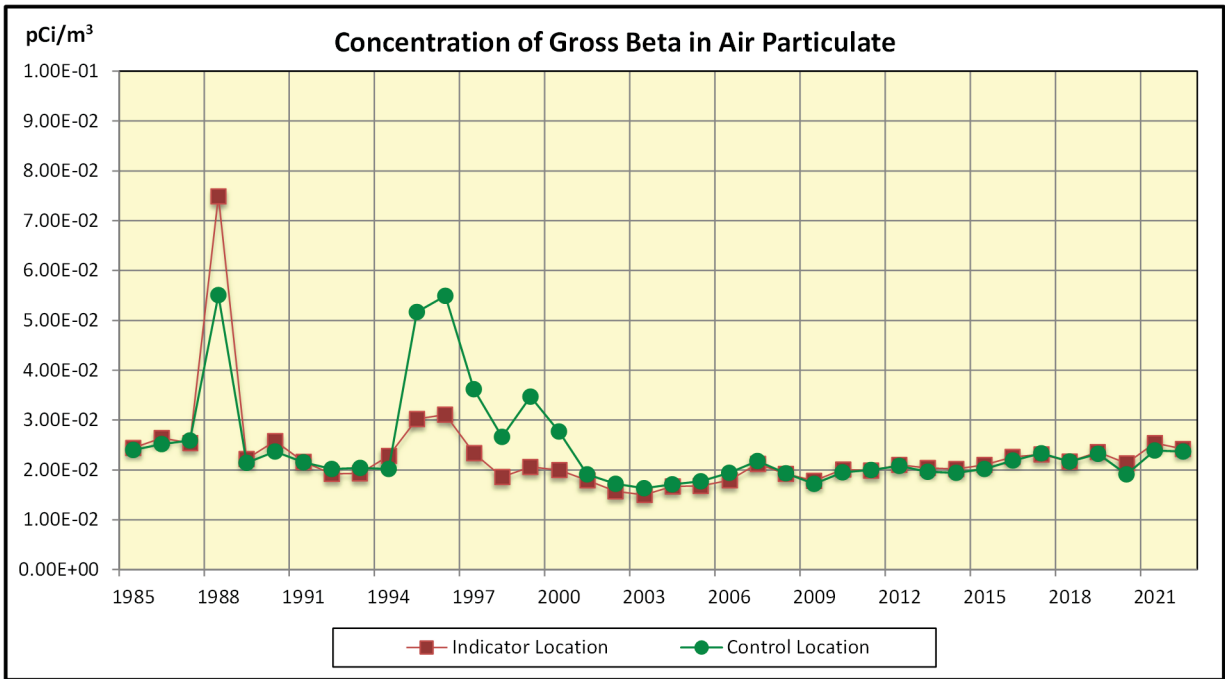


Table 3.1-A Mean Concentrations of Radionuclides in Air Particulate

YEAR	Cs-137 Indicator (pCi/m ³)	Cs-137 Control (pCi/m ³)	Beta Indicator (pCi/m ³)	Beta Control (pCi/m ³)
1979*	4.40E-3	1.47E-3	Not Performed	Not Performed
1980*	6.70E-3	4.53E-3	Not Performed	Not Performed
1981*	6.16E-3	5.32E-3	Not Performed	Not Performed
1982*	3.82E-3	2.29E-3	Not Performed	Not Performed
1983*	2.93E-3	3.21E-3	Not Performed	Not Performed
1984	1.74E-3	8.29E-4	Not Performed	Not Performed
1985	1.86E-3	1.32E-3	2.44E-2	2.40E-2
1986	4.98E-3	3.03E-3	2.64E-2	2.52E-2
1987 ⁽¹⁾	1.07E-2	7.91E-3	2.54E-2	2.59E-2
1988	0.00E0	0.00E0	7.49E-2	5.51E-2
1989	0.00E0	0.00E0	2.22E-2	2.14E-2
1990	0.00E0	0.00E0	2.58E-2	2.37E-2
1991	0.00E0	0.00E0	2.16E-2	2.15E-2
1992	0.00E0	0.00E0	1.92E-2	2.02E-2
1993	0.00E0	0.00E0	1.93E-2	2.04E-2
1994	0.00E0	0.00E0	2.28E-2	2.02E-2
1995	0.00E0	0.00E0	3.02E-2	5.17E-2
1996	0.00E0	0.00E0	3.11E-2	5.49E-2
1997	0.00E0	0.00E0	2.34E-2	3.62E-2
1998	0.00E0	0.00E0	1.86E-2	2.66E-2
1999	0.00E0	0.00E0	2.06E-2	3.47E-2
2000	0.00E0	0.00E0	2.00E-2	2.77E-2
2001	0.00E0	0.00E0	1.79E-2	1.91E-2
2002	0.00E0	0.00E0	1.57E-2	1.72E-2
2003	0.00E0	0.00E0	1.50E-2	1.63E-2
2004 ⁽²⁾	0.00E0	0.00E0	1.67E-2	1.71E-2
2005	0.00E0	0.00E0	1.68E-2	1.77E-2
2006	0.00E0	0.00E0	1.79E-2	1.94E-2
2007	0.00E0	0.00E0	2.12E-2	2.18E-2
2008	0.00E0	0.00E0	1.92E-2	1.93E-2
2009	0.00E0	0.00E0	1.79E-2	1.76E-2
2010	0.00E0	0.00E0	2.01E-2	1.95E-2
2011 ⁽³⁾	7.06E-3	0.00E0	1.99E-2	2.00E-2
2012	0.00E0	0.00E0	2.10E-2	2.08E-2
2013	0.00E0	0.00E0	2.04E-2	1.96E-2
2014 ⁽⁴⁾	0.00E0	0.00E0	2.02E-2	1.94E-2
2015	0.00E0	0.00E0	2.10E-2	2.02E-2
2016	0.00E0	0.00E0	2.26E-2	2.19E-2
2017	0.00E0	0.00E0	2.31E-2	2.33E-2
2018	0.00E0	0.00E0	2.17E-2	2.17E-2
2019	0.00E0	0.00E0	2.36E-2	2.32E-2
2020	0.00E0	0.00E0	2.13E-2	1.91E-2
2021	0.00E0	0.00E0	2.54E-2	2.39E-2
2022	0.00E0	0.00E0	2.42E-2	2.37E-2

0.00E0 indicates no detectable measurements

* Radioiodine and Particulates analyzed together

(1) 1987 – Gamma spectroscopy system change

(2) 2004 – Gamma Activity observed, NCR # 01552730

(3) 2011 – Concentration affected by Fukushima Daiichi

(4) 2014 – Gamma spectroscopy system was replaced 10JUL2014. Gamma spectroscopy system hardware, detector cooling apparatus, software, electronics, nuclide identification libraries, and analytical test matrix components for test matrices were modified (NCR # 0739995). No analytical changes were noted due to the 2014 gamma spectroscopy system change.

Table 3.1-B Mean Concentrations of Air Radioiodine (I-131)

Year	Indicator Location (pCi/m³)	Control Location (pCi/m³)
1979*	3.28E-3	1.04E-3
1980*	2.01E-3	1.10E-3
1981*	4.17E-3	6.27E-4
1982*	1.42E-3	2.48E-3
1983*	1.99E-3	2.01E-4
1984	3.17E-3	0.00E0
1985	3.15E-3	1.04E-3
1986	1.27E-2	6.10E-3
1987 ⁽¹⁾	1.07E-2	6.60E-3
1988	0.00E0	0.00E0
1989	2.18E-2	0.00E0
1990	0.00E0	0.00E0
1991	0.00E0	0.00E0
1992	0.00E0	0.00E0
1993	0.00E0	0.00E0
1994	0.00E0	0.00E0
1995	0.00E0	0.00E0
1996	0.00E0	0.00E0
1997	0.00E0	0.00E0
1998	0.00E0	0.00E0
1999	0.00E0	0.00E0
2000	0.00E0	0.00E0
2001	0.00E0	0.00E0
2002	0.00E0	0.00E0
2003	0.00E0	0.00E0
2004	0.00E0	0.00E0
2005	0.00E0	0.00E0
2006	0.00E0	0.00E0
2007	0.00E0	0.00E0
2008	0.00E0	0.00E0
2009	0.00E0	0.00E0
2010	0.00E0	0.00E0
2011 ⁽²⁾	6.00E-2	5.46E-2
2012	0.00E0	0.00E0
2013	0.00E0	0.00E0
2014 ⁽³⁾	0.00E0	0.00E0
2015	0.00E0	0.00E0
2016	0.00E0	0.00E0
2017	0.00E0	0.00E0
2018	0.00E0	0.00E0
2019	0.00E0	0.00E0
2020	0.00E0	0.00E0
2021	0.00E0	0.00E0
2022	0.00E0	0.00E0

0.00E0 indicates no detectable measurements

* Radioiodine and Particulate analyzed together.

(1) 1987 – Gamma spectroscopy system change

(2) 2011– Concentration affected by Fukushima Daiichi

(3) 2014 – Gamma spectroscopy system was replaced 10JUL2014. Gamma spectroscopy system hardware, detector cooling apparatus, software, electronics, nuclide identification libraries, and analytical test matrix components for test matrices were modified (NCR # 0739995). No analytical changes were noted due to the 2014 gamma spectroscopy system change.

3.2 DRINKING WATER

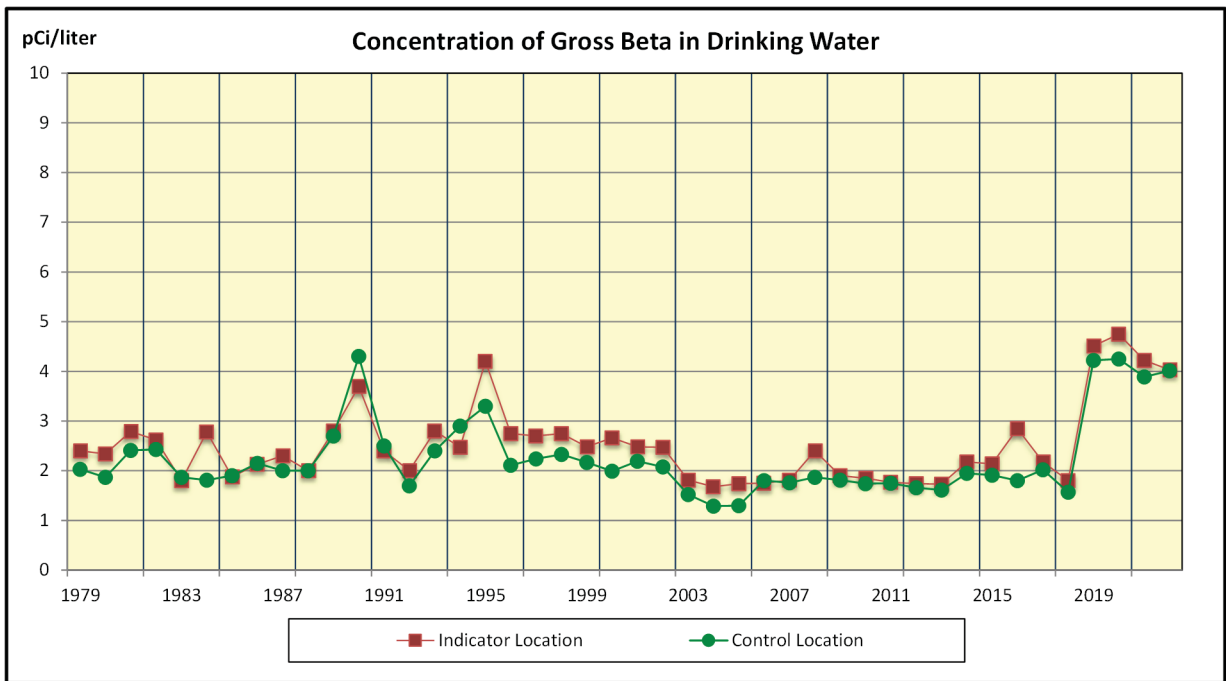
In 2022, 65 drinking water samples were analyzed for gross beta and gamma emitting radionuclides. Fifty-two samples were collected from the 4 indicator locations and 13 from the control location. Monthly composite samples were collected and received a gross beta and gamma analysis. These samples were composited to create 20 quarterly composite period samples for tritium analysis.

No detectable gamma activity attributable to MNS plant operation was found in drinking water samples in 2022 and has not been detected since 1987. K-40 was observed in some drinking water samples and is a naturally occurring radionuclide.

Figure 3.2-1 and Table 3.2 shows highest annual mean gross beta concentrations for the indicator location and control location since preoperation. Gross beta analyses indicated 4.03 pCi/l at the location with the highest annual mean and 4.01 pCi/l at the control location. The gross beta mean indicator activity and mean control activity increased in 2019 due to an analytical method change affecting analytical sensitivities (NCR # 02303031).

Tritium was detected in 13 of the 16 indicator composite samples taken in 2022. The 2022 highest mean indicator tritium concentration from location 101 was 682 pCi/liter, which is 3.41% of the 20,000 pCi/l tritium reporting level. Tritium was not detected in any of the four control location samples. The dose for consumption of water was less than one mrem per year, historically and for 2022; therefore, low-level iodine analysis is not required. Figure 3.2-2 shows tritium highest annual mean indicator and control location concentrations with comparisons to the 20% reporting level. Table 3.2 gives indicator location highest annual means and control means since 1979 for tritium and gross beta. There is no reporting level for gross beta.

Figure 3.2-1



Analytical method change implemented in 2019.

Figure 3.2-2

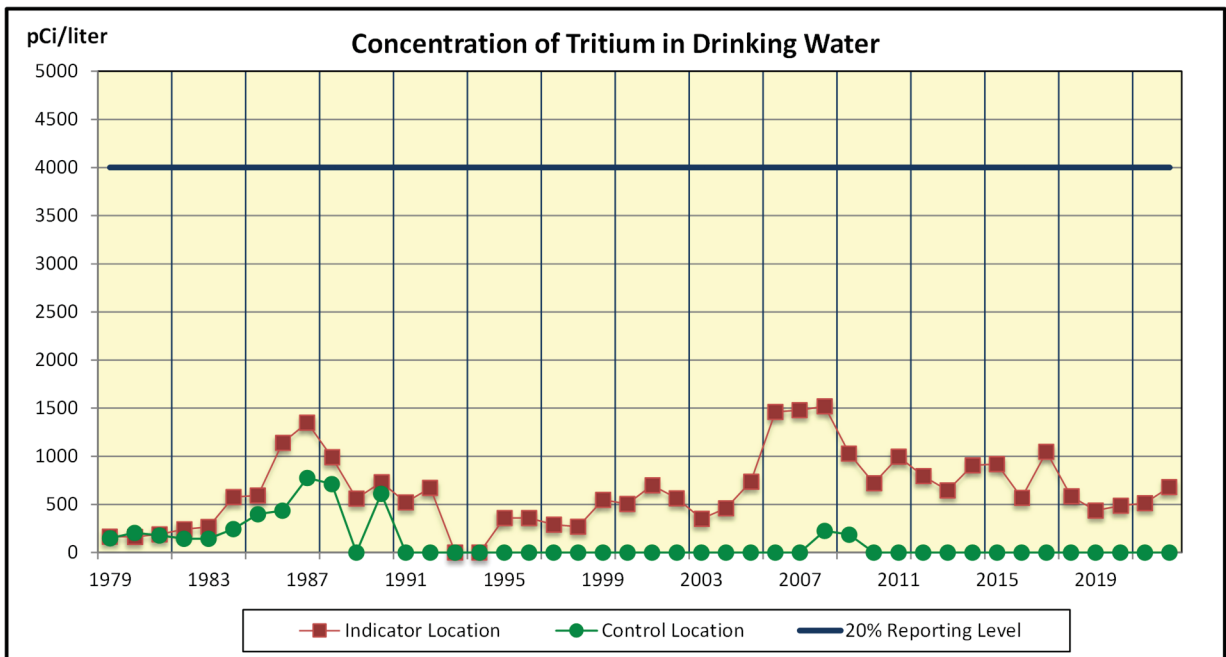


Table 3.2 Mean Concentrations of Radionuclides in Drinking Water

YEAR	Gross Beta (pCi/l)		Tritium (pCi/l)	
	Indicator Location	Control Location	Indicator Location	Control Location
1979	2.40E0	2.03E0	1.65E2	1.50E2
1980	2.34E0	1.87E0	1.63E2	2.05E2
1981	2.79E0	2.41E0	1.88E2	1.78E2
1982	2.62E0	2.43E0	2.43E2	1.45E2
1983	1.80E0	1.87E0	2.65E2	1.45E2
1984	2.78E0	1.81E0	5.77E2	2.45E2
1985	1.88E0	1.90E0	5.93E2	4.00E2
1986	2.13E0	2.15E0	1.14E3	4.37E2
1987	2.30E0	2.00E0	1.35E3	7.75E2
1988	2.00E0	2.00E0	9.92E2	7.11E2
1989	2.80E0	2.70E0	5.62E2	0.00E0
1990	3.70E0	4.30E0	7.32E2	6.11E2
1991	2.40E0	2.50E0	5.22E2	0.00E0
1992	2.00E0	1.70E0	6.73E2	0.00E0
1993	2.80E0	2.40E0	0.00E0	0.00E0
1994	2.47E0	2.90E0	0.00E0	0.00E0
1995	4.20E0	3.30E0	3.58E2	0.00E0
1996	2.75E0	2.11E0	3.60E2	0.00E0
1997	2.70E0	2.24E0	2.90E2	0.00E0
1998	2.75E0	2.33E0	2.68E2	0.00E0
1999 ⁽¹⁾	2.48E0	2.17E0	5.49E2	0.00E0
2000	2.66E0	1.99E0	5.04E2	0.00E0
2001	2.48E0	2.19E0	6.98E2	0.00E0
2002	2.47E0	2.08E0	5.64E2	0.00E0
2003	1.81E0	1.52E0	3.51E2	0.00E0
2004	1.68E0	1.29E0	4.61E2	0.00E0
2005	1.74E0	1.30E0	7.35E2	0.00E0
2006 ⁽²⁾	1.75E0	1.80E0	1.46E3	0.00E0
2007 ⁽³⁾	1.81E0	1.76E0	1.48E3	0.00E0
2008 ⁽³⁾	2.40E0	1.87E0	1.52E3	2.26E2
2009	1.90E0	1.81E0	1.03E3	1.86E2
2010	1.85E0	1.74E0	7.20E2	0.00E0
2011	1.77E0	1.75E0	9.97E2	0.00E0
2012	1.74E0	1.66E0	7.95E2	0.00E0
2013	1.73E0	1.61E0	6.47E2	0.00E0
2014	2.18E0	1.95E0	9.07E2	0.00E0
2015	2.14E0	1.91E0	9.19E2	0.00E0
2016	2.85E0	1.80E0	5.69E2	0.00E0
2017	2.18E0	2.02E0	1.05E3	0.00E0
2018	1.80E0	1.57E0	5.85E2	0.00E0
2019 ⁽⁴⁾	4.51E0	4.22E0	4.36E2	0.00E0
2020	4.75E0	4.25E0	4.87E2	0.00E0
2021	4.22E0	3.89E0	5.12E2	0.00E0
2022	4.03E0	4.01E0	6.82E2	0.00E0

0.00E0 indicates no detectable measurements

(1) Location 101 added to the REMP

(2) Increase in tritium releases due to silica removal from spent fuel pools resulting in additional water volume release.

(3) Extreme drought conditions affecting the Catawba River Basin resulting in less dilution volume

(4) Gross beta preparation/analysis methodology change (NCR # 02303031)

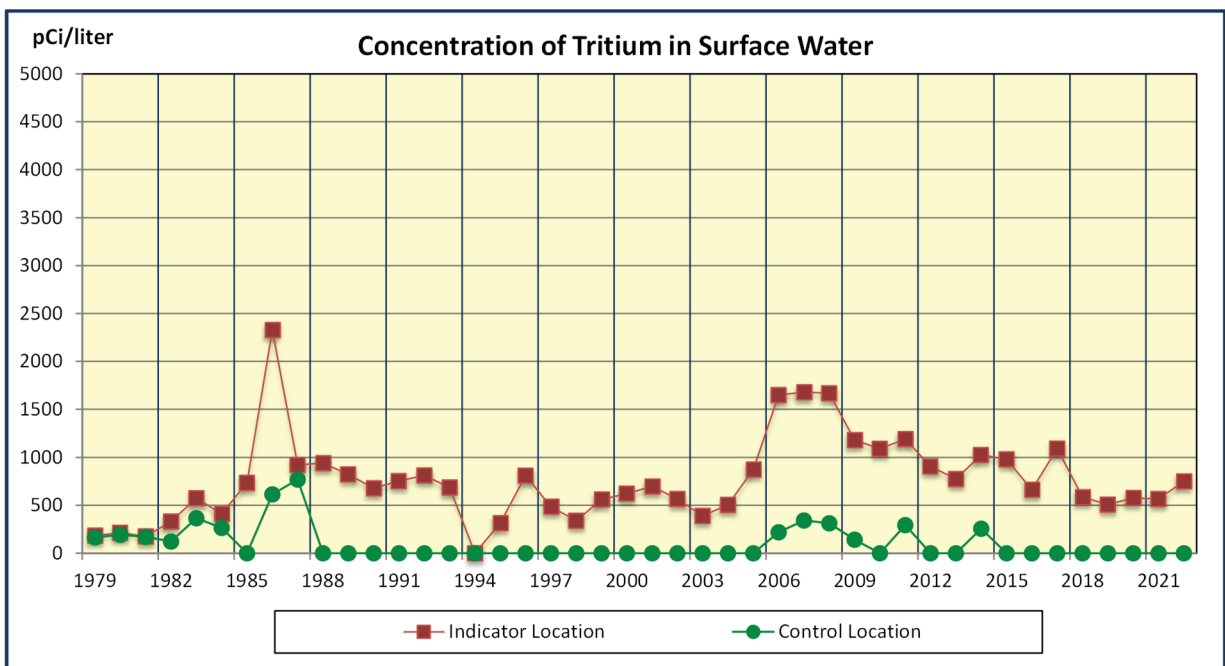
3.3 SURFACE WATER

In 2022, 39 surface water samples were analyzed for gamma emitting radionuclides, 26 at the 2 indicator locations and 13 at the control location. Monthly composite samples were collected and received a gamma analysis. The samples were composited to create 12 quarterly composite period samples for tritium analysis.

No detectable gamma activity attributable to MNS plant operation was found in surface water samples in 2022 and has not been detected since 1988. K-40 was observed in some surface water samples and is a naturally occurring radionuclide. Tritium was detected in all 8 indicator composite samples taken in 2022. Tritium was not detected in any of the 4 control location composite samples in 2022.

Figure 3.3 shows tritium highest annual mean indicator and control location concentrations. Table 3.3 gives indicator and control location highest annual means since 1979 for tritium.

Figure 3.3



There is no reporting level for tritium in surface water

Table 3.3 Mean Concentrations of Tritium in Surface Water

YEAR	H-3 Indicator (pCi/l)	H-3 Control (pCi/l)
1979	1.85E2	1.66E2
1980	2.13E2	1.93E2
1981	1.75E2	1.70E2
1982	3.30E2	1.23E2
1983	5.75E2	3.67E2
1984	4.10E2	2.65E2
1985	7.33E2	0.00E0
1986	2.33E3	6.13E2
1987	9.20E2	7.70E2
1988	9.40E2	0.00E0
1989	8.22E2	0.00E0
1990	6.77E2	0.00E0
1991	7.53E2	0.00E0
1992	8.13E2	0.00E0
1993	6.85E2	0.00E0
1994	0.00E0	0.00E0
1995	3.15E2	0.00E0
1996	8.08E2	0.00E0
1997	4.85E2	0.00E0
1998	3.40E2	0.00E0
1999	5.60E2	0.00E0
2000	6.22E2	0.00E0
2001	6.98E2	0.00E0
2002	5.65E2	0.00E0
2003	3.91E2	0.00E0
2004	5.04E2	0.00E0
2005	8.74E2	0.00E0
2006 ⁽¹⁾	1.65E3	2.19E2
2007 ⁽²⁾	1.68E3	3.42E2
2008 ⁽²⁾	1.67E3	3.13E2
2009	1.18E3	1.41E2
2010	1.09E3	0.00E0
2011	1.19E3	2.94E2
2012	9.06E2	0.00E0
2013	7.73E2	0.00E0
2014	1.03E3	2.57E2
2015	9.79E2	0.00E0
2016	6.63E2	0.00E0
2017	1.09E3	0.00E0
2018	6.85E2	0.00E0
2019	5.07E2	0.00E0
2020	5.76E2	0.00E0
2021	5.67E2	0.00E0
2022	7.50E2	0.00E0

0.00E0 indicates no detectable measurements

(1) Increase in tritium releases due to silica removal from spent fuel pools resulting in additional water volume release.

(2) Extreme drought conditions affecting the Catawba River Basin resulting in less dilution volume

3.4 MILK

In 2022, 26 milk samples from the control location were analyzed for low level I-131 and other gamma emitting radionuclides. Biweekly grab samples were collected at one location and each received a gamma and low-level Iodine-131 (LLI-131) analysis. No indicator dairies were sampled during 2022 and none were identified by the 2022 land use census.

There were no gamma emitting radionuclides due to MNS plant operations identified in milk samples in 2022. Cs-137 is the only radionuclide, other than naturally occurring, reported in milk samples since 1990 (excluding Fukushima Daiichi). Cs-137 in milk is not unusual. It is a constituent of nuclear weapons test fallout and nuclear plant accidents and has been observed periodically in samples from indicator and control locations since the preoperational period.

Table 3.4 gives indicator location highest annual means and control means since 1979 for Cs-137. Since no Cs-137 was detected in 2022, no reporting levels were approached.

K-40 observed in milk samples is a naturally occurring radionuclide.

Table 3.4 Mean Concentrations of Cs-137 in Milk

YEAR	Cs-137 Indicator (pCi/l)	Cs-137 Control (pCi/l)
1979	2.48E1	6.04E0
1980	1.72E1	4.13E0
1981	2.04E1	4.15E0
1982	1.21E1	5.20E0
1983	2.01E1	2.82E0
1984	1.48E1	2.56E0
1985	1.42E1	2.72E0
1986	3.74E0	3.45E0
1987 ⁽¹⁾	5.20E0	8.60E0
1988	3.40E0	2.90E0
1989	6.00E0	5.60E0
1990	5.30E0	2.60E0
1991	0.00E0	0.00E0
1992	0.00E0	0.00E0
1993	0.00E0	0.00E0
1994	0.00E0	0.00E0
1995	0.00E0	0.00E0
1996	0.00E0	0.00E0
1997	0.00E0	0.00E0
1998	0.00E0	0.00E0
1999	0.00E0	0.00E0
2000	0.00E0	0.00E0
2001	0.00E0	0.00E0
2002	No Indicator Location	0.00E0
2003	No Indicator Location	0.00E0
2004	No Indicator Location	0.00E0
2005	No Indicator Location	0.00E0
2006	No Indicator Location	0.00E0
2007	No Indicator Location	0.00E0
2008	No Indicator Location	0.00E0
2009	No Indicator Location	0.00E0
2010	No Indicator Location	0.00E0
2011	No Indicator Location	0.00E0
2012	No Indicator Location	0.00E0
2013	No Indicator Location	0.00E0
2014 ⁽²⁾	No Indicator Location	0.00E0
2015	No Indicator Location	0.00E0
2016	No Indicator Location	0.00E0
2017	No Indicator Location	0.00E0
2018	No Indicator Location	0.00E0
2019	No Indicator Location	0.00E0
2020	No Indicator Location	0.00E0
2021	No Indicator Location	0.00E0
2022	No Indicator Location	0.00E0

0.00E0 indicates no detectable measurements

(1) 1987 – Gamma spectroscopy system change

(2) 2014 – Gamma spectroscopy system was replaced 10JUL2014. Gamma spectroscopy system hardware, detector cooling apparatus, software, electronics, nuclide identification libraries, and analytical test matrix components for test matrices were modified (NCR # 0739995). No analytical changes were noted due to the 2014 gamma spectroscopy system change.

3.5 BROADLEAF VEGETATION

In 2022, 48 broadleaf vegetation samples were analyzed, 36 at the three indicator locations and 12 at the control location. Monthly samples were collected as available and each received a gamma analysis.

There were no gamma emitting radionuclides attributable to MNS plant operation identified in any indicator or control location broadleaf vegetation samples in 2022. Cs-137 is the only radionuclide, other than naturally occurring, reported in vegetation samples since the change in gamma spectroscopy analysis systems in 1987. No airborne Cs-137 has been released from the plant since 1998.

It is not unusual for Cs-137 to be present in vegetation. It is a constituent of nuclear weapons test fallout and nuclear plant accidents and has been observed in samples from indicator and control locations since the preoperational period. Table 3.5 lists the highest indicator location annual mean and control location annual mean for Cs-137 since early in the station's operational history. Visual inspection of the tabular data did not reveal any increasing trends.

K-40 and Be-7 observed in broadleaf vegetation samples are naturally occurring radionuclides.

Table 3.5 Mean Concentrations of Cs-137 in Broadleaf Vegetation

YEAR	Cs-137 Indicator (pCi/kg)	Cs-137 Control (pCi/kg)
1979	2.19E1	1.93E1
1980	2.30E1	1.92E1
1981	3.04E1	2.02E1
1982	2.46E1	1.22E1
1983	9.07E0	7.85E0
1984	1.02E1	1.05E1
1985	8.05E0	2.37E-2
1986	4.03E1	1.27E1
1987 ⁽¹⁾	2.20E1	1.70E1
1988	3.90E1	3.40E1
1989	9.60E1	0.00E0
1990	4.00E1	0.00E0
1991	3.30E1	0.00E0
1992	4.90E1	0.00E0
1993	1.60E1	0.00E0
1994	0.00E0	0.00E0
1995	0.00E0	0.00E0
1996	0.00E0	0.00E0
1997	0.00E0	0.00E0
1998	0.00E0	2.69E1
1999	0.00E0	0.00E0
2000	0.00E0	0.00E0
2001	0.00E0	0.00E0
2002	0.00E0	0.00E0
2003	0.00E0	0.00E0
2004	0.00E0	0.00E0
2005	0.00E0	0.00E0
2006	2.98E1	0.00E0
2007	1.34E1	0.00E0
2008	0.00E0	0.00E0
2009	0.00E0	0.00E0
2010	0.00E0	0.00E0
2011 ⁽²⁾	2.29E1	0.00E0
2012	0.00E0	0.00E0
2013	0.00E0	0.00E0
2014 ⁽³⁾	0.00E0	0.00E0
2015	0.00E0	0.00E0
2016	1.22E1	0.00E0
2017	3.03E1	0.00E0
2018	0.00E0	0.00E0
2019	0.00E0	0.00E0
2020	0.00E0	0.00E0
2021	0.00E0	0.00E0
2022	0.00E0	0.00E0

0.00E0 indicates no detectable measurements

(1) 1987 – Gamma spectroscopy system change

(2) 2011 – Concentration affected by Fukushima Daiichi

(3) 2014 – Gamma spectroscopy system was replaced 10JUL2014. Gamma spectroscopy system hardware, detector cooling apparatus, software, electronics, nuclide identification libraries, and analytical test matrix components for test matrices were modified (NCR # 0739995). No analytical changes were noted due to the 2014 gamma spectroscopy system change.

3.6 FOOD PRODUCTS

In 2022, 12 food products (crops) samples were analyzed from 1 indicator irrigated garden location. Monthly samples were collected as available and each received a gamma analysis. There is no control location for this media.

No detectable activity attributable to MNS station operation has been detected in this media since 1987. Table 3.6 shows Cs-137 indicator highest annual means with preoperational data. Since no activity was detected in 2022, no reporting levels were approached.

K-40 and Be-7 observed in food product samples are naturally occurring radionuclides.

Table 3.6 Mean Concentrations of Cs-137 in Food Products

YEAR	Cs-137 Indicator (pCi/kg)
1979	2.19E1
1980	2.30E1
1981	3.04E1
1982	2.46E1
1983	9.07E0
1984	8.45E0
1985	7.99E0
1986	2.15E1
1987 ⁽¹⁾	2.90E1
1988	0.00E0
1989	0.00E0
1990	0.00E0
1991	0.00E0
1992	0.00E0
1993	0.00E0
1994	0.00E0
1995	0.00E0
1996	0.00E0
1997	0.00E0
1998	0.00E0
1999	0.00E0
2000	0.00E0
2001	0.00E0
2002	0.00E0
2003	0.00E0
2004	0.00E0
2005	0.00E0
2006	0.00E0
2007	0.00E0
2008	0.00E0
2009	0.00E0
2010	0.00E0
2011 ⁽²⁾	3.06E1
2012	0.00E0
2013	0.00E0
2014 ⁽³⁾	0.00E0
2015	0.00E0
2016	0.00E0
2017	0.00E0
2018	0.00E0
2019	0.00E0
2020	0.00E0
2021	0.00E0
2022	0.00E0

0.00E0 indicates no detectable measurements

(1) 1987 – Gamma spectroscopy system change

(2) 2011 – Concentration affected by Fukushima Daiichi

(3) 2014 – Gamma spectroscopy system was replaced 10JUL2014. Gamma spectroscopy system hardware, detector cooling apparatus, software, electronics, nuclide identification libraries, and analytical test matrix components for test matrices were modified (NCR # 0739995). No analytical changes were noted due to the 2014 gamma spectroscopy system change.

3.7 FISH

In 2022, 12 fish samples were analyzed for gamma emitting radionuclides, 6 at the indicator location and 6 at the control location. Semiannual samples were collected, and a gamma analysis was performed on the edible portions of each sample. Boney fish (i.e. Sunfish) were prepared for analysis whole minus the head and tail portions.

Gamma spectroscopy analysis indicated no gamma emitting radionuclides attributable to MNS plant operation identified in any indicator or control location fish samples in 2022.

Figure 3.7 shows Cs-137 highest annual mean indicator and control location concentrations with comparisons to 5% of the reporting level. Table 3.7 gives indicator location highest annual means since 1980 for all radionuclides detected since the analysis change in 1988. All other radionuclides not shown in the table have demonstrated no detectable activity since 1986.

K-40 is a naturally occurring radionuclide observed in fish samples.

Figure 3.7

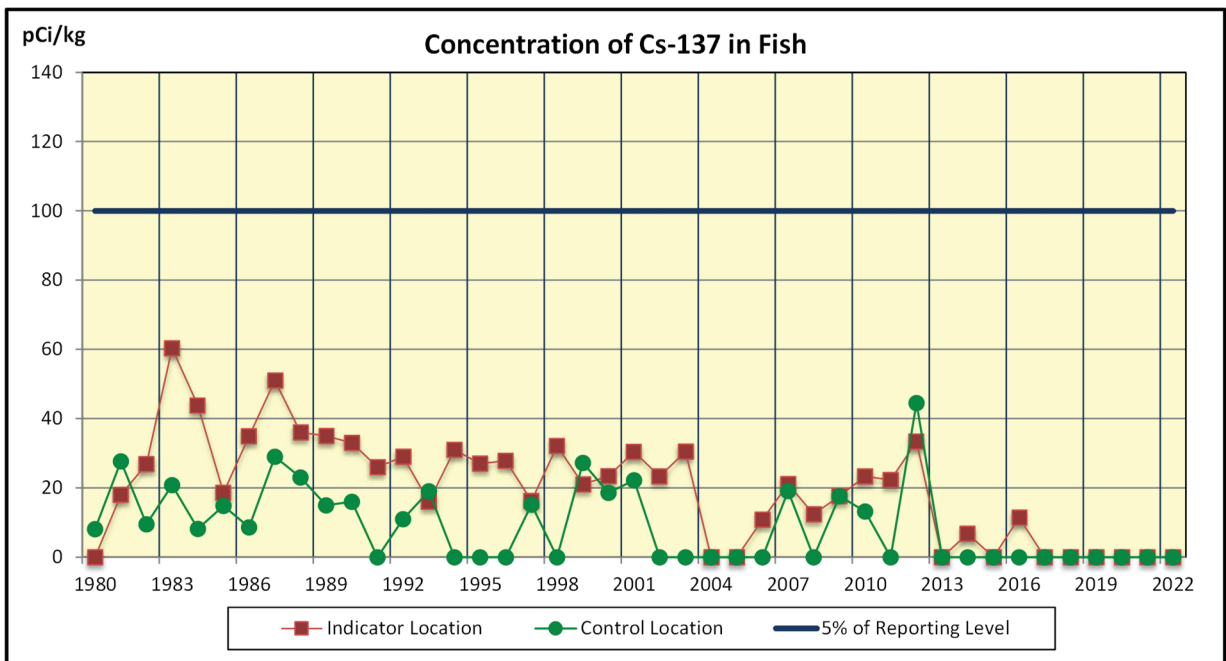


Table 3.7 Mean Concentrations of Radionuclides in Fish (pCi/kg)

YEAR	Mn-54 Indicator	Co-58 Indicator	Co-60 Indicator	Cs-134 Indicator	Cs-137 Indicator
1980	-1.97E1	8.36E0	-2.25E1	-2.70E1	-4.13E0
1981	-2.71E0	-2.98E0	-2.65E0	-1.99E0	1.80E1
1982	-3.83E0	8.16E0	-4.34E-1	-8.22E-1	2.69E1
1983	-2.60E0	2.60E1	1.11E1	-1.32E0	6.03E1
1984	3.61E0	1.45E2	2.82E1	3.11E1	4.38E1
1985	2.53E-1	7.19E0	1.72E1	-1.56E0	1.86E1
1986	1.03E0	3.17E1	2.96E1	1.67E1	3.49E1
1987 ⁽¹⁾	0.00E0	2.71E2	1.25E2	2.60E1	5.10E1
1988	1.20E1	7.70E1	0.00E0	2.70E1	3.60E1
1989	9.00E1	4.05E2	2.99E2	1.10E1	3.50E1
1990	0.00E0	5.60E1	4.10E1	0.00E0	3.30E1
1991	6.20E0	1.40E1	6.50E1	5.90E0	2.60E1
1992	0.00E0	0.00E0	0.00E0	0.00E0	2.90E1
1993	0.00E0	8.20E1	1.30E1	0.00E0	1.60E1
1994	0.00E0	0.00E0	0.00E0	0.00E0	3.10E1
1995	0.00E0	0.00E0	0.00E0	0.00E0	2.70E1
1996	0.00E0	0.00E0	0.00E0	0.00E0	2.78E1
1997	0.00E0	0.00E0	0.00E0	0.00E0	1.62E1
1998	0.00E0	0.00E0	0.00E0	0.00E0	3.21E1
1999	0.00E0	3.53E1	0.00E0	0.00E0	2.10E1
2000	0.00E0	4.28E1	0.00E0	0.00E0	2.34E1
2001	0.00E0	1.32E1	0.00E0	0.00E0	3.04E1
2002	0.00E0	0.00E0	0.00E0	0.00E0	2.33E1
2003	0.00E0	0.00E0	0.00E0	0.00E0	3.05E1
2004	0.00E0	0.00E0	0.00E0	0.00E0	0.00E0
2005	0.00E0	0.00E0	0.00E0	0.00E0	0.00E0
2006	0.00E0	0.00E0	0.00E0	0.00E0	1.08E1
2007	0.00E0	0.00E0	0.00E0	0.00E0	2.11E1
2008	0.00E0	0.00E0	0.00E0	0.00E0	1.24E1
2009	0.00E0	0.00E0	0.00E0	0.00E0	1.76E1
2010	0.00E0	0.00E0	0.00E0	0.00E0	2.33E1
2011	0.00E0	0.00E0	0.00E0	0.00E0	2.23E1
2012	0.00E0	0.00E0	0.00E0	0.00E0	3.34E1
2013	0.00E0	0.00E0	0.00E0	0.00E0	0.00E0
2014 ⁽²⁾	0.00E0	0.00E0	0.00E0	0.00E0	6.75E0
2015	0.00E0	0.00E0	0.00E0	0.00E0	0.00E0
2016	0.00E0	0.00E0	0.00E0	0.00E0	1.14E1
2017	0.00E0	0.00E0	0.00E0	0.00E0	0.00E0
2018	0.00E0	0.00E0	0.00E0	0.00E0	0.00E0
2019	0.00E0	0.00E0	0.00E0	0.00E0	0.00E0
2020	0.00E0	0.00E0	0.00E0	0.00E0	0.00E0
2021	0.00E0	0.00E0	0.00E0	0.00E0	0.00E0
2022	0.00E0	0.00E0	0.00E0	0.00E0	0.00E0

0.00E0 indicates no detectable measurements

(1) 1987 – Gamma spectroscopy system change

(2) 2014 – Gamma spectroscopy system was replaced 10JUL2014. Gamma spectroscopy system hardware, detector cooling apparatus, software, electronics, nuclide identification libraries, and analytical test matrix components for test matrices were modified (NCR # 0739995). No analytical changes were noted due to the 2014 gamma spectroscopy system change.

3.8 SHORELINE SEDIMENT

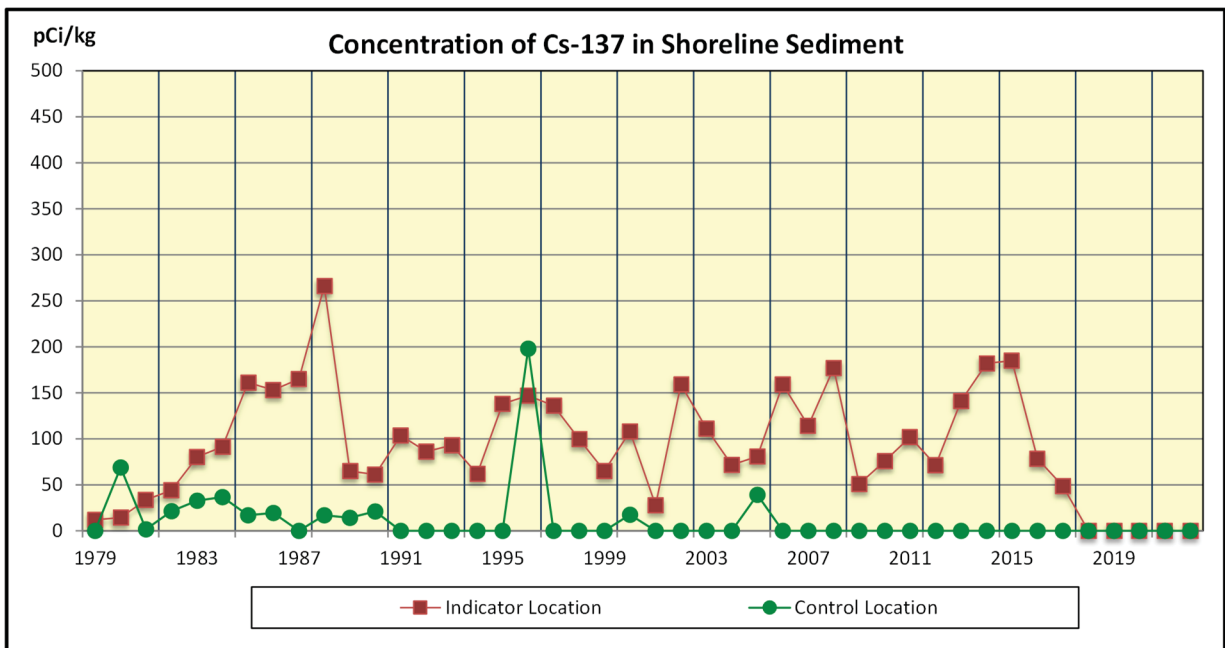
In 2022, 6 shoreline sediment samples were analyzed, 4 from 2 indicator locations and 2 at the control location. Semiannual samples were collected, and a gamma analysis was performed on each following the drying and removal of rocks and clams.

Gamma spectroscopy analysis indicated no gamma emitting radionuclides attributable to MNS plant operation identified in any indicator or control location shoreline sediment samples in 2022.

Figure 3.8 shows Cs-137 highest annual mean indicator and control location concentrations since 1979. Table 3.8 gives indicator location highest annual means since 1979 for all radionuclides detected since the analysis change in 1988. There is no reporting level for shoreline sediment.

K-40 and Be-7 observed in shoreline samples are naturally occurring radionuclides.

Figure 3.8



There is no reporting level for Cs-137 in shoreline sediment

Table 3.8 Mean Concentrations of Radionuclides in Shoreline Sediment (pCi/kg)

YEAR	Mn-54 Indicator	Co-58 Indicator	Co-60 Indicator	Cs-134 Indicator	Cs-137 Indicator
1979	-1.07E1	2.25E1	-6.50E0	0.00E0	1.20E1
1980	1.06E1	-8.74E0	2.36E1	-3.53E0	1.44E1
1981	2.13E1	1.20E1	8.21E0	3.97E1	3.36E1
1982	5.38E1	1.66E1	-1.69E0	7.67E1	4.40E1
1983	4.40E0	3.43E1	2.12E1	7.65E1	8.02E1
1984	1.19E1	7.11E1	3.04E1	3.34E1	9.13E1
1985	4.77E0	1.46E1	9.20E0	2.02E1	1.61E2
1986	1.37E1	1.02E1	1.16E1	6.35E1	1.53E2
1987 ⁽¹⁾	0.00E0	1.06E2	2.10E1	4.20E1	1.65E2
1988	6.50E0	9.20E1	1.20E1	9.10E0	2.66E2
1989	2.90E1	3.80E1	2.90E1	5.30E1	6.50E1
1990	3.80E1	2.70E1	1.68E2	0.00E0	6.10E1
1991	2.80E1	5.30E1	1.31E2	0.00E0	1.03E2
1992	9.40E0	0.00E0	5.10E1	9.20E0	8.60E1
1993	0.00E0	2.20E1	8.60E1	0.00E0	9.30E1
1994	4.10E1	0.00E0	0.00E0	0.00E0	8.00E1
1995	1.70E1	0.00E0	2.30E1	0.00E0	1.38E2
1996	2.90E1	1.78E1	3.50E1	0.00E0	1.47E2
1997	0.00E0	0.00E0	1.11E2	3.10E1	1.36E2
1998	0.00E0	0.00E0	5.21E1	0.00E0	9.97E1
1999	0.00E0	2.47E1	8.49E1	0.00E0	6.51E1
2000	0.00E0	3.04E1	0.00E0	0.00E0	1.08E2
2001	0.00E0	0.00E0	0.00E0	0.00E0	2.77E1
2002	2.24E1	0.00E0	0.00E0	0.00E0	1.59E2
2003	0.00E0	0.00E0	0.00E0	0.00E0	1.11E2
2004	0.00E0	0.00E0	0.00E0	0.00E0	7.17E1
2005	0.00E0	0.00E0	0.00E0	0.00E0	8.08E1
2006	0.00E0	0.00E0	0.00E0	0.00E0	1.59E2
2007	0.00E0	0.00E0	0.00E0	0.00E0	1.14E2
2008	0.00E0	0.00E0	0.00E0	0.00E0	1.77E2
2009	0.00E0	0.00E0	0.00E0	0.00E0	5.08E1
2010	0.00E0	0.00E0	0.00E0	0.00E0	7.58E1
2011	0.00E0	0.00E0	0.00E0	0.00E0	1.02E2
2012	0.00E0	0.00E0	0.00E0	0.00E0	7.13E1
2013	0.00E0	0.00E0	0.00E0	0.00E0	1.41E2
2014 ⁽²⁾	0.00E0	0.00E0	0.00E0	0.00E0	1.82E2
2015	0.00E0	0.00E0	0.00E0	0.00E0	1.85E2
2016	0.00E0	0.00E0	0.00E0	0.00E0	7.84E1
2017	0.00E0	0.00E0	0.00E0	0.00E0	4.87E1
2018	0.00E0	0.00E0	0.00E0	0.00E0	0.00E0
2019	0.00E0	0.00E0	0.00E0	0.00E0	0.00E0
2020	0.00E0	0.00E0	0.00E0	0.00E0	0.00E0
2021	0.00E0	0.00E0	0.00E0	0.00E0	0.00E0
2022	0.00E0	0.00E0	0.00E0	0.00E0	0.00E0

0.00E0 indicates no detectable measurements

(1) 1987 – Gamma spectroscopy system change

(2) 2014 – Gamma spectroscopy system was replaced 10JUL2014. Gamma spectroscopy system hardware, detector cooling apparatus, software, electronics, nuclide identification libraries, and analytical test matrix components for test matrices were modified (NCR # 0739995). No analytical changes were noted due to the 2014 gamma spectroscopy system change.

3.9 DIRECT GAMMA RADIATION

3.9.1 ENVIRONMENTAL TLD

McGuire is licensed with an exclusion area boundary defined by UFSAR Section 2.1.2.1 as a 2500-foot radius from station center. This is the same boundary established for determining radioactive effluent release limits. No permanent public access is permitted within the exclusion area. TLD locations designated as "inner ring" are within a 0.5-mile radius from station center near the site boundary and all are used as indicators. Due to close proximity with McGuire, and most being within the exclusion area boundary, inner ring TLD locations are not good indicators of radiation exposure to a member of the public but are good at determining nearby environmental effects due to plant operation. Based on their placement, inner ring TLD locations are expected to occasionally be influenced by normal plant operation. TLD locations designated as "outer ring" are outside the 0.5 mile "inner ring" (6 to 8 kilometer range) but within a 5-mile radius of station center. All outer ring TLD locations are used as indicators. A subset of TLD locations are designated as "special interest." The nearest "special interest" locations are within the Owner Control Area approximately 0.2 miles from station center. They are located near public access areas for fishing and the Energy Explorium. The remaining "special interest" locations are within a 3 to 13 mile radius from station center. The one "control" location is greater than 15 miles from station center. This location was chosen to reduce the probability of influence from McGuire operation on data. The control location is not used as background subtraction in the TLD analysis. Its purpose is to provide a comparison to indicator locations.

In revision 61 of the MNS ODCM (eff. 26SEP2022), three TLD locations descriptions were changed, their physical location remained the same. The location description change was due to frequent business changes, TLD location descriptions were changed in revision 61 to more generic descriptions which did not include a business name to help identify their location. Location 160 (4.89 miles ENE), previously Anchorage Marine Showroom was renamed Intersection of Hwy 21 & Westmoreland Rd. Location 171 (3.95 miles NW), previously Triangle Ace Hardware was renamed Old Hwy 16. Location 178 (9.36 miles SE), previously Florida Steel Corporation was renamed Apprx. 0.25 mi North of Lakeview Rd/David Cox Rd on Hwy 115.

In 2022, 164 Thermoluminescent Dosimeters (TLDs) were analyzed, 160 at indicator locations and 4 at the control location. A gamma exposure rate was determined for each TLD. Transit TLDs and laboratory background TLDs were used for determining transit and laboratory background dose and were subtracted from gross field readings as required by ANSI N545-1975. TLD locations are listed in Table 2.1-B.

The environmental data on external radiation exposure for 2022 was essentially unchanged, with an average exposure for all of 2022 indicator locations of 17.0 mR per std. quarter. The TLD location with the highest annual mean of 25.7 mR per std. quarter was location 174, located 8.85 miles WNW of the station. Control TLD location 175 had an annual mean of 23.0 mR per std. quarter.

Figure 3.9 and Table 3.9 show TLD inner ring, outer ring, and control location annual averages in mR/std. quarter. Data is provided from 1979 to show preoperational values. As

shown in the graph, exposures measured by environmental TLDs show little or no change since the current TLD system was implemented. As shown in the graph, historical inner and outer ring averages compare similarly, while control data is somewhat higher. This is most likely an artifact of the underlying geologic structures at the control location.

Quarterly, environmental ODCM TLD results are compared by location to its historical data to evaluate any significant changes. The comparison utilizes the location's average exposure history to determine if quarterly results fall within expected low and high ranges and provides a reliable indication of potential changes occurring at a specific TLD location. The low and high ranges are determined by the historical average \pm two standard deviations. The quarterly TLD evaluation implements portions of American National Standard ANSI/HPS N13.37-2014, "Environmental Dosimetry – Criteria for System Design and Implementation, for environmental Thermoluminescent Dosimeters (TLD)." The WP-RP-ALL-0030 – Updated Radiological Environmental Monitoring Program TLD Analytical Method, describes the process implemented in late 2018 for the fleet TLD programs. TLD values identified as < Low Range or > High Range are evaluated in consideration of factors including possible TLD damage, sampling deviations, glow curve irregularities, and any known environmental location changes which may affect results. No 2022 ODCM TLD location exceeded the quarterly investigation level therefore no additional evaluation was performed. Quarterly TLD results are in Appendix E.

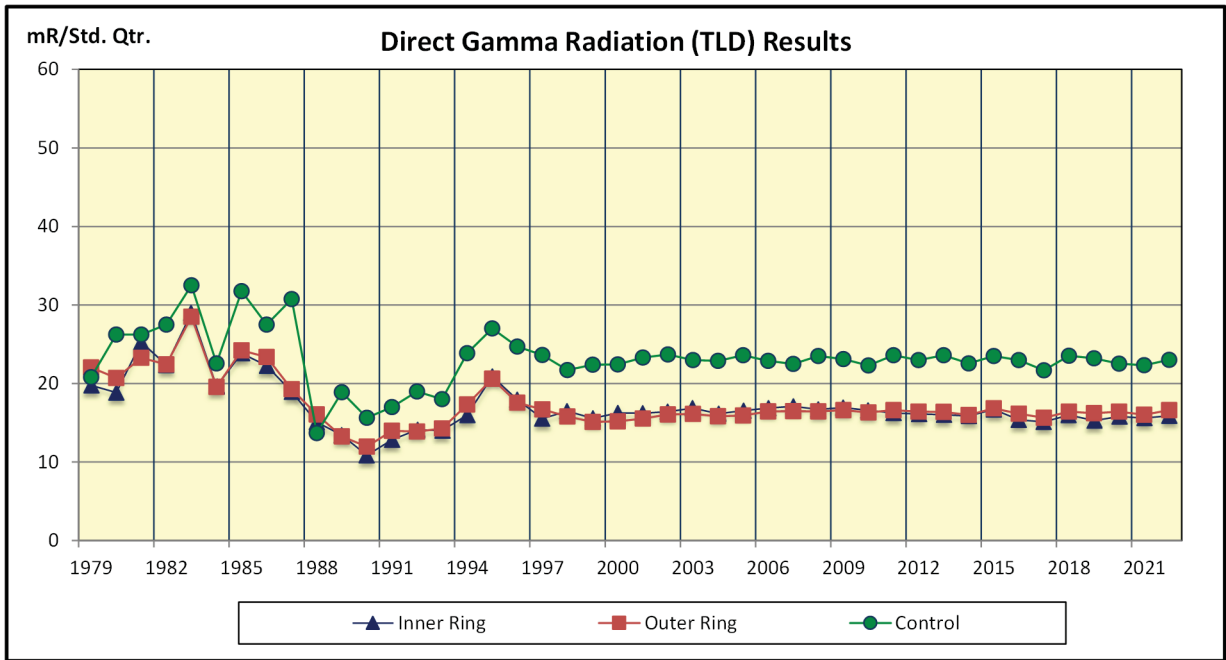
A TLD intercomparison program is conducted as part of the quality assurance program. Results of this program are included in section 4.7.

3.9.2 ISFSI

The McGuire ISFSI began operation in 2000. It is located approximately 0.15 miles west of station center in a secured area specifically constructed to provide dry storage for spent nuclear fuel. The ISFSI is situated at a lower elevation compared to other structures in the protected area. Exposure from direct radiation north of the ISFSI is shielded by the berm on the south boundary of Lake Norman. Exposure from direct radiation at the exclusion area boundary west of the ISFSI is shielded by the decrease in elevation at the ISFSI to the riverbank below Cowan's Ford Dam. These geographic features lessen the potential dose to a member of the public in accessible areas within the exclusion area boundary. The ISFSI employs the multiple vertical storage designs. Irradiated fuel assemblies are confined, protected, and shielded by reinforced concrete modules. All designs used are completely passive and designed to provide radiation shielding and safe confinement for a range of accident conditions and natural events. They each use a passive natural circulation ventilation system to remove decay heat from the modules. No radiological liquid or gaseous effluents are expected from the passive storage provided by the ISFSI. Therefore, any dose to offsite locations would be from direct and scattered gamma radiation.

Environmental TLD results described in 3.9.1 above are reviewed quarterly to identify trends and demonstrate compliance with dose and dose rate limits at the 2500-foot exclusion area boundary. Additional TLD locations not associated with REMP are presently located on the McGuire protected area fence near the ISFSI and on the ISFSI boundary. These are used to demonstrate compliance with occupational exposure controls and augment REMP TLD results. Doses measured by environmental TLDs show little or no change since the ISFSI began operation.

Figure 3.9



There is no reporting level for Direct Radiation (TLD)

Table 3.9 Direct Gamma Radiation (TLD) Results

YEAR	Inner Ring Average (mR/Std. Qtr.)	Outer Ring Average (mR/Std. Qtr.)	Control (mR/Std. Qtr.)
1979	1.98E1	2.21E1	2.08E1
1980	1.89E1 [†]	2.07E1 [†]	2.63E1 [†]
1981	2.53E1	2.33E1	2.63E1
1982	2.24E1	2.24E1	2.75E1
1983	2.90E1	2.85E1	3.25E1
1984	1.96E1	1.96E1	2.26E1
1985	2.39E1	2.42E1	3.18E1
1986	2.23E1	2.34E1	2.75E1
1987	1.90E1	1.93E1	3.08E1
1988	1.51E1	1.61E1	1.37E1
1989	1.34E1	1.33E1	1.89E1
1990	1.09E1	1.20E1	1.56E1
1991	1.29E1	1.40E1	1.70E1
1992	1.41E1	1.39E1	1.90E1
1993	1.40E1	1.43E1	1.80E1
1994	1.60E1	1.73E1	2.39E1
1995	2.09E1	2.06E1	2.70E1
1996	1.80E1	1.76E1	2.47E1
1997	1.56E1	1.67E1	2.36E1
1998	1.65E1	1.58E1	2.17E1
1999	1.56E1	1.51E1	2.24E1
2000	1.63E1	1.52E1	2.24E1
2001	1.62E1	1.56E1	2.33E1
2002	1.64E1	1.61E1	2.37E1
2003	1.69E1	1.61E1	2.30E1
2004	1.62E1	1.58E1	2.29E1
2005	1.65E1	1.59E1	2.36E1
2006	1.69E1	1.65E1	2.29E1
2007	1.71E1	1.65E1	2.25E1
2008	1.67E1	1.65E1	2.35E1
2009	1.69E1	1.66E1	2.31E1
2010	1.66E1	1.63E1	2.23E1
2011	1.63E1	1.66E1	2.36E1
2012	1.61E1	1.64E1	2.30E1
2013	1.60E1	1.64E1	2.36E1
2014	1.59E1	1.60E1	2.26E1
2015	1.67E1	1.68E1	2.35E1
2016	1.54E1	1.62E1	2.30E1
2017	1.51E1	1.56E1	2.17E1
2018	1.60E1	1.64E1	2.35E1
2019	1.53E1	1.62E1	2.32E1
2020	1.58E1	1.64E1	2.25E1
2021	1.56E1	1.60E1	2.23E1
2022	1.59E1	1.66E1	2.30E1

† Values are based on two quarters due to change in TLD locations.

3.10 LAND USE CENSUS

The 2022 MNS Land Use Census (LUC) was conducted on 5/24/2022 – 5/26/2022 during the growing season as required by SLC 16.11.14 to identify within 8 kilometers (5.0 miles) from the plant the nearest location from the site boundary in each of the sixteen meteorological sectors, the following: nearest residence, nearest garden greater than 50 square meters or 500 square feet, and the nearest milk-giving animal (cow, goat, etc.).

The primary method of performing the land use census is visual inspection from the roadside within the five (5) mile radius. This information may be supplemented with data from aerial photographs and a Global Positioning System (GPS) to determine distance and direction from the plant. Distances from the plant are accurate to within one tenth of a mile.

Table 3.10 summarizes the land use census results that was conducted within five miles of MNS. A map indicating identified locations is shown in Figure 3.10.

During the 2022 census, no new milk locations were identified. The nearest residence is in the East sector at 0.50 miles. No environmental program changes were required as a result of the 2022 land use census.

Table 3.10 McGuire 2022 Land Use Census Results

**Performed 5/24 – 5/26/2022
Nearest Pathways (Miles)**

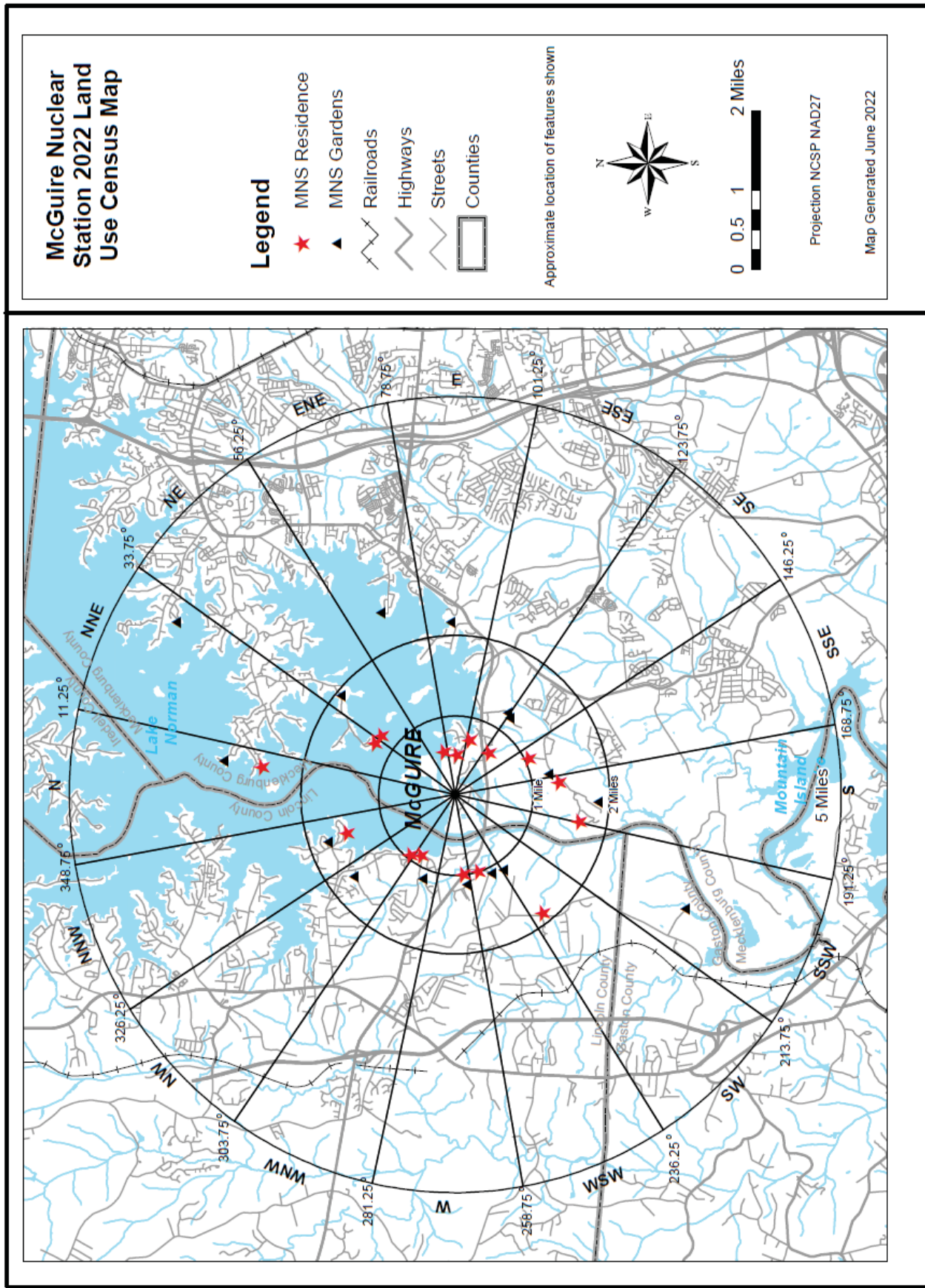
SECTOR	RESIDENCE		GARDEN		MILK ANIMAL	
	2021	2022	2021	2022	2021	2022
North	2.53	2.53	3.03	3.03	---	---
North-Northeast	1.23	1.23	4.34	4.23*	---	---
Northeast	1.21	1.21	3.80	1.95*	---	---
East-Northeast	0.56	0.56	2.50	2.50	---	---
East	0.50	0.50	2.11	2.11	---	---
East-Southeast	0.71	0.71	1.26	1.23*	---	---
Southeast	0.67	0.67	1.20	1.20	---	---
South-Southeast	1.06	1.06	1.22	1.22	---	---
South	1.35	1.35	3.17	1.85*	---	---
South-Southwest	1.64	1.64	3.30	3.30	---	---
Southwest	1.88	1.88	1.14	1.14	---	---
West-Southwest	1.01	1.01	1.33	1.10*	---	---
West	1.15	1.15	1.15	1.15	---	---
West-Northwest	0.88	0.88	1.15	1.15	---	---
Northwest	0.95	0.96*	1.68	1.68	---	---
North-Northwest	1.48	1.48	1.76	1.76	---	---

Sector and distances were determined by Global Positioning System.

“---” indicates no occurrences within the 5-mile radius

* Represents a change from the previous year.

Figure 3.10



4.0 QUALITY ASSURANCE

4.1 SAMPLE COLLECTION

EnRad Laboratories and the Environmental Services Group performed the environmental sample collections as specified by approved sample collection procedures.

4.2 SAMPLE ANALYSIS

EnRad Laboratories performed the environmental sample analyses as specified by approved analysis procedures. EnRad Laboratories is in Huntersville, North Carolina, at Duke Energy's Environmental Center.

4.3 DOSIMETRY ANALYSIS

The Dosimetry and Records group performed the environmental dosimetry measurements as specified by approved dosimetry analysis procedures. The Dosimetry and Records Laboratory is in Huntersville, North Carolina, at Duke Energy's Environmental Center.

4.4 LABORATORY EQUIPMENT QUALITY ASSURANCE

4.4.1 DAILY QUALITY CONTROL

EnRad Laboratories has an internal quality assurance program which monitors each type of instrumentation for reliability and accuracy. Daily quality control checks ensure that instruments are in proper working order and these checks are used to monitor instrument performance.

4.4.2 CALIBRATION VERIFICATION

National Institute of Standards and Technology (NIST) standards that represent counting geometries are analyzed as unknowns at various frequencies ranging from weekly to annually to verify that efficiency calibrations are valid. The frequency is dependent upon instrument use and performance. Investigations are performed and documented should calibration verification data fall outside of the acceptable limits.

4.4.3 BATCH PROCESSING

Method quality control samples are analyzed with sample analyses that are processed in batches. These include gross beta in water, low-level Iodine-131 in milk, and tritium analyses in drinking water, surface water, and ground water samples.

4.5 DUKE ENERGY INTERLABORATORY COMPARISON PROGRAM

In 2022 Duke Energy Environmental Laboratory (EnRad) participated in interlaboratory programs to satisfy Radiological Environmental Monitoring Program requirements in Duke

Energy nuclear plant Offsite Dose Calculation Manuals and Selected Licensee Commitments Manuals, as applicable.

EnRad Laboratory participated in an interlaboratory program with Eckert & Ziegler Analytics (EZA) in 2022. EZA results were evaluated against the NRC Inspection Manual Procedure 84750 (IP 84750) acceptance criteria stated in EnRad Procedure 515, Cross Check Program Administration. All regulatory requirements continue to be met by the EZA Cross Check Program.

4.5.1 ECKERT & ZIEGLER ANALYTICS CROSS CHECK PROGRAM

EZA mixed gamma in liquid, mixed gamma in vegetation, mixed gamma in soil, low-level I-131 in liquid, mixed gamma air filter composites, I-131 air cartridges, gross beta in water, gross beta in filters, and tritium in water were analyzed at various times of the year at EnRad Laboratories. A summary of the applicable REMP EnRad Laboratory program results for 2022 is documented in Table 4.0-A.

Interlaboratory cross check samples from EZA were received and analyzed in two of the four quarters of 2022. Table 4.0-A lists the performance for specific samples. Forty-one nuclide results were reported to EZA of which forty-one (100 %) met the acceptance criteria based on IP 84750.

4.6 STATE OF NORTH CAROLINA INTERCOMPARISON PROGRAM

EnRad Laboratories routinely participates with the North Carolina Department of Health and Human Services in an intercomparison program. EnRad Laboratories sends McGuire Nuclear Plant Radiological Environmental Monitoring Program air, drinking water, surface water, milk, fish, food products, and shoreline sediment samples to the North Carolina Department of Health and Human Services, Division of Public Health for intercomparison analysis.

4.7 TLD INTERCOMPARISON PROGRAM (INTERNAL DUKE ENERGY)

Radiation Dosimetry and Records participates in a quarterly TLD internal comparison program administered internally by the Dosimetry Lab. The Dosimetry Lab Staff irradiates environmental dosimeters quarterly using the NIST-traceable Hopewell and submits them for analysis of the unknown estimated delivered exposure. The TLD results were evaluated against Radiation Dosimetry and Records Procedure RD/0/B/2000/09, Harshaw TLD Dose Algorithm Verification. Forty TLD results were evaluated of which forty (100%) met the acceptance criteria. A summary of the 2022 Internal Cross Check (Duke Energy) Program is documented in Table 4.0-B.

TABLE 4.0-A

ECKERT & ZIEGLER ANALYTICS

CROSS CHECK PROGRAM

2022 Cross Check Results for EnRad Laboratories

Interlaboratory cross check samples from EZA were received and analyzed in two of the four quarters of 2022. Results are reported directly to Eckert & Ziegler Analytics. Environmental cross check samples were analyzed in replicate, and the result closest to the mean is reported to Eckert & Ziegler Analytics. The acceptance criteria for the program was based on the NRC Inspection Manual Procedure 84750 (IP 84750). Table 4.0-A lists the performance for specific samples. Forty-one nuclide results were reported to EZA of which forty-one (100 %) met the acceptance criteria based on IP 84750.

Sample	Sample ID	Nuclide	Quarter	Units	EnRad Value	EZA Value	EnRad/EZA Ratio	Evaluation
Beta Filter in Planchet	E13558	Cs-137	2	pCi	211	223	0.94	Agreement
I-131 in Charcoal Cartridge	E13556	I-131	2	pCi	86.0	84.8	1.01	Agreement
Gamma in Soil	E13557	Ce-141	2	pCi/g	0.198	0.195	1.01	Agreement
		Co-58	2	pCi/g	0.162	0.181	0.90	Agreement
		Co-60	2	pCi/g	0.340	0.340	1.00	Agreement
		Cr-51	2	pCi/g	0.529	0.484	1.09	Agreement
		Cs-134	2	pCi/g	0.258	0.241	1.07	Agreement
		Cs-137	2	pCi/g	0.316	0.360	0.88	Agreement
		Fe-59	2	pCi/g	0.203	0.220	0.92	Agreement
		Mn-54	2	pCi/g	0.349	0.322	1.08	Agreement
		Zn-65	2	pCi/g	0.448	0.417	1.08	Agreement
Gamma in Simulated Vegetation	E13564	Ce-141	3	pCi/g	0.196	0.208	0.94	Agreement
		Co-58	3	pCi/g	0.232	0.244	0.95	Agreement
		Co-60	3	pCi/g	0.305	0.336	0.91	Agreement
		Cr-51	3	pCi/g	0.551	0.590	0.93	Agreement
		Cs-134	3	pCi/g	0.264	0.326	0.81	Agreement
		Cs-137	3	pCi/g	0.261	0.287	0.91	Agreement
		Fe-59	3	pCi/g	0.223	0.224	1.00	Agreement
		Mn-54	3	pCi/g	0.348	0.365	0.95	Agreement
		Zn-65	3	pCi/g	0.477	0.483	0.99	Agreement

TABLE 4.0-A (Cont.)

Sample	Sample ID	Nuclide	Quarter	Units	EnRad Value	EZA Value	EnRad/EZA Ratio	Evaluation
Gamma in Composite Filter	E13562	Ce-141	3	pCi	112	108	1.04	Agreement
		Co-58	3	pCi	130	126	1.03	Agreement
		Co-60	3	pCi	179	174	1.03	Agreement
		Cr-51	3	pCi	309	305	1.01	Agreement
		Cs-134	3	pCi	162	169	0.96	Agreement
		Cs-137	3	pCi	151	148	1.02	Agreement
		Fe-59	3	pCi	126	116	1.09	Agreement
		Mn-54	3	pCi	199	189	1.05	Agreement
		Zn-65	3	pCi	269	250	1.08	Agreement
Gamma in Water	E13563	Ce-141	3	pCi/L	168	157	1.07	Agreement
		Co-58	3	pCi/L	192	184	1.04	Agreement
		Co-60	3	pCi/L	266	253	1.05	Agreement
		Cr-51	3	pCi/L	490	444	1.10	Agreement
		Cs-134	3	pCi/L	233	246	0.95	Agreement
		Cs-137	3	pCi/L	231	216	1.07	Agreement
		Fe-59	3	pCi/L	190	168	1.13	Agreement
		Mn-54	3	pCi/L	297	275	1.08	Agreement
		Zn-65	3	pCi/L	396	364	1.09	Agreement
Milk LLI-131	E13559	I-131	2	pCi/L	100	93.3	1.07	Agreement
Gross Beta in Water	E13561	Cs-137	2	pCi/L	252	279	0.90	Agreement
Tritium in Water	E13565	H-3	3	pCi/L	11600	12500	0.93	Agreement

TABLE 4.0-B

2022 ENVIRONMENTAL DOSIMETER

CROSS CHECK RESULTS

Internal Crosscheck (Duke Energy)

Radiation Dosimetry and Records participates in a quarterly TLD internal comparison program administered internally by the Dosimetry Lab. The Dosimetry Lab Staff irradiates environmental dosimetry quarterly and submits them for analysis of the unknown estimated delivered exposure. The TLD results were evaluated against Radiation Dosimetry and Records Procedure RD/0/B/2000/09, Harshaw TLD Dose Algorithm Verification. Forty TLD results were evaluated of which forty (100%) met the acceptance criteria.

1st Quarter 2022						2nd Quarter 2022					
TLD Number	Reported (mR)	Delivered (mR)	Bias (% diff)	Pass/Fail Criteria	Pass/Fail	TLD Number	Reported (mR)	Delivered (mR)	Bias (% diff)	Pass/Fail Criteria	Pass/Fail
103615	59.74	58.21	2.63	<+/-20%	Pass	102931	19.48	18.49	5.35	<+/-20%	Pass
102059	56.77	58.21	-2.47	<+/-20%	Pass	100029	18.10	18.49	-2.11	<+/-20%	Pass
100164	55.78	58.21	-4.17	<+/-20%	Pass	100033	17.98	18.49	-2.76	<+/-20%	Pass
102407	57.37	58.21	-1.44	<+/-20%	Pass	103721	19.90	18.49	7.63	<+/-20%	Pass
103098	60.15	58.21	3.33	<+/-20%	Pass	103212	19.62	18.49	6.11	<+/-20%	Pass
100007	56.16	58.21	-3.52	<+/-20%	Pass	100224	18.18	18.49	-1.68	<+/-20%	Pass
100038	56.16	58.21	-3.52	<+/-20%	Pass	100074	18.32	18.49	-0.92	<+/-20%	Pass
100245	54.99	58.21	-5.53	<+/-20%	Pass	102018	19.49	18.49	5.41	<+/-20%	Pass
102442	55.54	58.21	-4.59	<+/-20%	Pass	100068	18.12	18.49	-2.00	<+/-20%	Pass
100170	55.95	58.21	-3.88	<+/-20%	Pass	100028	18.22	18.49	-1.46	<+/-20%	Pass
Average Bias (B)			-2.32			Average Bias (B)			1.36		
Standard Deviation (S)			3.01			Standard Deviation (S)			4.17		
Measure Performance B +S			5.33	<20%	Pass	Measure Performance B +S			5.53	<20%	Pass
3rd Quarter 2022						4th Quarter 2022					
TLD Number	Reported (mR)	Delivered (mR)	Bias (% diff)	Pass/Fail Criteria	Pass/Fail	TLD Number	Reported (mR)	Delivered (mR)	Bias (% diff)	Pass/Fail Criteria	Pass/Fail
104776	37.17	40.39	-7.97	<+/-20%	Pass	104757	27.93	29.67	-5.86	<+/-20%	Pass
104826	37.06	40.39	-8.24	<+/-20%	Pass	104823	28.05	29.67	-5.46	<+/-20%	Pass
104474	37.27	40.39	-7.72	<+/-20%	Pass	104475	27.76	29.67	-6.44	<+/-20%	Pass
104775	36.47	40.39	-9.71	<+/-20%	Pass	104824	28.14	29.67	-5.16	<+/-20%	Pass
104827	38.17	40.39	-5.50	<+/-20%	Pass	104750	28.20	29.67	-4.95	<+/-20%	Pass
104357	36.64	40.39	-9.28	<+/-20%	Pass	104776	28.03	29.67	-5.53	<+/-20%	Pass
104353	37.42	40.39	-7.35	<+/-20%	Pass	104755	28.25	29.67	-4.79	<+/-20%	Pass
104358	35.99	40.39	-10.89	<+/-20%	Pass	104355	28.04	29.67	-5.49	<+/-20%	Pass
104355	38.17	40.39	-5.50	<+/-20%	Pass	104828	27.20	29.67	-8.32	<+/-20%	Pass
104475	36.55	40.39	-9.51	<+/-20%	Pass	104354	27.63	29.67	-6.88	<+/-20%	Pass
Average Bias (B)			-8.17			Average Bias (B)			-5.89		
Standard Deviation (S)			1.76			Standard Deviation (S)			1.07		
Measure Performance B +S			9.93	<20%	Pass	Measure Performance B +S			6.96	<20%	Pass

APPENDIX A

**ENVIRONMENTAL SAMPLING
&
ANALYSIS PROCEDURES**

APPENDIX A

ENVIRONMENTAL SAMPLING AND ANALYSIS PROCEDURES

Adherence to established procedures for sampling and analysis of all environmental media at McGuire Nuclear Station was required to ensure compliance with Station Selected Licensee Commitments. Analytical procedures were employed to ensure that Selected Licensee Commitments detection capabilities were achieved.

Environmental sampling and analyses were performed by EnRad Laboratories, Dosimetry and Records, and Environmental Services.

This appendix provides a description of the specific analyses performed on samples collected in the field. Changes to the sampling procedures and analyses procedures are also discussed in the section.

I. CHANGE OF SAMPLING PROCEDURES

Procedure 730, Airborne Radioiodine and Airborne Particulate Sampling at McGuire Nuclear Station was revised to designate new “Community” ODCM air monitoring location 106 (Indicator, E sector 0.47 miles) which was placed into operation 24MAY2021 and delete historical “Community” air monitoring location 103 (Indicator, NE sector 4.20 miles) (NCR# 02335752) with the implementation of MNS ODCM revision 61 (effective 26SEP2022).

Procedure 736, Direct Radiation Measurement (TLDs) at McGuire Nuclear Station was revised with the implementation of MNS ODCM revision 61 (effective 26SEP2022) to remove business names from TLD description locations and make them more generalized. Location descriptions were changed to non-business descriptions/names as businesses may change over time.

II. DESCRIPTION OF ANALYSIS PROCEDURES

Gamma spectroscopy analyses are performed using high purity germanium gamma detectors and Mirion analytical software. Designated sample volumes are transferred to appropriate counting geometries and analyzed by gamma spectroscopy. Perishable samples such as fish and broadleaf vegetation are ground to achieve a homogeneous mixture. Soils and sediments are dried, sifted to remove foreign objects (rocks, clams, glass, etc.) and then transferred to appropriate counting geometry.

Low-level iodine analyses are performed by passing a designated sample aliquot through a pre-determined amount of ion exchange resin to remove and concentrate any iodine in the aqueous

sample (milk). The resin is then dried and mixed thoroughly, before being transferred to appropriate counting geometry and analyzed by gamma spectroscopy.

Tritium analyses are performed by using low-level environmental liquid scintillation analysis technique on a Perkin-Elmer 4910TR liquid scintillation system or a Perkin-Elmer 3110TR liquid scintillation system. Tritium samples are distilled and batch processed with a laboratory fortified blank, matrix spike, matrix spike duplicate, and blank to verify instrument performance, sample preparation technique are acceptable, and sample contamination has not occurred.

Gross beta analysis of air filters is performed by analyzing filters on Tennelec XLB Series 5 gas-flow proportional counters. Samples are batch processed with a blank to ensure sample contamination has not occurred.

Gross beta analysis of liquid samples is performed by concentrating a designated aliquot of sample and analyzing by Perkin-Elmer 4910TR liquid scintillation system. Samples are batch processed with a laboratory fortified blank and blank to verify instrument performance and ensure sample contamination has not occurred.

III. CHANGE OF ANALYSIS PROCEDURES

There were no changes to analysis procedures implemented during 2022.

APPENDIX B

**RADIOLOGICAL
ENVIRONMENTAL MONITORING
PROGRAM**

SUMMARY OF RESULTS

**MCGUIRE NUCLEAR STATION
RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM DATA SUMMARY**

McGuire Nuclear Station
Mecklenburg County, North Carolina

Docket Numbers 50-369, 370
Calendar Year 2022

Medium or Pathway Sampled or Measured (Unit of Measurement)	Type and Total No. of Measurements Performed	Lower Limit of Detection (LLD) ⁽¹⁾	All Indicator Locations ⁽²⁾⁽³⁾ Mean Range	Location w/Highest Annual Mean Name, Distance, and Direction	Mean Range ⁽²⁾⁽³⁾	Control Locations Mean Range ⁽²⁾⁽³⁾	No. of Non-Routine Report Meas.
Air Particulate (pCi/m ³)	Gross Beta 410 ⁽⁴⁾	See Table 2.2-C	2.24E-2 (358/358) 9.28E-3 – 3.68E-2	195 (0.19 mi N)	2.42E-2 (52/52) 1.21E-2 – 3.68E-2	102 (9.89 mi WNW) 2.37E-2 (52/52) 1.22E-2 – 3.77E-2	0
	Gamma 32 ⁽⁴⁾	See Table 2.2-C	All less than LLD	-----	-----	All less than LLD	0
Air Radioiodine (pCi/m ³)	Gamma 410 ⁽⁴⁾	See Table 2.2-C	All less than LLD	-----	-----	All less than LLD	0
Drinking Water (pCi/l)	Gross Beta 65	See Table 2.2-C	3.85E+00 (15/52) 3.42E+00 – 4.80E+00	101 (3.31 mi E)	4.03E+00 (4/13) 3.51E+00 – 4.45E+00	136 (12.7 mi NNE) 4.01E+00 (3/13) 3.75E+00 – 4.41E+00	0
	Gamma 65	See Table 2.2-C	All less than LLD	-----	-----	All less than LLD	0
Surface Water (pCi/l)	Tritium ⁽⁶⁾ 20	See Table 2.2-C	4.80E+2 (13/16) 2.06E+02 – 8.13E+02	101 (3.31 mi E)	6.82E+02 (4/4) 5.47E+02 – 8.13E+02	All less than LLD	0
	Gamma 39 ⁽⁴⁾	See Table 2.2-C	All less than LLD	-----	-----	All less than LLD	0
Milk (pCi/l)	Tritium ⁽⁴⁾⁽⁶⁾ 12	See Table 2.2-C	5.67E+2 (8/8) 2.88E+02 – 9.38E+02	128 (0.45 mi NE)	7.50E+2 (4/4) 5.26E+02 – 9.38E+02	All less than LLD	0
	Gamma 26	See Table 2.2-C	No Indicator Location	-----	-----	All less than LLD	0
	I-131 26	See Table 2.2-C	No Indicator Location	-----	-----	All less than LLD	0

**MCGUIRE NUCLEAR STATION
RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM DATA SUMMARY**

McGuire Nuclear Station
Mecklenburg County, North Carolina

Docket Numbers 50-369, 370
Calendar Year 2022

Medium or Pathway Sampled or Measured (Unit of Measurement)	Type and Total No. of Measurements Performed	Lower Limit of Detection (LLD) ⁽¹⁾	All Indicator Locations ^{(2),(3)} Mean Range	Location w/Highest Annual Mean Name, Distance, and Direction	Mean Range ^{(2),(3)}	Control Locations Mean Range ^{(2),(3)}	No. of Non-Routine Report Meas.
Broadleaf Vegetation (pCi/kg, wet)	Gamma 48	See Table 2.2-C	All less than LLD	-----	-----	All less than LLD	0
Food Products (pCi/kg, wet)	Gamma 12	See Table 2.2-C	All less than LLD	-----	-----	No Control Location	0
Fish (pCi/kg, wet)	Gamma 12	See Table 2.2-C	All less than LLD	-----	-----	All less than LLD	0
Sediments--Shoreline (pCi/kg, dry)	Gamma 6	See Table 2.2-C	All less than LLD	-----	-----	All less than LLD	0
Direct Gamma Radiation (TLD) (mR/Std Qtr)	TLD Readout 164 ⁽⁵⁾	-----	1.70E+01 (160/160) 9.69E+00 – 2.79E+01	174 (8.85 mi WNW)	2.57E+01 (4/4) 2.40E+01 – 2.79E+01	175 (15.5 mi WNW) 2.30E+01 (4/4) 2.12E+01 – 2.44E+01	0

Footnotes to Appendix B

1. The Lower Limit of Detection (LLD) is the smallest concentration of radioactive material in a sample that will yield a net count above system background which will be detected with 95 percent probability and with only 5 percent probability of falsely concluding that a blank observation represents a "real" signal. Due to counting statistics and varying volumes, occasionally lower LLDs are achieved. Refer to Analytical Procedures Section/Gamma Spectrometry for an explanation of how LLD values were derived.
2. Mean and range are based on detectable measurements only.
3. The fractions of all samples with detectable activities at specific locations are indicated in parentheses.
4. Missing samples or surveillances are discussed in Appendix C or Appendix D.
5. TLD exposure is reported in milliroentgen (mR) per standard quarter (91 days).
6. Quarterly tritium composites determined using quarter days (92 days +/- 25% (23 days)).

APPENDIX C

**SAMPLING DEVIATIONS
&
UNAVAILABLE ANALYSES**

APPENDIX C

MCGUIRE NUCLEAR STATION SAMPLING DEVIATIONS & UNAVAILABLE ANALYSES

DEVIATION & UNAVAILABLE REASON CODES			
BF	Blown Fuse	PM	Preventive Maintenance
CN	Construction	PO	Power Outage
FZ	Sample Frozen	PS	Pump out of service / Undergoing repair
IV	Insufficient Volume	SL	Sample Loss/Lost due to Lab Accident
IW	Incllement Weather	SM	Motor / Rotor Seized
LC	Line Clog to Sampler	SU	Seasonally Unavailable
OT	Other	TF	Torn Filter
PI	Power Interrupt	VN	Vandalism

C.1 SAMPLING DEVIATIONS

Air Particulate and Air Radioiodine

REMP weekly air samples (Air Particulate (AP) or Air Radioiodine (AR)) that experience any downtime during a surveillance period are reported as a Deviation and classified as a “Sampling Deviation.” However, the sample is counted, and the data reported, whereas a Deviation with no available sample is classified as an “Unavailable Analyses” and does not have any data reported. The air samplers operated for a total of 99.67% availability in 2022.

Location	Scheduled Collection Dates	Code	Description & Action to Prevent Recurrence	Corrective Action
121	5/23-5/31/2022	PO	97.02 hours of downtime due to tripped breaker due to power outage.	NCR# 02429448
121	7/5-7/11/2022	PI	0.27 hours of downtime due to power interruption for onsite work at MNS Island.	NCR# 02433758
195	7/5-7/11/2022	PI	0.29 hours of downtime due to power interruption for onsite work at MNS Island.	NCR# 02433760
120	7/5-7/11/2022	PI	0.28 hours of downtime due to power interruption for onsite work at MNS Island.	NCR# 02433755
195	9/26-10/3/2022	BF	27.99 hours of downtime due to blown fuse in air sampler.	NCR# 02444038
125	10/31-11/7/2022	PI	10.92 hours of downtime due to power interruption for maintenance on motor control center SMXL.	NCR# 02448607
120	12/19-12/27/2022	PI	67.54 hours of downtime due to power interruption for undetermined cause.	NCR # 02454169

Drinking Water and Surface Water

REMP monthly drinking water samples (Drinking Water (DW)) or surface water samples (Surface Water (SW)) that experience any downtime during a surveillance period are reported as a Deviation and classified as a “Sampling Deviation.” However, the sample is counted, and the data reported, whereas a Deviation with no available sample is classified as an “Unavailable Analyses” and does not have any data reported. The drinking and surface water samplers operated for a total of 99.48% availability in 2022.

Location	Scheduled Collection Dates	Code	Description & Action to Prevent Recurrence	Corrective Action
131	12/27/2021-1/24/2022 1/24-2/21/2022	PM	No water source to sampling location due to scheduled maintenance de-watering activities. Maintenance activities began on 1/10/22 at 12:00 and completed on 1/25/2022 at 08:16 and spanned over two collection periods for a total downtime of 15.3 days.	NCR # 02413270 NCR # 02416930

C.2 UNAVAILABLE ANALYSES

There were no unavailable analyses for the 2022 McGuire REMP.

APPENDIX D

ANALYTICAL DEVIATIONS

There Were No Analytical Deviations In 2022.

APPENDIX E

**RADIOLOGICAL
ENVIRONMENTAL MONITORING
PROGRAM RESULTS**

2022

This appendix includes sample analysis report summaries and supportive data generated from each sample medium for 2022.

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR PARTICULATE Concentration (Activity): pCi/m3

Sample Point 102 [CONTROL - WNW @ 9.89 miles]

Sample ID	Sample Dates	Nuclide	Activity	2 Sigma Error	MDA
558894	1/4/2022 - 1/10/2022	Beta	2.67E-02	3.32E-03	3.14E-03
559001	1/10/2022 - 1/18/2022	Beta	2.42E-02	2.63E-03	2.40E-03
559405	1/18/2022 - 1/24/2022	Beta	2.15E-02	3.20E-03	3.49E-03
560065	1/24/2022 - 1/31/2022	Beta	2.89E-02	3.12E-03	2.88E-03
560282	1/31/2022 - 2/7/2022	Beta	2.57E-02	2.82E-03	2.30E-03
560527	2/7/2022 - 2/14/2022	Beta	2.16E-02	2.83E-03	2.87E-03
560832	2/14/2022 - 2/21/2022	Beta	2.42E-02	2.93E-03	2.82E-03
561168	2/21/2022 - 2/28/2022	Beta	1.56E-02	2.41E-03	2.52E-03
561667	2/28/2022 - 3/7/2022	Beta	2.89E-02	3.47E-03	3.18E-03
562269	3/7/2022 - 3/14/2022	Beta	1.56E-02	2.55E-03	2.89E-03
562866	3/14/2022 - 3/21/2022	Beta	1.60E-02	3.03E-03	3.65E-03
563462	3/21/2022 - 3/28/2022	Beta	1.82E-02	2.61E-03	2.73E-03
563795	3/28/2022 - 4/4/2022	Beta	2.28E-02	3.26E-03	3.49E-03
564039	1/4/2022 - 4/4/2022	Cs-134	<1.28E-03	0.00E+00	1.28E-03
		Cs-137	<1.22E-03	0.00E+00	1.22E-03
		Be-7	1.82E-01	4.05E-02	3.39E-02
		K-40	2.59E-02	1.65E-02	2.04E-02
564031	4/4/2022 - 4/11/2022	Beta	1.40E-02	2.73E-03	3.28E-03
564561	4/11/2022 - 4/18/2022	Beta	1.98E-02	2.68E-03	2.63E-03
564828	4/18/2022 - 4/25/2022	Beta	2.89E-02	3.38E-03	2.99E-03
565319	4/25/2022 - 5/2/2022	Beta	2.54E-02	3.35E-03	3.38E-03
565985	5/2/2022 - 5/9/2022	Beta	1.77E-02	2.99E-03	3.43E-03
566578	5/9/2022 - 5/16/2022	Beta	1.55E-02	2.91E-03	3.44E-03
566964	5/16/2022 - 5/23/2022	Beta	2.48E-02	2.97E-03	2.92E-03
567154	5/23/2022 - 5/31/2022	Beta	1.63E-02	2.49E-03	2.53E-03
567592	5/31/2022 - 6/6/2022	Beta	2.83E-02	3.39E-03	3.26E-03
567760	6/6/2022 - 6/13/2022	Beta	2.27E-02	3.15E-03	3.05E-03

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

Report Generated @ 2/15/2023 13:34:28

Duke Energy Annual Report - Appendix E

Appendix E - Page 2 of 114

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR PARTICULATE Concentration (Activity): pCi/m3

Sample Point 102 [CONTROL - WNW @ 9.89 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
568401	6/13/2022 - 6/20/2022	Beta	2.82E-02	3.40E-03	3.11E-03
568635	6/20/2022 - 6/27/2022	Beta	3.16E-02	3.65E-03	3.43E-03
568851	6/27/2022 - 7/5/2022	Beta	1.96E-02	2.72E-03	2.71E-03
569103	4/4/2022 - 7/5/2022	Cs-134	<1.98E-03	0.00E+00	1.98E-03
		Cs-137	<1.42E-03	0.00E+00	1.42E-03
		Be-7	1.61E-01	3.67E-02	2.88E-02
		K-40	2.28E-02	1.23E-02	4.42E-03
569095	7/5/2022 - 7/11/2022	Beta	1.58E-02	3.25E-03	3.98E-03
570317	7/11/2022 - 7/18/2022	Beta	2.44E-02	3.26E-03	3.32E-03
570876	7/18/2022 - 7/25/2022	Beta	2.30E-02	2.91E-03	2.96E-03
571122	7/25/2022 - 8/1/2022	Beta	1.60E-02	2.74E-03	3.00E-03
571441	8/1/2022 - 8/8/2022	Beta	1.89E-02	3.00E-03	3.26E-03
571728	8/8/2022 - 8/15/2022	Beta	1.81E-02	2.94E-03	3.24E-03
572733	8/15/2022 - 8/22/2022	Beta	2.48E-02	3.31E-03	3.27E-03
573935	8/22/2022 - 8/29/2022	Beta	3.13E-02	3.10E-03	2.43E-03
574552	8/29/2022 - 9/6/2022	Beta	2.11E-02	2.97E-03	3.24E-03
575023	9/6/2022 - 9/12/2022	Beta	1.22E-02	2.91E-03	3.69E-03
575715	9/12/2022 - 9/19/2022	Beta	3.29E-02	3.71E-03	3.33E-03
576108	9/19/2022 - 9/26/2022	Beta	3.64E-02	3.78E-03	3.22E-03
576279	9/26/2022 - 10/3/2022	Beta	1.66E-02	2.99E-03	3.50E-03
576575	7/5/2022 - 10/3/2022	Cs-134	<1.28E-03	0.00E+00	1.28E-03
		Cs-137	<1.49E-03	0.00E+00	1.49E-03
		Be-7	1.76E-01	3.82E-02	2.79E-02
		K-40	<3.11E-02	0.00E+00	3.11E-02
576567	10/3/2022 - 10/10/2022	Beta	3.17E-02	3.47E-03	2.87E-03
577187	10/10/2022 - 10/17/2022	Beta	3.53E-02	3.69E-03	3.10E-03
577782	10/17/2022 - 10/25/2022	Beta	2.74E-02	3.15E-03	2.87E-03
578135	10/25/2022 - 10/31/2022	Beta	2.38E-02	3.55E-03	3.70E-03
578847	10/31/2022 - 11/7/2022	Beta	2.49E-02	3.27E-03	3.19E-03

EnRad Laboratories

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR PARTICULATE Concentration (Activity): pCi/m3

Sample Point 102 [CONTROL - WNW @ 9.89 miles]

Sample ID	Sample Dates	Nuclide	Activity	2 Sigma Error	MDA
579046	11/7/2022 - 11/14/2022	Beta	1.76E-02	2.90E-03	3.18E-03
579806	11/14/2022 - 11/21/2022	Beta	2.99E-02	3.59E-03	3.45E-03
580619	11/21/2022 - 11/28/2022	Beta	3.77E-02	3.43E-03	2.74E-03
580832	11/28/2022 - 12/5/2022	Beta	2.41E-02	3.24E-03	3.24E-03
581151	12/5/2022 - 12/12/2022	Beta	2.90E-02	3.49E-03	3.29E-03
581719	12/12/2022 - 12/19/2022	Beta	2.64E-02	3.49E-03	3.56E-03
582254	12/19/2022 - 12/27/2022	Beta	2.90E-02	3.16E-03	2.63E-03
582442	12/27/2022 - 1/3/2023	Beta	2.36E-02	3.31E-03	3.59E-03
582702	10/3/2022 - 1/3/2023	Cs-134	<1.27E-03	0.00E+00	1.27E-03
		Cs-137	<1.47E-03	0.00E+00	1.47E-03
		Be-7	1.23E-01	3.42E-02	3.34E-02
		K-40	<3.50E-02	0.00E+00	3.50E-02

Sample Point 103 [INDICATOR - NE @ 4.2 miles]

Sample ID	Sample Dates	Nuclide	Activity	2 Sigma Error	MDA
558895	1/4/2022 - 1/10/2022	Beta	2.60E-02	3.23E-03	3.06E-03
559002	1/10/2022 - 1/18/2022	Beta	2.26E-02	2.59E-03	2.42E-03
559408	1/18/2022 - 1/24/2022	Beta	2.17E-02	3.18E-03	3.45E-03
560066	1/24/2022 - 1/31/2022	Beta	2.81E-02	3.12E-03	2.93E-03
560283	1/31/2022 - 2/7/2022	Beta	2.15E-02	2.60E-03	2.26E-03
560528	2/7/2022 - 2/14/2022	Beta	2.75E-02	3.11E-03	2.91E-03
560833	2/14/2022 - 2/21/2022	Beta	2.25E-02	2.83E-03	2.79E-03
561169	2/21/2022 - 2/28/2022	Beta	1.81E-02	2.55E-03	2.54E-03
561668	2/28/2022 - 3/7/2022	Beta	3.22E-02	3.62E-03	3.19E-03
562270	3/7/2022 - 3/14/2022	Beta	1.45E-02	2.49E-03	2.87E-03
562867	3/14/2022 - 3/21/2022	Beta	1.44E-02	2.91E-03	3.59E-03
563463	3/21/2022 - 3/28/2022	Beta	2.04E-02	2.73E-03	2.77E-03
563796	3/28/2022 - 4/4/2022	Beta	1.89E-02	3.08E-03	3.49E-03
564040	1/4/2022 - 4/4/2022	Cs-134	<1.67E-03	0.00E+00	1.67E-03
		Cs-137	<1.23E-03	0.00E+00	1.23E-03
		Be-7	2.11E-01	4.08E-02	2.04E-02

EnRad Laboratories

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR PARTICULATE Concentration (Activity): pCi/m3

Sample Point 103 [INDICATOR - NE @ 4.2 miles]

Sample ID	Sample Dates	Nuclide	Activity	2 Sigma Error	MDA
564040	1/4/2022 - 4/4/2022	K-40	<3.01E-02	0.00E+00	3.01E-02
564032	4/4/2022 - 4/11/2022	Beta	1.29E-02	2.68E-03	3.27E-03
564562	4/11/2022 - 4/18/2022	Beta	1.96E-02	2.64E-03	2.58E-03
564829	4/18/2022 - 4/25/2022	Beta	2.69E-02	3.33E-03	3.04E-03
565320	4/25/2022 - 5/2/2022	Beta	2.81E-02	3.47E-03	3.38E-03
565986	5/2/2022 - 5/9/2022	Beta	1.73E-02	2.97E-03	3.43E-03
566579	5/9/2022 - 5/16/2022	Beta	1.15E-02	2.66E-03	3.39E-03
566965	5/16/2022 - 5/23/2022	Beta	2.32E-02	2.93E-03	2.96E-03
567155	5/23/2022 - 5/31/2022	Beta	1.56E-02	2.45E-03	2.53E-03
567593	5/31/2022 - 6/6/2022	Beta	2.85E-02	3.41E-03	3.28E-03
567761	6/6/2022 - 6/13/2022	Beta	2.41E-02	3.19E-03	3.01E-03
568402	6/13/2022 - 6/20/2022	Beta	2.76E-02	3.40E-03	3.14E-03
568636	6/20/2022 - 6/27/2022	Beta	2.87E-02	3.52E-03	3.43E-03
568852	6/27/2022 - 7/5/2022	Beta	1.79E-02	2.64E-03	2.72E-03
569104	4/4/2022 - 7/5/2022	Cs-134	<1.25E-03	0.00E+00	1.25E-03
		Cs-137	<1.45E-03	0.00E+00	1.45E-03
		Be-7	1.69E-01	3.79E-02	3.02E-02
		K-40	3.04E-02	1.63E-02	1.69E-02
569096	7/5/2022 - 7/11/2022	Beta	1.55E-02	3.16E-03	3.85E-03
570318	7/11/2022 - 7/18/2022	Beta	2.02E-02	3.13E-03	3.41E-03
570877	7/18/2022 - 7/25/2022	Beta	1.95E-02	2.75E-03	2.96E-03
571123	7/25/2022 - 8/1/2022	Beta	1.63E-02	2.77E-03	3.01E-03
571442	8/1/2022 - 8/8/2022	Beta	1.49E-02	2.77E-03	3.22E-03
571729	8/8/2022 - 8/15/2022	Beta	1.74E-02	2.93E-03	3.28E-03
572734	8/15/2022 - 8/22/2022	Beta	1.93E-02	3.03E-03	3.25E-03
573936	8/22/2022 - 8/29/2022	Beta	3.20E-02	3.13E-03	2.45E-03
574553	8/29/2022 - 9/6/2022	Beta	1.97E-02	2.88E-03	3.19E-03

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

Report Generated @ 2/15/2023 13:34:28

Duke Energy Annual Report - Appendix E

Appendix E - Page 5 of 114

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR PARTICULATE Concentration (Activity): pCi/m3

Sample Point 103 [INDICATOR - NE @ 4.2 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
575024	9/6/2022 - 9/12/2022	Beta	1.14E-02	2.89E-03	3.75E-03
575716	9/12/2022 - 9/19/2022	Beta	3.37E-02	3.74E-03	3.32E-03
576109	9/19/2022 - 9/26/2022	Beta	3.20E-02	3.61E-03	3.24E-03
576280	9/26/2022 - 10/3/2022	Beta	1.34E-02	2.79E-03	3.45E-03
576576	7/5/2022 - 10/3/2022	Cs-134	<1.58E-03	0.00E+00	1.58E-03
		Cs-137	<1.30E-03	0.00E+00	1.30E-03
		Be-7	1.59E-01	3.74E-02	2.88E-02
		K-40	1.73E-02	1.57E-02	2.28E-02
576568	10/3/2022 - 10/10/2022	Beta	2.84E-02	3.36E-03	2.91E-03
577188	10/10/2022 - 10/17/2022	Beta	3.22E-02	3.56E-03	3.10E-03
577783	10/17/2022 - 10/25/2022	Beta	2.74E-02	3.15E-03	2.86E-03
578136	10/25/2022 - 10/31/2022	Beta	2.00E-02	3.34E-03	3.65E-03
578848	10/31/2022 - 11/7/2022	Beta	2.20E-02	3.16E-03	3.23E-03
579047	11/7/2022 - 11/14/2022	Beta	1.74E-02	2.89E-03	3.16E-03
579807	11/14/2022 - 11/21/2022	Beta	2.52E-02	3.39E-03	3.48E-03
582703	10/3/2022 - 11/21/2022	Cs-134	<1.55E-03	0.00E+00	1.55E-03
		Cs-137	<1.74E-03	0.00E+00	1.74E-03
		Be-7	1.29E-01	4.15E-02	4.79E-02
		K-40	2.80E-02	1.85E-02	2.52E-02

Sample Point 106 [INDICATOR - E @ 0.47 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
558896	1/4/2022 - 1/10/2022	Beta	2.43E-02	3.16E-03	3.07E-03
559003	1/10/2022 - 1/18/2022	Beta	2.17E-02	2.57E-03	2.45E-03
559411	1/18/2022 - 1/24/2022	Beta	1.86E-02	3.01E-03	3.40E-03
560067	1/24/2022 - 1/31/2022	Beta	2.42E-02	2.96E-03	2.93E-03
560284	1/31/2022 - 2/7/2022	Beta	2.41E-02	2.75E-03	2.30E-03
560529	2/7/2022 - 2/14/2022	Beta	2.34E-02	2.92E-03	2.89E-03
560834	2/14/2022 - 2/21/2022	Beta	2.22E-02	2.80E-03	2.76E-03
561170	2/21/2022 - 2/28/2022	Beta	1.56E-02	2.45E-03	2.57E-03
561669	2/28/2022 - 3/7/2022	Beta	2.98E-02	3.46E-03	3.12E-03

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

Report Generated @ 2/15/2023 13:34:28

Duke Energy Annual Report - Appendix E

Appendix E - Page 6 of 114

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR PARTICULATE Concentration (Activity): pCi/m3

Sample Point 106 [INDICATOR - E @ 0.47 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
562271	3/7/2022 - 3/14/2022	Beta	1.46E-02	2.50E-03	2.90E-03
562868	3/14/2022 - 3/21/2022	Beta	1.32E-02	2.85E-03	3.59E-03
563464	3/21/2022 - 3/28/2022	Beta	1.62E-02	2.54E-03	2.78E-03
563797	3/28/2022 - 4/4/2022	Beta	1.88E-02	3.04E-03	3.44E-03
564041	1/4/2022 - 4/4/2022	Cs-134	<1.83E-03	0.00E+00	1.83E-03
		Cs-137	<1.82E-03	0.00E+00	1.82E-03
		Be-7	1.69E-01	3.77E-02	2.85E-02
		K-40	<3.82E-02	0.00E+00	3.82E-02
564033	4/4/2022 - 4/11/2022	Beta	1.56E-02	2.86E-03	3.35E-03
564563	4/11/2022 - 4/18/2022	Beta	1.73E-02	2.49E-03	2.54E-03
564830	4/18/2022 - 4/25/2022	Beta	2.68E-02	3.36E-03	3.09E-03
565321	4/25/2022 - 5/2/2022	Beta	2.71E-02	3.38E-03	3.31E-03
565987	5/2/2022 - 5/9/2022	Beta	1.36E-02	2.81E-03	3.49E-03
566580	5/9/2022 - 5/16/2022	Beta	1.35E-02	2.75E-03	3.35E-03
566966	5/16/2022 - 5/23/2022	Beta	2.70E-02	3.11E-03	2.99E-03
567156	5/23/2022 - 5/31/2022	Beta	1.71E-02	2.53E-03	2.53E-03
567594	5/31/2022 - 6/6/2022	Beta	2.37E-02	3.20E-03	3.28E-03
567762	6/6/2022 - 6/13/2022	Beta	2.35E-02	3.13E-03	2.97E-03
568403	6/13/2022 - 6/20/2022	Beta	3.04E-02	3.55E-03	3.18E-03
568637	6/20/2022 - 6/27/2022	Beta	2.47E-02	3.35E-03	3.44E-03
568853	6/27/2022 - 7/5/2022	Beta	1.97E-02	2.72E-03	2.72E-03
569105	4/4/2022 - 7/5/2022	Cs-134	<1.47E-03	0.00E+00	1.47E-03
		Cs-137	<1.35E-03	0.00E+00	1.35E-03
		Be-7	1.82E-01	3.92E-02	2.93E-02
		K-40	<3.79E-02	0.00E+00	3.79E-02
569097	7/5/2022 - 7/11/2022	Beta	1.44E-02	3.09E-03	3.85E-03
570319	7/11/2022 - 7/18/2022	Beta	2.14E-02	3.18E-03	3.41E-03
570878	7/18/2022 - 7/25/2022	Beta	2.14E-02	2.85E-03	2.96E-03
571124	7/25/2022 - 8/1/2022	Beta	1.44E-02	2.66E-03	3.01E-03

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

Report Generated @ 2/15/2023 13:34:28

Duke Energy Annual Report - Appendix E

Appendix E - Page 7 of 114

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR PARTICULATE Concentration (Activity): pCi/m3

Sample Point 106 [INDICATOR - E @ 0.47 miles]

Sample ID	Sample Dates	Nuclide	Activity	2 Sigma Error	MDA
571443	8/1/2022 - 8/8/2022	Beta	1.93E-02	2.96E-03	3.16E-03
571730	8/8/2022 - 8/15/2022	Beta	1.72E-02	2.93E-03	3.30E-03
572735	8/15/2022 - 8/22/2022	Beta	2.03E-02	3.07E-03	3.23E-03
573937	8/22/2022 - 8/29/2022	Beta	3.43E-02	3.23E-03	2.45E-03
574554	8/29/2022 - 9/6/2022	Beta	1.94E-02	2.86E-03	3.18E-03
575025	9/6/2022 - 9/12/2022	Beta	1.30E-02	3.03E-03	3.82E-03
575717	9/12/2022 - 9/19/2022	Beta	3.35E-02	3.69E-03	3.27E-03
576110	9/19/2022 - 9/26/2022	Beta	2.96E-02	3.53E-03	3.26E-03
576281	9/26/2022 - 10/3/2022	Beta	1.35E-02	2.79E-03	3.43E-03
576577	7/5/2022 - 10/3/2022	Cs-134	<1.68E-03	0.00E+00	1.68E-03
		Cs-137	<1.72E-03	0.00E+00	1.72E-03
		Be-7	1.34E-01	3.80E-02	4.04E-02
		K-40	3.97E-02	1.68E-02	4.67E-03
576569	10/3/2022 - 10/10/2022	Beta	2.81E-02	3.35E-03	2.92E-03
577189	10/10/2022 - 10/17/2022	Beta	3.32E-02	3.63E-03	3.14E-03
577784	10/17/2022 - 10/25/2022	Beta	2.64E-02	3.09E-03	2.86E-03
578137	10/25/2022 - 10/31/2022	Beta	1.99E-02	3.29E-03	3.60E-03
578849	10/31/2022 - 11/7/2022	Beta	2.13E-02	3.15E-03	3.28E-03
579048	11/7/2022 - 11/14/2022	Beta	1.70E-02	2.82E-03	3.10E-03
579808	11/14/2022 - 11/21/2022	Beta	2.64E-02	3.46E-03	3.50E-03
580621	11/21/2022 - 11/28/2022	Beta	3.24E-02	3.20E-03	2.70E-03
580834	11/28/2022 - 12/5/2022	Beta	2.22E-02	3.20E-03	3.30E-03
581153	12/5/2022 - 12/12/2022	Beta	2.71E-02	3.43E-03	3.31E-03
581721	12/12/2022 - 12/19/2022	Beta	2.43E-02	3.37E-03	3.52E-03
582255	12/19/2022 - 12/27/2022	Beta	2.79E-02	3.09E-03	2.60E-03
582443	12/27/2022 - 1/3/2023	Beta	2.15E-02	3.25E-03	3.65E-03
582704	10/3/2022 - 1/3/2023	Cs-134	<2.02E-03	0.00E+00	2.02E-03
		Cs-137	<8.15E-04	0.00E+00	8.15E-04

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

Report Generated @ 2/15/2023 13:34:28

Duke Energy Annual Report - Appendix E

Appendix E - Page 8 of 114

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR PARTICULATE Concentration (Activity): pCi/m3

Sample Point 106 [INDICATOR - E @ 0.47 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
582704	10/3/2022 - 1/3/2023	Be-7	1.52E-01	3.63E-02	3.11E-02
		K-40	2.48E-02	1.51E-02	1.70E-02

Sample Point 120 [INDICATOR - NNE @ 0.46 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
558897	1/4/2022 - 1/10/2022	Beta	2.65E-02	3.27E-03	3.07E-03
559004	1/10/2022 - 1/18/2022	Beta	2.27E-02	2.61E-03	2.46E-03
559414	1/18/2022 - 1/24/2022	Beta	2.08E-02	3.08E-03	3.35E-03
560068	1/24/2022 - 1/31/2022	Beta	2.60E-02	3.05E-03	2.95E-03
560285	1/31/2022 - 2/7/2022	Beta	2.39E-02	2.75E-03	2.31E-03
560530	2/7/2022 - 2/14/2022	Beta	2.33E-02	2.91E-03	2.88E-03
560835	2/14/2022 - 2/21/2022	Beta	2.09E-02	2.73E-03	2.73E-03
561171	2/21/2022 - 2/28/2022	Beta	2.09E-02	2.72E-03	2.60E-03
561670	2/28/2022 - 3/7/2022	Beta	3.08E-02	3.50E-03	3.10E-03
562272	3/7/2022 - 3/14/2022	Beta	1.25E-02	2.41E-03	2.90E-03
562869	3/14/2022 - 3/21/2022	Beta	1.53E-02	2.94E-03	3.57E-03
563465	3/21/2022 - 3/28/2022	Beta	1.74E-02	2.62E-03	2.80E-03
563798	3/28/2022 - 4/4/2022	Beta	2.25E-02	3.22E-03	3.44E-03
564042	1/4/2022 - 4/4/2022	Cs-134	<3.66E-04	0.00E+00	3.66E-04
		Cs-137	<1.46E-03	0.00E+00	1.46E-03
		Be-7	1.97E-01	4.08E-02	3.13E-02
		K-40	2.50E-02	1.44E-02	1.43E-02
564034	4/4/2022 - 4/11/2022	Beta	1.58E-02	2.88E-03	3.37E-03
564564	4/11/2022 - 4/18/2022	Beta	1.95E-02	2.58E-03	2.52E-03
564831	4/18/2022 - 4/25/2022	Beta	2.67E-02	3.38E-03	3.12E-03
565322	4/25/2022 - 5/2/2022	Beta	2.91E-02	3.45E-03	3.29E-03
565988	5/2/2022 - 5/9/2022	Beta	1.78E-02	3.04E-03	3.51E-03
566581	5/9/2022 - 5/16/2022	Beta	1.54E-02	2.83E-03	3.32E-03
566967	5/16/2022 - 5/23/2022	Beta	2.73E-02	3.14E-03	3.02E-03
567157	5/23/2022 - 5/31/2022	Beta	1.62E-02	2.49E-03	2.54E-03

EnRad Laboratories

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR PARTICULATE Concentration (Activity): pCi/m3

Sample Point 120 [INDICATOR - NNE @ 0.46 miles]

Sample ID	Sample Dates	Nuclide	Activity	2 Sigma Error	MDA
567595	5/31/2022 - 6/6/2022	Beta	2.70E-02	3.34E-03	3.28E-03
567763	6/6/2022 - 6/13/2022	Beta	2.39E-02	3.13E-03	2.94E-03
568404	6/13/2022 - 6/20/2022	Beta	3.00E-02	3.55E-03	3.22E-03
568638	6/20/2022 - 6/27/2022	Beta	2.68E-02	3.45E-03	3.44E-03
568854	6/27/2022 - 7/5/2022	Beta	2.01E-02	2.75E-03	2.72E-03
569106	4/4/2022 - 7/5/2022	Cs-134	<1.80E-03	0.00E+00	1.80E-03
		Cs-137	<1.21E-03	0.00E+00	1.21E-03
		Be-7	2.01E-01	4.20E-02	3.21E-02
		K-40	2.05E-02	1.52E-02	2.01E-02
569098	7/5/2022 - 7/11/2022	Beta	1.33E-02	3.02E-03	3.85E-03
570320	7/11/2022 - 7/18/2022	Beta	2.25E-02	3.23E-03	3.40E-03
570879	7/18/2022 - 7/25/2022	Beta	2.15E-02	2.85E-03	2.96E-03
571125	7/25/2022 - 8/1/2022	Beta	1.45E-02	2.67E-03	3.02E-03
571444	8/1/2022 - 8/8/2022	Beta	1.82E-02	2.90E-03	3.16E-03
571731	8/8/2022 - 8/15/2022	Beta	1.92E-02	3.02E-03	3.29E-03
572736	8/15/2022 - 8/22/2022	Beta	2.28E-02	3.19E-03	3.23E-03
573938	8/22/2022 - 8/29/2022	Beta	3.38E-02	3.22E-03	2.47E-03
574555	8/29/2022 - 9/6/2022	Beta	2.18E-02	2.96E-03	3.16E-03
575026	9/6/2022 - 9/12/2022	Beta	1.26E-02	3.03E-03	3.85E-03
575718	9/12/2022 - 9/19/2022	Beta	3.50E-02	3.74E-03	3.25E-03
576111	9/19/2022 - 9/26/2022	Beta	3.65E-02	3.82E-03	3.26E-03
576282	9/26/2022 - 10/3/2022	Beta	1.51E-02	2.87E-03	3.42E-03
576578	7/5/2022 - 10/3/2022	Cs-134	<1.45E-03	0.00E+00	1.45E-03
		Cs-137	<1.45E-03	0.00E+00	1.45E-03
		Be-7	1.43E-01	3.45E-02	2.78E-02
		K-40	1.78E-02	1.75E-02	2.70E-02
576570	10/3/2022 - 10/10/2022	Beta	3.27E-02	3.58E-03	2.95E-03
577190	10/10/2022 - 10/17/2022	Beta	3.55E-02	3.72E-03	3.14E-03
577785	10/17/2022 - 10/25/2022	Beta	2.83E-02	3.19E-03	2.87E-03

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

Report Generated @ 2/15/2023 13:34:28

Duke Energy Annual Report - Appendix E

Appendix E - Page 10 of 114

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR PARTICULATE Concentration (Activity): pCi/m3

Sample Point 120 [INDICATOR - NNE @ 0.46 miles]

Sample ID	Sample Dates	Nuclide	Activity	2 Sigma Error	MDA
578138	10/25/2022 - 10/31/2022	Beta	2.01E-02	3.28E-03	3.56E-03
578850	10/31/2022 - 11/7/2022	Beta	2.04E-02	3.13E-03	3.31E-03
579049	11/7/2022 - 11/14/2022	Beta	1.54E-02	2.73E-03	3.08E-03
579809	11/14/2022 - 11/21/2022	Beta	2.95E-02	3.60E-03	3.51E-03
580622	11/21/2022 - 11/28/2022	Beta	3.03E-02	3.11E-03	2.68E-03
580835	11/28/2022 - 12/5/2022	Beta	2.21E-02	3.20E-03	3.31E-03
581154	12/5/2022 - 12/12/2022	Beta	2.81E-02	3.48E-03	3.33E-03
581722	12/12/2022 - 12/19/2022	Beta	2.43E-02	3.35E-03	3.50E-03
582256	12/19/2022 - 12/27/2022	Beta	2.22E-02	3.73E-03	3.97E-03
582444	12/27/2022 - 1/3/2023	Beta	2.53E-02	3.43E-03	3.67E-03
582705	10/3/2022 - 1/3/2023	Cs-134	<1.69E-03	0.00E+00	1.69E-03
		Cs-137	<1.63E-03	0.00E+00	1.63E-03
		Be-7	1.37E-01	3.83E-02	4.17E-02
		K-40	<3.28E-02	0.00E+00	3.28E-02

Sample Point 121 [INDICATOR - NE @ 0.47 miles]

Sample ID	Sample Dates	Nuclide	Activity	2 Sigma Error	MDA
558898	1/4/2022 - 1/10/2022	Beta	2.65E-02	3.26E-03	3.07E-03
559005	1/10/2022 - 1/18/2022	Beta	2.24E-02	2.60E-03	2.45E-03
559417	1/18/2022 - 1/24/2022	Beta	2.07E-02	3.10E-03	3.39E-03
560069	1/24/2022 - 1/31/2022	Beta	2.60E-02	3.04E-03	2.93E-03
560286	1/31/2022 - 2/7/2022	Beta	2.46E-02	2.78E-03	2.30E-03
560531	2/7/2022 - 2/14/2022	Beta	2.90E-02	3.15E-03	2.89E-03
560836	2/14/2022 - 2/21/2022	Beta	2.43E-02	2.89E-03	2.75E-03
561172	2/21/2022 - 2/28/2022	Beta	1.60E-02	2.46E-03	2.57E-03
561671	2/28/2022 - 3/7/2022	Beta	3.05E-02	3.50E-03	3.12E-03
562273	3/7/2022 - 3/14/2022	Beta	1.48E-02	2.52E-03	2.89E-03
562870	3/14/2022 - 3/21/2022	Beta	1.60E-02	2.99E-03	3.59E-03
563466	3/21/2022 - 3/28/2022	Beta	2.03E-02	2.74E-03	2.78E-03

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

Report Generated @ 2/15/2023 13:34:28

Duke Energy Annual Report - Appendix E

Appendix E - Page 11 of 114

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR PARTICULATE Concentration (Activity): pCi/m3

Sample Point 121 [INDICATOR - NE @ 0.47 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
563799	3/28/2022 - 4/4/2022	Beta	1.98E-02	3.10E-03	3.44E-03
564043	1/4/2022 - 4/4/2022	Cs-134	<1.83E-03	0.00E+00	1.83E-03
		Cs-137	<1.62E-03	0.00E+00	1.62E-03
		Be-7	1.52E-01	3.77E-02	3.59E-02
		K-40	<2.44E-02	0.00E+00	2.44E-02
564035	4/4/2022 - 4/11/2022	Beta	1.55E-02	2.86E-03	3.35E-03
564565	4/11/2022 - 4/18/2022	Beta	1.98E-02	2.62E-03	2.54E-03
564832	4/18/2022 - 4/25/2022	Beta	2.69E-02	3.37E-03	3.09E-03
565323	4/25/2022 - 5/2/2022	Beta	2.58E-02	3.32E-03	3.30E-03
565989	5/2/2022 - 5/9/2022	Beta	1.82E-02	3.06E-03	3.49E-03
566582	5/9/2022 - 5/16/2022	Beta	1.49E-02	2.82E-03	3.35E-03
566968	5/16/2022 - 5/23/2022	Beta	3.22E-02	3.32E-03	3.00E-03
567158	5/23/2022 - 5/27/2022	Beta	9.44E-03	3.52E-03	4.98E-03
567596	5/31/2022 - 6/6/2022	Beta	2.66E-02	3.32E-03	3.28E-03
567764	6/6/2022 - 6/13/2022	Beta	2.42E-02	3.17E-03	2.97E-03
568405	6/13/2022 - 6/20/2022	Beta	3.01E-02	3.53E-03	3.19E-03
568639	6/20/2022 - 6/27/2022	Beta	2.82E-02	3.51E-03	3.44E-03
568855	6/27/2022 - 7/5/2022	Beta	1.52E-02	2.50E-03	2.72E-03
569107	4/4/2022 - 7/5/2022	Cs-134	<1.02E-03	0.00E+00	1.02E-03
		Cs-137	<1.23E-03	0.00E+00	1.23E-03
		Be-7	2.14E-01	4.15E-02	2.28E-02
		K-40	<3.80E-02	0.00E+00	3.80E-02
569099	7/5/2022 - 7/11/2022	Beta	1.50E-02	3.15E-03	3.90E-03
570321	7/11/2022 - 7/18/2022	Beta	2.03E-02	3.10E-03	3.37E-03
570880	7/18/2022 - 7/25/2022	Beta	1.71E-02	2.65E-03	2.96E-03
571126	7/25/2022 - 8/1/2022	Beta	1.41E-02	2.64E-03	3.01E-03
571445	8/1/2022 - 8/8/2022	Beta	1.84E-02	2.92E-03	3.18E-03
571732	8/8/2022 - 8/15/2022	Beta	1.77E-02	2.95E-03	3.29E-03
572737	8/15/2022 - 8/22/2022	Beta	2.25E-02	3.17E-03	3.23E-03

EnRad Laboratories

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR PARTICULATE Concentration (Activity): pCi/m3

Sample Point 121 [INDICATOR - NE @ 0.47 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
573939	8/22/2022 - 8/29/2022	Beta	2.91E-02	3.02E-03	2.46E-03
574556	8/29/2022 - 9/6/2022	Beta	1.56E-02	2.68E-03	3.17E-03
575027	9/6/2022 - 9/12/2022	Beta	1.14E-02	2.93E-03	3.82E-03
575719	9/12/2022 - 9/19/2022	Beta	3.10E-02	3.57E-03	3.26E-03
576112	9/19/2022 - 9/26/2022	Beta	3.34E-02	3.69E-03	3.26E-03
576283	9/26/2022 - 10/3/2022	Beta	1.23E-02	2.72E-03	3.43E-03
576579	7/5/2022 - 10/3/2022	Cs-134	<1.65E-03	0.00E+00	1.65E-03
		Cs-137	<1.36E-03	0.00E+00	1.36E-03
		Be-7	1.30E-01	3.50E-02	3.41E-02
		K-40	<4.27E-02	0.00E+00	4.27E-02
576571	10/3/2022 - 10/10/2022	Beta	2.74E-02	3.32E-03	2.93E-03
577191	10/10/2022 - 10/17/2022	Beta	3.42E-02	3.67E-03	3.14E-03
577786	10/17/2022 - 10/25/2022	Beta	2.54E-02	3.06E-03	2.85E-03
578139	10/25/2022 - 10/31/2022	Beta	1.78E-02	3.18E-03	3.60E-03
578851	10/31/2022 - 11/7/2022	Beta	1.84E-02	3.01E-03	3.28E-03
579050	11/7/2022 - 11/14/2022	Beta	1.41E-02	2.67E-03	3.10E-03
579810	11/14/2022 - 11/21/2022	Beta	2.37E-02	3.34E-03	3.50E-03
580623	11/21/2022 - 11/28/2022	Beta	2.87E-02	3.06E-03	2.70E-03
580836	11/28/2022 - 12/5/2022	Beta	1.94E-02	3.06E-03	3.30E-03
581155	12/5/2022 - 12/12/2022	Beta	2.48E-02	3.32E-03	3.32E-03
581723	12/12/2022 - 12/19/2022	Beta	1.68E-02	3.00E-03	3.51E-03
582257	12/19/2022 - 12/27/2022	Beta	2.12E-02	2.77E-03	2.59E-03
582445	12/27/2022 - 1/3/2023	Beta	1.77E-02	3.09E-03	3.67E-03
582706	10/3/2022 - 1/3/2023	Cs-134	<1.79E-03	0.00E+00	1.79E-03
		Cs-137	<1.78E-03	0.00E+00	1.78E-03
		Be-7	1.37E-01	3.47E-02	3.17E-02
		K-40	<3.54E-02	0.00E+00	3.54E-02

Sample Point 125 [INDICATOR - SW @ 0.38 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
558899	1/4/2022 - 1/10/2022	Beta	2.25E-02	3.08E-03	3.07E-03

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

Report Generated @ 2/15/2023 13:34:28

Duke Energy Annual Report - Appendix E

Appendix E - Page 13 of 114

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR PARTICULATE Concentration (Activity): pCi/m3

Sample Point 125 [INDICATOR - SW @ 0.38 miles]

Sample ID	Sample Dates	Nuclide	Activity	2 Sigma Error	MDA
559006	1/10/2022 - 1/18/2022	Beta	2.54E-02	2.71E-03	2.44E-03
559420	1/18/2022 - 1/24/2022	Beta	2.18E-02	3.16E-03	3.41E-03
560070	1/24/2022 - 1/31/2022	Beta	2.66E-02	3.06E-03	2.94E-03
560287	1/31/2022 - 2/7/2022	Beta	2.44E-02	2.76E-03	2.29E-03
560532	2/7/2022 - 2/14/2022	Beta	2.33E-02	2.92E-03	2.89E-03
560837	2/14/2022 - 2/21/2022	Beta	2.38E-02	2.87E-03	2.76E-03
561173	2/21/2022 - 2/28/2022	Beta	1.79E-02	2.55E-03	2.56E-03
561672	2/28/2022 - 3/7/2022	Beta	3.21E-02	3.57E-03	3.13E-03
562274	3/7/2022 - 3/14/2022	Beta	1.63E-02	2.59E-03	2.89E-03
562871	3/14/2022 - 3/21/2022	Beta	1.57E-02	2.97E-03	3.59E-03
563467	3/21/2022 - 3/28/2022	Beta	1.81E-02	2.64E-03	2.78E-03
563800	3/28/2022 - 4/4/2022	Beta	2.16E-02	3.18E-03	3.45E-03
564044	1/4/2022 - 4/4/2022	Cs-134	<2.37E-03	0.00E+00	2.37E-03
		Cs-137	<1.48E-03	0.00E+00	1.48E-03
		Be-7	1.75E-01	4.33E-02	4.24E-02
		K-40	2.48E-02	1.56E-02	1.74E-02
564036	4/4/2022 - 4/11/2022	Beta	1.63E-02	2.89E-03	3.33E-03
564566	4/11/2022 - 4/18/2022	Beta	2.30E-02	2.77E-03	2.56E-03
564833	4/18/2022 - 4/25/2022	Beta	2.95E-02	3.48E-03	3.08E-03
565324	4/25/2022 - 5/2/2022	Beta	2.49E-02	3.29E-03	3.32E-03
565990	5/2/2022 - 5/9/2022	Beta	1.61E-02	2.94E-03	3.48E-03
566583	5/9/2022 - 5/16/2022	Beta	1.47E-02	2.82E-03	3.36E-03
566969	5/16/2022 - 5/23/2022	Beta	2.37E-02	2.97E-03	2.99E-03
567159	5/23/2022 - 5/31/2022	Beta	1.63E-02	2.49E-03	2.53E-03
567597	5/31/2022 - 6/6/2022	Beta	2.48E-02	3.25E-03	3.28E-03
567765	6/6/2022 - 6/13/2022	Beta	2.50E-02	3.21E-03	2.98E-03
568406	6/13/2022 - 6/20/2022	Beta	2.74E-02	3.41E-03	3.17E-03

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

Report Generated @ 2/15/2023 13:34:28

Duke Energy Annual Report - Appendix E

Appendix E - Page 14 of 114

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR PARTICULATE Concentration (Activity): pCi/m3

Sample Point 125 [INDICATOR - SW @ 0.38 miles]

Sample ID	Sample Dates	Nuclide	Activity	2 Sigma Error	MDA
568640	6/20/2022 - 6/27/2022	Beta	2.69E-02	3.46E-03	3.44E-03
568856	6/27/2022 - 7/5/2022	Beta	2.00E-02	2.74E-03	2.72E-03
569108	4/4/2022 - 7/5/2022	Cs-134	<1.33E-03	0.00E+00	1.33E-03
		Cs-137	<1.77E-03	0.00E+00	1.77E-03
		Be-7	2.37E-01	4.58E-02	2.93E-02
		K-40	<3.63E-02	0.00E+00	3.63E-02
569100	7/5/2022 - 7/11/2022	Beta	1.47E-02	3.11E-03	3.85E-03
570322	7/11/2022 - 7/18/2022	Beta	2.30E-02	3.26E-03	3.41E-03
570881	7/18/2022 - 7/25/2022	Beta	2.12E-02	2.83E-03	2.96E-03
571127	7/25/2022 - 8/1/2022	Beta	2.01E-02	2.96E-03	3.01E-03
571446	8/1/2022 - 8/8/2022	Beta	1.67E-02	2.85E-03	3.19E-03
571733	8/8/2022 - 8/15/2022	Beta	1.82E-02	2.98E-03	3.29E-03
572738	8/15/2022 - 8/22/2022	Beta	2.58E-02	3.33E-03	3.23E-03
573940	8/22/2022 - 8/29/2022	Beta	3.20E-02	3.13E-03	2.45E-03
574557	8/29/2022 - 9/6/2022	Beta	2.14E-02	2.95E-03	3.18E-03
575028	9/6/2022 - 9/12/2022	Beta	1.49E-02	3.13E-03	3.80E-03
575720	9/12/2022 - 9/19/2022	Beta	3.50E-02	3.76E-03	3.28E-03
576113	9/19/2022 - 9/26/2022	Beta	3.40E-02	3.71E-03	3.26E-03
576284	9/26/2022 - 10/3/2022	Beta	1.57E-02	2.91E-03	3.43E-03
576580	7/5/2022 - 10/3/2022	Cs-134	<1.82E-03	0.00E+00	1.82E-03
		Cs-137	<8.42E-04	0.00E+00	8.42E-04
		Be-7	1.82E-01	3.92E-02	2.83E-02
		K-40	2.58E-02	1.35E-02	4.67E-03
576572	10/3/2022 - 10/10/2022	Beta	2.83E-02	3.36E-03	2.91E-03
577192	10/10/2022 - 10/17/2022	Beta	3.28E-02	3.61E-03	3.13E-03
577787	10/17/2022 - 10/25/2022	Beta	2.68E-02	3.12E-03	2.86E-03
578140	10/25/2022 - 10/31/2022	Beta	2.19E-02	3.40E-03	3.61E-03
578852	10/31/2022 - 11/7/2022	Beta	2.10E-02	3.28E-03	3.50E-03
579051	11/7/2022 - 11/14/2022	Beta	1.67E-02	2.82E-03	3.11E-03

EnRad Laboratories

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR PARTICULATE Concentration (Activity): pCi/m3

Sample Point 125 [INDICATOR - SW @ 0.38 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
579811	11/14/2022 - 11/21/2022	Beta	3.00E-02	3.61E-03	3.50E-03
580624	11/21/2022 - 11/28/2022	Beta	3.47E-02	3.29E-03	2.70E-03
580837	11/28/2022 - 12/5/2022	Beta	2.36E-02	3.26E-03	3.30E-03
581156	12/5/2022 - 12/12/2022	Beta	2.98E-02	3.53E-03	3.29E-03
581724	12/12/2022 - 12/19/2022	Beta	2.41E-02	3.38E-03	3.54E-03
582258	12/19/2022 - 12/27/2022	Beta	2.72E-02	3.05E-03	2.59E-03
582446	12/27/2022 - 1/3/2023	Beta	2.30E-02	3.33E-03	3.66E-03
582707	10/3/2022 - 1/3/2023	Cs-134	<1.46E-03	0.00E+00	1.46E-03
		Cs-137	<1.20E-03	0.00E+00	1.20E-03
		Be-7	1.39E-01	3.47E-02	3.16E-02
		K-40	<3.39E-02	0.00E+00	3.39E-02

Sample Point 133 [INDICATOR - ENE @ 6.23 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
558900	1/4/2022 - 1/10/2022	Beta	2.33E-02	3.11E-03	3.06E-03
559007	1/10/2022 - 1/18/2022	Beta	2.08E-02	2.51E-03	2.41E-03
559423	1/18/2022 - 1/24/2022	Beta	1.70E-02	2.96E-03	3.45E-03
560071	1/24/2022 - 1/31/2022	Beta	2.07E-02	2.82E-03	2.94E-03
560288	1/31/2022 - 2/7/2022	Beta	2.16E-02	2.60E-03	2.25E-03
560533	2/7/2022 - 2/14/2022	Beta	2.32E-02	2.93E-03	2.91E-03
560838	2/14/2022 - 2/21/2022	Beta	1.96E-02	2.70E-03	2.79E-03
561174	2/21/2022 - 2/28/2022	Beta	1.52E-02	2.40E-03	2.54E-03
561673	2/28/2022 - 3/7/2022	Beta	2.70E-02	3.38E-03	3.18E-03
562275	3/7/2022 - 3/14/2022	Beta	1.11E-02	2.32E-03	2.88E-03
562872	3/14/2022 - 3/21/2022	Beta	1.24E-02	2.80E-03	3.58E-03
563468	3/21/2022 - 3/28/2022	Beta	1.50E-02	2.48E-03	2.78E-03
563801	3/28/2022 - 4/4/2022	Beta	1.83E-02	3.04E-03	3.48E-03
564045	1/4/2022 - 4/4/2022	Cs-134	<2.22E-03	0.00E+00	2.22E-03
		Cs-137	<1.51E-03	0.00E+00	1.51E-03
		Be-7	1.47E-01	3.87E-02	3.82E-02
		K-40	3.68E-02	1.78E-02	1.70E-02

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

Report Generated @ 2/15/2023 13:34:28

Duke Energy Annual Report - Appendix E

Appendix E - Page 16 of 114

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR PARTICULATE Concentration (Activity): pCi/m3

Sample Point 133 [INDICATOR - ENE @ 6.23 miles]

Sample ID	Sample Dates	Nuclide	Activity	2 Sigma Error	MDA
564037	4/4/2022 - 4/11/2022	Beta	1.35E-02	2.70E-03	3.27E-03
564567	4/11/2022 - 4/18/2022	Beta	1.88E-02	2.59E-03	2.58E-03
564834	4/18/2022 - 4/25/2022	Beta	2.36E-02	3.18E-03	3.05E-03
565325	4/25/2022 - 5/2/2022	Beta	2.19E-02	3.17E-03	3.34E-03
565991	5/2/2022 - 5/9/2022	Beta	1.39E-02	2.81E-03	3.47E-03
566584	5/9/2022 - 5/16/2022	Beta	1.06E-02	2.61E-03	3.39E-03
566970	5/16/2022 - 5/23/2022	Beta	2.11E-02	2.84E-03	2.96E-03
567160	5/23/2022 - 5/31/2022	Beta	1.37E-02	2.35E-03	2.53E-03
567598	5/31/2022 - 6/6/2022	Beta	2.41E-02	3.21E-03	3.28E-03
567766	6/6/2022 - 6/13/2022	Beta	2.28E-02	3.12E-03	3.01E-03
568407	6/13/2022 - 6/20/2022	Beta	2.49E-02	3.27E-03	3.14E-03
568641	6/20/2022 - 6/27/2022	Beta	2.70E-02	3.45E-03	3.43E-03
568857	6/27/2022 - 7/5/2022	Beta	1.86E-02	2.67E-03	2.72E-03
569109	4/4/2022 - 7/5/2022	Cs-134	<1.47E-03	0.00E+00	1.47E-03
		Cs-137	<1.47E-03	0.00E+00	1.47E-03
		Be-7	1.64E-01	4.28E-02	4.51E-02
		K-40	<2.68E-02	0.00E+00	2.68E-02
569101	7/5/2022 - 7/11/2022	Beta	1.42E-02	3.09E-03	3.86E-03
570323	7/11/2022 - 7/18/2022	Beta	2.16E-02	3.19E-03	3.40E-03
570882	7/18/2022 - 7/25/2022	Beta	1.80E-02	2.69E-03	2.96E-03
571128	7/25/2022 - 8/1/2022	Beta	1.84E-02	2.87E-03	3.00E-03
571447	8/1/2022 - 8/8/2022	Beta	1.41E-02	2.73E-03	3.23E-03
571734	8/8/2022 - 8/15/2022	Beta	1.73E-02	2.93E-03	3.29E-03
572739	8/15/2022 - 8/22/2022	Beta	2.34E-02	3.23E-03	3.26E-03
573942	8/22/2022 - 8/29/2022	Beta	3.47E-02	3.24E-03	2.44E-03
574558	8/29/2022 - 9/6/2022	Beta	1.86E-02	2.82E-03	3.17E-03
575029	9/6/2022 - 9/12/2022	Beta	9.28E-03	2.77E-03	3.77E-03

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

Report Generated @ 2/15/2023 13:34:28

Duke Energy Annual Report - Appendix E

Appendix E - Page 17 of 114

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR PARTICULATE Concentration (Activity): pCi/m3

Sample Point 133 [INDICATOR - ENE @ 6.23 miles]

Sample ID	Sample Dates	Nuclide	Activity	2 Sigma Error	MDA
575721	9/12/2022 - 9/19/2022	Beta	2.96E-02	3.57E-03	3.33E-03
576114	9/19/2022 - 9/26/2022	Beta	3.00E-02	3.53E-03	3.24E-03
576285	9/26/2022 - 10/3/2022	Beta	1.24E-02	2.72E-03	3.43E-03
576581	7/5/2022 - 10/3/2022	Cs-134	<1.68E-03	0.00E+00	1.68E-03
		Cs-137	<1.51E-03	0.00E+00	1.51E-03
		Be-7	1.02E-01	3.32E-02	3.79E-02
		K-40	<3.04E-02	0.00E+00	3.04E-02
576573	10/3/2022 - 10/10/2022	Beta	2.53E-02	3.23E-03	2.92E-03
577193	10/10/2022 - 10/17/2022	Beta	2.74E-02	3.35E-03	3.09E-03
577788	10/17/2022 - 10/25/2022	Beta	2.44E-02	3.01E-03	2.86E-03
578141	10/25/2022 - 10/31/2022	Beta	1.55E-02	3.08E-03	3.65E-03
578853	10/31/2022 - 11/7/2022	Beta	2.10E-02	3.11E-03	3.23E-03
579052	11/7/2022 - 11/14/2022	Beta	1.27E-02	2.63E-03	3.17E-03
579812	11/14/2022 - 11/21/2022	Beta	2.29E-02	3.29E-03	3.48E-03
580625	11/21/2022 - 11/28/2022	Beta	2.89E-02	3.07E-03	2.70E-03
580838	11/28/2022 - 12/5/2022	Beta	2.16E-02	3.17E-03	3.31E-03
581157	12/5/2022 - 12/12/2022	Beta	2.59E-02	3.36E-03	3.30E-03
581725	12/12/2022 - 12/19/2022	Beta	2.16E-02	3.25E-03	3.53E-03
582259	12/19/2022 - 12/27/2022	Beta	2.29E-02	2.86E-03	2.60E-03
582447	12/27/2022 - 1/3/2023	Beta	2.03E-02	3.21E-03	3.67E-03
582708	10/3/2022 - 1/3/2023	Cs-134	<1.54E-03	0.00E+00	1.54E-03
		Cs-137	<1.55E-03	0.00E+00	1.55E-03
		Be-7	9.47E-02	2.96E-02	2.98E-02
		K-40	1.45E-02	1.74E-02	2.80E-02

Sample Point 195 [INDICATOR - N @ 0.19 miles]

Sample ID	Sample Dates	Nuclide	Activity	2 Sigma Error	MDA
558901	1/4/2022 - 1/10/2022	Beta	2.73E-02	3.30E-03	3.07E-03
559008	1/10/2022 - 1/18/2022	Beta	2.48E-02	2.70E-03	2.45E-03
559426	1/18/2022 - 1/24/2022	Beta	2.27E-02	3.18E-03	3.37E-03
560072	1/24/2022 - 1/31/2022	Beta	2.81E-02	3.13E-03	2.94E-03

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

Report Generated @ 2/15/2023 13:34:28

Duke Energy Annual Report - Appendix E

Appendix E - Page 18 of 114

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR PARTICULATE Concentration (Activity): pCi/m3

Sample Point 195 [INDICATOR - N @ 0.19 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
560289	1/31/2022 - 2/7/2022	Beta	2.57E-02	2.82E-03	2.31E-03
560534	2/7/2022 - 2/14/2022	Beta	2.68E-02	3.07E-03	2.88E-03
560839	2/14/2022 - 2/21/2022	Beta	2.39E-02	2.86E-03	2.74E-03
561175	2/21/2022 - 2/28/2022	Beta	1.93E-02	2.64E-03	2.59E-03
561674	2/28/2022 - 3/7/2022	Beta	3.68E-02	3.77E-03	3.11E-03
562276	3/7/2022 - 3/14/2022	Beta	1.50E-02	2.54E-03	2.90E-03
562873	3/14/2022 - 3/21/2022	Beta	1.77E-02	3.07E-03	3.57E-03
563469	3/21/2022 - 3/28/2022	Beta	1.77E-02	2.62E-03	2.79E-03
563802	3/28/2022 - 4/4/2022	Beta	1.77E-02	2.99E-03	3.44E-03
564046	1/4/2022 - 4/4/2022	Cs-134	<1.48E-03	0.00E+00	1.48E-03
		Cs-137	<1.79E-03	0.00E+00	1.79E-03
		Be-7	1.60E-01	3.98E-02	3.96E-02
		K-40	<3.43E-02	0.00E+00	3.43E-02
564038	4/4/2022 - 4/11/2022	Beta	1.21E-02	2.68E-03	3.36E-03
564568	4/11/2022 - 4/18/2022	Beta	1.99E-02	2.61E-03	2.53E-03
564835	4/18/2022 - 4/25/2022	Beta	2.70E-02	3.39E-03	3.11E-03
565326	4/25/2022 - 5/2/2022	Beta	2.65E-02	3.34E-03	3.30E-03
565992	5/2/2022 - 5/9/2022	Beta	1.90E-02	3.10E-03	3.50E-03
566585	5/9/2022 - 5/16/2022	Beta	1.73E-02	2.94E-03	3.33E-03
566971	5/16/2022 - 5/23/2022	Beta	3.11E-02	3.29E-03	3.01E-03
567161	5/23/2022 - 5/31/2022	Beta	1.70E-02	2.54E-03	2.54E-03
567599	5/31/2022 - 6/6/2022	Beta	3.09E-02	3.50E-03	3.28E-03
567767	6/6/2022 - 6/13/2022	Beta	2.48E-02	3.18E-03	2.95E-03
568408	6/13/2022 - 6/20/2022	Beta	3.11E-02	3.59E-03	3.21E-03
568642	6/20/2022 - 6/27/2022	Beta	2.86E-02	3.53E-03	3.44E-03
568858	6/27/2022 - 7/5/2022	Beta	2.08E-02	2.78E-03	2.72E-03
569110	4/4/2022 - 7/5/2022	Cs-134	<1.79E-03	0.00E+00	1.79E-03
		Cs-137	<1.04E-03	0.00E+00	1.04E-03

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

Report Generated @ 2/15/2023 13:34:28

Duke Energy Annual Report - Appendix E

Appendix E - Page 19 of 114

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR PARTICULATE Concentration (Activity): pCi/m3

Sample Point 195 [INDICATOR - N @ 0.19 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
569110	4/4/2022 - 7/5/2022	Be-7	2.21E-01	4.51E-02	3.65E-02
		K-40	1.57E-02	1.52E-02	2.29E-02
569102	7/5/2022 - 7/11/2022	Beta	1.85E-02	3.32E-03	3.86E-03
570324	7/11/2022 - 7/18/2022	Beta	2.34E-02	3.27E-03	3.39E-03
570883	7/18/2022 - 7/25/2022	Beta	2.33E-02	2.93E-03	2.96E-03
571129	7/25/2022 - 8/1/2022	Beta	1.58E-02	2.74E-03	3.01E-03
571448	8/1/2022 - 8/8/2022	Beta	1.68E-02	2.84E-03	3.16E-03
571735	8/8/2022 - 8/15/2022	Beta	1.85E-02	3.00E-03	3.29E-03
572740	8/15/2022 - 8/22/2022	Beta	2.86E-02	3.46E-03	3.23E-03
573943	8/22/2022 - 8/29/2022	Beta	3.22E-02	3.15E-03	2.46E-03
574559	8/29/2022 - 9/6/2022	Beta	1.88E-02	2.83E-03	3.16E-03
575030	9/6/2022 - 9/12/2022	Beta	1.25E-02	3.01E-03	3.84E-03
575722	9/12/2022 - 9/19/2022	Beta	3.53E-02	3.76E-03	3.26E-03
576115	9/19/2022 - 9/26/2022	Beta	3.33E-02	3.68E-03	3.26E-03
576286	9/26/2022 - 10/2/2022	Beta	1.99E-02	3.53E-03	4.10E-03
576582	7/5/2022 - 10/2/2022	Cs-134	<1.68E-03	0.00E+00	1.68E-03
		Cs-137	<1.38E-03	0.00E+00	1.38E-03
		Be-7	1.77E-01	3.82E-02	2.62E-02
		K-40	<3.79E-02	0.00E+00	3.79E-02
576574	10/3/2022 - 10/10/2022	Beta	2.90E-02	3.41E-03	2.94E-03
577194	10/10/2022 - 10/17/2022	Beta	3.48E-02	3.70E-03	3.14E-03
577789	10/17/2022 - 10/25/2022	Beta	2.79E-02	3.16E-03	2.86E-03
578142	10/25/2022 - 10/31/2022	Beta	2.71E-02	3.65E-03	3.58E-03
578854	10/31/2022 - 11/7/2022	Beta	2.17E-02	3.18E-03	3.30E-03
579053	11/7/2022 - 11/14/2022	Beta	1.74E-02	2.84E-03	3.09E-03
579813	11/14/2022 - 11/21/2022	Beta	3.14E-02	3.69E-03	3.50E-03
580626	11/21/2022 - 11/28/2022	Beta	3.53E-02	3.30E-03	2.68E-03
580839	11/28/2022 - 12/5/2022	Beta	2.45E-02	3.32E-03	3.32E-03

EnRad Laboratories

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR PARTICULATE Concentration (Activity): pCi/m3

Sample Point 195 [INDICATOR - N @ 0.19 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
581158	12/5/2022 - 12/12/2022	Beta	3.19E-02	3.65E-03	3.32E-03
581726	12/12/2022 - 12/19/2022	Beta	2.30E-02	3.30E-03	3.51E-03
582260	12/19/2022 - 12/27/2022	Beta	2.57E-02	2.98E-03	2.59E-03
582448	12/27/2022 - 1/3/2023	Beta	2.19E-02	3.29E-03	3.67E-03
582709	10/3/2022 - 1/3/2023	Cs-134	<1.64E-03	0.00E+00	1.64E-03
		Cs-137	<1.87E-03	0.00E+00	1.87E-03
		Be-7	1.55E-01	3.68E-02	2.93E-02
		K-40	2.25E-02	1.51E-02	1.85E-02

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 102 [CONTROL - WNW @ 9.89 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
558902	1/4/2022 - 1/10/2022	I-131	<3.24E-02	0.00E+00	3.24E-02
		Cs-134	<2.47E-02	0.00E+00	2.47E-02
		Cs-137	<3.11E-02	0.00E+00	3.11E-02
		Be-7	<2.10E-01	0.00E+00	2.10E-01
		K-40	5.42E-01	3.48E-01	4.64E-01
559010	1/10/2022 - 1/18/2022	I-131	<2.91E-02	0.00E+00	2.91E-02
		Cs-134	<2.31E-02	0.00E+00	2.31E-02
		Cs-137	<1.03E-02	0.00E+00	1.03E-02
		Be-7	<1.72E-01	0.00E+00	1.72E-01
		K-40	5.45E-01	2.22E-01	5.90E-02
559429	1/18/2022 - 1/24/2022	I-131	<2.74E-02	0.00E+00	2.74E-02
		Cs-134	<2.14E-02	0.00E+00	2.14E-02
		Cs-137	<4.31E-02	0.00E+00	4.31E-02
		Be-7	<2.13E-01	0.00E+00	2.13E-01
		K-40	<7.37E-01	0.00E+00	7.37E-01
560073	1/24/2022 - 1/31/2022	I-131	<2.46E-02	0.00E+00	2.46E-02
		Cs-134	<2.05E-02	0.00E+00	2.05E-02
		Cs-137	<2.71E-02	0.00E+00	2.71E-02
		Be-7	<1.84E-01	0.00E+00	1.84E-01
		K-40	5.93E-01	2.70E-01	2.39E-01
560290	1/31/2022 - 2/7/2022	I-131	<2.65E-02	0.00E+00	2.65E-02
		Cs-134	<2.86E-02	0.00E+00	2.86E-02
		Cs-137	<2.59E-02	0.00E+00	2.59E-02
		Be-7	<1.67E-01	0.00E+00	1.67E-01
		K-40	7.24E-01	2.93E-01	2.27E-01
560535	2/7/2022 - 2/14/2022	I-131	<2.86E-02	0.00E+00	2.86E-02
		Cs-134	<2.33E-02	0.00E+00	2.33E-02
		Cs-137	<1.99E-02	0.00E+00	1.99E-02
		Be-7	<1.79E-01	0.00E+00	1.79E-01
		K-40	4.49E-01	2.56E-01	2.89E-01
560840	2/14/2022 - 2/21/2022	I-131	<3.07E-02	0.00E+00	3.07E-02
		Cs-134	<2.55E-02	0.00E+00	2.55E-02
		Cs-137	<3.44E-02	0.00E+00	3.44E-02
		Be-7	<1.80E-01	0.00E+00	1.80E-01
		K-40	<5.79E-01	0.00E+00	5.79E-01

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 102 [CONTROL - WNW @ 9.89 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
561176	2/21/2022 - 2/28/2022	I-131	<2.10E-02	0.00E+00	2.10E-02
		Cs-134	<2.86E-02	0.00E+00	2.86E-02
		Cs-137	<2.71E-02	0.00E+00	2.71E-02
		Be-7	<1.75E-01	0.00E+00	1.75E-01
		K-40	8.10E-01	2.94E-01	6.86E-02
561675	2/28/2022 - 3/7/2022	I-131	<2.94E-02	0.00E+00	2.94E-02
		Cs-134	<2.89E-02	0.00E+00	2.89E-02
		Cs-137	<1.98E-02	0.00E+00	1.98E-02
		Be-7	<1.60E-01	0.00E+00	1.60E-01
		K-40	<5.31E-01	0.00E+00	5.31E-01
562277	3/7/2022 - 3/14/2022	I-131	<3.01E-02	0.00E+00	3.01E-02
		Cs-134	<3.24E-02	0.00E+00	3.24E-02
		Cs-137	<2.11E-02	0.00E+00	2.11E-02
		Be-7	<1.40E-01	0.00E+00	1.40E-01
		K-40	7.98E-01	2.99E-01	2.07E-01
562874	3/14/2022 - 3/21/2022	I-131	<2.90E-02	0.00E+00	2.90E-02
		Cs-134	<2.56E-02	0.00E+00	2.56E-02
		Cs-137	<2.50E-02	0.00E+00	2.50E-02
		Be-7	<1.80E-01	0.00E+00	1.80E-01
		K-40	5.27E-01	2.91E-01	3.47E-01
563470	3/21/2022 - 3/28/2022	I-131	<2.82E-02	0.00E+00	2.82E-02
		Cs-134	<2.29E-02	0.00E+00	2.29E-02
		Cs-137	<2.29E-02	0.00E+00	2.29E-02
		Be-7	<9.77E-02	0.00E+00	9.77E-02
		K-40	<6.81E-01	0.00E+00	6.81E-01
563803	3/28/2022 - 4/4/2022	I-131	<2.68E-02	0.00E+00	2.68E-02
		Cs-134	<3.06E-02	0.00E+00	3.06E-02
		Cs-137	<1.53E-02	0.00E+00	1.53E-02
		Be-7	<1.86E-01	0.00E+00	1.86E-01
		K-40	7.13E-01	3.16E-01	3.21E-01
564047	4/4/2022 - 4/11/2022	I-131	<2.84E-02	0.00E+00	2.84E-02
		Cs-134	<2.29E-02	0.00E+00	2.29E-02
		Cs-137	<2.96E-02	0.00E+00	2.96E-02
		Be-7	<1.38E-01	0.00E+00	1.38E-01
		K-40	5.91E-01	3.01E-01	3.48E-01
564569	4/11/2022 - 4/18/2022	I-131	<3.27E-02	0.00E+00	3.27E-02
		Cs-134	<2.34E-02	0.00E+00	2.34E-02
		Cs-137	<1.79E-02	0.00E+00	1.79E-02
		Be-7	<1.89E-01	0.00E+00	1.89E-01
		K-40	<6.48E-01	0.00E+00	6.48E-01
564836	4/18/2022 - 4/25/2022	I-131	<2.44E-02	0.00E+00	2.44E-02
		Cs-134	<2.49E-02	0.00E+00	2.49E-02
		Cs-137	<1.95E-02	0.00E+00	1.95E-02
		Be-7	<1.75E-01	0.00E+00	1.75E-01
		K-40	5.15E-01	2.53E-01	2.37E-01
565327	4/25/2022 - 5/2/2022	I-131	<3.64E-02	0.00E+00	3.64E-02
		Cs-134	<3.39E-02	0.00E+00	3.39E-02
		Cs-137	<2.64E-02	0.00E+00	2.64E-02
		Be-7	<2.02E-01	0.00E+00	2.02E-01
		K-40	5.57E-01	3.22E-01	4.17E-01

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 102 [CONTROL - WNW @ 9.89 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
565993	5/2/2022 - 5/9/2022	I-131	<3.30E-02	0.00E+00	3.30E-02
		Cs-134	<2.70E-02	0.00E+00	2.70E-02
		Cs-137	<2.73E-02	0.00E+00	2.73E-02
		Be-7	<1.78E-01	0.00E+00	1.78E-01
		K-40	<6.12E-01	0.00E+00	6.12E-01
566586	5/9/2022 - 5/16/2022	I-131	<2.45E-02	0.00E+00	2.45E-02
		Cs-134	<2.27E-02	0.00E+00	2.27E-02
		Cs-137	<1.76E-02	0.00E+00	1.76E-02
		Be-7	<1.96E-01	0.00E+00	1.96E-01
		K-40	5.26E-01	2.44E-01	2.03E-01
566972	5/16/2022 - 5/23/2022	I-131	<2.66E-02	0.00E+00	2.66E-02
		Cs-134	<2.01E-02	0.00E+00	2.01E-02
		Cs-137	<2.27E-02	0.00E+00	2.27E-02
		Be-7	<1.26E-01	0.00E+00	1.26E-01
		K-40	4.41E-01	2.29E-01	2.22E-01
567162	5/23/2022 - 5/31/2022	I-131	<1.89E-02	0.00E+00	1.89E-02
		Cs-134	<1.78E-02	0.00E+00	1.78E-02
		Cs-137	<1.53E-02	0.00E+00	1.53E-02
		Be-7	<1.50E-01	0.00E+00	1.50E-01
		K-40	<4.68E-01	0.00E+00	4.68E-01
567600	5/31/2022 - 6/6/2022	I-131	<4.01E-02	0.00E+00	4.01E-02
		Cs-134	<3.13E-02	0.00E+00	3.13E-02
		Cs-137	<3.01E-02	0.00E+00	3.01E-02
		Be-7	<2.12E-01	0.00E+00	2.12E-01
		K-40	<6.95E-01	0.00E+00	6.95E-01
567768	6/6/2022 - 6/13/2022	I-131	<3.18E-02	0.00E+00	3.18E-02
		Cs-134	<2.10E-02	0.00E+00	2.10E-02
		Cs-137	<2.00E-02	0.00E+00	2.00E-02
		Be-7	<1.64E-01	0.00E+00	1.64E-01
		K-40	6.50E-01	2.93E-01	2.76E-01
568409	6/13/2022 - 6/20/2022	I-131	<3.70E-02	0.00E+00	3.70E-02
		Cs-134	<2.49E-02	0.00E+00	2.49E-02
		Cs-137	<2.13E-02	0.00E+00	2.13E-02
		Be-7	<1.27E-01	0.00E+00	1.27E-01
		K-40	<5.24E-01	0.00E+00	5.24E-01
568643	6/20/2022 - 6/27/2022	I-131	<2.72E-02	0.00E+00	2.72E-02
		Cs-134	<2.88E-02	0.00E+00	2.88E-02
		Cs-137	<1.97E-02	0.00E+00	1.97E-02
		Be-7	<1.61E-01	0.00E+00	1.61E-01
		K-40	7.68E-01	3.10E-01	2.67E-01
568859	6/27/2022 - 7/5/2022	I-131	<2.15E-02	0.00E+00	2.15E-02
		Cs-134	<1.56E-02	0.00E+00	1.56E-02
		Cs-137	<2.28E-02	0.00E+00	2.28E-02
		Be-7	<1.48E-01	0.00E+00	1.48E-01
		K-40	3.67E-01	2.05E-01	2.11E-01
569111	7/5/2022 - 7/11/2022	I-131	<3.18E-02	0.00E+00	3.18E-02
		Cs-134	<1.58E-02	0.00E+00	1.58E-02
		Cs-137	<2.22E-02	0.00E+00	2.22E-02
		Be-7	<1.47E-01	0.00E+00	1.47E-01
		K-40	4.18E-01	2.18E-01	7.55E-02

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 102 [CONTROL - WNW @ 9.89 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
570325	7/11/2022 - 7/18/2022	I-131	<2.41E-02	0.00E+00	2.41E-02
		Cs-134	<2.60E-02	0.00E+00	2.60E-02
		Cs-137	<2.39E-02	0.00E+00	2.39E-02
		Be-7	<1.49E-01	0.00E+00	1.49E-01
		K-40	<4.55E-01	0.00E+00	4.55E-01
570884	7/18/2022 - 7/25/2022	I-131	<3.33E-02	0.00E+00	3.33E-02
		Cs-134	<2.89E-02	0.00E+00	2.89E-02
		Cs-137	<2.74E-02	0.00E+00	2.74E-02
		Be-7	<1.71E-01	0.00E+00	1.71E-01
		K-40	<5.15E-01	0.00E+00	5.15E-01
571130	7/25/2022 - 8/1/2022	I-131	<2.46E-02	0.00E+00	2.46E-02
		Cs-134	<3.03E-02	0.00E+00	3.03E-02
		Cs-137	<2.72E-02	0.00E+00	2.72E-02
		Be-7	<1.76E-01	0.00E+00	1.76E-01
		K-40	<5.84E-01	0.00E+00	5.84E-01
571449	8/1/2022 - 8/8/2022	I-131	<2.64E-02	0.00E+00	2.64E-02
		Cs-134	<2.75E-02	0.00E+00	2.75E-02
		Cs-137	<2.78E-02	0.00E+00	2.78E-02
		Be-7	<1.82E-01	0.00E+00	1.82E-01
		K-40	3.91E-01	2.49E-01	3.06E-01
571736	8/8/2022 - 8/15/2022	I-131	<2.35E-02	0.00E+00	2.35E-02
		Cs-134	<2.69E-02	0.00E+00	2.69E-02
		Cs-137	<1.96E-02	0.00E+00	1.96E-02
		Be-7	<1.91E-01	0.00E+00	1.91E-01
		K-40	7.11E-01	2.75E-01	6.88E-02
572741	8/15/2022 - 8/22/2022	I-131	<2.66E-02	0.00E+00	2.66E-02
		Cs-134	<2.52E-02	0.00E+00	2.52E-02
		Cs-137	<2.16E-02	0.00E+00	2.16E-02
		Be-7	<2.20E-01	0.00E+00	2.20E-01
		K-40	<5.88E-01	0.00E+00	5.88E-01
573944	8/22/2022 - 8/29/2022	I-131	<2.92E-02	0.00E+00	2.92E-02
		Cs-134	<2.51E-02	0.00E+00	2.51E-02
		Cs-137	<1.96E-02	0.00E+00	1.96E-02
		Be-7	<1.84E-01	0.00E+00	1.84E-01
		K-40	4.24E-01	2.88E-01	3.94E-01
574560	8/29/2022 - 9/6/2022	I-131	<3.09E-02	0.00E+00	3.09E-02
		Cs-134	<2.22E-02	0.00E+00	2.22E-02
		Cs-137	<2.17E-02	0.00E+00	2.17E-02
		Be-7	<1.86E-01	0.00E+00	1.86E-01
		K-40	<4.93E-01	0.00E+00	4.93E-01
575031	9/6/2022 - 9/12/2022	I-131	<3.65E-02	0.00E+00	3.65E-02
		Cs-134	<3.63E-02	0.00E+00	3.63E-02
		Cs-137	<3.50E-02	0.00E+00	3.50E-02
		Be-7	<2.48E-01	0.00E+00	2.48E-01
		K-40	5.93E-01	3.23E-01	3.81E-01
575723	9/12/2022 - 9/19/2022	I-131	<2.61E-02	0.00E+00	2.61E-02
		Cs-134	<3.27E-02	0.00E+00	3.27E-02
		Cs-137	<1.80E-02	0.00E+00	1.80E-02
		Be-7	<1.96E-01	0.00E+00	1.96E-01
		K-40	4.09E-01	2.63E-01	3.34E-01

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

Report Generated @ 2/15/2023 13:34:28

Duke Energy Annual Report - Appendix E

Appendix E - Page 24 of 114

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 102 [CONTROL - WNW @ 9.89 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
576116	9/19/2022 - 9/26/2022	I-131	<2.73E-02	0.00E+00	2.73E-02
		Cs-134	<2.02E-02	0.00E+00	2.02E-02
		Cs-137	<2.43E-02	0.00E+00	2.43E-02
		Be-7	<2.15E-01	0.00E+00	2.15E-01
		K-40	4.53E-01	2.58E-01	3.05E-01
576287	9/26/2022 - 10/3/2022	I-131	<3.60E-02	0.00E+00	3.60E-02
		Cs-134	<2.67E-02	0.00E+00	2.67E-02
		Cs-137	<2.46E-02	0.00E+00	2.46E-02
		Be-7	<2.06E-01	0.00E+00	2.06E-01
		K-40	<6.49E-01	0.00E+00	6.49E-01
576583	10/3/2022 - 10/10/2022	I-131	<3.96E-02	0.00E+00	3.96E-02
		Cs-134	<1.85E-02	0.00E+00	1.85E-02
		Cs-137	<2.55E-02	0.00E+00	2.55E-02
		Be-7	<2.42E-01	0.00E+00	2.42E-01
		K-40	7.23E-01	3.00E-01	2.41E-01
577195	10/10/2022 - 10/17/2022	I-131	<4.19E-02	0.00E+00	4.19E-02
		Cs-134	<1.84E-02	0.00E+00	1.84E-02
		Cs-137	<1.83E-02	0.00E+00	1.83E-02
		Be-7	<2.22E-01	0.00E+00	2.22E-01
		K-40	<5.76E-01	0.00E+00	5.76E-01
577790	10/17/2022 - 10/25/2022	I-131	<2.78E-02	0.00E+00	2.78E-02
		Cs-134	<2.81E-02	0.00E+00	2.81E-02
		Cs-137	<2.75E-02	0.00E+00	2.75E-02
		Be-7	<1.57E-01	0.00E+00	1.57E-01
		K-40	<5.52E-01	0.00E+00	5.52E-01
578143	10/25/2022 - 10/31/2022	I-131	<4.64E-02	0.00E+00	4.64E-02
		Cs-134	<2.88E-02	0.00E+00	2.88E-02
		Cs-137	<2.69E-02	0.00E+00	2.69E-02
		Be-7	<2.58E-01	0.00E+00	2.58E-01
		K-40	<6.19E-01	0.00E+00	6.19E-01
578855	10/31/2022 - 11/7/2022	I-131	<2.08E-02	0.00E+00	2.08E-02
		Cs-134	<1.92E-02	0.00E+00	1.92E-02
		Cs-137	<2.30E-02	0.00E+00	2.30E-02
		Be-7	<7.45E-02	0.00E+00	7.45E-02
		K-40	1.70E-01	1.94E-01	3.05E-01
579054	11/7/2022 - 11/14/2022	I-131	<3.79E-02	0.00E+00	3.79E-02
		Cs-134	<2.45E-02	0.00E+00	2.45E-02
		Cs-137	<2.78E-02	0.00E+00	2.78E-02
		Be-7	<1.98E-01	0.00E+00	1.98E-01
		K-40	<6.64E-01	0.00E+00	6.64E-01
579814	11/14/2022 - 11/21/2022	I-131	<3.65E-02	0.00E+00	3.65E-02
		Cs-134	<2.82E-02	0.00E+00	2.82E-02
		Cs-137	<2.98E-02	0.00E+00	2.98E-02
		Be-7	<2.24E-01	0.00E+00	2.24E-01
		K-40	<4.98E-01	0.00E+00	4.98E-01
580627	11/21/2022 - 11/28/2022	I-131	<2.30E-02	0.00E+00	2.30E-02
		Cs-134	<2.65E-02	0.00E+00	2.65E-02
		Cs-137	<2.09E-02	0.00E+00	2.09E-02
		Be-7	<1.36E-01	0.00E+00	1.36E-01
		K-40	<3.40E-01	0.00E+00	3.40E-01

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

Report Generated @ 2/15/2023 13:34:28

Duke Energy Annual Report - Appendix E

Appendix E - Page 25 of 114

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 102 [CONTROL - WNW @ 9.89 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
580840	11/28/2022 - 12/5/2022	I-131	<2.11E-02	0.00E+00	2.11E-02
		Cs-134	<2.15E-02	0.00E+00	2.15E-02
		Cs-137	<1.85E-02	0.00E+00	1.85E-02
		Be-7	<1.34E-01	0.00E+00	1.34E-01
		K-40	<3.87E-01	0.00E+00	3.87E-01
581159	12/5/2022 - 12/12/2022	I-131	<3.44E-02	0.00E+00	3.44E-02
		Cs-134	<2.82E-02	0.00E+00	2.82E-02
		Cs-137	<2.25E-02	0.00E+00	2.25E-02
		Be-7	<1.86E-01	0.00E+00	1.86E-01
		K-40	<5.33E-01	0.00E+00	5.33E-01
581727	12/12/2022 - 12/19/2022	I-131	<1.86E-02	0.00E+00	1.86E-02
		Cs-134	<2.20E-02	0.00E+00	2.20E-02
		Cs-137	<1.90E-02	0.00E+00	1.90E-02
		Be-7	<1.37E-01	0.00E+00	1.37E-01
		K-40	1.90E-01	2.00E-01	3.08E-01
582261	12/19/2022 - 12/27/2022	I-131	<2.28E-02	0.00E+00	2.28E-02
		Cs-134	<2.50E-02	0.00E+00	2.50E-02
		Cs-137	<1.55E-02	0.00E+00	1.55E-02
		Be-7	<1.35E-01	0.00E+00	1.35E-01
		K-40	5.61E-01	2.24E-01	5.84E-02
582449	12/27/2022 - 1/3/2023	I-131	<2.57E-02	0.00E+00	2.57E-02
		Cs-134	<1.65E-02	0.00E+00	1.65E-02
		Cs-137	<2.43E-02	0.00E+00	2.43E-02
		Be-7	<1.23E-01	0.00E+00	1.23E-01
		K-40	5.98E-01	2.68E-01	2.60E-01

Sample Point 103 [INDICATOR - NE @ 4.2 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
558903	1/4/2022 - 1/10/2022	I-131	<3.09E-02	0.00E+00	3.09E-02
		Cs-134	<3.89E-02	0.00E+00	3.89E-02
		Cs-137	<2.87E-02	0.00E+00	2.87E-02
		Be-7	<1.95E-01	0.00E+00	1.95E-01
		K-40	6.08E-01	2.98E-01	2.78E-01
559011	1/10/2022 - 1/18/2022	I-131	<2.11E-02	0.00E+00	2.11E-02
		Cs-134	<1.15E-02	0.00E+00	1.15E-02
		Cs-137	<2.02E-02	0.00E+00	2.02E-02
		Be-7	<1.17E-01	0.00E+00	1.17E-01
		K-40	<4.56E-01	0.00E+00	4.56E-01
559432	1/18/2022 - 1/24/2022	I-131	<2.93E-02	0.00E+00	2.93E-02
		Cs-134	<3.55E-02	0.00E+00	3.55E-02
		Cs-137	<2.32E-02	0.00E+00	2.32E-02
		Be-7	<2.32E-01	0.00E+00	2.32E-01
		K-40	6.15E-01	3.00E-01	2.91E-01
560074	1/24/2022 - 1/31/2022	I-131	<2.81E-02	0.00E+00	2.81E-02
		Cs-134	<2.07E-02	0.00E+00	2.07E-02
		Cs-137	<2.90E-02	0.00E+00	2.90E-02
		Be-7	<1.74E-01	0.00E+00	1.74E-01
		K-40	<5.43E-01	0.00E+00	5.43E-01
560291	1/31/2022 - 2/7/2022	I-131	<2.78E-02	0.00E+00	2.78E-02
		Cs-134	<2.91E-02	0.00E+00	2.91E-02
		Cs-137	<2.08E-02	0.00E+00	2.08E-02
		Be-7	<1.48E-01	0.00E+00	1.48E-01

EnRad Laboratories

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 103 [INDICATOR - NE @ 4.2 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
560291	1/31/2022 - 2/7/2022	K-40	4.37E-01	2.89E-01	3.98E-01
560536	2/7/2022 - 2/14/2022	I-131	<2.37E-02	0.00E+00	2.37E-02
		Cs-134	<3.10E-02	0.00E+00	3.10E-02
		Cs-137	<1.82E-02	0.00E+00	1.82E-02
		Be-7	<1.85E-01	0.00E+00	1.85E-01
		K-40	5.80E-01	2.74E-01	2.69E-01
560841	2/14/2022 - 2/21/2022	I-131	<2.82E-02	0.00E+00	2.82E-02
		Cs-134	<2.26E-02	0.00E+00	2.26E-02
		Cs-137	<2.29E-02	0.00E+00	2.29E-02
		Be-7	<2.04E-01	0.00E+00	2.04E-01
		K-40	6.58E-01	2.59E-01	6.61E-02
561177	2/21/2022 - 2/28/2022	I-131	<2.06E-02	0.00E+00	2.06E-02
		Cs-134	<2.48E-02	0.00E+00	2.48E-02
		Cs-137	<2.14E-02	0.00E+00	2.14E-02
		Be-7	<2.03E-01	0.00E+00	2.03E-01
		K-40	4.89E-01	2.59E-01	2.87E-01
561676	2/28/2022 - 3/7/2022	I-131	<2.67E-02	0.00E+00	2.67E-02
		Cs-134	<2.85E-02	0.00E+00	2.85E-02
		Cs-137	<2.60E-02	0.00E+00	2.60E-02
		Be-7	<1.30E-01	0.00E+00	1.30E-01
		K-40	3.06E-01	2.38E-01	3.31E-01
562278	3/7/2022 - 3/14/2022	I-131	<2.22E-02	0.00E+00	2.22E-02
		Cs-134	<2.71E-02	0.00E+00	2.71E-02
		Cs-137	<1.44E-02	0.00E+00	1.44E-02
		Be-7	<1.34E-01	0.00E+00	1.34E-01
		K-40	6.10E-01	2.70E-01	2.53E-01
562875	3/14/2022 - 3/21/2022	I-131	<2.85E-02	0.00E+00	2.85E-02
		Cs-134	<2.22E-02	0.00E+00	2.22E-02
		Cs-137	<3.01E-02	0.00E+00	3.01E-02
		Be-7	<1.50E-01	0.00E+00	1.50E-01
		K-40	5.09E-01	2.26E-01	6.57E-02
563471	3/21/2022 - 3/28/2022	I-131	<2.21E-02	0.00E+00	2.21E-02
		Cs-134	<2.85E-02	0.00E+00	2.85E-02
		Cs-137	<2.31E-02	0.00E+00	2.31E-02
		Be-7	<2.24E-01	0.00E+00	2.24E-01
		K-40	3.76E-01	2.59E-01	3.48E-01
563804	3/28/2022 - 4/4/2022	I-131	<2.45E-02	0.00E+00	2.45E-02
		Cs-134	<2.66E-02	0.00E+00	2.66E-02
		Cs-137	<2.30E-02	0.00E+00	2.30E-02
		Be-7	<1.16E-01	0.00E+00	1.16E-01
		K-40	5.97E-01	2.66E-01	2.31E-01
564048	4/4/2022 - 4/11/2022	I-131	<2.64E-02	0.00E+00	2.64E-02
		Cs-134	<1.71E-02	0.00E+00	1.71E-02
		Cs-137	<2.08E-02	0.00E+00	2.08E-02
		Be-7	<1.27E-01	0.00E+00	1.27E-01
		K-40	6.13E-01	2.66E-01	2.24E-01
564570	4/11/2022 - 4/18/2022	I-131	<2.92E-02	0.00E+00	2.92E-02
		Cs-134	<1.38E-02	0.00E+00	1.38E-02
		Cs-137	<1.51E-02	0.00E+00	1.51E-02

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

Report Generated @ 2/15/2023 13:34:28

Duke Energy Annual Report - Appendix E

Appendix E - Page 27 of 114

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 103 [INDICATOR - NE @ 4.2 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
564570	4/11/2022 - 4/18/2022	Be-7	<1.42E-01	0.00E+00	1.42E-01
		K-40	6.32E-01	2.79E-01	2.62E-01
564837	4/18/2022 - 4/25/2022	I-131	<3.04E-02	0.00E+00	3.04E-02
		Cs-134	<3.06E-02	0.00E+00	3.06E-02
		Cs-137	<1.53E-02	0.00E+00	1.53E-02
		Be-7	<1.69E-01	0.00E+00	1.69E-01
		K-40	3.65E-01	2.41E-01	3.02E-01
565328	4/25/2022 - 5/2/2022	I-131	<3.38E-02	0.00E+00	3.38E-02
		Cs-134	<3.09E-02	0.00E+00	3.09E-02
		Cs-137	<2.77E-02	0.00E+00	2.77E-02
		Be-7	<1.71E-01	0.00E+00	1.71E-01
		K-40	4.13E-01	2.09E-01	7.00E-02
565994	5/2/2022 - 5/9/2022	I-131	<3.15E-02	0.00E+00	3.15E-02
		Cs-134	<3.19E-02	0.00E+00	3.19E-02
		Cs-137	<2.14E-02	0.00E+00	2.14E-02
		Be-7	<2.01E-01	0.00E+00	2.01E-01
		K-40	<5.71E-01	0.00E+00	5.71E-01
566587	5/9/2022 - 5/16/2022	I-131	<1.73E-02	0.00E+00	1.73E-02
		Cs-134	<2.32E-02	0.00E+00	2.32E-02
		Cs-137	<2.35E-02	0.00E+00	2.35E-02
		Be-7	<1.20E-01	0.00E+00	1.20E-01
		K-40	<3.76E-01	0.00E+00	3.76E-01
566973	5/16/2022 - 5/23/2022	I-131	<2.74E-02	0.00E+00	2.74E-02
		Cs-134	<1.82E-02	0.00E+00	1.82E-02
		Cs-137	<4.57E-03	0.00E+00	4.57E-03
		Be-7	<1.20E-01	0.00E+00	1.20E-01
		K-40	<4.42E-01	0.00E+00	4.42E-01
567163	5/23/2022 - 5/31/2022	I-131	<2.42E-02	0.00E+00	2.42E-02
		Cs-134	<1.70E-02	0.00E+00	1.70E-02
		Cs-137	<1.26E-02	0.00E+00	1.26E-02
		Be-7	<1.44E-01	0.00E+00	1.44E-01
		K-40	2.47E-01	1.44E-01	5.57E-02
567601	5/31/2022 - 6/6/2022	I-131	<2.45E-02	0.00E+00	2.45E-02
		Cs-134	<2.87E-02	0.00E+00	2.87E-02
		Cs-137	<2.66E-02	0.00E+00	2.66E-02
		Be-7	<1.34E-01	0.00E+00	1.34E-01
		K-40	4.57E-01	2.65E-01	2.94E-01
567769	6/6/2022 - 6/13/2022	I-131	<2.42E-02	0.00E+00	2.42E-02
		Cs-134	<2.72E-02	0.00E+00	2.72E-02
		Cs-137	<2.47E-02	0.00E+00	2.47E-02
		Be-7	<1.87E-01	0.00E+00	1.87E-01
		K-40	8.31E-01	3.16E-01	2.38E-01
568410	6/13/2022 - 6/20/2022	I-131	<2.65E-02	0.00E+00	2.65E-02
		Cs-134	<2.88E-02	0.00E+00	2.88E-02
		Cs-137	<1.88E-02	0.00E+00	1.88E-02
		Be-7	<1.74E-01	0.00E+00	1.74E-01
		K-40	6.00E-01	2.84E-01	3.09E-01
568644	6/20/2022 - 6/27/2022	I-131	<2.93E-02	0.00E+00	2.93E-02
		Cs-134	<2.26E-02	0.00E+00	2.26E-02

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

Report Generated @ 2/15/2023 13:34:28

Duke Energy Annual Report - Appendix E

Appendix E - Page 28 of 114

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 103 [INDICATOR - NE @ 4.2 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
568644	6/20/2022 - 6/27/2022	Cs-137	<1.75E-02	0.00E+00	1.75E-02
		Be-7	<1.53E-01	0.00E+00	1.53E-01
		K-40	5.12E-01	2.27E-01	6.61E-02
568860	6/27/2022 - 7/5/2022	I-131	<2.13E-02	0.00E+00	2.13E-02
		Cs-134	<1.78E-02	0.00E+00	1.78E-02
		Cs-137	<3.87E-03	0.00E+00	3.87E-03
		Be-7	<1.02E-01	0.00E+00	1.02E-01
		K-40	<4.92E-01	0.00E+00	4.92E-01
569112	7/5/2022 - 7/11/2022	I-131	<2.06E-02	0.00E+00	2.06E-02
		Cs-134	<2.63E-02	0.00E+00	2.63E-02
		Cs-137	<2.84E-02	0.00E+00	2.84E-02
		Be-7	<1.50E-01	0.00E+00	1.50E-01
		K-40	4.84E-01	2.85E-01	3.35E-01
570326	7/11/2022 - 7/18/2022	I-131	<2.00E-02	0.00E+00	2.00E-02
		Cs-134	<2.42E-02	0.00E+00	2.42E-02
		Cs-137	<1.91E-02	0.00E+00	1.91E-02
		Be-7	<1.37E-01	0.00E+00	1.37E-01
		K-40	<5.26E-01	0.00E+00	5.26E-01
570885	7/18/2022 - 7/25/2022	I-131	<2.66E-02	0.00E+00	2.66E-02
		Cs-134	<2.07E-02	0.00E+00	2.07E-02
		Cs-137	<2.15E-02	0.00E+00	2.15E-02
		Be-7	<1.52E-01	0.00E+00	1.52E-01
		K-40	<5.45E-01	0.00E+00	5.45E-01
571131	7/25/2022 - 8/1/2022	I-131	<2.07E-02	0.00E+00	2.07E-02
		Cs-134	<1.75E-02	0.00E+00	1.75E-02
		Cs-137	<1.75E-02	0.00E+00	1.75E-02
		Be-7	<1.41E-01	0.00E+00	1.41E-01
		K-40	4.50E-01	2.33E-01	2.24E-01
571450	8/1/2022 - 8/8/2022	I-131	<3.04E-02	0.00E+00	3.04E-02
		Cs-134	<3.15E-02	0.00E+00	3.15E-02
		Cs-137	<1.96E-02	0.00E+00	1.96E-02
		Be-7	<1.54E-01	0.00E+00	1.54E-01
		K-40	<5.62E-01	0.00E+00	5.62E-01
571737	8/8/2022 - 8/15/2022	I-131	<2.77E-02	0.00E+00	2.77E-02
		Cs-134	<2.28E-02	0.00E+00	2.28E-02
		Cs-137	<1.52E-02	0.00E+00	1.52E-02
		Be-7	<1.53E-01	0.00E+00	1.53E-01
		K-40	6.47E-01	2.78E-01	2.38E-01
572742	8/15/2022 - 8/22/2022	I-131	<1.31E-02	0.00E+00	1.31E-02
		Cs-134	<2.37E-02	0.00E+00	2.37E-02
		Cs-137	<2.20E-02	0.00E+00	2.20E-02
		Be-7	<1.55E-01	0.00E+00	1.55E-01
		K-40	<5.40E-01	0.00E+00	5.40E-01
573945	8/22/2022 - 8/29/2022	I-131	<1.91E-02	0.00E+00	1.91E-02
		Cs-134	<2.79E-02	0.00E+00	2.79E-02
		Cs-137	<1.93E-02	0.00E+00	1.93E-02
		Be-7	<1.86E-01	0.00E+00	1.86E-01
		K-40	<5.86E-01	0.00E+00	5.86E-01
574561	8/29/2022 - 9/6/2022	Nuclide	Activity	2 Sigma Error	MDA
		I-131	<2.52E-02	0.00E+00	2.52E-02

EnRad Laboratories

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 103 [INDICATOR - NE @ 4.2 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
574561	8/29/2022 - 9/6/2022	Cs-134	<2.78E-02	0.00E+00	2.78E-02
		Cs-137	<2.03E-02	0.00E+00	2.03E-02
		Be-7	<1.87E-01	0.00E+00	1.87E-01
		K-40	<5.60E-01	0.00E+00	5.60E-01
575032	9/6/2022 - 9/12/2022	I-131	<3.03E-02	0.00E+00	3.03E-02
		Cs-134	<2.14E-02	0.00E+00	2.14E-02
		Cs-137	<2.98E-02	0.00E+00	2.98E-02
		Be-7	<1.81E-01	0.00E+00	1.81E-01
		K-40	<5.36E-01	0.00E+00	5.36E-01
575724	9/12/2022 - 9/19/2022	I-131	<2.68E-02	0.00E+00	2.68E-02
		Cs-134	<2.21E-02	0.00E+00	2.21E-02
		Cs-137	<1.47E-02	0.00E+00	1.47E-02
		Be-7	<1.26E-01	0.00E+00	1.26E-01
		K-40	<5.25E-01	0.00E+00	5.25E-01
576117	9/19/2022 - 9/26/2022	I-131	<2.24E-02	0.00E+00	2.24E-02
		Cs-134	<2.18E-02	0.00E+00	2.18E-02
		Cs-137	<2.05E-02	0.00E+00	2.05E-02
		Be-7	<1.46E-01	0.00E+00	1.46E-01
		K-40	<5.15E-01	0.00E+00	5.15E-01
576288	9/26/2022 - 10/3/2022	I-131	<2.67E-02	0.00E+00	2.67E-02
		Cs-134	<2.65E-02	0.00E+00	2.65E-02
		Cs-137	<2.58E-02	0.00E+00	2.58E-02
		Be-7	<1.61E-01	0.00E+00	1.61E-01
		K-40	4.53E-01	2.32E-01	2.18E-01
576584	10/3/2022 - 10/10/2022	I-131	<2.69E-02	0.00E+00	2.69E-02
		Cs-134	<2.27E-02	0.00E+00	2.27E-02
		Cs-137	<1.20E-02	0.00E+00	1.20E-02
		Be-7	<1.16E-01	0.00E+00	1.16E-01
		K-40	3.67E-01	1.91E-01	6.62E-02
577196	10/10/2022 - 10/17/2022	I-131	<2.31E-02	0.00E+00	2.31E-02
		Cs-134	<2.23E-02	0.00E+00	2.23E-02
		Cs-137	<1.49E-02	0.00E+00	1.49E-02
		Be-7	<1.50E-01	0.00E+00	1.50E-01
		K-40	3.24E-01	2.03E-01	2.23E-01
577791	10/17/2022 - 10/25/2022	I-131	<2.14E-02	0.00E+00	2.14E-02
		Cs-134	<1.99E-02	0.00E+00	1.99E-02
		Cs-137	<2.38E-02	0.00E+00	2.38E-02
		Be-7	<1.34E-01	0.00E+00	1.34E-01
		K-40	3.60E-01	2.19E-01	2.67E-01
578144	10/25/2022 - 10/31/2022	I-131	<3.24E-02	0.00E+00	3.24E-02
		Cs-134	<2.66E-02	0.00E+00	2.66E-02
		Cs-137	<2.88E-02	0.00E+00	2.88E-02
		Be-7	<2.61E-01	0.00E+00	2.61E-01
		K-40	6.89E-01	2.87E-01	7.78E-02
578856	10/31/2022 - 11/7/2022	I-131	<2.45E-02	0.00E+00	2.45E-02
		Cs-134	<2.05E-02	0.00E+00	2.05E-02
		Cs-137	<1.98E-02	0.00E+00	1.98E-02
		Be-7	<1.30E-01	0.00E+00	1.30E-01
		K-40	<4.83E-01	0.00E+00	4.83E-01

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 103 [INDICATOR - NE @ 4.2 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
579055	11/7/2022 - 11/14/2022	I-131	<2.08E-02	0.00E+00	2.08E-02
		Cs-134	<2.69E-02	0.00E+00	2.69E-02
		Cs-137	<1.77E-02	0.00E+00	1.77E-02
		Be-7	<1.01E-01	0.00E+00	1.01E-01
		K-40	2.69E-01	1.98E-01	2.48E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
579815	11/14/2022 - 11/21/2022	I-131	<2.13E-02	0.00E+00	2.13E-02
		Cs-134	<2.73E-02	0.00E+00	2.73E-02
		Cs-137	<1.45E-02	0.00E+00	1.45E-02
		Be-7	<1.81E-01	0.00E+00	1.81E-01
		K-40	<4.44E-01	0.00E+00	4.44E-01

Sample Point 106 [INDICATOR - E @ 0.47 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
558904	1/4/2022 - 1/10/2022	I-131	<3.39E-02	0.00E+00	3.39E-02
		Cs-134	<2.08E-02	0.00E+00	2.08E-02
		Cs-137	<3.04E-02	0.00E+00	3.04E-02
		Be-7	<2.14E-01	0.00E+00	2.14E-01
		K-40	<7.01E-01	0.00E+00	7.01E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
559012	1/10/2022 - 1/18/2022	I-131	<2.23E-02	0.00E+00	2.23E-02
		Cs-134	<2.00E-02	0.00E+00	2.00E-02
		Cs-137	<2.16E-02	0.00E+00	2.16E-02
		Be-7	<1.43E-01	0.00E+00	1.43E-01
		K-40	<3.77E-01	0.00E+00	3.77E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
559435	1/18/2022 - 1/24/2022	I-131	<2.62E-02	0.00E+00	2.62E-02
		Cs-134	<2.68E-02	0.00E+00	2.68E-02
		Cs-137	<2.89E-02	0.00E+00	2.89E-02
		Be-7	<1.91E-01	0.00E+00	1.91E-01
		K-40	3.93E-01	2.86E-01	3.89E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
560075	1/24/2022 - 1/31/2022	I-131	<2.67E-02	0.00E+00	2.67E-02
		Cs-134	<2.74E-02	0.00E+00	2.74E-02
		Cs-137	<1.89E-02	0.00E+00	1.89E-02
		Be-7	<1.12E-01	0.00E+00	1.12E-01
		K-40	2.69E-01	1.70E-01	1.53E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
560292	1/31/2022 - 2/7/2022	I-131	<2.32E-02	0.00E+00	2.32E-02
		Cs-134	<2.27E-02	0.00E+00	2.27E-02
		Cs-137	<2.30E-02	0.00E+00	2.30E-02
		Be-7	<1.00E-01	0.00E+00	1.00E-01
		K-40	<4.59E-01	0.00E+00	4.59E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
560537	2/7/2022 - 2/14/2022	I-131	<2.25E-02	0.00E+00	2.25E-02
		Cs-134	<2.20E-02	0.00E+00	2.20E-02
		Cs-137	<1.90E-02	0.00E+00	1.90E-02
		Be-7	<1.57E-01	0.00E+00	1.57E-01
		K-40	<4.50E-01	0.00E+00	4.50E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
560842	2/14/2022 - 2/21/2022	I-131	<1.86E-02	0.00E+00	1.86E-02
		Cs-134	<2.03E-02	0.00E+00	2.03E-02
		Cs-137	<1.75E-02	0.00E+00	1.75E-02
		Be-7	<1.53E-01	0.00E+00	1.53E-01
		K-40	3.66E-01	1.93E-01	1.96E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
561178	2/21/2022 - 2/28/2022	I-131	<1.09E-02	0.00E+00	1.09E-02
		Cs-134	<3.22E-02	0.00E+00	3.22E-02
		Cs-137	<2.51E-02	0.00E+00	2.51E-02
		Be-7	<1.92E-01	0.00E+00	1.92E-01

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 106 [INDICATOR - E @ 0.47 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
561178	2/21/2022 - 2/28/2022	K-40	<5.99E-01	0.00E+00	5.99E-01
561677	2/28/2022 - 3/7/2022	I-131	<2.83E-02	0.00E+00	2.83E-02
		Cs-134	<2.48E-02	0.00E+00	2.48E-02
		Cs-137	<2.28E-02	0.00E+00	2.28E-02
		Be-7	<1.57E-01	0.00E+00	1.57E-01
		K-40	<5.92E-01	0.00E+00	5.92E-01
562279	3/7/2022 - 3/14/2022	I-131	<2.34E-02	0.00E+00	2.34E-02
		Cs-134	<2.72E-02	0.00E+00	2.72E-02
		Cs-137	<1.54E-02	0.00E+00	1.54E-02
		Be-7	<1.31E-01	0.00E+00	1.31E-01
		K-40	<5.34E-01	0.00E+00	5.34E-01
562876	3/14/2022 - 3/21/2022	I-131	<1.68E-02	0.00E+00	1.68E-02
		Cs-134	<2.54E-02	0.00E+00	2.54E-02
		Cs-137	<2.46E-02	0.00E+00	2.46E-02
		Be-7	<1.10E-01	0.00E+00	1.10E-01
		K-40	6.73E-01	2.88E-01	2.79E-01
563472	3/21/2022 - 3/28/2022	I-131	<2.07E-02	0.00E+00	2.07E-02
		Cs-134	<2.97E-02	0.00E+00	2.97E-02
		Cs-137	<2.28E-02	0.00E+00	2.28E-02
		Be-7	<1.52E-01	0.00E+00	1.52E-01
		K-40	5.71E-01	2.90E-01	3.31E-01
563805	3/28/2022 - 4/4/2022	I-131	<2.16E-02	0.00E+00	2.16E-02
		Cs-134	<2.40E-02	0.00E+00	2.40E-02
		Cs-137	<2.88E-02	0.00E+00	2.88E-02
		Be-7	<1.49E-01	0.00E+00	1.49E-01
		K-40	5.04E-01	2.24E-01	6.51E-02
564049	4/4/2022 - 4/11/2022	I-131	<2.78E-02	0.00E+00	2.78E-02
		Cs-134	<2.91E-02	0.00E+00	2.91E-02
		Cs-137	<2.07E-02	0.00E+00	2.07E-02
		Be-7	<1.57E-01	0.00E+00	1.57E-01
		K-40	7.46E-01	2.93E-01	2.40E-01
564571	4/11/2022 - 4/18/2022	I-131	<2.54E-02	0.00E+00	2.54E-02
		Cs-134	<1.69E-02	0.00E+00	1.69E-02
		Cs-137	<1.69E-02	0.00E+00	1.69E-02
		Be-7	<1.58E-01	0.00E+00	1.58E-01
		K-40	<4.33E-01	0.00E+00	4.33E-01
564838	4/18/2022 - 4/25/2022	I-131	<2.37E-02	0.00E+00	2.37E-02
		Cs-134	<2.07E-02	0.00E+00	2.07E-02
		Cs-137	<2.64E-02	0.00E+00	2.64E-02
		Be-7	<1.83E-01	0.00E+00	1.83E-01
		K-40	<5.86E-01	0.00E+00	5.86E-01
565329	4/25/2022 - 5/2/2022	I-131	<3.17E-02	0.00E+00	3.17E-02
		Cs-134	<3.02E-02	0.00E+00	3.02E-02
		Cs-137	<2.44E-02	0.00E+00	2.44E-02
		Be-7	<1.67E-01	0.00E+00	1.67E-01
		K-40	<5.82E-01	0.00E+00	5.82E-01
565995	5/2/2022 - 5/9/2022	I-131	<3.39E-02	0.00E+00	3.39E-02
		Cs-134	<3.25E-02	0.00E+00	3.25E-02
		Cs-137	<2.00E-02	0.00E+00	2.00E-02

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

Report Generated @ 2/15/2023 13:34:28

Duke Energy Annual Report - Appendix E

Appendix E - Page 32 of 114

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 106 [INDICATOR - E @ 0.47 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
565995	5/2/2022 - 5/9/2022	Be-7	<2.05E-01	0.00E+00	2.05E-01
		K-40	5.69E-01	2.47E-01	7.02E-02
566588	5/9/2022 - 5/16/2022	I-131	<2.60E-02	0.00E+00	2.60E-02
		Cs-134	<2.48E-02	0.00E+00	2.48E-02
		Cs-137	<2.11E-02	0.00E+00	2.11E-02
		Be-7	<1.84E-01	0.00E+00	1.84E-01
		K-40	7.27E-01	3.26E-01	3.55E-01
566974	5/16/2022 - 5/23/2022	I-131	<3.77E-02	0.00E+00	3.77E-02
		Cs-134	<2.92E-02	0.00E+00	2.92E-02
		Cs-137	<3.11E-02	0.00E+00	3.11E-02
		Be-7	<2.42E-01	0.00E+00	2.42E-01
		K-40	4.69E-01	2.83E-01	3.50E-01
567164	5/23/2022 - 5/31/2022	I-131	<2.45E-02	0.00E+00	2.45E-02
		Cs-134	<2.24E-02	0.00E+00	2.24E-02
		Cs-137	<1.47E-02	0.00E+00	1.47E-02
		Be-7	<1.37E-01	0.00E+00	1.37E-01
		K-40	<4.51E-01	0.00E+00	4.51E-01
567602	5/31/2022 - 6/6/2022	I-131	<2.24E-02	0.00E+00	2.24E-02
		Cs-134	<2.97E-02	0.00E+00	2.97E-02
		Cs-137	<1.96E-02	0.00E+00	1.96E-02
		Be-7	<1.90E-01	0.00E+00	1.90E-01
		K-40	7.43E-01	3.17E-01	2.81E-01
567770	6/6/2022 - 6/13/2022	I-131	<3.13E-02	0.00E+00	3.13E-02
		Cs-134	<2.29E-02	0.00E+00	2.29E-02
		Cs-137	<2.83E-02	0.00E+00	2.83E-02
		Be-7	<1.39E-01	0.00E+00	1.39E-01
		K-40	<5.95E-01	0.00E+00	5.95E-01
568411	6/13/2022 - 6/20/2022	I-131	<2.59E-02	0.00E+00	2.59E-02
		Cs-134	<2.66E-02	0.00E+00	2.66E-02
		Cs-137	<2.10E-02	0.00E+00	2.10E-02
		Be-7	<1.51E-01	0.00E+00	1.51E-01
		K-40	2.86E-01	2.25E-01	3.05E-01
568645	6/20/2022 - 6/27/2022	I-131	<2.52E-02	0.00E+00	2.52E-02
		Cs-134	<2.73E-02	0.00E+00	2.73E-02
		Cs-137	<1.88E-02	0.00E+00	1.88E-02
		Be-7	<1.66E-01	0.00E+00	1.66E-01
		K-40	<4.74E-01	0.00E+00	4.74E-01
568861	6/27/2022 - 7/5/2022	I-131	<2.34E-02	0.00E+00	2.34E-02
		Cs-134	<1.75E-02	0.00E+00	1.75E-02
		Cs-137	<2.34E-02	0.00E+00	2.34E-02
		Be-7	<1.23E-01	0.00E+00	1.23E-01
		K-40	4.70E-01	2.28E-01	2.28E-01
569113	7/5/2022 - 7/11/2022	I-131	<2.19E-02	0.00E+00	2.19E-02
		Cs-134	<3.03E-02	0.00E+00	3.03E-02
		Cs-137	<2.00E-02	0.00E+00	2.00E-02
		Be-7	<1.72E-01	0.00E+00	1.72E-01
		K-40	<5.37E-01	0.00E+00	5.37E-01
570327	7/11/2022 - 7/18/2022	I-131	<2.37E-02	0.00E+00	2.37E-02
		Cs-134	<2.10E-02	0.00E+00	2.10E-02

EnRad Laboratories

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 106 [INDICATOR - E @ 0.47 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
570327	7/11/2022 - 7/18/2022	Cs-137	<2.02E-02	0.00E+00	2.02E-02
		Be-7	<1.45E-01	0.00E+00	1.45E-01
		K-40	2.05E-01	1.61E-01	1.82E-01
570886	7/18/2022 - 7/25/2022	I-131	<3.18E-02	0.00E+00	3.18E-02
		Cs-134	<2.89E-02	0.00E+00	2.89E-02
		Cs-137	<2.47E-02	0.00E+00	2.47E-02
		Be-7	<2.02E-01	0.00E+00	2.02E-01
		K-40	<5.30E-01	0.00E+00	5.30E-01
571132	7/25/2022 - 8/1/2022	I-131	<2.01E-02	0.00E+00	2.01E-02
		Cs-134	<2.38E-02	0.00E+00	2.38E-02
		Cs-137	<2.20E-02	0.00E+00	2.20E-02
		Be-7	<2.80E-02	0.00E+00	2.80E-02
		K-40	<6.00E-01	0.00E+00	6.00E-01
571451	8/1/2022 - 8/8/2022	I-131	<2.28E-02	0.00E+00	2.28E-02
		Cs-134	<2.34E-02	0.00E+00	2.34E-02
		Cs-137	<1.65E-02	0.00E+00	1.65E-02
		Be-7	<1.23E-01	0.00E+00	1.23E-01
		K-40	4.63E-01	2.46E-01	2.73E-01
571738	8/8/2022 - 8/15/2022	I-131	<2.78E-02	0.00E+00	2.78E-02
		Cs-134	<2.60E-02	0.00E+00	2.60E-02
		Cs-137	<2.24E-02	0.00E+00	2.24E-02
		Be-7	<1.75E-01	0.00E+00	1.75E-01
		K-40	2.60E-01	2.03E-01	2.72E-01
572743	8/15/2022 - 8/22/2022	I-131	<2.61E-02	0.00E+00	2.61E-02
		Cs-134	<1.71E-02	0.00E+00	1.71E-02
		Cs-137	<1.91E-02	0.00E+00	1.91E-02
		Be-7	<1.67E-01	0.00E+00	1.67E-01
		K-40	<6.59E-01	0.00E+00	6.59E-01
573946	8/22/2022 - 8/29/2022	I-131	<2.64E-02	0.00E+00	2.64E-02
		Cs-134	<2.18E-02	0.00E+00	2.18E-02
		Cs-137	<1.15E-02	0.00E+00	1.15E-02
		Be-7	<9.59E-02	0.00E+00	9.59E-02
		K-40	6.51E-01	2.69E-01	2.14E-01
574562	8/29/2022 - 9/6/2022	I-131	<3.18E-02	0.00E+00	3.18E-02
		Cs-134	<2.18E-02	0.00E+00	2.18E-02
		Cs-137	<2.13E-02	0.00E+00	2.13E-02
		Be-7	<1.23E-01	0.00E+00	1.23E-01
		K-40	<4.58E-01	0.00E+00	4.58E-01
575033	9/6/2022 - 9/12/2022	I-131	<3.44E-02	0.00E+00	3.44E-02
		Cs-134	<2.69E-02	0.00E+00	2.69E-02
		Cs-137	<2.73E-02	0.00E+00	2.73E-02
		Be-7	<1.90E-01	0.00E+00	1.90E-01
		K-40	9.27E-01	3.36E-01	7.85E-02
575725	9/12/2022 - 9/19/2022	I-131	<2.20E-02	0.00E+00	2.20E-02
		Cs-134	<2.06E-02	0.00E+00	2.06E-02
		Cs-137	<1.21E-02	0.00E+00	1.21E-02
		Be-7	<1.63E-01	0.00E+00	1.63E-01
		K-40	1.82E-01	1.84E-01	2.74E-01
576118	9/19/2022 - 9/26/2022	Nuclide	Activity	2 Sigma Error	MDA
		I-131	<1.91E-02	0.00E+00	1.91E-02

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

Report Generated @ 2/15/2023 13:34:28

Duke Energy Annual Report - Appendix E

Appendix E - Page 34 of 114

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 106 [INDICATOR - E @ 0.47 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
576118	9/19/2022 - 9/26/2022	Cs-134	<3.11E-02	0.00E+00	3.11E-02
		Cs-137	<2.42E-02	0.00E+00	2.42E-02
		Be-7	<1.51E-01	0.00E+00	1.51E-01
		K-40	<5.22E-01	0.00E+00	5.22E-01
576289	9/26/2022 - 10/3/2022	I-131	<2.56E-02	0.00E+00	2.56E-02
		Cs-134	<2.16E-02	0.00E+00	2.16E-02
		Cs-137	<1.87E-02	0.00E+00	1.87E-02
		Be-7	<1.24E-01	0.00E+00	1.24E-01
		K-40	3.22E-01	1.93E-01	1.95E-01
576585	10/3/2022 - 10/10/2022	I-131	<2.36E-02	0.00E+00	2.36E-02
		Cs-134	<2.52E-02	0.00E+00	2.52E-02
		Cs-137	<1.79E-02	0.00E+00	1.79E-02
		Be-7	<1.01E-01	0.00E+00	1.01E-01
		K-40	<4.54E-01	0.00E+00	4.54E-01
577197	10/10/2022 - 10/17/2022	I-131	<2.40E-02	0.00E+00	2.40E-02
		Cs-134	<2.25E-02	0.00E+00	2.25E-02
		Cs-137	<1.74E-02	0.00E+00	1.74E-02
		Be-7	<1.27E-01	0.00E+00	1.27E-01
		K-40	<5.89E-01	0.00E+00	5.89E-01
577792	10/17/2022 - 10/25/2022	I-131	<1.96E-02	0.00E+00	1.96E-02
		Cs-134	<2.08E-02	0.00E+00	2.08E-02
		Cs-137	<1.65E-02	0.00E+00	1.65E-02
		Be-7	<1.52E-01	0.00E+00	1.52E-01
		K-40	2.06E-01	1.86E-01	2.72E-01
578145	10/25/2022 - 10/31/2022	I-131	<2.51E-02	0.00E+00	2.51E-02
		Cs-134	<2.53E-02	0.00E+00	2.53E-02
		Cs-137	<1.34E-02	0.00E+00	1.34E-02
		Be-7	<2.25E-01	0.00E+00	2.25E-01
		K-40	5.19E-01	2.42E-01	7.40E-02
578857	10/31/2022 - 11/7/2022	I-131	<1.75E-02	0.00E+00	1.75E-02
		Cs-134	<2.05E-02	0.00E+00	2.05E-02
		Cs-137	<2.31E-02	0.00E+00	2.31E-02
		Be-7	<1.87E-01	0.00E+00	1.87E-01
		K-40	<4.59E-01	0.00E+00	4.59E-01
579056	11/7/2022 - 11/14/2022	I-131	<2.89E-02	0.00E+00	2.89E-02
		Cs-134	<2.16E-02	0.00E+00	2.16E-02
		Cs-137	<1.87E-02	0.00E+00	1.87E-02
		Be-7	<1.54E-01	0.00E+00	1.54E-01
		K-40	4.47E-01	2.35E-01	2.45E-01
579816	11/14/2022 - 11/21/2022	I-131	<2.32E-02	0.00E+00	2.32E-02
		Cs-134	<1.37E-02	0.00E+00	1.37E-02
		Cs-137	<2.28E-02	0.00E+00	2.28E-02
		Be-7	<1.95E-01	0.00E+00	1.95E-01
		K-40	3.99E-01	2.63E-01	3.48E-01
580629	11/21/2022 - 11/28/2022	I-131	<2.78E-02	0.00E+00	2.78E-02
		Cs-134	<2.28E-02	0.00E+00	2.28E-02
		Cs-137	<1.97E-02	0.00E+00	1.97E-02
		Be-7	<1.88E-01	0.00E+00	1.88E-01
		K-40	4.60E-01	2.62E-01	3.12E-01

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 106 [INDICATOR - E @ 0.47 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
580842	11/28/2022 - 12/5/2022	I-131	<2.45E-02	0.00E+00	2.45E-02
		Cs-134	<1.37E-02	0.00E+00	1.37E-02
		Cs-137	<2.27E-02	0.00E+00	2.27E-02
		Be-7	<1.51E-01	0.00E+00	1.51E-01
		K-40	3.42E-01	2.29E-01	2.89E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
581161	12/5/2022 - 12/12/2022	I-131	<2.38E-02	0.00E+00	2.38E-02
		Cs-134	<1.69E-02	0.00E+00	1.69E-02
		Cs-137	<1.69E-02	0.00E+00	1.69E-02
		Be-7	<1.25E-01	0.00E+00	1.25E-01
		K-40	4.96E-01	2.76E-01	3.38E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
581729	12/12/2022 - 12/19/2022	I-131	<3.19E-02	0.00E+00	3.19E-02
		Cs-134	<1.37E-02	0.00E+00	1.37E-02
		Cs-137	<2.41E-02	0.00E+00	2.41E-02
		Be-7	<1.40E-01	0.00E+00	1.40E-01
		K-40	6.89E-01	3.08E-01	3.24E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
582262	12/19/2022 - 12/27/2022	I-131	<2.45E-02	0.00E+00	2.45E-02
		Cs-134	<1.90E-02	0.00E+00	1.90E-02
		Cs-137	<1.64E-02	0.00E+00	1.64E-02
		Be-7	<1.19E-01	0.00E+00	1.19E-01
		K-40	3.72E-01	2.02E-01	2.16E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
582450	12/27/2022 - 1/3/2023	I-131	<1.89E-02	0.00E+00	1.89E-02
		Cs-134	<2.87E-02	0.00E+00	2.87E-02
		Cs-137	<1.53E-02	0.00E+00	1.53E-02
		Be-7	<1.32E-01	0.00E+00	1.32E-01
		K-40	<5.15E-01	0.00E+00	5.15E-01

Sample Point 120 [INDICATOR - NNE @ 0.46 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
558905	1/4/2022 - 1/10/2022	I-131	<2.09E-02	0.00E+00	2.09E-02
		Cs-134	<2.03E-02	0.00E+00	2.03E-02
		Cs-137	<2.27E-02	0.00E+00	2.27E-02
		Be-7	<2.32E-01	0.00E+00	2.32E-01
		K-40	<5.47E-01	0.00E+00	5.47E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
559013	1/10/2022 - 1/18/2022	I-131	<1.72E-02	0.00E+00	1.72E-02
		Cs-134	<1.77E-02	0.00E+00	1.77E-02
		Cs-137	<2.36E-02	0.00E+00	2.36E-02
		Be-7	<1.56E-01	0.00E+00	1.56E-01
		K-40	<4.24E-01	0.00E+00	4.24E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
559438	1/18/2022 - 1/24/2022	I-131	<2.46E-02	0.00E+00	2.46E-02
		Cs-134	<1.94E-02	0.00E+00	1.94E-02
		Cs-137	<2.36E-02	0.00E+00	2.36E-02
		Be-7	<8.74E-02	0.00E+00	8.74E-02
		K-40	3.95E-01	2.34E-01	2.47E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
560076	1/24/2022 - 1/31/2022	I-131	<2.23E-02	0.00E+00	2.23E-02
		Cs-134	<2.09E-02	0.00E+00	2.09E-02
		Cs-137	<2.51E-02	0.00E+00	2.51E-02
		Be-7	<1.74E-01	0.00E+00	1.74E-01
		K-40	<4.57E-01	0.00E+00	4.57E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
560293	1/31/2022 - 2/7/2022	I-131	<1.98E-02	0.00E+00	1.98E-02
		Cs-134	<2.17E-02	0.00E+00	2.17E-02
		Cs-137	<2.34E-02	0.00E+00	2.34E-02
		Be-7	<1.11E-01	0.00E+00	1.11E-01

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 120 [INDICATOR - NNE @ 0.46 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
560293	1/31/2022 - 2/7/2022	K-40	4.24E-01	2.32E-01	2.51E-01
560538	2/7/2022 - 2/14/2022	I-131	<2.10E-02	0.00E+00	2.10E-02
		Cs-134	<1.80E-02	0.00E+00	1.80E-02
		Cs-137	<1.55E-02	0.00E+00	1.55E-02
		Be-7	<1.18E-01	0.00E+00	1.18E-01
		K-40	<5.22E-01	0.00E+00	5.22E-01
560843	2/14/2022 - 2/21/2022	I-131	<2.64E-02	0.00E+00	2.64E-02
		Cs-134	<1.91E-02	0.00E+00	1.91E-02
		Cs-137	<1.42E-02	0.00E+00	1.42E-02
		Be-7	<1.69E-01	0.00E+00	1.69E-01
		K-40	5.75E-01	2.35E-01	6.24E-02
561179	2/21/2022 - 2/28/2022	I-131	<2.87E-02	0.00E+00	2.87E-02
		Cs-134	<2.22E-02	0.00E+00	2.22E-02
		Cs-137	<1.72E-02	0.00E+00	1.72E-02
		Be-7	<1.38E-01	0.00E+00	1.38E-01
		K-40	3.97E-01	2.20E-01	2.23E-01
561678	2/28/2022 - 3/7/2022	I-131	<2.16E-02	0.00E+00	2.16E-02
		Cs-134	<1.36E-02	0.00E+00	1.36E-02
		Cs-137	<2.09E-02	0.00E+00	2.09E-02
		Be-7	<1.91E-01	0.00E+00	1.91E-01
		K-40	2.93E-01	2.61E-01	3.92E-01
562280	3/7/2022 - 3/14/2022	I-131	<2.49E-02	0.00E+00	2.49E-02
		Cs-134	<1.39E-02	0.00E+00	1.39E-02
		Cs-137	<1.52E-02	0.00E+00	1.52E-02
		Be-7	<1.60E-01	0.00E+00	1.60E-01
		K-40	<5.83E-01	0.00E+00	5.83E-01
562877	3/14/2022 - 3/21/2022	I-131	<1.74E-02	0.00E+00	1.74E-02
		Cs-134	<2.48E-02	0.00E+00	2.48E-02
		Cs-137	<1.52E-02	0.00E+00	1.52E-02
		Be-7	<9.97E-02	0.00E+00	9.97E-02
		K-40	5.41E-01	2.35E-01	6.66E-02
563473	3/21/2022 - 3/28/2022	I-131	<2.35E-02	0.00E+00	2.35E-02
		Cs-134	<1.97E-02	0.00E+00	1.97E-02
		Cs-137	<2.07E-02	0.00E+00	2.07E-02
		Be-7	<1.56E-01	0.00E+00	1.56E-01
		K-40	5.01E-01	2.22E-01	6.47E-02
563806	3/28/2022 - 4/4/2022	I-131	<2.40E-02	0.00E+00	2.40E-02
		Cs-134	<2.15E-02	0.00E+00	2.15E-02
		Cs-137	<2.45E-02	0.00E+00	2.45E-02
		Be-7	<1.33E-01	0.00E+00	1.33E-01
		K-40	4.73E-01	2.61E-01	3.10E-01
564050	4/4/2022 - 4/11/2022	I-131	<2.62E-02	0.00E+00	2.62E-02
		Cs-134	<2.10E-02	0.00E+00	2.10E-02
		Cs-137	<2.53E-02	0.00E+00	2.53E-02
		Be-7	<1.56E-01	0.00E+00	1.56E-01
		K-40	7.10E-01	2.74E-01	6.87E-02
564572	4/11/2022 - 4/18/2022	I-131	<2.04E-02	0.00E+00	2.04E-02
		Cs-134	<2.79E-02	0.00E+00	2.79E-02
		Cs-137	<2.13E-02	0.00E+00	2.13E-02

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

Report Generated @ 2/15/2023 13:34:28

Duke Energy Annual Report - Appendix E

Appendix E - Page 37 of 114

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 120 [INDICATOR - NNE @ 0.46 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
564572	4/11/2022 - 4/18/2022	Be-7	<1.51E-01	0.00E+00	1.51E-01
		K-40	5.94E-01	2.38E-01	6.19E-02
564839	4/18/2022 - 4/25/2022	I-131	<2.12E-02	0.00E+00	2.12E-02
		Cs-134	<2.50E-02	0.00E+00	2.50E-02
		Cs-137	<2.48E-02	0.00E+00	2.48E-02
		Be-7	<1.55E-01	0.00E+00	1.55E-01
		K-40	5.42E-01	2.80E-01	3.14E-01
565330	4/25/2022 - 5/2/2022	I-131	<2.29E-02	0.00E+00	2.29E-02
		Cs-134	<2.62E-02	0.00E+00	2.62E-02
		Cs-137	<1.93E-02	0.00E+00	1.93E-02
		Be-7	<1.68E-01	0.00E+00	1.68E-01
		K-40	<5.40E-01	0.00E+00	5.40E-01
565996	5/2/2022 - 5/9/2022	I-131	<2.78E-02	0.00E+00	2.78E-02
		Cs-134	<1.39E-02	0.00E+00	1.39E-02
		Cs-137	<2.14E-02	0.00E+00	2.14E-02
		Be-7	<1.44E-01	0.00E+00	1.44E-01
		K-40	<4.32E-01	0.00E+00	4.32E-01
566589	5/9/2022 - 5/16/2022	I-131	<2.00E-02	0.00E+00	2.00E-02
		Cs-134	<3.20E-02	0.00E+00	3.20E-02
		Cs-137	<1.71E-02	0.00E+00	1.71E-02
		Be-7	<1.39E-01	0.00E+00	1.39E-01
		K-40	3.20E-01	2.71E-01	4.03E-01
566975	5/16/2022 - 5/23/2022	I-131	<2.62E-02	0.00E+00	2.62E-02
		Cs-134	<1.44E-02	0.00E+00	1.44E-02
		Cs-137	<2.03E-02	0.00E+00	2.03E-02
		Be-7	<1.85E-01	0.00E+00	1.85E-01
		K-40	<4.63E-01	0.00E+00	4.63E-01
567165	5/23/2022 - 5/31/2022	I-131	<1.62E-02	0.00E+00	1.62E-02
		Cs-134	<1.78E-02	0.00E+00	1.78E-02
		Cs-137	<1.54E-02	0.00E+00	1.54E-02
		Be-7	<1.25E-01	0.00E+00	1.25E-01
		K-40	<4.92E-01	0.00E+00	4.92E-01
567603	5/31/2022 - 6/6/2022	I-131	<2.46E-02	0.00E+00	2.46E-02
		Cs-134	<2.32E-02	0.00E+00	2.32E-02
		Cs-137	<2.44E-02	0.00E+00	2.44E-02
		Be-7	<1.85E-01	0.00E+00	1.85E-01
		K-40	<6.50E-01	0.00E+00	6.50E-01
567771	6/6/2022 - 6/13/2022	I-131	<2.81E-02	0.00E+00	2.81E-02
		Cs-134	<2.47E-02	0.00E+00	2.47E-02
		Cs-137	<2.91E-02	0.00E+00	2.91E-02
		Be-7	<1.48E-01	0.00E+00	1.48E-01
		K-40	7.24E-01	2.75E-01	6.76E-02
568412	6/13/2022 - 6/20/2022	I-131	<2.62E-02	0.00E+00	2.62E-02
		Cs-134	<2.31E-02	0.00E+00	2.31E-02
		Cs-137	<1.99E-02	0.00E+00	1.99E-02
		Be-7	<1.74E-01	0.00E+00	1.74E-01
		K-40	<6.04E-01	0.00E+00	6.04E-01
568646	6/20/2022 - 6/27/2022	I-131	<2.94E-02	0.00E+00	2.94E-02
		Cs-134	<2.00E-02	0.00E+00	2.00E-02

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

Report Generated @ 2/15/2023 13:34:28

Duke Energy Annual Report - Appendix E

Appendix E - Page 38 of 114

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 120 [INDICATOR - NNE @ 0.46 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
568646	6/20/2022 - 6/27/2022	Cs-137	<2.79E-02	0.00E+00	2.79E-02
		Be-7	<1.62E-01	0.00E+00	1.62E-01
		K-40	6.86E-01	3.04E-01	3.12E-01
568862	6/27/2022 - 7/5/2022	I-131	<2.35E-02	0.00E+00	2.35E-02
		Cs-134	<2.52E-02	0.00E+00	2.52E-02
		Cs-137	<1.27E-02	0.00E+00	1.27E-02
		Be-7	<8.44E-02	0.00E+00	8.44E-02
		K-40	4.54E-01	1.97E-01	5.59E-02
569114	7/5/2022 - 7/11/2022	I-131	<2.79E-02	0.00E+00	2.79E-02
		Cs-134	<2.47E-02	0.00E+00	2.47E-02
		Cs-137	<2.79E-02	0.00E+00	2.79E-02
		Be-7	<1.69E-01	0.00E+00	1.69E-01
		K-40	<5.73E-01	0.00E+00	5.73E-01
570328	7/11/2022 - 7/18/2022	I-131	<2.47E-02	0.00E+00	2.47E-02
		Cs-134	<2.21E-02	0.00E+00	2.21E-02
		Cs-137	<1.71E-02	0.00E+00	1.71E-02
		Be-7	<1.26E-01	0.00E+00	1.26E-01
		K-40	<4.51E-01	0.00E+00	4.51E-01
570887	7/18/2022 - 7/25/2022	I-131	<2.31E-02	0.00E+00	2.31E-02
		Cs-134	<3.05E-02	0.00E+00	3.05E-02
		Cs-137	<2.47E-02	0.00E+00	2.47E-02
		Be-7	<1.62E-01	0.00E+00	1.62E-01
		K-40	6.13E-01	2.55E-01	6.92E-02
571133	7/25/2022 - 8/1/2022	I-131	<2.78E-02	0.00E+00	2.78E-02
		Cs-134	<2.23E-02	0.00E+00	2.23E-02
		Cs-137	<2.26E-02	0.00E+00	2.26E-02
		Be-7	<1.28E-01	0.00E+00	1.28E-01
		K-40	4.48E-01	2.88E-01	3.88E-01
571452	8/1/2022 - 8/8/2022	I-131	<2.77E-02	0.00E+00	2.77E-02
		Cs-134	<2.02E-02	0.00E+00	2.02E-02
		Cs-137	<1.94E-02	0.00E+00	1.94E-02
		Be-7	<1.62E-01	0.00E+00	1.62E-01
		K-40	<4.25E-01	0.00E+00	4.25E-01
571739	8/8/2022 - 8/15/2022	I-131	<1.58E-02	0.00E+00	1.58E-02
		Cs-134	<2.02E-02	0.00E+00	2.02E-02
		Cs-137	<2.13E-02	0.00E+00	2.13E-02
		Be-7	<1.41E-01	0.00E+00	1.41E-01
		K-40	<5.39E-01	0.00E+00	5.39E-01
572744	8/15/2022 - 8/22/2022	I-131	<2.50E-02	0.00E+00	2.50E-02
		Cs-134	<2.52E-02	0.00E+00	2.52E-02
		Cs-137	<1.66E-02	0.00E+00	1.66E-02
		Be-7	<1.33E-01	0.00E+00	1.33E-01
		K-40	4.82E-01	2.30E-01	1.98E-01
573947	8/22/2022 - 8/29/2022	I-131	<2.08E-02	0.00E+00	2.08E-02
		Cs-134	<2.32E-02	0.00E+00	2.32E-02
		Cs-137	<2.50E-02	0.00E+00	2.50E-02
		Be-7	<1.44E-01	0.00E+00	1.44E-01
		K-40	6.77E-01	2.66E-01	6.79E-02
574563	8/29/2022 - 9/6/2022	Nuclide	Activity	2 Sigma Error	MDA
		I-131	<2.87E-02	0.00E+00	2.87E-02

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

Report Generated @ 2/15/2023 13:34:28

Duke Energy Annual Report - Appendix E

Appendix E - Page 39 of 114

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 120 [INDICATOR - NNE @ 0.46 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
574563	8/29/2022 - 9/6/2022	Cs-134	<1.98E-02	0.00E+00	1.98E-02
		Cs-137	<2.26E-02	0.00E+00	2.26E-02
		Be-7	<1.59E-01	0.00E+00	1.59E-01
		K-40	6.63E-01	2.70E-01	2.50E-01
575034	9/6/2022 - 9/12/2022	I-131	<3.25E-02	0.00E+00	3.25E-02
		Cs-134	<2.97E-02	0.00E+00	2.97E-02
		Cs-137	<2.91E-02	0.00E+00	2.91E-02
		Be-7	<2.35E-01	0.00E+00	2.35E-01
		K-40	8.13E-01	3.20E-01	8.16E-02
575726	9/12/2022 - 9/19/2022	I-131	<2.76E-02	0.00E+00	2.76E-02
		Cs-134	<1.74E-02	0.00E+00	1.74E-02
		Cs-137	<2.28E-02	0.00E+00	2.28E-02
		Be-7	<1.27E-01	0.00E+00	1.27E-01
		K-40	<5.77E-01	0.00E+00	5.77E-01
576119	9/19/2022 - 9/26/2022	I-131	<2.33E-02	0.00E+00	2.33E-02
		Cs-134	<2.56E-02	0.00E+00	2.56E-02
		Cs-137	<2.35E-02	0.00E+00	2.35E-02
		Be-7	<1.55E-01	0.00E+00	1.55E-01
		K-40	5.44E-01	2.31E-01	6.41E-02
576290	9/26/2022 - 10/3/2022	I-131	<2.40E-02	0.00E+00	2.40E-02
		Cs-134	<2.59E-02	0.00E+00	2.59E-02
		Cs-137	<2.64E-02	0.00E+00	2.64E-02
		Be-7	<1.27E-01	0.00E+00	1.27E-01
		K-40	3.32E-01	1.98E-01	2.00E-01
576586	10/3/2022 - 10/10/2022	I-131	<2.94E-02	0.00E+00	2.94E-02
		Cs-134	<1.77E-02	0.00E+00	1.77E-02
		Cs-137	<1.98E-02	0.00E+00	1.98E-02
		Be-7	<1.80E-01	0.00E+00	1.80E-01
		K-40	<5.87E-01	0.00E+00	5.87E-01
577198	10/10/2022 - 10/17/2022	I-131	<3.24E-02	0.00E+00	3.24E-02
		Cs-134	<2.41E-02	0.00E+00	2.41E-02
		Cs-137	<1.60E-02	0.00E+00	1.60E-02
		Be-7	<2.18E-01	0.00E+00	2.18E-01
		K-40	<6.78E-01	0.00E+00	6.78E-01
577793	10/17/2022 - 10/25/2022	I-131	<3.04E-02	0.00E+00	3.04E-02
		Cs-134	<1.96E-02	0.00E+00	1.96E-02
		Cs-137	<1.99E-02	0.00E+00	1.99E-02
		Be-7	<1.42E-01	0.00E+00	1.42E-01
		K-40	<4.02E-01	0.00E+00	4.02E-01
578146	10/25/2022 - 10/31/2022	I-131	<2.68E-02	0.00E+00	2.68E-02
		Cs-134	<3.37E-02	0.00E+00	3.37E-02
		Cs-137	<2.41E-02	0.00E+00	2.41E-02
		Be-7	<1.31E-01	0.00E+00	1.31E-01
		K-40	3.77E-01	2.34E-01	2.54E-01
578858	10/31/2022 - 11/7/2022	I-131	<3.22E-02	0.00E+00	3.22E-02
		Cs-134	<2.35E-02	0.00E+00	2.35E-02
		Cs-137	<2.21E-02	0.00E+00	2.21E-02
		Be-7	<1.67E-01	0.00E+00	1.67E-01
		K-40	3.76E-01	2.61E-01	3.50E-01

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 120 [INDICATOR - NNE @ 0.46 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
579057	11/7/2022 - 11/14/2022	I-131	<2.60E-02	0.00E+00	2.60E-02
		Cs-134	<2.40E-02	0.00E+00	2.40E-02
		Cs-137	<1.70E-02	0.00E+00	1.70E-02
		Be-7	<2.05E-01	0.00E+00	2.05E-01
		K-40	2.78E-01	2.29E-01	3.27E-01
579817	11/14/2022 - 11/21/2022	I-131	<2.74E-02	0.00E+00	2.74E-02
		Cs-134	<1.96E-02	0.00E+00	1.96E-02
		Cs-137	<1.89E-02	0.00E+00	1.89E-02
		Be-7	<1.12E-01	0.00E+00	1.12E-01
		K-40	<5.70E-01	0.00E+00	5.70E-01
580630	11/21/2022 - 11/28/2022	I-131	<2.43E-02	0.00E+00	2.43E-02
		Cs-134	<3.24E-02	0.00E+00	3.24E-02
		Cs-137	<2.10E-02	0.00E+00	2.10E-02
		Be-7	<1.68E-01	0.00E+00	1.68E-01
		K-40	<5.66E-01	0.00E+00	5.66E-01
580843	11/28/2022 - 12/5/2022	I-131	<1.70E-02	0.00E+00	1.70E-02
		Cs-134	<2.19E-02	0.00E+00	2.19E-02
		Cs-137	<2.36E-02	0.00E+00	2.36E-02
		Be-7	<1.46E-01	0.00E+00	1.46E-01
		K-40	3.58E-01	2.50E-01	3.39E-01
581162	12/5/2022 - 12/12/2022	I-131	<2.35E-02	0.00E+00	2.35E-02
		Cs-134	<2.81E-02	0.00E+00	2.81E-02
		Cs-137	<2.43E-02	0.00E+00	2.43E-02
		Be-7	<1.95E-01	0.00E+00	1.95E-01
		K-40	5.63E-01	2.39E-01	6.63E-02
581730	12/12/2022 - 12/19/2022	I-131	<2.32E-02	0.00E+00	2.32E-02
		Cs-134	<2.28E-02	0.00E+00	2.28E-02
		Cs-137	<2.73E-02	0.00E+00	2.73E-02
		Be-7	<1.52E-01	0.00E+00	1.52E-01
		K-40	<5.55E-01	0.00E+00	5.55E-01
582263	12/19/2022 - 12/27/2022	I-131	<3.07E-02	0.00E+00	3.07E-02
		Cs-134	<2.30E-02	0.00E+00	2.30E-02
		Cs-137	<3.02E-02	0.00E+00	3.02E-02
		Be-7	<2.02E-01	0.00E+00	2.02E-01
		K-40	<6.73E-01	0.00E+00	6.73E-01
582451	12/27/2022 - 1/3/2023	I-131	<2.01E-02	0.00E+00	2.01E-02
		Cs-134	<2.47E-02	0.00E+00	2.47E-02
		Cs-137	<1.20E-02	0.00E+00	1.20E-02
		Be-7	<1.87E-01	0.00E+00	1.87E-01
		K-40	<5.42E-01	0.00E+00	5.42E-01

Sample Point 121 [INDICATOR - NE @ 0.47 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
558906	1/4/2022 - 1/10/2022	I-131	<2.38E-02	0.00E+00	2.38E-02
		Cs-134	<2.44E-02	0.00E+00	2.44E-02
		Cs-137	<1.44E-02	0.00E+00	1.44E-02
		Be-7	<1.19E-01	0.00E+00	1.19E-01
		K-40	<5.54E-01	0.00E+00	5.54E-01
559014	1/10/2022 - 1/18/2022	I-131	<2.19E-02	0.00E+00	2.19E-02
		Cs-134	<2.23E-02	0.00E+00	2.23E-02
		Cs-137	<1.92E-02	0.00E+00	1.92E-02
		Be-7	<1.28E-01	0.00E+00	1.28E-01

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 121 [INDICATOR - NE @ 0.47 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
559014	1/10/2022 - 1/18/2022	K-40	<3.49E-01	0.00E+00	3.49E-01
559441	1/18/2022 - 1/24/2022	I-131	<2.45E-02	0.00E+00	2.45E-02
		Cs-134	<2.92E-02	0.00E+00	2.92E-02
		Cs-137	<2.71E-02	0.00E+00	2.71E-02
		Be-7	<1.79E-01	0.00E+00	1.79E-01
		K-40	4.30E-01	2.46E-01	2.37E-01
560077	1/24/2022 - 1/31/2022	I-131	<2.04E-02	0.00E+00	2.04E-02
		Cs-134	<2.28E-02	0.00E+00	2.28E-02
		Cs-137	<2.14E-02	0.00E+00	2.14E-02
		Be-7	<1.87E-01	0.00E+00	1.87E-01
		K-40	<5.83E-01	0.00E+00	5.83E-01
560294	1/31/2022 - 2/7/2022	I-131	<2.75E-02	0.00E+00	2.75E-02
		Cs-134	<1.76E-02	0.00E+00	1.76E-02
		Cs-137	<1.96E-02	0.00E+00	1.96E-02
		Be-7	<1.29E-01	0.00E+00	1.29E-01
		K-40	<4.47E-01	0.00E+00	4.47E-01
560539	2/7/2022 - 2/14/2022	I-131	<2.83E-02	0.00E+00	2.83E-02
		Cs-134	<1.77E-02	0.00E+00	1.77E-02
		Cs-137	<2.74E-02	0.00E+00	2.74E-02
		Be-7	<1.62E-01	0.00E+00	1.62E-01
		K-40	<5.35E-01	0.00E+00	5.35E-01
560844	2/14/2022 - 2/21/2022	I-131	<2.91E-02	0.00E+00	2.91E-02
		Cs-134	<2.27E-02	0.00E+00	2.27E-02
		Cs-137	<2.71E-02	0.00E+00	2.71E-02
		Be-7	<1.30E-01	0.00E+00	1.30E-01
		K-40	4.73E-01	2.70E-01	3.27E-01
561180	2/21/2022 - 2/28/2022	I-131	<2.89E-02	0.00E+00	2.89E-02
		Cs-134	<2.54E-02	0.00E+00	2.54E-02
		Cs-137	<2.51E-02	0.00E+00	2.51E-02
		Be-7	<1.65E-01	0.00E+00	1.65E-01
		K-40	5.03E-01	2.29E-01	6.82E-02
561679	2/28/2022 - 3/7/2022	I-131	<2.31E-02	0.00E+00	2.31E-02
		Cs-134	<2.82E-02	0.00E+00	2.82E-02
		Cs-137	<1.84E-02	0.00E+00	1.84E-02
		Be-7	<1.33E-01	0.00E+00	1.33E-01
		K-40	<3.86E-01	0.00E+00	3.86E-01
562281	3/7/2022 - 3/14/2022	I-131	<1.63E-02	0.00E+00	1.63E-02
		Cs-134	<1.82E-02	0.00E+00	1.82E-02
		Cs-137	<2.03E-02	0.00E+00	2.03E-02
		Be-7	<1.34E-01	0.00E+00	1.34E-01
		K-40	<4.03E-01	0.00E+00	4.03E-01
562878	3/14/2022 - 3/21/2022	I-131	<2.14E-02	0.00E+00	2.14E-02
		Cs-134	<2.45E-02	0.00E+00	2.45E-02
		Cs-137	<1.74E-02	0.00E+00	1.74E-02
		Be-7	<1.68E-01	0.00E+00	1.68E-01
		K-40	4.20E-01	2.24E-01	2.21E-01
563474	3/21/2022 - 3/28/2022	I-131	<2.46E-02	0.00E+00	2.46E-02
		Cs-134	<2.07E-02	0.00E+00	2.07E-02
		Cs-137	<2.00E-02	0.00E+00	2.00E-02

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

Report Generated @ 2/15/2023 13:34:28

Duke Energy Annual Report - Appendix E

Appendix E - Page 42 of 114

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 121 [INDICATOR - NE @ 0.47 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
563474	3/21/2022 - 3/28/2022	Be-7	<1.43E-01	0.00E+00	1.43E-01
		K-40	<5.63E-01	0.00E+00	5.63E-01
563807	3/28/2022 - 4/4/2022	I-131	<2.30E-02	0.00E+00	2.30E-02
		Cs-134	<3.29E-02	0.00E+00	3.29E-02
		Cs-137	<2.14E-02	0.00E+00	2.14E-02
		Be-7	<1.51E-01	0.00E+00	1.51E-01
		K-40	<4.10E-01	0.00E+00	4.10E-01
564051	4/4/2022 - 4/11/2022	I-131	<2.93E-02	0.00E+00	2.93E-02
		Cs-134	<2.06E-02	0.00E+00	2.06E-02
		Cs-137	<1.98E-02	0.00E+00	1.98E-02
		Be-7	<1.00E-01	0.00E+00	1.00E-01
		K-40	<6.36E-01	0.00E+00	6.36E-01
564573	4/11/2022 - 4/18/2022	I-131	<3.18E-02	0.00E+00	3.18E-02
		Cs-134	<2.97E-02	0.00E+00	2.97E-02
		Cs-137	<2.28E-02	0.00E+00	2.28E-02
		Be-7	<1.79E-01	0.00E+00	1.79E-01
		K-40	4.18E-01	2.33E-01	2.49E-01
564840	4/18/2022 - 4/25/2022	I-131	<2.50E-02	0.00E+00	2.50E-02
		Cs-134	<2.77E-02	0.00E+00	2.77E-02
		Cs-137	<2.09E-02	0.00E+00	2.09E-02
		Be-7	<1.58E-01	0.00E+00	1.58E-01
		K-40	<4.69E-01	0.00E+00	4.69E-01
565331	4/25/2022 - 5/2/2022	I-131	<2.04E-02	0.00E+00	2.04E-02
		Cs-134	<1.97E-02	0.00E+00	1.97E-02
		Cs-137	<2.38E-02	0.00E+00	2.38E-02
		Be-7	<1.49E-01	0.00E+00	1.49E-01
		K-40	<4.84E-01	0.00E+00	4.84E-01
565997	5/2/2022 - 5/9/2022	I-131	<2.30E-02	0.00E+00	2.30E-02
		Cs-134	<2.41E-02	0.00E+00	2.41E-02
		Cs-137	<1.16E-02	0.00E+00	1.16E-02
		Be-7	<1.58E-01	0.00E+00	1.58E-01
		K-40	<5.23E-01	0.00E+00	5.23E-01
566590	5/9/2022 - 5/16/2022	I-131	<2.90E-02	0.00E+00	2.90E-02
		Cs-134	<1.65E-02	0.00E+00	1.65E-02
		Cs-137	<1.65E-02	0.00E+00	1.65E-02
		Be-7	<1.23E-01	0.00E+00	1.23E-01
		K-40	4.61E-01	2.10E-01	6.25E-02
566976	5/16/2022 - 5/23/2022	I-131	<2.40E-02	0.00E+00	2.40E-02
		Cs-134	<2.76E-02	0.00E+00	2.76E-02
		Cs-137	<2.91E-02	0.00E+00	2.91E-02
		Be-7	<2.11E-01	0.00E+00	2.11E-01
		K-40	5.63E-01	2.91E-01	3.26E-01
567166	5/23/2022 - 5/27/2022	I-131	<4.98E-02	0.00E+00	4.98E-02
		Cs-134	<3.70E-02	0.00E+00	3.70E-02
		Cs-137	<3.28E-02	0.00E+00	3.28E-02
		Be-7	<2.34E-01	0.00E+00	2.34E-01
		K-40	9.14E-01	3.61E-01	3.39E-01
567604	5/31/2022 - 6/6/2022	I-131	<2.49E-02	0.00E+00	2.49E-02
		Cs-134	<2.95E-02	0.00E+00	2.95E-02

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 121 [INDICATOR - NE @ 0.47 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
567604	5/31/2022 - 6/6/2022	Cs-137	<2.55E-02	0.00E+00	2.55E-02
		Be-7	<1.42E-01	0.00E+00	1.42E-01
		K-40	5.90E-01	2.77E-01	2.39E-01
567772	6/6/2022 - 6/13/2022	I-131	<3.48E-02	0.00E+00	3.48E-02
		Cs-134	<1.77E-02	0.00E+00	1.77E-02
		Cs-137	<1.95E-02	0.00E+00	1.95E-02
		Be-7	<1.85E-01	0.00E+00	1.85E-01
		K-40	3.61E-01	2.23E-01	2.51E-01
568413	6/13/2022 - 6/20/2022	I-131	<2.67E-02	0.00E+00	2.67E-02
		Cs-134	<2.73E-02	0.00E+00	2.73E-02
		Cs-137	<1.80E-02	0.00E+00	1.80E-02
		Be-7	<1.33E-01	0.00E+00	1.33E-01
		K-40	<4.74E-01	0.00E+00	4.74E-01
568647	6/20/2022 - 6/27/2022	I-131	<3.41E-02	0.00E+00	3.41E-02
		Cs-134	<2.52E-02	0.00E+00	2.52E-02
		Cs-137	<2.47E-02	0.00E+00	2.47E-02
		Be-7	<1.14E-01	0.00E+00	1.14E-01
		K-40	<6.52E-01	0.00E+00	6.52E-01
568863	6/27/2022 - 7/5/2022	I-131	<2.45E-02	0.00E+00	2.45E-02
		Cs-134	<2.52E-02	0.00E+00	2.52E-02
		Cs-137	<2.04E-02	0.00E+00	2.04E-02
		Be-7	<1.03E-01	0.00E+00	1.03E-01
		K-40	3.39E-01	1.93E-01	1.95E-01
569115	7/5/2022 - 7/11/2022	I-131	<2.91E-02	0.00E+00	2.91E-02
		Cs-134	<2.91E-02	0.00E+00	2.91E-02
		Cs-137	<2.51E-02	0.00E+00	2.51E-02
		Be-7	<1.52E-01	0.00E+00	1.52E-01
		K-40	7.28E-01	3.50E-01	3.87E-01
570329	7/11/2022 - 7/18/2022	I-131	<1.92E-02	0.00E+00	1.92E-02
		Cs-134	<1.74E-02	0.00E+00	1.74E-02
		Cs-137	<1.94E-02	0.00E+00	1.94E-02
		Be-7	<1.41E-01	0.00E+00	1.41E-01
		K-40	<5.09E-01	0.00E+00	5.09E-01
570888	7/18/2022 - 7/25/2022	I-131	<2.24E-02	0.00E+00	2.24E-02
		Cs-134	<2.48E-02	0.00E+00	2.48E-02
		Cs-137	<2.30E-02	0.00E+00	2.30E-02
		Be-7	<1.64E-01	0.00E+00	1.64E-01
		K-40	<5.07E-01	0.00E+00	5.07E-01
571134	7/25/2022 - 8/1/2022	I-131	<1.99E-02	0.00E+00	1.99E-02
		Cs-134	<2.37E-02	0.00E+00	2.37E-02
		Cs-137	<2.04E-02	0.00E+00	2.04E-02
		Be-7	<1.35E-01	0.00E+00	1.35E-01
		K-40	5.87E-01	2.39E-01	6.37E-02
571453	8/1/2022 - 8/8/2022	I-131	<3.12E-02	0.00E+00	3.12E-02
		Cs-134	<2.04E-02	0.00E+00	2.04E-02
		Cs-137	<2.45E-02	0.00E+00	2.45E-02
		Be-7	<1.31E-01	0.00E+00	1.31E-01
		K-40	5.81E-01	2.91E-01	3.30E-01
571740	8/8/2022 - 8/15/2022	I-131	<2.11E-02	0.00E+00	2.11E-02

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

Report Generated @ 2/15/2023 13:34:28

Duke Energy Annual Report - Appendix E

Appendix E - Page 44 of 114

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 121 [INDICATOR - NE @ 0.47 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
571740	8/8/2022 - 8/15/2022	Cs-134	<2.19E-02	0.00E+00	2.19E-02
		Cs-137	<2.22E-02	0.00E+00	2.22E-02
		Be-7	<1.36E-01	0.00E+00	1.36E-01
		K-40	<5.46E-01	0.00E+00	5.46E-01
572745	8/15/2022 - 8/22/2022	I-131	<2.04E-02	0.00E+00	2.04E-02
		Cs-134	<2.67E-02	0.00E+00	2.67E-02
		Cs-137	<1.52E-02	0.00E+00	1.52E-02
		Be-7	<1.41E-01	0.00E+00	1.41E-01
		K-40	<5.11E-01	0.00E+00	5.11E-01
573948	8/22/2022 - 8/29/2022	I-131	<2.27E-02	0.00E+00	2.27E-02
		Cs-134	<1.75E-02	0.00E+00	1.75E-02
		Cs-137	<1.76E-02	0.00E+00	1.76E-02
		Be-7	<1.40E-01	0.00E+00	1.40E-01
		K-40	3.20E-01	2.09E-01	2.45E-01
574564	8/29/2022 - 9/6/2022	I-131	<2.80E-02	0.00E+00	2.80E-02
		Cs-134	<2.64E-02	0.00E+00	2.64E-02
		Cs-137	<1.70E-02	0.00E+00	1.70E-02
		Be-7	<1.40E-01	0.00E+00	1.40E-01
		K-40	5.65E-01	2.67E-01	2.90E-01
575035	9/6/2022 - 9/12/2022	I-131	<2.91E-02	0.00E+00	2.91E-02
		Cs-134	<2.55E-02	0.00E+00	2.55E-02
		Cs-137	<1.70E-02	0.00E+00	1.70E-02
		Be-7	<2.35E-01	0.00E+00	2.35E-01
		K-40	7.17E-01	2.87E-01	7.47E-02
575727	9/12/2022 - 9/19/2022	I-131	<2.49E-02	0.00E+00	2.49E-02
		Cs-134	<1.86E-02	0.00E+00	1.86E-02
		Cs-137	<1.86E-02	0.00E+00	1.86E-02
		Be-7	<1.47E-01	0.00E+00	1.47E-01
		K-40	6.16E-01	2.56E-01	6.96E-02
576120	9/19/2022 - 9/26/2022	I-131	<2.79E-02	0.00E+00	2.79E-02
		Cs-134	<2.27E-02	0.00E+00	2.27E-02
		Cs-137	<1.20E-02	0.00E+00	1.20E-02
		Be-7	<9.92E-02	0.00E+00	9.92E-02
		K-40	4.62E-01	2.43E-01	2.55E-01
576291	9/26/2022 - 10/3/2022	I-131	<2.21E-02	0.00E+00	2.21E-02
		Cs-134	<2.35E-02	0.00E+00	2.35E-02
		Cs-137	<2.32E-02	0.00E+00	2.32E-02
		Be-7	<1.62E-01	0.00E+00	1.62E-01
		K-40	3.05E-01	2.58E-01	3.81E-01
576587	10/3/2022 - 10/10/2022	I-131	<2.29E-02	0.00E+00	2.29E-02
		Cs-134	<2.65E-02	0.00E+00	2.65E-02
		Cs-137	<2.09E-02	0.00E+00	2.09E-02
		Be-7	<1.80E-01	0.00E+00	1.80E-01
		K-40	4.44E-01	2.48E-01	2.66E-01
577199	10/10/2022 - 10/17/2022	I-131	<2.58E-02	0.00E+00	2.58E-02
		Cs-134	<2.26E-02	0.00E+00	2.26E-02
		Cs-137	<1.75E-02	0.00E+00	1.75E-02
		Be-7	<1.16E-01	0.00E+00	1.16E-01
		K-40	4.76E-01	2.37E-01	2.20E-01

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 121 [INDICATOR - NE @ 0.47 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
577794	10/17/2022 - 10/25/2022	I-131	<2.60E-02	0.00E+00	2.60E-02
		Cs-134	<2.08E-02	0.00E+00	2.08E-02
		Cs-137	<1.27E-02	0.00E+00	1.27E-02
		Be-7	<1.19E-01	0.00E+00	1.19E-01
		K-40	3.41E-01	1.87E-01	1.86E-01
578147	10/25/2022 - 10/31/2022	I-131	<2.86E-02	0.00E+00	2.86E-02
		Cs-134	<3.12E-02	0.00E+00	3.12E-02
		Cs-137	<2.29E-02	0.00E+00	2.29E-02
		Be-7	<1.88E-01	0.00E+00	1.88E-01
		K-40	<5.42E-01	0.00E+00	5.42E-01
578859	10/31/2022 - 11/7/2022	I-131	<2.80E-02	0.00E+00	2.80E-02
		Cs-134	<2.46E-02	0.00E+00	2.46E-02
		Cs-137	<1.51E-02	0.00E+00	1.51E-02
		Be-7	<1.16E-01	0.00E+00	1.16E-01
		K-40	5.03E-01	2.47E-01	2.31E-01
579058	11/7/2022 - 11/14/2022	I-131	<2.07E-02	0.00E+00	2.07E-02
		Cs-134	<2.15E-02	0.00E+00	2.15E-02
		Cs-137	<1.85E-02	0.00E+00	1.85E-02
		Be-7	<1.22E-01	0.00E+00	1.22E-01
		K-40	5.36E-01	2.28E-01	6.32E-02
579818	11/14/2022 - 11/21/2022	I-131	<2.34E-02	0.00E+00	2.34E-02
		Cs-134	<2.71E-02	0.00E+00	2.71E-02
		Cs-137	<1.99E-02	0.00E+00	1.99E-02
		Be-7	<1.17E-01	0.00E+00	1.17E-01
		K-40	5.04E-01	2.55E-01	2.56E-01
580631	11/21/2022 - 11/28/2022	I-131	<2.13E-02	0.00E+00	2.13E-02
		Cs-134	<2.36E-02	0.00E+00	2.36E-02
		Cs-137	<1.67E-02	0.00E+00	1.67E-02
		Be-7	<1.55E-01	0.00E+00	1.55E-01
		K-40	<4.85E-01	0.00E+00	4.85E-01
580844	11/28/2022 - 12/5/2022	I-131	<2.09E-02	0.00E+00	2.09E-02
		Cs-134	<3.05E-02	0.00E+00	3.05E-02
		Cs-137	<2.49E-02	0.00E+00	2.49E-02
		Be-7	<1.43E-01	0.00E+00	1.43E-01
		K-40	<5.47E-01	0.00E+00	5.47E-01
581163	12/5/2022 - 12/12/2022	I-131	<2.00E-02	0.00E+00	2.00E-02
		Cs-134	<2.18E-02	0.00E+00	2.18E-02
		Cs-137	<2.35E-02	0.00E+00	2.35E-02
		Be-7	<1.46E-01	0.00E+00	1.46E-01
		K-40	4.40E-01	2.24E-01	2.07E-01
581731	12/12/2022 - 12/19/2022	I-131	<2.14E-02	0.00E+00	2.14E-02
		Cs-134	<2.46E-02	0.00E+00	2.46E-02
		Cs-137	<1.50E-02	0.00E+00	1.50E-02
		Be-7	<1.49E-01	0.00E+00	1.49E-01
		K-40	5.90E-01	2.59E-01	2.15E-01
582264	12/19/2022 - 12/27/2022	I-131	<2.02E-02	0.00E+00	2.02E-02
		Cs-134	<2.34E-02	0.00E+00	2.34E-02
		Cs-137	<2.15E-02	0.00E+00	2.15E-02
		Be-7	<1.42E-01	0.00E+00	1.42E-01
		K-40	<3.04E-01	0.00E+00	3.04E-01

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 121 [INDICATOR - NE @ 0.47 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
582452	12/27/2022 - 1/3/2023	I-131	<2.76E-02	0.00E+00	2.76E-02
		Cs-134	<2.72E-02	0.00E+00	2.72E-02
		Cs-137	<2.49E-02	0.00E+00	2.49E-02
		Be-7	<1.33E-01	0.00E+00	1.33E-01
		K-40	<5.73E-01	0.00E+00	5.73E-01

Sample Point 125 [INDICATOR - SW @ 0.38 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
558907	1/4/2022 - 1/10/2022	I-131	<3.10E-02	0.00E+00	3.10E-02
		Cs-134	<2.40E-02	0.00E+00	2.40E-02
		Cs-137	<3.21E-02	0.00E+00	3.21E-02
		Be-7	<1.78E-01	0.00E+00	1.78E-01
		K-40	<6.49E-01	0.00E+00	6.49E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
559015	1/10/2022 - 1/18/2022	I-131	<3.17E-02	0.00E+00	3.17E-02
		Cs-134	<3.08E-02	0.00E+00	3.08E-02
		Cs-137	<2.65E-02	0.00E+00	2.65E-02
		Be-7	<2.02E-01	0.00E+00	2.02E-01
		K-40	3.00E-01	2.30E-01	3.22E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
559444	1/18/2022 - 1/24/2022	I-131	<2.70E-02	0.00E+00	2.70E-02
		Cs-134	<2.65E-02	0.00E+00	2.65E-02
		Cs-137	<2.86E-02	0.00E+00	2.86E-02
		Be-7	<1.87E-01	0.00E+00	1.87E-01
		K-40	3.19E-01	2.83E-01	4.20E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
560078	1/24/2022 - 1/31/2022	I-131	<1.84E-02	0.00E+00	1.84E-02
		Cs-134	<2.11E-02	0.00E+00	2.11E-02
		Cs-137	<2.04E-02	0.00E+00	2.04E-02
		Be-7	<1.35E-01	0.00E+00	1.35E-01
		K-40	<4.04E-01	0.00E+00	4.04E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
560295	1/31/2022 - 2/7/2022	I-131	<2.57E-02	0.00E+00	2.57E-02
		Cs-134	<1.72E-02	0.00E+00	1.72E-02
		Cs-137	<1.72E-02	0.00E+00	1.72E-02
		Be-7	<1.66E-01	0.00E+00	1.66E-01
		K-40	5.09E-01	2.56E-01	2.70E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
560540	2/7/2022 - 2/14/2022	I-131	<2.16E-02	0.00E+00	2.16E-02
		Cs-134	<2.79E-02	0.00E+00	2.79E-02
		Cs-137	<1.58E-02	0.00E+00	1.58E-02
		Be-7	<1.48E-01	0.00E+00	1.48E-01
		K-40	<4.27E-01	0.00E+00	4.27E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
560845	2/14/2022 - 2/21/2022	I-131	<2.26E-02	0.00E+00	2.26E-02
		Cs-134	<2.00E-02	0.00E+00	2.00E-02
		Cs-137	<1.49E-02	0.00E+00	1.49E-02
		Be-7	<1.50E-01	0.00E+00	1.50E-01
		K-40	4.71E-01	2.82E-01	3.66E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
561181	2/21/2022 - 2/28/2022	I-131	<2.98E-02	0.00E+00	2.98E-02
		Cs-134	<2.28E-02	0.00E+00	2.28E-02
		Cs-137	<1.97E-02	0.00E+00	1.97E-02
		Be-7	<1.61E-01	0.00E+00	1.61E-01
		K-40	5.10E-01	2.62E-01	2.85E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
561680	2/28/2022 - 3/7/2022	I-131	<2.54E-02	0.00E+00	2.54E-02
		Cs-134	<2.03E-02	0.00E+00	2.03E-02
		Cs-137	<2.13E-02	0.00E+00	2.13E-02
		Be-7	<1.15E-01	0.00E+00	1.15E-01

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 125 [INDICATOR - SW @ 0.38 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
561680	2/28/2022 - 3/7/2022	K-40	1.97E-01	1.57E-01	1.82E-01
562282	3/7/2022 - 3/14/2022	I-131	<2.45E-02	0.00E+00	2.45E-02
		Cs-134	<2.18E-02	0.00E+00	2.18E-02
		Cs-137	<1.88E-02	0.00E+00	1.88E-02
		Be-7	<1.63E-01	0.00E+00	1.63E-01
		K-40	1.84E-01	1.80E-01	2.82E-01
562879	3/14/2022 - 3/21/2022	I-131	<1.98E-02	0.00E+00	1.98E-02
		Cs-134	<2.54E-02	0.00E+00	2.54E-02
		Cs-137	<2.36E-02	0.00E+00	2.36E-02
		Be-7	<8.14E-02	0.00E+00	8.14E-02
		K-40	<5.21E-01	0.00E+00	5.21E-01
563475	3/21/2022 - 3/28/2022	I-131	<2.71E-02	0.00E+00	2.71E-02
		Cs-134	<2.04E-02	0.00E+00	2.04E-02
		Cs-137	<2.14E-02	0.00E+00	2.14E-02
		Be-7	<1.94E-01	0.00E+00	1.94E-01
		K-40	5.99E-01	2.86E-01	3.07E-01
563808	3/28/2022 - 4/4/2022	I-131	<1.52E-02	0.00E+00	1.52E-02
		Cs-134	<2.00E-02	0.00E+00	2.00E-02
		Cs-137	<2.41E-02	0.00E+00	2.41E-02
		Be-7	<1.38E-01	0.00E+00	1.38E-01
		K-40	6.26E-01	2.70E-01	2.38E-01
564052	4/4/2022 - 4/11/2022	I-131	<2.00E-02	0.00E+00	2.00E-02
		Cs-134	<2.36E-02	0.00E+00	2.36E-02
		Cs-137	<1.57E-02	0.00E+00	1.57E-02
		Be-7	<1.47E-01	0.00E+00	1.47E-01
		K-40	2.58E-01	2.24E-01	3.21E-01
564574	4/11/2022 - 4/18/2022	I-131	<2.72E-02	0.00E+00	2.72E-02
		Cs-134	<2.22E-02	0.00E+00	2.22E-02
		Cs-137	<1.72E-02	0.00E+00	1.72E-02
		Be-7	<1.27E-01	0.00E+00	1.27E-01
		K-40	<6.27E-01	0.00E+00	6.27E-01
564841	4/18/2022 - 4/25/2022	I-131	<2.49E-02	0.00E+00	2.49E-02
		Cs-134	<2.55E-02	0.00E+00	2.55E-02
		Cs-137	<2.51E-02	0.00E+00	2.51E-02
		Be-7	<1.19E-01	0.00E+00	1.19E-01
		K-40	<4.58E-01	0.00E+00	4.58E-01
565332	4/25/2022 - 5/2/2022	I-131	<2.63E-02	0.00E+00	2.63E-02
		Cs-134	<2.36E-02	0.00E+00	2.36E-02
		Cs-137	<1.67E-02	0.00E+00	1.67E-02
		Be-7	<1.54E-01	0.00E+00	1.54E-01
		K-40	<5.51E-01	0.00E+00	5.51E-01
565998	5/2/2022 - 5/9/2022	I-131	<2.54E-02	0.00E+00	2.54E-02
		Cs-134	<2.08E-02	0.00E+00	2.08E-02
		Cs-137	<2.18E-02	0.00E+00	2.18E-02
		Be-7	<1.85E-01	0.00E+00	1.85E-01
		K-40	<5.64E-01	0.00E+00	5.64E-01
566591	5/9/2022 - 5/16/2022	I-131	<1.66E-02	0.00E+00	1.66E-02
		Cs-134	<1.97E-02	0.00E+00	1.97E-02
		Cs-137	<1.46E-02	0.00E+00	1.46E-02

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

Report Generated @ 2/15/2023 13:34:28

Duke Energy Annual Report - Appendix E

Appendix E - Page 48 of 114

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 125 [INDICATOR - SW @ 0.38 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
566591	5/9/2022 - 5/16/2022	Be-7	<1.39E-01	0.00E+00	1.39E-01
		K-40	4.72E-01	2.62E-01	3.09E-01
566977	5/16/2022 - 5/23/2022	I-131	<2.46E-02	0.00E+00	2.46E-02
		Cs-134	<2.40E-02	0.00E+00	2.40E-02
		Cs-137	<1.70E-02	0.00E+00	1.70E-02
		Be-7	<1.74E-01	0.00E+00	1.74E-01
		K-40	<4.81E-01	0.00E+00	4.81E-01
567167	5/23/2022 - 5/31/2022	I-131	<2.44E-02	0.00E+00	2.44E-02
		Cs-134	<1.81E-02	0.00E+00	1.81E-02
		Cs-137	<1.88E-02	0.00E+00	1.88E-02
		Be-7	<1.23E-01	0.00E+00	1.23E-01
		K-40	<4.89E-01	0.00E+00	4.89E-01
567605	5/31/2022 - 6/6/2022	I-131	<2.89E-02	0.00E+00	2.89E-02
		Cs-134	<2.68E-02	0.00E+00	2.68E-02
		Cs-137	<3.17E-02	0.00E+00	3.17E-02
		Be-7	<2.47E-01	0.00E+00	2.47E-01
		K-40	6.44E-01	2.99E-01	2.48E-01
567773	6/6/2022 - 6/13/2022	I-131	<2.76E-02	0.00E+00	2.76E-02
		Cs-134	<3.03E-02	0.00E+00	3.03E-02
		Cs-137	<2.84E-02	0.00E+00	2.84E-02
		Be-7	<1.60E-01	0.00E+00	1.60E-01
		K-40	7.85E-01	2.89E-01	6.87E-02
568414	6/13/2022 - 6/20/2022	I-131	<2.86E-02	0.00E+00	2.86E-02
		Cs-134	<2.39E-02	0.00E+00	2.39E-02
		Cs-137	<2.74E-02	0.00E+00	2.74E-02
		Be-7	<7.71E-02	0.00E+00	7.71E-02
		K-40	<4.63E-01	0.00E+00	4.63E-01
568648	6/20/2022 - 6/27/2022	I-131	<2.32E-02	0.00E+00	2.32E-02
		Cs-134	<2.48E-02	0.00E+00	2.48E-02
		Cs-137	<1.76E-02	0.00E+00	1.76E-02
		Be-7	<1.52E-01	0.00E+00	1.52E-01
		K-40	5.13E-01	2.28E-01	6.62E-02
568864	6/27/2022 - 7/5/2022	I-131	<2.36E-02	0.00E+00	2.36E-02
		Cs-134	<2.08E-02	0.00E+00	2.08E-02
		Cs-137	<2.17E-02	0.00E+00	2.17E-02
		Be-7	<1.37E-01	0.00E+00	1.37E-01
		K-40	5.57E-01	2.40E-01	2.19E-01
569116	7/5/2022 - 7/11/2022	I-131	<2.76E-02	0.00E+00	2.76E-02
		Cs-134	<3.50E-02	0.00E+00	3.50E-02
		Cs-137	<2.99E-02	0.00E+00	2.99E-02
		Be-7	<1.83E-01	0.00E+00	1.83E-01
		K-40	<6.25E-01	0.00E+00	6.25E-01
570330	7/11/2022 - 7/18/2022	I-131	<2.60E-02	0.00E+00	2.60E-02
		Cs-134	<2.22E-02	0.00E+00	2.22E-02
		Cs-137	<2.09E-02	0.00E+00	2.09E-02
		Be-7	<1.38E-01	0.00E+00	1.38E-01
		K-40	4.08E-01	2.01E-01	6.51E-02
570889	7/18/2022 - 7/25/2022	I-131	<3.00E-02	0.00E+00	3.00E-02
		Cs-134	<2.31E-02	0.00E+00	2.31E-02

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

Report Generated @ 2/15/2023 13:34:28

Duke Energy Annual Report - Appendix E

Appendix E - Page 49 of 114

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 125 [INDICATOR - SW @ 0.38 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
570889	7/18/2022 - 7/25/2022	Cs-137	<2.47E-02	0.00E+00	2.47E-02
		Be-7	<2.16E-01	0.00E+00	2.16E-01
		K-40	<6.27E-01	0.00E+00	6.27E-01
571135	7/25/2022 - 8/1/2022	I-131	<2.35E-02	0.00E+00	2.35E-02
		Cs-134	<1.40E-02	0.00E+00	1.40E-02
		Cs-137	<1.98E-02	0.00E+00	1.98E-02
		Be-7	<1.30E-01	0.00E+00	1.30E-01
		K-40	<4.67E-01	0.00E+00	4.67E-01
571454	8/1/2022 - 8/8/2022	I-131	<2.93E-02	0.00E+00	2.93E-02
		Cs-134	<2.50E-02	0.00E+00	2.50E-02
		Cs-137	<2.84E-02	0.00E+00	2.84E-02
		Be-7	<1.78E-01	0.00E+00	1.78E-01
		K-40	4.34E-01	2.44E-01	2.65E-01
571741	8/8/2022 - 8/15/2022	I-131	<2.09E-02	0.00E+00	2.09E-02
		Cs-134	<3.06E-02	0.00E+00	3.06E-02
		Cs-137	<4.50E-03	0.00E+00	4.50E-03
		Be-7	<8.05E-02	0.00E+00	8.05E-02
		K-40	3.27E-01	2.39E-01	3.20E-01
572746	8/15/2022 - 8/22/2022	I-131	<2.75E-02	0.00E+00	2.75E-02
		Cs-134	<5.04E-03	0.00E+00	5.04E-03
		Cs-137	<2.27E-02	0.00E+00	2.27E-02
		Be-7	<1.38E-01	0.00E+00	1.38E-01
		K-40	<5.09E-01	0.00E+00	5.09E-01
573949	8/22/2022 - 8/29/2022	I-131	<2.38E-02	0.00E+00	2.38E-02
		Cs-134	<2.63E-02	0.00E+00	2.63E-02
		Cs-137	<2.08E-02	0.00E+00	2.08E-02
		Be-7	<1.21E-01	0.00E+00	1.21E-01
		K-40	<4.29E-01	0.00E+00	4.29E-01
574565	8/29/2022 - 9/6/2022	I-131	<2.42E-02	0.00E+00	2.42E-02
		Cs-134	<1.54E-02	0.00E+00	1.54E-02
		Cs-137	<2.02E-02	0.00E+00	2.02E-02
		Be-7	<1.52E-01	0.00E+00	1.52E-01
		K-40	6.73E-01	2.63E-01	2.09E-01
575036	9/6/2022 - 9/12/2022	I-131	<1.90E-02	0.00E+00	1.90E-02
		Cs-134	<2.76E-02	0.00E+00	2.76E-02
		Cs-137	<1.96E-02	0.00E+00	1.96E-02
		Be-7	<1.79E-01	0.00E+00	1.79E-01
		K-40	4.12E-01	2.48E-01	2.76E-01
575728	9/12/2022 - 9/19/2022	I-131	<2.77E-02	0.00E+00	2.77E-02
		Cs-134	<2.31E-02	0.00E+00	2.31E-02
		Cs-137	<2.77E-02	0.00E+00	2.77E-02
		Be-7	<1.73E-01	0.00E+00	1.73E-01
		K-40	<6.48E-01	0.00E+00	6.48E-01
576121	9/19/2022 - 9/26/2022	I-131	<2.26E-02	0.00E+00	2.26E-02
		Cs-134	<2.64E-02	0.00E+00	2.64E-02
		Cs-137	<1.61E-02	0.00E+00	1.61E-02
		Be-7	<1.48E-01	0.00E+00	1.48E-01
		K-40	2.48E-01	2.71E-01	4.29E-01
576292	9/26/2022 - 10/3/2022	Nuclide	Activity	2 Sigma Error	MDA
		I-131	<2.07E-02	0.00E+00	2.07E-02

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 125 [INDICATOR - SW @ 0.38 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
576292	9/26/2022 - 10/3/2022	Cs-134	<2.68E-02	0.00E+00	2.68E-02
		Cs-137	<2.31E-02	0.00E+00	2.31E-02
		Be-7	<1.29E-01	0.00E+00	1.29E-01
		K-40	<4.81E-01	0.00E+00	4.81E-01
576588	10/3/2022 - 10/10/2022	I-131	<3.17E-02	0.00E+00	3.17E-02
		Cs-134	<2.07E-02	0.00E+00	2.07E-02
		Cs-137	<2.49E-02	0.00E+00	2.49E-02
		Be-7	<1.90E-01	0.00E+00	1.90E-01
		K-40	6.21E-01	2.53E-01	6.73E-02
577200	10/10/2022 - 10/17/2022	I-131	<2.48E-02	0.00E+00	2.48E-02
		Cs-134	<3.01E-02	0.00E+00	3.01E-02
		Cs-137	<2.34E-02	0.00E+00	2.34E-02
		Be-7	<1.80E-01	0.00E+00	1.80E-01
		K-40	3.98E-01	1.96E-01	6.35E-02
577795	10/17/2022 - 10/25/2022	I-131	<2.64E-02	0.00E+00	2.64E-02
		Cs-134	<2.02E-02	0.00E+00	2.02E-02
		Cs-137	<3.91E-03	0.00E+00	3.91E-03
		Be-7	<1.26E-01	0.00E+00	1.26E-01
		K-40	3.92E-01	1.87E-01	5.90E-02
578148	10/25/2022 - 10/31/2022	I-131	<2.67E-02	0.00E+00	2.67E-02
		Cs-134	<2.35E-02	0.00E+00	2.35E-02
		Cs-137	<2.27E-02	0.00E+00	2.27E-02
		Be-7	<1.61E-01	0.00E+00	1.61E-01
		K-40	7.05E-01	3.13E-01	2.83E-01
578860	10/31/2022 - 11/7/2022	I-131	<2.86E-02	0.00E+00	2.86E-02
		Cs-134	<2.56E-02	0.00E+00	2.56E-02
		Cs-137	<2.53E-02	0.00E+00	2.53E-02
		Be-7	<1.03E-01	0.00E+00	1.03E-01
		K-40	5.84E-01	2.48E-01	6.89E-02
579059	11/7/2022 - 11/14/2022	I-131	<2.76E-02	0.00E+00	2.76E-02
		Cs-134	<1.74E-02	0.00E+00	1.74E-02
		Cs-137	<1.50E-02	0.00E+00	1.50E-02
		Be-7	<1.14E-01	0.00E+00	1.14E-01
		K-40	4.07E-01	2.00E-01	6.48E-02
579819	11/14/2022 - 11/21/2022	I-131	<2.16E-02	0.00E+00	2.16E-02
		Cs-134	<3.00E-02	0.00E+00	3.00E-02
		Cs-137	<1.76E-02	0.00E+00	1.76E-02
		Be-7	<1.51E-01	0.00E+00	1.51E-01
		K-40	1.97E-01	2.14E-01	3.34E-01
580632	11/21/2022 - 11/28/2022	I-131	<2.20E-02	0.00E+00	2.20E-02
		Cs-134	<2.41E-02	0.00E+00	2.41E-02
		Cs-137	<2.08E-02	0.00E+00	2.08E-02
		Be-7	<1.39E-01	0.00E+00	1.39E-01
		K-40	<4.85E-01	0.00E+00	4.85E-01
580845	11/28/2022 - 12/5/2022	I-131	<2.04E-02	0.00E+00	2.04E-02
		Cs-134	<1.75E-02	0.00E+00	1.75E-02
		Cs-137	<2.14E-02	0.00E+00	2.14E-02
		Be-7	<1.86E-01	0.00E+00	1.86E-01
		K-40	4.59E-01	2.14E-01	6.55E-02

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 125 [INDICATOR - SW @ 0.38 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
581164	12/5/2022 - 12/12/2022	I-131	<2.34E-02	0.00E+00	2.34E-02
		Cs-134	<2.50E-02	0.00E+00	2.50E-02
		Cs-137	<1.52E-02	0.00E+00	1.52E-02
		Be-7	<1.42E-01	0.00E+00	1.42E-01
		K-40	<4.49E-01	0.00E+00	4.49E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
581732	12/12/2022 - 12/19/2022	I-131	<2.13E-02	0.00E+00	2.13E-02
		Cs-134	<2.17E-02	0.00E+00	2.17E-02
		Cs-137	<2.28E-02	0.00E+00	2.28E-02
		Be-7	<1.59E-01	0.00E+00	1.59E-01
		K-40	<2.40E-01	0.00E+00	2.40E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
582265	12/19/2022 - 12/27/2022	I-131	<1.98E-02	0.00E+00	1.98E-02
		Cs-134	<1.20E-02	0.00E+00	1.20E-02
		Cs-137	<1.85E-02	0.00E+00	1.85E-02
		Be-7	<1.31E-01	0.00E+00	1.31E-01
		K-40	<5.24E-01	0.00E+00	5.24E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
582453	12/27/2022 - 1/3/2023	I-131	<2.00E-02	0.00E+00	2.00E-02
		Cs-134	<3.54E-02	0.00E+00	3.54E-02
		Cs-137	<2.61E-02	0.00E+00	2.61E-02
		Be-7	<1.26E-01	0.00E+00	1.26E-01
		K-40	<5.16E-01	0.00E+00	5.17E-01

Sample Point 133 [INDICATOR - ENE @ 6.23 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
558908	1/4/2022 - 1/10/2022	I-131	<3.31E-02	0.00E+00	3.31E-02
		Cs-134	<3.15E-02	0.00E+00	3.15E-02
		Cs-137	<2.50E-02	0.00E+00	2.50E-02
		Be-7	<1.85E-01	0.00E+00	1.85E-01
		K-40	2.09E-01	3.04E-01	5.08E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
559016	1/10/2022 - 1/18/2022	I-131	<2.21E-02	0.00E+00	2.21E-02
		Cs-134	<2.47E-02	0.00E+00	2.47E-02
		Cs-137	<1.86E-02	0.00E+00	1.86E-02
		Be-7	<1.41E-01	0.00E+00	1.41E-01
		K-40	<5.73E-01	0.00E+00	5.73E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
559447	1/18/2022 - 1/24/2022	I-131	<3.29E-02	0.00E+00	3.29E-02
		Cs-134	<3.25E-02	0.00E+00	3.25E-02
		Cs-137	<2.39E-02	0.00E+00	2.39E-02
		Be-7	<1.42E-01	0.00E+00	1.42E-01
		K-40	1.54E-01	2.19E-01	3.64E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
560079	1/24/2022 - 1/31/2022	I-131	<2.97E-02	0.00E+00	2.97E-02
		Cs-134	<2.47E-02	0.00E+00	2.47E-02
		Cs-137	<3.34E-02	0.00E+00	3.34E-02
		Be-7	<2.41E-01	0.00E+00	2.41E-01
		K-40	4.80E-01	2.62E-01	2.82E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
560296	1/31/2022 - 2/7/2022	I-131	<1.76E-02	0.00E+00	1.76E-02
		Cs-134	<2.66E-02	0.00E+00	2.66E-02
		Cs-137	<1.75E-02	0.00E+00	1.75E-02
		Be-7	<1.29E-01	0.00E+00	1.29E-01
		K-40	<4.07E-01	0.00E+00	4.07E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
560541	2/7/2022 - 2/14/2022	I-131	<3.36E-02	0.00E+00	3.36E-02
		Cs-134	<3.47E-02	0.00E+00	3.47E-02
		Cs-137	<2.36E-02	0.00E+00	2.36E-02
		Be-7	<2.51E-01	0.00E+00	2.51E-01

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 133 [INDICATOR - ENE @ 6.23 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
560541	2/7/2022 - 2/14/2022	K-40	<5.24E-01	0.00E+00	5.24E-01
560846	2/14/2022 - 2/21/2022	I-131	<2.55E-02	0.00E+00	2.55E-02
		Cs-134	<2.34E-02	0.00E+00	2.34E-02
		Cs-137	<1.24E-02	0.00E+00	1.24E-02
		Be-7	<1.04E-01	0.00E+00	1.04E-01
		K-40	<5.23E-01	0.00E+00	5.23E-01
561182	2/21/2022 - 2/28/2022	I-131	<1.81E-02	0.00E+00	1.81E-02
		Cs-134	<2.34E-02	0.00E+00	2.34E-02
		Cs-137	<1.56E-02	0.00E+00	1.56E-02
		Be-7	<1.57E-01	0.00E+00	1.57E-01
		K-40	3.44E-01	2.10E-01	2.22E-01
561681	2/28/2022 - 3/7/2022	I-131	<2.73E-02	0.00E+00	2.73E-02
		Cs-134	<2.27E-02	0.00E+00	2.27E-02
		Cs-137	<1.20E-02	0.00E+00	1.20E-02
		Be-7	<2.08E-01	0.00E+00	2.08E-01
		K-40	<4.71E-01	0.00E+00	4.71E-01
562283	3/7/2022 - 3/14/2022	I-131	<2.34E-02	0.00E+00	2.34E-02
		Cs-134	<2.06E-02	0.00E+00	2.06E-02
		Cs-137	<2.62E-02	0.00E+00	2.62E-02
		Be-7	<1.53E-01	0.00E+00	1.53E-01
		K-40	5.10E-01	2.48E-01	2.24E-01
562880	3/14/2022 - 3/21/2022	I-131	<3.65E-02	0.00E+00	3.65E-02
		Cs-134	<2.86E-02	0.00E+00	2.86E-02
		Cs-137	<2.62E-02	0.00E+00	2.62E-02
		Be-7	<1.91E-01	0.00E+00	1.91E-01
		K-40	3.65E-01	2.66E-01	3.64E-01
563476	3/21/2022 - 3/28/2022	I-131	<1.83E-02	0.00E+00	1.83E-02
		Cs-134	<2.57E-02	0.00E+00	2.57E-02
		Cs-137	<2.03E-02	0.00E+00	2.03E-02
		Be-7	<1.68E-01	0.00E+00	1.68E-01
		K-40	<4.03E-01	0.00E+00	4.03E-01
563809	3/28/2022 - 4/4/2022	I-131	<1.98E-02	0.00E+00	1.98E-02
		Cs-134	<2.33E-02	0.00E+00	2.33E-02
		Cs-137	<1.56E-02	0.00E+00	1.56E-02
		Be-7	<1.93E-01	0.00E+00	1.93E-01
		K-40	3.52E-01	1.90E-01	6.82E-02
564053	4/4/2022 - 4/11/2022	I-131	<3.21E-02	0.00E+00	3.21E-02
		Cs-134	<4.18E-02	0.00E+00	4.18E-02
		Cs-137	<3.60E-02	0.00E+00	3.60E-02
		Be-7	<2.30E-01	0.00E+00	2.30E-01
		K-40	6.37E-01	3.05E-01	3.26E-01
564575	4/11/2022 - 4/18/2022	I-131	<3.01E-02	0.00E+00	3.01E-02
		Cs-134	<2.08E-02	0.00E+00	2.08E-02
		Cs-137	<1.55E-02	0.00E+00	1.55E-02
		Be-7	<1.67E-01	0.00E+00	1.67E-01
		K-40	3.00E-01	1.90E-01	1.89E-01
564842	4/18/2022 - 4/25/2022	I-131	<2.89E-02	0.00E+00	2.89E-02
		Cs-134	<2.48E-02	0.00E+00	2.48E-02
		Cs-137	<1.96E-02	0.00E+00	1.96E-02

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

Report Generated @ 2/15/2023 13:34:28

Duke Energy Annual Report - Appendix E

Appendix E - Page 53 of 114

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 133 [INDICATOR - ENE @ 6.23 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
564842	4/18/2022 - 4/25/2022	Be-7	<1.40E-01	0.00E+00	1.40E-01
		K-40	<4.87E-01	0.00E+00	4.87E-01
565333	4/25/2022 - 5/2/2022	I-131	<2.08E-02	0.00E+00	2.08E-02
		Cs-134	<2.06E-02	0.00E+00	2.06E-02
		Cs-137	<1.21E-02	0.00E+00	1.21E-02
		Be-7	<1.30E-01	0.00E+00	1.30E-01
		K-40	<3.95E-01	0.00E+00	3.95E-01
565999	5/2/2022 - 5/9/2022	I-131	<2.70E-02	0.00E+00	2.70E-02
		Cs-134	<2.48E-02	0.00E+00	2.48E-02
		Cs-137	<1.96E-02	0.00E+00	1.96E-02
		Be-7	<2.03E-01	0.00E+00	2.03E-01
		K-40	<4.88E-01	0.00E+00	4.88E-01
566592	5/9/2022 - 5/16/2022	I-131	<1.96E-02	0.00E+00	1.96E-02
		Cs-134	<1.93E-02	0.00E+00	1.93E-02
		Cs-137	<1.14E-02	0.00E+00	1.14E-02
		Be-7	<1.24E-01	0.00E+00	1.24E-01
		K-40	<4.85E-01	0.00E+00	4.85E-01
566978	5/16/2022 - 5/23/2022	I-131	<2.94E-02	0.00E+00	2.94E-02
		Cs-134	<2.28E-02	0.00E+00	2.28E-02
		Cs-137	<1.76E-02	0.00E+00	1.76E-02
		Be-7	<1.52E-01	0.00E+00	1.52E-01
		K-40	<4.78E-01	0.00E+00	4.78E-01
567168	5/23/2022 - 5/31/2022	I-131	<2.32E-02	0.00E+00	2.32E-02
		Cs-134	<2.16E-02	0.00E+00	2.16E-02
		Cs-137	<1.71E-02	0.00E+00	1.71E-02
		Be-7	<1.14E-01	0.00E+00	1.14E-01
		K-40	6.42E-01	2.60E-01	2.27E-01
567606	5/31/2022 - 6/6/2022	I-131	<2.60E-02	0.00E+00	2.60E-02
		Cs-134	<3.47E-02	0.00E+00	3.47E-02
		Cs-137	<2.03E-02	0.00E+00	2.03E-02
		Be-7	<2.25E-01	0.00E+00	2.25E-01
		K-40	5.44E-01	3.23E-01	4.09E-01
567774	6/6/2022 - 6/13/2022	I-131	<2.52E-02	0.00E+00	2.52E-02
		Cs-134	<2.04E-02	0.00E+00	2.04E-02
		Cs-137	<2.14E-02	0.00E+00	2.14E-02
		Be-7	<1.90E-01	0.00E+00	1.90E-01
		K-40	<5.63E-01	0.00E+00	5.63E-01
568415	6/13/2022 - 6/20/2022	I-131	<2.62E-02	0.00E+00	2.62E-02
		Cs-134	<2.03E-02	0.00E+00	2.03E-02
		Cs-137	<2.13E-02	0.00E+00	2.13E-02
		Be-7	<1.72E-01	0.00E+00	1.72E-01
		K-40	2.79E-01	2.42E-01	3.56E-01
568649	6/20/2022 - 6/27/2022	I-131	<2.32E-02	0.00E+00	2.32E-02
		Cs-134	<2.17E-02	0.00E+00	2.17E-02
		Cs-137	<1.67E-02	0.00E+00	1.67E-02
		Be-7	<1.79E-01	0.00E+00	1.79E-01
		K-40	<5.65E-01	0.00E+00	5.65E-01
568865	6/27/2022 - 7/5/2022	I-131	<2.61E-02	0.00E+00	2.61E-02
		Cs-134	<1.95E-02	0.00E+00	1.95E-02

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

Report Generated @ 2/15/2023 13:34:28

Duke Energy Annual Report - Appendix E

Appendix E - Page 54 of 114

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 133 [INDICATOR - ENE @ 6.23 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
568865	6/27/2022 - 7/5/2022	Cs-137	<2.11E-02	0.00E+00	2.11E-02
		Be-7	<1.13E-01	0.00E+00	1.13E-01
		K-40	5.54E-01	2.45E-01	2.31E-01
569117	7/5/2022 - 7/11/2022	I-131	<2.56E-02	0.00E+00	2.56E-02
		Cs-134	<2.60E-02	0.00E+00	2.60E-02
		Cs-137	<2.45E-02	0.00E+00	2.45E-02
		Be-7	<1.86E-01	0.00E+00	1.86E-01
		K-40	5.03E-01	3.17E-01	4.16E-01
570331	7/11/2022 - 7/18/2022	I-131	<2.08E-02	0.00E+00	2.08E-02
		Cs-134	<2.89E-02	0.00E+00	2.89E-02
		Cs-137	<1.99E-02	0.00E+00	1.99E-02
		Be-7	<1.74E-01	0.00E+00	1.74E-01
		K-40	4.39E-01	2.59E-01	3.13E-01
570890	7/18/2022 - 7/25/2022	I-131	<2.64E-02	0.00E+00	2.64E-02
		Cs-134	<2.03E-02	0.00E+00	2.03E-02
		Cs-137	<2.14E-02	0.00E+00	2.14E-02
		Be-7	<1.64E-01	0.00E+00	1.64E-01
		K-40	5.92E-01	2.69E-01	2.49E-01
571136	7/25/2022 - 8/1/2022	I-131	<2.15E-02	0.00E+00	2.15E-02
		Cs-134	<1.74E-02	0.00E+00	1.74E-02
		Cs-137	<1.50E-02	0.00E+00	1.50E-02
		Be-7	<1.49E-01	0.00E+00	1.49E-01
		K-40	5.50E-01	2.33E-01	6.48E-02
571455	8/1/2022 - 8/8/2022	I-131	<2.12E-02	0.00E+00	2.12E-02
		Cs-134	<3.44E-02	0.00E+00	3.44E-02
		Cs-137	<2.46E-02	0.00E+00	2.46E-02
		Be-7	<1.65E-01	0.00E+00	1.65E-01
		K-40	<4.45E-01	0.00E+00	4.45E-01
571742	8/8/2022 - 8/15/2022	I-131	<2.51E-02	0.00E+00	2.51E-02
		Cs-134	<2.04E-02	0.00E+00	2.04E-02
		Cs-137	<2.14E-02	0.00E+00	2.14E-02
		Be-7	<1.87E-01	0.00E+00	1.87E-01
		K-40	3.64E-01	1.90E-01	6.57E-02
572747	8/15/2022 - 8/22/2022	I-131	<2.07E-02	0.00E+00	2.07E-02
		Cs-134	<3.19E-02	0.00E+00	3.19E-02
		Cs-137	<1.98E-02	0.00E+00	1.98E-02
		Be-7	<1.89E-01	0.00E+00	1.89E-01
		K-40	7.67E-01	2.82E-01	6.70E-02
573950	8/22/2022 - 8/29/2022	I-131	<2.78E-02	0.00E+00	2.78E-02
		Cs-134	<1.78E-02	0.00E+00	1.78E-02
		Cs-137	<2.33E-02	0.00E+00	2.33E-02
		Be-7	<1.17E-01	0.00E+00	1.17E-01
		K-40	6.01E-01	3.33E-01	4.32E-01
574566	8/29/2022 - 9/6/2022	I-131	<2.41E-02	0.00E+00	2.41E-02
		Cs-134	<1.54E-02	0.00E+00	1.54E-02
		Cs-137	<1.71E-02	0.00E+00	1.71E-02
		Be-7	<1.15E-01	0.00E+00	1.15E-01
		K-40	3.24E-01	2.74E-01	4.13E-01
575037	9/6/2022 - 9/12/2022	Nuclide	Activity	2 Sigma Error	MDA
		I-131	<3.57E-02	0.00E+00	3.57E-02

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

Report Generated @ 2/15/2023 13:34:28

Duke Energy Annual Report - Appendix E

Appendix E - Page 55 of 114

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 133 [INDICATOR - ENE @ 6.23 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
575037	9/6/2022 - 9/12/2022	Cs-134	<2.49E-02	0.00E+00	2.49E-02
		Cs-137	<2.61E-02	0.00E+00	2.61E-02
		Be-7	<1.55E-01	0.00E+00	1.55E-01
		K-40	5.73E-01	3.66E-01	4.96E-01
575729	9/12/2022 - 9/19/2022	I-131	<3.10E-02	0.00E+00	3.10E-02
		Cs-134	<3.42E-02	0.00E+00	3.42E-02
		Cs-137	<2.37E-02	0.00E+00	2.37E-02
		Be-7	<1.72E-01	0.00E+00	1.72E-01
		K-40	5.45E-01	2.78E-01	2.95E-01
576122	9/19/2022 - 9/26/2022	I-131	<2.87E-02	0.00E+00	2.87E-02
		Cs-134	<3.04E-02	0.00E+00	3.04E-02
		Cs-137	<2.48E-02	0.00E+00	2.48E-02
		Be-7	<1.81E-01	0.00E+00	1.81E-01
		K-40	4.30E-01	2.90E-01	3.97E-01
576293	9/26/2022 - 10/3/2022	I-131	<2.49E-02	0.00E+00	2.49E-02
		Cs-134	<2.63E-02	0.00E+00	2.63E-02
		Cs-137	<2.42E-02	0.00E+00	2.42E-02
		Be-7	<1.58E-01	0.00E+00	1.58E-01
		K-40	<5.09E-01	0.00E+00	5.09E-01
576589	10/3/2022 - 10/10/2022	I-131	<2.80E-02	0.00E+00	2.80E-02
		Cs-134	<2.24E-02	0.00E+00	2.24E-02
		Cs-137	<2.56E-02	0.00E+00	2.56E-02
		Be-7	<1.29E-01	0.00E+00	1.29E-01
		K-40	<5.50E-01	0.00E+00	5.50E-01
577201	10/10/2022 - 10/17/2022	I-131	<3.25E-02	0.00E+00	3.25E-02
		Cs-134	<1.69E-02	0.00E+00	1.69E-02
		Cs-137	<2.22E-02	0.00E+00	2.22E-02
		Be-7	<1.75E-01	0.00E+00	1.75E-01
		K-40	<3.79E-01	0.00E+00	3.79E-01
577796	10/17/2022 - 10/25/2022	I-131	<2.09E-02	0.00E+00	2.09E-02
		Cs-134	<2.75E-02	0.00E+00	2.75E-02
		Cs-137	<1.71E-02	0.00E+00	1.71E-02
		Be-7	<1.41E-01	0.00E+00	1.41E-01
		K-40	<4.62E-01	0.00E+00	4.62E-01
578149	10/25/2022 - 10/31/2022	I-131	<2.40E-02	0.00E+00	2.40E-02
		Cs-134	<2.83E-02	0.00E+00	2.83E-02
		Cs-137	<3.22E-02	0.00E+00	3.22E-02
		Be-7	<1.97E-01	0.00E+00	1.97E-01
		K-40	7.99E-01	3.39E-01	2.82E-01
578861	10/31/2022 - 11/7/2022	I-131	<1.77E-02	0.00E+00	1.77E-02
		Cs-134	<2.05E-02	0.00E+00	2.05E-02
		Cs-137	<2.16E-02	0.00E+00	2.16E-02
		Be-7	<1.63E-01	0.00E+00	1.63E-01
		K-40	2.84E-01	2.13E-01	2.79E-01
579060	11/7/2022 - 11/14/2022	I-131	<2.28E-02	0.00E+00	2.28E-02
		Cs-134	<2.18E-02	0.00E+00	2.18E-02
		Cs-137	<2.29E-02	0.00E+00	2.29E-02
		Be-7	<1.80E-01	0.00E+00	1.80E-01
		K-40	<4.53E-01	0.00E+00	4.53E-01

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 133 [INDICATOR - ENE @ 6.23 miles]

Sample ID:	579820	Sample Dates:	11/14/2022 - 11/21/2022	Nuclide	Activity	2 Sigma Error	MDA
				I-131	<2.84E-02	0.00E+00	2.84E-02
				Cs-134	<2.83E-02	0.00E+00	2.83E-02
				Cs-137	<1.86E-02	0.00E+00	1.86E-02
				Be-7	<1.87E-01	0.00E+00	1.87E-01
				K-40	4.15E-01	2.41E-01	2.66E-01

Sample ID:	580633	Sample Dates:	11/21/2022 - 11/28/2022	Nuclide	Activity	2 Sigma Error	MDA
				I-131	<2.46E-02	0.00E+00	2.46E-02
				Cs-134	<2.35E-02	0.00E+00	2.35E-02
				Cs-137	<1.85E-02	0.00E+00	1.85E-02
				Be-7	<9.48E-02	0.00E+00	9.48E-02
				K-40	3.96E-01	1.95E-01	6.31E-02

Sample ID:	580846	Sample Dates:	11/28/2022 - 12/5/2022	Nuclide	Activity	2 Sigma Error	MDA
				I-131	<2.43E-02	0.00E+00	2.43E-02
				Cs-134	<2.18E-02	0.00E+00	2.18E-02
				Cs-137	<2.61E-02	0.00E+00	2.61E-02
				Be-7	<1.36E-01	0.00E+00	1.36E-01
				K-40	<4.11E-01	0.00E+00	4.11E-01

Sample ID:	581165	Sample Dates:	12/5/2022 - 12/12/2022	Nuclide	Activity	2 Sigma Error	MDA
				I-131	<2.30E-02	0.00E+00	2.30E-02
				Cs-134	<2.46E-02	0.00E+00	2.46E-02
				Cs-137	<2.12E-02	0.00E+00	2.12E-02
				Be-7	<1.85E-01	0.00E+00	1.85E-01
				K-40	4.03E-01	2.71E-01	3.67E-01

Sample ID:	581733	Sample Dates:	12/12/2022 - 12/19/2022	Nuclide	Activity	2 Sigma Error	MDA
				I-131	<2.68E-02	0.00E+00	2.68E-02
				Cs-134	<2.31E-02	0.00E+00	2.31E-02
				Cs-137	<2.49E-02	0.00E+00	2.49E-02
				Be-7	<1.73E-01	0.00E+00	1.73E-01
				K-40	4.88E-01	2.69E-01	3.13E-01

Sample ID:	582266	Sample Dates:	12/19/2022 - 12/27/2022	Nuclide	Activity	2 Sigma Error	MDA
				I-131	<2.31E-02	0.00E+00	2.31E-02
				Cs-134	<1.62E-02	0.00E+00	1.62E-02
				Cs-137	<2.26E-02	0.00E+00	2.26E-02
				Be-7	<1.57E-01	0.00E+00	1.57E-01
				K-40	<4.06E-01	0.00E+00	4.06E-01

Sample ID:	582454	Sample Dates:	12/27/2022 - 1/3/2023	Nuclide	Activity	2 Sigma Error	MDA
				I-131	<3.37E-02	0.00E+00	3.37E-02
				Cs-134	<2.85E-02	0.00E+00	2.85E-02
				Cs-137	<2.27E-02	0.00E+00	2.27E-02
				Be-7	<1.98E-01	0.00E+00	1.98E-01
				K-40	<5.71E-01	0.00E+00	5.71E-01

Sample Point 195 [INDICATOR - N @ 0.19 miles]

Sample ID:	558909	Sample Dates:	1/4/2022 - 1/10/2022	Nuclide	Activity	2 Sigma Error	MDA
				I-131	<3.32E-02	0.00E+00	3.32E-02
				Cs-134	<1.64E-02	0.00E+00	1.64E-02
				Cs-137	<2.71E-02	0.00E+00	2.71E-02
				Be-7	<1.89E-01	0.00E+00	1.89E-01
				K-40	<5.00E-01	0.00E+00	5.00E-01

Sample ID:	559017	Sample Dates:	1/10/2022 - 1/18/2022	Nuclide	Activity	2 Sigma Error	MDA
				I-131	<2.85E-02	0.00E+00	2.85E-02
				Cs-134	<1.81E-02	0.00E+00	1.81E-02
				Cs-137	<2.02E-02	0.00E+00	2.02E-02
				Be-7	<1.56E-01	0.00E+00	1.56E-01
				K-40	5.98E-01	2.65E-01	2.59E-01

Sample ID:	559450	Sample Dates:	1/18/2022 - 1/24/2022	Nuclide	Activity	2 Sigma Error	MDA
				I-131	<4.38E-02	0.00E+00	4.38E-02
				Cs-134	<3.09E-02	0.00E+00	3.09E-02
				Cs-137	<4.09E-02	0.00E+00	4.09E-02
				Be-7	<2.77E-01	0.00E+00	2.77E-01

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 195 [INDICATOR - N @ 0.19 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
559450	1/18/2022 - 1/24/2022	K-40	7.90E-01	3.17E-01	8.23E-02
560080	1/24/2022 - 1/31/2022	I-131	<2.90E-02	0.00E+00	2.90E-02
		Cs-134	<3.08E-02	0.00E+00	3.08E-02
		Cs-137	<2.19E-02	0.00E+00	2.19E-02
		Be-7	<2.07E-01	0.00E+00	2.07E-01
		K-40	<6.40E-01	0.00E+00	6.40E-01
560297	1/31/2022 - 2/7/2022	I-131	<3.72E-02	0.00E+00	3.72E-02
		Cs-134	<2.18E-02	0.00E+00	2.18E-02
		Cs-137	<3.51E-02	0.00E+00	3.51E-02
		Be-7	<2.08E-01	0.00E+00	2.08E-01
		K-40	4.18E-01	2.12E-01	7.07E-02
560542	2/7/2022 - 2/14/2022	I-131	<2.81E-02	0.00E+00	2.81E-02
		Cs-134	<2.55E-02	0.00E+00	2.55E-02
		Cs-137	<2.52E-02	0.00E+00	2.52E-02
		Be-7	<1.92E-01	0.00E+00	1.92E-01
		K-40	4.26E-01	2.80E-01	3.74E-01
560847	2/14/2022 - 2/21/2022	I-131	<3.72E-02	0.00E+00	3.72E-02
		Cs-134	<3.00E-02	0.00E+00	3.00E-02
		Cs-137	<2.73E-02	0.00E+00	2.73E-02
		Be-7	<2.14E-01	0.00E+00	2.14E-01
		K-40	5.38E-01	2.74E-01	2.88E-01
561183	2/21/2022 - 2/28/2022	I-131	<3.17E-02	0.00E+00	3.17E-02
		Cs-134	<2.93E-02	0.00E+00	2.93E-02
		Cs-137	<3.37E-02	0.00E+00	3.37E-02
		Be-7	<2.21E-01	0.00E+00	2.21E-01
		K-40	5.02E-01	3.13E-01	4.11E-01
561682	2/28/2022 - 3/7/2022	I-131	<1.10E-02	0.00E+00	1.10E-02
		Cs-134	<2.06E-02	0.00E+00	2.06E-02
		Cs-137	<2.16E-02	0.00E+00	2.16E-02
		Be-7	<1.01E-01	0.00E+00	1.01E-01
		K-40	2.72E-01	1.66E-01	6.71E-02
562284	3/7/2022 - 3/14/2022	I-131	<2.86E-02	0.00E+00	2.86E-02
		Cs-134	<3.22E-02	0.00E+00	3.22E-02
		Cs-137	<2.62E-02	0.00E+00	2.62E-02
		Be-7	<1.51E-01	0.00E+00	1.51E-01
		K-40	<6.31E-01	0.00E+00	6.31E-01
562881	3/14/2022 - 3/21/2022	I-131	<2.54E-02	0.00E+00	2.54E-02
		Cs-134	<2.68E-02	0.00E+00	2.68E-02
		Cs-137	<2.97E-02	0.00E+00	2.97E-02
		Be-7	<1.52E-01	0.00E+00	1.52E-01
		K-40	6.26E-01	2.71E-01	2.27E-01
563477	3/21/2022 - 3/28/2022	I-131	<3.84E-02	0.00E+00	3.84E-02
		Cs-134	<3.27E-02	0.00E+00	3.27E-02
		Cs-137	<2.67E-02	0.00E+00	2.67E-02
		Be-7	<2.34E-01	0.00E+00	2.34E-01
		K-40	5.38E-01	2.71E-01	2.70E-01
563810	3/28/2022 - 4/4/2022	I-131	<3.52E-02	0.00E+00	3.52E-02
		Cs-134	<2.84E-02	0.00E+00	2.84E-02
		Cs-137	<3.38E-02	0.00E+00	3.38E-02

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

Report Generated @ 2/15/2023 13:34:28

Duke Energy Annual Report - Appendix E

Appendix E - Page 58 of 114

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 195 [INDICATOR - N @ 0.19 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
563810	3/28/2022 - 4/4/2022	Be-7	<2.06E-01	0.00E+00	2.06E-01
		K-40	6.23E-01	3.16E-01	3.69E-01
564054	4/4/2022 - 4/11/2022	I-131	<3.03E-02	0.00E+00	3.03E-02
		Cs-134	<1.81E-02	0.00E+00	1.81E-02
		Cs-137	<2.53E-02	0.00E+00	2.53E-02
		Be-7	<1.33E-01	0.00E+00	1.33E-01
		K-40	7.38E-01	3.00E-01	2.51E-01
564576	4/11/2022 - 4/18/2022	I-131	<4.03E-02	0.00E+00	4.03E-02
		Cs-134	<2.80E-02	0.00E+00	2.80E-02
		Cs-137	<2.98E-02	0.00E+00	2.98E-02
		Be-7	<1.97E-01	0.00E+00	1.97E-01
		K-40	6.62E-01	2.97E-01	2.88E-01
564843	4/18/2022 - 4/25/2022	I-131	<2.92E-02	0.00E+00	2.92E-02
		Cs-134	<2.40E-02	0.00E+00	2.40E-02
		Cs-137	<1.60E-02	0.00E+00	1.60E-02
		Be-7	<1.49E-01	0.00E+00	1.49E-01
		K-40	<4.88E-01	0.00E+00	4.88E-01
565334	4/25/2022 - 5/2/2022	I-131	<2.56E-02	0.00E+00	2.56E-02
		Cs-134	<2.49E-02	0.00E+00	2.49E-02
		Cs-137	<1.95E-02	0.00E+00	1.95E-02
		Be-7	<1.90E-01	0.00E+00	1.90E-01
		K-40	3.37E-01	2.61E-01	3.69E-01
566000	5/2/2022 - 5/9/2022	I-131	<2.47E-02	0.00E+00	2.47E-02
		Cs-134	<2.94E-02	0.00E+00	2.94E-02
		Cs-137	<2.51E-02	0.00E+00	2.51E-02
		Be-7	<1.54E-01	0.00E+00	1.54E-01
		K-40	4.68E-01	2.65E-01	3.06E-01
566593	5/9/2022 - 5/16/2022	I-131	<2.99E-02	0.00E+00	2.99E-02
		Cs-134	<2.01E-02	0.00E+00	2.01E-02
		Cs-137	<1.73E-02	0.00E+00	1.73E-02
		Be-7	<1.60E-01	0.00E+00	1.60E-01
		K-40	2.66E-01	1.62E-01	6.56E-02
566979	5/16/2022 - 5/23/2022	I-131	<2.40E-02	0.00E+00	2.40E-02
		Cs-134	<1.83E-02	0.00E+00	1.83E-02
		Cs-137	<1.56E-02	0.00E+00	1.56E-02
		Be-7	<1.89E-01	0.00E+00	1.89E-01
		K-40	5.75E-01	2.88E-01	3.07E-01
567169	5/23/2022 - 5/31/2022	I-131	<2.53E-02	0.00E+00	2.53E-02
		Cs-134	<2.53E-02	0.00E+00	2.53E-02
		Cs-137	<2.03E-02	0.00E+00	2.03E-02
		Be-7	<1.49E-01	0.00E+00	1.49E-01
		K-40	<5.26E-01	0.00E+00	5.26E-01
567607	5/31/2022 - 6/6/2022	I-131	<3.11E-02	0.00E+00	3.11E-02
		Cs-134	<1.96E-02	0.00E+00	1.96E-02
		Cs-137	<2.18E-02	0.00E+00	2.18E-02
		Be-7	<1.80E-01	0.00E+00	1.80E-01
		K-40	<6.15E-01	0.00E+00	6.15E-01
567775	6/6/2022 - 6/13/2022	I-131	<3.13E-02	0.00E+00	3.13E-02
		Cs-134	<1.75E-02	0.00E+00	1.75E-02

EnRad Laboratories

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 195 [INDICATOR - N @ 0.19 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
567775	6/6/2022 - 6/13/2022	Cs-137	<2.11E-02	0.00E+00	2.11E-02
		Be-7	<1.58E-01	0.00E+00	1.58E-01
		K-40	<5.35E-01	0.00E+00	5.35E-01
568416	6/13/2022 - 6/20/2022	I-131	<3.03E-02	0.00E+00	3.03E-02
		Cs-134	<3.69E-02	0.00E+00	3.69E-02
		Cs-137	<2.51E-02	0.00E+00	2.51E-02
		Be-7	<1.31E-01	0.00E+00	1.31E-01
		K-40	3.51E-01	2.19E-01	2.42E-01
568650	6/20/2022 - 6/27/2022	I-131	<2.21E-02	0.00E+00	2.21E-02
		Cs-134	<2.06E-02	0.00E+00	2.06E-02
		Cs-137	<1.77E-02	0.00E+00	1.77E-02
		Be-7	<1.42E-01	0.00E+00	1.42E-01
		K-40	5.24E-01	3.19E-01	4.28E-01
568866	6/27/2022 - 7/5/2022	I-131	<1.94E-02	0.00E+00	1.94E-02
		Cs-134	<2.24E-02	0.00E+00	2.24E-02
		Cs-137	<1.93E-02	0.00E+00	1.93E-02
		Be-7	<1.44E-01	0.00E+00	1.44E-01
		K-40	<4.96E-01	0.00E+00	4.96E-01
569118	7/5/2022 - 7/11/2022	I-131	<2.57E-02	0.00E+00	2.57E-02
		Cs-134	<3.55E-02	0.00E+00	3.55E-02
		Cs-137	<2.41E-02	0.00E+00	2.41E-02
		Be-7	<2.14E-01	0.00E+00	2.14E-01
		K-40	<5.96E-01	0.00E+00	5.96E-01
570332	7/11/2022 - 7/18/2022	I-131	<3.37E-02	0.00E+00	3.37E-02
		Cs-134	<2.56E-02	0.00E+00	2.56E-02
		Cs-137	<2.65E-02	0.00E+00	2.65E-02
		Be-7	<1.71E-01	0.00E+00	1.71E-01
		K-40	4.27E-01	2.38E-01	2.44E-01
570891	7/18/2022 - 7/25/2022	I-131	<3.39E-02	0.00E+00	3.39E-02
		Cs-134	<2.07E-02	0.00E+00	2.07E-02
		Cs-137	<2.61E-02	0.00E+00	2.61E-02
		Be-7	<1.16E-01	0.00E+00	1.16E-01
		K-40	<5.14E-01	0.00E+00	5.14E-01
571137	7/25/2022 - 8/1/2022	I-131	<3.23E-02	0.00E+00	3.23E-02
		Cs-134	<3.35E-02	0.00E+00	3.35E-02
		Cs-137	<2.74E-02	0.00E+00	2.74E-02
		Be-7	<2.00E-01	0.00E+00	2.00E-01
		K-40	<5.87E-01	0.00E+00	5.87E-01
571456	8/1/2022 - 8/8/2022	I-131	<2.96E-02	0.00E+00	2.96E-02
		Cs-134	<2.33E-02	0.00E+00	2.33E-02
		Cs-137	<2.16E-02	0.00E+00	2.16E-02
		Be-7	<1.54E-01	0.00E+00	1.54E-01
		K-40	3.53E-01	2.35E-01	3.05E-01
571743	8/8/2022 - 8/15/2022	I-131	<2.47E-02	0.00E+00	2.47E-02
		Cs-134	<2.91E-02	0.00E+00	2.91E-02
		Cs-137	<2.51E-02	0.00E+00	2.51E-02
		Be-7	<1.74E-01	0.00E+00	1.74E-01
		K-40	8.18E-01	3.27E-01	3.04E-01
572748	8/15/2022 - 8/22/2022	Nuclide	Activity	2 Sigma Error	MDA
		I-131	<2.22E-02	0.00E+00	2.22E-02

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

Report Generated @ 2/15/2023 13:34:28

Duke Energy Annual Report - Appendix E

Appendix E - Page 60 of 114

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 195 [INDICATOR - N @ 0.19 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
572748	8/15/2022 - 8/22/2022	Cs-134	<1.74E-02	0.00E+00	1.74E-02
		Cs-137	<1.94E-02	0.00E+00	1.94E-02
		Be-7	<1.94E-01	0.00E+00	1.94E-01
		K-40	3.95E-01	2.84E-01	4.02E-01
573951	8/22/2022 - 8/29/2022	I-131	<2.78E-02	0.00E+00	2.78E-02
		Cs-134	<2.08E-02	0.00E+00	2.08E-02
		Cs-137	<2.17E-02	0.00E+00	2.17E-02
		Be-7	<1.61E-01	0.00E+00	1.61E-01
		K-40	4.07E-01	2.66E-01	3.44E-01
574567	8/29/2022 - 9/6/2022	I-131	<2.33E-02	0.00E+00	2.33E-02
		Cs-134	<1.19E-02	0.00E+00	1.19E-02
		Cs-137	<1.68E-02	0.00E+00	1.68E-02
		Be-7	<1.62E-01	0.00E+00	1.62E-01
		K-40	<5.29E-01	0.00E+00	5.29E-01
575038	9/6/2022 - 9/12/2022	I-131	<3.15E-02	0.00E+00	3.15E-02
		Cs-134	<3.58E-02	0.00E+00	3.58E-02
		Cs-137	<3.53E-02	0.00E+00	3.53E-02
		Be-7	<2.79E-01	0.00E+00	2.79E-01
		K-40	1.00E+00	3.73E-01	2.89E-01
575730	9/12/2022 - 9/19/2022	I-131	<2.32E-02	0.00E+00	2.32E-02
		Cs-134	<2.66E-02	0.00E+00	2.66E-02
		Cs-137	<1.75E-02	0.00E+00	1.75E-02
		Be-7	<1.41E-01	0.00E+00	1.41E-01
		K-40	4.18E-01	2.35E-01	2.55E-01
576123	9/19/2022 - 9/26/2022	I-131	<1.71E-02	0.00E+00	1.71E-02
		Cs-134	<1.97E-02	0.00E+00	1.97E-02
		Cs-137	<1.70E-02	0.00E+00	1.70E-02
		Be-7	<1.82E-01	0.00E+00	1.82E-01
		K-40	4.34E-01	2.57E-01	3.18E-01
576294	9/26/2022 - 10/2/2022	I-131	<3.27E-02	0.00E+00	3.27E-02
		Cs-134	<3.57E-02	0.00E+00	3.57E-02
		Cs-137	<3.41E-02	0.00E+00	3.41E-02
		Be-7	<2.24E-01	0.00E+00	2.24E-01
		K-40	<3.28E-01	0.00E+00	3.28E-01
576590	10/3/2022 - 10/10/2022	I-131	<2.60E-02	0.00E+00	2.60E-02
		Cs-134	<2.40E-02	0.00E+00	2.40E-02
		Cs-137	<1.90E-02	0.00E+00	1.90E-02
		Be-7	<1.47E-01	0.00E+00	1.47E-01
		K-40	3.89E-01	2.29E-01	2.64E-01
577202	10/10/2022 - 10/17/2022	I-131	<2.00E-02	0.00E+00	2.00E-02
		Cs-134	<2.17E-02	0.00E+00	2.17E-02
		Cs-137	<1.67E-02	0.00E+00	1.67E-02
		Be-7	<1.35E-01	0.00E+00	1.35E-01
		K-40	3.75E-01	2.65E-01	3.67E-01
577797	10/17/2022 - 10/25/2022	I-131	<1.67E-02	0.00E+00	1.67E-02
		Cs-134	<1.63E-02	0.00E+00	1.63E-02
		Cs-137	<1.82E-02	0.00E+00	1.82E-02
		Be-7	<1.65E-01	0.00E+00	1.65E-01
		K-40	<3.38E-01	0.00E+00	3.38E-01

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 195 [INDICATOR - N @ 0.19 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
578150	10/25/2022 - 10/31/2022	I-131	<2.46E-02	0.00E+00	2.46E-02
		Cs-134	<2.38E-02	0.00E+00	2.38E-02
		Cs-137	<3.02E-02	0.00E+00	3.02E-02
		Be-7	<1.87E-01	0.00E+00	1.87E-01
		K-40	8.30E-01	3.43E-01	3.02E-01
578862	10/31/2022 - 11/7/2022	I-131	<2.76E-02	0.00E+00	2.76E-02
		Cs-134	<2.30E-02	0.00E+00	2.30E-02
		Cs-137	<2.16E-02	0.00E+00	2.16E-02
		Be-7	<1.42E-01	0.00E+00	1.42E-01
		K-40	<5.64E-01	0.00E+00	5.64E-01
579061	11/7/2022 - 11/14/2022	I-131	<2.42E-02	0.00E+00	2.42E-02
		Cs-134	<2.48E-02	0.00E+00	2.48E-02
		Cs-137	<1.96E-02	0.00E+00	1.96E-02
		Be-7	<1.52E-01	0.00E+00	1.52E-01
		K-40	<4.62E-01	0.00E+00	4.62E-01
579821	11/14/2022 - 11/21/2022	I-131	<2.97E-02	0.00E+00	2.97E-02
		Cs-134	<2.08E-02	0.00E+00	2.08E-02
		Cs-137	<2.00E-02	0.00E+00	2.00E-02
		Be-7	<1.54E-01	0.00E+00	1.54E-01
		K-40	5.06E-01	2.88E-01	3.58E-01
580634	11/21/2022 - 11/28/2022	I-131	<2.32E-02	0.00E+00	2.32E-02
		Cs-134	<1.75E-02	0.00E+00	1.75E-02
		Cs-137	<1.95E-02	0.00E+00	1.95E-02
		Be-7	<9.95E-02	0.00E+00	9.95E-02
		K-40	3.50E-01	2.55E-01	3.50E-01
580847	11/28/2022 - 12/5/2022	I-131	<3.00E-02	0.00E+00	3.00E-02
		Cs-134	<1.42E-02	0.00E+00	1.42E-02
		Cs-137	<3.03E-02	0.00E+00	3.03E-02
		Be-7	<1.32E-01	0.00E+00	1.32E-01
		K-40	<6.02E-01	0.00E+00	6.02E-01
581166	12/5/2022 - 12/12/2022	I-131	<2.42E-02	0.00E+00	2.42E-02
		Cs-134	<2.84E-02	0.00E+00	2.84E-02
		Cs-137	<2.45E-02	0.00E+00	2.45E-02
		Be-7	<1.22E-01	0.00E+00	1.22E-01
		K-40	<4.50E-01	0.00E+00	4.50E-01
581734	12/12/2022 - 12/19/2022	I-131	<2.43E-02	0.00E+00	2.43E-02
		Cs-134	<2.02E-02	0.00E+00	2.02E-02
		Cs-137	<2.13E-02	0.00E+00	2.13E-02
		Be-7	<1.51E-01	0.00E+00	1.51E-01
		K-40	4.05E-01	2.48E-01	3.06E-01
582267	12/19/2022 - 12/27/2022	I-131	<2.87E-02	0.00E+00	2.87E-02
		Cs-134	<2.50E-02	0.00E+00	2.50E-02
		Cs-137	<2.16E-02	0.00E+00	2.16E-02
		Be-7	<1.51E-01	0.00E+00	1.51E-01
		K-40	7.93E-01	2.92E-01	2.48E-01
582455	12/27/2022 - 1/3/2023	I-131	<2.96E-02	0.00E+00	2.96E-02
		Cs-134	<2.24E-02	0.00E+00	2.24E-02
		Cs-137	<1.93E-02	0.00E+00	1.93E-02
		Be-7	<7.96E-02	0.00E+00	7.96E-02
		K-40	3.74E-01	2.32E-01	2.78E-01

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

Report Generated @ 2/15/2023 13:34:28

Duke Energy Annual Report - Appendix E

Appendix E - Page 62 of 114

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: CROPS Concentration (Activity): pCi/kg

Sample Point 155 [INDICATOR - NNE @ 4.87 miles]

Sample ID:	558871	Sample Dates:	1/4/2022 - 1/4/2022	MIXEDCROPS	Nuclide	Activity	2 Sigma Error	MDA
					Co-58	<8.04E+00	0.00E+00	8.04E+00
					Fe-59	<1.50E+01	0.00E+00	1.50E+01
					Co-60	<9.69E+00	0.00E+00	9.69E+00
					Zn-65	<2.33E+01	0.00E+00	2.33E+01
					Zr-95	<1.39E+01	0.00E+00	1.39E+01
					Nb-95	<7.76E+00	0.00E+00	7.76E+00
					I-131	<8.70E+00	0.00E+00	8.70E+00
					Cs-134	<9.72E+00	0.00E+00	9.72E+00
					Cs-137	<1.01E+01	0.00E+00	1.01E+01
					BaLa-140	<9.94E+00	0.00E+00	9.94E+00
					Be-7	2.48E+02	7.56E+01	9.68E+01
					K-40	3.31E+03	3.80E+02	1.21E+02

Sample ID:	560852	Sample Dates:	2/7/2022 - 2/7/2022	MIXEDCROPS	Nuclide	Activity	2 Sigma Error	MDA
					Co-58	<9.86E+00	0.00E+00	9.86E+00
					Fe-59	<1.66E+01	0.00E+00	1.66E+01
					Co-60	<9.39E+00	0.00E+00	9.39E+00
					Zn-65	<2.29E+01	0.00E+00	2.29E+01
					Zr-95	<1.53E+01	0.00E+00	1.53E+01
					Nb-95	<8.21E+00	0.00E+00	8.21E+00
					I-131	<7.55E+00	0.00E+00	7.55E+00
					Cs-134	<8.87E+00	0.00E+00	8.87E+00
					Cs-137	<8.81E+00	0.00E+00	8.81E+00
					BaLa-140	<9.31E+00	0.00E+00	9.31E+00
					Be-7	8.72E+01	5.41E+01	8.22E+01
					K-40	3.70E+03	4.06E+02	8.92E+01

Sample ID:	562886	Sample Dates:	3/7/2022 - 3/7/2022	MIXEDCROPS	Nuclide	Activity	2 Sigma Error	MDA
					Co-58	<1.04E+01	0.00E+00	1.04E+01
					Fe-59	<2.31E+01	0.00E+00	2.31E+01
					Co-60	<1.09E+01	0.00E+00	1.09E+01
					Zn-65	<2.45E+01	0.00E+00	2.45E+01
					Zr-95	<1.28E+01	0.00E+00	1.28E+01
					Nb-95	<7.86E+00	0.00E+00	7.86E+00
					I-131	<9.46E+00	0.00E+00	9.46E+00
					Cs-134	<1.16E+01	0.00E+00	1.16E+01
					Cs-137	<1.07E+01	0.00E+00	1.07E+01
					BaLa-140	<9.91E+00	0.00E+00	9.91E+00
					Be-7	1.40E+02	8.67E+01	1.34E+02
					K-40	4.58E+03	5.10E+02	1.51E+02

Sample ID:	564581	Sample Dates:	4/4/2022 - 4/4/2022	MIXEDCROPS	Nuclide	Activity	2 Sigma Error	MDA
					Mn-54	<1.75E+01	0.00E+00	1.75E+01
					Co-58	<2.13E+01	0.00E+00	2.13E+01
					Fe-59	<3.61E+01	0.00E+00	3.61E+01
					Co-60	<2.36E+01	0.00E+00	2.36E+01
					Zn-65	<6.11E+01	0.00E+00	6.11E+01
					Zr-95	<2.98E+01	0.00E+00	2.98E+01
					Nb-95	<2.20E+01	0.00E+00	2.20E+01
					I-131	<1.95E+01	0.00E+00	1.95E+01
					Cs-134	<1.50E+01	0.00E+00	1.50E+01
					Cs-137	<1.45E+01	0.00E+00	1.45E+01
					BaLa-140	<1.61E+01	0.00E+00	1.61E+01
					Be-7	3.91E+02	1.47E+02	1.72E+02
					K-40	4.23E+03	6.76E+02	3.61E+02

Sample ID:	566598	Sample Dates:	5/2/2022 - 5/2/2022	MIXEDCROPS	Nuclide	Activity	2 Sigma Error	MDA
					Mn-54	<8.74E+00	0.00E+00	8.74E+00
					Co-58	<7.40E+00	0.00E+00	7.40E+00
					Fe-59	<2.01E+01	0.00E+00	2.01E+01
					Co-60	<7.60E+00	0.00E+00	7.60E+00
					Zn-65	<2.53E+01	0.00E+00	2.53E+01
					Zr-95	<1.32E+01	0.00E+00	1.32E+01
					Nb-95	<8.51E+00	0.00E+00	8.51E+00
					I-131	<8.10E+00	0.00E+00	8.10E+00
					Cs-134	<1.08E+01	0.00E+00	1.08E+01
					Cs-137	<9.37E+00	0.00E+00	9.37E+00

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: CROPS Concentration (Activity): pCi/kg

Sample Point 155 [INDICATOR - NNE @ 4.87 miles]

Sample ID:	Sample Dates:	MIXEDCROPS	Nuclide	Activity	2 Sigma Error	MDA
566598	5/2/2022 - 5/2/2022	MIXEDCROPS	BaLa-140	<5.04E+00	0.00E+00	5.04E+00
			Be-7	<8.28E+01	0.00E+00	8.28E+01
			K-40	2.58E+03	3.27E+02	1.37E+02
568421	6/6/2022 - 6/6/2022	MIXEDCROPS	Mn-54	<9.78E+00	0.00E+00	9.78E+00
			Co-58	<9.13E+00	0.00E+00	9.13E+00
			Fe-59	<1.87E+01	0.00E+00	1.87E+01
			Co-60	<1.06E+01	0.00E+00	1.06E+01
			Zn-65	<2.11E+01	0.00E+00	2.11E+01
			Zr-95	<1.72E+01	0.00E+00	1.72E+01
			Nb-95	<1.00E+01	0.00E+00	1.00E+01
			I-131	<1.16E+01	0.00E+00	1.16E+01
			Cs-134	<8.18E+00	0.00E+00	8.18E+00
			Cs-137	<1.16E+01	0.00E+00	1.16E+01
			BaLa-140	<9.09E+00	0.00E+00	9.09E+00
			Be-7	<1.10E+02	0.00E+00	1.10E+02
			K-40	2.52E+03	3.45E+02	1.69E+02
570337	7/5/2022 - 7/5/2022	MIXEDCROPS	Mn-54	<1.16E+01	0.00E+00	1.16E+01
			Co-58	<1.21E+01	0.00E+00	1.21E+01
			Fe-59	<2.36E+01	0.00E+00	2.36E+01
			Co-60	<9.68E+00	0.00E+00	9.68E+00
			Zn-65	<2.48E+01	0.00E+00	2.48E+01
			Zr-95	<2.38E+01	0.00E+00	2.38E+01
			Nb-95	<1.15E+01	0.00E+00	1.15E+01
			I-131	<9.62E+00	0.00E+00	9.62E+00
			Cs-134	<1.22E+01	0.00E+00	1.22E+01
			Cs-137	<1.13E+01	0.00E+00	1.13E+01
			BaLa-140	<1.46E+01	0.00E+00	1.46E+01
			Be-7	2.18E+02	8.85E+01	1.23E+02
			K-40	4.38E+03	5.06E+02	1.84E+02
571748	8/1/2022 - 8/1/2022	MIXEDCROPS	Mn-54	<1.09E+01	0.00E+00	1.09E+01
			Co-58	<8.21E+00	0.00E+00	8.21E+00
			Fe-59	<2.02E+01	0.00E+00	2.02E+01
			Co-60	<1.22E+01	0.00E+00	1.22E+01
			Zn-65	<2.35E+01	0.00E+00	2.35E+01
			Zr-95	<1.14E+01	0.00E+00	1.14E+01
			Nb-95	<7.44E+00	0.00E+00	7.44E+00
			I-131	<8.74E+00	0.00E+00	8.74E+00
			Cs-134	<1.15E+01	0.00E+00	1.15E+01
			Cs-137	<7.75E+00	0.00E+00	7.75E+00
			BaLa-140	<8.96E+00	0.00E+00	8.96E+00
			Be-7	4.10E+02	9.48E+01	1.08E+02
			K-40	3.99E+03	4.45E+02	1.33E+02
575735	9/6/2022 - 9/6/2022	MIXEDCROPS	Mn-54	<1.09E+01	0.00E+00	1.09E+01
			Co-58	<1.05E+01	0.00E+00	1.05E+01
			Fe-59	<2.48E+01	0.00E+00	2.48E+01
			Co-60	<1.05E+01	0.00E+00	1.05E+01
			Zn-65	<2.48E+01	0.00E+00	2.48E+01
			Zr-95	<1.94E+01	0.00E+00	1.94E+01
			Nb-95	<1.07E+01	0.00E+00	1.07E+01
			I-131	<1.11E+01	0.00E+00	1.11E+01
			Cs-134	<1.30E+01	0.00E+00	1.30E+01
			Cs-137	<1.14E+01	0.00E+00	1.14E+01
			BaLa-140	<1.51E+01	0.00E+00	1.51E+01
			Be-7	3.30E+02	1.02E+02	1.36E+02
			K-40	4.34E+03	4.93E+02	1.74E+02
577207	10/3/2022 - 10/3/2022	MIXEDCROPS	Mn-54	<9.70E+00	0.00E+00	9.70E+00
			Co-58	<9.33E+00	0.00E+00	9.33E+00

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: CROPS Concentration (Activity): pCi/kg

Sample Point 155 [INDICATOR - NNE @ 4.87 miles]

Sample ID:	577207	Sample Dates:	10/3/2022 - 10/3/2022	MIXEDCROPS	Nuclide	Activity	2 Sigma Error	MDA
					Fe-59	<2.01E+01	0.00E+00	2.01E+01
					Co-60	<7.90E+00	0.00E+00	7.90E+00
					Zn-65	<2.23E+01	0.00E+00	2.23E+01
					Zr-95	<1.44E+01	0.00E+00	1.44E+01
					Nb-95	<9.54E+00	0.00E+00	9.54E+00
					I-131	<1.12E+01	0.00E+00	1.12E+01
					Cs-134	<1.04E+01	0.00E+00	1.04E+01
					Cs-137	<8.31E+00	0.00E+00	8.31E+00
					BaLa-140	<1.10E+01	0.00E+00	1.10E+01
					Be-7	2.35E+02	7.47E+01	1.03E+02
					K-40	5.68E+03	5.41E+02	1.14E+02

Sample ID:	579826	Sample Dates:	11/7/2022 - 11/7/2022	MIXEDCROPS	Nuclide	Activity	2 Sigma Error	MDA
					Mn-54	<3.16E+01	0.00E+00	3.16E+01
					Co-58	<2.91E+01	0.00E+00	2.91E+01
					Fe-59	<5.14E+01	0.00E+00	5.14E+01
					Co-60	<1.73E+01	0.00E+00	1.73E+01
					Zn-65	<8.25E+01	0.00E+00	8.25E+01
					Zr-95	<3.34E+01	0.00E+00	3.34E+01
					Nb-95	<2.45E+01	0.00E+00	2.45E+01
					I-131	<2.54E+01	0.00E+00	2.54E+01
					Cs-134	<3.30E+01	0.00E+00	3.30E+01
					Cs-137	<2.74E+01	0.00E+00	2.74E+01
					BaLa-140	<3.24E+01	0.00E+00	3.24E+01
					Be-7	3.00E+02	1.73E+02	2.42E+02
					K-40	4.41E+03	7.59E+02	3.33E+02

Sample ID:	581739	Sample Dates:	12/5/2022 - 12/5/2022	MIXEDCROPS	Nuclide	Activity	2 Sigma Error	MDA
					Mn-54	<1.28E+01	0.00E+00	1.28E+01
					Co-58	<1.18E+01	0.00E+00	1.18E+01
					Fe-59	<2.57E+01	0.00E+00	2.57E+01
					Co-60	<1.46E+01	0.00E+00	1.46E+01
					Zn-65	<3.57E+01	0.00E+00	3.57E+01
					Zr-95	<1.87E+01	0.00E+00	1.87E+01
					Nb-95	<1.18E+01	0.00E+00	1.18E+01
					I-131	<1.08E+01	0.00E+00	1.08E+01
					Cs-134	<1.22E+01	0.00E+00	1.22E+01
					Cs-137	<1.00E+01	0.00E+00	1.00E+01
					BaLa-140	<1.27E+01	0.00E+00	1.27E+01
					Be-7	5.18E+02	1.28E+02	1.56E+02
					K-40	7.82E+03	8.05E+02	1.72E+02

Media Type: DRINKING WATER Concentration (Activity): pCi/l

Sample Point 101 [INDICATOR - E @ 3.31 miles]

Sample ID:	559453	Sample Dates:	12/27/2021 - 1/24/2022		Nuclide	Activity	2 Sigma Error	MDA
					Beta	<3.26E+00	0.00E+00	3.26E+00
					Mn-54	<1.77E+00	0.00E+00	1.77E+00
					Co-58	<1.96E+00	0.00E+00	1.96E+00
					Fe-59	<3.72E+00	0.00E+00	3.72E+00
					Co-60	<1.59E+00	0.00E+00	1.59E+00
					Zn-65	<3.20E+00	0.00E+00	3.20E+00
					Zr-95	<2.75E+00	0.00E+00	2.75E+00
					Nb-95	<2.09E+00	0.00E+00	2.09E+00
					I-131	<7.30E+00	0.00E+00	7.30E+00
					Cs-134	<2.02E+00	0.00E+00	2.02E+00
					Cs-137	<1.67E+00	0.00E+00	1.67E+00
					BaLa-140	<3.65E+00	0.00E+00	3.65E+00
					Be-7	<1.82E+01	0.00E+00	1.82E+01
					K-40	6.00E+01	2.20E+01	2.91E+01

Sample ID:	560942	Sample Dates:	1/24/2022 - 2/21/2022		Nuclide	Activity	2 Sigma Error	MDA
					Beta	<3.20E+00	0.00E+00	3.20E+00
					Mn-54	<2.96E+00	0.00E+00	2.96E+00
					Co-58	<3.26E+00	0.00E+00	3.26E+00
					Fe-59	<7.67E+00	0.00E+00	7.67E+00
					Co-60	<2.73E+00	0.00E+00	2.73E+00

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: DRINKING WATER Concentration (Activity): pCi/l

Sample Point 101 [INDICATOR - E @ 3.31 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
560942	1/24/2022 - 2/21/2022	Zn-65	<5.24E+00	0.00E+00	5.24E+00
		Zr-95	<6.99E+00	0.00E+00	6.99E+00
		Nb-95	<3.82E+00	0.00E+00	3.82E+00
		I-131	<1.16E+01	0.00E+00	1.16E+01
		Cs-134	<3.22E+00	0.00E+00	3.22E+00
		Cs-137	<3.33E+00	0.00E+00	3.33E+00
		BaLa-140	<6.29E+00	0.00E+00	6.29E+00
		Be-7	<2.33E+01	0.00E+00	2.33E+01
		K-40	1.20E+02	3.59E+01	4.04E+01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
563137	2/21/2022 - 3/21/2022	Beta	<3.22E+00	0.00E+00	3.22E+00
		Mn-54	<3.33E+00	0.00E+00	3.33E+00
		Co-58	<3.56E+00	0.00E+00	3.56E+00
		Fe-59	<8.17E+00	0.00E+00	8.17E+00
		Co-60	<3.88E+00	0.00E+00	3.88E+00
		Zn-65	<7.12E+00	0.00E+00	7.12E+00
		Zr-95	<6.52E+00	0.00E+00	6.52E+00
		Nb-95	<5.10E+00	0.00E+00	5.10E+00
		I-131	<1.17E+01	0.00E+00	1.17E+01
		Cs-134	<3.58E+00	0.00E+00	3.58E+00
		Cs-137	<3.33E+00	0.00E+00	3.33E+00
		BaLa-140	<7.76E+00	0.00E+00	7.76E+00
		Be-7	<2.73E+01	0.00E+00	2.73E+01
		K-40	4.45E+01	4.10E+01	6.48E+01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
560628	12/27/2021 - 4/18/2022	H3DW	7.89E+02	1.24E+02	1.71E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
564648	3/21/2022 - 4/18/2022	Beta	<3.26E+00	0.00E+00	3.26E+00
		Mn-54	<2.83E+00	0.00E+00	2.83E+00
		Co-58	<3.29E+00	0.00E+00	3.29E+00
		Fe-59	<5.91E+00	0.00E+00	5.91E+00
		Co-60	<2.87E+00	0.00E+00	2.87E+00
		Zn-65	<5.57E+00	0.00E+00	5.57E+00
		Zr-95	<5.53E+00	0.00E+00	5.53E+00
		Nb-95	<4.03E+00	0.00E+00	4.03E+00
		I-131	<1.07E+01	0.00E+00	1.07E+01
		Cs-134	<4.27E+00	0.00E+00	4.27E+00
		Cs-137	<2.90E+00	0.00E+00	2.90E+00
		BaLa-140	<5.77E+00	0.00E+00	5.77E+00
		Be-7	<2.92E+01	0.00E+00	2.92E+01
		K-40	1.02E+02	3.77E+01	4.61E+01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
566729	4/18/2022 - 5/16/2022	Beta	<3.20E+00	0.00E+00	3.20E+00
		Mn-54	<3.33E+00	0.00E+00	3.33E+00
		Co-58	<4.44E+00	0.00E+00	4.44E+00
		Fe-59	<7.98E+00	0.00E+00	7.98E+00
		Co-60	<3.67E+00	0.00E+00	3.67E+00
		Zn-65	<8.82E+00	0.00E+00	8.82E+00
		Zr-95	<9.33E+00	0.00E+00	9.33E+00
		Nb-95	<4.09E+00	0.00E+00	4.09E+00
		I-131	<1.20E+01	0.00E+00	1.20E+01
		Cs-134	<5.11E+00	0.00E+00	5.11E+00
		Cs-137	<4.94E+00	0.00E+00	4.94E+00
		BaLa-140	<6.67E+00	0.00E+00	6.67E+00
		Be-7	<3.11E+01	0.00E+00	3.11E+01
		K-40	<9.24E+01	0.00E+00	9.24E+01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
568170	5/16/2022 - 6/13/2022	Beta	<3.17E+00	0.00E+00	3.17E+00
		Mn-54	<3.45E+00	0.00E+00	3.45E+00
		Co-58	<3.41E+00	0.00E+00	3.41E+00
		Fe-59	<8.39E+00	0.00E+00	8.39E+00
		Co-60	<4.47E+00	0.00E+00	4.47E+00

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: DRINKING WATER Concentration (Activity): pCi/l

Sample Point 101 [INDICATOR - E @ 3.31 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA		
568170	5/16/2022 - 6/13/2022	Zn-65	<7.60E+00	0.00E+00	7.60E+00		
		Zr-95	<6.53E+00	0.00E+00	6.53E+00		
		Nb-95	<5.12E+00	0.00E+00	5.12E+00		
		I-131	<1.20E+01	0.00E+00	1.20E+01		
		Cs-134	<3.71E+00	0.00E+00	3.71E+00		
		Cs-137	<2.88E+00	0.00E+00	2.88E+00		
		BaLa-140	<8.25E+00	0.00E+00	8.25E+00		
		Be-7	<3.05E+01	0.00E+00	3.05E+01		
		K-40	1.26E+02	4.20E+01	4.20E+01		
		566506	4/18/2022 - 7/11/2022	H3DW	8.13E+02	1.34E+02	1.87E+02
569997	6/13/2022 - 7/11/2022	Beta	<3.33E+00	0.00E+00	3.33E+00		
		Mn-54	<2.93E+00	0.00E+00	2.93E+00		
		Co-58	<2.35E+00	0.00E+00	2.35E+00		
		Fe-59	<7.66E+00	0.00E+00	7.66E+00		
		Co-60	<3.01E+00	0.00E+00	3.01E+00		
		Zn-65	<6.78E+00	0.00E+00	6.78E+00		
		Zr-95	<5.74E+00	0.00E+00	5.74E+00		
		Nb-95	<2.90E+00	0.00E+00	2.90E+00		
		I-131	<1.06E+01	0.00E+00	1.06E+01		
		Cs-134	<3.16E+00	0.00E+00	3.16E+00		
		Cs-137	<2.60E+00	0.00E+00	2.60E+00		
		BaLa-140	<6.60E+00	0.00E+00	6.60E+00		
		Be-7	<2.61E+01	0.00E+00	2.61E+01		
		K-40	1.09E+02	3.54E+01	3.63E+01		
		571534	7/11/2022 - 8/8/2022	Beta	<3.18E+00	0.00E+00	3.18E+00
				Mn-54	<3.41E+00	0.00E+00	3.41E+00
Co-58	<3.58E+00			0.00E+00	3.58E+00		
Fe-59	<5.19E+00			0.00E+00	5.19E+00		
Co-60	<3.52E+00			0.00E+00	3.52E+00		
Zn-65	<6.21E+00			0.00E+00	6.21E+00		
Zr-95	<6.85E+00			0.00E+00	6.85E+00		
Nb-95	<4.21E+00			0.00E+00	4.21E+00		
I-131	<1.19E+01			0.00E+00	1.19E+01		
Cs-134	<3.18E+00			0.00E+00	3.18E+00		
Cs-137	<2.57E+00			0.00E+00	2.57E+00		
BaLa-140	<7.06E+00			0.00E+00	7.06E+00		
Be-7	<2.77E+01			0.00E+00	2.77E+01		
K-40	9.24E+01			4.19E+01	5.65E+01		
574663	8/8/2022 - 9/6/2022			Beta	3.51E+00	4.28E+00	3.21E+00
				Mn-54	<3.68E+00	0.00E+00	3.68E+00
		Co-58	<3.63E+00	0.00E+00	3.63E+00		
		Fe-59	<8.34E+00	0.00E+00	8.34E+00		
		Co-60	<3.18E+00	0.00E+00	3.18E+00		
		Zn-65	<8.33E+00	0.00E+00	8.33E+00		
		Zr-95	<6.64E+00	0.00E+00	6.64E+00		
		Nb-95	<4.57E+00	0.00E+00	4.57E+00		
		I-131	<1.12E+01	0.00E+00	1.12E+01		
		Cs-134	<3.86E+00	0.00E+00	3.86E+00		
		Cs-137	<3.83E+00	0.00E+00	3.83E+00		
		BaLa-140	<4.53E+00	0.00E+00	4.53E+00		
		Be-7	<3.16E+01	0.00E+00	3.16E+01		
		K-40	1.20E+02	3.89E+01	3.68E+01		
		571749	7/11/2022 - 10/3/2022	H3DW	5.77E+02	1.28E+02	1.89E+02
576378	9/6/2022 - 10/3/2022	Beta	<3.21E+00	0.00E+00	3.21E+00		
		Mn-54	<3.90E+00	0.00E+00	3.90E+00		

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: DRINKING WATER Concentration (Activity): pCi/l

Sample Point 101 [INDICATOR - E @ 3.31 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
576378	9/6/2022 - 10/3/2022	Co-58	<4.29E+00	0.00E+00	4.29E+00
		Fe-59	<8.36E+00	0.00E+00	8.36E+00
		Co-60	<3.97E+00	0.00E+00	3.97E+00
		Zn-65	<9.60E+00	0.00E+00	9.60E+00
		Zr-95	<7.61E+00	0.00E+00	7.61E+00
		Nb-95	<5.00E+00	0.00E+00	5.00E+00
		I-131	<1.14E+01	0.00E+00	1.14E+01
		Cs-134	<4.34E+00	0.00E+00	4.34E+00
		Cs-137	<4.35E+00	0.00E+00	4.35E+00
		BaLa-140	<1.02E+01	0.00E+00	1.02E+01
		Be-7	<4.62E+01	0.00E+00	4.62E+01
		K-40	1.18E+02	4.76E+01	5.05E+01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
578727	10/3/2022 - 10/31/2022	Beta	4.45E+00	4.23E+00	3.16E+00
		Mn-54	<3.50E+00	0.00E+00	3.50E+00
		Co-58	<4.05E+00	0.00E+00	4.05E+00
		Fe-59	<6.44E+00	0.00E+00	6.44E+00
		Co-60	<3.61E+00	0.00E+00	3.61E+00
		Zn-65	<7.92E+00	0.00E+00	7.92E+00
		Zr-95	<7.34E+00	0.00E+00	7.34E+00
		Nb-95	<4.52E+00	0.00E+00	4.52E+00
		I-131	<1.19E+01	0.00E+00	1.19E+01
		Cs-134	<3.59E+00	0.00E+00	3.59E+00
		Cs-137	<3.40E+00	0.00E+00	3.40E+00
		BaLa-140	<9.22E+00	0.00E+00	9.22E+00
		Be-7	<3.30E+01	0.00E+00	3.30E+01
		K-40	8.37E+01	3.11E+01	3.09E+01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
580717	10/31/2022 - 11/28/2022	Beta	4.29E+00	4.22E+00	3.14E+00
		Mn-54	<4.09E+00	0.00E+00	4.09E+00
		Co-58	<3.71E+00	0.00E+00	3.71E+00
		Fe-59	<5.78E+00	0.00E+00	5.78E+00
		Co-60	<2.95E+00	0.00E+00	2.95E+00
		Zn-65	<8.42E+00	0.00E+00	8.42E+00
		Zr-95	<6.57E+00	0.00E+00	6.57E+00
		Nb-95	<5.13E+00	0.00E+00	5.13E+00
		I-131	<1.27E+01	0.00E+00	1.27E+01
		Cs-134	<3.73E+00	0.00E+00	3.73E+00
		Cs-137	<3.07E+00	0.00E+00	3.07E+00
		BaLa-140	<8.37E+00	0.00E+00	8.37E+00
		Be-7	<3.48E+01	0.00E+00	3.48E+01
		K-40	6.51E+01	3.70E+01	5.23E+01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
579153	10/3/2022 - 12/27/2022	H3DW	5.47E+02	1.23E+02	1.82E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
582314	11/28/2022 - 12/27/2022	Beta	3.85E+00	4.26E+00	3.18E+00
		Mn-54	<3.54E+00	0.00E+00	3.54E+00
		Co-58	<4.03E+00	0.00E+00	4.03E+00
		Fe-59	<8.80E+00	0.00E+00	8.80E+00
		Co-60	<4.19E+00	0.00E+00	4.19E+00
		Zn-65	<7.20E+00	0.00E+00	7.20E+00
		Zr-95	<8.42E+00	0.00E+00	8.42E+00
		Nb-95	<4.40E+00	0.00E+00	4.40E+00
		I-131	<1.35E+01	0.00E+00	1.35E+01
		Cs-134	<3.93E+00	0.00E+00	3.93E+00
		Cs-137	<3.53E+00	0.00E+00	3.53E+00
		BaLa-140	<8.83E+00	0.00E+00	8.83E+00
		Be-7	<3.85E+01	0.00E+00	3.85E+01
		K-40	1.17E+02	5.87E+01	8.59E+01

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: DRINKING WATER Concentration (Activity): pCi/l

Sample Point 119 [INDICATOR - SSW @ 7.4 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
559454	12/27/2021 - 1/24/2022	Beta	<3.26E+00	0.00E+00	3.26E+00
		Mn-54	<2.89E+00	0.00E+00	2.89E+00
		Co-58	<2.58E+00	0.00E+00	2.58E+00
		Fe-59	<6.10E+00	0.00E+00	6.10E+00
		Co-60	<3.00E+00	0.00E+00	3.00E+00
		Zn-65	<7.76E+00	0.00E+00	7.76E+00
		Zr-95	<5.23E+00	0.00E+00	5.23E+00
		Nb-95	<2.52E+00	0.00E+00	2.52E+00
		I-131	<1.19E+01	0.00E+00	1.19E+01
		Cs-134	<2.87E+00	0.00E+00	2.87E+00
		Cs-137	<3.14E+00	0.00E+00	3.14E+00
		BaLa-140	<8.37E+00	0.00E+00	8.37E+00
		Be-7	<2.85E+01	0.00E+00	2.85E+01
		K-40	6.14E+01	3.02E+01	4.03E+01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
560943	1/24/2022 - 2/21/2022	Beta	<3.20E+00	0.00E+00	3.20E+00
		Mn-54	<2.62E+00	0.00E+00	2.62E+00
		Co-58	<3.33E+00	0.00E+00	3.33E+00
		Fe-59	<7.09E+00	0.00E+00	7.09E+00
		Co-60	<2.81E+00	0.00E+00	2.81E+00
		Zn-65	<6.92E+00	0.00E+00	6.92E+00
		Zr-95	<7.21E+00	0.00E+00	7.21E+00
		Nb-95	<4.34E+00	0.00E+00	4.34E+00
		I-131	<1.19E+01	0.00E+00	1.19E+01
		Cs-134	<3.65E+00	0.00E+00	3.65E+00
		Cs-137	<3.50E+00	0.00E+00	3.50E+00
		BaLa-140	<9.23E+00	0.00E+00	9.23E+00
		Be-7	<3.68E+01	0.00E+00	3.68E+01
		K-40	8.52E+01	4.01E+01	5.46E+01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
563138	2/21/2022 - 3/21/2022	Beta	3.88E+00	4.39E+00	3.22E+00
		Mn-54	<3.06E+00	0.00E+00	3.06E+00
		Co-58	<3.50E+00	0.00E+00	3.50E+00
		Fe-59	<6.75E+00	0.00E+00	6.75E+00
		Co-60	<2.35E+00	0.00E+00	2.35E+00
		Zn-65	<7.26E+00	0.00E+00	7.26E+00
		Zr-95	<5.31E+00	0.00E+00	5.31E+00
		Nb-95	<3.77E+00	0.00E+00	3.77E+00
		I-131	<1.24E+01	0.00E+00	1.24E+01
		Cs-134	<3.85E+00	0.00E+00	3.85E+00
		Cs-137	<2.64E+00	0.00E+00	2.64E+00
		BaLa-140	<9.69E+00	0.00E+00	9.69E+00
		Be-7	<2.94E+01	0.00E+00	2.94E+01
		K-40	7.21E+01	3.93E+01	5.50E+01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
560629	12/27/2021 - 4/18/2022	H3DW	3.53E+02	1.11E+02	1.72E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
564649	3/21/2022 - 4/18/2022	Beta	3.45E+00	4.44E+00	3.26E+00
		Mn-54	<3.28E+00	0.00E+00	3.28E+00
		Co-58	<4.07E+00	0.00E+00	4.07E+00
		Fe-59	<6.18E+00	0.00E+00	6.18E+00
		Co-60	<2.93E+00	0.00E+00	2.93E+00
		Zn-65	<6.19E+00	0.00E+00	6.19E+00
		Zr-95	<5.50E+00	0.00E+00	5.50E+00
		Nb-95	<4.43E+00	0.00E+00	4.43E+00
		I-131	<1.09E+01	0.00E+00	1.09E+01
		Cs-134	<4.40E+00	0.00E+00	4.40E+00
		Cs-137	<3.68E+00	0.00E+00	3.68E+00
		BaLa-140	<7.18E+00	0.00E+00	7.18E+00
		Be-7	<3.28E+01	0.00E+00	3.28E+01
		K-40	7.84E+01	4.33E+01	6.17E+01

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: DRINKING WATER Concentration (Activity): pCi/l

Sample Point 119 [INDICATOR - SSW @ 7.4 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
566730	4/18/2022 - 5/16/2022	Beta	<3.20E+00	0.00E+00	3.20E+00
		Mn-54	<2.85E+00	0.00E+00	2.85E+00
		Co-58	<2.58E+00	0.00E+00	2.58E+00
		Fe-59	<5.41E+00	0.00E+00	5.41E+00
		Co-60	<3.02E+00	0.00E+00	3.02E+00
		Zn-65	<5.32E+00	0.00E+00	5.32E+00
		Zr-95	<5.85E+00	0.00E+00	5.85E+00
		Nb-95	<3.76E+00	0.00E+00	3.76E+00
		I-131	<1.10E+01	0.00E+00	1.10E+01
		Cs-134	<3.10E+00	0.00E+00	3.10E+00
		Cs-137	<2.78E+00	0.00E+00	2.78E+00
		BaLa-140	<5.34E+00	0.00E+00	5.34E+00
		Be-7	<2.35E+01	0.00E+00	2.35E+01
		K-40	1.20E+02	3.70E+01	4.08E+01
		568171	5/16/2022 - 6/13/2022	Beta	3.93E+00
Mn-54	<3.24E+00			0.00E+00	3.24E+00
Co-58	<2.66E+00			0.00E+00	2.66E+00
Fe-59	<7.14E+00			0.00E+00	7.14E+00
Co-60	<3.40E+00			0.00E+00	3.40E+00
Zn-65	<6.94E+00			0.00E+00	6.94E+00
Zr-95	<6.19E+00			0.00E+00	6.19E+00
Nb-95	<3.89E+00			0.00E+00	3.89E+00
I-131	<1.13E+01			0.00E+00	1.13E+01
Cs-134	<3.24E+00			0.00E+00	3.24E+00
Cs-137	<2.58E+00			0.00E+00	2.58E+00
BaLa-140	<7.89E+00			0.00E+00	7.89E+00
Be-7	<3.07E+01			0.00E+00	3.07E+01
K-40	1.05E+02			3.91E+01	4.82E+01
566507	4/18/2022 - 7/11/2022			Nuclide	Activity
		H3DW	4.41E+02	1.22E+02	1.86E+02
569998	6/13/2022 - 7/11/2022	Beta	<3.33E+00	0.00E+00	3.33E+00
		Mn-54	<2.96E+00	0.00E+00	2.96E+00
		Co-58	<3.94E+00	0.00E+00	3.94E+00
		Fe-59	<6.77E+00	0.00E+00	6.77E+00
		Co-60	<3.73E+00	0.00E+00	3.73E+00
		Zn-65	<8.46E+00	0.00E+00	8.46E+00
		Zr-95	<7.75E+00	0.00E+00	7.75E+00
		Nb-95	<4.72E+00	0.00E+00	4.72E+00
		I-131	<1.19E+01	0.00E+00	1.19E+01
		Cs-134	<4.11E+00	0.00E+00	4.11E+00
		Cs-137	<3.59E+00	0.00E+00	3.59E+00
		BaLa-140	<9.24E+00	0.00E+00	9.24E+00
		Be-7	<3.80E+01	0.00E+00	3.80E+01
		K-40	<5.44E+01	0.00E+00	5.44E+01
		571535	7/11/2022 - 8/8/2022	Beta	<3.18E+00
Mn-54	<3.20E+00			0.00E+00	3.20E+00
Co-58	<3.25E+00			0.00E+00	3.25E+00
Fe-59	<6.08E+00			0.00E+00	6.08E+00
Co-60	<2.80E+00			0.00E+00	2.80E+00
Zn-65	<6.28E+00			0.00E+00	6.28E+00
Zr-95	<6.27E+00			0.00E+00	6.27E+00
Nb-95	<3.84E+00			0.00E+00	3.84E+00
I-131	<1.19E+01			0.00E+00	1.19E+01
Cs-134	<3.26E+00			0.00E+00	3.26E+00
Cs-137	<2.68E+00			0.00E+00	2.68E+00
BaLa-140	<5.67E+00			0.00E+00	5.67E+00
Be-7	<3.07E+01			0.00E+00	3.07E+01
K-40	5.32E+01			3.07E+01	4.24E+01

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: DRINKING WATER Concentration (Activity): pCi/l

Sample Point 119 [INDICATOR - SSW @ 7.4 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
574664	8/8/2022 - 9/6/2022	Beta	<3.21E+00	0.00E+00	3.21E+00
		Mn-54	<3.33E+00	0.00E+00	3.33E+00
		Co-58	<3.19E+00	0.00E+00	3.19E+00
		Fe-59	<6.64E+00	0.00E+00	6.64E+00
		Co-60	<2.94E+00	0.00E+00	2.94E+00
		Zn-65	<5.13E+00	0.00E+00	5.13E+00
		Zr-95	<4.95E+00	0.00E+00	4.95E+00
		Nb-95	<3.37E+00	0.00E+00	3.37E+00
		I-131	<1.17E+01	0.00E+00	1.17E+01
		Cs-134	<2.99E+00	0.00E+00	2.99E+00
		Cs-137	<2.24E+00	0.00E+00	2.24E+00
		BaLa-140	<7.69E+00	0.00E+00	7.69E+00
		Be-7	<2.83E+01	0.00E+00	2.83E+01
		K-40	6.42E+01	3.03E+01	3.87E+01
		571750	7/11/2022 - 10/3/2022	H3DW	4.06E+02
576379	9/6/2022 - 10/3/2022	Beta	<3.21E+00	0.00E+00	3.21E+00
		Mn-54	<3.79E+00	0.00E+00	3.79E+00
		Co-58	<3.75E+00	0.00E+00	3.75E+00
		Fe-59	<7.76E+00	0.00E+00	7.76E+00
		Co-60	<2.25E+00	0.00E+00	2.25E+00
		Zn-65	<7.91E+00	0.00E+00	7.91E+00
		Zr-95	<6.65E+00	0.00E+00	6.65E+00
		Nb-95	<4.83E+00	0.00E+00	4.83E+00
		I-131	<1.17E+01	0.00E+00	1.17E+01
		Cs-134	<3.79E+00	0.00E+00	3.79E+00
		Cs-137	<4.57E+00	0.00E+00	4.57E+00
		BaLa-140	<7.37E+00	0.00E+00	7.37E+00
		Be-7	<3.72E+01	0.00E+00	3.72E+01
		K-40	7.37E+01	3.62E+01	4.04E+01
		578728	10/3/2022 - 10/31/2022	Beta	3.58E+00
Mn-54	<2.02E+00			0.00E+00	2.02E+00
Co-58	<2.23E+00			0.00E+00	2.23E+00
Fe-59	<4.25E+00			0.00E+00	4.25E+00
Co-60	<1.90E+00			0.00E+00	1.90E+00
Zn-65	<4.20E+00			0.00E+00	4.20E+00
Zr-95	<3.95E+00			0.00E+00	3.95E+00
Nb-95	<2.67E+00			0.00E+00	2.67E+00
I-131	<7.66E+00			0.00E+00	7.66E+00
Cs-134	<2.14E+00			0.00E+00	2.14E+00
Cs-137	<1.61E+00			0.00E+00	1.61E+00
BaLa-140	<4.29E+00			0.00E+00	4.29E+00
Be-7	<1.93E+01			0.00E+00	1.93E+01
K-40	8.32E+01			2.50E+01	3.15E+01
580718	10/31/2022 - 11/28/2022			Beta	<3.14E+00
		Mn-54	<2.86E+00	0.00E+00	2.86E+00
		Co-58	<4.10E+00	0.00E+00	4.10E+00
		Fe-59	<7.22E+00	0.00E+00	7.22E+00
		Co-60	<3.00E+00	0.00E+00	3.00E+00
		Zn-65	<8.08E+00	0.00E+00	8.08E+00
		Zr-95	<7.60E+00	0.00E+00	7.60E+00
		Nb-95	<4.15E+00	0.00E+00	4.15E+00
		I-131	<1.29E+01	0.00E+00	1.29E+01
		Cs-134	<3.18E+00	0.00E+00	3.18E+00
		Cs-137	<3.00E+00	0.00E+00	3.00E+00
		BaLa-140	<6.84E+00	0.00E+00	6.84E+00
		Be-7	<3.26E+01	0.00E+00	3.26E+01
		K-40	<6.47E+01	0.00E+00	6.47E+01

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

Report Generated @ 2/15/2023 13:34:28

Duke Energy Annual Report - Appendix E

Appendix E - Page 71 of 114

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: DRINKING WATER Concentration (Activity): pCi/l

Sample Point 119 [INDICATOR - SSW @ 7.4 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
579154	10/3/2022 - 12/27/2022	H3DW	3.85E+02	1.17E+02	1.80E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
582315	11/28/2022 - 12/27/2022	Beta	3.80E+00	4.26E+00	3.18E+00
		Mn-54	<3.17E+00	0.00E+00	3.17E+00
		Co-58	<3.95E+00	0.00E+00	3.95E+00
		Fe-59	<6.82E+00	0.00E+00	6.82E+00
		Co-60	<3.65E+00	0.00E+00	3.65E+00
		Zn-65	<7.56E+00	0.00E+00	7.56E+00
		Zr-95	<7.86E+00	0.00E+00	7.86E+00
		Nb-95	<5.17E+00	0.00E+00	5.17E+00
		I-131	<1.25E+01	0.00E+00	1.25E+01
		Cs-134	<3.52E+00	0.00E+00	3.52E+00
		Cs-137	<3.29E+00	0.00E+00	3.29E+00
		BaLa-140	<7.90E+00	0.00E+00	7.90E+00
		Be-7	<3.19E+01	0.00E+00	3.19E+01
		K-40	6.77E+01	3.27E+01	4.08E+01

Sample Point 132 [INDICATOR - SSE @ 11.1 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
559455	12/27/2021 - 1/24/2022	Beta	<3.26E+00	0.00E+00	3.26E+00
		Mn-54	<3.33E+00	0.00E+00	3.33E+00
		Co-58	<3.45E+00	0.00E+00	3.45E+00
		Fe-59	<7.12E+00	0.00E+00	7.12E+00
		Co-60	<2.37E+00	0.00E+00	2.37E+00
		Zn-65	<5.00E+00	0.00E+00	5.00E+00
		Zr-95	<5.02E+00	0.00E+00	5.02E+00
		Nb-95	<3.85E+00	0.00E+00	3.85E+00
		I-131	<1.09E+01	0.00E+00	1.09E+01
		Cs-134	<3.04E+00	0.00E+00	3.04E+00
		Cs-137	<2.90E+00	0.00E+00	2.90E+00
		BaLa-140	<6.79E+00	0.00E+00	6.79E+00
		Be-7	<2.75E+01	0.00E+00	2.75E+01
		K-40	3.50E+01	2.62E+01	3.90E+01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
560944	1/24/2022 - 2/21/2022	Beta	<3.20E+00	0.00E+00	3.20E+00
		Mn-54	<4.07E+00	0.00E+00	4.07E+00
		Co-58	<2.93E+00	0.00E+00	2.93E+00
		Fe-59	<6.91E+00	0.00E+00	6.91E+00
		Co-60	<2.53E+00	0.00E+00	2.53E+00
		Zn-65	<6.11E+00	0.00E+00	6.11E+00
		Zr-95	<6.52E+00	0.00E+00	6.52E+00
		Nb-95	<4.24E+00	0.00E+00	4.24E+00
		I-131	<1.18E+01	0.00E+00	1.18E+01
		Cs-134	<4.41E+00	0.00E+00	4.41E+00
		Cs-137	<3.46E+00	0.00E+00	3.46E+00
		BaLa-140	<7.46E+00	0.00E+00	7.46E+00
		Be-7	<2.98E+01	0.00E+00	2.98E+01
		K-40	9.75E+01	4.47E+01	5.93E+01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
563139	2/21/2022 - 3/21/2022	Beta	<3.22E+00	0.00E+00	3.22E+00
		Mn-54	<3.89E+00	0.00E+00	3.89E+00
		Co-58	<3.84E+00	0.00E+00	3.84E+00
		Fe-59	<5.59E+00	0.00E+00	5.59E+00
		Co-60	<1.95E+00	0.00E+00	1.95E+00
		Zn-65	<9.21E+00	0.00E+00	9.21E+00
		Zr-95	<6.21E+00	0.00E+00	6.21E+00
		Nb-95	<5.65E+00	0.00E+00	5.65E+00
		I-131	<1.16E+01	0.00E+00	1.16E+01
		Cs-134	<4.18E+00	0.00E+00	4.18E+00
		Cs-137	<2.74E+00	0.00E+00	2.74E+00
		BaLa-140	<7.59E+00	0.00E+00	7.59E+00
		Be-7	<2.92E+01	0.00E+00	2.92E+01
		K-40	<5.90E+01	0.00E+00	5.90E+01

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: DRINKING WATER Concentration (Activity): pCi/l

Sample Point 132 [INDICATOR - SSE @ 11.1 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
560630	12/27/2021 - 4/18/2022	H3DW	5.04E+02	1.16E+02	1.72E+02
564650	3/21/2022 - 4/18/2022	Beta	<3.26E+00	0.00E+00	3.26E+00
		Mn-54	<3.44E+00	0.00E+00	3.44E+00
		Co-58	<2.97E+00	0.00E+00	2.97E+00
		Fe-59	<7.35E+00	0.00E+00	7.35E+00
		Co-60	<3.60E+00	0.00E+00	3.60E+00
		Zn-65	<6.62E+00	0.00E+00	6.62E+00
		Zr-95	<5.26E+00	0.00E+00	5.26E+00
		Nb-95	<4.23E+00	0.00E+00	4.23E+00
		I-131	<1.20E+01	0.00E+00	1.20E+01
		Cs-134	<3.37E+00	0.00E+00	3.37E+00
		Cs-137	<3.05E+00	0.00E+00	3.05E+00
		BaLa-140	<8.62E+00	0.00E+00	8.62E+00
		Be-7	<2.75E+01	0.00E+00	2.75E+01
		K-40	4.47E+01	3.31E+01	4.93E+01
566731	4/18/2022 - 5/16/2022	Beta	<3.20E+00	0.00E+00	3.20E+00
		Mn-54	<2.56E+00	0.00E+00	2.56E+00
		Co-58	<3.34E+00	0.00E+00	3.34E+00
		Fe-59	<8.60E+00	0.00E+00	8.60E+00
		Co-60	<3.18E+00	0.00E+00	3.18E+00
		Zn-65	<8.09E+00	0.00E+00	8.09E+00
		Zr-95	<5.91E+00	0.00E+00	5.91E+00
		Nb-95	<4.05E+00	0.00E+00	4.05E+00
		I-131	<1.19E+01	0.00E+00	1.19E+01
		Cs-134	<4.63E+00	0.00E+00	4.63E+00
		Cs-137	<3.20E+00	0.00E+00	3.20E+00
		BaLa-140	<8.47E+00	0.00E+00	8.47E+00
		Be-7	<3.40E+01	0.00E+00	3.40E+01
		K-40	8.29E+01	3.68E+01	4.39E+01
568172	5/16/2022 - 6/13/2022	Beta	<3.17E+00	0.00E+00	3.17E+00
		Mn-54	<3.37E+00	0.00E+00	3.37E+00
		Co-58	<3.40E+00	0.00E+00	3.40E+00
		Fe-59	<6.88E+00	0.00E+00	6.88E+00
		Co-60	<3.36E+00	0.00E+00	3.36E+00
		Zn-65	<6.78E+00	0.00E+00	6.78E+00
		Zr-95	<6.03E+00	0.00E+00	6.03E+00
		Nb-95	<3.24E+00	0.00E+00	3.24E+00
		I-131	<1.10E+01	0.00E+00	1.10E+01
		Cs-134	<3.30E+00	0.00E+00	3.30E+00
		Cs-137	<3.19E+00	0.00E+00	3.19E+00
		BaLa-140	<7.91E+00	0.00E+00	7.91E+00
		Be-7	<2.83E+01	0.00E+00	2.83E+01
		K-40	6.29E+01	3.14E+01	4.00E+01
566508	4/18/2022 - 7/11/2022	H3DW	4.07E+02	1.22E+02	1.87E+02
569999	6/13/2022 - 7/11/2022	Beta	<3.33E+00	0.00E+00	3.33E+00
		Mn-54	<3.27E+00	0.00E+00	3.27E+00
		Co-58	<2.61E+00	0.00E+00	2.61E+00
		Fe-59	<7.04E+00	0.00E+00	7.04E+00
		Co-60	<2.58E+00	0.00E+00	2.58E+00
		Zn-65	<6.63E+00	0.00E+00	6.63E+00
		Zr-95	<7.11E+00	0.00E+00	7.11E+00
		Nb-95	<4.33E+00	0.00E+00	4.33E+00
		I-131	<1.18E+01	0.00E+00	1.18E+01
		Cs-134	<3.18E+00	0.00E+00	3.18E+00
		Cs-137	<3.54E+00	0.00E+00	3.54E+00
		BaLa-140	<6.88E+00	0.00E+00	6.88E+00
		Be-7	<2.74E+01	0.00E+00	2.74E+01

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: DRINKING WATER Concentration (Activity): pCi/l

Sample Point 132 [INDICATOR - SSE @ 11.1 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
569999	6/13/2022 - 7/11/2022	K-40	9.35E+01	4.13E+01	5.18E+01
571536	7/11/2022 - 8/8/2022	Beta	<3.18E+00	0.00E+00	3.18E+00
		Mn-54	<3.23E+00	0.00E+00	3.23E+00
		Co-58	<2.74E+00	0.00E+00	2.74E+00
		Fe-59	<7.37E+00	0.00E+00	7.37E+00
		Co-60	<2.92E+00	0.00E+00	2.92E+00
		Zn-65	<6.06E+00	0.00E+00	6.06E+00
		Zr-95	<5.96E+00	0.00E+00	5.96E+00
		Nb-95	<4.22E+00	0.00E+00	4.22E+00
		I-131	<1.19E+01	0.00E+00	1.19E+01
		Cs-134	<3.70E+00	0.00E+00	3.70E+00
		Cs-137	<3.57E+00	0.00E+00	3.57E+00
		BaLa-140	<8.33E+00	0.00E+00	8.33E+00
		Be-7	<2.59E+01	0.00E+00	2.59E+01
		K-40	9.47E+01	3.65E+01	4.22E+01
574665	8/8/2022 - 9/6/2022	Beta	3.64E+00	4.28E+00	3.21E+00
		Mn-54	<2.49E+00	0.00E+00	2.49E+00
		Co-58	<5.00E+00	0.00E+00	5.00E+00
		Fe-59	<7.99E+00	0.00E+00	7.99E+00
		Co-60	<3.33E+00	0.00E+00	3.33E+00
		Zn-65	<5.29E+00	0.00E+00	5.29E+00
		Zr-95	<9.15E+00	0.00E+00	9.15E+00
		Nb-95	<4.56E+00	0.00E+00	4.56E+00
		I-131	<1.17E+01	0.00E+00	1.17E+01
		Cs-134	<4.83E+00	0.00E+00	4.83E+00
		Cs-137	<4.07E+00	0.00E+00	4.07E+00
		BaLa-140	<1.20E+01	0.00E+00	1.20E+01
		Be-7	<3.76E+01	0.00E+00	3.76E+01
		K-40	<8.38E+01	0.00E+00	8.38E+01
571751	7/11/2022 - 10/3/2022	H3DW	3.91E+02	1.21E+02	1.87E+02
576380	9/6/2022 - 10/3/2022	Beta	<3.21E+00	0.00E+00	3.21E+00
		Mn-54	<3.61E+00	0.00E+00	3.61E+00
		Co-58	<4.24E+00	0.00E+00	4.24E+00
		Fe-59	<5.98E+00	0.00E+00	5.98E+00
		Co-60	<3.63E+00	0.00E+00	3.63E+00
		Zn-65	<9.20E+00	0.00E+00	9.20E+00
		Zr-95	<6.51E+00	0.00E+00	6.51E+00
		Nb-95	<5.50E+00	0.00E+00	5.50E+00
		I-131	<1.13E+01	0.00E+00	1.13E+01
		Cs-134	<4.01E+00	0.00E+00	4.01E+00
		Cs-137	<2.96E+00	0.00E+00	2.96E+00
		BaLa-140	<9.98E+00	0.00E+00	9.98E+00
		Be-7	<3.17E+01	0.00E+00	3.17E+01
		K-40	4.29E+01	3.53E+01	5.34E+01
578729	10/3/2022 - 10/31/2022	Beta	3.42E+00	4.21E+00	3.16E+00
		Mn-54	<2.93E+00	0.00E+00	2.93E+00
		Co-58	<2.69E+00	0.00E+00	2.69E+00
		Fe-59	<6.51E+00	0.00E+00	6.51E+00
		Co-60	<2.83E+00	0.00E+00	2.83E+00
		Zn-65	<4.55E+00	0.00E+00	4.55E+00
		Zr-95	<5.76E+00	0.00E+00	5.76E+00
		Nb-95	<3.62E+00	0.00E+00	3.62E+00
		I-131	<1.20E+01	0.00E+00	1.20E+01
		Cs-134	<3.32E+00	0.00E+00	3.32E+00
		Cs-137	<2.91E+00	0.00E+00	2.91E+00
		BaLa-140	<7.29E+00	0.00E+00	7.29E+00
		Be-7	<2.65E+01	0.00E+00	2.65E+01

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

Report Generated @ 2/15/2023 13:34:28

Duke Energy Annual Report - Appendix E

Appendix E - Page 74 of 114

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: DRINKING WATER Concentration (Activity): pCi/l

Sample Point 132 [INDICATOR - SSE @ 11.1 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
578729	10/3/2022 - 10/31/2022	K-40	1.06E+02	2.92E+01	2.26E+01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
580719	10/31/2022 - 11/28/2022	Beta	4.80E+00	4.23E+00	3.14E+00
		Mn-54	<3.77E+00	0.00E+00	3.77E+00
		Co-58	<3.87E+00	0.00E+00	3.87E+00
		Fe-59	<8.32E+00	0.00E+00	8.32E+00
		Co-60	<2.86E+00	0.00E+00	2.86E+00
		Zn-65	<5.26E+00	0.00E+00	5.26E+00
		Zr-95	<9.21E+00	0.00E+00	9.21E+00
		Nb-95	<5.26E+00	0.00E+00	5.26E+00
		I-131	<1.20E+01	0.00E+00	1.20E+01
		Cs-134	<4.09E+00	0.00E+00	4.09E+00
		Cs-137	<3.59E+00	0.00E+00	3.59E+00
		BaLa-140	<7.01E+00	0.00E+00	7.01E+00
		Be-7	<3.71E+01	0.00E+00	3.71E+01
		K-40	9.47E+01	3.73E+01	4.31E+01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
579155	10/3/2022 - 12/27/2022	H3DW	4.22E+02	1.20E+02	1.83E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
582316	11/28/2022 - 12/27/2022	Beta	<3.18E+00	0.00E+00	3.18E+00
		Mn-54	<2.89E+00	0.00E+00	2.89E+00
		Co-58	<3.55E+00	0.00E+00	3.55E+00
		Fe-59	<5.73E+00	0.00E+00	5.73E+00
		Co-60	<2.00E+00	0.00E+00	2.00E+00
		Zn-65	<4.62E+00	0.00E+00	4.62E+00
		Zr-95	<5.42E+00	0.00E+00	5.42E+00
		Nb-95	<3.84E+00	0.00E+00	3.84E+00
		I-131	<1.12E+01	0.00E+00	1.12E+01
		Cs-134	<3.35E+00	0.00E+00	3.35E+00
		Cs-137	<3.93E+00	0.00E+00	3.93E+00
		BaLa-140	<9.51E+00	0.00E+00	9.51E+00
		Be-7	<2.97E+01	0.00E+00	2.97E+01
		K-40	8.43E+01	3.18E+01	3.77E+01

Sample Point 136 [CONTROL - NNE @ 12.7 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
559456	12/27/2021 - 1/24/2022	Beta	<3.26E+00	0.00E+00	3.26E+00
		Mn-54	<3.28E+00	0.00E+00	3.28E+00
		Co-58	<3.32E+00	0.00E+00	3.32E+00
		Fe-59	<5.22E+00	0.00E+00	5.22E+00
		Co-60	<2.65E+00	0.00E+00	2.65E+00
		Zn-65	<6.16E+00	0.00E+00	6.16E+00
		Zr-95	<6.29E+00	0.00E+00	6.29E+00
		Nb-95	<4.20E+00	0.00E+00	4.20E+00
		I-131	<1.11E+01	0.00E+00	1.11E+01
		Cs-134	<3.17E+00	0.00E+00	3.17E+00
		Cs-137	<3.43E+00	0.00E+00	3.43E+00
		BaLa-140	<8.82E+00	0.00E+00	8.82E+00
		Be-7	<3.16E+01	0.00E+00	3.16E+01
		K-40	1.03E+02	3.80E+01	4.71E+01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
560945	1/24/2022 - 2/21/2022	Beta	<3.20E+00	0.00E+00	3.20E+00
		Mn-54	<2.79E+00	0.00E+00	2.79E+00
		Co-58	<4.15E+00	0.00E+00	4.15E+00
		Fe-59	<7.87E+00	0.00E+00	7.87E+00
		Co-60	<1.58E+00	0.00E+00	1.58E+00
		Zn-65	<5.92E+00	0.00E+00	5.92E+00
		Zr-95	<4.97E+00	0.00E+00	4.97E+00
		Nb-95	<3.12E+00	0.00E+00	3.12E+00
		I-131	<1.12E+01	0.00E+00	1.12E+01
		Cs-134	<3.99E+00	0.00E+00	3.99E+00
		Cs-137	<3.50E+00	0.00E+00	3.50E+00

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: DRINKING WATER Concentration (Activity): pCi/l

Sample Point 136 [CONTROL - NNE @ 12.7 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
560945	1/24/2022 - 2/21/2022	BaLa-140	<6.80E+00	0.00E+00	6.80E+00
		Be-7	<2.51E+01	0.00E+00	2.51E+01
		K-40	5.24E+01	3.08E+01	4.21E+01
563140	2/21/2022 - 3/21/2022	Beta	<3.22E+00	0.00E+00	3.22E+00
		Mn-54	<2.95E+00	0.00E+00	2.95E+00
		Co-58	<2.92E+00	0.00E+00	2.92E+00
		Fe-59	<7.25E+00	0.00E+00	7.25E+00
		Co-60	<2.73E+00	0.00E+00	2.73E+00
		Zn-65	<6.13E+00	0.00E+00	6.13E+00
		Zr-95	<5.94E+00	0.00E+00	5.94E+00
		Nb-95	<4.70E+00	0.00E+00	4.70E+00
		I-131	<1.25E+01	0.00E+00	1.25E+01
		Cs-134	<2.72E+00	0.00E+00	2.72E+00
		Cs-137	<3.42E+00	0.00E+00	3.42E+00
		BaLa-140	<7.26E+00	0.00E+00	7.26E+00
		Be-7	<3.35E+01	0.00E+00	3.35E+01
		K-40	5.80E+01	3.15E+01	4.59E+01
560631	12/27/2021 - 4/18/2022	Nuclide	Activity	2 Sigma Error	MDA
		H3DW	<6.44E+01	0.00E+00	1.72E+02
564651	3/21/2022 - 4/18/2022	Beta	<3.26E+00	0.00E+00	3.26E+00
		Mn-54	<4.01E+00	0.00E+00	4.01E+00
		Co-58	<3.10E+00	0.00E+00	3.10E+00
		Fe-59	<8.28E+00	0.00E+00	8.28E+00
		Co-60	<4.25E+00	0.00E+00	4.25E+00
		Zn-65	<6.45E+00	0.00E+00	6.45E+00
		Zr-95	<7.07E+00	0.00E+00	7.07E+00
		Nb-95	<3.88E+00	0.00E+00	3.88E+00
		I-131	<1.19E+01	0.00E+00	1.19E+01
		Cs-134	<4.45E+00	0.00E+00	4.45E+00
		Cs-137	<4.23E+00	0.00E+00	4.23E+00
		BaLa-140	<7.64E+00	0.00E+00	7.64E+00
		Be-7	<3.09E+01	0.00E+00	3.09E+01
		K-40	4.78E+01	3.59E+01	5.28E+01
566732	4/18/2022 - 5/16/2022	Beta	<3.20E+00	0.00E+00	3.20E+00
		Mn-54	<3.04E+00	0.00E+00	3.04E+00
		Co-58	<3.61E+00	0.00E+00	3.61E+00
		Fe-59	<5.73E+00	0.00E+00	5.73E+00
		Co-60	<3.35E+00	0.00E+00	3.35E+00
		Zn-65	<5.40E+00	0.00E+00	5.40E+00
		Zr-95	<6.68E+00	0.00E+00	6.68E+00
		Nb-95	<4.11E+00	0.00E+00	4.11E+00
		I-131	<1.13E+01	0.00E+00	1.13E+01
		Cs-134	<3.38E+00	0.00E+00	3.38E+00
		Cs-137	<3.39E+00	0.00E+00	3.39E+00
		BaLa-140	<6.44E+00	0.00E+00	6.44E+00
		Be-7	<2.65E+01	0.00E+00	2.65E+01
		K-40	9.64E+01	3.87E+01	4.96E+01
568173	5/16/2022 - 6/13/2022	Beta	<3.17E+00	0.00E+00	3.17E+00
		Mn-54	<2.45E+00	0.00E+00	2.45E+00
		Co-58	<2.02E+00	0.00E+00	2.02E+00
		Fe-59	<5.42E+00	0.00E+00	5.42E+00
		Co-60	<2.53E+00	0.00E+00	2.53E+00
		Zn-65	<4.99E+00	0.00E+00	4.99E+00
		Zr-95	<4.46E+00	0.00E+00	4.46E+00
		Nb-95	<3.03E+00	0.00E+00	3.03E+00
		I-131	<9.45E+00	0.00E+00	9.45E+00
		Cs-134	<2.90E+00	0.00E+00	2.90E+00
		Cs-137	<2.06E+00	0.00E+00	2.06E+00

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: DRINKING WATER Concentration (Activity): pCi/l

Sample Point 136 [CONTROL - NNE @ 12.7 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
568173	5/16/2022 - 6/13/2022	BaLa-140	<5.33E+00	0.00E+00	5.33E+00
		Be-7	<2.40E+01	0.00E+00	2.40E+01
		K-40	1.02E+02	2.89E+01	3.26E+01
566509	4/18/2022 - 7/11/2022	H3DW	<-6.9E+01	0.00E+00	1.86E+02
570000	6/13/2022 - 7/11/2022	Beta	<3.33E+00	0.00E+00	3.33E+00
		Mn-54	<2.82E+00	0.00E+00	2.82E+00
		Co-58	<3.62E+00	0.00E+00	3.62E+00
		Fe-59	<5.88E+00	0.00E+00	5.88E+00
		Co-60	<3.02E+00	0.00E+00	3.02E+00
		Zn-65	<7.43E+00	0.00E+00	7.43E+00
		Zr-95	<5.11E+00	0.00E+00	5.11E+00
		Nb-95	<3.34E+00	0.00E+00	3.34E+00
		I-131	<1.17E+01	0.00E+00	1.17E+01
		Cs-134	<3.45E+00	0.00E+00	3.45E+00
		Cs-137	<2.93E+00	0.00E+00	2.93E+00
		BaLa-140	<4.93E+00	0.00E+00	4.93E+00
		Be-7	<2.69E+01	0.00E+00	2.69E+01
		K-40	<6.82E+01	0.00E+00	6.82E+01
		571537	7/11/2022 - 8/8/2022	Beta	<3.18E+00
Mn-54	<3.88E+00			0.00E+00	3.88E+00
Co-58	<3.66E+00			0.00E+00	3.66E+00
Fe-59	<7.34E+00			0.00E+00	7.34E+00
Co-60	<4.23E+00			0.00E+00	4.23E+00
Zn-65	<6.43E+00			0.00E+00	6.43E+00
Zr-95	<7.34E+00			0.00E+00	7.34E+00
Nb-95	<4.45E+00			0.00E+00	4.45E+00
I-131	<1.20E+01			0.00E+00	1.20E+01
Cs-134	<4.58E+00			0.00E+00	4.58E+00
Cs-137	<3.51E+00			0.00E+00	3.51E+00
BaLa-140	<8.51E+00			0.00E+00	8.51E+00
Be-7	<2.71E+01			0.00E+00	2.71E+01
K-40	6.56E+01			3.34E+01	4.00E+01
574666	8/8/2022 - 9/6/2022			Beta	<3.21E+00
		Mn-54	<2.89E+00	0.00E+00	2.89E+00
		Co-58	<2.84E+00	0.00E+00	2.84E+00
		Fe-59	<4.55E+00	0.00E+00	4.55E+00
		Co-60	<2.53E+00	0.00E+00	2.53E+00
		Zn-65	<6.28E+00	0.00E+00	6.28E+00
		Zr-95	<5.55E+00	0.00E+00	5.55E+00
		Nb-95	<3.59E+00	0.00E+00	3.59E+00
		I-131	<1.14E+01	0.00E+00	1.14E+01
		Cs-134	<3.34E+00	0.00E+00	3.34E+00
		Cs-137	<2.74E+00	0.00E+00	2.74E+00
		BaLa-140	<5.23E+00	0.00E+00	5.23E+00
		Be-7	<2.86E+01	0.00E+00	2.86E+01
		K-40	8.68E+01	3.17E+01	3.77E+01
		571752	7/11/2022 - 10/3/2022	H3DW	<6.81E+01
576381	9/6/2022 - 10/3/2022	Beta	3.88E+00	4.29E+00	3.21E+00
		Mn-54	<3.37E+00	0.00E+00	3.37E+00
		Co-58	<4.16E+00	0.00E+00	4.16E+00
		Fe-59	<6.87E+00	0.00E+00	6.87E+00
		Co-60	<2.93E+00	0.00E+00	2.93E+00
		Zn-65	<7.44E+00	0.00E+00	7.44E+00
		Zr-95	<6.65E+00	0.00E+00	6.65E+00
		Nb-95	<5.07E+00	0.00E+00	5.07E+00

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: DRINKING WATER Concentration (Activity): pCi/l

Sample Point 136 [CONTROL - NNE @ 12.7 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
576381	9/6/2022 - 10/3/2022	I-131	<1.07E+01	0.00E+00	1.07E+01
		Cs-134	<4.62E+00	0.00E+00	4.62E+00
		Cs-137	<3.75E+00	0.00E+00	3.75E+00
		BaLa-140	<7.22E+00	0.00E+00	7.22E+00
		Be-7	<3.17E+01	0.00E+00	3.17E+01
		K-40	<5.61E+01	0.00E+00	5.61E+01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
578730	10/3/2022 - 10/31/2022	Beta	<3.16E+00	0.00E+00	3.16E+00
		Mn-54	<3.44E+00	0.00E+00	3.44E+00
		Co-58	<2.98E+00	0.00E+00	2.98E+00
		Fe-59	<5.95E+00	0.00E+00	5.95E+00
		Co-60	<2.30E+00	0.00E+00	2.30E+00
		Zn-65	<5.29E+00	0.00E+00	5.29E+00
		Zr-95	<4.21E+00	0.00E+00	4.21E+00
		Nb-95	<4.24E+00	0.00E+00	4.24E+00
		I-131	<1.11E+01	0.00E+00	1.11E+01
		Cs-134	<3.65E+00	0.00E+00	3.65E+00
		Cs-137	<2.62E+00	0.00E+00	2.62E+00
		BaLa-140	<7.67E+00	0.00E+00	7.67E+00
		Be-7	<2.85E+01	0.00E+00	2.85E+01
		K-40	6.83E+01	3.31E+01	4.36E+01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
580720	10/31/2022 - 11/28/2022	Beta	4.41E+00	4.22E+00	3.14E+00
		Mn-54	<2.97E+00	0.00E+00	2.97E+00
		Co-58	<3.71E+00	0.00E+00	3.71E+00
		Fe-59	<5.82E+00	0.00E+00	5.82E+00
		Co-60	<3.17E+00	0.00E+00	3.17E+00
		Zn-65	<7.31E+00	0.00E+00	7.31E+00
		Zr-95	<5.14E+00	0.00E+00	5.14E+00
		Nb-95	<4.25E+00	0.00E+00	4.25E+00
		I-131	<1.16E+01	0.00E+00	1.16E+01
		Cs-134	<3.63E+00	0.00E+00	3.63E+00
		Cs-137	<2.67E+00	0.00E+00	2.67E+00
		BaLa-140	<7.92E+00	0.00E+00	7.92E+00
		Be-7	<3.08E+01	0.00E+00	3.08E+01
		K-40	5.51E+01	3.61E+01	5.29E+01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
579156	10/3/2022 - 12/27/2022	H3DW	<1.16E+01	0.00E+00	1.81E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
582317	11/28/2022 - 12/27/2022	Beta	3.75E+00	4.26E+00	3.18E+00
		Mn-54	<3.26E+00	0.00E+00	3.26E+00
		Co-58	<3.23E+00	0.00E+00	3.23E+00
		Fe-59	<8.61E+00	0.00E+00	8.61E+00
		Co-60	<3.57E+00	0.00E+00	3.57E+00
		Zn-65	<6.89E+00	0.00E+00	6.89E+00
		Zr-95	<5.97E+00	0.00E+00	5.97E+00
		Nb-95	<4.31E+00	0.00E+00	4.31E+00
		I-131	<1.20E+01	0.00E+00	1.20E+01
		Cs-134	<4.07E+00	0.00E+00	4.07E+00
		Cs-137	<2.94E+00	0.00E+00	2.94E+00
		BaLa-140	<8.67E+00	0.00E+00	8.67E+00
		Be-7	<3.12E+01	0.00E+00	3.12E+01
		K-40	<6.20E+01	0.00E+00	6.20E+01

Sample Point 194 [INDICATOR - NNW @ 6.73 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
559457	12/27/2021 - 1/24/2022	Beta	<3.26E+00	0.00E+00	3.26E+00
		Mn-54	<3.07E+00	0.00E+00	3.07E+00
		Co-58	<3.82E+00	0.00E+00	3.82E+00
		Fe-59	<6.79E+00	0.00E+00	6.79E+00
		Co-60	<3.33E+00	0.00E+00	3.33E+00
		Zn-65	<6.06E+00	0.00E+00	6.06E+00

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: DRINKING WATER Concentration (Activity): pCi/l

Sample Point 194 [INDICATOR - NNW @ 6.73 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
559457	12/27/2021 - 1/24/2022	Zr-95	<6.49E+00	0.00E+00	6.49E+00
		Nb-95	<3.09E+00	0.00E+00	3.09E+00
		I-131	<1.09E+01	0.00E+00	1.09E+01
		Cs-134	<2.68E+00	0.00E+00	2.68E+00
		Cs-137	<3.57E+00	0.00E+00	3.57E+00
		BaLa-140	<8.02E+00	0.00E+00	8.02E+00
		Be-7	<2.93E+01	0.00E+00	2.93E+01
		K-40	1.14E+02	3.67E+01	3.81E+01
		560946	1/24/2022 - 2/21/2022	Beta	<3.20E+00
Mn-54	<3.27E+00			0.00E+00	3.27E+00
Co-58	<4.97E+00			0.00E+00	4.97E+00
Fe-59	<8.08E+00			0.00E+00	8.08E+00
Co-60	<4.16E+00			0.00E+00	4.16E+00
Zn-65	<7.63E+00			0.00E+00	7.63E+00
Zr-95	<6.03E+00			0.00E+00	6.03E+00
Nb-95	<4.91E+00			0.00E+00	4.91E+00
I-131	<1.19E+01			0.00E+00	1.19E+01
Cs-134	<4.30E+00			0.00E+00	4.30E+00
Cs-137	<3.76E+00			0.00E+00	3.76E+00
BaLa-140	<6.76E+00			0.00E+00	6.76E+00
Be-7	<3.47E+01			0.00E+00	3.47E+01
K-40	<7.38E+01			0.00E+00	7.38E+01
563141	2/21/2022 - 3/21/2022			Beta	<3.22E+00
		Mn-54	<3.83E+00	0.00E+00	3.83E+00
		Co-58	<5.22E+00	0.00E+00	5.22E+00
		Fe-59	<9.94E+00	0.00E+00	9.94E+00
		Co-60	<3.66E+00	0.00E+00	3.66E+00
		Zn-65	<7.63E+00	0.00E+00	7.63E+00
		Zr-95	<8.84E+00	0.00E+00	8.84E+00
		Nb-95	<5.01E+00	0.00E+00	5.01E+00
		I-131	<1.19E+01	0.00E+00	1.19E+01
		Cs-134	<5.02E+00	0.00E+00	5.02E+00
		Cs-137	<4.28E+00	0.00E+00	4.28E+00
		BaLa-140	<1.03E+01	0.00E+00	1.03E+01
		Be-7	<3.36E+01	0.00E+00	3.36E+01
		K-40	9.53E+01	4.68E+01	6.30E+01
		560632	12/27/2021 - 4/18/2022	H3DW	2.06E+02
564652	3/21/2022 - 4/18/2022	Beta	<3.26E+00	0.00E+00	3.26E+00
		Mn-54	<3.31E+00	0.00E+00	3.31E+00
		Co-58	<2.81E+00	0.00E+00	2.81E+00
		Fe-59	<6.65E+00	0.00E+00	6.65E+00
		Co-60	<3.62E+00	0.00E+00	3.62E+00
		Zn-65	<6.28E+00	0.00E+00	6.28E+00
		Zr-95	<6.03E+00	0.00E+00	6.03E+00
		Nb-95	<3.13E+00	0.00E+00	3.13E+00
		I-131	<1.18E+01	0.00E+00	1.18E+01
		Cs-134	<3.42E+00	0.00E+00	3.42E+00
		Cs-137	<3.81E+00	0.00E+00	3.81E+00
		BaLa-140	<7.22E+00	0.00E+00	7.22E+00
		Be-7	<2.76E+01	0.00E+00	2.76E+01
		K-40	9.30E+01	3.88E+01	4.69E+01
		566733	4/18/2022 - 5/16/2022	Beta	<3.20E+00
Mn-54	<2.85E+00			0.00E+00	2.85E+00
Co-58	<3.53E+00			0.00E+00	3.53E+00
Fe-59	<7.45E+00			0.00E+00	7.45E+00
Co-60	<3.29E+00			0.00E+00	3.29E+00
Zn-65	<6.01E+00			0.00E+00	6.01E+00

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: DRINKING WATER Concentration (Activity): pCi/l

Sample Point 194 [INDICATOR - NNW @ 6.73 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
566733	4/18/2022 - 5/16/2022	Zr-95	<5.76E+00	0.00E+00	5.76E+00
		Nb-95	<4.83E+00	0.00E+00	4.83E+00
		I-131	<1.06E+01	0.00E+00	1.06E+01
		Cs-134	<3.56E+00	0.00E+00	3.56E+00
		Cs-137	<1.87E+00	0.00E+00	1.87E+00
		BaLa-140	<9.06E+00	0.00E+00	9.06E+00
		Be-7	<3.27E+01	0.00E+00	3.27E+01
		K-40	<5.99E+01	0.00E+00	5.99E+01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
568174	5/16/2022 - 6/13/2022	Beta	3.73E+00	4.24E+00	3.17E+00
		Mn-54	<2.69E+00	0.00E+00	2.69E+00
		Co-58	<2.77E+00	0.00E+00	2.77E+00
		Fe-59	<4.78E+00	0.00E+00	4.78E+00
		Co-60	<1.77E+00	0.00E+00	1.77E+00
		Zn-65	<5.44E+00	0.00E+00	5.44E+00
		Zr-95	<4.37E+00	0.00E+00	4.37E+00
		Nb-95	<3.03E+00	0.00E+00	3.03E+00
		I-131	<9.48E+00	0.00E+00	9.48E+00
		Cs-134	<3.10E+00	0.00E+00	3.10E+00
		Cs-137	<2.67E+00	0.00E+00	2.67E+00
		BaLa-140	<5.37E+00	0.00E+00	5.37E+00
		Be-7	<2.36E+01	0.00E+00	2.36E+01
		K-40	1.07E+02	3.10E+01	3.59E+01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
566510	4/18/2022 - 7/11/2022	H3DW	<7.45E+01	0.00E+00	1.88E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
570001	6/13/2022 - 7/11/2022	Beta	<3.33E+00	0.00E+00	3.33E+00
		Mn-54	<2.38E+00	0.00E+00	2.38E+00
		Co-58	<2.89E+00	0.00E+00	2.89E+00
		Fe-59	<6.00E+00	0.00E+00	6.00E+00
		Co-60	<2.71E+00	0.00E+00	2.71E+00
		Zn-65	<7.17E+00	0.00E+00	7.17E+00
		Zr-95	<5.27E+00	0.00E+00	5.27E+00
		Nb-95	<4.17E+00	0.00E+00	4.17E+00
		I-131	<1.08E+01	0.00E+00	1.08E+01
		Cs-134	<3.15E+00	0.00E+00	3.15E+00
		Cs-137	<2.32E+00	0.00E+00	2.32E+00
		BaLa-140	<5.40E+00	0.00E+00	5.40E+00
		Be-7	<2.36E+01	0.00E+00	2.36E+01
		K-40	6.65E+01	3.09E+01	4.05E+01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
571538	7/11/2022 - 8/8/2022	Beta	<3.18E+00	0.00E+00	3.18E+00
		Mn-54	<3.88E+00	0.00E+00	3.88E+00
		Co-58	<3.93E+00	0.00E+00	3.93E+00
		Fe-59	<6.73E+00	0.00E+00	6.73E+00
		Co-60	<3.77E+00	0.00E+00	3.77E+00
		Zn-65	<6.92E+00	0.00E+00	6.92E+00
		Zr-95	<6.28E+00	0.00E+00	6.28E+00
		Nb-95	<5.60E+00	0.00E+00	5.60E+00
		I-131	<1.17E+01	0.00E+00	1.17E+01
		Cs-134	<4.14E+00	0.00E+00	4.14E+00
		Cs-137	<4.30E+00	0.00E+00	4.30E+00
		BaLa-140	<1.07E+01	0.00E+00	1.07E+01
		Be-7	<2.88E+01	0.00E+00	2.88E+01
		K-40	5.54E+01	2.81E+01	2.69E+01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
574667	8/8/2022 - 9/6/2022	Beta	<3.21E+00	0.00E+00	3.21E+00
		Mn-54	<3.48E+00	0.00E+00	3.48E+00
		Co-58	<3.19E+00	0.00E+00	3.19E+00
		Fe-59	<7.60E+00	0.00E+00	7.60E+00
		Co-60	<3.57E+00	0.00E+00	3.57E+00
		Zn-65	<7.39E+00	0.00E+00	7.39E+00

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: DRINKING WATER Concentration (Activity): pCi/l

Sample Point 194 [INDICATOR - NNW @ 6.73 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
574667	8/8/2022 - 9/6/2022	Zr-95	<5.45E+00	0.00E+00	5.45E+00
		Nb-95	<3.84E+00	0.00E+00	3.84E+00
		I-131	<1.19E+01	0.00E+00	1.19E+01
		Cs-134	<3.66E+00	0.00E+00	3.66E+00
		Cs-137	<3.22E+00	0.00E+00	3.22E+00
		BaLa-140	<1.01E+01	0.00E+00	1.01E+01
		Be-7	<3.11E+01	0.00E+00	3.11E+01
		K-40	8.40E+01	3.38E+01	3.81E+01
571753	7/11/2022 - 10/3/2022	H3DW	<1.37E+02	0.00E+00	1.87E+02
576382	9/6/2022 - 10/3/2022	Beta	<3.21E+00	0.00E+00	3.21E+00
		Mn-54	<3.09E+00	0.00E+00	3.09E+00
		Co-58	<3.40E+00	0.00E+00	3.40E+00
		Fe-59	<6.15E+00	0.00E+00	6.15E+00
		Co-60	<2.16E+00	0.00E+00	2.16E+00
		Zn-65	<7.40E+00	0.00E+00	7.40E+00
		Zr-95	<5.84E+00	0.00E+00	5.84E+00
		Nb-95	<4.08E+00	0.00E+00	4.08E+00
		I-131	<1.04E+01	0.00E+00	1.04E+01
		Cs-134	<3.23E+00	0.00E+00	3.23E+00
		Cs-137	<3.01E+00	0.00E+00	3.01E+00
		BaLa-140	<7.25E+00	0.00E+00	7.25E+00
		Be-7	<2.77E+01	0.00E+00	2.77E+01
		K-40	4.86E+01	3.30E+01	4.86E+01
578731	10/3/2022 - 10/31/2022	Beta	<3.16E+00	0.00E+00	3.16E+00
		Mn-54	<2.52E+00	0.00E+00	2.52E+00
		Co-58	<2.89E+00	0.00E+00	2.89E+00
		Fe-59	<7.13E+00	0.00E+00	7.13E+00
		Co-60	<3.08E+00	0.00E+00	3.08E+00
		Zn-65	<5.03E+00	0.00E+00	5.03E+00
		Zr-95	<6.19E+00	0.00E+00	6.19E+00
		Nb-95	<3.68E+00	0.00E+00	3.68E+00
		I-131	<1.12E+01	0.00E+00	1.12E+01
		Cs-134	<3.77E+00	0.00E+00	3.77E+00
		Cs-137	<3.44E+00	0.00E+00	3.44E+00
		BaLa-140	<6.77E+00	0.00E+00	6.77E+00
		Be-7	<2.79E+01	0.00E+00	2.79E+01
		K-40	5.14E+01	2.72E+01	3.50E+01
580721	10/31/2022 - 11/28/2022	Beta	3.94E+00	4.21E+00	3.14E+00
		Mn-54	<4.23E+00	0.00E+00	4.23E+00
		Co-58	<3.95E+00	0.00E+00	3.95E+00
		Fe-59	<9.36E+00	0.00E+00	9.36E+00
		Co-60	<5.12E+00	0.00E+00	5.12E+00
		Zn-65	<8.82E+00	0.00E+00	8.82E+00
		Zr-95	<5.95E+00	0.00E+00	5.95E+00
		Nb-95	<6.07E+00	0.00E+00	6.07E+00
		I-131	<1.15E+01	0.00E+00	1.15E+01
		Cs-134	<3.97E+00	0.00E+00	3.97E+00
		Cs-137	<4.63E+00	0.00E+00	4.63E+00
		BaLa-140	<1.09E+01	0.00E+00	1.09E+01
		Be-7	<4.06E+01	0.00E+00	4.06E+01
		K-40	5.74E+01	4.28E+01	6.20E+01
579157	10/3/2022 - 12/27/2022	H3DW	<1.12E+02	0.00E+00	1.81E+02
582318	11/28/2022 - 12/27/2022	Beta	3.49E+00	4.25E+00	3.18E+00
		Mn-54	<3.64E+00	0.00E+00	3.64E+00
		Co-58	<3.05E+00	0.00E+00	3.05E+00

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: DRINKING WATER Concentration (Activity): pCi/l

Sample Point 194 [INDICATOR - NNW @ 6.73 miles]

Sample ID:	582318	Sample Dates:	11/28/2022 - 12/27/2022	Nuclide	Activity	2 Sigma Error	MDA
				Fe-59	<6.24E+00	0.00E+00	6.24E+00
				Co-60	<2.28E+00	0.00E+00	2.28E+00
				Zn-65	<7.59E+00	0.00E+00	7.59E+00
				Zr-95	<5.18E+00	0.00E+00	5.18E+00
				Nb-95	<4.30E+00	0.00E+00	4.30E+00
				I-131	<1.34E+01	0.00E+00	1.34E+01
				Cs-134	<2.11E+00	0.00E+00	2.11E+00
				Cs-137	<2.68E+00	0.00E+00	2.68E+00
				BaLa-140	<8.14E+00	0.00E+00	8.14E+00
				Be-7	<3.24E+01	0.00E+00	3.24E+01
				K-40	6.43E+01	3.44E+01	4.66E+01

Media Type: FISH Concentration (Activity): pCi/kg

Sample Point 129 [INDICATOR - ENE @ 0.51 miles]

Sample ID:	564481	Sample Dates:	4/11/2022 - 4/11/2022	FREESWIM	Nuclide	Activity	2 Sigma Error	MDA
					Mn-54	<4.79E+01	0.00E+00	4.79E+01
					Co-58	<5.63E+01	0.00E+00	5.63E+01
					Fe-59	<9.96E+01	0.00E+00	9.96E+01
					Co-60	<5.89E+01	0.00E+00	5.89E+01
					Zn-65	<8.20E+01	0.00E+00	8.20E+01
					Nb-95	<6.07E+01	0.00E+00	6.07E+01
					I-131	<2.04E+02	0.00E+00	2.04E+02
					Cs-134	<5.29E+01	0.00E+00	5.29E+01
					Cs-137	<6.29E+01	0.00E+00	6.29E+01
					Be-7	<4.81E+02	0.00E+00	4.81E+02
					K-40	4.42E+03	1.06E+03	9.58E+02
					Ag-110M	<5.53E+01	0.00E+00	5.53E+01
					Sb-122	<4.93E+03	0.00E+00	4.93E+03
					Sb-125	<1.44E+02	0.00E+00	1.44E+02

Sample ID:	564482	Sample Dates:	4/11/2022 - 4/11/2022	FREESWIM	Nuclide	Activity	2 Sigma Error	MDA
					Mn-54	<5.90E+01	0.00E+00	5.90E+01
					Co-58	<5.13E+01	0.00E+00	5.13E+01
					Fe-59	<1.17E+02	0.00E+00	1.17E+02
					Co-60	<4.80E+01	0.00E+00	4.80E+01
					Zn-65	<1.42E+02	0.00E+00	1.42E+02
					Nb-95	<6.54E+01	0.00E+00	6.54E+01
					I-131	<2.50E+02	0.00E+00	2.50E+02
					Cs-134	<5.06E+01	0.00E+00	5.06E+01
					Cs-137	<4.65E+01	0.00E+00	4.65E+01
					Be-7	<5.46E+02	0.00E+00	5.46E+02
					K-40	4.81E+03	1.03E+03	5.07E+02
					Ag-110M	<4.32E+01	0.00E+00	4.32E+01
					Sb-122	<3.61E+03	0.00E+00	3.61E+03
					Sb-125	<1.44E+02	0.00E+00	1.44E+02

Sample ID:	564492	Sample Dates:	4/11/2022 - 4/11/2022	BOTMFEEDER	Nuclide	Activity	2 Sigma Error	MDA
					Mn-54	<5.96E+01	0.00E+00	5.96E+01
					Co-58	<6.89E+01	0.00E+00	6.89E+01
					Fe-59	<1.32E+02	0.00E+00	1.32E+02
					Co-60	<6.58E+01	0.00E+00	6.58E+01
					Zn-65	<1.21E+02	0.00E+00	1.21E+02
					Nb-95	<7.31E+01	0.00E+00	7.31E+01
					I-131	<2.49E+02	0.00E+00	2.49E+02
					Cs-134	<6.79E+01	0.00E+00	6.79E+01
					Cs-137	<6.38E+01	0.00E+00	6.38E+01
					Be-7	<6.37E+02	0.00E+00	6.37E+02
					K-40	4.85E+03	9.77E+02	1.11E+02
					Ag-110M	<5.45E+01	0.00E+00	5.45E+01
					Sb-122	<5.13E+03	0.00E+00	5.13E+03
					Sb-125	<1.57E+02	0.00E+00	1.57E+02

Sample ID:	577112	Sample Dates:	10/4/2022 - 10/4/2022	FREESWIM	Nuclide	Activity	2 Sigma Error	MDA
					Mn-54	<5.82E+01	0.00E+00	5.82E+01
					Co-58	<4.98E+01	0.00E+00	4.98E+01
					Fe-59	<6.88E+01	0.00E+00	6.88E+01

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: FISH Concentration (Activity): pCi/kg

Sample Point 129 [INDICATOR - ENE @ 0.51 miles]

Sample ID:	Sample Dates:	FREESWIM	Nuclide	Activity	2 Sigma Error	MDA
577112	10/4/2022 - 10/4/2022		Co-60	<4.39E+01	0.00E+00	4.39E+01
			Zn-65	<1.45E+02	0.00E+00	1.45E+02
			Nb-95	<7.20E+01	0.00E+00	7.20E+01
			I-131	<5.42E+01	0.00E+00	5.42E+01
			Cs-134	<7.81E+01	0.00E+00	7.81E+01
			Cs-137	<4.95E+01	0.00E+00	4.95E+01
			Be-7	<5.21E+02	0.00E+00	5.21E+02
			K-40	4.87E+03	1.04E+03	1.28E+02
			Ag-110M	<4.13E+01	0.00E+00	4.13E+01
			Sb-122	<9.52E+01	0.00E+00	9.52E+01
			Sb-125	<1.53E+02	0.00E+00	1.53E+02

Sample ID:	Sample Dates:	FREESWIM	Nuclide	Activity	2 Sigma Error	MDA
577113	10/4/2022 - 10/4/2022		Mn-54	<7.83E+01	0.00E+00	7.83E+01
			Co-58	<5.29E+01	0.00E+00	5.29E+01
			Fe-59	<1.18E+02	0.00E+00	1.18E+02
			Co-60	<9.37E+01	0.00E+00	9.37E+01
			Zn-65	<1.24E+02	0.00E+00	1.24E+02
			Nb-95	<7.94E+01	0.00E+00	7.94E+01
			I-131	<6.10E+01	0.00E+00	6.10E+01
			Cs-134	<7.72E+01	0.00E+00	7.72E+01
			Cs-137	<6.48E+01	0.00E+00	6.48E+01
			Be-7	<4.43E+02	0.00E+00	4.43E+02
			K-40	5.25E+03	1.18E+03	6.42E+02
			Ag-110M	<6.23E+01	0.00E+00	6.23E+01
			Sb-122	<8.74E+01	0.00E+00	8.74E+01
			Sb-125	<1.89E+02	0.00E+00	1.89E+02

Sample ID:	Sample Dates:	BOTMFEEDER	Nuclide	Activity	2 Sigma Error	MDA
577125	10/4/2022 - 10/4/2022		Mn-54	<6.38E+01	0.00E+00	6.38E+01
			Co-58	<7.15E+01	0.00E+00	7.15E+01
			Fe-59	<1.27E+02	0.00E+00	1.27E+02
			Co-60	<7.58E+01	0.00E+00	7.58E+01
			Zn-65	<1.50E+02	0.00E+00	1.50E+02
			Nb-95	<4.82E+01	0.00E+00	4.82E+01
			I-131	<4.49E+01	0.00E+00	4.49E+01
			Cs-134	<6.84E+01	0.00E+00	6.84E+01
			Cs-137	<5.31E+01	0.00E+00	5.31E+01
			Be-7	<4.61E+02	0.00E+00	4.61E+02
			K-40	4.75E+03	1.13E+03	6.71E+02
			Ag-110M	<5.58E+01	0.00E+00	5.58E+01
			Sb-122	<1.28E+02	0.00E+00	1.28E+02
			Sb-125	<1.58E+02	0.00E+00	1.58E+02

Sample Point 137 [CONTROL - N @ 12 miles]

Sample ID:	Sample Dates:	FREESWIM	Nuclide	Activity	2 Sigma Error	MDA
564483	4/12/2022 - 4/12/2022		Mn-54	<4.49E+01	0.00E+00	4.49E+01
			Co-58	<5.54E+01	0.00E+00	5.54E+01
			Fe-59	<1.40E+02	0.00E+00	1.40E+02
			Co-60	<4.41E+01	0.00E+00	4.41E+01
			Zn-65	<9.82E+01	0.00E+00	9.82E+01
			Nb-95	<5.92E+01	0.00E+00	5.92E+01
			I-131	<1.46E+02	0.00E+00	1.46E+02
			Cs-134	<6.44E+01	0.00E+00	6.44E+01
			Cs-137	<4.53E+01	0.00E+00	4.53E+01
			Be-7	<5.19E+02	0.00E+00	5.19E+02
			K-40	3.92E+03	9.16E+02	6.39E+02
			Ag-110M	<4.19E+01	0.00E+00	4.19E+01
			Sb-122	<3.48E+03	0.00E+00	3.48E+03
			Sb-125	<1.17E+02	0.00E+00	1.17E+02

Sample ID:	Sample Dates:	FREESWIM	Nuclide	Activity	2 Sigma Error	MDA
564484	4/12/2022 - 4/12/2022		Mn-54	<3.91E+01	0.00E+00	3.91E+01
			Co-58	<3.95E+01	0.00E+00	3.95E+01
			Fe-59	<9.17E+01	0.00E+00	9.17E+01
			Co-60	<4.65E+01	0.00E+00	4.65E+01

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: FISH Concentration (Activity): pCi/kg

Sample Point 137 [CONTROL - N @ 12 miles]

Sample ID:	564484	Sample Dates:	4/12/2022 - 4/12/2022	FREESWIM	Nuclide	Activity	2 Sigma Error	MDA
					Zn-65	<9.76E+01	0.00E+00	9.76E+01
					Nb-95	<6.32E+01	0.00E+00	6.32E+01
					I-131	<1.35E+02	0.00E+00	1.35E+02
					Cs-134	<4.79E+01	0.00E+00	4.79E+01
					Cs-137	<4.32E+01	0.00E+00	4.32E+01
					Be-7	<3.80E+02	0.00E+00	3.80E+02
					K-40	2.69E+03	7.09E+02	5.56E+02
					Ag-110M	<4.00E+01	0.00E+00	4.00E+01
					Sb-122	<2.26E+03	0.00E+00	2.26E+03
					Sb-125	<9.05E+01	0.00E+00	9.05E+01

Sample ID:	564493	Sample Dates:	4/12/2022 - 4/12/2022	BOTMFEEDER	Nuclide	Activity	2 Sigma Error	MDA
					Mn-54	<6.25E+01	0.00E+00	6.25E+01
					Co-58	<5.47E+01	0.00E+00	5.47E+01
					Fe-59	<1.01E+02	0.00E+00	1.01E+02
					Co-60	<6.41E+01	0.00E+00	6.41E+01
					Zn-65	<1.30E+02	0.00E+00	1.30E+02
					Nb-95	<5.81E+01	0.00E+00	5.81E+01
					I-131	<2.00E+02	0.00E+00	2.00E+02
					Cs-134	<5.15E+01	0.00E+00	5.15E+01
					Cs-137	<6.81E+01	0.00E+00	6.81E+01
					Be-7	<5.76E+02	0.00E+00	5.76E+02
					K-40	4.20E+03	1.04E+03	9.40E+02
					Ag-110M	<5.16E+01	0.00E+00	5.16E+01
					Sb-122	<3.86E+03	0.00E+00	3.86E+03
					Sb-125	<1.31E+02	0.00E+00	1.31E+02

Sample ID:	577114	Sample Dates:	10/4/2022 - 10/4/2022	FREESWIM	Nuclide	Activity	2 Sigma Error	MDA
					Mn-54	<5.54E+01	0.00E+00	5.54E+01
					Co-58	<5.78E+01	0.00E+00	5.78E+01
					Fe-59	<1.16E+02	0.00E+00	1.16E+02
					Co-60	<6.95E+01	0.00E+00	6.95E+01
					Zn-65	<1.57E+02	0.00E+00	1.57E+02
					Nb-95	<5.03E+01	0.00E+00	5.03E+01
					I-131	<6.02E+01	0.00E+00	6.02E+01
					Cs-134	<6.86E+01	0.00E+00	6.86E+01
					Cs-137	<4.86E+01	0.00E+00	4.86E+01
					Be-7	<3.76E+02	0.00E+00	3.76E+02
					K-40	4.57E+03	1.11E+03	8.51E+02
					Ag-110M	<4.86E+01	0.00E+00	4.86E+01
					Sb-122	<7.03E+01	0.00E+00	7.03E+01
					Sb-125	<1.55E+02	0.00E+00	1.55E+02

Sample ID:	577115	Sample Dates:	10/4/2022 - 10/4/2022	FREESWIM	Nuclide	Activity	2 Sigma Error	MDA
					Mn-54	<5.29E+01	0.00E+00	5.29E+01
					Co-58	<5.59E+01	0.00E+00	5.59E+01
					Fe-59	<9.94E+01	0.00E+00	9.94E+01
					Co-60	<6.92E+01	0.00E+00	6.92E+01
					Zn-65	<1.31E+02	0.00E+00	1.31E+02
					Nb-95	<6.77E+01	0.00E+00	6.77E+01
					I-131	<6.07E+01	0.00E+00	6.07E+01
					Cs-134	<5.96E+01	0.00E+00	5.96E+01
					Cs-137	<3.98E+01	0.00E+00	3.98E+01
					Be-7	<5.13E+02	0.00E+00	5.13E+02
					K-40	4.52E+03	1.08E+03	6.23E+02
					Ag-110M	<6.19E+01	0.00E+00	6.19E+01
					Sb-122	<8.90E+01	0.00E+00	8.90E+01
					Sb-125	<1.35E+02	0.00E+00	1.35E+02

Sample ID:	577126	Sample Dates:	10/4/2022 - 10/4/2022	BOTMFEEDER	Nuclide	Activity	2 Sigma Error	MDA
					Mn-54	<8.20E+01	0.00E+00	8.20E+01
					Co-58	<7.24E+01	0.00E+00	7.24E+01
					Fe-59	<1.24E+02	0.00E+00	1.24E+02
					Co-60	<6.94E+01	0.00E+00	6.94E+01
					Zn-65	<1.55E+02	0.00E+00	1.55E+02
					Nb-95	<6.51E+01	0.00E+00	6.51E+01
					I-131	<5.64E+01	0.00E+00	5.64E+01

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

Report Generated @ 2/15/2023 13:34:28

Duke Energy Annual Report - Appendix E

Appendix E - Page 84 of 114

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: FISH Concentration (Activity): pCi/kg

Sample Point 137 [CONTROL - N @ 12 miles]

Sample ID:	577126	Sample Dates:	10/4/2022 - 10/4/2022	BOTMFEEDER	Nuclide	Activity	2 Sigma Error	MDA
					Cs-134	<7.04E+01	0.00E+00	7.04E+01
					Cs-137	<9.06E+01	0.00E+00	9.06E+01
					Be-7	<4.71E+02	0.00E+00	4.71E+02
					K-40	5.49E+03	1.35E+03	1.27E+03
					Ag-110M	<5.47E+01	0.00E+00	5.47E+01
					Sb-122	<1.01E+02	0.00E+00	1.01E+02
					Sb-125	<1.91E+02	0.00E+00	1.91E+02

Media Type: SEDIMENT_SHORE Concentration (Activity): pCi/kg

Sample Point 129 [INDICATOR - ENE @ 0.51 miles]

Sample ID:	562887	Sample Dates:	4/11/2022 - 4/11/2022		Nuclide	Activity	2 Sigma Error	MDA
					Mn-54	<4.05E+01	0.00E+00	4.05E+01
					Co-58	<4.75E+01	0.00E+00	4.75E+01
					Fe-59	<9.34E+01	0.00E+00	9.34E+01
					Co-60	<3.39E+01	0.00E+00	3.39E+01
					Zn-65	<9.19E+01	0.00E+00	9.19E+01
					Zr-95	<8.45E+01	0.00E+00	8.45E+01
					Nb-95	<9.29E+01	0.00E+00	9.29E+01
					I-131	<2.84E+02	0.00E+00	2.84E+02
					Cs-134	<6.43E+01	0.00E+00	6.43E+01
					Cs-137	<4.47E+01	0.00E+00	4.47E+01
					Be-7	<5.02E+02	0.00E+00	5.02E+02
					K-40	1.61E+03	5.93E+02	4.50E+02
					Co-57	<2.99E+01	0.00E+00	2.99E+01
					Mo-99	<1.19E+05	0.00E+00	1.19E+05
					Ag-110M	<5.42E+01	0.00E+00	5.42E+01
					Sb-122	<2.02E+04	0.00E+00	2.02E+04
					Sb-125	<1.02E+02	0.00E+00	1.02E+02

Sample ID:	575736	Sample Dates:	10/17/2022 - 10/17/2022		Nuclide	Activity	2 Sigma Error	MDA
					Mn-54	<6.13E+01	0.00E+00	6.13E+01
					Co-58	<4.46E+01	0.00E+00	4.46E+01
					Fe-59	<1.00E+02	0.00E+00	1.00E+02
					Co-60	<6.25E+01	0.00E+00	6.25E+01
					Zn-65	<1.26E+02	0.00E+00	1.26E+02
					Zr-95	<9.87E+01	0.00E+00	9.87E+01
					Nb-95	<3.10E+01	0.00E+00	3.10E+01
					I-131	<4.71E+01	0.00E+00	4.71E+01
					Cs-134	<7.15E+01	0.00E+00	7.15E+01
					Cs-137	<4.35E+01	0.00E+00	4.35E+01
					Be-7	<5.48E+02	0.00E+00	5.48E+02
					K-40	2.87E+03	8.37E+02	6.39E+02
					Co-57	<3.40E+01	0.00E+00	3.40E+01
					Mo-99	<6.33E+02	0.00E+00	6.33E+02
					Ag-110M	<3.19E+01	0.00E+00	3.19E+01
					Sb-122	<1.14E+02	0.00E+00	1.14E+02
					Sb-125	<1.46E+02	0.00E+00	1.46E+02

Sample Point 130 [INDICATOR - SW @ 0.52 miles]

Sample ID:	562888	Sample Dates:	4/11/2022 - 4/11/2022		Nuclide	Activity	2 Sigma Error	MDA
					Mn-54	<7.17E+01	0.00E+00	7.17E+01
					Co-58	<7.83E+01	0.00E+00	7.83E+01
					Fe-59	<1.54E+02	0.00E+00	1.54E+02
					Co-60	<5.99E+01	0.00E+00	5.99E+01
					Zn-65	<9.98E+01	0.00E+00	9.98E+01
					Zr-95	<1.45E+02	0.00E+00	1.45E+02
					Nb-95	<7.34E+01	0.00E+00	7.34E+01
					I-131	<4.61E+02	0.00E+00	4.61E+02
					Cs-134	<9.68E+01	0.00E+00	9.68E+01
					Cs-137	<6.51E+01	0.00E+00	6.51E+01
					Be-7	<7.83E+02	0.00E+00	7.83E+02
					K-40	1.59E+04	2.23E+03	8.14E+02
					Co-57	<5.44E+01	0.00E+00	5.44E+01
					Mo-99	<1.55E+05	0.00E+00	1.55E+05
					Ag-110M	<5.69E+01	0.00E+00	5.69E+01

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: SEDIMENT_SHORE Concentration (Activity): pCi/kg

Sample Point 130 [INDICATOR - SW @ 0.52 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
562888	4/11/2022 - 4/11/2022	Sb-122	<3.49E+04	0.00E+00	3.49E+04
		Sb-125	<1.81E+02	0.00E+00	1.81E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
575737	10/17/2022 - 10/17/2022	Mn-54	<1.04E+02	0.00E+00	1.04E+02
		Co-58	<6.56E+01	0.00E+00	6.56E+01
		Fe-59	<1.60E+02	0.00E+00	1.60E+02
		Co-60	<8.36E+01	0.00E+00	8.36E+01
		Zn-65	<1.75E+02	0.00E+00	1.75E+02
		Zr-95	<1.24E+02	0.00E+00	1.24E+02
		Nb-95	<6.46E+01	0.00E+00	6.46E+01
		I-131	<8.63E+01	0.00E+00	8.63E+01
		Cs-134	<1.05E+02	0.00E+00	1.05E+02
		Cs-137	<6.92E+01	0.00E+00	6.92E+01
		Be-7	<4.64E+02	0.00E+00	4.64E+02
		K-40	1.51E+04	2.25E+03	1.18E+03
		Co-57	<5.93E+01	0.00E+00	5.93E+01
		Mo-99	<1.10E+03	0.00E+00	1.10E+03
		Ag-110M	<5.48E+01	0.00E+00	5.48E+01
Sb-122	<1.79E+02	0.00E+00	1.79E+02		
Sb-125	<1.94E+02	0.00E+00	1.94E+02		

Sample Point 137 [CONTROL - N @ 12 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
562889	4/11/2022 - 4/11/2022	Mn-54	<5.16E+01	0.00E+00	5.16E+01
		Co-58	<7.02E+01	0.00E+00	7.02E+01
		Fe-59	<1.85E+02	0.00E+00	1.85E+02
		Co-60	<6.98E+01	0.00E+00	6.98E+01
		Zn-65	<1.68E+02	0.00E+00	1.68E+02
		Zr-95	<1.14E+02	0.00E+00	1.14E+02
		Nb-95	<7.71E+01	0.00E+00	7.71E+01
		I-131	<3.82E+02	0.00E+00	3.82E+02
		Cs-134	<7.58E+01	0.00E+00	7.58E+01
		Cs-137	<6.08E+01	0.00E+00	6.08E+01
		Be-7	<6.87E+02	0.00E+00	6.87E+02
		K-40	2.02E+04	2.56E+03	9.09E+02
		Co-57	<3.92E+01	0.00E+00	3.92E+01
		Mo-99	<1.47E+05	0.00E+00	1.47E+05
		Ag-110M	<5.94E+01	0.00E+00	5.94E+01
Sb-122	<1.76E+04	0.00E+00	1.76E+04		
Sb-125	<1.46E+02	0.00E+00	1.46E+02		

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
575738	10/17/2022 - 10/17/2022	Mn-54	<7.85E+01	0.00E+00	7.85E+01
		Co-58	<6.64E+01	0.00E+00	6.64E+01
		Fe-59	<1.21E+02	0.00E+00	1.21E+02
		Co-60	<6.96E+01	0.00E+00	6.96E+01
		Zn-65	<1.71E+02	0.00E+00	1.71E+02
		Zr-95	<1.38E+02	0.00E+00	1.38E+02
		Nb-95	<7.54E+01	0.00E+00	7.54E+01
		I-131	<6.36E+01	0.00E+00	6.36E+01
		Cs-134	<7.42E+01	0.00E+00	7.42E+01
		Cs-137	<8.54E+01	0.00E+00	8.54E+01
		Be-7	<6.44E+02	0.00E+00	6.44E+02
		K-40	2.42E+04	3.11E+03	1.56E+03
		Co-57	<5.13E+01	0.00E+00	5.13E+01
		Mo-99	<1.27E+03	0.00E+00	1.27E+03
		Ag-110M	<5.27E+01	0.00E+00	5.27E+01
Sb-122	<1.77E+02	0.00E+00	1.77E+02		
Sb-125	<1.66E+02	0.00E+00	1.66E+02		

Media Type: SURFACE WATER Concentration (Activity): pCi/l

Sample Point 128 [INDICATOR - NE @ 0.45 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
559461	12/27/2021 - 1/24/2022	Mn-54	<4.19E+00	0.00E+00	4.19E+00

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: SURFACE WATER Concentration (Activity): pCi/l

Sample Point 128 [INDICATOR - NE @ 0.45 miles]

Sample ID:	559461	Sample Dates:	12/27/2021 - 1/24/2022	Nuclide	Activity	2 Sigma Error	MDA
				Co-58	<3.72E+00	0.00E+00	3.72E+00
				Fe-59	<6.90E+00	0.00E+00	6.90E+00
				Co-60	<2.49E+00	0.00E+00	2.49E+00
				Zn-65	<5.95E+00	0.00E+00	5.95E+00
				Zr-95	<7.96E+00	0.00E+00	7.96E+00
				Nb-95	<5.31E+00	0.00E+00	5.31E+00
				I-131	<1.14E+01	0.00E+00	1.14E+01
				Cs-134	<3.74E+00	0.00E+00	3.74E+00
				Cs-137	<4.18E+00	0.00E+00	4.18E+00
				BaLa-140	<1.14E+01	0.00E+00	1.14E+01
				Be-7	<4.13E+01	0.00E+00	4.13E+01
				K-40	8.80E+01	4.49E+01	6.02E+01

Sample ID:	560948	Sample Dates:	1/24/2022 - 2/21/2022	Nuclide	Activity	2 Sigma Error	MDA
				Mn-54	<3.60E+00	0.00E+00	3.60E+00
				Co-58	<2.51E+00	0.00E+00	2.51E+00
				Fe-59	<7.51E+00	0.00E+00	7.51E+00
				Co-60	<2.48E+00	0.00E+00	2.48E+00
				Zn-65	<5.58E+00	0.00E+00	5.58E+00
				Zr-95	<5.92E+00	0.00E+00	5.92E+00
				Nb-95	<3.56E+00	0.00E+00	3.56E+00
				I-131	<1.11E+01	0.00E+00	1.11E+01
				Cs-134	<3.36E+00	0.00E+00	3.36E+00
				Cs-137	<2.54E+00	0.00E+00	2.54E+00
				BaLa-140	<9.13E+00	0.00E+00	9.13E+00
				Be-7	<2.71E+01	0.00E+00	2.71E+01
				K-40	3.55E+01	2.85E+01	4.22E+01

Sample ID:	563143	Sample Dates:	2/21/2022 - 3/21/2022	Nuclide	Activity	2 Sigma Error	MDA
				Mn-54	<2.54E+00	0.00E+00	2.54E+00
				Co-58	<2.30E+00	0.00E+00	2.30E+00
				Fe-59	<6.81E+00	0.00E+00	6.81E+00
				Co-60	<1.38E+00	0.00E+00	1.38E+00
				Zn-65	<4.54E+00	0.00E+00	4.54E+00
				Zr-95	<5.63E+00	0.00E+00	5.63E+00
				Nb-95	<3.41E+00	0.00E+00	3.41E+00
				I-131	<1.06E+01	0.00E+00	1.06E+01
				Cs-134	<2.82E+00	0.00E+00	2.82E+00
				Cs-137	<2.69E+00	0.00E+00	2.69E+00
				BaLa-140	<7.41E+00	0.00E+00	7.41E+00
				Be-7	<2.51E+01	0.00E+00	2.51E+01
				K-40	7.99E+01	2.92E+01	3.44E+01

Sample ID:	560633	Sample Dates:	12/27/2021 - 4/18/2022	Nuclide	Activity	2 Sigma Error	MDA
				H3SW	8.06E+02	1.25E+02	1.72E+02

Sample ID:	564654	Sample Dates:	3/21/2022 - 4/18/2022	Nuclide	Activity	2 Sigma Error	MDA
				Mn-54	<2.37E+00	0.00E+00	2.37E+00
				Co-58	<3.02E+00	0.00E+00	3.02E+00
				Fe-59	<5.06E+00	0.00E+00	5.06E+00
				Co-60	<2.22E+00	0.00E+00	2.22E+00
				Zn-65	<5.70E+00	0.00E+00	5.70E+00
				Zr-95	<5.08E+00	0.00E+00	5.08E+00
				Nb-95	<3.16E+00	0.00E+00	3.16E+00
				I-131	<1.08E+01	0.00E+00	1.08E+01
				Cs-134	<2.54E+00	0.00E+00	2.54E+00
				Cs-137	<2.43E+00	0.00E+00	2.43E+00
				BaLa-140	<6.02E+00	0.00E+00	6.02E+00
				Be-7	<2.79E+01	0.00E+00	2.79E+01
				K-40	8.78E+01	2.89E+01	3.76E+01

Sample ID:	566735	Sample Dates:	4/18/2022 - 5/16/2022	Nuclide	Activity	2 Sigma Error	MDA
				Mn-54	<2.53E+00	0.00E+00	2.53E+00
				Co-58	<3.05E+00	0.00E+00	3.05E+00
				Fe-59	<6.58E+00	0.00E+00	6.58E+00
				Co-60	<2.87E+00	0.00E+00	2.87E+00
				Zn-65	<6.19E+00	0.00E+00	6.19E+00

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: SURFACE WATER Concentration (Activity): pCi/l

Sample Point 128 [INDICATOR - NE @ 0.45 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
566735	4/18/2022 - 5/16/2022	Zr-95	<5.11E+00	0.00E+00	5.11E+00
		Nb-95	<4.00E+00	0.00E+00	4.00E+00
		I-131	<1.05E+01	0.00E+00	1.05E+01
		Cs-134	<3.15E+00	0.00E+00	3.15E+00
		Cs-137	<2.68E+00	0.00E+00	2.68E+00
		BaLa-140	<6.02E+00	0.00E+00	6.02E+00
		Be-7	<2.56E+01	0.00E+00	2.56E+01
		K-40	9.78E+01	3.75E+01	4.77E+01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
568176	5/16/2022 - 6/13/2022	Mn-54	<3.37E+00	0.00E+00	3.37E+00
		Co-58	<4.04E+00	0.00E+00	4.04E+00
		Fe-59	<7.46E+00	0.00E+00	7.46E+00
		Co-60	<2.93E+00	0.00E+00	2.93E+00
		Zn-65	<7.49E+00	0.00E+00	7.49E+00
		Zr-95	<6.89E+00	0.00E+00	6.89E+00
		Nb-95	<6.22E+00	0.00E+00	6.22E+00
		I-131	<1.16E+01	0.00E+00	1.16E+01
		Cs-134	<3.91E+00	0.00E+00	3.91E+00
		Cs-137	<2.78E+00	0.00E+00	2.78E+00
		BaLa-140	<8.67E+00	0.00E+00	8.67E+00
		Be-7	<2.80E+01	0.00E+00	2.80E+01
		K-40	7.14E+01	3.57E+01	4.30E+01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
566511	4/18/2022 - 7/11/2022	H3SW	9.38E+02	1.37E+02	1.86E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
570003	6/13/2022 - 7/11/2022	Mn-54	<3.09E+00	0.00E+00	3.09E+00
		Co-58	<2.86E+00	0.00E+00	2.86E+00
		Fe-59	<5.96E+00	0.00E+00	5.96E+00
		Co-60	<3.19E+00	0.00E+00	3.19E+00
		Zn-65	<6.11E+00	0.00E+00	6.11E+00
		Zr-95	<6.88E+00	0.00E+00	6.88E+00
		Nb-95	<4.08E+00	0.00E+00	4.08E+00
		I-131	<1.12E+01	0.00E+00	1.12E+01
		Cs-134	<3.51E+00	0.00E+00	3.51E+00
		Cs-137	<3.29E+00	0.00E+00	3.29E+00
		BaLa-140	<5.86E+00	0.00E+00	5.86E+00
		Be-7	<2.40E+01	0.00E+00	2.40E+01
		K-40	6.13E+01	3.12E+01	4.20E+01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
571540	7/11/2022 - 8/8/2022	Mn-54	<2.91E+00	0.00E+00	2.91E+00
		Co-58	<2.59E+00	0.00E+00	2.59E+00
		Fe-59	<4.44E+00	0.00E+00	4.44E+00
		Co-60	<3.38E+00	0.00E+00	3.38E+00
		Zn-65	<6.21E+00	0.00E+00	6.21E+00
		Zr-95	<4.78E+00	0.00E+00	4.78E+00
		Nb-95	<3.83E+00	0.00E+00	3.83E+00
		I-131	<1.05E+01	0.00E+00	1.05E+01
		Cs-134	<3.45E+00	0.00E+00	3.45E+00
		Cs-137	<2.37E+00	0.00E+00	2.37E+00
		BaLa-140	<6.53E+00	0.00E+00	6.53E+00
		Be-7	<2.74E+01	0.00E+00	2.74E+01
		K-40	1.07E+02	3.77E+01	4.52E+01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
574669	8/8/2022 - 9/6/2022	Mn-54	<2.44E+00	0.00E+00	2.44E+00
		Co-58	<3.22E+00	0.00E+00	3.22E+00
		Fe-59	<6.68E+00	0.00E+00	6.68E+00
		Co-60	<3.53E+00	0.00E+00	3.53E+00
		Zn-65	<5.18E+00	0.00E+00	5.18E+00
		Zr-95	<5.37E+00	0.00E+00	5.37E+00
		Nb-95	<3.90E+00	0.00E+00	3.90E+00
		I-131	<1.14E+01	0.00E+00	1.14E+01
		Cs-134	<2.82E+00	0.00E+00	2.82E+00

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: SURFACE WATER Concentration (Activity): pCi/l

Sample Point 128 [INDICATOR - NE @ 0.45 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
574669	8/8/2022 - 9/6/2022	Cs-137	<2.98E+00	0.00E+00	2.98E+00
		BaLa-140	<6.16E+00	0.00E+00	6.16E+00
		Be-7	<2.66E+01	0.00E+00	2.66E+01
		K-40	8.55E+01	2.91E+01	2.62E+01
571754	7/11/2022 - 10/3/2022	H3SW	7.31E+02	1.32E+02	1.87E+02
576384	9/6/2022 - 10/3/2022	Mn-54	<5.40E+00	0.00E+00	5.40E+00
		Co-58	<3.34E+00	0.00E+00	3.34E+00
		Fe-59	<1.19E+01	0.00E+00	1.19E+01
		Co-60	<9.22E-01	0.00E+00	9.22E-01
		Zn-65	<8.81E+00	0.00E+00	8.81E+00
		Zr-95	<9.28E+00	0.00E+00	9.28E+00
		Nb-95	<5.59E+00	0.00E+00	5.59E+00
		I-131	<1.18E+01	0.00E+00	1.18E+01
		Cs-134	<5.10E+00	0.00E+00	5.10E+00
		Cs-137	<4.10E+00	0.00E+00	4.10E+00
		BaLa-140	<9.48E+00	0.00E+00	9.48E+00
		Be-7	<3.24E+01	0.00E+00	3.24E+01
		K-40	7.46E+01	3.61E+01	3.57E+01
578733	10/3/2022 - 10/31/2022	Mn-54	<3.50E+00	0.00E+00	3.50E+00
		Co-58	<2.95E+00	0.00E+00	2.95E+00
		Fe-59	<7.16E+00	0.00E+00	7.16E+00
		Co-60	<2.53E+00	0.00E+00	2.53E+00
		Zn-65	<6.08E+00	0.00E+00	6.08E+00
		Zr-95	<6.46E+00	0.00E+00	6.46E+00
		Nb-95	<3.66E+00	0.00E+00	3.66E+00
		I-131	<1.02E+01	0.00E+00	1.02E+01
		Cs-134	<3.03E+00	0.00E+00	3.03E+00
		Cs-137	<3.05E+00	0.00E+00	3.05E+00
		BaLa-140	<5.99E+00	0.00E+00	5.99E+00
		Be-7	<2.53E+01	0.00E+00	2.53E+01
		K-40	1.00E+02	3.39E+01	3.93E+01
580723	10/31/2022 - 11/28/2022	Mn-54	<2.45E+00	0.00E+00	2.45E+00
		Co-58	<3.75E+00	0.00E+00	3.75E+00
		Fe-59	<8.46E+00	0.00E+00	8.46E+00
		Co-60	<2.54E+00	0.00E+00	2.54E+00
		Zn-65	<5.41E+00	0.00E+00	5.41E+00
		Zr-95	<5.23E+00	0.00E+00	5.23E+00
		Nb-95	<5.20E+00	0.00E+00	5.20E+00
		I-131	<1.19E+01	0.00E+00	1.19E+01
		Cs-134	<4.95E+00	0.00E+00	4.95E+00
		Cs-137	<4.33E+00	0.00E+00	4.33E+00
		BaLa-140	<5.35E+00	0.00E+00	5.35E+00
		Be-7	<2.38E+01	0.00E+00	2.38E+01
		K-40	5.41E+01	4.08E+01	6.10E+01
579158	10/3/2022 - 12/27/2022	H3SW	5.26E+02	1.23E+02	1.83E+02
582320	11/28/2022 - 12/27/2022	Mn-54	<3.19E+00	0.00E+00	3.19E+00
		Co-58	<3.67E+00	0.00E+00	3.67E+00
		Fe-59	<6.52E+00	0.00E+00	6.52E+00
		Co-60	<2.22E+00	0.00E+00	2.22E+00
		Zn-65	<7.35E+00	0.00E+00	7.35E+00
		Zr-95	<6.63E+00	0.00E+00	6.63E+00
		Nb-95	<4.80E+00	0.00E+00	4.80E+00
		I-131	<1.13E+01	0.00E+00	1.13E+01
		Cs-134	<3.74E+00	0.00E+00	3.74E+00
		Cs-137	<2.56E+00	0.00E+00	2.56E+00

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: SURFACE WATER Concentration (Activity): pCi/l

Sample Point 128 [INDICATOR - NE @ 0.45 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
582320	11/28/2022 - 12/27/2022	BaLa-140	<6.09E+00	0.00E+00	6.09E+00
		Be-7	<2.96E+01	0.00E+00	2.96E+01
		K-40	1.23E+02	4.04E+01	4.87E+01

Sample Point 131 [INDICATOR - WNW @ 0.64 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
559462	12/27/2021 - 1/24/2022	Mn-54	<1.47E+00	0.00E+00	1.47E+00
		Co-58	<1.88E+00	0.00E+00	1.88E+00
		Fe-59	<3.38E+00	0.00E+00	3.38E+00
		Co-60	<1.48E+00	0.00E+00	1.48E+00
		Zn-65	<2.83E+00	0.00E+00	2.83E+00
		Zr-95	<3.45E+00	0.00E+00	3.45E+00
		Nb-95	<2.19E+00	0.00E+00	2.19E+00
		I-131	<1.13E+01	0.00E+00	1.13E+01
		Cs-134	<1.80E+00	0.00E+00	1.80E+00
		Cs-137	<1.73E+00	0.00E+00	1.73E+00
		BaLa-140	<6.28E+00	0.00E+00	6.28E+00
		Be-7	<2.00E+01	0.00E+00	2.00E+01
		K-40	1.06E+02	2.11E+01	2.15E+01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
560949	1/24/2022 - 2/21/2022	Mn-54	<2.78E+00	0.00E+00	2.78E+00
		Co-58	<2.80E+00	0.00E+00	2.80E+00
		Fe-59	<6.03E+00	0.00E+00	6.03E+00
		Co-60	<2.49E+00	0.00E+00	2.49E+00
		Zn-65	<5.37E+00	0.00E+00	5.37E+00
		Zr-95	<6.32E+00	0.00E+00	6.32E+00
		Nb-95	<4.04E+00	0.00E+00	4.04E+00
		I-131	<1.20E+01	0.00E+00	1.20E+01
		Cs-134	<2.82E+00	0.00E+00	2.82E+00
		Cs-137	<3.11E+00	0.00E+00	3.11E+00
		BaLa-140	<6.05E+00	0.00E+00	6.05E+00
		Be-7	<3.34E+01	0.00E+00	3.34E+01
		K-40	1.11E+02	3.06E+01	3.39E+01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
563144	2/21/2022 - 3/21/2022	Mn-54	<2.40E+00	0.00E+00	2.40E+00
		Co-58	<2.88E+00	0.00E+00	2.88E+00
		Fe-59	<5.56E+00	0.00E+00	5.56E+00
		Co-60	<2.49E+00	0.00E+00	2.49E+00
		Zn-65	<4.74E+00	0.00E+00	4.74E+00
		Zr-95	<5.38E+00	0.00E+00	5.38E+00
		Nb-95	<3.86E+00	0.00E+00	3.86E+00
		I-131	<1.00E+01	0.00E+00	1.01E+01
		Cs-134	<3.20E+00	0.00E+00	3.20E+00
		Cs-137	<2.57E+00	0.00E+00	2.57E+00
		BaLa-140	<5.19E+00	0.00E+00	5.19E+00
		Be-7	<2.16E+01	0.00E+00	2.16E+01
		K-40	7.32E+01	3.08E+01	4.12E+01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
560634	12/27/2021 - 4/18/2022	H3SW	4.40E+02	1.14E+02	1.72E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
564655	3/21/2022 - 4/18/2022	Mn-54	<3.23E+00	0.00E+00	3.23E+00
		Co-58	<3.74E+00	0.00E+00	3.74E+00
		Fe-59	<6.44E+00	0.00E+00	6.44E+00
		Co-60	<4.10E+00	0.00E+00	4.10E+00
		Zn-65	<7.53E+00	0.00E+00	7.53E+00
		Zr-95	<6.15E+00	0.00E+00	6.15E+00
		Nb-95	<4.36E+00	0.00E+00	4.36E+00
		I-131	<1.13E+01	0.00E+00	1.13E+01
		Cs-134	<3.19E+00	0.00E+00	3.19E+00
		Cs-137	<3.36E+00	0.00E+00	3.36E+00
		BaLa-140	<7.96E+00	0.00E+00	7.96E+00
		Be-7	<3.31E+01	0.00E+00	3.31E+01

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: SURFACE WATER Concentration (Activity): pCi/l

Sample Point 131 [INDICATOR - WNW @ 0.64 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
564655	3/21/2022 - 4/18/2022	K-40	5.53E+01	3.33E+01	4.75E+01
566736	4/18/2022 - 5/16/2022	Mn-54	<2.64E+00	0.00E+00	2.64E+00
		Co-58	<2.92E+00	0.00E+00	2.92E+00
		Fe-59	<5.84E+00	0.00E+00	5.84E+00
		Co-60	<3.12E+00	0.00E+00	3.12E+00
		Zn-65	<5.49E+00	0.00E+00	5.49E+00
		Zr-95	<3.97E+00	0.00E+00	3.97E+00
		Nb-95	<3.71E+00	0.00E+00	3.71E+00
		I-131	<1.09E+01	0.00E+00	1.09E+01
		Cs-134	<3.40E+00	0.00E+00	3.40E+00
		Cs-137	<1.87E+00	0.00E+00	1.87E+00
		BaLa-140	<6.94E+00	0.00E+00	6.94E+00
		Be-7	<2.87E+01	0.00E+00	2.87E+01
		K-40	7.72E+01	3.60E+01	4.91E+01
568177	5/16/2022 - 6/13/2022	Mn-54	<3.88E+00	0.00E+00	3.88E+00
		Co-58	<3.61E+00	0.00E+00	3.61E+00
		Fe-59	<7.03E+00	0.00E+00	7.03E+00
		Co-60	<3.86E+00	0.00E+00	3.86E+00
		Zn-65	<8.78E+00	0.00E+00	8.78E+00
		Zr-95	<8.37E+00	0.00E+00	8.37E+00
		Nb-95	<5.42E+00	0.00E+00	5.42E+00
		I-131	<1.18E+01	0.00E+00	1.18E+01
		Cs-134	<5.01E+00	0.00E+00	5.01E+00
		Cs-137	<4.16E+00	0.00E+00	4.16E+00
		BaLa-140	<6.80E+00	0.00E+00	6.80E+00
		Be-7	<4.24E+01	0.00E+00	4.24E+01
		K-40	7.32E+01	4.34E+01	6.10E+01
566512	4/18/2022 - 7/11/2022	H3SW	3.64E+02	1.20E+02	1.86E+02
570004	6/13/2022 - 7/11/2022	Mn-54	<3.06E+00	0.00E+00	3.06E+00
		Co-58	<3.80E+00	0.00E+00	3.80E+00
		Fe-59	<7.47E+00	0.00E+00	7.47E+00
		Co-60	<2.98E+00	0.00E+00	2.98E+00
		Zn-65	<7.80E+00	0.00E+00	7.80E+00
		Zr-95	<6.74E+00	0.00E+00	6.74E+00
		Nb-95	<4.65E+00	0.00E+00	4.65E+00
		I-131	<1.13E+01	0.00E+00	1.13E+01
		Cs-134	<3.40E+00	0.00E+00	3.40E+00
		Cs-137	<3.17E+00	0.00E+00	3.17E+00
		BaLa-140	<8.91E+00	0.00E+00	8.91E+00
		Be-7	<2.75E+01	0.00E+00	2.75E+01
		K-40	5.40E+01	1.96E+01	4.08E+01
571541	7/11/2022 - 8/8/2022	Mn-54	<2.93E+00	0.00E+00	2.93E+00
		Co-58	<3.52E+00	0.00E+00	3.52E+00
		Fe-59	<7.69E+00	0.00E+00	7.69E+00
		Co-60	<2.94E+00	0.00E+00	2.94E+00
		Zn-65	<6.99E+00	0.00E+00	6.99E+00
		Zr-95	<5.91E+00	0.00E+00	5.91E+00
		Nb-95	<4.66E+00	0.00E+00	4.66E+00
		I-131	<1.14E+01	0.00E+00	1.14E+01
		Cs-134	<3.35E+00	0.00E+00	3.35E+00
		Cs-137	<3.46E+00	0.00E+00	3.46E+00
		BaLa-140	<8.75E+00	0.00E+00	8.75E+00
		Be-7	<3.36E+01	0.00E+00	3.36E+01
		K-40	7.07E+01	3.48E+01	4.66E+01
574670	8/8/2022 - 9/6/2022	Mn-54	<3.40E+00	0.00E+00	3.40E+00

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

Report Generated @ 2/15/2023 13:34:28

Duke Energy Annual Report - Appendix E

Appendix E - Page 91 of 114

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: SURFACE WATER Concentration (Activity): pCi/l

Sample Point 131 [INDICATOR - WNW @ 0.64 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
574670	8/8/2022 - 9/6/2022	Co-58	<4.75E+00	0.00E+00	4.75E+00
		Fe-59	<6.73E+00	0.00E+00	6.73E+00
		Co-60	<3.40E+00	0.00E+00	3.40E+00
		Zn-65	<6.75E+00	0.00E+00	6.75E+00
		Zr-95	<7.25E+00	0.00E+00	7.25E+00
		Nb-95	<5.05E+00	0.00E+00	5.05E+00
		I-131	<1.20E+01	0.00E+00	1.20E+01
		Cs-134	<4.22E+00	0.00E+00	4.22E+00
		Cs-137	<2.48E+00	0.00E+00	2.48E+00
		BaLa-140	<1.08E+01	0.00E+00	1.08E+01
		Be-7	<3.50E+01	0.00E+00	3.50E+01
		K-40	8.25E+01	4.79E+01	6.87E+01
		571755	7/11/2022 - 10/3/2022	H3SW	2.88E+02
576385	9/6/2022 - 10/3/2022	Mn-54	<3.57E+00	0.00E+00	3.57E+00
		Co-58	<3.20E+00	0.00E+00	3.20E+00
		Fe-59	<7.18E+00	0.00E+00	7.18E+00
		Co-60	<2.53E+00	0.00E+00	2.53E+00
		Zn-65	<4.93E+00	0.00E+00	4.93E+00
		Zr-95	<5.68E+00	0.00E+00	5.68E+00
		Nb-95	<4.71E+00	0.00E+00	4.71E+00
		I-131	<1.05E+01	0.00E+00	1.05E+01
		Cs-134	<3.40E+00	0.00E+00	3.40E+00
		Cs-137	<3.25E+00	0.00E+00	3.25E+00
		BaLa-140	<8.76E+00	0.00E+00	8.76E+00
		Be-7	<2.92E+01	0.00E+00	2.92E+01
		K-40	9.61E+01	3.77E+01	4.78E+01
578734	10/3/2022 - 10/31/2022	Mn-54	<2.74E+00	0.00E+00	2.74E+00
		Co-58	<3.33E+00	0.00E+00	3.33E+00
		Fe-59	<6.38E+00	0.00E+00	6.38E+00
		Co-60	<2.50E+00	0.00E+00	2.50E+00
		Zn-65	<5.57E+00	0.00E+00	5.57E+00
		Zr-95	<6.50E+00	0.00E+00	6.50E+00
		Nb-95	<3.72E+00	0.00E+00	3.72E+00
		I-131	<1.13E+01	0.00E+00	1.13E+01
		Cs-134	<3.41E+00	0.00E+00	3.41E+00
		Cs-137	<2.52E+00	0.00E+00	2.52E+00
		BaLa-140	<7.12E+00	0.00E+00	7.12E+00
		Be-7	<3.05E+01	0.00E+00	3.05E+01
		K-40	8.35E+01	3.13E+01	3.69E+01
580724	10/31/2022 - 11/28/2022	Mn-54	<2.56E+00	0.00E+00	2.56E+00
		Co-58	<2.41E+00	0.00E+00	2.41E+00
		Fe-59	<5.10E+00	0.00E+00	5.10E+00
		Co-60	<2.61E+00	0.00E+00	2.61E+00
		Zn-65	<5.10E+00	0.00E+00	5.10E+00
		Zr-95	<4.95E+00	0.00E+00	4.95E+00
		Nb-95	<3.39E+00	0.00E+00	3.39E+00
		I-131	<9.69E+00	0.00E+00	9.69E+00
		Cs-134	<2.87E+00	0.00E+00	2.87E+00
		Cs-137	<2.63E+00	0.00E+00	2.63E+00
		BaLa-140	<6.19E+00	0.00E+00	6.19E+00
		Be-7	<2.32E+01	0.00E+00	2.32E+01
		K-40	5.15E+01	2.42E+01	3.35E+01
579159	10/3/2022 - 12/27/2022	H3SW	4.46E+02	1.20E+02	1.82E+02
582321	11/28/2022 - 12/27/2022	Mn-54	<3.84E+00	0.00E+00	3.84E+00
		Co-58	<2.78E+00	0.00E+00	2.78E+00

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: SURFACE WATER Concentration (Activity): pCi/l

Sample Point 131 [INDICATOR - WNW @ 0.64 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
582321	11/28/2022 - 12/27/2022	Fe-59	<8.31E+00	0.00E+00	8.31E+00
		Co-60	<3.57E+00	0.00E+00	3.57E+00
		Zn-65	<5.81E+00	0.00E+00	5.81E+00
		Zr-95	<7.20E+00	0.00E+00	7.20E+00
		Nb-95	<5.41E+00	0.00E+00	5.41E+00
		I-131	<1.30E+01	0.00E+00	1.30E+01
		Cs-134	<3.49E+00	0.00E+00	3.49E+00
		Cs-137	<3.83E+00	0.00E+00	3.83E+00
		BaLa-140	<9.32E+00	0.00E+00	9.32E+00
		Be-7	<3.71E+01	0.00E+00	3.71E+01
		K-40	6.04E+01	3.72E+01	5.34E+01

Sample Point 135 [CONTROL - N @ 11.9 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
559463	12/27/2021 - 1/24/2022	Mn-54	<3.99E+00	0.00E+00	3.99E+00
		Co-58	<4.12E+00	0.00E+00	4.12E+00
		Fe-59	<6.10E+00	0.00E+00	6.10E+00
		Co-60	<2.65E+00	0.00E+00	2.65E+00
		Zn-65	<6.78E+00	0.00E+00	6.78E+00
		Zr-95	<6.75E+00	0.00E+00	6.75E+00
		Nb-95	<4.37E+00	0.00E+00	4.37E+00
		I-131	<1.06E+01	0.00E+00	1.06E+01
		Cs-134	<3.60E+00	0.00E+00	3.60E+00
		Cs-137	<3.04E+00	0.00E+00	3.04E+00
		BaLa-140	<9.31E+00	0.00E+00	9.31E+00
		Be-7	<2.73E+01	0.00E+00	2.73E+01
		K-40	1.11E+02	4.02E+01	4.53E+01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
560950	1/24/2022 - 2/21/2022	Mn-54	<3.31E+00	0.00E+00	3.31E+00
		Co-58	<3.22E+00	0.00E+00	3.22E+00
		Fe-59	<7.06E+00	0.00E+00	7.06E+00
		Co-60	<3.13E+00	0.00E+00	3.13E+00
		Zn-65	<5.74E+00	0.00E+00	5.74E+00
		Zr-95	<4.82E+00	0.00E+00	4.82E+00
		Nb-95	<3.59E+00	0.00E+00	3.59E+00
		I-131	<1.14E+01	0.00E+00	1.14E+01
		Cs-134	<3.00E+00	0.00E+00	3.00E+00
		Cs-137	<3.40E+00	0.00E+00	3.40E+00
		BaLa-140	<6.61E+00	0.00E+00	6.61E+00
		Be-7	<3.16E+01	0.00E+00	3.16E+01
		K-40	1.16E+02	3.66E+01	3.41E+01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
563145	2/21/2022 - 3/21/2022	Mn-54	<3.12E+00	0.00E+00	3.12E+00
		Co-58	<2.53E+00	0.00E+00	2.53E+00
		Fe-59	<6.28E+00	0.00E+00	6.28E+00
		Co-60	<2.44E+00	0.00E+00	2.44E+00
		Zn-65	<5.49E+00	0.00E+00	5.49E+00
		Zr-95	<4.71E+00	0.00E+00	4.71E+00
		Nb-95	<3.69E+00	0.00E+00	3.69E+00
		I-131	<1.04E+01	0.00E+00	1.04E+01
		Cs-134	<2.85E+00	0.00E+00	2.85E+00
		Cs-137	<2.34E+00	0.00E+00	2.34E+00
		BaLa-140	<5.92E+00	0.00E+00	5.92E+00
		Be-7	<2.84E+01	0.00E+00	2.84E+01
		K-40	7.60E+01	3.54E+01	5.01E+01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
560635	12/27/2021 - 4/18/2022	H3SW	<4.5E+00	0.00E+00	1.73E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
564656	3/21/2022 - 4/18/2022	Mn-54	<4.05E+00	0.00E+00	4.05E+00
		Co-58	<4.80E+00	0.00E+00	4.80E+00
		Fe-59	<7.60E+00	0.00E+00	7.60E+00
		Co-60	<4.94E+00	0.00E+00	4.94E+00

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: SURFACE WATER Concentration (Activity): pCi/l

Sample Point 135 [CONTROL - N @ 11.9 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA		
564656	3/21/2022 - 4/18/2022	Zn-65	<8.20E+00	0.00E+00	8.20E+00		
		Zr-95	<8.22E+00	0.00E+00	8.22E+00		
		Nb-95	<6.01E+00	0.00E+00	6.01E+00		
		I-131	<1.16E+01	0.00E+00	1.16E+01		
		Cs-134	<2.98E+00	0.00E+00	2.98E+00		
		Cs-137	<4.23E+00	0.00E+00	4.23E+00		
		BaLa-140	<1.03E+01	0.00E+00	1.03E+01		
		Be-7	<3.26E+01	0.00E+00	3.26E+01		
		K-40	3.48E+01	3.09E+01	4.62E+01		
		566737	4/18/2022 - 5/16/2022	Mn-54	<3.86E+00	0.00E+00	3.86E+00
				Co-58	<4.49E+00	0.00E+00	4.49E+00
Fe-59	<9.76E+00			0.00E+00	9.76E+00		
Co-60	<2.59E+00			0.00E+00	2.59E+00		
Zn-65	<4.78E+00			0.00E+00	4.78E+00		
Zr-95	<6.67E+00			0.00E+00	6.67E+00		
Nb-95	<4.74E+00			0.00E+00	4.74E+00		
I-131	<1.19E+01			0.00E+00	1.19E+01		
Cs-134	<4.29E+00			0.00E+00	4.29E+00		
Cs-137	<3.54E+00			0.00E+00	3.54E+00		
BaLa-140	<9.56E+00			0.00E+00	9.56E+00		
Be-7	<3.50E+01			0.00E+00	3.50E+01		
K-40	9.50E+01			4.11E+01	5.08E+01		
568178	5/16/2022 - 6/13/2022			Mn-54	<3.13E+00	0.00E+00	3.13E+00
		Co-58	<3.29E+00	0.00E+00	3.29E+00		
		Fe-59	<6.19E+00	0.00E+00	6.19E+00		
		Co-60	<2.89E+00	0.00E+00	2.89E+00		
		Zn-65	<6.31E+00	0.00E+00	6.31E+00		
		Zr-95	<4.44E+00	0.00E+00	4.44E+00		
		Nb-95	<3.26E+00	0.00E+00	3.26E+00		
		I-131	<1.06E+01	0.00E+00	1.06E+01		
		Cs-134	<3.47E+00	0.00E+00	3.47E+00		
		Cs-137	<3.11E+00	0.00E+00	3.11E+00		
		BaLa-140	<5.79E+00	0.00E+00	5.79E+00		
		Be-7	<2.90E+01	0.00E+00	2.90E+01		
		K-40	5.52E+01	3.10E+01	4.33E+01		
		566513	4/18/2022 - 7/11/2022	H3SW	<9.53E+01	0.00E+00	1.86E+02
570005	6/13/2022 - 7/11/2022	Mn-54	<3.02E+00	0.00E+00	3.02E+00		
		Co-58	<2.99E+00	0.00E+00	2.99E+00		
		Fe-59	<5.89E+00	0.00E+00	5.89E+00		
		Co-60	<2.53E+00	0.00E+00	2.53E+00		
		Zn-65	<7.09E+00	0.00E+00	7.09E+00		
		Zr-95	<6.24E+00	0.00E+00	6.24E+00		
		Nb-95	<3.78E+00	0.00E+00	3.78E+00		
		I-131	<1.06E+01	0.00E+00	1.06E+01		
		Cs-134	<4.16E+00	0.00E+00	4.16E+00		
		Cs-137	<2.75E+00	0.00E+00	2.75E+00		
		BaLa-140	<5.92E+00	0.00E+00	5.92E+00		
		Be-7	<2.55E+01	0.00E+00	2.55E+01		
		K-40	1.15E+02	3.34E+01	3.33E+01		
		571542	7/11/2022 - 8/8/2022	Mn-54	<3.36E+00	0.00E+00	3.36E+00
Co-58	<3.38E+00			0.00E+00	3.38E+00		
Fe-59	<5.55E+00			0.00E+00	5.55E+00		
Co-60	<3.24E+00			0.00E+00	3.24E+00		
Zn-65	<7.22E+00			0.00E+00	7.22E+00		
Zr-95	<6.40E+00			0.00E+00	6.40E+00		
Nb-95	<4.15E+00			0.00E+00	4.15E+00		
I-131	<1.12E+01			0.00E+00	1.12E+01		

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: SURFACE WATER Concentration (Activity): pCi/l

Sample Point 135 [CONTROL - N @ 11.9 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
571542	7/11/2022 - 8/8/2022	Cs-134	<3.51E+00	0.00E+00	3.51E+00
		Cs-137	<2.75E+00	0.00E+00	2.75E+00
		BaLa-140	<8.65E+00	0.00E+00	8.65E+00
		Be-7	<3.14E+01	0.00E+00	3.14E+01
		K-40	7.33E+01	3.10E+01	3.43E+01
574671	8/8/2022 - 9/6/2022	Mn-54	<3.00E+00	0.00E+00	3.00E+00
		Co-58	<3.33E+00	0.00E+00	3.33E+00
		Fe-59	<6.84E+00	0.00E+00	6.84E+00
		Co-60	<2.16E+00	0.00E+00	2.16E+00
		Zn-65	<6.76E+00	0.00E+00	6.76E+00
		Zr-95	<5.92E+00	0.00E+00	5.92E+00
		Nb-95	<4.57E+00	0.00E+00	4.57E+00
		I-131	<1.17E+01	0.00E+00	1.17E+01
		Cs-134	<3.47E+00	0.00E+00	3.47E+00
		Cs-137	<2.53E+00	0.00E+00	2.53E+00
		BaLa-140	<9.56E+00	0.00E+00	9.56E+00
		Be-7	<2.60E+01	0.00E+00	2.60E+01
		K-40	9.74E+01	3.93E+01	4.61E+01
571756	7/11/2022 - 10/3/2022	H3SW	<1.25E+02	0.00E+00	1.88E+02
576386	9/6/2022 - 10/3/2022	Mn-54	<3.02E+00	0.00E+00	3.02E+00
		Co-58	<3.88E+00	0.00E+00	3.88E+00
		Fe-59	<6.15E+00	0.00E+00	6.15E+00
		Co-60	<3.76E+00	0.00E+00	3.76E+00
		Zn-65	<5.83E+00	0.00E+00	5.83E+00
		Zr-95	<6.06E+00	0.00E+00	6.06E+00
		Nb-95	<4.83E+00	0.00E+00	4.83E+00
		I-131	<1.11E+01	0.00E+00	1.11E+01
		Cs-134	<3.92E+00	0.00E+00	3.92E+00
		Cs-137	<2.43E+00	0.00E+00	2.43E+00
		BaLa-140	<8.15E+00	0.00E+00	8.15E+00
		Be-7	<2.71E+01	0.00E+00	2.71E+01
		K-40	1.08E+02	4.00E+01	4.79E+01
578735	10/3/2022 - 10/31/2022	Mn-54	<3.21E+00	0.00E+00	3.21E+00
		Co-58	<2.67E+00	0.00E+00	2.67E+00
		Fe-59	<5.82E+00	0.00E+00	5.82E+00
		Co-60	<3.11E+00	0.00E+00	3.11E+00
		Zn-65	<6.19E+00	0.00E+00	6.19E+00
		Zr-95	<3.69E+00	0.00E+00	3.69E+00
		Nb-95	<3.78E+00	0.00E+00	3.78E+00
		I-131	<1.18E+01	0.00E+00	1.18E+01
		Cs-134	<3.92E+00	0.00E+00	3.92E+00
		Cs-137	<2.91E+00	0.00E+00	2.91E+00
		BaLa-140	<5.14E+00	0.00E+00	5.14E+00
		Be-7	<2.80E+01	0.00E+00	2.80E+01
		K-40	7.26E+01	3.14E+01	3.94E+01
580725	10/31/2022 - 11/28/2022	Mn-54	<2.83E+00	0.00E+00	2.83E+00
		Co-58	<2.49E+00	0.00E+00	2.49E+00
		Fe-59	<6.58E+00	0.00E+00	6.58E+00
		Co-60	<3.02E+00	0.00E+00	3.02E+00
		Zn-65	<6.78E+00	0.00E+00	6.78E+00
		Zr-95	<5.68E+00	0.00E+00	5.68E+00
		Nb-95	<4.35E+00	0.00E+00	4.35E+00
		I-131	<1.14E+01	0.00E+00	1.14E+01
		Cs-134	<3.22E+00	0.00E+00	3.22E+00
		Cs-137	<2.61E+00	0.00E+00	2.61E+00
		BaLa-140	<9.30E+00	0.00E+00	9.30E+00
		Be-7	<3.23E+01	0.00E+00	3.23E+01

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: SURFACE WATER Concentration (Activity): pCi/l

Sample Point 135 [CONTROL - N @ 11.9 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
580725	10/31/2022 - 11/28/2022	K-40	9.52E+01	3.36E+01	3.84E+01
579160	10/3/2022 - 12/27/2022	H3SW	<6.05E+01	0.00E+00	1.81E+02
582322	11/28/2022 - 12/27/2022	Mn-54	<2.99E+00	0.00E+00	2.99E+00
		Co-58	<3.61E+00	0.00E+00	3.61E+00
		Fe-59	<6.63E+00	0.00E+00	6.63E+00
		Co-60	<3.25E+00	0.00E+00	3.25E+00
		Zn-65	<6.97E+00	0.00E+00	6.97E+00
		Zr-95	<6.65E+00	0.00E+00	6.65E+00
		Nb-95	<4.05E+00	0.00E+00	4.05E+00
		I-131	<1.20E+01	0.00E+00	1.20E+01
		Cs-134	<3.75E+00	0.00E+00	3.75E+00
		Cs-137	<3.34E+00	0.00E+00	3.34E+00
		BaLa-140	<7.90E+00	0.00E+00	7.90E+00
		Be-7	<3.27E+01	0.00E+00	3.27E+01
		K-40	7.18E+01	4.19E+01	6.24E+01

Media Type: TLD Concentration (Activity): mR/Standard Quarter

Sample Point 143 [INDICATOR - NW @ 0.27 miles]

TLD RING TLD_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
562492	12/15/2021 - 3/16/2022	mR/Std Qtr	17.83
567984	3/16/2022 - 6/22/2022	mR/Std Qtr	15.52
575401	6/22/2022 - 9/14/2022	mR/Std Qtr	14.70
581472	9/14/2022 - 12/14/2022	mR/Std Qtr	17.93

Sample Point 144 [INDICATOR - NNE @ 0.46 miles]

TLD RING TLD_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
562493	12/15/2021 - 3/16/2022	mR/Std Qtr	15.89
567985	3/16/2022 - 6/22/2022	mR/Std Qtr	14.16
575402	6/22/2022 - 9/14/2022	mR/Std Qtr	14.19
581473	9/14/2022 - 12/14/2022	mR/Std Qtr	15.40

Sample Point 145 [INDICATOR - NE @ 0.47 miles]

TLD RING TLD_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
562494	12/15/2021 - 3/16/2022	mR/Std Qtr	17.61
567986	3/16/2022 - 6/22/2022	mR/Std Qtr	13.48
575403	6/22/2022 - 9/14/2022	mR/Std Qtr	13.48
581474	9/14/2022 - 12/14/2022	mR/Std Qtr	16.50

Sample Point 146 [INDICATOR - ENE @ 0.42 miles]

TLD RING TLD_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
562495	12/15/2021 - 3/16/2022	mR/Std Qtr	15.27
567987	3/16/2022 - 6/22/2022	mR/Std Qtr	13.99

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: TLD Concentration (Activity): mR/Standard Quarter

Sample Point 146 [INDICATOR - ENE @ 0.42 miles]

TLD RING TLD_INNER

Sample ID:	575404	Sample Dates:	6/22/2022 - 9/14/2022	Nuclide	Activity
				mR/Std Qtr	12.68
Sample ID:	581475	Sample Dates:	9/14/2022 - 12/14/2022	Nuclide	Activity
				mR/Std Qtr	16.33

Sample Point 147 [INDICATOR - E @ 0.44 miles]

TLD RING TLD_INNER

Sample ID:	562496	Sample Dates:	12/15/2021 - 3/16/2022	Nuclide	Activity
				mR/Std Qtr	16.72
Sample ID:	567988	Sample Dates:	3/16/2022 - 6/22/2022	Nuclide	Activity
				mR/Std Qtr	14.44
Sample ID:	575405	Sample Dates:	6/22/2022 - 9/14/2022	Nuclide	Activity
				mR/Std Qtr	14.57
Sample ID:	581476	Sample Dates:	9/14/2022 - 12/14/2022	Nuclide	Activity
				mR/Std Qtr	16.93

Sample Point 148 [INDICATOR - ESE @ 0.46 miles]

TLD RING TLD_INNER

Sample ID:	562497	Sample Dates:	12/15/2021 - 3/16/2022	Nuclide	Activity
				mR/Std Qtr	12.92
Sample ID:	567989	Sample Dates:	3/16/2022 - 6/22/2022	Nuclide	Activity
				mR/Std Qtr	12.92
Sample ID:	575406	Sample Dates:	6/22/2022 - 9/14/2022	Nuclide	Activity
				mR/Std Qtr	11.80
Sample ID:	581477	Sample Dates:	9/14/2022 - 12/14/2022	Nuclide	Activity
				mR/Std Qtr	13.70

Sample Point 149 [INDICATOR - SE @ 0.5 miles]

TLD RING TLD_INNER

Sample ID:	562498	Sample Dates:	12/15/2021 - 3/16/2022	Nuclide	Activity
				mR/Std Qtr	14.23
Sample ID:	567990	Sample Dates:	3/16/2022 - 6/22/2022	Nuclide	Activity
				mR/Std Qtr	11.39
Sample ID:	575407	Sample Dates:	6/22/2022 - 9/14/2022	Nuclide	Activity
				mR/Std Qtr	12.08
Sample ID:	581478	Sample Dates:	9/14/2022 - 12/14/2022	Nuclide	Activity
				mR/Std Qtr	13.84

Sample Point 151 [INDICATOR - S @ 0.37 miles]

TLD RING TLD_INNER

Sample ID:	562499	Sample Dates:	12/15/2021 - 3/16/2022	Nuclide	Activity
				mR/Std Qtr	16.61
Sample ID:	567991	Sample Dates:	3/16/2022 - 6/22/2022	Nuclide	Activity
				mR/Std Qtr	14.37
Sample ID:	575408	Sample Dates:	6/22/2022 - 9/14/2022	Nuclide	Activity
				mR/Std Qtr	13.67
Sample ID:	581479	Sample Dates:	9/14/2022 - 12/14/2022	Nuclide	Activity
				mR/Std Qtr	15.16

Sample Point 152 [INDICATOR - SSW @ 0.44 miles]

TLD RING TLD_INNER

Sample ID:	562500	Sample Dates:	12/15/2021 - 3/16/2022	Nuclide	Activity
				mR/Std Qtr	16.25
Sample ID:	567992	Sample Dates:	3/16/2022 - 6/22/2022	Nuclide	Activity
				mR/Std Qtr	14.89
Sample ID:	575409	Sample Dates:	6/22/2022 - 9/14/2022	Nuclide	Activity
				mR/Std Qtr	13.42
Sample ID:	581480	Sample Dates:	9/14/2022 - 12/14/2022	Nuclide	Activity
				mR/Std Qtr	15.80

EnRad Laboratories

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: TLD Concentration (Activity): mR/Standard Quarter

Sample Point 153 [INDICATOR - SW @ 0.47 miles]

TLD RING TLD_INNER

Sample ID	Sample Dates	Nuclide	Activity
562501	12/15/2021 - 3/16/2022	mR/Std Qtr	19.53
567993	3/16/2022 - 6/22/2022	mR/Std Qtr	17.68
575410	6/22/2022 - 9/14/2022	mR/Std Qtr	17.94
581481	9/14/2022 - 12/14/2022	mR/Std Qtr	21.51

Sample Point 154 [INDICATOR - W @ 0.45 miles]

TLD RING TLD_INNER

Sample ID	Sample Dates	Nuclide	Activity
562502	12/15/2021 - 3/16/2022	mR/Std Qtr	20.86
567994	3/16/2022 - 6/22/2022	mR/Std Qtr	16.64
575411	6/22/2022 - 9/14/2022	mR/Std Qtr	15.87
581482	9/14/2022 - 12/14/2022	mR/Std Qtr	19.43

Sample Point 156 [INDICATOR - WNW @ 0.44 miles]

TLD RING TLD_INNER

Sample ID	Sample Dates	Nuclide	Activity
562503	12/15/2021 - 3/16/2022	mR/Std Qtr	17.95
567995	3/16/2022 - 6/22/2022	mR/Std Qtr	16.43
575412	6/22/2022 - 9/14/2022	mR/Std Qtr	15.35
581483	9/14/2022 - 12/14/2022	mR/Std Qtr	18.95

Sample Point 157 [INDICATOR - N @ 4.69 miles]

TLD RING TLD_OUTER

Sample ID	Sample Dates	Nuclide	Activity
562504	12/15/2021 - 3/16/2022	mR/Std Qtr	17.54
567996	3/16/2022 - 6/22/2022	mR/Std Qtr	14.52
575413	6/22/2022 - 9/14/2022	mR/Std Qtr	14.99
581484	9/14/2022 - 12/14/2022	mR/Std Qtr	17.73

Sample Point 158 [INDICATOR - NNE @ 4.33 miles]

TLD RING TLD_OUTER

Sample ID	Sample Dates	Nuclide	Activity
562505	12/15/2021 - 3/16/2022	mR/Std Qtr	16.37
567997	3/16/2022 - 6/22/2022	mR/Std Qtr	13.22
575414	6/22/2022 - 9/14/2022	mR/Std Qtr	14.42
581485	9/14/2022 - 12/14/2022	mR/Std Qtr	15.96

Sample Point 159 [INDICATOR - NE @ 4.77 miles]

TLD RING TLD_OUTER

Sample ID	Sample Dates	Nuclide	Activity
562506	12/15/2021 - 3/16/2022	mR/Std Qtr	18.67
567998	3/16/2022 - 6/22/2022	mR/Std Qtr	16.03

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: TLD Concentration (Activity): mR/Standard Quarter

Sample Point 159 [INDICATOR - NE @ 4.77 miles]

TLD RING TLD_OUTER

Sample ID:	575415	Sample Dates:	6/22/2022 - 9/14/2022	Nuclide	Activity
				mR/Std Qtr	17.20
Sample ID:	581486	Sample Dates:	9/14/2022 - 12/14/2022	Nuclide	Activity
				mR/Std Qtr	17.64

Sample Point 160 [INDICATOR - ENE @ 4.89 miles]

TLD RING TLD_OUTER

Sample ID:	562507	Sample Dates:	12/15/2021 - 3/16/2022	Nuclide	Activity
				mR/Std Qtr	14.86
Sample ID:	567999	Sample Dates:	3/16/2022 - 6/22/2022	Nuclide	Activity
				mR/Std Qtr	13.92
Sample ID:	575416	Sample Dates:	6/22/2022 - 9/14/2022	Nuclide	Activity
				mR/Std Qtr	14.02
Sample ID:	581487	Sample Dates:	9/14/2022 - 12/14/2022	Nuclide	Activity
				mR/Std Qtr	17.21

Sample Point 161 [INDICATOR - E @ 4.7 miles]

TLD RING TLD_OUTER

Sample ID:	562508	Sample Dates:	12/15/2021 - 3/16/2022	Nuclide	Activity
				mR/Std Qtr	16.54
Sample ID:	568000	Sample Dates:	3/16/2022 - 6/22/2022	Nuclide	Activity
				mR/Std Qtr	13.77
Sample ID:	575417	Sample Dates:	6/22/2022 - 9/14/2022	Nuclide	Activity
				mR/Std Qtr	14.33
Sample ID:	581488	Sample Dates:	9/14/2022 - 12/14/2022	Nuclide	Activity
				mR/Std Qtr	15.91

Sample Point 162 [INDICATOR - ESE @ 4.53 miles]

TLD RING TLD_OUTER

Sample ID:	562509	Sample Dates:	12/15/2021 - 3/16/2022	Nuclide	Activity
				mR/Std Qtr	13.21
Sample ID:	568001	Sample Dates:	3/16/2022 - 6/22/2022	Nuclide	Activity
				mR/Std Qtr	11.24
Sample ID:	575418	Sample Dates:	6/22/2022 - 9/14/2022	Nuclide	Activity
				mR/Std Qtr	10.59
Sample ID:	581489	Sample Dates:	9/14/2022 - 12/14/2022	Nuclide	Activity
				mR/Std Qtr	11.89

Sample Point 163 [INDICATOR - SE @ 4.94 miles]

TLD RING TLD_OUTER

Sample ID:	562510	Sample Dates:	12/15/2021 - 3/16/2022	Nuclide	Activity
				mR/Std Qtr	13.20
Sample ID:	568002	Sample Dates:	3/16/2022 - 6/22/2022	Nuclide	Activity
				mR/Std Qtr	11.05
Sample ID:	575419	Sample Dates:	6/22/2022 - 9/14/2022	Nuclide	Activity
				mR/Std Qtr	10.56
Sample ID:	581490	Sample Dates:	9/14/2022 - 12/14/2022	Nuclide	Activity
				mR/Std Qtr	11.79

Sample Point 164 [INDICATOR - SSE @ 4.64 miles]

TLD RING TLD_OUTER

Sample ID:	562511	Sample Dates:	12/15/2021 - 3/16/2022	Nuclide	Activity
				mR/Std Qtr	14.80
Sample ID:	568003	Sample Dates:	3/16/2022 - 6/22/2022	Nuclide	Activity
				mR/Std Qtr	9.69
Sample ID:	575420	Sample Dates:	6/22/2022 - 9/14/2022	Nuclide	Activity
				mR/Std Qtr	10.17
Sample ID:	581491	Sample Dates:	9/14/2022 - 12/14/2022	Nuclide	Activity
				mR/Std Qtr	13.02

EnRad Laboratories

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: TLD Concentration (Activity): mR/Standard Quarter

Sample Point 165 [INDICATOR - S @ 4.57 miles]

TLD RING TLD_OUTER

Sample ID:	562512	Sample Dates:	12/15/2021 - 3/16/2022	Nuclide	Activity
				mR/Std Qtr	19.67
Sample ID:	568004	Sample Dates:	3/16/2022 - 6/22/2022	Nuclide	Activity
				mR/Std Qtr	18.13
Sample ID:	575421	Sample Dates:	6/22/2022 - 9/14/2022	Nuclide	Activity
				mR/Std Qtr	17.94
Sample ID:	581492	Sample Dates:	9/14/2022 - 12/14/2022	Nuclide	Activity
				mR/Std Qtr	21.87

Sample Point 166 [INDICATOR - SSW @ 4.44 miles]

TLD RING TLD_OUTER

Sample ID:	562513	Sample Dates:	12/15/2021 - 3/16/2022	Nuclide	Activity
				mR/Std Qtr	18.90
Sample ID:	568005	Sample Dates:	3/16/2022 - 6/22/2022	Nuclide	Activity
				mR/Std Qtr	17.52
Sample ID:	575422	Sample Dates:	6/22/2022 - 9/14/2022	Nuclide	Activity
				mR/Std Qtr	17.52
Sample ID:	581493	Sample Dates:	9/14/2022 - 12/14/2022	Nuclide	Activity
				mR/Std Qtr	20.27

Sample Point 167 [INDICATOR - SW @ 4.87 miles]

TLD RING TLD_OUTER

Sample ID:	562514	Sample Dates:	12/15/2021 - 3/16/2022	Nuclide	Activity
				mR/Std Qtr	21.11
Sample ID:	568006	Sample Dates:	3/16/2022 - 6/22/2022	Nuclide	Activity
				mR/Std Qtr	19.39
Sample ID:	575423	Sample Dates:	6/22/2022 - 9/14/2022	Nuclide	Activity
				mR/Std Qtr	17.50
Sample ID:	581494	Sample Dates:	9/14/2022 - 12/14/2022	Nuclide	Activity
				mR/Std Qtr	20.05

Sample Point 168 [INDICATOR - WSW @ 4.6 miles]

TLD RING TLD_OUTER

Sample ID:	562515	Sample Dates:	12/15/2021 - 3/16/2022	Nuclide	Activity
				mR/Std Qtr	20.07
Sample ID:	568007	Sample Dates:	3/16/2022 - 6/22/2022	Nuclide	Activity
				mR/Std Qtr	16.94
Sample ID:	575424	Sample Dates:	6/22/2022 - 9/14/2022	Nuclide	Activity
				mR/Std Qtr	17.11
Sample ID:	581495	Sample Dates:	9/14/2022 - 12/14/2022	Nuclide	Activity
				mR/Std Qtr	18.15

Sample Point 169 [INDICATOR - W @ 4.03 miles]

TLD RING TLD_OUTER

Sample ID:	562516	Sample Dates:	12/15/2021 - 3/16/2022	Nuclide	Activity
				mR/Std Qtr	15.15
Sample ID:	568008	Sample Dates:	3/16/2022 - 6/22/2022	Nuclide	Activity
				mR/Std Qtr	14.62
Sample ID:	575425	Sample Dates:	6/22/2022 - 9/14/2022	Nuclide	Activity
				mR/Std Qtr	13.67
Sample ID:	581496	Sample Dates:	9/14/2022 - 12/14/2022	Nuclide	Activity
				mR/Std Qtr	15.05

Sample Point 170 [INDICATOR - WNW @ 4.32 miles]

TLD RING TLD_OUTER

Sample ID:	562517	Sample Dates:	12/15/2021 - 3/16/2022	Nuclide	Activity
				mR/Std Qtr	24.33
Sample ID:	568009	Sample Dates:	3/16/2022 - 6/22/2022	Nuclide	Activity
				mR/Std Qtr	24.34

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: TLD Concentration (Activity): mR/Standard Quarter

Sample Point 170 [INDICATOR - WNW @ 4.32 miles]

TLD RING TLD_OUTER

Sample ID:	575426	Sample Dates:	6/22/2022 - 9/14/2022	Nuclide	Activity
				mR/Std Qtr	24.80
Sample ID:	581497	Sample Dates:	9/14/2022 - 12/14/2022	Nuclide	Activity
				mR/Std Qtr	26.51

Sample Point 171 [INDICATOR - NW @ 3.95 miles]

TLD RING TLD_OUTER

Sample ID:	562518	Sample Dates:	12/15/2021 - 3/16/2022	Nuclide	Activity
				mR/Std Qtr	21.70
Sample ID:	568010	Sample Dates:	3/16/2022 - 6/22/2022	Nuclide	Activity
				mR/Std Qtr	18.93
Sample ID:	575427	Sample Dates:	6/22/2022 - 9/14/2022	Nuclide	Activity
				mR/Std Qtr	17.94
Sample ID:	581498	Sample Dates:	9/14/2022 - 12/14/2022	Nuclide	Activity
				mR/Std Qtr	20.57

Sample Point 172 [INDICATOR - NNW @ 4.69 miles]

TLD RING TLD_OUTER

Sample ID:	562519	Sample Dates:	12/15/2021 - 3/16/2022	Nuclide	Activity
				mR/Std Qtr	18.04
Sample ID:	568011	Sample Dates:	3/16/2022 - 6/22/2022	Nuclide	Activity
				mR/Std Qtr	15.79
Sample ID:	575428	Sample Dates:	6/22/2022 - 9/14/2022	Nuclide	Activity
				mR/Std Qtr	15.10
Sample ID:	581499	Sample Dates:	9/14/2022 - 12/14/2022	Nuclide	Activity
				mR/Std Qtr	18.11

Sample Point 173 [INDICATOR - NNW @ 8.39 miles]

TLD RING TLD_SPEC

Sample ID:	562520	Sample Dates:	12/15/2021 - 3/16/2022	Nuclide	Activity
				mR/Std Qtr	26.30
Sample ID:	568012	Sample Dates:	3/16/2022 - 6/22/2022	Nuclide	Activity
				mR/Std Qtr	23.17
Sample ID:	575429	Sample Dates:	6/22/2022 - 9/14/2022	Nuclide	Activity
				mR/Std Qtr	20.85
Sample ID:	581500	Sample Dates:	9/14/2022 - 12/14/2022	Nuclide	Activity
				mR/Std Qtr	24.33

Sample Point 174 [INDICATOR - WNW @ 8.85 miles]

TLD RING TLD_SPEC

Sample ID:	562521	Sample Dates:	12/15/2021 - 3/16/2022	Nuclide	Activity
				mR/Std Qtr	27.85
Sample ID:	568013	Sample Dates:	3/16/2022 - 6/22/2022	Nuclide	Activity
				mR/Std Qtr	24.02
Sample ID:	575430	Sample Dates:	6/22/2022 - 9/14/2022	Nuclide	Activity
				mR/Std Qtr	24.15
Sample ID:	581501	Sample Dates:	9/14/2022 - 12/14/2022	Nuclide	Activity
				mR/Std Qtr	26.95

Sample Point 175 [CONTROL - WNW @ 15.5 miles]

TLD RING TLD_CTRL

Sample ID:	562522	Sample Dates:	12/15/2021 - 3/16/2022	Nuclide	Activity
				mR/Std Qtr	24.24
Sample ID:	568014	Sample Dates:	3/16/2022 - 6/22/2022	Nuclide	Activity
				mR/Std Qtr	22.31
Sample ID:	575431	Sample Dates:	6/22/2022 - 9/14/2022	Nuclide	Activity
				mR/Std Qtr	21.18
Sample ID:	581502	Sample Dates:	9/14/2022 - 12/14/2022	Nuclide	Activity
				mR/Std Qtr	24.37

EnRad Laboratories

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: TLD Concentration (Activity): mR/Standard Quarter

Sample Point 177 [INDICATOR - S @ 8.77 miles]

TLD RING TLD_SPEC

Sample ID:	562523	Sample Dates:	12/15/2021 - 3/16/2022	Nuclide	Activity
				mR/Std Qtr	15.19
Sample ID:	568015	Sample Dates:	3/16/2022 - 6/22/2022	Nuclide	Activity
				mR/Std Qtr	11.75
Sample ID:	575432	Sample Dates:	6/22/2022 - 9/14/2022	Nuclide	Activity
				mR/Std Qtr	13.33
Sample ID:	581503	Sample Dates:	9/14/2022 - 12/14/2022	Nuclide	Activity
				mR/Std Qtr	13.22

Sample Point 178 [INDICATOR - SE @ 9.36 miles]

TLD RING TLD_SPEC

Sample ID:	562524	Sample Dates:	12/15/2021 - 3/16/2022	Nuclide	Activity
				mR/Std Qtr	15.93
Sample ID:	568016	Sample Dates:	3/16/2022 - 6/22/2022	Nuclide	Activity
				mR/Std Qtr	12.76
Sample ID:	575433	Sample Dates:	6/22/2022 - 9/14/2022	Nuclide	Activity
				mR/Std Qtr	12.58
Sample ID:	581504	Sample Dates:	9/14/2022 - 12/14/2022	Nuclide	Activity
				mR/Std Qtr	18.67

Sample Point 180 [INDICATOR - NNE @ 12.7 miles]

TLD RING TLD_SPEC

Sample ID:	562525	Sample Dates:	12/15/2021 - 3/16/2022	Nuclide	Activity
				mR/Std Qtr	26.22
Sample ID:	568017	Sample Dates:	3/16/2022 - 6/22/2022	Nuclide	Activity
				mR/Std Qtr	24.59
Sample ID:	575434	Sample Dates:	6/22/2022 - 9/14/2022	Nuclide	Activity
				mR/Std Qtr	22.72
Sample ID:	581505	Sample Dates:	9/14/2022 - 12/14/2022	Nuclide	Activity
				mR/Std Qtr	25.48

Sample Point 181 [INDICATOR - NE @ 7.02 miles]

TLD RING TLD_SPEC

Sample ID:	562526	Sample Dates:	12/15/2021 - 3/16/2022	Nuclide	Activity
				mR/Std Qtr	17.50
Sample ID:	568018	Sample Dates:	3/16/2022 - 6/22/2022	Nuclide	Activity
				mR/Std Qtr	17.40
Sample ID:	575435	Sample Dates:	6/22/2022 - 9/14/2022	Nuclide	Activity
				mR/Std Qtr	14.79
Sample ID:	581506	Sample Dates:	9/14/2022 - 12/14/2022	Nuclide	Activity
				mR/Std Qtr	16.05

Sample Point 182 [INDICATOR - ENE @ 6.23 miles]

TLD RING TLD_SPEC

Sample ID:	562527	Sample Dates:	12/15/2021 - 3/16/2022	Nuclide	Activity
				mR/Std Qtr	19.28
Sample ID:	568019	Sample Dates:	3/16/2022 - 6/22/2022	Nuclide	Activity
				mR/Std Qtr	18.24
Sample ID:	575436	Sample Dates:	6/22/2022 - 9/14/2022	Nuclide	Activity
				mR/Std Qtr	17.31
Sample ID:	581507	Sample Dates:	9/14/2022 - 12/14/2022	Nuclide	Activity
				mR/Std Qtr	19.20

Sample Point 186 [INDICATOR - NNW @ 0.24 miles]

TLD RING TLD_SPEC

Sample ID:	562528	Sample Dates:	12/15/2021 - 3/16/2022	Nuclide	Activity
				mR/Std Qtr	17.43
Sample ID:	568020	Sample Dates:	3/16/2022 - 6/22/2022	Nuclide	Activity
				mR/Std Qtr	14.48

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

Report Generated @ 2/15/2023 13:34:28

Duke Energy Annual Report - Appendix E

Appendix E - Page 102 of 114

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: TLD Concentration (Activity): mR/Standard Quarter

Sample Point 186 [INDICATOR - NNW @ 0.24 miles]

TLD RING TLD_SPEC

Sample ID	Sample Dates	Nuclide	Activity
575437	6/22/2022 - 9/14/2022	mR/Std Qtr	15.78
581508	9/14/2022 - 12/14/2022	mR/Std Qtr	18.98

Sample Point 187 [INDICATOR - N @ 0.19 miles]

TLD RING TLD_SPEC

Sample ID	Sample Dates	Nuclide	Activity
562529	12/15/2021 - 3/16/2022	mR/Std Qtr	18.95
568021	3/16/2022 - 6/22/2022	mR/Std Qtr	16.13
575438	6/22/2022 - 9/14/2022	mR/Std Qtr	16.27
581509	9/14/2022 - 12/14/2022	mR/Std Qtr	19.17

Sample Point 189 [INDICATOR - SSE @ 0.43 miles]

TLD RING TLD_INNER

Sample ID	Sample Dates	Nuclide	Activity
562530	12/15/2021 - 3/16/2022	mR/Std Qtr	16.42
568022	3/16/2022 - 6/22/2022	mR/Std Qtr	14.86
575439	6/22/2022 - 9/14/2022	mR/Std Qtr	14.25
581510	9/14/2022 - 12/14/2022	mR/Std Qtr	14.99

Sample Point 190 [INDICATOR - WSW @ 0.37 miles]

TLD RING TLD_INNER

Sample ID	Sample Dates	Nuclide	Activity
562531	12/15/2021 - 3/16/2022	mR/Std Qtr	20.56
568023	3/16/2022 - 6/22/2022	mR/Std Qtr	19.03
575440	6/22/2022 - 9/14/2022	mR/Std Qtr	18.75
581511	9/14/2022 - 12/14/2022	mR/Std Qtr	22.51

Sample Point 191 [INDICATOR - NNE @ 2.84 miles]

TLD RING TLD_SPEC

Sample ID	Sample Dates	Nuclide	Activity
562532	12/15/2021 - 3/16/2022	mR/Std Qtr	19.80
568024	3/16/2022 - 6/22/2022	mR/Std Qtr	16.77
575441	6/22/2022 - 9/14/2022	mR/Std Qtr	15.31
581512	9/14/2022 - 12/14/2022	mR/Std Qtr	21.70

Media Type: VEGETATION Concentration (Activity): pCi/kg

Sample Point 102 [CONTROL - WNW @ 9.89 miles]

Sample ID	Sample Dates	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
558867	1/4/2022 - 1/4/2022		Mn-54	<1.87E+01	0.00E+00	1.87E+01
			Co-58	<1.47E+01	0.00E+00	1.47E+01
			Fe-59	<3.66E+01	0.00E+00	3.66E+01
			Co-60	<1.56E+01	0.00E+00	1.56E+01
			Zn-65	<3.63E+01	0.00E+00	3.63E+01
			Zr-95	<3.58E+01	0.00E+00	3.58E+01
			Nb-95	<1.99E+01	0.00E+00	1.99E+01
			I-131	<1.91E+01	0.00E+00	1.91E+01
			Cs-134	<2.02E+01	0.00E+00	2.02E+01

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: VEGETATION Concentration (Activity): pCi/kg

Sample Point 102 [CONTROL - WNW @ 9.89 miles]

Sample ID:	Sample Dates:	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
558867	1/4/2022 - 1/4/2022	MIXEDBLV	Cs-137	<1.99E+01	0.00E+00	1.99E+01
			BaLa-140	<2.25E+01	0.00E+00	2.25E+01
			Be-7	1.76E+03	2.71E+02	2.15E+02
			K-40	3.90E+03	5.45E+02	3.06E+02
560848	2/7/2022 - 2/7/2022	MIXEDBLV	Mn-54	<1.75E+01	0.00E+00	1.75E+01
			Co-58	<1.56E+01	0.00E+00	1.56E+01
			Fe-59	<3.16E+01	0.00E+00	3.16E+01
			Co-60	<1.76E+01	0.00E+00	1.76E+01
			Zn-65	<2.58E+01	0.00E+00	2.58E+01
			Zr-95	<2.80E+01	0.00E+00	2.80E+01
			Nb-95	<1.43E+01	0.00E+00	1.43E+01
			I-131	<1.59E+01	0.00E+00	1.59E+01
			Cs-134	<2.09E+01	0.00E+00	2.09E+01
			Cs-137	<1.53E+01	0.00E+00	1.53E+01
			BaLa-140	<2.31E+01	0.00E+00	2.31E+01
			Be-7	6.30E+02	1.59E+02	1.91E+02
			K-40	2.54E+03	3.88E+02	2.20E+02
562882	3/7/2022 - 3/7/2022	MIXEDBLV	Mn-54	<3.97E+01	0.00E+00	3.97E+01
			Co-58	<2.97E+01	0.00E+00	2.97E+01
			Fe-59	<4.70E+01	0.00E+00	4.70E+01
			Co-60	<4.39E+01	0.00E+00	4.39E+01
			Zn-65	<8.09E+01	0.00E+00	8.09E+01
			Zr-95	<4.97E+01	0.00E+00	4.97E+01
			Nb-95	<2.45E+01	0.00E+00	2.45E+01
			I-131	<3.16E+01	0.00E+00	3.16E+01
			Cs-134	<4.06E+01	0.00E+00	4.06E+01
			Cs-137	<3.11E+01	0.00E+00	3.11E+01
			BaLa-140	<4.20E+01	0.00E+00	4.20E+01
			Be-7	5.99E+02	1.65E+02	3.21E+02
			K-40	3.09E+03	6.95E+02	6.93E+02
564577	4/4/2022 - 4/4/2022	MIXEDBLV	Mn-54	<3.09E+01	0.00E+00	3.09E+01
			Co-58	<1.58E+01	0.00E+00	1.58E+01
			Fe-59	<5.53E+01	0.00E+00	5.53E+01
			Co-60	<3.45E+01	0.00E+00	3.45E+01
			Zn-65	<6.59E+01	0.00E+00	6.59E+01
			Zr-95	<4.78E+01	0.00E+00	4.78E+01
			Nb-95	<2.82E+01	0.00E+00	2.82E+01
			I-131	<2.33E+01	0.00E+00	2.33E+01
			Cs-134	<4.03E+01	0.00E+00	4.03E+01
			Cs-137	<3.56E+01	0.00E+00	3.56E+01
			BaLa-140	<1.94E+01	0.00E+00	1.94E+01
			Be-7	5.01E+02	2.35E+02	3.32E+02
			K-40	6.47E+03	9.42E+02	3.95E+02
566594	5/2/2022 - 5/2/2022	MIXEDBLV	Mn-54	<1.42E+01	0.00E+00	1.42E+01
			Co-58	<1.22E+01	0.00E+00	1.22E+01
			Fe-59	<2.21E+01	0.00E+00	2.21E+01
			Co-60	<1.38E+01	0.00E+00	1.38E+01
			Zn-65	<3.48E+01	0.00E+00	3.48E+01
			Zr-95	<2.32E+01	0.00E+00	2.32E+01
			Nb-95	<1.22E+01	0.00E+00	1.22E+01
			I-131	<1.15E+01	0.00E+00	1.15E+01
			Cs-134	<1.49E+01	0.00E+00	1.49E+01
			Cs-137	<1.38E+01	0.00E+00	1.38E+01
			BaLa-140	<1.48E+01	0.00E+00	1.48E+01
			Be-7	2.27E+02	9.81E+01	1.40E+02
			K-40	2.98E+03	4.01E+02	2.12E+02
568417	6/6/2022 - 6/6/2022	MIXEDBLV	Mn-54	<2.13E+01	0.00E+00	2.13E+01

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: VEGETATION Concentration (Activity): pCi/kg

Sample Point 102 [CONTROL - WNW @ 9.89 miles]

Sample ID:	Sample Dates:	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
568417	6/6/2022 - 6/6/2022	MIXEDBLV	Co-58	<2.07E+01	0.00E+00	2.07E+01
			Fe-59	<4.07E+01	0.00E+00	4.07E+01
			Co-60	<2.21E+01	0.00E+00	2.21E+01
			Zn-65	<3.41E+01	0.00E+00	3.41E+01
			Zr-95	<3.95E+01	0.00E+00	3.95E+01
			Nb-95	<2.16E+01	0.00E+00	2.16E+01
			I-131	<1.93E+01	0.00E+00	1.93E+01
			Cs-134	<3.01E+01	0.00E+00	3.01E+01
			Cs-137	<2.27E+01	0.00E+00	2.27E+01
			BaLa-140	<2.36E+01	0.00E+00	2.36E+01
			Be-7	1.37E+03	2.54E+02	2.58E+02
			K-40	3.94E+03	5.72E+02	3.48E+02

Sample ID:	Sample Dates:	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
570333	7/5/2022 - 7/5/2022	MIXEDBLV	Mn-54	<1.67E+01	0.00E+00	1.67E+01
			Co-58	<1.62E+01	0.00E+00	1.62E+01
			Fe-59	<3.08E+01	0.00E+00	3.08E+01
			Co-60	<1.72E+01	0.00E+00	1.72E+01
			Zn-65	<3.34E+01	0.00E+00	3.34E+01
			Zr-95	<3.09E+01	0.00E+00	3.09E+01
			Nb-95	<1.27E+01	0.00E+00	1.27E+01
			I-131	<2.20E+01	0.00E+00	2.20E+01
			Cs-134	<2.26E+01	0.00E+00	2.26E+01
			Cs-137	<1.39E+01	0.00E+00	1.39E+01
			BaLa-140	<9.78E+00	0.00E+00	9.78E+00
			Be-7	9.77E+02	1.81E+02	1.80E+02
			K-40	3.82E+03	4.83E+02	1.89E+02

Sample ID:	Sample Dates:	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
571744	8/1/2022 - 8/1/2022	MIXEDBLV	Mn-54	<3.89E+01	0.00E+00	3.89E+01
			Co-58	<3.09E+01	0.00E+00	3.09E+01
			Fe-59	<6.66E+01	0.00E+00	6.66E+01
			Co-60	<3.76E+01	0.00E+00	3.76E+01
			Zn-65	<8.48E+01	0.00E+00	8.48E+01
			Zr-95	<6.58E+01	0.00E+00	6.58E+01
			Nb-95	<3.47E+01	0.00E+00	3.47E+01
			I-131	<3.48E+01	0.00E+00	3.48E+01
			Cs-134	<4.64E+01	0.00E+00	4.64E+01
			Cs-137	<3.46E+01	0.00E+00	3.46E+01
			BaLa-140	<4.23E+01	0.00E+00	4.23E+01
			Be-7	1.96E+03	4.13E+02	4.61E+02
			K-40	4.44E+03	7.79E+02	5.84E+02

Sample ID:	Sample Dates:	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
575731	9/6/2022 - 9/6/2022	MIXEDBLV	Mn-54	<1.63E+01	0.00E+00	1.63E+01
			Co-58	<1.58E+01	0.00E+00	1.58E+01
			Fe-59	<2.62E+01	0.00E+00	2.62E+01
			Co-60	<1.35E+01	0.00E+00	1.35E+01
			Zn-65	<3.18E+01	0.00E+00	3.18E+01
			Zr-95	<2.60E+01	0.00E+00	2.60E+01
			Nb-95	<1.22E+01	0.00E+00	1.22E+01
			I-131	<1.46E+01	0.00E+00	1.46E+01
			Cs-134	<2.39E+01	0.00E+00	2.39E+01
			Cs-137	<1.58E+01	0.00E+00	1.58E+01
			BaLa-140	<1.73E+01	0.00E+00	1.73E+01
			Be-7	1.71E+03	2.39E+02	1.67E+02
			K-40	2.85E+03	4.10E+02	2.27E+02

Sample ID:	Sample Dates:	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
577203	10/3/2022 - 10/3/2022	MIXEDBLV	Mn-54	<2.52E+01	0.00E+00	2.52E+01
			Co-58	<2.42E+01	0.00E+00	2.42E+01
			Fe-59	<4.70E+01	0.00E+00	4.70E+01
			Co-60	<2.96E+01	0.00E+00	2.96E+01
			Zn-65	<4.62E+01	0.00E+00	4.62E+01
			Zr-95	<4.39E+01	0.00E+00	4.39E+01
			Nb-95	<2.04E+01	0.00E+00	2.04E+01
			I-131	<2.45E+01	0.00E+00	2.45E+01

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: VEGETATION Concentration (Activity): pCi/kg

Sample Point 102 [CONTROL - WNW @ 9.89 miles]

Sample ID:	Sample Dates:	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
577203	10/3/2022 - 10/3/2022	MIXEDBLV	Cs-134	<3.42E+01	0.00E+00	3.42E+01
			Cs-137	<2.16E+01	0.00E+00	2.16E+01
			BaLa-140	<2.94E+01	0.00E+00	2.94E+01
			Be-7	3.37E+03	4.29E+02	2.36E+02
			K-40	4.27E+03	6.33E+02	4.05E+02

Sample ID:	Sample Dates:	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
579822	11/7/2022 - 11/7/2022	MIXEDBLV	Mn-54	<4.11E+01	0.00E+00	4.11E+01
			Co-58	<3.95E+01	0.00E+00	3.95E+01
			Fe-59	<6.70E+01	0.00E+00	6.70E+01
			Co-60	<3.78E+01	0.00E+00	3.78E+01
			Zn-65	<7.97E+01	0.00E+00	7.97E+01
			Zr-95	<6.17E+01	0.00E+00	6.17E+01
			Nb-95	<3.15E+01	0.00E+00	3.15E+01
			I-131	<3.28E+01	0.00E+00	3.28E+01
			Cs-134	<4.62E+01	0.00E+00	4.62E+01
			Cs-137	<3.63E+01	0.00E+00	3.63E+01
			BaLa-140	<3.96E+01	0.00E+00	3.96E+01
			Be-7	1.41E+03	3.99E+02	4.80E+02
			K-40	5.16E+03	8.99E+02	3.62E+02

Sample ID:	Sample Dates:	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
581735	12/5/2022 - 12/5/2022	MIXEDBLV	Mn-54	<1.87E+01	0.00E+00	1.87E+01
			Co-58	<2.34E+01	0.00E+00	2.34E+01
			Fe-59	<4.21E+01	0.00E+00	4.21E+01
			Co-60	<1.26E+01	0.00E+00	1.26E+01
			Zn-65	<5.62E+01	0.00E+00	5.62E+01
			Zr-95	<4.41E+01	0.00E+00	4.41E+01
			Nb-95	<2.32E+01	0.00E+00	2.32E+01
			I-131	<2.87E+01	0.00E+00	2.87E+01
			Cs-134	<2.89E+01	0.00E+00	2.89E+01
			Cs-137	<2.37E+01	0.00E+00	2.37E+01
			BaLa-140	<3.08E+01	0.00E+00	3.08E+01
			Be-7	2.63E+02	1.83E+02	2.81E+02
			K-40	2.71E+03	4.89E+02	1.64E+02

Sample Point 120 [INDICATOR - NNE @ 0.46 miles]

Sample ID:	Sample Dates:	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
558868	1/4/2022 - 1/4/2022	MIXEDBLV	Mn-54	<2.69E+01	0.00E+00	2.69E+01
			Co-58	<3.09E+01	0.00E+00	3.09E+01
			Fe-59	<4.67E+01	0.00E+00	4.67E+01
			Co-60	<2.35E+01	0.00E+00	2.35E+01
			Zn-65	<6.01E+01	0.00E+00	6.01E+01
			Zr-95	<4.81E+01	0.00E+00	4.81E+01
			Nb-95	<2.62E+01	0.00E+00	2.62E+01
			I-131	<2.35E+01	0.00E+00	2.35E+01
			Cs-134	<3.08E+01	0.00E+00	3.08E+01
			Cs-137	<2.55E+01	0.00E+00	2.55E+01
			BaLa-140	<2.80E+01	0.00E+00	2.80E+01
			Be-7	9.47E+02	2.61E+02	3.22E+02
			K-40	6.48E+03	8.70E+02	4.30E+02

Sample ID:	Sample Dates:	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
560849	2/7/2022 - 2/7/2022	MIXEDBLV	Mn-54	<1.69E+01	0.00E+00	1.69E+01
			Co-58	<1.32E+01	0.00E+00	1.32E+01
			Fe-59	<2.84E+01	0.00E+00	2.84E+01
			Co-60	<1.84E+01	0.00E+00	1.84E+01
			Zn-65	<4.41E+01	0.00E+00	4.41E+01
			Zr-95	<2.53E+01	0.00E+00	2.53E+01
			Nb-95	<1.43E+01	0.00E+00	1.43E+01
			I-131	<1.56E+01	0.00E+00	1.56E+01
			Cs-134	<1.58E+01	0.00E+00	1.58E+01
			Cs-137	<1.46E+01	0.00E+00	1.46E+01
			BaLa-140	<1.52E+01	0.00E+00	1.52E+01
			Be-7	6.48E+02	1.65E+02	2.06E+02
			K-40	5.08E+03	6.13E+02	2.14E+02

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: VEGETATION Concentration (Activity): pCi/kg

Sample Point 120 [INDICATOR - NNE @ 0.46 miles]

Sample ID:	562883	Sample Dates:	3/7/2022 - 3/7/2022	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
					Mn-54	<1.47E+01	0.00E+00	1.47E+01
					Co-58	<1.52E+01	0.00E+00	1.52E+01
					Fe-59	<3.44E+01	0.00E+00	3.44E+01
					Co-60	<1.66E+01	0.00E+00	1.66E+01
					Zn-65	<3.71E+01	0.00E+00	3.71E+01
					Zr-95	<2.35E+01	0.00E+00	2.35E+01
					Nb-95	<2.38E+01	0.00E+00	2.38E+01
					I-131	<1.38E+01	0.00E+00	1.38E+01
					Cs-134	<2.29E+01	0.00E+00	2.29E+01
					Cs-137	<1.32E+01	0.00E+00	1.32E+01
					BaLa-140	<1.55E+01	0.00E+00	1.55E+01
					Be-7	5.38E+02	1.43E+02	1.88E+02
					K-40	6.51E+03	6.96E+02	2.39E+02

Sample ID:	564578	Sample Dates:	4/4/2022 - 4/4/2022	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
					Mn-54	<2.71E+01	0.00E+00	2.71E+01
					Co-58	<2.49E+01	0.00E+00	2.49E+01
					Fe-59	<6.20E+01	0.00E+00	6.20E+01
					Co-60	<3.26E+01	0.00E+00	3.26E+01
					Zn-65	<5.94E+01	0.00E+00	5.94E+01
					Zr-95	<4.15E+01	0.00E+00	4.15E+01
					Nb-95	<2.62E+01	0.00E+00	2.62E+01
					I-131	<2.03E+01	0.00E+00	2.03E+01
					Cs-134	<3.14E+01	0.00E+00	3.14E+01
					Cs-137	<2.72E+01	0.00E+00	2.72E+01
					BaLa-140	<2.54E+01	0.00E+00	2.54E+01
					Be-7	2.18E+02	1.72E+02	2.67E+02
					K-40	5.53E+03	8.59E+02	5.59E+02

Sample ID:	566595	Sample Dates:	5/2/2022 - 5/2/2022	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
					Mn-54	<9.10E+00	0.00E+00	9.10E+00
					Co-58	<1.24E+01	0.00E+00	1.24E+01
					Fe-59	<2.69E+01	0.00E+00	2.69E+01
					Co-60	<1.20E+01	0.00E+00	1.20E+01
					Zn-65	<2.87E+01	0.00E+00	2.87E+01
					Zr-95	<1.99E+01	0.00E+00	1.99E+01
					Nb-95	<1.37E+01	0.00E+00	1.37E+01
					I-131	<1.22E+01	0.00E+00	1.22E+01
					Cs-134	<1.90E+01	0.00E+00	1.90E+01
					Cs-137	<1.22E+01	0.00E+00	1.22E+01
					BaLa-140	<1.32E+01	0.00E+00	1.32E+01
					Be-7	2.05E+02	9.83E+01	1.42E+02
					K-40	3.58E+03	4.59E+02	2.19E+02

Sample ID:	568418	Sample Dates:	6/6/2022 - 6/6/2022	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
					Mn-54	<1.90E+01	0.00E+00	1.90E+01
					Co-58	<1.64E+01	0.00E+00	1.64E+01
					Fe-59	<3.72E+01	0.00E+00	3.72E+01
					Co-60	<1.48E+01	0.00E+00	1.48E+01
					Zn-65	<3.12E+01	0.00E+00	3.12E+01
					Zr-95	<3.40E+01	0.00E+00	3.40E+01
					Nb-95	<1.82E+01	0.00E+00	1.82E+01
					I-131	<1.75E+01	0.00E+00	1.75E+01
					Cs-134	<2.26E+01	0.00E+00	2.26E+01
					Cs-137	<1.85E+01	0.00E+00	1.85E+01
					BaLa-140	<1.73E+01	0.00E+00	1.73E+01
					Be-7	8.04E+02	2.03E+02	2.49E+02
					K-40	3.51E+03	5.30E+02	3.51E+02

Sample ID:	570334	Sample Dates:	7/5/2022 - 7/5/2022	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
					Mn-54	<1.90E+01	0.00E+00	1.90E+01
					Co-58	<1.76E+01	0.00E+00	1.76E+01
					Fe-59	<2.87E+01	0.00E+00	2.87E+01
					Co-60	<1.86E+01	0.00E+00	1.86E+01
					Zn-65	<3.81E+01	0.00E+00	3.81E+01
					Zr-95	<3.00E+01	0.00E+00	3.00E+01
					Nb-95	<2.09E+01	0.00E+00	2.09E+01

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: VEGETATION Concentration (Activity): pCi/kg

Sample Point 120 [INDICATOR - NNE @ 0.46 miles]

Sample ID:	Sample Dates:	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
570334	7/5/2022 - 7/5/2022	MIXEDBLV	I-131	<2.71E+01	0.00E+00	2.71E+01
			Cs-134	<1.63E+01	0.00E+00	1.63E+01
			Cs-137	<1.91E+01	0.00E+00	1.91E+01
			BaLa-140	<2.31E+01	0.00E+00	2.31E+01
			Be-7	9.35E+02	1.86E+02	1.84E+02
			K-40	3.16E+03	4.60E+02	2.58E+02
571745	8/1/2022 - 8/1/2022	MIXEDBLV	Mn-54	<3.52E+01	0.00E+00	3.52E+01
			Co-58	<3.00E+01	0.00E+00	3.00E+01
			Fe-59	<6.09E+01	0.00E+00	6.09E+01
			Co-60	<4.28E+01	0.00E+00	4.28E+01
			Zn-65	<6.82E+01	0.00E+00	6.82E+01
			Zr-95	<5.71E+01	0.00E+00	5.71E+01
			Nb-95	<3.68E+01	0.00E+00	3.68E+01
			I-131	<2.91E+01	0.00E+00	2.91E+01
			Cs-134	<4.10E+01	0.00E+00	4.10E+01
			Cs-137	<4.00E+01	0.00E+00	4.00E+01
			BaLa-140	<3.91E+01	0.00E+00	3.91E+01
			Be-7	1.22E+03	3.02E+02	3.43E+02
			K-40	4.13E+03	7.06E+02	4.25E+02
			575732	9/6/2022 - 9/6/2022	MIXEDBLV	Mn-54
Co-58	<1.60E+01	0.00E+00				1.60E+01
Fe-59	<4.33E+01	0.00E+00				4.33E+01
Co-60	<2.09E+01	0.00E+00				2.09E+01
Zn-65	<4.33E+01	0.00E+00				4.33E+01
Zr-95	<3.83E+01	0.00E+00				3.83E+01
Nb-95	<2.08E+01	0.00E+00				2.08E+01
I-131	<2.06E+01	0.00E+00				2.06E+01
Cs-134	<2.61E+01	0.00E+00				2.61E+01
Cs-137	<2.07E+01	0.00E+00				2.07E+01
BaLa-140	<2.12E+01	0.00E+00				2.12E+01
Be-7	1.67E+03	2.80E+02				2.50E+02
K-40	3.54E+03	5.27E+02				3.03E+02
577204	10/3/2022 - 10/3/2022	MIXEDBLV				Mn-54
			Co-58	<1.71E+01	0.00E+00	1.71E+01
			Fe-59	<3.39E+01	0.00E+00	3.39E+01
			Co-60	<2.04E+01	0.00E+00	2.04E+01
			Zn-65	<4.15E+01	0.00E+00	4.15E+01
			Zr-95	<2.55E+01	0.00E+00	2.55E+01
			Nb-95	<1.73E+01	0.00E+00	1.73E+01
			I-131	<2.35E+01	0.00E+00	2.35E+01
			Cs-134	<2.27E+01	0.00E+00	2.27E+01
			Cs-137	<1.96E+01	0.00E+00	1.96E+01
			BaLa-140	<2.05E+01	0.00E+00	2.05E+01
			Be-7	1.59E+03	2.44E+02	2.16E+02
			K-40	3.57E+03	4.92E+02	3.26E+02
			579823	11/7/2022 - 11/7/2022	MIXEDBLV	Mn-54
Co-58	<2.31E+01	0.00E+00				2.31E+01
Fe-59	<4.69E+01	0.00E+00				4.69E+01
Co-60	<2.52E+01	0.00E+00				2.52E+01
Zn-65	<5.08E+01	0.00E+00				5.08E+01
Zr-95	<4.63E+01	0.00E+00				4.63E+01
Nb-95	<2.45E+01	0.00E+00				2.45E+01
I-131	<2.30E+01	0.00E+00				2.30E+01
Cs-134	<2.65E+01	0.00E+00				2.65E+01
Cs-137	<2.38E+01	0.00E+00				2.38E+01
BaLa-140	<2.05E+01	0.00E+00				2.05E+01
Be-7	1.06E+03	2.50E+02				3.12E+02
K-40	5.22E+03	6.84E+02				4.00E+02

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: VEGETATION Concentration (Activity): pCi/kg

Sample Point 120 [INDICATOR - NNE @ 0.46 miles]

Sample ID:	581736	Sample Dates:	12/5/2022 - 12/5/2022	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
					Mn-54	<1.84E+01	0.00E+00	1.84E+01
					Co-58	<1.30E+01	0.00E+00	1.30E+01
					Fe-59	<3.23E+01	0.00E+00	3.23E+01
					Co-60	<1.85E+01	0.00E+00	1.85E+01
					Zn-65	<3.44E+01	0.00E+00	3.44E+01
					Zr-95	<2.10E+01	0.00E+00	2.10E+01
					Nb-95	<1.33E+01	0.00E+00	1.33E+01
					I-131	<1.70E+01	0.00E+00	1.70E+01
					Cs-134	<1.78E+01	0.00E+00	1.78E+01
					Cs-137	<1.61E+01	0.00E+00	1.61E+01
					BaLa-140	<1.34E+01	0.00E+00	1.34E+01
					Be-7	4.85E+02	1.39E+02	1.69E+02
					K-40	4.33E+03	5.54E+02	1.85E+02

Sample Point 125 [INDICATOR - SW @ 0.38 miles]

Sample ID:	558869	Sample Dates:	1/4/2022 - 1/4/2022	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
					Mn-54	<2.71E+01	0.00E+00	2.71E+01
					Co-58	<1.50E+01	0.00E+00	1.50E+01
					Fe-59	<3.55E+01	0.00E+00	3.55E+01
					Co-60	<1.93E+01	0.00E+00	1.93E+01
					Zn-65	<3.84E+01	0.00E+00	3.84E+01
					Zr-95	<2.50E+01	0.00E+00	2.50E+01
					Nb-95	<1.96E+01	0.00E+00	1.96E+01
					I-131	<2.23E+01	0.00E+00	2.23E+01
					Cs-134	<2.25E+01	0.00E+00	2.25E+01
					Cs-137	<1.63E+01	0.00E+00	1.63E+01
					BaLa-140	<2.20E+01	0.00E+00	2.20E+01
					Be-7	1.51E+03	2.56E+02	2.30E+02
					K-40	3.42E+03	5.27E+02	3.17E+02

Sample ID:	560850	Sample Dates:	2/7/2022 - 2/7/2022	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
					Mn-54	<1.56E+01	0.00E+00	1.56E+01
					Co-58	<1.54E+01	0.00E+00	1.54E+01
					Fe-59	<3.49E+01	0.00E+00	3.49E+01
					Co-60	<1.84E+01	0.00E+00	1.84E+01
					Zn-65	<3.21E+01	0.00E+00	3.21E+01
					Zr-95	<2.94E+01	0.00E+00	2.94E+01
					Nb-95	<1.90E+01	0.00E+00	1.90E+01
					I-131	<1.67E+01	0.00E+00	1.67E+01
					Cs-134	<2.01E+01	0.00E+00	2.01E+01
					Cs-137	<1.59E+01	0.00E+00	1.59E+01
					BaLa-140	<1.75E+01	0.00E+00	1.75E+01
					Be-7	8.21E+02	1.84E+02	2.05E+02
					K-40	3.72E+03	5.12E+02	2.36E+02

Sample ID:	562884	Sample Dates:	3/7/2022 - 3/7/2022	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
					Mn-54	<2.94E+01	0.00E+00	2.94E+01
					Co-58	<1.90E+01	0.00E+00	1.90E+01
					Fe-59	<4.87E+01	0.00E+00	4.87E+01
					Co-60	<2.92E+01	0.00E+00	2.92E+01
					Zn-65	<6.38E+01	0.00E+00	6.38E+01
					Zr-95	<3.72E+01	0.00E+00	3.72E+01
					Nb-95	<2.63E+01	0.00E+00	2.63E+01
					I-131	<2.45E+01	0.00E+00	2.45E+01
					Cs-134	<2.71E+01	0.00E+00	2.71E+01
					Cs-137	<2.54E+01	0.00E+00	2.54E+01
					BaLa-140	<2.89E+01	0.00E+00	2.89E+01
					Be-7	1.12E+03	2.62E+02	3.06E+02
					K-40	4.45E+03	6.76E+02	4.20E+02

Sample ID:	564579	Sample Dates:	4/4/2022 - 4/4/2022	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
					Mn-54	<2.48E+01	0.00E+00	2.48E+01
					Co-58	<2.58E+01	0.00E+00	2.58E+01
					Fe-59	<4.78E+01	0.00E+00	4.78E+01
					Co-60	<2.54E+01	0.00E+00	2.54E+01
					Zn-65	<6.66E+01	0.00E+00	6.66E+01

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: VEGETATION Concentration (Activity): pCi/kg

Sample Point 125 [INDICATOR - SW @ 0.38 miles]

Sample ID:	Sample Dates:	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
564579	4/4/2022 - 4/4/2022	MIXEDBLV	Zr-95	<3.80E+01	0.00E+00	3.80E+01
			Nb-95	<2.59E+01	0.00E+00	2.59E+01
			I-131	<2.45E+01	0.00E+00	2.45E+01
			Cs-134	<3.19E+01	0.00E+00	3.19E+01
			Cs-137	<2.69E+01	0.00E+00	2.69E+01
			BaLa-140	<2.02E+01	0.00E+00	2.02E+01
			Be-7	9.96E+02	2.46E+02	2.65E+02
			K-40	4.05E+03	6.68E+02	4.09E+02
566596	5/2/2022 - 5/2/2022	MIXEDBLV	Mn-54	<1.43E+01	0.00E+00	1.43E+01
			Co-58	<1.06E+01	0.00E+00	1.06E+01
			Fe-59	<2.95E+01	0.00E+00	2.95E+01
			Co-60	<1.45E+01	0.00E+00	1.45E+01
			Zn-65	<3.82E+01	0.00E+00	3.82E+01
			Zr-95	<2.49E+01	0.00E+00	2.49E+01
			Nb-95	<1.22E+01	0.00E+00	1.22E+01
			I-131	<1.26E+01	0.00E+00	1.26E+01
			Cs-134	<1.54E+01	0.00E+00	1.54E+01
			Cs-137	<1.33E+01	0.00E+00	1.33E+01
			BaLa-140	<1.26E+01	0.00E+00	1.26E+01
			Be-7	3.71E+02	1.24E+02	1.68E+02
			K-40	4.42E+03	5.38E+02	1.76E+02
568419	6/6/2022 - 6/6/2022	MIXEDBLV	Mn-54	<2.03E+01	0.00E+00	2.03E+01
			Co-58	<1.90E+01	0.00E+00	1.90E+01
			Fe-59	<3.69E+01	0.00E+00	3.69E+01
			Co-60	<2.39E+01	0.00E+00	2.39E+01
			Zn-65	<5.61E+01	0.00E+00	5.61E+01
			Zr-95	<3.39E+01	0.00E+00	3.39E+01
			Nb-95	<2.07E+01	0.00E+00	2.07E+01
			I-131	<2.12E+01	0.00E+00	2.12E+01
			Cs-134	<2.38E+01	0.00E+00	2.38E+01
			Cs-137	<2.35E+01	0.00E+00	2.35E+01
			BaLa-140	<2.02E+01	0.00E+00	2.02E+01
			Be-7	6.03E+02	1.84E+02	2.33E+02
			K-40	5.10E+03	6.72E+02	2.39E+02
			570335	7/5/2022 - 7/5/2022	MIXEDBLV	Mn-54
Co-58	<1.43E+01	0.00E+00				1.43E+01
Fe-59	<3.83E+01	0.00E+00				3.83E+01
Co-60	<1.42E+01	0.00E+00				1.42E+01
Zn-65	<3.77E+01	0.00E+00				3.77E+01
Zr-95	<2.55E+01	0.00E+00				2.55E+01
Nb-95	<1.38E+01	0.00E+00				1.38E+01
I-131	<2.13E+01	0.00E+00				2.13E+01
Cs-134	<1.78E+01	0.00E+00				1.78E+01
Cs-137	<1.28E+01	0.00E+00				1.28E+01
BaLa-140	<1.31E+01	0.00E+00				1.31E+01
Be-7	1.03E+03	1.87E+02				1.79E+02
K-40	5.09E+03	6.02E+02				1.92E+02
571746	8/1/2022 - 8/1/2022	MIXEDBLV				Mn-54
			Co-58	<2.10E+01	0.00E+00	2.10E+01
			Fe-59	<4.78E+01	0.00E+00	4.78E+01
			Co-60	<2.32E+01	0.00E+00	2.32E+01
			Zn-65	<6.74E+01	0.00E+00	6.74E+01
			Zr-95	<4.57E+01	0.00E+00	4.57E+01
			Nb-95	<2.41E+01	0.00E+00	2.41E+01
			I-131	<2.65E+01	0.00E+00	2.65E+01
			Cs-134	<3.48E+01	0.00E+00	3.48E+01
			Cs-137	<3.22E+01	0.00E+00	3.22E+01
			BaLa-140	<2.13E+01	0.00E+00	2.13E+01
			Be-7	6.87E+02	2.77E+02	3.95E+02

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: VEGETATION Concentration (Activity): pCi/kg

Sample Point 125 [INDICATOR - SW @ 0.38 miles]

Sample ID:	Sample Dates:	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
571746	8/1/2022 - 8/1/2022		K-40	3.55E+03	6.14E+02	3.95E+02

Sample ID:	Sample Dates:	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
575733	9/6/2022 - 9/6/2022		Mn-54	<1.78E+01	0.00E+00	1.78E+01
			Co-58	<1.74E+01	0.00E+00	1.74E+01
			Fe-59	<3.47E+01	0.00E+00	3.47E+01
			Co-60	<1.65E+01	0.00E+00	1.65E+01
			Zn-65	<3.97E+01	0.00E+00	3.97E+01
			Zr-95	<2.79E+01	0.00E+00	2.79E+01
			Nb-95	<1.52E+01	0.00E+00	1.52E+01
			I-131	<1.74E+01	0.00E+00	1.74E+01
			Cs-134	<2.12E+01	0.00E+00	2.12E+01
			Cs-137	<1.64E+01	0.00E+00	1.64E+01
			BaLa-140	<1.94E+01	0.00E+00	1.94E+01
			Be-7	1.59E+03	2.57E+02	2.09E+02
			K-40	2.87E+03	4.71E+02	3.58E+02

Sample ID:	Sample Dates:	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
577205	10/3/2022 - 10/3/2022		Mn-54	<3.05E+01	0.00E+00	3.05E+01
			Co-58	<3.28E+01	0.00E+00	3.28E+01
			Fe-59	<5.05E+01	0.00E+00	5.05E+01
			Co-60	<3.59E+01	0.00E+00	3.59E+01
			Zn-65	<6.08E+01	0.00E+00	6.08E+01
			Zr-95	<4.92E+01	0.00E+00	4.92E+01
			Nb-95	<2.92E+01	0.00E+00	2.92E+01
			I-131	<2.86E+01	0.00E+00	2.86E+01
			Cs-134	<3.29E+01	0.00E+00	3.29E+01
			Cs-137	<2.40E+01	0.00E+00	2.40E+01
			BaLa-140	<2.65E+01	0.00E+00	2.65E+01
			Be-7	1.88E+03	3.35E+02	2.99E+02
			K-40	3.76E+03	6.55E+02	4.86E+02

Sample ID:	Sample Dates:	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
579824	11/7/2022 - 11/7/2022		Mn-54	<2.96E+01	0.00E+00	2.96E+01
			Co-58	<2.24E+01	0.00E+00	2.24E+01
			Fe-59	<4.36E+01	0.00E+00	4.36E+01
			Co-60	<2.53E+01	0.00E+00	2.53E+01
			Zn-65	<5.73E+01	0.00E+00	5.73E+01
			Zr-95	<3.88E+01	0.00E+00	3.88E+01
			Nb-95	<2.37E+01	0.00E+00	2.37E+01
			I-131	<2.63E+01	0.00E+00	2.63E+01
			Cs-134	<3.94E+01	0.00E+00	3.94E+01
			Cs-137	<2.76E+01	0.00E+00	2.76E+01
			BaLa-140	<3.43E+01	0.00E+00	3.43E+01
			Be-7	1.46E+03	3.07E+02	3.30E+02
			K-40	3.47E+03	6.28E+02	5.04E+02

Sample ID:	Sample Dates:	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
581737	12/5/2022 - 12/5/2022		Mn-54	<2.86E+01	0.00E+00	2.86E+01
			Co-58	<2.06E+01	0.00E+00	2.06E+01
			Fe-59	<4.51E+01	0.00E+00	4.51E+01
			Co-60	<2.11E+01	0.00E+00	2.11E+01
			Zn-65	<5.70E+01	0.00E+00	5.70E+01
			Zr-95	<4.43E+01	0.00E+00	4.43E+01
			Nb-95	<3.23E+01	0.00E+00	3.23E+01
			I-131	<2.40E+01	0.00E+00	2.40E+01
			Cs-134	<2.66E+01	0.00E+00	2.66E+01
			Cs-137	<2.46E+01	0.00E+00	2.46E+01
			BaLa-140	<2.05E+01	0.00E+00	2.05E+01
			Be-7	1.08E+03	2.70E+02	3.27E+02
			K-40	4.38E+03	6.30E+02	1.98E+02

Sample Point 193 [INDICATOR - N @ 0.19 miles]

Sample ID:	Sample Dates:	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
558870	1/4/2022 - 1/4/2022		Mn-54	<2.21E+01	0.00E+00	2.21E+01
			Co-58	<2.38E+01	0.00E+00	2.38E+01

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: VEGETATION Concentration (Activity): pCi/kg

Sample Point 193 [INDICATOR - N @ 0.19 miles]

Sample ID:	558870	Sample Dates:	1/4/2022 - 1/4/2022	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
					Fe-59	<4.11E+01	0.00E+00	4.11E+01
					Co-60	<2.88E+01	0.00E+00	2.88E+01
					Zn-65	<5.22E+01	0.00E+00	5.22E+01
					Zr-95	<3.67E+01	0.00E+00	3.67E+01
					Nb-95	<2.72E+01	0.00E+00	2.72E+01
					I-131	<2.13E+01	0.00E+00	2.13E+01
					Cs-134	<1.80E+01	0.00E+00	1.80E+01
					Cs-137	<2.34E+01	0.00E+00	2.34E+01
					BaLa-140	<2.44E+01	0.00E+00	2.44E+01
					Be-7	2.35E+03	3.46E+02	2.06E+02
					K-40	4.47E+03	6.81E+02	4.13E+02

Sample ID:	560851	Sample Dates:	2/7/2022 - 2/7/2022	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
					Mn-54	<2.00E+01	0.00E+00	2.00E+01
					Co-58	<1.98E+01	0.00E+00	1.98E+01
					Fe-59	<4.01E+01	0.00E+00	4.01E+01
					Co-60	<2.19E+01	0.00E+00	2.19E+01
					Zn-65	<4.52E+01	0.00E+00	4.52E+01
					Zr-95	<2.89E+01	0.00E+00	2.89E+01
					Nb-95	<2.15E+01	0.00E+00	2.15E+01
					I-131	<2.17E+01	0.00E+00	2.17E+01
					Cs-134	<2.56E+01	0.00E+00	2.56E+01
					Cs-137	<2.03E+01	0.00E+00	2.03E+01
					BaLa-140	<1.60E+01	0.00E+00	1.60E+01
					Be-7	1.77E+03	2.74E+02	2.58E+02
					K-40	3.90E+03	5.17E+02	2.93E+02

Sample ID:	562885	Sample Dates:	3/7/2022 - 3/7/2022	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
					Mn-54	<2.79E+01	0.00E+00	2.79E+01
					Co-58	<2.17E+01	0.00E+00	2.17E+01
					Fe-59	<4.40E+01	0.00E+00	4.40E+01
					Co-60	<3.10E+01	0.00E+00	3.10E+01
					Zn-65	<5.56E+01	0.00E+00	5.56E+01
					Zr-95	<3.86E+01	0.00E+00	3.86E+01
					Nb-95	<2.52E+01	0.00E+00	2.52E+01
					I-131	<1.99E+01	0.00E+00	1.99E+01
					Cs-134	<3.67E+01	0.00E+00	3.67E+01
					Cs-137	<2.21E+01	0.00E+00	2.21E+01
					BaLa-140	<2.07E+01	0.00E+00	2.07E+01
					Be-7	1.46E+03	2.91E+02	2.97E+02
					K-40	4.77E+03	7.03E+02	3.91E+02

Sample ID:	564580	Sample Dates:	4/4/2022 - 4/4/2022	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
					Mn-54	<3.10E+01	0.00E+00	3.10E+01
					Co-58	<2.88E+01	0.00E+00	2.88E+01
					Fe-59	<6.52E+01	0.00E+00	6.52E+01
					Co-60	<3.42E+01	0.00E+00	3.42E+01
					Zn-65	<6.48E+01	0.00E+00	6.48E+01
					Zr-95	<5.78E+01	0.00E+00	5.78E+01
					Nb-95	<3.18E+01	0.00E+00	3.18E+01
					I-131	<2.49E+01	0.00E+00	2.49E+01
					Cs-134	<3.66E+01	0.00E+00	3.66E+01
					Cs-137	<4.26E+01	0.00E+00	4.26E+01
					BaLa-140	<4.85E+01	0.00E+00	4.85E+01
					Be-7	1.52E+03	3.89E+02	4.38E+02
					K-40	5.07E+03	9.00E+02	4.57E+02

Sample ID:	566597	Sample Dates:	5/2/2022 - 5/2/2022	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
					Mn-54	<1.76E+01	0.00E+00	1.76E+01
					Co-58	<1.58E+01	0.00E+00	1.58E+01
					Fe-59	<4.05E+01	0.00E+00	4.05E+01
					Co-60	<1.95E+01	0.00E+00	1.95E+01
					Zn-65	<4.17E+01	0.00E+00	4.17E+01
					Zr-95	<3.18E+01	0.00E+00	3.18E+01
					Nb-95	<2.28E+01	0.00E+00	2.28E+01
					I-131	<1.75E+01	0.00E+00	1.75E+01
					Cs-134	<2.29E+01	0.00E+00	2.29E+01

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: VEGETATION Concentration (Activity): pCi/kg

Sample Point 193 [INDICATOR - N @ 0.19 miles]

Sample ID:	Sample Dates:	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
566597	5/2/2022 - 5/2/2022	MIXEDBLV	Cs-137	<1.66E+01	0.00E+00	1.66E+01
			BaLa-140	<1.67E+01	0.00E+00	1.67E+01
			Be-7	4.42E+02	2.96E+02	1.79E+02
			K-40	4.61E+03	6.16E+02	2.40E+02
568420	6/6/2022 - 6/6/2022	MIXEDBLV	Mn-54	<1.76E+01	0.00E+00	1.76E+01
			Co-58	<1.36E+01	0.00E+00	1.36E+01
			Fe-59	<3.30E+01	0.00E+00	3.30E+01
			Co-60	<1.94E+01	0.00E+00	1.94E+01
			Zn-65	<4.16E+01	0.00E+00	4.16E+01
			Zr-95	<3.07E+01	0.00E+00	3.07E+01
			Nb-95	<1.73E+01	0.00E+00	1.73E+01
			I-131	<1.48E+01	0.00E+00	1.48E+01
			Cs-134	<1.88E+01	0.00E+00	1.88E+01
			Cs-137	<1.40E+01	0.00E+00	1.40E+01
			BaLa-140	<1.69E+01	0.00E+00	1.69E+01
			Be-7	1.15E+03	2.04E+02	1.99E+02
			K-40	7.20E+03	8.06E+02	2.70E+02
570336	7/5/2022 - 7/5/2022	MIXEDBLV	Mn-54	<1.39E+01	0.00E+00	1.39E+01
			Co-58	<1.46E+01	0.00E+00	1.46E+01
			Fe-59	<2.59E+01	0.00E+00	2.59E+01
			Co-60	<1.49E+01	0.00E+00	1.49E+01
			Zn-65	<3.16E+01	0.00E+00	3.16E+01
			Zr-95	<2.48E+01	0.00E+00	2.48E+01
			Nb-95	<1.54E+01	0.00E+00	1.54E+01
			I-131	<2.20E+01	0.00E+00	2.20E+01
			Cs-134	<1.66E+01	0.00E+00	1.66E+01
			Cs-137	<1.39E+01	0.00E+00	1.39E+01
			BaLa-140	<1.79E+01	0.00E+00	1.79E+01
			Be-7	1.17E+03	2.11E+02	2.06E+02
			K-40	5.34E+03	6.30E+02	2.69E+02
571747	8/1/2022 - 8/1/2022	MIXEDBLV	Mn-54	<1.73E+01	0.00E+00	1.73E+01
			Co-58	<1.89E+01	0.00E+00	1.89E+01
			Fe-59	<4.20E+01	0.00E+00	4.20E+01
			Co-60	<1.54E+01	0.00E+00	1.54E+01
			Zn-65	<4.25E+01	0.00E+00	4.25E+01
			Zr-95	<2.71E+01	0.00E+00	2.71E+01
			Nb-95	<1.51E+01	0.00E+00	1.51E+01
			I-131	<1.62E+01	0.00E+00	1.62E+01
			Cs-134	<2.53E+01	0.00E+00	2.53E+01
			Cs-137	<1.72E+01	0.00E+00	1.72E+01
			BaLa-140	<2.28E+01	0.00E+00	2.28E+01
			Be-7	1.21E+03	2.19E+02	1.94E+02
			K-40	4.84E+03	6.44E+02	2.98E+02
575734	9/6/2022 - 9/6/2022	MIXEDBLV	Mn-54	<1.21E+01	0.00E+00	1.21E+01
			Co-58	<1.28E+01	0.00E+00	1.28E+01
			Fe-59	<2.33E+01	0.00E+00	2.33E+01
			Co-60	<1.23E+01	0.00E+00	1.23E+01
			Zn-65	<3.23E+01	0.00E+00	3.23E+01
			Zr-95	<1.81E+01	0.00E+00	1.81E+01
			Nb-95	<1.24E+01	0.00E+00	1.24E+01
			I-131	<2.01E+01	0.00E+00	2.01E+01
			Cs-134	<1.46E+01	0.00E+00	1.46E+01
			Cs-137	<1.01E+01	0.00E+00	1.01E+01
			BaLa-140	<1.75E+01	0.00E+00	1.75E+01
			Be-7	1.42E+03	1.67E+02	1.07E+02
			K-40	5.79E+03	5.94E+02	1.60E+02
577206	10/3/2022 - 10/3/2022	MIXEDBLV	Mn-54	<2.51E+01	0.00E+00	2.51E+01

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

Report Generated @ 2/15/2023 13:34:28

Duke Energy Annual Report - Appendix E

Appendix E - Page 113 of 114

MCGUIRE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: VEGETATION Concentration (Activity): pCi/kg

Sample Point 193 [INDICATOR - N @ 0.19 miles]

Sample ID:	Sample Dates:	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA			
577206	10/3/2022 - 10/3/2022	MIXEDBLV	Co-58	<2.64E+01	0.00E+00	2.64E+01			
			Fe-59	<5.26E+01	0.00E+00	5.26E+01			
			Co-60	<2.59E+01	0.00E+00	2.59E+01			
			Zn-65	<6.50E+01	0.00E+00	6.50E+01			
			Zr-95	<4.29E+01	0.00E+00	4.29E+01			
			Nb-95	<3.30E+01	0.00E+00	3.30E+01			
			I-131	<2.32E+01	0.00E+00	2.32E+01			
			Cs-134	<3.22E+01	0.00E+00	3.22E+01			
			Cs-137	<2.73E+01	0.00E+00	2.73E+01			
			BaLa-140	<5.35E+00	0.00E+00	5.35E+00			
			Be-7	1.70E+03	3.21E+02	3.22E+02			
			K-40	5.75E+03	7.77E+02	3.40E+02			
			579825	11/7/2022 - 11/7/2022	MIXEDBLV	Mn-54	<3.36E+01	0.00E+00	3.36E+01
						Co-58	<2.76E+01	0.00E+00	2.76E+01
Fe-59	<7.29E+01	0.00E+00				7.29E+01			
Co-60	<7.31E+00	0.00E+00				7.31E+00			
Zn-65	<7.46E+01	0.00E+00				7.46E+01			
Zr-95	<6.59E+01	0.00E+00				6.59E+01			
Nb-95	<3.78E+01	0.00E+00				3.78E+01			
I-131	<3.15E+01	0.00E+00				3.15E+01			
Cs-134	<4.56E+01	0.00E+00				4.56E+01			
Cs-137	<3.73E+01	0.00E+00				3.73E+01			
BaLa-140	<4.17E+01	0.00E+00				4.17E+01			
Be-7	1.10E+03	2.94E+02				2.95E+02			
K-40	4.89E+03	8.55E+02				4.33E+02			
581738	12/5/2022 - 12/5/2022	MIXEDBLV				Mn-54	<2.03E+01	0.00E+00	2.03E+01
			Co-58	<1.89E+01	0.00E+00	1.89E+01			
			Fe-59	<4.00E+01	0.00E+00	4.00E+01			
			Co-60	<2.06E+01	0.00E+00	2.06E+01			
			Zn-65	<3.87E+01	0.00E+00	3.87E+01			
			Zr-95	<3.20E+01	0.00E+00	3.20E+01			
			Nb-95	<1.97E+01	0.00E+00	1.97E+01			
			I-131	<1.80E+01	0.00E+00	1.80E+01			
			Cs-134	<2.05E+01	0.00E+00	2.05E+01			
			Cs-137	<1.90E+01	0.00E+00	1.90E+01			
			BaLa-140	<1.98E+01	0.00E+00	1.98E+01			
			Be-7	1.49E+03	2.69E+02	2.67E+02			
			K-40	4.98E+03	6.64E+02	3.12E+02			

EnRad Laboratories

13339 Hagers Ferry Road

Huntersville, North Carolina 28078

APPENDIX F

**ERRATA TO
PREVIOUS REPORTS**

There are no errata to be appended to the
2022 McGuire Nuclear Station AREOR.

Enclosure 5
RA-23-0047

ENCLOSURE 5: [ONS Annual Radiological Environmental Operating Report](#)



ANNUAL RADIOLOGICAL ENVIRONMENTAL OPERATING REPORT

**DUKE ENERGY CORPORATION
OCONEE NUCLEAR STATION
Units 1, 2, and 3**

2022



TABLE OF CONTENTS

1.0 Executive Summary	1-1
2.0 Introduction	2-1
2.1 Site Description and Sample Locations	2-1
2.2 Scope and Requirements of the REMP	2-1
2.3 Statistical and Calculational Methodology	2-2
2.3.1 Estimation of the Mean Value	2-2
2.3.2 Lower Limit of Detection and Minimum Detectable Activity	2-3
2.3.3 Trend Identification	2-3
3.0 Interpretation of Results	3-1
3.1 Airborne Radioiodine and Particulates	3-2
3.2 Drinking Water	3-7
3.3 Surface Water	3-11
3.4 Milk	3-14
3.5 Broadleaf Vegetation	3-17
3.6 Fish	3-19
3.7 Shoreline Sediment	3-23
3.8 Direct Gamma Radiation	3-25
3.8.1 Environmental TLD	3-25
3.8.2 ISFSI	3-26
3.9 Land Use Census	3-29
4.0 Quality Assurance	4-1
4.1 Sample Collection	4-1
4.2 Sample Analysis	4-1
4.3 Dosimetry Analysis	4-1
4.4 Laboratory Equipment Quality Assurance	4-1
4.4.1 Daily Quality Control	4-1
4.4.2 Calibration Verification	4-1
4.4.3 Batch Processing	4-1
4.5 Duke Energy Interlaboratory Comparison Program	4-2
4.5.1 Eckert & Ziegler Analytics Cross Check Program	4-2
4.6 Intercomparison Program	4-2
4.7 TLD Intercomparison Program	4-2
 Appendices	
Appendix A: Environmental Sampling & Analysis Procedures	A-1
I. Change of Sampling Procedures	A-2
II. Description of Analysis Procedures	A-2
III. Change of Analysis Procedures	A-3
Appendix B: Radiological Environmental Monitoring Program - Summary of Results	B-1
Air Particulate	B-2
Air Radioiodine	B-2
Drinking Water	B-2
Surface Water	B-2
Milk	B-2
Broadleaf Vegetation	B-3
Fish	B-3
Shoreline Sediment	B-3

Direct Gamma Radiation (TLD)	B-3
Appendix C: Sampling Deviations & Unavailable Analyses	C-1
C.1 Sampling Deviations	C-2
C.2 Unavailable Analyses	C-3
Appendix D: Analytical Deviations	D-1
D.1 Analytical Deviations	D-2
Appendix E: Radiological Environmental Monitoring Program Results	E-1
Appendix F: Errata to Previous Reports	F-1

LIST OF FIGURES

2.1-1	Oconee Nuclear Station Sampling Locations Map (One Mile Radius)	2-4
2.1-2	Oconee Nuclear Station Sampling Locations Map (Ten Mile Radius)	2-5
2.1-3	Oconee Nuclear Station Sampling Locations Map (>10 Mile Radius)	2-6
3.1	Concentration of Gross Beta in Air Particulate	3-5
3.2-1	Concentration of Gross Beta in Drinking Water	3-8
3.2-2	Concentration of Tritium in Drinking Water	3-8
3.3	Concentration of Tritium in Surface Water	3-11
3.5	Concentration of Cs-137 in Broadleaf Vegetation	3-17
3.6-1	Concentration of Cs-137 in Fish	3-20
3.6-2	Concentration of Cs-134 in Fish	3-20
3.7	Concentration of Cs-137 in Shoreline Sediment	3-23
3.8	Direct Gamma Radiation (TLD) Results	3-27
3.9	Oconee Nuclear Station 2022 Land Use Census Map	3-31

LIST OF TABLES

2.1-A	Oconee Radiological Monitoring Program Sampling Locations	2-7
2.1-B	Oconee Radiological Monitoring Program Sampling Locations (TLD Sites)	2-8
2.2-A	Reporting Levels for Radioactivity Concentrations in Environmental Samples	2-9
2.2-B	REMP Analysis Frequency	2-9
2.2-C	Maximum Values for the <i>A PRIORI</i> Lower Limits of Detection	2-10
3.1-A	Mean Concentration of Air Radioiodine (I-131) (Preoperational-1995)	3-3
3.1-B	Mean Concentration of Air Radioiodine (I-131) (1996-2022)	3-4
3.1-C	Mean Concentration of Gross Beta in Air Particulate	3-6
3.2-A	Mean Concentrations of Radionuclides in Drinking Water (1971-1995)	3-9
3.2-B	Mean Concentrations of Radionuclides in Drinking Water (1996-2022)	3-10
3.3-A	Mean Concentrations of Radionuclides in Surface Water (1969-1995)	3-12
3.3-B	Mean Concentrations of Radionuclides in Surface Water (1996-2022)	3-13
3.4-A	Mean Concentration of Radionuclides in Milk (Preoperational-1995)	3-15
3.4-B	Mean Concentration of Radionuclides in Milk (1996-2022)	3-16
3.5	Mean Concentration of Radionuclides in Vegetation	3-18
3.6-A	Mean Concentrations of Radionuclides in Fish (Preop-2014)	3-21
3.6-B	Mean Concentrations of Radionuclides in Fish (2015-2022)	3-22
3.7	Mean Concentrations of Radionuclides in Shoreline Sediment	3-24
3.8	Direct Gamma Radiation (TLD) Results	3-28
3.9	Oconee 2022 Land Use Census Results	3-30
4.0-A	Eckert & Ziegler Analytics Cross Check Program	4-3
4.0-B	2022 Environmental Dosimeter Cross-Check Results	4-5

LIST OF ACRONYMS USED IN THIS TEXT *(in alphabetical order)*

A	Annually
AP	Air Particulate
AR	Air Radioiodine/ Air Cartridge
AREOR	Annual Radiological Environmental Operating Report
BLV	Broadleaf Vegetation
C	Control
CM	Community
CR	Condition Report (analogous to Nuclear Condition Report (NCR))
EZA	Eckert & Ziegler Analytics
FI	Fish
FP	Food Product
GEL	General Engineering Laboratories, LLC
GPS	Global Positioning System
GW	Ground Water
I	Indicator
IR	Inner Ring - TLDs
ISFSI	Independent Spent Fuel Storage Installation
LLD	Lower Limit of Detection
M	Monthly
MAPEP	Department of Energy Mixed Analyte Performance Evaluation Program
MDA	Minimum Detectable Activity
mR	milliroentgen
mR/Std Qtr	milliroentgen per standard quarter
MWe	Megawatt (electrical)
NCR	Nuclear Condition Report (analogous to Condition Report (CR))
NIST	National Institute of Standards and Technology
NRC	Nuclear Regulatory Commission
ODCM	Off-Site Dose Calculation Manual
OR	Outer Ring - TLDs
pCi/kg	picocurie per kilogram
pCi/l	picocurie per liter
pCi/m ³	picocurie per cubic meter
PI	Power Interrupt
Q	Quarterly
REMP	Radiological Environmental Monitoring Program
SA	Semiannually
SB	Site Boundary
SS	Sediment – Shoreline
SI	Special Interest - TLDs
SW	Surface Water
TECH SPECS	Technical Specifications
TLD	Thermoluminescent Dosimeter
UFSAR	Updated Final Safety Analysis Report
W	Weekly

1.0 EXECUTIVE SUMMARY

This Annual Radiological Environmental Operating Report describes the Oconee Nuclear Station Radiological Environmental Monitoring Program (REMP), and the program results for the calendar year 2022.

Included in the report are the identification of sampling locations, descriptions of environmental sampling and analysis procedures, comparisons of present environmental radioactivity levels and pre-operational environmental data, analysis of trends in environmental radiological data as potentially affected by station operations, and a summary of environmental radiological sampling results. Quality assurance practices and program changes are also discussed.

Sampling activities were conducted as prescribed by Offsite Dose Calculations Manual (ODCM) and Selected Licensee Commitments (SLCs). Required analyses were performed and detection capabilities were met for all collected samples as required by SLCs. One-thousand-forty-two samples were analyzed comprising 1,081 test results in order to compile data for the 2022 report. Based on the annual land use census, a supplemental goat milk location 61 was added to the program in 2022.

Concentrations observed in the environment in 2022 for station related radionuclides were within the ranges of concentrations observed in the past. Inspection of data showed that radioactivity concentrations in drinking water and surface water are higher than the activities reported for samples collected at control locations. All positively identified measurements attributable to station operation were within limits as specified in SLCs.

The continued operation of ONS has not contributed measurable radiation or the presence of gamma radioactivity in the environmental media monitored. The surface water and drinking water samples revealed tritium concentrations that are well within the applicable regulatory limits. The radiological environmental data for 2022 indicates that radioactivity concentrations were not higher than expected and all positively identified measurements attributable to ONS operations in 2022 were within limits as specified in the ONS ODCM, thus presenting no significant impact on the environment or public safety.

2.0 INTRODUCTION

2.1 SITE DESCRIPTION AND SAMPLE LOCATIONS

Oconee Nuclear Station (ONS) is located in Oconee County, South Carolina, approximately 8 miles northeast of Seneca, South Carolina, on the shore of Lake Keowee. This lake was formed by damming the Keowee and Little Rivers in that location. Immediately to the south is the U.S. Government Hartwell Project. The Keowee Hydroelectric Plant near the station joins Lake Keowee and the upper reaches of Lake Hartwell. To the north, the Jocassee Hydroelectric Plant joins Lake Jocassee and Lake Keowee. Jocassee is a pumped storage plant.

ONS consists of three pressurized water reactors. Each unit has an output of 846 megawatts net. Unit 1 license for operation was issued 2/6/1973. Unit 2 license for operation was issued 10/6/1973. Unit 3 license for operation was issued 7/19/1974. An independent spent fuel storage installation is also located at the site.

The Oconee site centerline used for GPS measurements was referenced from the Oconee Nuclear Station Updated Final Safety Analysis Report (UFSAR), section 2.1.1.1, Specification of Location. Waypoint coordinates used for ONS GPS measurements were latitude 34°-47'-38.2"N and longitude 82°-53'-55.4"W. Maps and tables were generated using North American Datum (NAD) 27. Data normally reflect accuracy to within 2 to 5 meters from point of measurement. GPS field measurements were taken as close as possible to the item of interest. Distances for the locations are displayed using three significant figures.

Figures 2.1-1, 2.1-2, and 2.1-3 are maps depicting the Thermoluminescent Dosimeter (TLD) monitoring locations and the sampling locations. The location numbers shown on these maps correspond to those listed in Tables 2.1-A and 2.1-B. Figure 2.1-1 comprises all sample locations within a one mile radius of ONS. Figure 2.1-2 comprises all sample locations within a one and ten mile radius of ONS. Figure 2.1-3 comprises all sample locations greater than a ten mile radius of ONS.

2.2 SCOPE AND REQUIREMENTS OF THE REMP

A Radiological Environmental Monitoring Program (REMP) has been in effect at Oconee Nuclear Station since 1969, four years prior to operation of Unit 1 in 1973. The preoperational program provides data on the existing environmental radioactivity levels for the site and vicinity which may be used to determine whether increases in environmental levels are attributable to the station. The operational program provides surveillance and backup support of detailed effluent monitoring which is necessary to evaluate the significance, if any, of the contributions to the existing environmental radioactivity levels that result from station operation.

This monitoring program is based on NRC guidance as reflected in the Selected Licensee Commitments Manual, with regard to sample media, sampling locations, sampling frequency, and analytical sensitivity requirements. Indicator and control locations were established for comparison purposes to distinguish radioactivity of station origin from natural or other "man-

made” environmental radioactivity. The environmental monitoring program also verifies projected and anticipated radionuclide concentrations in the environment and related exposures from releases of radionuclides from Oconee Nuclear Station. This program satisfies the requirements of Section IV.B.2 of Appendix I to 10CFR50 and 10CFR72.44(d)(2) and provides surveillance of all appropriate critical exposure pathways to man and protects vital interests of the company, public, and state and federal agencies concerned with the environment. Reporting levels for radioactivity found in environmental samples are listed in Table 2.2-A. Table 2.2-B lists the REMP analysis and frequency schedule.

The Annual Land Use Census, required by Selected Licensee Commitments, is performed to ensure that changes in the use of areas at or beyond the site boundary are identified and that modifications to the Radiological Environmental Monitoring Program are made if required by changes in land use. This census satisfies the requirements of Section IV.B.3 of Appendix I to 10CFR50. Results are shown in Table 3.9.

Participation in an interlaboratory comparison program as required by Selected Licensee Commitments provides for independent checks on the precision and accuracy of measurements of radioactive material in REMP sample matrices. Such checks are performed as part of the quality assurance program for environmental monitoring in order to demonstrate that the results are valid for the purposes of Section IV.B.2 of Appendix I to 10CFR50. A summary of the results obtained as part of this comparison program are in Section 4 of this annual report.

2.3 STATISTICAL AND CALCULATIONAL METHODOLOGY

2.3.1 ESTIMATION OF THE MEAN VALUE

There was one (1) basic statistical calculation performed on the raw data resulting from the environmental sample analysis program. The calculation involved the determination of the mean value for the indicator and the control samples for each sample medium. The mean is a widely used statistic. This value was used in the reduction of the data generated by the sampling and analysis of the various media in the Radiological Environmental Monitoring Program. “Net activity (or concentration)” is the activity (or concentration) determined to be present in the sample. No "Minimum Detectable Activity", "Lower Limit of Detection", "Less Than Level", or negative activities or concentrations are included in the calculation of the mean. The following equation was used to estimate the mean:

$$\bar{x} = \frac{\sum_{i=1}^N x_i}{N}$$

Where:

\bar{x} = estimate of the mean,

i = individual sample,

N = total number of samples with a net activity (or concentration),

x_i = net activity (or concentration) for sample i .

2.3.2 LOWER LIMIT OF DETECTION AND MINIMUM DETECTABLE ACTIVITY

The Lower Limit of Detection (LLD) and Minimum Detectable Activity (MDA) are used throughout the Environmental Monitoring Program.

LLD - The LLD, as defined in the Selected Licensee Commitments Manual is the smallest concentration of radioactive material in a sample that will yield a net count, above the system background, that will be detected with 95% probability with only 5% probability of falsely concluding that a blank observation represents a "real" signal. The LLD is an *a priori* (before the fact) lower limit of detection. The actual LLD is dependent upon the standard deviation of the background counting rate, the counting efficiency, the sample size (mass or volume), the radiochemical yield, and the radioactive decay of the sample between sample collection and counting. The "required" LLDs for each sample medium and selected radionuclides are given in the Selected Licensee Commitments and are listed in Table 2.2-C.

MDA - The MDA is the net counting rate (sample after subtraction of background) that must be surpassed before a sample is considered to contain a scientifically measurable amount of a radioactive material exceeding background amounts. The MDA is calculated using a sample background and may be thought of as an "actual" LLD for a particular sample measurement. Certain gross counting measurements display a calculated negative value, indicating background is greater than sample activity.

2.3.3 TREND IDENTIFICATION

One of the purposes of an environmental monitoring program is to determine if there is a buildup of radionuclides in the environment due to the operation of the nuclear station. Visual inspection of tabular or graphical presentations of data (including preoperational) is used to determine if a trend exists. A decrease in a particular radionuclide's concentration in an environmental medium does not indicate that reactor operations are removing radioactivity from the environment but that reactor operations are not adding that radionuclide to the environment in quantities exceeding the preoperational level and that the normal removal processes (radioactive decay, deposition, resuspension, etc.) are influencing the concentration.

Substantial increases or decreases in the amount of a particular radionuclide's release from the nuclear plant will greatly affect the resulting environmental levels; therefore, a knowledge of the release of a radionuclide from the nuclear plant is necessary to completely interpret the trends, or lack of trends, determined from the environmental data. Some factors that may affect environmental levels of radionuclides include prevailing weather conditions (periods of drought, solar cycles or heavier than normal precipitation), construction in or around either the nuclear plant or the sampling location, and addition or deletion of other sources of radioactive materials (such as the 1986 Chernobyl accident and the 2011 Japan earthquake and tsunami, which triggered the Fukushima Dai-ichi nuclear power plant incident). Some of these factors may be obvious while others are sometimes unknown. Therefore, how trends are identified will include some judgment by plant personnel.

Figure 2.1-1

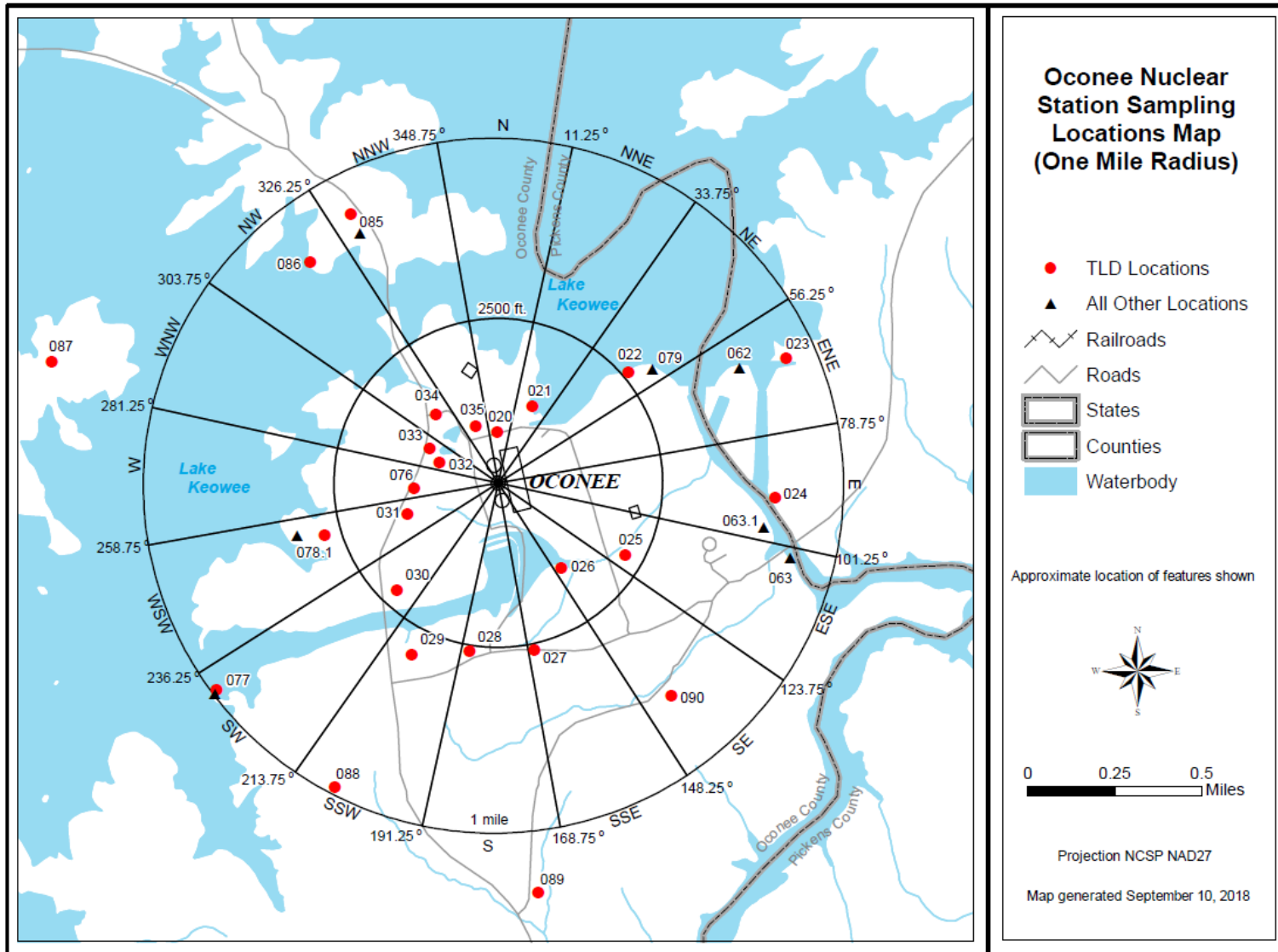


Figure 2.1-2

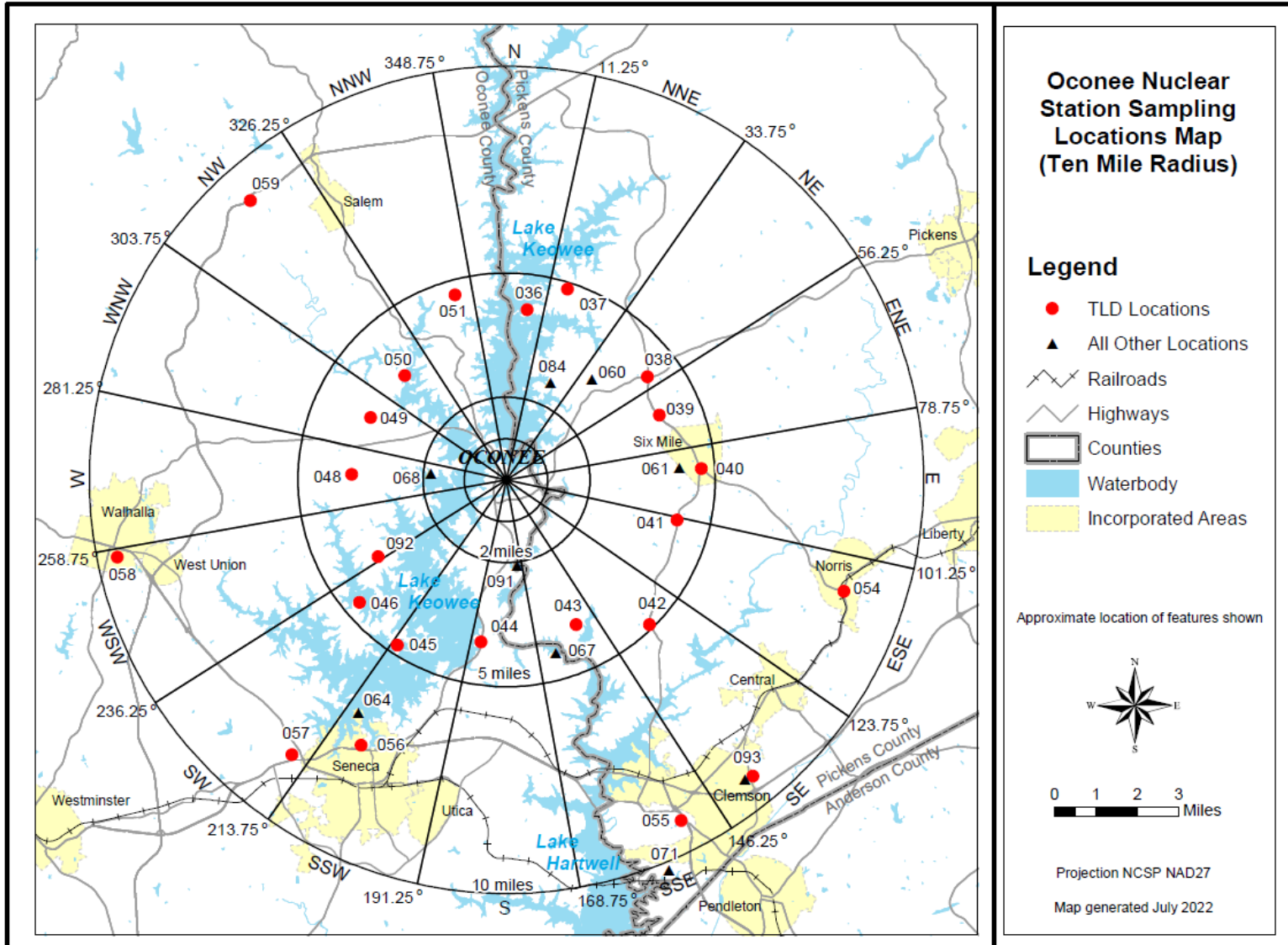


Figure 2.1-3

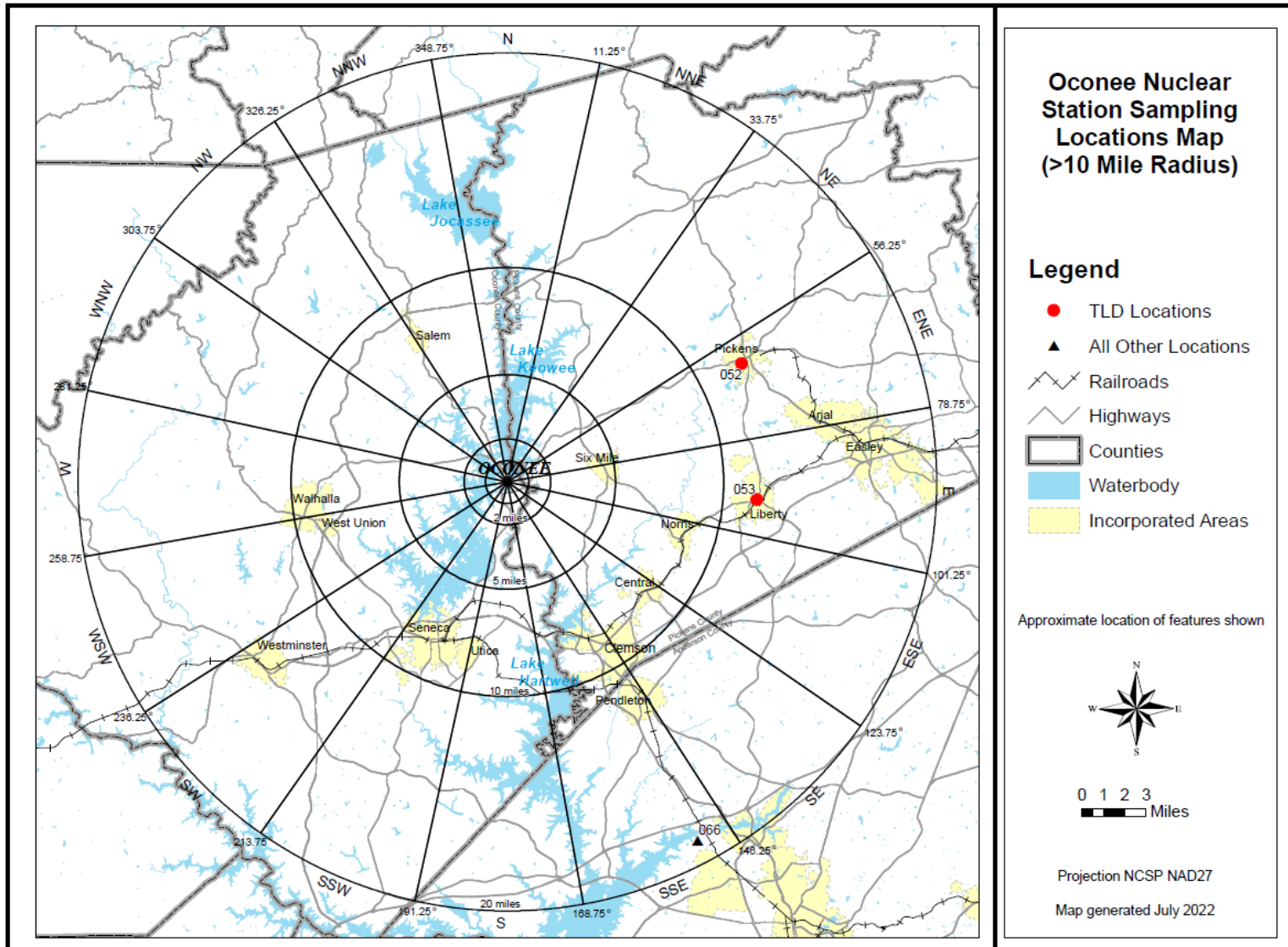


TABLE 2.1-A

**OCONEE RADIOLOGICAL MONITORING PROGRAM
SAMPLING LOCATIONS^(a)**

Table 2.1-A Codes			
BW	BiWeekly	Q	Quarterly
C	Control	SA	Semiannually
CM	Community	SB	Site Boundary
I	Indicator	SM	Semimonthly
M	Monthly	W	Weekly

Site #	Measure Type	Location Description*	Air Rad. & Particulate	Surface Water	Drinking Water	Shoreline Sediment	Fish	Milk ^(b)	Broadleaf Vegetation
060	I	Greenville Water Intake Road (3.23 NE)			M				
060	C**	Greenville Water Intake Road (2.28 NE)					SA		
061	I	J Anthony, Goat Milk (4.18 E)						SM	
062	C	Lake Keowee Hydro Intake (0.85 mi ENE)		M					
063	I	Lake Hartwell Hwy 183 Bridge (0.80 mi ESE) [000.7]					SA		
063.1	I	Lake Hartwell Hwy 183 (0.79 mi E)		M					
064	C	Seneca Municipal Water Supply (6.67 mi SSW) [004.1]			M				
066	I	Anderson Municipal Water Supply (18.9 mi SSE) [012]			M				
067	I	Lawrence Ramsey Bridge Hwy 27 (4.34 mi SSE) [005.2]				SA	SA		
068	C	High Falls County Park (1.82 mi W)				SA			
071	C	Clemson Dairy (10.2 mi SSE) [006.3]						SM	
077	I	Skimmer Wall (1.00 mi SW)	W,SB						M,SB
078.1	I	Recreation Site (0.53 mi WSW)	W,SB						
079	I	Keowee Dam (0.56 mi NE)	W,SB						M, SB
084	I	Sue Craig Road (2.58 mi NNE)	W						M
085	I	Lake Services / Building B9125 (0.88 mi NNW)	W,CM						
091	I	Holder's Landing Road (2.09 miles S)				SA			
093	C	Clemson Operations Center (9.33 mi SE)	W						M

(a) Sample locations are identified in the ODCM.

(b) Samples from milking animals in three locations within 5 km distance having the highest dose potential. If there are none, then one sample from milking animals in each of the three areas between 5 to 8 km distant where doses are calculated to be greater than 1 mrem per year. One sample from milking animals at a control location, as for example 15-30 km distant and in the least prevalent wind direction.

* GPS data reflect approximate accuracy to within 2-5 meters. GPS field measurements were taken as close as possible to the item of interest.

** Control for Fish Only

[] Location Numbers prior to 1984

TABLE 2.1-B

**OCONEE RADIOLOGICAL MONITORING PROGRAM
SAMPLING LOCATIONS (TLD SITES)^(a)**

Table 2.1-B Codes			
C	Control	OR	Outer Ring
IR	Inner Ring	SI	Special Interest

Site #	Measure Type	Location*	Distance (miles)	Sector	Site #	Measure Type	Location*	Distance (miles)	Sector
020	IR	Site Boundary	0.16	N	044	OR	HWY 130 at Little River Dam	3.96	S
021	IR	Site Boundary	0.25	NNE	045	OR	Terminus of HWY 588 at Crooked Creek	4.78	SSW
022	IR	Site Boundary	0.53	NE	046	OR	HWY 188 at Crooked Creek	4.61	SW
023	IR	Site Boundary	0.93	ENE	048	OR	JCT HWY 175 & 188	3.64	W
024	IR	Site Boundary	0.81	E	049	OR	JCT HWY 201 & 92	3.60	WNW
025	IR	Site Boundary	0.42	ESE	050	OR	Stamp Creek Landing, End of HWY 92	3.53	NW
026	IR	Site Boundary	0.34	SE	051	OR	HWY 128, 1 mile N OF HWY 130	4.64	NNW
027	IR	Site Boundary	0.49	SSE	052	SI	DPC Branch Office Site, Pickens	12.4	ENE
028	IR	Site Boundary	0.46	S	053	SI	DPC Branch Office Site, Liberty	11.7	E
029	IR	Site Boundary	0.56	SSW	054	SI	Post Office - HWY 93 Norris	8.60	ESE
030	IR	Site Boundary	0.42	SW	055	SI	Clemson Meteorology Plot	9.27	SSE
031	IR	Site Boundary	0.27	WSW	056	SI	Water Tower - Seneca	7.30	SSW
076	IR	Site Boundary	0.19	W	057	SI	Oconee Memorial Hospital	8.42	SW
032	IR	Site Boundary	0.19	WNW	058	C	Branch Rd Substation, Walhalla	9.39	WSW
033	IR	Site Boundary	0.21	WNW	059	SI	Tamassee Dar School	9.20	NW
034	IR	Site Boundary	0.22	NW	077	IR	Skimmer wall shared with air monitoring station	1.00	SW
035	IR	Site Boundary	0.17	NNW	078.1	IR	ONS Recreation Site shared with air monitoring station	0.53	WSW
036	OR	Mile Creek Landing	4.18	N	085	IR	Lake Services Bldg 9125 shared with air monitoring location	0.88	NNW
037	OR	Keowee Church, HWY 327	4.85	NNE	086	IR	Lake Keowee Service Rd at Boat Landing	0.83	NW
038	OR	Convenience Mart, JCT HWY 183 & 133	4.24	NE	087	IR	End of Waterfall Rd	1.33	WNW
039	OR	HWY 133, 1 mile East of JCT HWY 183 & 133	4.02	ENE	088	IR	Doug Hollow Rd / Transmission Tower	1.00	SSW
040	OR	Microwave Tower, Six Mile	4.74	E	089	IR	Intersection Hwy 130 & Keowee River Rd	1.19	S
041	OR	JCT HWY 101 & 133	4.25	ESE	090	IR	Crescent Resources, Keowee River Rd at Beaver Dam	0.79	SE
042	OR	Lawrence Chapel Church, HWY 133	4.93	SE	092	OR	Hilton Circle stop sign HWY 188	3.62	WSW
043	OR	HWY 291 at Issaqueena Park	4.09	SSE	093	C	Clemson Operations Center	9.34	SE

* GPS data reflect accuracy to within 2-5 meters. GPS field measurements were taken as close as possible to the item of interest.

a) Sample locations are identified in the ODCM.

TABLE 2.2-A

**REPORTING LEVELS FOR RADIOACTIVITY
CONCENTRATIONS IN ENVIRONMENTAL SAMPLES**

Analysis	Water (pCi/liter)	Air Particulates or Gases (pCi/m ³)	Fish (pCi/kg-wet)	Milk (pCi/liter)	Broadleaf Vegetation (pCi/kg-wet)
H-3	20,000 ^(a)	---	---	---	---
Mn-54	1,000	---	30,000	---	---
Fe-59	400	---	10,000	---	---
Co-58	1,000	---	30,000	---	---
Co-60	300	---	10,000	---	---
Zn-65	300	---	20,000	---	---
Zr-Nb-95	400	---	---	---	---
I-131	2 ^(b)	0.9	---	3	100
Cs-134	30	10	1,000	60	1,000
Cs-137	50	20	2,000	70	2,000
Ba-La-140	200	---	---	300	---

- (a) For drinking water samples only. This is 40CFR Part 141 value.
 (b) If low-level I-131 analyses are performed.

TABLE 2.2-B

REMP ANALYSIS FREQUENCY

Sample Medium	Analysis Schedule	Gamma Isotopic	Tritium	Low Level I-131	Gross Beta	TLD
Air Radioiodine	Weekly	X	---	---	---	---
Air Particulate	Weekly	---	---	---	(b)	---
	Quarterly Composite	X	---	---	---	---
Direct Radiation	Quarterly	---	---	---	---	X
Surface Water	Monthly ^(c)	X	---	---	---	---
	Quarterly Composite ^(c)	---	X	---	---	---
Drinking Water	Monthly ^(c)	X	---	(a)	X	---
	Quarterly Composite ^(c)	---	X	---	---	---
Shoreline Sediment	Semiannually	X	---	---	---	---
Milk	Semimonthly	X	---	X	---	---
Fish	Semiannually	X	---	---	---	---
Broadleaf Vegetation	Monthly	X	---	---	---	---

- (a) Low level I-131 analysis will be performed if abnormal releases occur which could reasonably result in > 1 pCi/liter of I-131 in drinking water. An LLD of 1 pCi/liter will be required for this analysis.
 (b) Airborne particulate sample filters shall be analyzed for gross beta radioactivity 24 hours or more after sampling to allow radon and thoron daughter decay. If gross beta activity in air particulate samples is greater than 10 times the yearly mean of control samples, gamma isotopic analysis shall be performed on the individual samples.
 (c) Composite samples shall be collected by collecting an aliquot at intervals not exceeding 2 hours.

TABLE 2.2-C

MAXIMUM VALUES FOR THE *A PRIORI* LOWER LIMITS OF DETECTION^(a)

Analysis ^(c)	Water (pCi/liter)	Air Particulates or Gases (pCi/m ³)	Fish (pCi/kg-wet)	Milk (pCi/liter)	Broadleaf Vegetation (pCi/kg-wet)	Sediment (pCi/kg-dry)
Gross Beta	4	0.01	---	---	---	---
H-3	2000	---	---	---	---	---
Mn-54	15	---	130	---	---	---
Fe-59	30	---	260	---	---	---
Co-58, 60	15	---	130	---	---	---
Zn-65	30	---	260	---	---	---
Zr-95	15	---	---	---	---	---
Nb-95	15	---	---	---	---	---
I-131	15 ^(b)	0.07	---	1	60	---
Cs-134	15	0.05	130	15	60	150
Cs-137	18	0.06	150	18	80	180
Ba-La-140	15	---	---	15	---	---

(a) LLD is defined in Section 2.3.2.

(b) LLD for gamma isotopic analysis for I-131 in drinking water samples. Low level I-131 analysis on drinking water will not be routinely performed because the calculated dose from I-131 in drinking water at all locations is less than 1 mrem per year. Low level I-131 analyses will be performed if abnormal releases occur which could reasonably result in > 1 pCi/liter of I-131 in drinking water. For low level analyses of I-131 an LLD of 1 pCi/liter will be achieved.

(c) Other peaks which are measurable and identifiable, together with the radionuclides in Table 2.2-C, shall be identified and reported.

3.0 INTERPRETATION OF RESULTS

Review of 2022 REMP analysis results was performed to identify changes in environmental levels as a result of station operations. The review is summarized in this section. Data from 2022 was compared to preoperational and historical data. Sample data for some media is not directly comparable to preoperational and earlier operational sample results because of either significant change in the analysis methods or changes in the reporting of the results. Summary tables containing 2022 information required by Technical Specification Administrative Control 5.6.2 are located in Appendix B. REMP results for 2022 are located in Appendix E.

Evaluation for significant trends was performed for the radionuclides that have required LLDs listed in Selected Licensee Commitment 16.11.6. These radionuclides are collectively referred to as "Selected Licensee Commitments radionuclides" and include H-3, Mn-54, Fe-59, Co-58, Co-60, Zn-65, Zr-95, Nb-95, I-131, Cs-134, Cs-137, Ba-140, and La-140. Drinking water gross beta results and air particulate gross beta results are routinely trended. Trending is also performed for other radionuclides that are detected and could have been the result of station effluents. Only Selected Licensee Commitment radionuclides were detected in 2022.

Trending was performed by comparing annual mean concentrations of any effluent related detected radionuclide to historical results. Factors evaluated include the frequency of detection and the concentration in terms of the percent of the radionuclide's SLC reporting level (Table 2.2-A). All maximum percent of reporting level values were well below the 100% action level.

Changes in sample location, analytical technique, and presentation of results must be considered when reviewing for trends. Calculation of the annual mean concentrations has been performed differently over the history of the REMP. During 1979-1986, all net results (sample minus background), positive and negative, were included in the calculation of the mean. Only positive net activity results were used to calculate the mean for the other years. A change in gamma spectroscopy analysis systems in 1987 ended a period when many measurements yielded detectable low-level activity for both indicator and control location samples. It is thought that the method the previous system used to estimate net activity may have been vulnerable to false-positive results.

Review of the 2022 data presented in this section supports the conclusion that there were no significant changes in environmental sample radionuclide concentrations of samples collected and analyzed from ONS and surrounding areas that were attributable to plant operations. The radiological environmental data for 2022 indicates that radioactivity concentrations were not higher than expected and all positively identified measurements attributable to ONS operations in 2022 were within limits as specified in the ONS SLC, thus presenting no significant impact on the environment or public safety.

Data presented in Sections 3.1 - 3.8 support the conclusion that there was no significant increase in radioactivity in the environment around ONS due to station operations in 2022. Similarly, there was no significant increase in ambient background radiation levels in the surrounding areas. The 2022 land use census data, shown in Section 3.9, indicated a supplemental goat milk location could be added to the program.

3.1 AIRBORNE RADIOIODINE AND PARTICULATES

Airborne particulate and radioiodine samples at each of six locations were composited continuously by means of continuous air samplers. Supplemental air sampling location 084 was removed from the program on October 3, 2022. Air particulates were collected on a particulate filter and radioiodines were collected in a charcoal cartridge positioned behind the filter in the sampler. The samplers are designed to operate at a constant flow rate (in order to compensate for any filter loading) and are set to sample approximately 2 cubic feet per minute. Filters and cartridges were collected weekly. In 2022, 299 continuously composited radioiodine and particulate samples were collected and analyzed, 247 from five indicator locations and 52 from the control location. Particulate samples were analyzed weekly for gross beta. A quarterly gamma analysis was performed on the quarterly filter composite (by location). Radioiodine samples received a weekly gamma analysis.

There was no detectable I-131 in air samples in 2022. Table 3.1-A and Table 3.1-B give the highest indicator location annual mean and control location annual mean for I-131 since the preoperational period. The tables show similar historical concentrations for both the indicator and control locations and the activities decreasing from early in the operational history of the plant. No I-131 activity due to ONS plant operations has been detected since 1994.

There were no detectable gamma emitting radionuclides detected in air particulate samples in 2022 due to ONS plant operations. No gamma emitting particulates due to ONS operations have been detected in indicator location samples since the change in gamma spectroscopy analysis systems in 1987.

Beta analysis of particulate filters was initiated in March of 1996 and became required by Selected Licensee Commitments in 1998. Gross beta analysis was performed on particulate filters during the preoperational and early operational history of the plant but had not been required since 1984. Figure 3.1 summarizes gross beta results for the indicator location with the highest annual mean and the control location samples. Table 3.1-C gives the Gross Beta concentration in air particulate filters since 1996. Both the indicator and control location results are similar in concentration and are near the lower range of preoperational gross beta results which ranged from 0.04 to 1.46 pCi/m³.

K-40 and Be-7 observed in air samples are naturally occurring radionuclides.

Table 3.1-A Mean Concentration of Air Radioiodine (I-131) (Preoperational-1995)

Year	Indicator Location (pCi/m ³)	Control Location (pCi/m ³)
Preoperational 1969-1972	0.00E0	0.00E0
Feb. 1973 - June 1973	0.00E0	0.00E0
July 1973 - Dec. 1973	0.00E0	0.00E0
Jan. 1974 - June 1974	0.00E0	0.00E0
July 1974 - Dec. 1974	2.60E-2	8.00E-3
Jan. 1975 - June 1975	8.65E-2	3.12E-2
July 1975 - Dec. 1975	1.13E-2	9.52E-3
1976	2.76E-2	2.18E-2
1977	3.60E-2	3.60E-2
1978	2.19E-1	1.15E-1
1979	7.54E-3	4.75E-4
1980	3.07E-3	9.67E-4
1981	6.31E-3	5.39E-4
1982	2.87E-3	8.10E-4
1983	1.48E-3	3.05E-4
1984	8.11E-4	-2.30E-5
1985	7.71E-4	4.54E-4
1986	5.02E-3	7.86E-3
1987 ⁽¹⁾	4.29E-3	5.19E-3
1988	0.00E0	0.00E0
1989	4.99E-4	0.00E0
1990	0.00E0	0.00E0
1991	0.00E0	0.00E0
1992	0.00E0	0.00E0
1993	0.00E0	0.00E0
1994	1.03E-2	0.00E0
1995	0.00E0	0.00E0

0.00E0 indicates no detectable measurements

1979 - 1986 mean based on all net activity

(1) 1987 – Gamma spectroscopy system change

Table 3.1-B Mean Concentration of Air Radioiodine (I-131) (1996-2022)

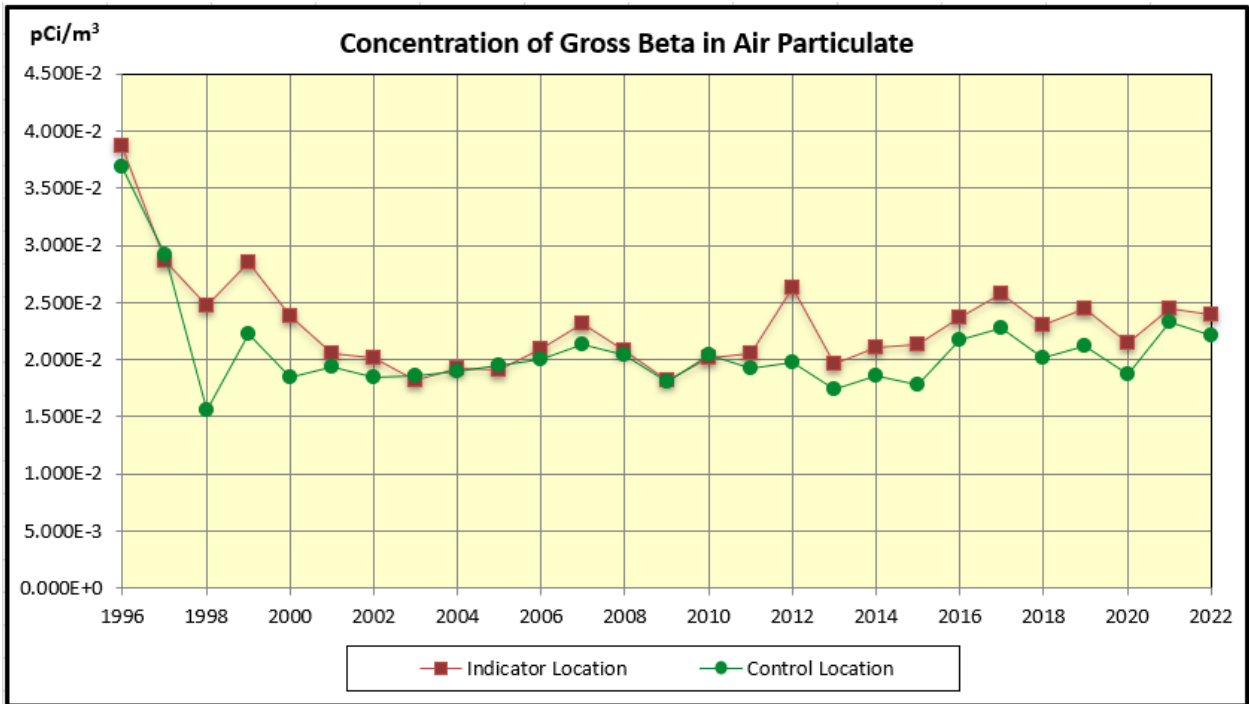
Year	Indicator Location (pCi/m ³)	Control Location (pCi/m ³)
1996	0.00E0	0.00E0
1997	0.00E0	0.00E0
1998	0.00E0	0.00E0
1999	0.00E0	0.00E0
2000	0.00E0	0.00E0
2001	0.00E0	0.00E0
2002	0.00E0	0.00E0
2003	0.00E0	0.00E0
2004	0.00E0	0.00E0
2005	0.00E0	0.00E0
2006	0.00E0	0.00E0
2007	0.00E0	0.00E0
2008	0.00E0	0.00E0
2009	0.00E0	0.00E0
2010	0.00E0	0.00E0
2011 ⁽¹⁾	5.05E-2	4.13E-2
2012	0.00E0	0.00E0
2013	0.00E0	0.00E0
2014 ⁽²⁾	0.00E0	0.00E0
2015	0.00E0	0.00E0
2016	0.00E0	0.00E0
2017	0.00E0	0.00E0
2018	0.00E0	0.00E0
2019	0.00E0	0.00E0
2020	0.00E0	0.00E0
2021	0.00E0	0.00E0
2022	0.00E0	0.00E0

0.00E0 indicates no detectable measurements

(1) 2011 concentration affected by Fukushima Daiichi

(2) 2014 Gamma spectroscopy system was replaced 10JUL2014. Gamma spectroscopy system hardware, detector cooling apparatus, software, electronics, nuclide identification libraries, and analytical test matrix components for test matrices were modified (NCR # 0739995). No analytical changes were noted due to the 2014 gamma spectroscopy system change.

Figure 3.1



There is no reporting level for gross beta in air particulate

Table 3.1-C Mean Concentration of Gross Beta in Air Particulate

Monitoring Period	Indicator Location (pCi/m³)	Control Location (pCi/m³)
1996	3.87E-2	3.69E-2
1997	2.87E-2	2.92E-2
1998	2.47E-2	1.56E-2
1999	2.85E-2	2.23E-2
2000	2.38E-2	1.85E-2
2001	2.05E-2	1.94E-2
2002	2.01E-2	1.84E-2
2003	1.86E-2	1.82E-2
2004	1.92E-2	1.90E-2
2005	1.95E-2	1.91E-2
2006	2.09E-2	2.00E-2
2007	2.31E-2	2.13E-2
2008	2.08E-2	2.04E-2
2009	1.82E-2	1.80E-2
2010	2.02E-2	2.04E-2
2011	2.06E-2	1.92E-2
2012	2.63E-2	1.97E-2
2013	1.96E-2	1.74E-2
2014	2.11E-2	1.86E-2
2015	2.13E-2	1.78E-2
2016	2.37E-2	2.17E-2
2017	2.58E-2	2.28E-2
2018	2.30E-2	2.01E-2
2019	2.44E-2	2.12E-2
2020	2.14E-2	1.87E-2
2021	2.45E-2	2.33E-2
2022	2.39E-2	2.21E-2

3.2 DRINKING WATER

Gross beta analysis and gamma spectroscopy were performed on 39 monthly drinking water samples that were composited using water samplers that collected an aliquot every two hours. These samples were composited to form 12 quarterly composite period samples for Tritium analysis. Two indicator locations and a control location were sampled; however, only one of the indicator locations is downstream of the effluent release point.

Table 3.2-A lists the highest indicator location annual mean and control location annual mean for gross beta results since the preoperational period through 1995. Table 3.2-B lists the highest indicator location annual mean and control location annual mean for gross beta results from 1996 through 2022. The highest annual mean gross beta activity was 5.06 pCi/liter. Gross beta was not detected at the control location. The difference between the mean indicator and the mean control activities for 2022 are out of trend with the previous year's differences. This difference could be attributed to the change in the analysis procedure made in 2019. Figure 3.2-1 shows the highest indicator and control location annual means for gross beta. The tables show that 2022 gross beta levels in drinking water are similar for the indicator locations and lower for the control location than preoperational concentrations.

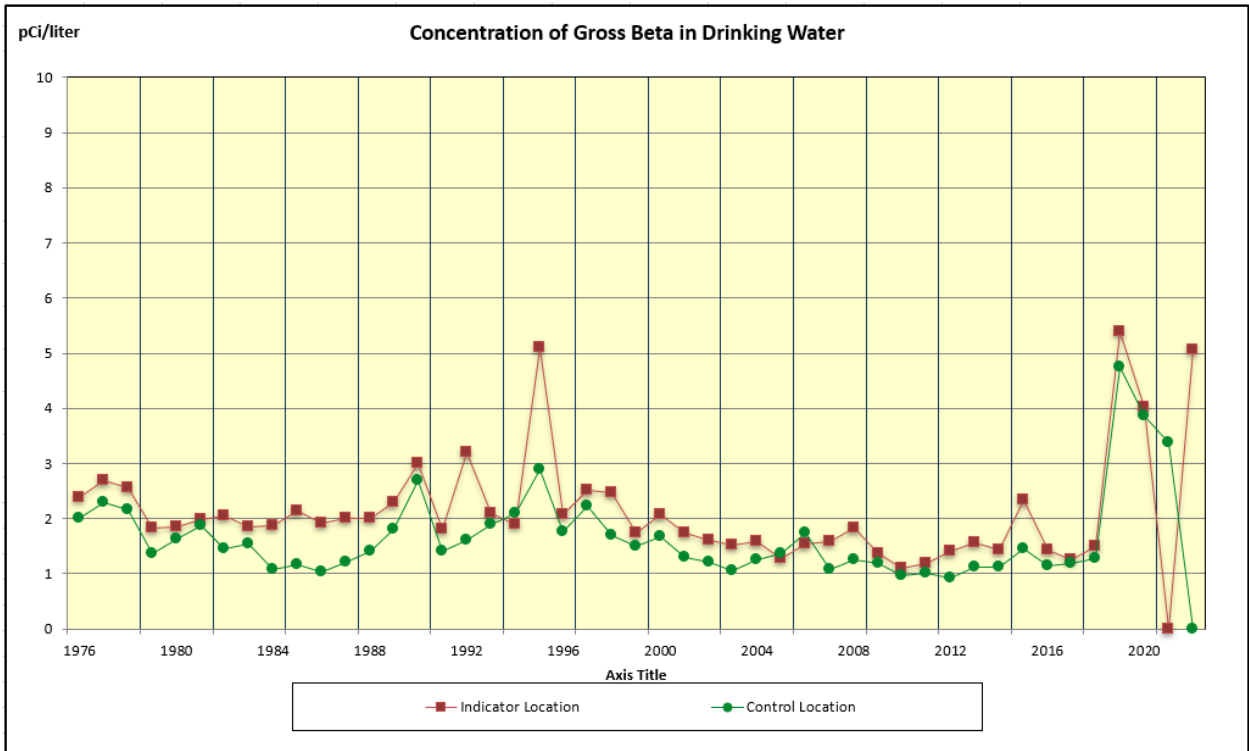
Tritium was detected in four of the twelve composite samples during 2022. Table 3.2-A, Table 3.2-B and Figure 3.2-2 show the highest indicator and control location annual means for Tritium since analysis was initiated early in the operational period. Tritium concentrations have decreased at both the indicator and control locations. The closure of the Clemson water plant in 1989 is one reason for the decrease shown in the table and graph. The Clemson site was typically the high mean location when the plant was in operation.

There were no gamma emitting radionuclides attributable to plant operations identified in drinking water samples in 2022. Gamma spectroscopy analysis has not detected any gamma activity in the water supplies since 1988.

The dose for consumption of water was less than one mrem per year based on effluent calculations and there were no abnormal releases exceeding 1 pCi/liter I-131 in 2022; therefore, low-level iodine analysis is not required.

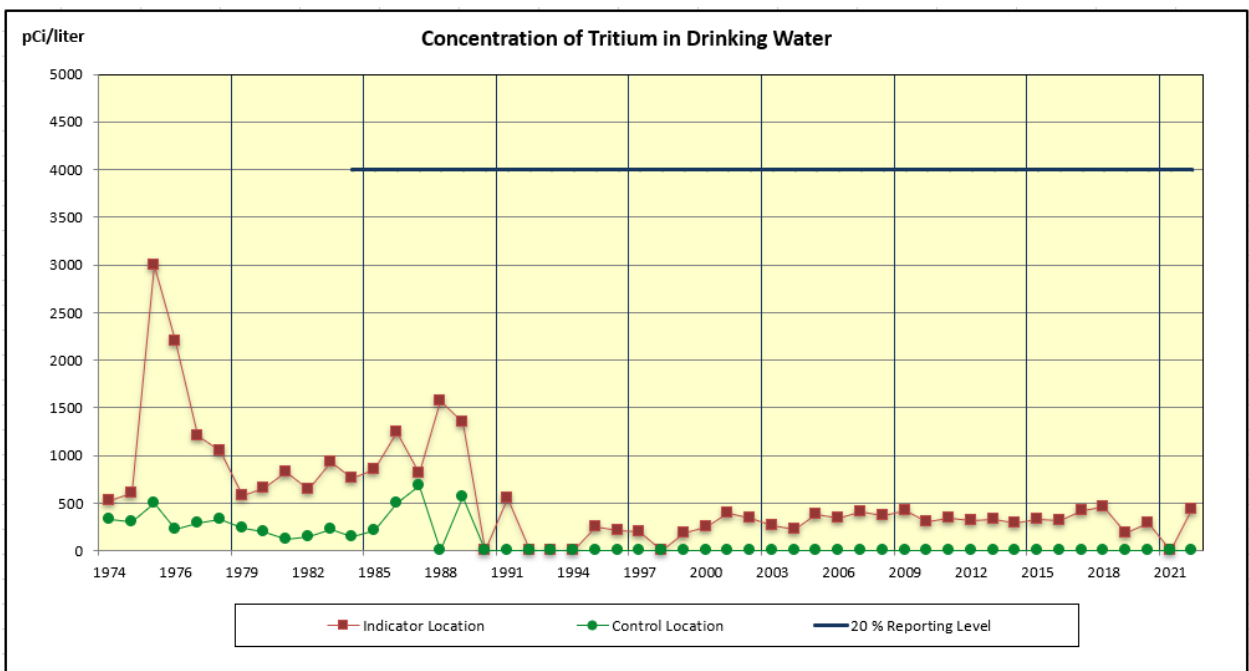
K-40 observed in drinking water samples is a naturally occurring radionuclide.

Figure 3.2-1



Analytical method changes implemented in 2019

Figure 3.2-2



Current reporting level implemented 1984

Table 3.2-A Mean Concentrations of Radionuclides in Drinking Water (1971-1995)

Year	Gross Beta (pCi/l)		Tritium (pCi/l)	
	Indicator Location	Control Location	Indicator Location	Control Location
Preoperational ending Jan. 1971	3.03	5.90	Analysis not required	
Preoperational ending Jan. 1973	3.58	4.94	Analysis not required	
Feb. 1973 - June 1973	Qualitative results reported		Analysis not required	
June 1973 - Dec. 1973	7.15	21.78	Analysis not required	
Jan. 1974 - June 1974	3.13	6.98	Analysis not required	
July 1974 - Dec. 1974	2.24	2.02	525	330
Jan. 1975 - June 1975	1.98	1.59	600	300
July 1975 - Dec. 1975	2.01	1.22	2990	505
1976	2.38	2.00	2196	224
1977	2.70	2.30	1200	290
1978	2.56	2.17	1050	333
1979	1.83	1.36	576	235
1980	1.86	1.63	660	200
1981	1.98	1.88	830	127
1982	2.04	1.45	643	153
1983	1.85	1.54	937	220
1984	1.87	1.08	765	145
1985	2.14	1.16	856	210
1986	1.91	1.04	1240	503
1987	2.00	1.20	815	680
1988	2.00	1.40	1570	0.00
1989	2.30	1.80	1350	559
1990	3.00	2.70	0.00	0.00
1991	1.80	1.40	558	0.00
1992	3.20	1.60	0.00	0.00
1993	2.10	1.90	0.00	0.00
1994	1.90	2.10	0.00	0.00
1995	5.10	2.90	248	0.00

0.00 indicates no detectable measurements

1989 - Clemson water plant closes; nearest downstream plant is Anderson.

1979 - 1986 mean based on all net activity results

Table 3.2-B Mean Concentrations of Radionuclides in Drinking Water (1996-2022)

Year	Gross Beta (pCi/l)		Tritium (pCi/l)	
	Indicator Location	Control Location	Indicator Location	Control Location
1996	2.07	1.77	214	0.00
1997	2.52	2.23	194	0.00
1998	2.48	1.70	0.00	0.00
1999	1.73	1.49	185	0.00
2000	2.07	1.68	251	0.00
2001	1.75	1.29	390	0.00
2002	1.61	1.21	338	0.00
2003	1.51	1.05	266	0.00
2004	1.58	1.25	225	0.00
2005	1.28	1.37	377	0.00
2006	1.54	1.75	340	0.00
2007	1.58	1.08	402	0.00
2008	1.82	1.25	372	0.00
2009	1.37	1.19	415	0.00
2010	1.10	0.97	308	0.00
2011	1.18	1.00	339	0.00
2012	1.40	0.92	322	0.00
2013	1.57	1.11	325	0.00
2014	1.43	1.12	292	0.00
2015	2.34	1.46	325	0.00
2016	1.44	1.15	325	0.00
2017	1.25	1.19	419	0.00
2018	1.50	1.27	356	0.00
2019 ⁽¹⁾	5.38	4.75	192	0.00
2020	4.02	3.86	289	0.00
2021	0.00	3.38	0.00	0.00
2022	5.06	0.00	439	0.00

0.00 indicates no detectable measurements

(1) Analytical method changes were implemented in 2019 for Gross Beta analysis.

3.3 SURFACE WATER

Gamma spectroscopy was performed on 26 monthly surface water samples that were composited using water samplers that collected an aliquot every two hours. These samples were composited to form eight quarterly composite period samples for Tritium analysis. One indicator and one control location were sampled. The indicator location is near the liquid effluent release point.

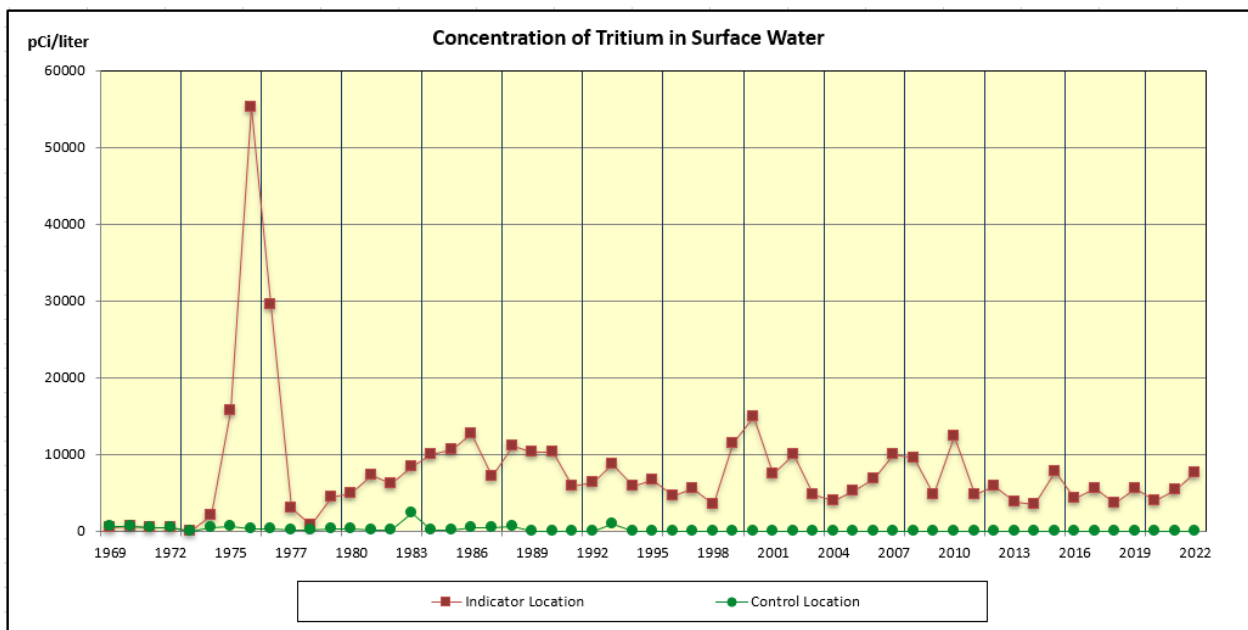
Tritium was detected in the four indicator location samples. The 2022 average concentration was 7,600 pCi/liter. The individual samples ranged from 1,830 to 15,400 pCi/liter. For comparison purposes, the 2021 mean concentration was 5,380 pCi/liter. Tritium was not detected in any control surface water samples.

Figure 3.3 shows the indicator and control annual means for Tritium since the preoperational period. Table 3.3-A lists the indicator annual means since preoperational through 1995. Table 3.3-B lists the indicator annual means from 1996 through 2022.

Gamma spectroscopy analysis did not detect any station related gamma activity during 2022. No gamma emitting radionuclides attributable to station operation have been detected in surface water samples since 1999. Table 3.3-A and Table 3.3-B summarize the indicator annual means of radionuclides detected since the change in the gamma spectroscopy analysis system in 1987. Visual inspection of the gamma spectroscopy tabular data covering the early operational period through 2022 did not reveal any increasing trends.

K-40 observed in surface water samples is a naturally occurring radionuclide.

Figure 3.3



There is no reporting level for Tritium in surface water

Table 3.3-A Mean Concentrations of Radionuclides in Surface Water (1969-1995)

Year	Co-58 (pCi/l)	Co-60 (pCi/l)	Nb-95 (pCi/l)	Cs-137 (pCi/l)	H-3 pCi/l)
Preoperational 1969		Qualitative results reported			4.86E2
Preoperational 1970		Qualitative results reported			5.94E2
Preoperational 1971		Qualitative results reported			4.01E2
Preoperational 1972		Qualitative results reported			3.62E2
1973		Qualitative results reported			0.00E0
1974	0.00E0	1.32E1	0.00E0	1.60E1	1.99E3
Jan. 1975 – June 1975	0.00E0	0.00E0	0.00E0	0.00E0	1.56E4
July 1975 – Dec. 1975	0.00E0	1.34E1	0.00E0	0.00E0	5.52E4
1976	1.08E2	3.30E1	0.00E0	3.50E1	2.95E4
1977	2.60E1	1.80E1	0.00E0	3.10E1	2.90E3
1978	2.96E2	0.00E0	0.00E0	2.22E1	8.00E2
1979	1.33E0	2.60E0	1.78E0	2.82E0	4.37E3
1980	1.56E0	2.30E0	1.22E0	5.40E0	4.93E3
1981	1.10E0	6.10E-1	1.70E0	3.90E0	7.21E3
1982	6.14E-1	1.99E0	2.29E0	4.85E0	6.13E3
1983	6.99E-1	3.02E0	3.91E-1	6.83E-1	8.40E3
1984	9.40E-1	6.30E-1	7.90E-1	4.83E-1	9.90E3
1985	2.15E-1	6.27E-1	4.95E-1	9.90E-1	1.05E4
1986	3.28E0	1.23E0	1.14E0	3.07E-1	1.26E4
1987 ⁽¹⁾	5.10E1	3.40E0	4.00E0	0.00E0	7.08E3
1988	6.20E0	5.00E0	2.50E0	3.50E0	1.10E4
1989	5.30E0	3.00E0	0.00E0	3.40E0	1.02E4
1990	1.70E0	1.60E0	0.00E0	0.00E0	1.03E4
1991	5.40E0	0.00E0	0.00E0	0.00E0	5.76E3
1992	2.50E0	0.00E0	0.00E0	0.00E0	6.22E3
1993	0.00E0	0.00E0	0.00E0	0.00E0	8.62E3
1994	0.00E0	0.00E0	0.00E0	0.00E0	5.75E3
1995	0.00E0	0.00E0	0.00E0	0.00E0	6.65E3

0.00E0 indicates no detectable measurements
 1979-1986 mean based on all net activity results
 (1) 1987 – Gamma spectroscopy system change

Table 3.3-B Mean Concentrations of Radionuclides in Surface Water (1996-2022)

Year	Co-58 (pCi/l)	Co-60 (pCi/l)	Nb-95 (pCi/l)	Cs-137 (pCi/l)	H-3 pCi/l)
1996	0.00E0	0.00E0	0.00E0	0.00E0	4.54E3
1997	0.00E0	0.00E0	0.00E0	0.00E0	5.50E3
1998	0.00E0	0.00E0	0.00E0	0.00E0	3.35E3
1999	2.73E1	0.00E0	0.00E0	0.00E0	1.13E4
2000	0.00E0	0.00E0	0.00E0	0.00E0	1.48E4
2001	0.00E0	0.00E0	0.00E0	0.00E0	7.43E3
2002	0.00E0	0.00E0	0.00E0	0.00E0	1.00E4
2003	0.00E0	0.00E0	0.00E0	0.00E0	4.77E3
2004	0.00E0	0.00E0	0.00E0	0.00E0	3.86E3
2005	0.00E0	0.00E0	0.00E0	0.00E0	5.15E3
2006	0.00E0	0.00E0	0.00E0	0.00E0	6.72E3
2007	0.00E0	0.00E0	0.00E0	0.00E0	9.91E3
2008	0.00E0	0.00E0	0.00E0	0.00E0	9.43E3
2009	0.00E0	0.00E0	0.00E0	0.00E0	4.68E3
2010	0.00E0	0.00E0	0.00E0	0.00E0	1.23E4
2011	0.00E0	0.00E0	0.00E0	0.00E0	4.75E3
2012	0.00E0	0.00E0	0.00E0	0.00E0	5.76E3
2013	0.00E0	0.00E0	0.00E0	0.00E0	3.68E3
2014 ⁽¹⁾	0.00E0	0.00E0	0.00E0	0.00E0	3.49E3
2015	0.00E0	0.00E0	0.00E0	0.00E0	7.73E3
2016	0.00E0	0.00E0	0.00E0	0.00E0	4.29E3
2017	0.00E0	0.00E0	0.00E0	0.00E0	5.56E3
2018	0.00E0	0.00E0	0.00E0	0.00E0	3.52E3
2019	0.00E0	0.00E0	0.00E0	0.00E0	5.56E3
2020	0.00E0	0.00E0	0.00E0	0.00E0	3.97E3
2021	0.00E0	0.00E0	0.00E0	0.00E0	5.38E3
2022	0.00E0	0.00E0	0.00E0	0.00E0	7.60E3

0.00E0 indicates no detectable measurements

(1) 2014 Gamma spectroscopy system was replaced 10JUL2014. Gamma spectroscopy system hardware, detector cooling apparatus, software, electronics, nuclide identification libraries, and analytical test matrix components for test matrices were modified (NCR # 0739995). No analytical changes were noted due to the 2014 gamma spectroscopy system change.

3.4 MILK

Biweekly grab samples were collected at two locations although the Oconee ODCM requires semimonthly samples. Biweekly grab samples are taken to meet the required sample frequency for scheduling purposes. Gamma spectroscopy and low-level Iodine-131 analyses were performed on 26 milk samples collected biweekly from the control location in 2022. Twelve biweekly samples from the supplemental indicator goat milk location were collected and received gamma spectroscopy and low-level Iodine-131 analyses. One supplemental indicator goat milk location was added to the REMP and sampled beginning 6/6/2022 following its identification during the 2022 land use census.

There were no gamma emitting radionuclides due to ONS plant operations identified in milk samples in 2022. Cs-137 is the only radionuclide, other than naturally occurring, reported in milk samples since 1988 (excluding Fukushima Daiichi). Cs-137 in milk is not unusual. It is a constituent of nuclear weapons test fallout and nuclear plant accidents and has been observed periodically in samples from indicator and control locations since the preoperational period.

Table 3.4-A lists the highest indicator location annual mean and control location annual mean for Cs-137 since the preoperational period through 1995. Table 3.4-B lists the highest indicator location annual mean and control location annual mean for Cs-137 from 1996 through 2022. The tables show similar concentrations for both indicator and control locations through 2005, and Cs-137 was not detected in the control location since 1996.

K-40 observed in milk samples is a naturally occurring radionuclide.

Table 3.4-A Mean Concentration of Radionuclides in Milk (Preoperational-1995)

Year	Cs-137 Indicator (pCi/l)	Cs-137 Control (pCi/l)
Preoperational	1.57E1	1.46E1
Feb. 1973 – June 1973	Qualitative results reported	Qualitative results reported
July 1973 – Dec. 1973	5.80E0	Qualitative results reported
Jan. 1974 – June 1974	5.30E0	0.00E0
July 1974 – Dec. 1974	1.11E1	0.00E0
Jan. 1975 – June 1975	1.51E1	9.45E0
July 1975 – Dec. 1975	0.00E0	0.00E0
1976	1.80E1	7.47E0
1977	0.00E0	0.00E0
1978	1.33E1	1.33E1
1979	7.25E0	2.52E0
1980	3.58E0	2.63E0
1981	5.52E0	5.51E0
1982	2.71E0	3.25E0
1983	5.04E0	-4.27E-1
1984	2.30E0	2.58E0
1985	2.38E0	1.31E0
1986	2.92E0	2.97E0
1987 ⁽¹⁾	4.90E0	4.90E0
1988	3.90E0	3.20E0
1989	4.70E0	2.90E0
1990	6.40E0	0.00E0
1991	5.00E0	0.00E0
1992	6.60E0	0.00E0
1993	0.00E0	0.00E0
1994	0.00E0	1.80E0
1995	2.30E0	2.00E0

0.00E0 indicates no detectable measurements

1979 - 1986 mean based on all net activity results

(1) 1987 – Gamma spectroscopy system change

Table 3.4-B Mean Concentration of Radionuclides in Milk (1996-2022)

Year	Cs-137 Indicator (pCi/l)	Cs-137 Control (pCi/l)
1996	0.00E0	4.10E0
1997	0.00E0	0.00E0
1998	0.00E0	0.00E0
1999	0.00E0	0.00E0
2000	0.00E0	0.00E0
2001	0.00E0	0.00E0
2002	0.00E0	0.00E0
2003	0.00E0	0.00E0
2004	0.00E0	0.00E0
2005 ⁽¹⁾	0.00E0	0.00E0
2006	No Indicator Location	0.00E0
2007	No Indicator Location	0.00E0
2008	No Indicator Location	0.00E0
2009	No Indicator Location	0.00E0
2010	No Indicator Location	0.00E0
2011	No Indicator Location	0.00E0
2012	No Indicator Location	0.00E0
2013	No Indicator Location	0.00E0
2014 ⁽²⁾	No Indicator Location	0.00E0
2015	No Indicator Location	0.00E0
2016	No Indicator Location	0.00E0
2017	No Indicator Location	0.00E0
2018	No Indicator Location	0.00E0
2019	No Indicator Location	0.00E0
2020	No Indicator Location	0.00E0
2021	No Indicator Location	0.00E0
2022	0.00E0	0.00E0

0.00E0 indicates no detectable measurements

(1) The Oconee milk program was updated to align with NUREG-1301 during 2005 (NCR # 01753418). Location 071 was designated as the new control site effective with the 7/12/2005 sampling.

(2) 2014 Gamma spectroscopy system was replaced 10JUL2014. Gamma spectroscopy system hardware, detector cooling apparatus, software, electronics, nuclide identification libraries, and analytical test matrix components for test matrices were modified (NCR # 0739995). No analytical changes were noted due to the 2014 gamma spectroscopy system change.

3.5 BROADLEAF VEGETATION

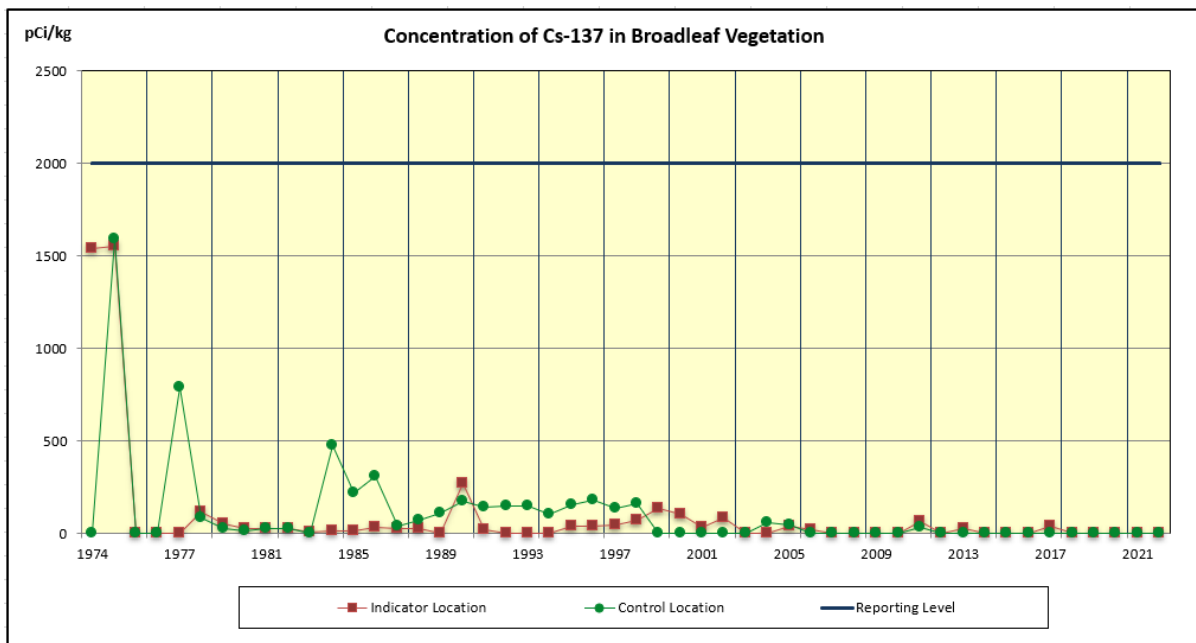
Monthly samples were collected, and a gamma analysis was performed on each of the 46 samples during 2022. Three indicator locations and one control location were sampled. Supplemental indicator location 084 was removed from the program on 10/4/2022. There were no gamma emitting radionuclides due to ONS plant operations identified in vegetation samples in 2022.

Cs-137 is the only radionuclide, other than naturally occurring, reported in vegetation samples since the change in gamma spectroscopy analysis systems in 1987. Figure 3.5 shows the indicator and control annual means for Cs-137 since the early operational period of the plant. Table 3.5 shows historical concentrations of Cs-137.

It is not unusual for Cs-137 to be present in vegetation. It is a constituent of nuclear weapons test fallout and nuclear plant accidents and has been observed in samples from indicator and control locations since the preoperational period. Table 3.5 lists the highest indicator location annual mean and control location annual mean for Cs-137 since early in the station's operational history. Visual inspection of the tabular data did not reveal any increasing trends.

K-40 and Be-7 observed in broadleaf vegetation samples are naturally occurring radionuclides.

Figure 3.5



2011 concentration affected by Fukushima Daiichi

Table 3.5 Mean Concentration of Radionuclides in Vegetation

Year	Cs-137 Indicator (pCi/kg)	Cs-137 Control (pCi/kg)
July 1974 - Dec. 1974	1.54E3	0.00E0
Jan. 1975 - June 1975	1.55E3	1.59E3
July 1975 - Dec. 1975	0.00E0	0.00E0
1976	0.00E0	0.00E0
1977	0.00E0	7.90E2
1978	1.19E2	8.19E1
1979	5.04E1	2.96E1
1980	2.80E1	1.55E1
1981	2.99E1	2.60E1
1982	2.42E1	2.62E1
1983	7.44E0	5.35E-1
1984	1.37E1	4.74E2 [†]
1985	1.62E1	2.20E2
1986	3.28E1	3.12E2
1987 ⁽¹⁾	2.70E1	4.20E1
1988	2.40E1	7.50E1
1989	0.00E0	1.08E2
1990	2.73E2	1.74E2
1991	2.20E1	1.45E2
1992	0.00E0	1.46E2
1993	0.00E0	1.49E2
1994	0.00E0	1.06E2
1995	4.30E1	1.58E2
1996	3.79E1	1.83E2
1997	4.73E1	1.35E2
1998	7.28E1	1.61E2 ^{††}
1999	1.34E2	0.00E0 ^{†††}
2000	1.06E2	0.00E0
2001	3.19E1	0.00E0
2002	8.44E1	0.00E0
2003	0.00E0	0.00E0
2004	0.00E0	5.96E1
2005	4.51E1	4.11E1
2006	1.77E1	0.00E0
2007	0.00E0	0.00E0
2008	0.00E0	0.00E0
2009	0.00E0	0.00E0
2010	0.00E0	0.00E0
2011	6.68E1 ^{††††}	3.35E1 ^{††††}
2012	0.00E0	0.00E0
2013	2.57E1	0.00E0
2014 ⁽²⁾	0.00E0	0.00E0
2015	0.00E0	0.00E0
2016	0.00E0	0.00E0
2017	3.94E1	0.00E0
2018	0.00E0	0.00E0
2019	0.00E0	0.00E0
2020	0.00E0	0.00E0
2021	0.00E0	0.00E0
2022	0.00E0	0.00E0

0.00E0 indicates no detectable measurements

Qualitative results reported prior to 1974

1979 - 1986 mean based on all net activity

(1) 1987 – Gamma spectroscopy system change

(2) 2014 Gamma spectroscopy system was replaced 10JUL2014. Gamma spectroscopy system hardware, detector cooling apparatus, software, electronics, nuclide identification libraries, and analytical test matrix components for test matrices were modified (NCR # 0739995). No analytical changes were noted due to the 2014 gamma spectroscopy system change.

† Control location changed to 073 in 1984

†† Control location 081 added in 1998

††† Control location 073 removed in 1999

†††† 2011 concentration affected by Fukushima Daiichi

3.6 FISH

In 2022, gamma spectroscopy was performed on the edible portions of 12 semiannual fish samples. Two downstream indicator locations and one control location were sampled. There were no gamma emitting radionuclides due to ONS plant operations identified in fish samples in 2022.

Figures 3.6-1 and 3.6-2 are graphs displaying the annual means for Cs-137 and Cs-134. Historically, both are contributors to the calculated dose from liquid effluents from ingestion of fish. Radioactivity concentrations in downstream fish samples are higher than those reported in preoperational fish samples, however, concentrations in fish have decreased over time with decreases in radioactive material releases from the plant.

One factor affecting the trend analysis is a change in sampling locations. In 1984, a second downstream fish location was added. Location 063 is closer to the liquid effluent discharge point and has been the highest mean indicator since it was added.

Table 3.6-A lists the highest indicator location annual means for radionuclides detected from the Preoperational period through 2014. Table 3.6-B list the highest indicator location annual means for radionuclides detected from 2015-2022. Also included in the table are radionuclides that have been identified in this media since the change in analysis systems in 1987. Comparison of data to previous years does not indicate any increases in concentrations.

K-40 observed in fish samples is a naturally occurring radionuclide.

Figure 3.6-1

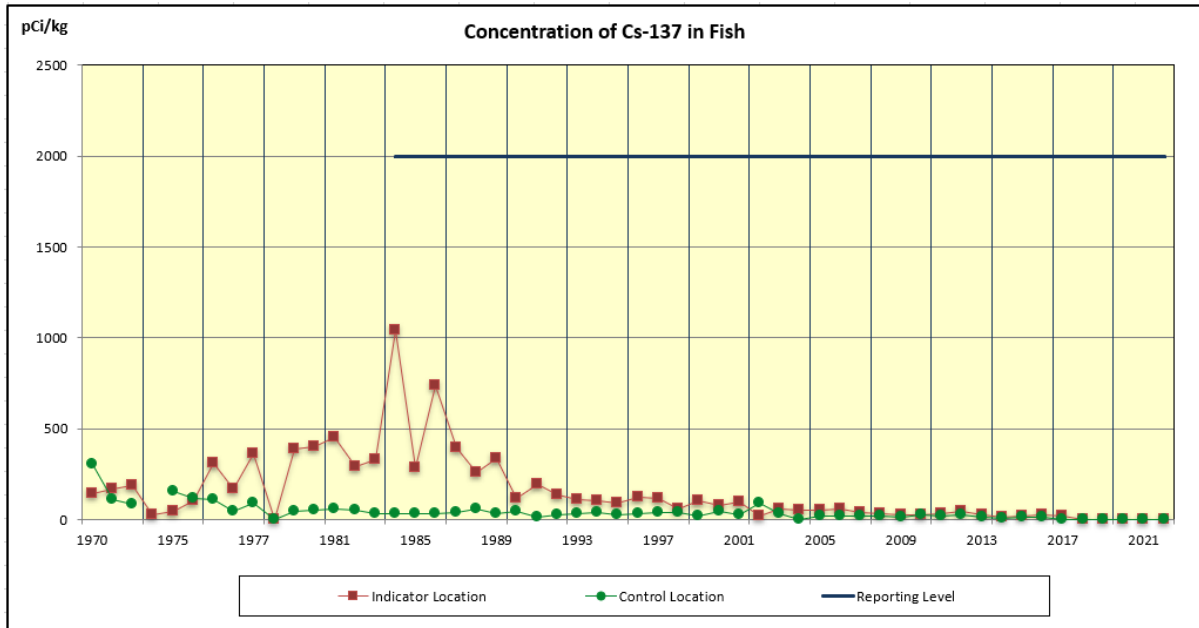
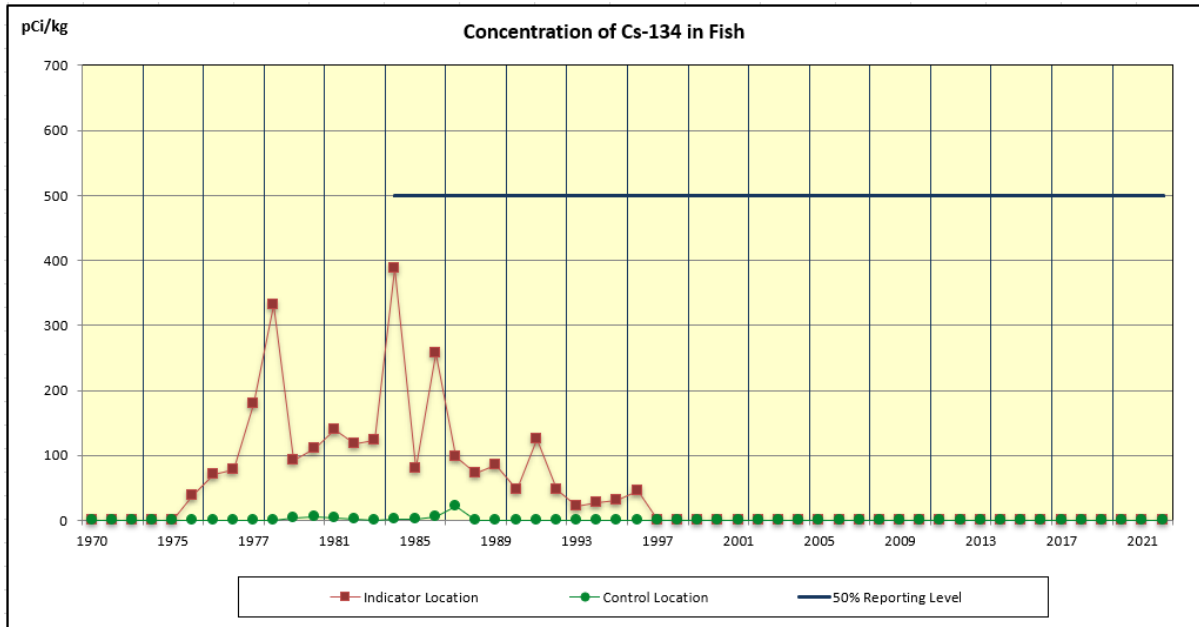


Figure 3.6-2



Current reporting levels implemented 1984

Table 3.6-A Mean Concentrations of Radionuclides in Fish (Preop-2014)

Year	Co-58 (pCi/kg)	Co-60 (pCi/kg)	Cs-134 (pCi/kg)	Cs-137 (pCi/kg)
Preop ending Jan.1971	0.00E0	0.00E0	0.00E0	1.46E2
Preop ending Jan.1973	0.00E0	0.00E0	0.00E0	1.66E2
Feb. 1973 - June 1973	Qualitative results reported-no significant measurements above background			
July 1973 - Dec. 1973	0.00E0	0.00E0	0.00E0	1.89E2
Jan. 1974 - June 1974	0.00E0	0.00E0	0.00E0	2.47E1
July 1974 - Dec. 1974	0.00E0	0.00E0	0.00E0	4.85E1
Jan. 1975 - June 1975	0.00E0	0.00E0	3.81E1	1.05E2
July 1975 - Dec. 1975	8.50E1	0.00E0	7.00E1	3.13E2
1976	5.70E1	1.14E2	7.73E1	1.66E2
1977	0.00E0	0.00E0	1.80E2	3.60E2
1978	3.27E2	0.00E0	3.31E2	0.00E0
1979	1.91E0	1.56E1	9.26E1	3.88E2
1980	1.45E1	1.90E1	1.10E2	3.99E2
1981	2.25E1	1.49E1	1.40E2	4.51E2
1982	9.83E-1	8.03E0	1.17E2	2.94E2
1983	3.35E1	4.53E0	1.24E2	3.32E2
1984	1.21E2	6.23E1	3.87E2	1.04E3
1985	1.62E1	1.10E1	7.93E1	2.85E2
1986	9.56E1	2.59E1	2.57E2	7.36E2
1987 ⁽¹⁾	1.63E2	6.30E1	9.80E1	3.93E2
1988	9.60E1	0.00E0	7.20E1	2.60E2
1989	4.30E1	1.50E1	8.60E1	3.36E2
1990	1.50E1	0.00E0	4.80E1	1.19E2
1991	4.59E1	0.00E0	1.25E2	1.94E2
1992	6.10E1	0.00E0	4.80E1	1.36E2
1993	0.00E0	0.00E0	2.10E1	1.10E2
1994	0.00E0	0.00E0	2.80E1	1.05E2
1995	0.00E0	0.00E0	3.10E1	9.20E1
1996	0.00E0	0.00E0	4.49E1	1.25E2
1997	0.00E0	0.00E0	0.00E0	1.18E2
1998	0.00E0	0.00E0	0.00E0	5.79E1
1999	0.00E0	0.00E0	0.00E0	1.04E2
2000	0.00E0	0.00E0	0.00E0	7.54E1
2001	1.72E1	0.00E0	0.00E0	9.92E1
2002	0.00E0	0.00E0	0.00E0	9.37E1
2003	5.02E1	0.00E0	0.00E0	6.04E1
2004	0.00E0	0.00E0	0.00E0	5.29E1
2005	0.00E0	0.00E0	0.00E0	5.14E1
2006	0.00E0	0.00E0	0.00E0	5.58E1
2007	0.00E0	0.00E0	0.00E0	4.10E1
2008	0.00E0	0.00E0	0.00E0	3.13E1
2009	9.01E0	0.00E0	0.00E0	2.68E1
2010	0.00E0	0.00E0	0.00E0	2.69E1
2011	0.00E0	0.00E0	0.00E0	3.53E1
2012	1.23E2	3.61E1	0.00E0	4.32E1
2013	0.00E0	0.00E0	0.00E0	2.44E1
2014 ⁽²⁾	0.00E0	0.00E0	0.00E0	1.40E1

0.00E0 indicates no detectable measurements

1979 - 1986 mean based on all net activity

(1) 1987 – Gamma spectroscopy system change

(2) 2014 Gamma spectroscopy system was replaced 10JUL2014. Gamma spectroscopy system hardware, detector cooling apparatus, software, electronics, nuclide identification libraries, and analytical test matrix components for test matrices were modified (NCR # 0739995). No analytical changes were noted due to the 2014 gamma spectroscopy system change.

Table 3.6-B Mean Concentrations of Radionuclides in Fish (2015-2022)

Year	Co-58 (pCi/kg)	Co-60 (pCi/kg)	Cs-134 (pCi/kg)	Cs-137 (pCi/kg)
2015	0.00E0	0.00E0	0.00E0	1.94E1
2016	0.00E0	0.00E0	0.00E0	2.74E1
2017	0.00E0	0.00E0	0.00E0	1.73E1
2018	0.00E0	0.00E0	0.00E0	0.00E0
2019	0.00E0	0.00E0	0.00E0	0.00E0
2020	0.00E0	0.00E0	0.00E0	0.00E0
2021	0.00E0	0.00E0	0.00E0	0.00E0
2022	0.00E0	0.00E0	0.00E0	0.00E0

0.00 indicates no detectable measurements

3.7 SHORELINE SEDIMENT

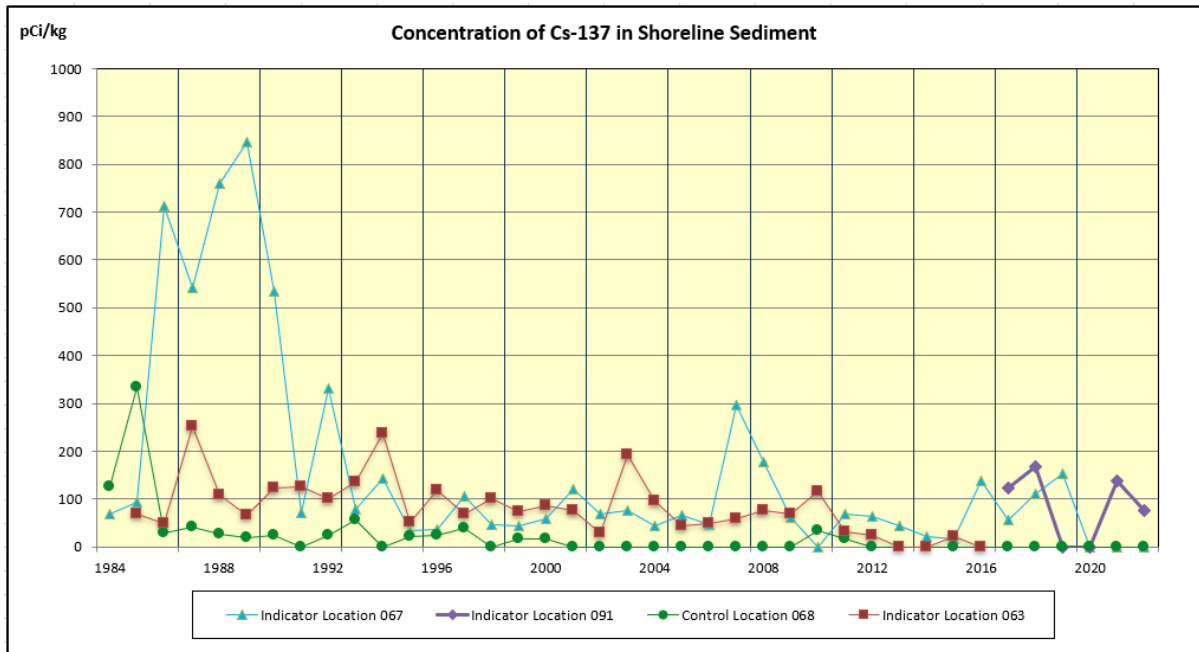
Gamma spectroscopy was performed on six semiannual sediment samples following the drying and removal of rocks and clams. Two downstream indicator locations and one control location were sampled. Four samples were taken from indicator locations and two from the control location.

Cs-137 activity was detected at 76.1 pCi/kg in one 2022 indicator sample. There was no activity detected in any of the control location samples in 2022. Table 3.7 lists the highest indicator location annual means since shoreline sediment was initiated in 1984. Included in the table are radionuclides that have been identified in this media since the change in analysis systems in 1987.

Visual inspection of the tabular data did not reveal any trends. Figure 3.7 is a graph of the Cs-137 annual means. Historically, Cs-137 is a contributor to the calculated dose from liquid effluents from shoreline sediment. No trends are apparent.

K-40 observed in shoreline samples is a naturally occurring radionuclide.

Figure 3.7



There are no reporting levels for shoreline sediment

Table 3.7 Mean Concentrations of Radionuclides in Shoreline Sediment (pCi/kg)

Year	Mn-54	Co-58	Co-60	Zn-65	Cs-134	Cs-137	Ag-110m	Sb-125
1984	1.10E1	1.09E1	1.19E1	0.00E0	7.77E1	5.16E1	0.00E0	0.00E0
1985	9.39E0	1.27E0	4.79E0	0.00E0	7.63E1	9.47E1	0.00E0	0.00E0
1986	2.24E1	1.62E1	2.50E1	0.00E0	1.41E2	7.12E2	0.00E0	0.00E0
1987 ⁽¹⁾	5.40E1	4.70E2	5.07E2	0.00E0	1.01E2	6.22E2	3.46E2	0.00E0
1988	3.30E1	1.20E2	1.87E2	6.70E1	6.60E1	7.59E2	1.62E2	3.67E2
1989	2.30E1	1.24E2	1.96E2	0.00E0	5.40E1	8.48E2	5.50E1	1.86E2
1990	3.40E1	8.00E1	2.59E2	0.00E0	4.50E1	5.36E2	1.71E2	9.00E1
1991	3.26E1	5.60E1	8.57E1	0.00E0	6.91E1	1.24E2	1.10E2	1.78E2
1992	8.79E1	1.79E2	1.12E2	0.00E0	5.60E1	3.31E2	1.69E2	2.08E2
1993	8.20E1	8.20E1	6.50E1	0.00E0	3.20E1	1.36E2	5.63E1	1.11E2
1994	5.30E1	7.00E1	1.49E2	0.00E0	6.70E1	2.38E2	1.04E2	1.29E2
1995	1.43E2	3.90E1	2.40E1	0.00E0	1.10E1	5.20E1	0.00E0	0.00E0
1996	0.00E0	5.10E1	0.00E0	0.00E0	1.98E1	1.19E2	0.00E0	0.00E0
1997	0.00E0	0.00E0	0.00E0	0.00E0	0.00E0	1.06E2	0.00E0	0.00E0
1998	0.00E0	0.00E0	0.00E0	0.00E0	0.00E0	1.01E2	0.00E0	0.00E0
1999	6.96E1	0.00E0	0.00E0	0.00E0	0.00E0	7.38E1	0.00E0	0.00E0
2000	0.00E0	0.00E0	0.00E0	0.00E0	0.00E0	8.54E1	0.00E0	0.00E0
2001	0.00E0	2.10E1	0.00E0	0.00E0	0.00E0	1.20E2	0.00E0	0.00E0
2002	0.00E0	0.00E0	0.00E0	0.00E0	0.00E0	6.96E1	0.00E0	0.00E0
2003	0.00E0	0.00E0	0.00E0	0.00E0	0.00E0	1.93E2	0.00E0	0.00E0
2004	8.54E1	0.00E0	0.00E0	0.00E0	0.00E0	9.56E1	0.00E0	0.00E0
2005	2.00E2	0.00E0	0.00E0	0.00E0	0.00E0	6.53E1	0.00E0	0.00E0
2006	0.00E0	0.00E0	0.00E0	0.00E0	0.00E0	5.01E1	0.00E0	0.00E0
2007	0.00E0	0.00E0	0.00E0	0.00E0	0.00E0	2.97E2	0.00E0	0.00E0
2008	0.00E0	0.00E0	0.00E0	0.00E0	0.00E0	1.78E2	0.00E0	0.00E0
2009	0.00E0	0.00E0	0.00E0	0.00E0	0.00E0	6.97E1	0.00E0	0.00E0
2010	0.00E0	0.00E0	0.00E0	0.00E0	0.00E0	1.15E2	0.00E0	0.00E0
2011	0.00E0	0.00E0	0.00E0	0.00E0	0.00E0	6.83E1	0.00E0	0.00E0
2012	0.00E0	0.00E0	0.00E0	0.00E0	0.00E0	6.35E1	0.00E0	0.00E0
2013	0.00E0	0.00E0	0.00E0	0.00E0	0.00E0	4.37E1	0.00E0	0.00E0
2014 ⁽²⁾	0.00E0	0.00E0	0.00E0	0.00E0	0.00E0	2.11E1	0.00E0	0.00E0
2015	0.00E0	0.00E0	0.00E0	0.00E0	0.00E0	2.24E1	0.00E0	0.00E0
2016	0.00E0	0.00E0	0.00E0	0.00E0	0.00E0	1.36E2	0.00E0	0.00E0
2017	0.00E0	0.00E0	0.00E0	0.00E0	0.00E0	1.22E2	0.00E0	0.00E0
2018	0.00E0	0.00E0	0.00E0	0.00E0	0.00E0	1.68E2	0.00E0	0.00E0
2019	0.00E0	0.00E0	0.00E0	0.00E0	0.00E0	1.52E2	0.00E0	0.00E0
2020	0.00E0	0.00E0	0.00E0	0.00E0	0.00E0	0.00E0	0.00E0	0.00E0
2021	0.00E0	0.00E0	0.00E0	0.00E0	0.00E0	0.00E0	0.00E0	0.00E0
2022	0.00E0	0.00E0	0.00E0	0.00E0	0.00E0	7.61E1	0.00E0	0.00E0

0.00E0 indicates no detectable measurements

1984 - 1986 mean based on all net activity

(1) 1987 – Gamma spectroscopy system change

(2) 2014 Gamma spectroscopy system was replaced 10JUL2014. Gamma spectroscopy system hardware, detector cooling apparatus, software, electronics, nuclide identification libraries, and analytical test matrix components for test matrices were modified (NCR # 0739995). No analytical changes were noted due to the 2014 gamma spectroscopy system change.

3.8 DIRECT GAMMA RADIATION

3.8.1 ENVIRONMENTAL TLD

Oconee is licensed with an exclusion area boundary defined by UFSAR Section 2.1.1.2 as a 1 mile radius from station center. This is the same boundary established for determining radioactive effluent release limits. No permanent public access is permitted within the exclusion area.

Thermoluminescent dosimeters (TLD) were placed and collected quarterly at the fifty locations indicated in Section 2 Table 2.1-B. There are 25 TLD locations, one or more in each meteorological sector, designated as "inner ring" and were placed within exclusion area upon inception of the REMP and all are used as indicators. Due to close proximity with Oconee, inner ring TLD locations are not good indicators of radiation exposure to a member of the public, but are good at determining nearby environmental effects due to plant operation. Based on their placement, inner ring TLD locations are expected to occasionally be influenced by normal plant operation. There were 16 TLD locations, one in each meteorological sector, designated as "outer ring" are outside the 1 mile exclusion area but within a 5 mile radius of station center. All outer ring TLD locations are used as indicators. The remaining TLDs were placed in special interest areas such as population centers, residential areas, schools, and control locations within a 7 to 13 mile radius from station center. The two "control" locations are greater than 9 miles from station center. These locations were chosen to reduce the probability of influence from Oconee operation on data. The control locations are not used as background subtraction in the TLD analysis. Their purpose is to provide a comparison to indicator locations.

A gamma exposure rate was determined for each TLD. In 2022, 196 total TLDs were collected and analyzed quarterly, 188 at indicator locations and 8 at control locations. Transit and laboratory background exposure are determined and subtracted from gross field readings as required by ANSI N545-1975. Based on Appendix B TLD data, the highest annual exposure was 30.2 mR/Std-Qtr at indicator location 024, 0.81 miles E of station center. Figure 3.8 and Table 3.8 show TLD inner ring, outer ring, and control location annual averages in mR/Std-Qtr. Preoperational data is also provided in the table. As shown in the graph, historical inner and outer ring averages compare similarly, while control data is somewhat higher. This is most likely an artifact of the underlying geologic structures at the control locations.

Quarterly, environmental ODCM TLD results are compared by location to its historical data to evaluate any significant changes. The comparison utilizes the location's average exposure history to determine if quarterly results fall within expected low and high ranges and provides a reliable indication of potential changes occurring at a specific TLD location. The low and high ranges are determined by the historical average \pm two standard deviations. The quarterly TLD evaluation implements portions of American National Standard ANSI/HPS N13.37-2014,

“Environmental Dosimetry – Criteria for System Design and Implementation, for environmental Thermoluminescent Dosimeters (TLD)”. The WP-RP-ALL-0030 – Updated Radiological Environmental Monitoring Program TLD Analytical Method, describes the process implemented in late 2018 for fleet TLD programs. TLD values identified as < Low Range or > High Range are evaluated in consideration of factors including possible TLD damage, sampling deviations, glow curve irregularities, and any known environmental location changes which may affect results. TLD results are found in Appendix E. There were no TLD results in 2022 that exceeded the < Low Range or > High Range.

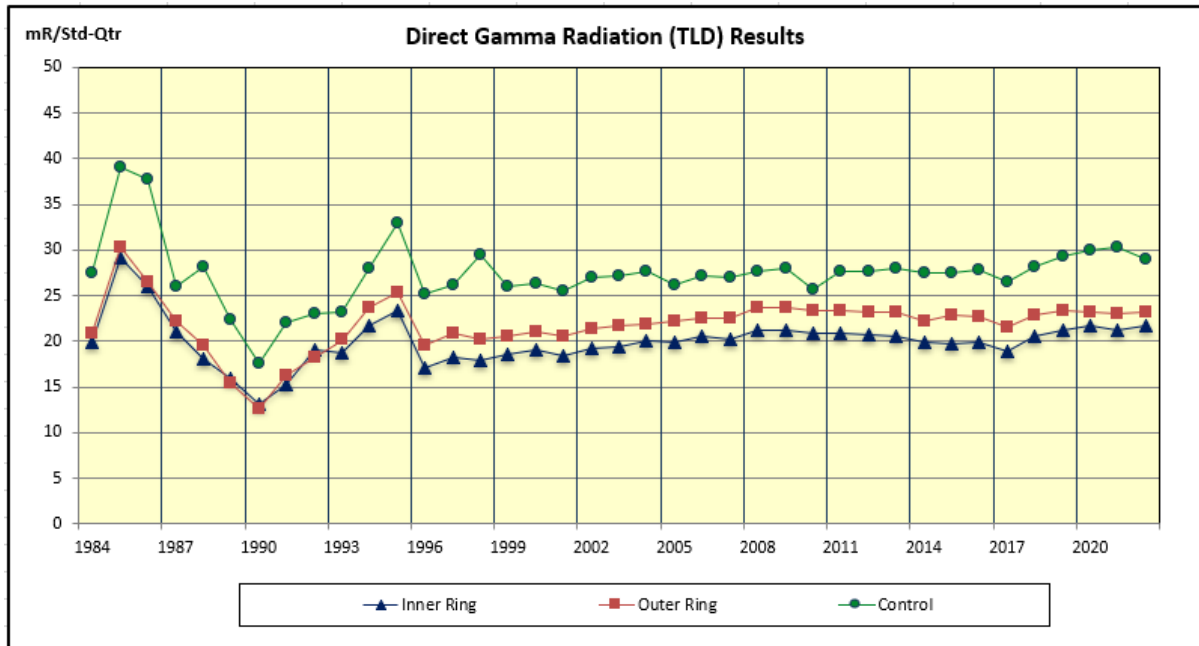
A TLD intercomparison program is conducted as part of the quality assurance program. Results of this program are included in section 4.7.

3.8.2 ISFSI

The Oconee ISFSI began operation in 1990. It is located 0.25 miles southwest of station center in a secured area specifically constructed to provide dry storage for spent nuclear fuel. The ISFSI employs the NUHOMS® horizontal storage module design. Irradiated fuel assemblies are confined, protected, and shielded by a reinforced concrete module. The system is completely passive and designed to provide shielding and safe confinement of spent fuel for a range of postulated accident conditions and natural phenomena. Decay heat is removed from the module by a passive ventilation system. No radiological liquid or gaseous effluents are expected from the passive storage provided by the ISFSI. Therefore, any exposure to offsite locations would be from direct and scattered gamma radiation.

The Oconee REMP serves as the operational program for the ISFSI. Several environmental TLD locations are presently located at the Oconee site boundary fence near the ISFSI. The closest of these is 0.3 miles from the ISFSI, well within the 1 mile exclusion boundary. In addition, exposure rates at the ISFSI restricted area fence are monitored with TLDs as part of the routine REMP. These are used, in part, to control occupational exposure and augment the REMP according to the Oconee ISFSI UFSAR. The maximum TLD exposure at the ISFSI fence, which is not accessible to the public, was 432 mR/Std-Qtr. This is consistent with previous measurements.

Figure 3.8



There is no reporting level for Direct Radiation (TLD)

Table 3.8 Direct Gamma Radiation (TLD) Results

Year	Inner Ring Average (mR/Std-Qtr)	Outer Ring Average (mR/Std-Qtr)	Control Average (mR/Std-Qtr)
Preoperational	2.82E1	3.11E1	3.72E1
1984	1.99E1	2.10E1	2.71E1
1985	2.92E1	3.04E1	3.92E1
1986	2.61E1	2.65E1	3.77E1
1987	2.11E1	2.22E1	2.61E1
1988	1.81E1	1.97E1	2.82E1
1989	1.59E1	1.54E1	2.24E1
1990	1.31E1	1.27E1	1.75E1
1991	1.53E1	1.63E1	2.22E1
1992	1.91E1	1.83E1	2.30E1
1993	1.87E1	2.02E1	2.33E1
1994	2.17E1	2.37E1	2.80E1
1995	2.34E1	2.54E1	3.30E1
1996	1.71E1	1.96E1	2.53E1
1997	1.82E1	2.10E1	2.61E1
1998	1.79E1	2.02E1	2.95E1
1999	1.86E1	2.06E1	2.60E1
2000	1.91E1	2.11E1	2.64E1
2001	1.84E1	2.06E1	2.56E1
2002	1.92E1	2.13E1	2.70E1
2003	1.94E1	2.17E1	2.72E1
2004	2.00E1	2.19E1	2.76E1
2005	1.98E1	2.23E1	2.62E1
2006	2.05E1	2.26E1	2.73E1
2007	2.03E1	2.25E1	2.70E1
2008	2.12E1	2.38E1	2.78E1
2009	2.13E1	2.36E1	2.80E1
2010	2.09E1	2.33E1	2.57E1
2011	2.10E1	2.35E1	2.78E1
2012	2.08E1	2.31E1	2.76E1
2013	2.06E1	2.33E1	2.80E1
2014	1.99E1	2.23E1	2.75E1
2015	1.97E1	2.28E1	2.75E1
2016	2.00E1	2.28E1	2.78E1
2017	1.89E1	2.15E1	2.65E1
2018	2.05E1	2.28E1	2.81E1
2019	2.12E1	2.34E1	2.93E1
2020	2.17E1	2.33E1	3.30E1
2021	2.12E1	2.30E1	3.04E1
2022	2.18E1	2.32E1	2.90E1

3.9 LAND USE CENSUS

The Land Use Census was conducted during the growing season (5/16 – 5/18/2022) as required by SLC 16.11.6. The nearest Residence and milk-giving animal (cow, goat, etc.), where milk is used for human consumption, were identified within a distance of 8 kilometers (5.0 miles) from the station and in each of the sixteen meteorological sectors.

Table 3.9 summarizes census results. A map indicating identified locations is shown in Figure 3.9. The nearest residence is located in the NNW sector at 1.03 miles, and there was one goat milk location identified during the performance of the land use census. The goat milk location was added to the program on 6/6/2022 as a supplemental location. The milk location was not required to be added to the program, because the 1 mRem dose criteria for a milk animal within 2-8 km is not met.

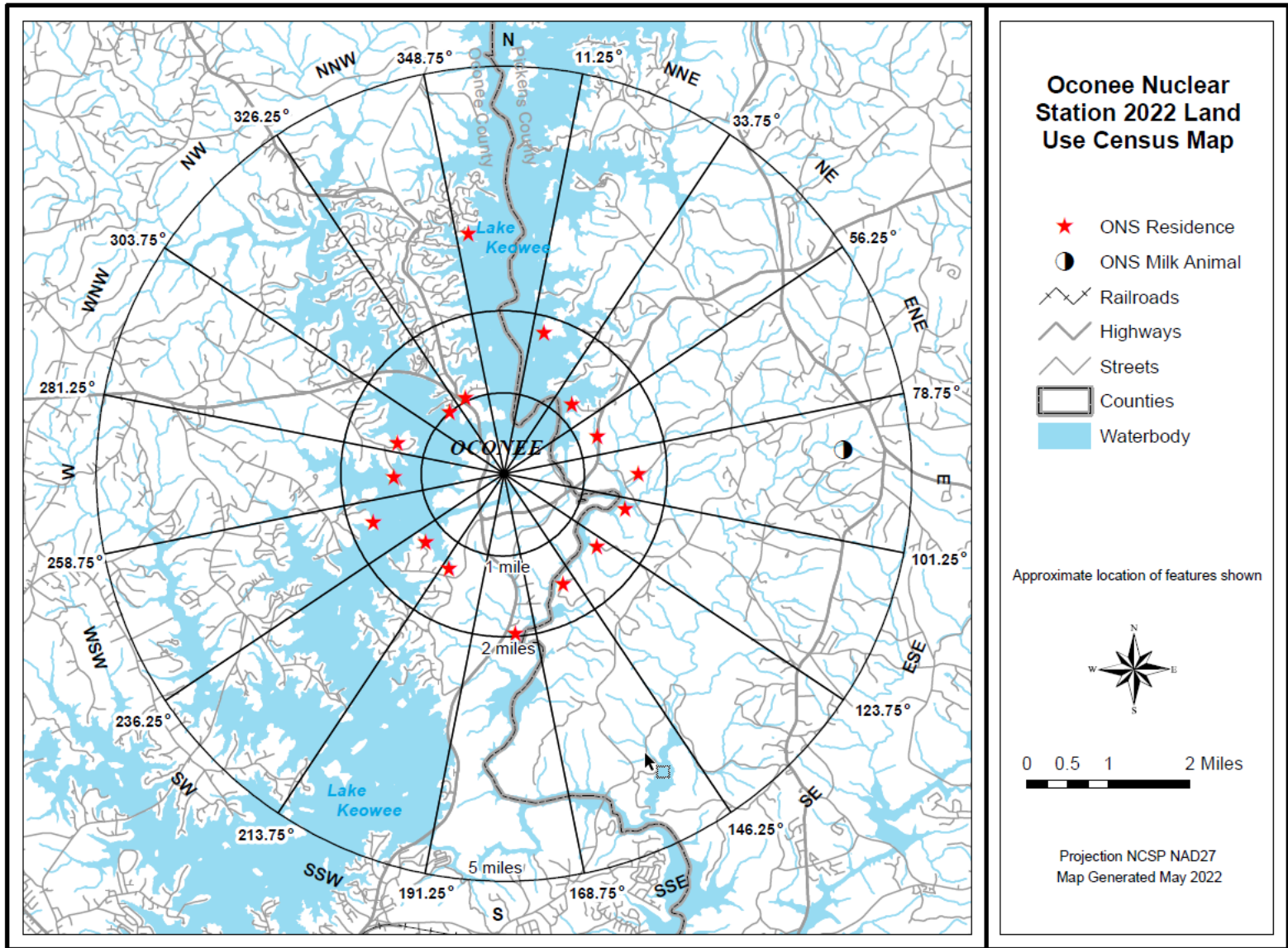
Table 3.9 Oconee 2022 Land Use Census Results

Nearest Pathways (Miles)

SECTOR	RESIDENCE		MILK ANIMAL	
	2021	2022	2021	2022
North	2.98	2.98	---	---
North-Northeast	1.84	1.80*	---	---
Northeast	1.20	1.20	---	---
East-Northeast	1.24	1.24	---	---
East	1.64	1.64	---	4.18*
East-Southeast	1.57	1.57	---	---
Southeast	1.46	1.46	---	---
South-Southeast	1.54	1.54	---	---
South	1.96	1.96	---	---
South-Southwest	1.34	1.34	---	---
Southwest	1.27	1.27	---	---
West-Southwest	1.73	1.73	---	---
West	1.35	1.35	---	---
West-Northwest	1.35	1.35	---	---
Northwest	1.04	1.04	---	---
North-Northwest	1.03	1.03	---	---

NOTE: Sector and distances were determined by Global Positioning System
 * Represents a change from the previous year
 --- Indicates no occurrences within the 5 mile radius

Figure 3.9



4.0 QUALITY ASSURANCE

4.1 SAMPLE COLLECTION

EnRad Laboratories and the Environmental Services Group performed the environmental sample collections as specified by approved sample collection procedures.

4.2 SAMPLE ANALYSIS

EnRad Laboratories performed the environmental sample analyses as specified by approved analysis procedures. EnRad Laboratories is in Huntersville, North Carolina, at Duke Energy's Environmental Center.

4.3 DOSIMETRY ANALYSIS

The Dosimetry and Records group performed the environmental dosimetry measurements as specified by approved dosimetry analysis procedures. The Dosimetry and Records Laboratory is in Huntersville, North Carolina, at Duke Energy's Environmental Center.

4.4 LABORATORY EQUIPMENT QUALITY ASSURANCE

4.4.1 DAILY QUALITY CONTROL

EnRad Laboratories has an internal quality assurance program which monitors each type of instrumentation for reliability and accuracy. Daily quality control checks ensure that instruments are in proper working order and these checks are used to monitor instrument performance.

4.4.2 CALIBRATION VERIFICATION

National Institute of Standards and Technology (NIST) standards that represent counting geometries are analyzed as unknowns at various frequencies ranging from weekly to annually to verify that efficiency calibrations are valid. The frequency is dependent upon instrument use and performance. Investigations are performed and documented should calibration verification data fall outside of the acceptable limits.

4.4.3 BATCH PROCESSING

Method quality control samples are analyzed with sample analyses that are processed in batches. These include tritium analyses in drinking water, and surface water; beta analysis in drinking water samples, and Low-Level Iodine-131 analysis in milk samples.

4.5 DUKE ENERGY INTERLABORATORY COMPARISON PROGRAM

In 2022 Duke Energy Environmental Laboratory (EnRad) participated in interlaboratory programs to satisfy Radiological Environmental Monitoring Program requirements in Duke Energy nuclear plant Offsite Dose Calculation Manuals and Selected Licensee Commitments Manuals, as applicable.

EnRad Laboratory participated in an interlaboratory program with Eckert & Ziegler Analytics (EZA) in 2022. EZA results were evaluated against the NRC Inspection Manual Procedure 84750 (IP 84750) acceptance criteria stated in EnRad Procedure 515, Cross Check Program Administration. All regulatory requirements continue to be met by the EZA Cross Check Program.

4.5.1 ECKERT & ZIEGLER ANALYTICS CROSS CHECK PROGRAM

EZA mixed gamma in liquid, mixed gamma in vegetation, mixed gamma in soil, low-level I-131 in liquid, mixed gamma air filter composites, I-131 air cartridges, gross beta in water, gross beta in filters, and tritium in water were analyzed at various times of the year at EnRad Laboratories. A summary of the applicable REMP EnRad Laboratory program results for 2022 is documented in Table 4.0-A.

Interlaboratory cross check samples from EZA were received and analyzed in two of the four quarters of 2022. Table 4.0-A lists the performance for specific samples. Forty-one nuclide results were reported to EZA of which forty-one (100%) met the acceptance criteria based on IP 84750.

4.6 INTERCOMPARISON PROGRAM

Oconee Nuclear Station routinely participates in an environmental sample intercomparison program. Program elements include sampling frequency and analysis parameters for drinking water, surface water, milk, fish, broadleaf vegetation, and shoreline sediment samples that have been collected. Samples are routinely split with a vendor laboratory for intercomparison analysis.

4.7 TLD INTERCOMPARISON PROGRAM

Radiation Dosimetry and Records participates in a quarterly TLD internal comparison program administered internally by the Dosimetry Lab. The Dosimetry Lab Staff irradiates environmental dosimeters quarterly using the NIST-traceable Hopewell and submits them for analysis of the unknown estimated delivered exposure. The TLD results were evaluated against Radiation Dosimetry and Records Procedure RD/0/B/2000/09, Harshaw TLD Dose Algorithm Verification. Forty TLD results were evaluated of which forty (100%) met the acceptance criteria. A summary of the 2022 Internal Cross Check (Duke Energy) Program is documented in Table 4.0-B.

TABLE 4.0-A

ECKERT & ZIEGLER ANALYTICS

CROSS CHECK PROGRAM

2022 Cross Check Results for EnRad Laboratories

Interlaboratory cross check samples from EZA were received and analyzed in two of the four quarters of 2022. Results are reported directly to Eckert & Ziegler Analytics. Environmental cross check samples were analyzed in replicate, and the result closest to the mean is reported to Eckert & Ziegler Analytics. The acceptance criteria for the program was based on the NRC Inspection Manual Procedure 84750 (IP 84750). Table 4.0-A lists the performance for specific samples. Forty-one nuclide results were reported to EZA of which forty-one (100 %) met the acceptance criteria based on IP 84750.

Sample	Sample ID	Nuclide	Quarter	Units	EnRad Value	EZA Value	EnRad/EZA Ratio	Evaluation
Beta Filter in Planchet	E13558	Cs-137	2	pCi	211	223	0.94	Agreement
I-131 in Charcoal Cartridge	E13556	I-131	2	pCi	86.0	84.8	1.01	Agreement
Gamma in Soil	E13557	Ce-141	2	pCi/g	0.198	0.195	1.01	Agreement
		Co-58	2	pCi/g	0.162	0.181	0.90	Agreement
		Co-60	2	pCi/g	0.340	0.340	1.00	Agreement
		Cr-51	2	pCi/g	0.529	0.484	1.09	Agreement
		Cs-134	2	pCi/g	0.258	0.241	1.07	Agreement
		Cs-137	2	pCi/g	0.316	0.360	0.88	Agreement
		Fe-59	2	pCi/g	0.203	0.220	0.92	Agreement
		Mn-54	2	pCi/g	0.349	0.322	1.08	Agreement
		Zn-65	2	pCi/g	0.448	0.417	1.08	Agreement
Gamma in Simulated Vegetation	E13564	Ce-141	3	pCi/g	0.196	0.208	0.94	Agreement
		Co-58	3	pCi/g	0.232	0.244	0.95	Agreement
		Co-60	3	pCi/g	0.305	0.336	0.91	Agreement
		Cr-51	3	pCi/g	0.551	0.590	0.93	Agreement
		Cs-134	3	pCi/g	0.264	0.326	0.81	Agreement
		Cs-137	3	pCi/g	0.261	0.287	0.91	Agreement
		Fe-59	3	pCi/g	0.223	0.224	1.00	Agreement
		Mn-54	3	pCi/g	0.348	0.365	0.95	Agreement
		Zn-65	3	pCi/g	0.477	0.483	0.99	Agreement

TABLE 4.0-A (Cont.)

Sample	Sample ID	Nuclide	Quarter	Units	EnRad Value	EZA Value	EnRad/EZA Ratio	Evaluation
Gamma in Composite Filter	E13562	Ce-141	3	pCi	112	108	1.04	Agreement
		Co-58	3	pCi	130	126	1.03	Agreement
		Co-60	3	pCi	179	174	1.03	Agreement
		Cr-51	3	pCi	309	305	1.01	Agreement
		Cs-134	3	pCi	162	169	0.96	Agreement
		Cs-137	3	pCi	151	148	1.02	Agreement
		Fe-59	3	pCi	126	116	1.09	Agreement
		Mn-54	3	pCi	199	189	1.05	Agreement
		Zn-65	3	pCi	269	250	1.08	Agreement
Gamma in Water	E13563	Ce-141	3	pCi/L	168	157	1.07	Agreement
		Co-58	3	pCi/L	192	184	1.04	Agreement
		Co-60	3	pCi/L	266	253	1.05	Agreement
		Cr-51	3	pCi/L	490	444	1.10	Agreement
		Cs-134	3	pCi/L	233	246	0.95	Agreement
		Cs-137	3	pCi/L	231	216	1.07	Agreement
		Fe-59	3	pCi/L	190	168	1.13	Agreement
		Mn-54	3	pCi/L	297	275	1.08	Agreement
		Zn-65	3	pCi/L	396	364	1.09	Agreement
Milk LLI-131	E13559	I-131	2	pCi/L	100	93.3	1.07	Agreement
Gross Beta in Water	E13561	Cs-137	2	pCi/L	252	279	0.90	Agreement
Tritium in Water	E13565	H-3	3	pCi/L	11600	12500	0.93	Agreement

TABLE 4.0-B

2022 ENVIRONMENTAL DOSIMETER

CROSS CHECK RESULTS

Internal Crosscheck (Duke Energy)

Radiation Dosimetry and Records participates in a quarterly TLD internal comparison program administered internally by the Dosimetry Lab. The Dosimetry Lab Staff irradiates environmental dosimetry quarterly and submits them for analysis of the unknown estimated delivered exposure. The TLD results were evaluated against Radiation Dosimetry and Records Procedure RD/0/B/2000/09, Harshaw TLD Dose Algorithm Verification. Forty TLD results were evaluated of which forty (100%) met the acceptance criteria.

1st Quarter 2022						2nd Quarter 2022					
TLD Number	Reported (mR)	Delivered (mR)	Bias (% diff)	Pass/Fail Criteria	Pass/Fail	TLD Number	Reported (mR)	Delivered (mR)	Bias (% diff)	Pass/Fail Criteria	Pass/Fail
103615	59.74	58.21	2.63	<+/-20%	Pass	102931	19.48	18.49	5.35	<+/-20%	Pass
102059	56.77	58.21	-2.47	<+/-20%	Pass	100029	18.10	18.49	-2.11	<+/-20%	Pass
100164	55.78	58.21	-4.17	<+/-20%	Pass	100033	17.98	18.49	-2.76	<+/-20%	Pass
102407	57.37	58.21	-1.44	<+/-20%	Pass	103721	19.90	18.49	7.63	<+/-20%	Pass
103098	60.15	58.21	3.33	<+/-20%	Pass	103212	19.62	18.49	6.11	<+/-20%	Pass
100007	56.16	58.21	-3.52	<+/-20%	Pass	100224	18.18	18.49	-1.68	<+/-20%	Pass
100038	56.16	58.21	-3.52	<+/-20%	Pass	100074	18.32	18.49	-0.92	<+/-20%	Pass
100245	54.99	58.21	-5.53	<+/-20%	Pass	102018	19.49	18.49	5.41	<+/-20%	Pass
102442	55.54	58.21	-4.59	<+/-20%	Pass	100068	18.12	18.49	-2.00	<+/-20%	Pass
100170	55.95	58.21	-3.88	<+/-20%	Pass	100028	18.22	18.49	-1.46	<+/-20%	Pass
Average Bias (B)			-2.32			Average Bias (B)			1.36		
Standard Deviation (S)			3.01			Standard Deviation (S)			4.17		
Measure Performance B +S			5.33	<20%	Pass	Measure Performance B +S			5.53	<20%	Pass
3rd Quarter 2022						4th Quarter 2022					
TLD Number	Reported (mR)	Delivered (mR)	Bias (% diff)	Pass/Fail Criteria	Pass/Fail	TLD Number	Reported (mR)	Delivered (mR)	Bias (% diff)	Pass/Fail Criteria	Pass/Fail
104776	37.17	40.39	-7.97	<+/-20%	Pass	104757	27.93	29.67	-5.86	<+/-20%	Pass
104826	37.06	40.39	-8.24	<+/-20%	Pass	104823	28.05	29.67	-5.46	<+/-20%	Pass
104474	37.27	40.39	-7.72	<+/-20%	Pass	104475	27.76	29.67	-6.44	<+/-20%	Pass
104775	36.47	40.39	-9.71	<+/-20%	Pass	104824	28.14	29.67	-5.16	<+/-20%	Pass
104827	38.17	40.39	-5.50	<+/-20%	Pass	104750	28.20	29.67	-4.95	<+/-20%	Pass
104357	36.64	40.39	-9.28	<+/-20%	Pass	104776	28.03	29.67	-5.53	<+/-20%	Pass
104353	37.42	40.39	-7.35	<+/-20%	Pass	104755	28.25	29.67	-4.79	<+/-20%	Pass
104358	35.99	40.39	-10.89	<+/-20%	Pass	104355	28.04	29.67	-5.49	<+/-20%	Pass
104355	38.17	40.39	-5.50	<+/-20%	Pass	104828	27.20	29.67	-8.32	<+/-20%	Pass
104475	36.55	40.39	-9.51	<+/-20%	Pass	104354	27.63	29.67	-6.88	<+/-20%	Pass
Average Bias (B)			-8.17			Average Bias (B)			-5.89		
Standard Deviation (S)			1.76			Standard Deviation (S)			1.07		
Measure Performance B +S			9.93	<20%	Pass	Measure Performance B +S			6.96	<20%	Pass

APPENDIX A

ENVIRONMENTAL SAMPLING
&
ANALYSIS PROCEDURES

APPENDIX A

ENVIRONMENTAL SAMPLING AND ANALYSIS PROCEDURES

Adherence to established procedures for sampling and analysis of all environmental media at Oconee Nuclear Station is required to ensure compliance with Station Selected Licensee Commitments. Analytical procedures were employed to ensure that Selected Licensee Commitments detection capabilities were achieved.

Environmental sampling and analyses were performed by EnRad Laboratories, Dosimetry and Records and Environmental Services.

This appendix provides a description of the specific analyses performed on samples collected in the field. Changes to the sampling procedures and analyses procedures are also discussed in the section.

I. CHANGE OF SAMPLING PROCEDURES

Air Particulate, Radioiodine, and Broadleaf Vegetation sampling location 084 was discontinued on October 3, 2022 because they were considered to be supplemental to the REMP.

Goat Milk Location 061 was added to the REMP as a supplemental location on June 6, 2022 after it was identified during the 2022 Land Use Census.

Direct Gamma Radiation (TLD) location 059 was removed from the program on September 14, 2022 due to the land being cleared. This TLD is not required to be replaced due to the 8 remaining Special Interest TLD locations meeting the direct radiation sampling requirements in SLC Table 16.11.6-1.

II. DESCRIPTION OF ANALYSIS PROCEDURES

Gamma spectroscopy analyses are performed using high purity germanium gamma detectors and Mirion analytical software. Designated sample volumes are transferred to appropriate counting geometries and analyzed by gamma spectroscopy. Perishable samples such as fish and broadleaf vegetation are ground to achieve a homogeneous mixture. Soils and sediments are dried, sifted to remove foreign objects (rocks, clams, glass, etc.) and then transferred to appropriate counting geometry.

Low-level iodine analyses are performed by passing a designated sample aliquot through a pre-determined amount of ion exchange resin to remove and concentrate any iodine in the aqueous sample (milk). The resin is then dried and mixed thoroughly, before being transferred to appropriate counting geometry and analyzed by gamma spectroscopy.

Tritium analyses are performed by using low-level environmental liquid scintillation analysis technique on a Perkin-Elmer 4910TR liquid scintillation system or a Perkin-Elmer 3110TR liquid scintillation system. Tritium samples are distilled and batch processed with a laboratory fortified blank, matrix spike, matrix spike duplicate, and blank to verify instrument performance, sample preparation technique are acceptable, and sample contamination has not occurred.

Gross beta analysis of air filters is performed by analyzing filters on Tennelec XLB Series 5 gas-flow proportional counters. Samples are batch processed with a blank to ensure sample contamination has not occurred.

Gross beta analysis of liquid samples is performed by concentrating a designated aliquot of sample and analyzing by Perkin-Elmer 4910TR liquid scintillation system. Samples are batch processed with a laboratory fortified blank and blank to verify instrument performance and ensure sample contamination has not occurred.

III. CHANGE OF ANALYSIS PROCEDURES

There were no changes to analysis procedures during 2022.

APPENDIX B

**RADIOLOGICAL
ENVIRONMENTAL MONITORING
PROGRAM**

SUMMARY OF RESULTS

2022

**OCONEE NUCLEAR STATION
RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM DATA SUMMARY**

Oconee Nuclear Station
Oconee County, South Carolina

Docket Numbers 50-269, 270, 287
Calendar Year 2022

Medium or Pathway Sampled or Measured (Unit of Measurement)	Type and Total No. of Measurements Performed	Lower Limit of Detection (LLD) ⁽¹⁾	All Indicator Locations ^{(2) (3)} Mean Range	Location w/Highest Annual Mean		Control Locations Mean Range ^{(2) (3)}	No. of Non-Routine Report Meas.
				Name, Distance, and Direction	Mean Range ^{(2) (3)}		
Air Particulate (pCi/m ³)	Gross Beta 299 ⁽⁴⁾	See Table 2.2-C	2.30E-02 (247/247) 9.94E-03 – 3.84E-02	078.1 (0.53 mi WSW)	2.39E-02 (52/52) 1.32E-02 – 3.54E-02	093 (9.34 mi SE) 2.21E-02 (52/52) 1.25E-02 – 3.60E-02	0
	Gamma 23 ⁽⁴⁾	See Table 2.2-C	All less than LLD	-----	-----	All less than LLD	0
Air Radioiodine (pCi/m ³)	Gamma 299 ⁽⁴⁾	See Table 2.2-C	All less than LLD	-----	-----	All less than LLD	0
Drinking Water (pCi/l)	Gross Beta 39	See Table 2.2-C	4.46E+00 (2/26) 3.86E+00 – 5.06E+00	060 (3.23 mi NE)	5.06E-00 (1/13) 5.06E+00 – 5.06E+00	All less than LLD	0
	Gamma 39	See Table 2.2-C	All less than LLD	-----	-----	All less than LLD	0
	Tritium 12 ⁽⁶⁾	See Table 2.2-C	4.39E+02 (4/8) 3.52E+02 – 5.45E+02	066 (18.9 mi SSE)	4.39E+02 (4/4) 3.52E+02 – 5.45E+02	All less than LLD	0
Surface Water (pCi/l)	Gamma 26 ⁽⁴⁾	See Table 2.2-C	All less than LLD	-----	-----	All less than LLD	0
	Tritium 8 ⁽⁴⁾⁽⁶⁾	See Table 2.2-C	7.60E+03 (4/4) 1.83E+03 – 1.54E+04	063.1 (0.79 mi E)	7.60E+03 (4/4) 1.83E+03 – 1.54E+04	All less than LLD	0
Milk (pCi/l)	Gamma 38 ⁽⁴⁾	See Table 2.2-C	All less than LLD	-----	-----	All less than LLD	0
	I-131 38 ⁽⁴⁾	See Table 2.2-C	All less than LLD	-----	-----	All less than LLD	0

**OCONEE NUCLEAR STATION
RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM DATA SUMMARY**

Oconee Nuclear Station
Oconee County, South Carolina

Docket Numbers 50-269, 270, 287
Calendar Year 2022

Medium or Pathway Sampled or Measured (Unit of Measurement)	Type and Total No. of Measurements Performed	Lower Limit of Detection (LLD) ⁽¹⁾	All Indicator Locations ^{(2) (3)} Mean Range	Location w/Highest Annual Mean		Control Locations Mean Range ^{(2) (3)}	No. of Non-Routine Report Meas.
				Name, Distance, and Direction	Mean Range ^{(2) (3)}		
Broadleaf Vegetation (pCi/kg, wet)	Gamma 46	See Table 2.2-C	All less than LLD	-----	-----	All less than LLD	0
Fish (pCi/kg, wet)	Gamma 12	See Table 2.2-C	All less than LLD	-----	-----	All less than LLD	0
Sediments--Shoreline (pCi/kg, dry)	Gamma 6	See Table 2.2-C					
	Cs-137	See Table 2.2-C	7.61E+01 (1/4) 7.61E+01 – 7.61E+01	091 (2.09 mi S)	7.61E+01 (1/2) 7.61E+01 – 7.61E+01	All less than LLD	0
TLD (mR per STD-quarter) ⁽⁶⁾	TLD Readout 196 ⁽⁴⁾	-----	2.24E+01 (188/188) 1.37E+01 – 3.54E+01	024 (0.81 mi E)	3.02E+01 (4/4) 2.53E+01 – 3.54E+01	058 (9.39 mi WSW) 093 (9.34 mi SE) 2.90E+01 (8/8) 2.40E+01 – 3.79E+01	0

Footnotes to Appendix B

1. The Lower Limit of Detection (LLD) is the smallest concentration of radioactive material in a sample that will yield a net count above system background which will be detected with 95 percent probability and with only 5 percent probability of falsely concluding that a blank observation represents a "real" signal. Due to counting statistics and varying volumes, occasionally lower LLDs are achieved. Refer to Section 2.3.2 for an explanation of how LLD values were derived.
2. Mean and range are based on detectable measurements only.
3. The fractions of all samples with detectable activities at specific locations are indicated in parentheses.
4. Missing samples or surveillances are discussed in Appendix C or Appendix D.
5. TLD exposure is reported in milliroentgen (mR) per standard quarter (91 days).
6. Quarterly tritium composites determined using quarter days (92 days +/- 25% (23 days)).

APPENDIX C

**SAMPLING DEVIATIONS
&
UNAVAILABLE ANALYSES**

APPENDIX C

OCONEE NUCLEAR STATION SAMPLING DEVIATIONS & UNAVAILABLE ANALYSES

DEVIATION & UNAVAILABLE REASON CODES			
BF	Blown Fuse	PM	Preventive Maintenance
CN	Construction	PO	Power Outage
FZ	Sample Frozen	PS	Pump out of service / Undergoing repair
IV	Insufficient Volume	SL	Sample Loss/Lost due to Lab Accident
IW	Inclement Weather	SM	Motor / Rotor Seized
LC	Line Clog to Sampler	SU	Seasonally Unavailable
OT	Other	TF	Torn Filter
PI	Power Interrupt	VN	Vandalism

C.1 SAMPLING DEVIATIONS

Air Particulate and Air Radioiodine

REMP weekly air samples (Air Particulate (AP) or Air Radioiodine (AR)) that experience any downtime during a surveillance period are reported as a Deviation and classified as a “Sampling Deviation.” However, the sample is counted and the data reported, whereas a Deviation with no available sample is classified as an “Unavailable Analyses” and does not have any data reported. The air samplers operated for a total of 99.96% availability in 2022.

Location	Scheduled Collection Dates	Code	Description & Action to Prevent Recurrence	Corrective Action
079	8/1-8/8/2022	PI	13.39 hours downtime, power interruption due to storms.	NCR # 02437370
077	8/15-8/22/2022	NM	Air Particulate filter gouge/tear was noted upon receipt of sample.	NCR # 02439308
093	11/14-11/21/2022	PI	2.39 hours downtime, power interruption due to unknown causes.	NCR # 02450461
077	12/19-12/27/2022	PI	2.23 hours downtime, power interruption due to unknown causes.	NCR # 02454215
078.1	12/19-12/27/2022	PI	2.23 hours downtime, power interruption due to unknown causes.	NCR # 02454216

Drinking Water and Surface Water

REMP monthly drinking water samples (Drinking Water (DW)) or surface water samples (Surface Water (SW)) that experience any downtime during a surveillance period are reported as a Deviation and classified as a “Sampling Deviation.” However, the sample is counted and the data reported, whereas a Deviation with no available sample is classified as an “Unavailable Analyses” and does not have any data reported. The drinking and surface water samplers operated for a total of 100% availability in 2022.

Location	Scheduled Collection Dates	Code	Description & Action to Prevent Recurrence	Corrective Action
062	10/3-10/31/2022	OT	The water line from the submersible pump to the sample reservoir came loose at some time during composite period. The effect on availability was determined to be negligible, because a full sample was available at the time of collection. Water line was connected and secured.	NCR # 02446772
063.1	10/3-10/31/2022	PS	Submersible pump out of service. The effect on availability was determined to be negligible, because a full sample was available at the time of collection. Pump was repaired and service was restored.	NCR # 02447753

C.2 UNAVAILABLE ANALYSES

Direct Gamma Radiation (TLD)

Location	Scheduled Collection Dates	Code	Description & Action to Prevent Recurrence	Corrective Action
043	12/14/2021-3/15/2022	OT	Alpha and Bravo TLDs were missing due to a controlled burn.	NCR # 02420143
055	3/15-6/21/2022	CN	Alpha and Bravo TLDs were missing due to construction at the site.	NCR # 02432311
037	6/21-9/14/2022	OT	Alpha and Bravo TLDs were missing due to construction at the site.	NCR # 02441815
061	11/21/2022 12/5/2022 12/19/2022	SU	Goat milk was unavailable due to goats being out of season.	NCR # 02462710

APPENDIX D

ANALYTICAL DEVIATIONS

APPENDIX D

OCONEE NUCLEAR STATION ANALYTICAL DEVIATIONS

DEVIATION & UNAVAILABLE REASON CODES			
AD	Analytical Deviation	PM	Preventive Maintenance
BF	Blown fuse	PO	Power Outage
CN	Construction	PS	Pump out of service / Undergoing repair
FZ	Sample Frozen	SL	Sample Loss/Lost due to Lab Accident
IV	Insufficient Volume	SM	Motor / Rotor Seized
IW	Inclement Weather	SU	Seasonally Unavailable
LC	Line Clog to Sampler	TF	Torn Filter
OT	Other	VN	Vandalism
PI	Power Interrupt		

D.1 ANALYTICAL DEVIATIONS

Oconee REMP Bravo TLD at location 052 was found on the ground due to the zip tie being broken. The Alpha TLD at this location was in place.

Direct Gamma Radiation (TLD)

Location	Scheduled Collection Dates	Code	Description & Action to Prevent Recurrence	Corrective Action
052	6/15-9/21/2022	OT	Bravo TLD zip tie was broken and TLD was found on the ground.	NCR # 02441808

APPENDIX E

**RADIOLOGICAL
ENVIRONMENTAL MONITORING
PROGRAM RESULTS**

2022

This appendix includes sample analysis report summaries and supportive data generated from each sample medium for 2022

OCONEE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR PARTICULATE Concentration (Activity): pCi/m3

Sample Point 077 [INDICATOR - SW @ 1 miles]

Sample ID	Sample Dates	Nuclide	Activity	2 Sigma Error	MDA
558854	1/4/2022 - 1/10/2022	Beta	2.93E-02	3.84E-03	3.69E-03
559081	1/10/2022 - 1/20/2022	Beta	2.04E-02	2.49E-03	2.42E-03
559464	1/20/2022 - 1/24/2022	Beta	2.17E-02	4.05E-03	4.64E-03
560081	1/24/2022 - 1/31/2022	Beta	3.09E-02	3.45E-03	2.88E-03
560298	1/31/2022 - 2/7/2022	Beta	2.19E-02	2.80E-03	2.76E-03
560543	2/7/2022 - 2/14/2022	Beta	2.49E-02	3.33E-03	3.35E-03
560853	2/14/2022 - 2/21/2022	Beta	2.17E-02	2.83E-03	2.91E-03
561184	2/21/2022 - 2/28/2022	Beta	1.92E-02	2.64E-03	2.65E-03
561683	2/28/2022 - 3/7/2022	Beta	2.85E-02	3.51E-03	3.47E-03
562285	3/7/2022 - 3/14/2022	Beta	1.51E-02	2.74E-03	3.09E-03
562892	3/14/2022 - 3/21/2022	Beta	1.66E-02	2.97E-03	3.42E-03
563478	3/21/2022 - 3/28/2022	Beta	1.65E-02	2.94E-03	3.38E-03
563811	3/28/2022 - 4/4/2022	Beta	2.24E-02	3.17E-03	3.20E-03
564061	1/4/2022 - 4/4/2022	Cs-134	<1.83E-03	0.00E+00	1.83E-03
		Cs-137	<1.38E-03	0.00E+00	1.38E-03
		Be-7	1.51E-01	3.67E-02	3.21E-02
		K-40	2.99E-02	1.68E-02	1.83E-02
564055	4/4/2022 - 4/11/2022	Beta	1.92E-02	2.93E-03	3.07E-03
564582	4/11/2022 - 4/18/2022	Beta	1.92E-02	2.80E-03	3.12E-03
564844	4/18/2022 - 4/25/2022	Beta	2.61E-02	3.42E-03	3.50E-03
565335	4/25/2022 - 5/2/2022	Beta	2.82E-02	3.52E-03	3.47E-03
566001	5/2/2022 - 5/9/2022	Beta	2.12E-02	3.06E-03	3.07E-03
566599	5/9/2022 - 5/16/2022	Beta	1.45E-02	2.73E-03	3.10E-03
566980	5/16/2022 - 5/23/2022	Beta	2.72E-02	3.03E-03	2.74E-03
567170	5/23/2022 - 5/31/2022	Beta	1.68E-02	2.67E-03	2.99E-03
567608	5/31/2022 - 6/6/2022	Beta	2.35E-02	3.20E-03	3.31E-03
567776	6/6/2022 - 6/13/2022	Beta	2.45E-02	3.26E-03	3.19E-03

OCONEE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR PARTICULATE Concentration (Activity): pCi/m3

Sample Point 077 [INDICATOR - SW @ 1 miles]

Sample ID	Sample Dates	Nuclide	Activity	2 Sigma Error	MDA
568422	6/13/2022 - 6/20/2022	Beta	2.91E-02	3.52E-03	3.35E-03
568651	6/20/2022 - 6/27/2022	Beta	3.29E-02	3.68E-03	3.30E-03
568867	6/27/2022 - 7/5/2022	Beta	1.74E-02	2.67E-03	2.90E-03
569125	4/4/2022 - 7/5/2022	Cs-134	<1.79E-03	0.00E+00	1.79E-03
		Cs-137	<1.58E-03	0.00E+00	1.58E-03
		Be-7	2.03E-01	3.90E-02	1.53E-02
		K-40	<3.54E-02	0.00E+00	3.54E-02
569119	7/5/2022 - 7/11/2022	Beta	1.40E-02	2.99E-03	3.63E-03
570338	7/11/2022 - 7/18/2022	Beta	2.90E-02	3.44E-03	3.07E-03
570892	7/18/2022 - 7/25/2022	Beta	2.24E-02	3.17E-03	3.28E-03
571138	7/25/2022 - 8/1/2022	Beta	1.68E-02	2.89E-03	3.22E-03
571457	8/1/2022 - 8/8/2022	Beta	1.77E-02	2.57E-03	2.66E-03
571757	8/8/2022 - 8/15/2022	Beta	2.06E-02	3.17E-03	3.45E-03
572749	8/15/2022 - 8/22/2022	Beta	2.55E-02	3.37E-03	3.44E-03
573952	8/22/2022 - 8/29/2022	Beta	2.54E-02	3.39E-03	3.46E-03
574568	8/29/2022 - 9/6/2022	Beta	2.09E-02	2.81E-03	2.87E-03
575039	9/6/2022 - 9/12/2022	Beta	1.43E-02	3.06E-03	3.74E-03
575741	9/12/2022 - 9/19/2022	Beta	3.43E-02	3.71E-03	3.31E-03
576124	9/19/2022 - 9/26/2022	Beta	3.83E-02	3.83E-03	3.28E-03
576295	9/26/2022 - 10/3/2022	Beta	1.68E-02	2.72E-03	2.89E-03
576597	7/5/2022 - 10/3/2022	Cs-134	<2.19E-03	0.00E+00	2.19E-03
		Cs-137	<1.12E-03	0.00E+00	1.12E-03
		Be-7	1.41E-01	3.75E-02	3.66E-02
		K-40	<1.71E-02	0.00E+00	1.71E-02
576591	10/3/2022 - 10/10/2022	Beta	3.61E-02	3.79E-03	3.29E-03
577208	10/10/2022 - 10/17/2022	Beta	3.84E-02	3.84E-03	3.24E-03
577798	10/17/2022 - 10/24/2022	Beta	2.76E-02	3.48E-03	3.46E-03
578151	10/24/2022 - 10/31/2022	Beta	2.47E-02	3.26E-03	3.23E-03
578863	10/31/2022 - 11/7/2022	Beta	2.25E-02	3.13E-03	3.15E-03

OCONEE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR PARTICULATE Concentration (Activity): pCi/m3

Sample Point 077 [INDICATOR - SW @ 1 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
579062	11/7/2022 - 11/14/2022	Beta	1.67E-02	2.90E-03	3.28E-03
579827	11/14/2022 - 11/21/2022	Beta	2.94E-02	3.53E-03	3.42E-03
580635	11/21/2022 - 11/28/2022	Beta	3.51E-02	3.82E-03	3.54E-03
580848	11/28/2022 - 12/5/2022	Beta	2.55E-02	3.38E-03	3.39E-03
581167	12/5/2022 - 12/12/2022	Beta	2.28E-02	3.21E-03	3.37E-03
581740	12/12/2022 - 12/19/2022	Beta	3.03E-02	3.43E-03	2.95E-03
582268	12/19/2022 - 12/27/2022	Beta	2.27E-02	2.97E-03	3.01E-03
582456	12/27/2022 - 1/3/2023	Beta	2.60E-02	3.47E-03	3.57E-03
582722	10/3/2022 - 1/3/2023	Cs-134	<1.73E-03	0.00E+00	1.73E-03
		Cs-137	<1.31E-03	0.00E+00	1.31E-03
		Be-7	1.35E-01	3.23E-02	2.39E-02
		K-40	<2.86E-02	0.00E+00	2.86E-02

Sample Point 078.1 [INDICATOR - WSW @ 0.53 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
558855	1/4/2022 - 1/10/2022	Beta	2.89E-02	3.81E-03	3.69E-03
559082	1/10/2022 - 1/18/2022	Beta	2.26E-02	2.98E-03	3.02E-03
559467	1/18/2022 - 1/24/2022	Beta	2.32E-02	3.12E-03	3.06E-03
560082	1/24/2022 - 1/31/2022	Beta	3.21E-02	3.50E-03	2.88E-03
560299	1/31/2022 - 2/7/2022	Beta	2.03E-02	2.74E-03	2.76E-03
560544	2/7/2022 - 2/14/2022	Beta	2.72E-02	3.45E-03	3.35E-03
560854	2/14/2022 - 2/21/2022	Beta	2.17E-02	2.83E-03	2.91E-03
561185	2/21/2022 - 2/28/2022	Beta	2.12E-02	2.73E-03	2.65E-03
561684	2/28/2022 - 3/7/2022	Beta	2.96E-02	3.55E-03	3.47E-03
562286	3/7/2022 - 3/14/2022	Beta	1.57E-02	2.78E-03	3.10E-03
562893	3/14/2022 - 3/21/2022	Beta	1.51E-02	2.89E-03	3.42E-03
563479	3/21/2022 - 3/28/2022	Beta	2.04E-02	3.14E-03	3.38E-03
563812	3/28/2022 - 4/4/2022	Beta	2.25E-02	3.17E-03	3.20E-03
564062	1/4/2022 - 4/4/2022	Cs-134	<1.63E-03	0.00E+00	1.63E-03
		Cs-137	<1.20E-03	0.00E+00	1.20E-03
		Be-7	1.96E-01	4.03E-02	2.95E-02

OCONEE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR PARTICULATE Concentration (Activity): pCi/m3

Sample Point 078.1 [INDICATOR - WSW @ 0.53 miles]

Sample ID	Sample Dates	Nuclide	Activity	2 Sigma Error	MDA
564062	1/4/2022 - 4/4/2022	K-40	3.90E-02	1.66E-02	4.59E-03
564056	4/4/2022 - 4/11/2022	Beta	1.70E-02	2.82E-03	3.07E-03
564583	4/11/2022 - 4/18/2022	Beta	2.10E-02	2.88E-03	3.12E-03
564845	4/18/2022 - 4/25/2022	Beta	2.47E-02	3.35E-03	3.50E-03
565336	4/25/2022 - 5/2/2022	Beta	2.79E-02	3.51E-03	3.47E-03
566002	5/2/2022 - 5/9/2022	Beta	1.95E-02	2.98E-03	3.07E-03
566600	5/9/2022 - 5/16/2022	Beta	1.42E-02	2.71E-03	3.10E-03
566981	5/16/2022 - 5/23/2022	Beta	2.75E-02	3.05E-03	2.74E-03
567171	5/23/2022 - 5/31/2022	Beta	1.32E-02	2.49E-03	2.99E-03
567609	5/31/2022 - 6/6/2022	Beta	2.24E-02	3.15E-03	3.31E-03
567777	6/6/2022 - 6/13/2022	Beta	2.88E-02	3.46E-03	3.19E-03
568423	6/13/2022 - 6/20/2022	Beta	3.00E-02	3.56E-03	3.34E-03
568652	6/20/2022 - 6/27/2022	Beta	3.42E-02	3.74E-03	3.30E-03
568868	6/27/2022 - 7/5/2022	Beta	1.94E-02	2.77E-03	2.90E-03
569126	4/4/2022 - 7/5/2022	Cs-134	<1.87E-03	0.00E+00	1.87E-03
		Cs-137	<1.17E-03	0.00E+00	1.17E-03
		Be-7	1.77E-01	3.81E-02	2.95E-02
		K-40	<3.12E-02	0.00E+00	3.12E-02
569120	7/5/2022 - 7/11/2022	Beta	1.94E-02	3.29E-03	3.64E-03
570339	7/11/2022 - 7/18/2022	Beta	2.98E-02	3.48E-03	3.07E-03
570893	7/18/2022 - 7/25/2022	Beta	2.33E-02	3.21E-03	3.28E-03
571139	7/25/2022 - 8/1/2022	Beta	1.42E-02	2.75E-03	3.22E-03
571458	8/1/2022 - 8/8/2022	Beta	1.61E-02	2.49E-03	2.66E-03
571758	8/8/2022 - 8/15/2022	Beta	1.94E-02	3.11E-03	3.45E-03
572750	8/15/2022 - 8/22/2022	Beta	2.45E-02	3.32E-03	3.44E-03
573953	8/22/2022 - 8/29/2022	Beta	3.32E-02	3.73E-03	3.46E-03
574569	8/29/2022 - 9/6/2022	Beta	2.06E-02	2.80E-03	2.86E-03

OCONEE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR PARTICULATE Concentration (Activity): pCi/m3

Sample Point 078.1 [INDICATOR - WSW @ 0.53 miles]

Sample ID:	575040	Sample Dates:	9/6/2022 - 9/12/2022	Nuclide	Activity	2 Sigma Error	MDA
				Beta	1.65E-02	3.20E-03	3.74E-03
Sample ID:	575742	Sample Dates:	9/12/2022 - 9/19/2022	Nuclide	Activity	2 Sigma Error	MDA
				Beta	3.24E-02	3.63E-03	3.31E-03
Sample ID:	576125	Sample Dates:	9/19/2022 - 9/26/2022	Nuclide	Activity	2 Sigma Error	MDA
				Beta	3.54E-02	3.73E-03	3.28E-03
Sample ID:	576296	Sample Dates:	9/26/2022 - 10/3/2022	Nuclide	Activity	2 Sigma Error	MDA
				Beta	1.64E-02	2.74E-03	2.94E-03
Sample ID:	576598	Sample Dates:	7/5/2022 - 10/3/2022	Nuclide	Activity	2 Sigma Error	MDA
				Cs-134	<1.83E-03	0.00E+00	1.83E-03
				Cs-137	<1.62E-03	0.00E+00	1.62E-03
				Be-7	1.60E-01	3.98E-02	3.67E-02
				K-40	5.34E-02	1.96E-02	4.67E-03
Sample ID:	576592	Sample Dates:	10/3/2022 - 10/10/2022	Nuclide	Activity	2 Sigma Error	MDA
				Beta	3.08E-02	3.53E-03	3.23E-03
Sample ID:	577209	Sample Dates:	10/10/2022 - 10/17/2022	Nuclide	Activity	2 Sigma Error	MDA
				Beta	3.48E-02	3.70E-03	3.23E-03
Sample ID:	577799	Sample Dates:	10/17/2022 - 10/24/2022	Nuclide	Activity	2 Sigma Error	MDA
				Beta	2.99E-02	3.58E-03	3.46E-03
Sample ID:	578152	Sample Dates:	10/24/2022 - 10/31/2022	Nuclide	Activity	2 Sigma Error	MDA
				Beta	2.42E-02	3.24E-03	3.24E-03
Sample ID:	578864	Sample Dates:	10/31/2022 - 11/7/2022	Nuclide	Activity	2 Sigma Error	MDA
				Beta	2.31E-02	3.15E-03	3.14E-03
Sample ID:	579063	Sample Dates:	11/7/2022 - 11/14/2022	Nuclide	Activity	2 Sigma Error	MDA
				Beta	1.65E-02	2.89E-03	3.28E-03
Sample ID:	579828	Sample Dates:	11/14/2022 - 11/21/2022	Nuclide	Activity	2 Sigma Error	MDA
				Beta	3.12E-02	3.59E-03	3.41E-03
Sample ID:	580636	Sample Dates:	11/21/2022 - 11/28/2022	Nuclide	Activity	2 Sigma Error	MDA
				Beta	3.52E-02	3.83E-03	3.54E-03
Sample ID:	580849	Sample Dates:	11/28/2022 - 12/5/2022	Nuclide	Activity	2 Sigma Error	MDA
				Beta	2.26E-02	3.24E-03	3.38E-03
Sample ID:	581168	Sample Dates:	12/5/2022 - 12/12/2022	Nuclide	Activity	2 Sigma Error	MDA
				Beta	2.01E-02	3.08E-03	3.37E-03
Sample ID:	581741	Sample Dates:	12/12/2022 - 12/19/2022	Nuclide	Activity	2 Sigma Error	MDA
				Beta	2.59E-02	3.23E-03	2.95E-03
Sample ID:	582269	Sample Dates:	12/19/2022 - 12/27/2022	Nuclide	Activity	2 Sigma Error	MDA
				Beta	2.37E-02	3.01E-03	3.01E-03
Sample ID:	582457	Sample Dates:	12/27/2022 - 1/3/2023	Nuclide	Activity	2 Sigma Error	MDA
				Beta	2.50E-02	3.42E-03	3.57E-03
Sample ID:	582723	Sample Dates:	10/3/2022 - 1/3/2023	Nuclide	Activity	2 Sigma Error	MDA
				Cs-134	<1.45E-03	0.00E+00	1.45E-03
				Cs-137	<1.03E-03	0.00E+00	1.03E-03
				Be-7	1.29E-01	3.45E-02	3.39E-02
				K-40	<3.85E-02	0.00E+00	3.85E-02

Sample Point 079 [INDICATOR - NE @ 0.56 miles]

Sample ID:	558856	Sample Dates:	1/4/2022 - 1/10/2022	Nuclide	Activity	2 Sigma Error	MDA
				Beta	2.39E-02	3.59E-03	3.70E-03
Sample ID:	559083	Sample Dates:	1/10/2022 - 1/18/2022	Nuclide	Activity	2 Sigma Error	MDA
				Beta	2.27E-02	2.99E-03	3.02E-03
Sample ID:	559470	Sample Dates:	1/18/2022 - 1/24/2022	Nuclide	Activity	2 Sigma Error	MDA
				Beta	2.37E-02	3.13E-03	3.05E-03

OCONEE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR PARTICULATE Concentration (Activity): pCi/m3

Sample Point 079 [INDICATOR - NE @ 0.56 miles]

Sample ID	Sample Dates	Nuclide	Activity	2 Sigma Error	MDA
560083	1/24/2022 - 1/31/2022	Beta	2.83E-02	3.34E-03	2.89E-03
560300	1/31/2022 - 2/7/2022	Beta	1.97E-02	2.71E-03	2.76E-03
560545	2/7/2022 - 2/14/2022	Beta	2.68E-02	3.43E-03	3.35E-03
560855	2/14/2022 - 2/21/2022	Beta	2.02E-02	2.76E-03	2.90E-03
561186	2/21/2022 - 2/28/2022	Beta	1.87E-02	2.62E-03	2.66E-03
561685	2/28/2022 - 3/7/2022	Beta	2.67E-02	3.43E-03	3.47E-03
562287	3/7/2022 - 3/14/2022	Beta	1.50E-02	2.73E-03	3.08E-03
562894	3/14/2022 - 3/21/2022	Beta	1.18E-02	2.71E-03	3.43E-03
563480	3/21/2022 - 3/28/2022	Beta	1.58E-02	2.91E-03	3.38E-03
563813	3/28/2022 - 4/4/2022	Beta	2.16E-02	3.14E-03	3.21E-03
564063	1/4/2022 - 4/4/2022	Cs-134	<1.65E-03	0.00E+00	1.65E-03
		Cs-137	<8.33E-04	0.00E+00	8.33E-04
		Be-7	1.68E-01	3.71E-02	2.66E-02
		K-40	<3.21E-02	0.00E+00	3.21E-02
564057	4/4/2022 - 4/11/2022	Beta	1.61E-02	2.78E-03	3.07E-03
564584	4/11/2022 - 4/18/2022	Beta	1.82E-02	2.76E-03	3.11E-03
564846	4/18/2022 - 4/25/2022	Beta	2.13E-02	3.20E-03	3.51E-03
565337	4/25/2022 - 5/2/2022	Beta	2.75E-02	3.49E-03	3.48E-03
566003	5/2/2022 - 5/9/2022	Beta	1.80E-02	2.89E-03	3.07E-03
566601	5/9/2022 - 5/16/2022	Beta	1.67E-02	2.83E-03	3.08E-03
566982	5/16/2022 - 5/23/2022	Beta	2.52E-02	2.96E-03	2.76E-03
567172	5/23/2022 - 5/31/2022	Beta	9.94E-03	2.32E-03	3.00E-03
567610	5/31/2022 - 6/6/2022	Beta	2.09E-02	3.08E-03	3.31E-03
567778	6/6/2022 - 6/13/2022	Beta	2.40E-02	3.23E-03	3.17E-03
568424	6/13/2022 - 6/20/2022	Beta	2.72E-02	3.44E-03	3.35E-03
568653	6/20/2022 - 6/27/2022	Beta	2.90E-02	3.53E-03	3.31E-03
568869	6/27/2022 - 7/5/2022	Beta	1.54E-02	2.56E-03	2.89E-03

OCONEE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR PARTICULATE Concentration (Activity): pCi/m3

Sample Point 079 [INDICATOR - NE @ 0.56 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
569127	4/4/2022 - 7/5/2022	Cs-134	<1.64E-03	0.00E+00	1.64E-03
		Cs-137	<1.04E-03	0.00E+00	1.04E-03
		Be-7	1.77E-01	4.04E-02	3.60E-02
		K-40	2.90E-02	1.42E-02	4.62E-03
569121	7/5/2022 - 7/11/2022	Beta	1.30E-02	2.95E-03	3.66E-03
570340	7/11/2022 - 7/18/2022	Beta	2.28E-02	3.15E-03	3.07E-03
570894	7/18/2022 - 7/25/2022	Beta	1.89E-02	3.00E-03	3.29E-03
571140	7/25/2022 - 8/1/2022	Beta	1.41E-02	2.75E-03	3.22E-03
571459	8/1/2022 - 8/8/2022	Beta	1.73E-02	2.69E-03	2.88E-03
571759	8/8/2022 - 8/15/2022	Beta	2.19E-02	3.23E-03	3.45E-03
572751	8/15/2022 - 8/22/2022	Beta	2.71E-02	3.44E-03	3.44E-03
573954	8/22/2022 - 8/29/2022	Beta	3.03E-02	3.60E-03	3.46E-03
574570	8/29/2022 - 9/6/2022	Beta	1.79E-02	2.65E-03	2.83E-03
575041	9/6/2022 - 9/12/2022	Beta	1.67E-02	3.25E-03	3.80E-03
575743	9/12/2022 - 9/19/2022	Beta	3.30E-02	3.66E-03	3.32E-03
576126	9/19/2022 - 9/26/2022	Beta	3.61E-02	3.75E-03	3.28E-03
576297	9/26/2022 - 10/3/2022	Beta	1.60E-02	2.70E-03	2.92E-03
576599	7/5/2022 - 10/3/2022	Cs-134	<2.03E-03	0.00E+00	2.03E-03
		Cs-137	<1.20E-03	0.00E+00	1.20E-03
		Be-7	1.57E-01	3.98E-02	4.02E-02
		K-40	<2.92E-02	0.00E+00	2.92E-02
576593	10/3/2022 - 10/10/2022	Beta	3.04E-02	3.54E-03	3.26E-03
577210	10/10/2022 - 10/17/2022	Beta	3.74E-02	3.79E-03	3.22E-03
577800	10/17/2022 - 10/24/2022	Beta	2.76E-02	3.50E-03	3.48E-03
578153	10/24/2022 - 10/31/2022	Beta	2.45E-02	3.23E-03	3.21E-03
578865	10/31/2022 - 11/7/2022	Beta	2.29E-02	3.16E-03	3.17E-03
579064	11/7/2022 - 11/14/2022	Beta	1.24E-02	2.66E-03	3.27E-03
579829	11/14/2022 - 11/21/2022	Beta	2.88E-02	3.49E-03	3.41E-03
580637	11/21/2022 - 11/28/2022	Beta	3.03E-02	3.63E-03	3.53E-03

OCONEE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR PARTICULATE Concentration (Activity): pCi/m3

Sample Point 079 [INDICATOR - NE @ 0.56 miles]

Sample ID	Sample Dates	Nuclide	Activity	2 Sigma Error	MDA
580850	11/28/2022 - 12/5/2022	Beta	2.17E-02	3.21E-03	3.41E-03
581169	12/5/2022 - 12/12/2022	Beta	2.20E-02	3.16E-03	3.36E-03
581742	12/12/2022 - 12/19/2022	Beta	2.78E-02	3.33E-03	2.97E-03
582270	12/19/2022 - 12/27/2022	Beta	2.18E-02	2.90E-03	2.97E-03
582458	12/27/2022 - 1/3/2023	Beta	2.49E-02	3.43E-03	3.58E-03
582724	10/3/2022 - 1/3/2023	Cs-134	<2.05E-03	0.00E+00	2.05E-03
		Cs-137	<1.35E-03	0.00E+00	1.35E-03
		Be-7	1.47E-01	3.46E-02	2.71E-02
		K-40	<2.82E-02	0.00E+00	2.82E-02

Sample Point 084 [INDICATOR - NNE @ 2.58 miles]

Sample ID	Sample Dates	Nuclide	Activity	2 Sigma Error	MDA
558857	1/4/2022 - 1/10/2022	Beta	2.63E-02	3.69E-03	3.69E-03
559084	1/10/2022 - 1/18/2022	Beta	2.49E-02	3.08E-03	3.02E-03
559473	1/18/2022 - 1/24/2022	Beta	2.26E-02	3.08E-03	3.05E-03
560084	1/24/2022 - 1/31/2022	Beta	3.03E-02	3.42E-03	2.88E-03
560301	1/31/2022 - 2/7/2022	Beta	2.06E-02	2.75E-03	2.76E-03
560546	2/7/2022 - 2/14/2022	Beta	2.69E-02	3.43E-03	3.35E-03
560856	2/14/2022 - 2/21/2022	Beta	1.93E-02	2.74E-03	2.92E-03
561187	2/21/2022 - 2/28/2022	Beta	1.89E-02	2.62E-03	2.64E-03
561686	2/28/2022 - 3/7/2022	Beta	2.81E-02	3.50E-03	3.47E-03
562288	3/7/2022 - 3/14/2022	Beta	1.48E-02	2.72E-03	3.09E-03
562895	3/14/2022 - 3/21/2022	Beta	1.52E-02	2.90E-03	3.42E-03
563481	3/21/2022 - 3/28/2022	Beta	1.60E-02	2.92E-03	3.38E-03
563814	3/28/2022 - 4/4/2022	Beta	2.46E-02	3.27E-03	3.20E-03
564064	1/4/2022 - 4/4/2022	Cs-134	<1.82E-03	0.00E+00	1.82E-03
		Cs-137	<1.50E-03	0.00E+00	1.50E-03
		Be-7	1.85E-01	3.82E-02	2.28E-02
		K-40	<3.47E-02	0.00E+00	3.47E-02
564058	4/4/2022 - 4/11/2022	Beta	1.70E-02	2.82E-03	3.07E-03
564585	4/11/2022 - 4/18/2022	Beta	2.13E-02	2.90E-03	3.12E-03

OCONEE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR PARTICULATE Concentration (Activity): pCi/m3

Sample Point 084 [INDICATOR - NNE @ 2.58 miles]

Sample ID	Sample Dates	Nuclide	Activity	2 Sigma Error	MDA
564847	4/18/2022 - 4/25/2022	Beta	2.22E-02	3.24E-03	3.50E-03
565338	4/25/2022 - 5/2/2022	Beta	2.80E-02	3.51E-03	3.48E-03
566004	5/2/2022 - 5/9/2022	Beta	1.61E-02	2.79E-03	3.06E-03
566602	5/9/2022 - 5/16/2022	Beta	1.63E-02	2.83E-03	3.10E-03
566983	5/16/2022 - 5/23/2022	Beta	2.43E-02	2.91E-03	2.74E-03
567173	5/23/2022 - 5/31/2022	Beta	1.28E-02	2.48E-03	3.00E-03
567611	5/31/2022 - 6/6/2022	Beta	2.33E-02	3.19E-03	3.31E-03
567779	6/6/2022 - 6/13/2022	Beta	2.31E-02	3.19E-03	3.18E-03
568425	6/13/2022 - 6/20/2022	Beta	2.73E-02	3.45E-03	3.35E-03
568654	6/20/2022 - 6/27/2022	Beta	3.08E-02	3.59E-03	3.30E-03
568870	6/27/2022 - 7/5/2022	Beta	1.77E-02	2.69E-03	2.90E-03
569128	4/4/2022 - 7/5/2022	Cs-134	<3.68E-04	0.00E+00	3.68E-04
		Cs-137	<1.21E-03	0.00E+00	1.21E-03
		Be-7	1.98E-01	4.24E-02	3.58E-02
		K-40	<4.22E-02	0.00E+00	4.22E-02
569122	7/5/2022 - 7/11/2022	Beta	1.41E-02	2.99E-03	3.63E-03
570341	7/11/2022 - 7/18/2022	Beta	2.64E-02	3.32E-03	3.07E-03
570895	7/18/2022 - 7/25/2022	Beta	1.89E-02	3.01E-03	3.29E-03
571141	7/25/2022 - 8/1/2022	Beta	1.41E-02	2.75E-03	3.22E-03
571460	8/1/2022 - 8/8/2022	Beta	1.81E-02	2.58E-03	2.65E-03
571760	8/8/2022 - 8/15/2022	Beta	1.93E-02	3.10E-03	3.45E-03
572752	8/15/2022 - 8/22/2022	Beta	2.45E-02	3.33E-03	3.45E-03
573955	8/22/2022 - 8/29/2022	Beta	2.99E-02	3.58E-03	3.46E-03
574571	8/29/2022 - 9/6/2022	Beta	1.81E-02	2.68E-03	2.87E-03
575042	9/6/2022 - 9/12/2022	Beta	1.38E-02	3.04E-03	3.74E-03
575744	9/12/2022 - 9/19/2022	Beta	3.20E-02	3.61E-03	3.31E-03
576127	9/19/2022 - 9/26/2022	Beta	3.40E-02	3.67E-03	3.28E-03

OCONEE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR PARTICULATE Concentration (Activity): pCi/m3

Sample Point 084 [INDICATOR - NNE @ 2.58 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
576298	9/26/2022 - 10/3/2022	Beta	1.63E-02	2.74E-03	2.95E-03
576600	7/5/2022 - 10/3/2022	Cs-134	<1.80E-03	0.00E+00	1.80E-03
		Cs-137	<1.88E-03	0.00E+00	1.88E-03
		Be-7	1.33E-01	3.53E-02	3.40E-02
		K-40	2.26E-02	1.47E-02	1.71E-02

Sample Point 085 [INDICATOR - NNW @ 0.88 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
558858	1/4/2022 - 1/10/2022	Beta	2.53E-02	3.65E-03	3.69E-03
559085	1/10/2022 - 1/18/2022	Beta	2.34E-02	3.02E-03	3.02E-03
559476	1/18/2022 - 1/24/2022	Beta	2.41E-02	3.16E-03	3.06E-03
560085	1/24/2022 - 1/31/2022	Beta	3.41E-02	3.59E-03	2.88E-03
560302	1/31/2022 - 2/7/2022	Beta	2.35E-02	2.87E-03	2.76E-03
560547	2/7/2022 - 2/14/2022	Beta	2.74E-02	3.46E-03	3.35E-03
560857	2/14/2022 - 2/21/2022	Beta	2.25E-02	2.87E-03	2.91E-03
561188	2/21/2022 - 2/28/2022	Beta	2.14E-02	2.74E-03	2.65E-03
561687	2/28/2022 - 3/7/2022	Beta	3.01E-02	3.57E-03	3.47E-03
562289	3/7/2022 - 3/14/2022	Beta	1.31E-02	2.63E-03	3.09E-03
562896	3/14/2022 - 3/21/2022	Beta	1.50E-02	2.88E-03	3.42E-03
563482	3/21/2022 - 3/28/2022	Beta	1.94E-02	3.09E-03	3.38E-03
563815	3/28/2022 - 4/4/2022	Beta	2.13E-02	3.11E-03	3.20E-03
564065	1/4/2022 - 4/4/2022	Cs-134	<2.10E-03	0.00E+00	2.10E-03
		Cs-137	<1.24E-03	0.00E+00	1.24E-03
		Be-7	1.52E-01	3.71E-02	3.36E-02
		K-40	<3.51E-02	0.00E+00	3.51E-02
564059	4/4/2022 - 4/11/2022	Beta	1.48E-02	2.70E-03	3.06E-03
564586	4/11/2022 - 4/18/2022	Beta	1.57E-02	2.65E-03	3.13E-03
564848	4/18/2022 - 4/25/2022	Beta	2.72E-02	3.46E-03	3.50E-03
565339	4/25/2022 - 5/2/2022	Beta	2.56E-02	3.41E-03	3.47E-03
566005	5/2/2022 - 5/9/2022	Beta	1.86E-02	2.93E-03	3.07E-03
566603	5/9/2022 - 5/16/2022	Beta	1.60E-02	2.81E-03	3.10E-03

OCONEE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR PARTICULATE Concentration (Activity): pCi/m3

Sample Point 085 [INDICATOR - NNW @ 0.88 miles]

Sample ID	Sample Dates	Nuclide	Activity	2 Sigma Error	MDA
566984	5/16/2022 - 5/23/2022	Beta	2.40E-02	2.90E-03	2.74E-03
567174	5/23/2022 - 5/31/2022	Beta	1.29E-02	2.48E-03	2.99E-03
567612	5/31/2022 - 6/6/2022	Beta	2.29E-02	3.17E-03	3.31E-03
567780	6/6/2022 - 6/13/2022	Beta	2.14E-02	3.11E-03	3.19E-03
568426	6/13/2022 - 6/20/2022	Beta	2.72E-02	3.43E-03	3.34E-03
568655	6/20/2022 - 6/27/2022	Beta	2.77E-02	3.46E-03	3.30E-03
568871	6/27/2022 - 7/5/2022	Beta	1.62E-02	2.61E-03	2.91E-03
569129	4/4/2022 - 7/5/2022	Cs-134	<1.90E-03	0.00E+00	1.90E-03
		Cs-137	<1.76E-03	0.00E+00	1.76E-03
		Be-7	1.68E-01	3.74E-02	2.89E-02
		K-40	2.88E-02	2.00E-02	2.81E-02
569123	7/5/2022 - 7/11/2022	Beta	1.33E-02	2.95E-03	3.64E-03
570342	7/11/2022 - 7/18/2022	Beta	2.81E-02	3.40E-03	3.07E-03
570896	7/18/2022 - 7/25/2022	Beta	1.93E-02	3.02E-03	3.28E-03
571142	7/25/2022 - 8/1/2022	Beta	1.42E-02	2.75E-03	3.22E-03
571461	8/1/2022 - 8/8/2022	Beta	1.78E-02	2.57E-03	2.66E-03
571761	8/8/2022 - 8/15/2022	Beta	1.71E-02	3.00E-03	3.44E-03
572753	8/15/2022 - 8/22/2022	Beta	2.59E-02	3.39E-03	3.44E-03
573956	8/22/2022 - 8/29/2022	Beta	2.66E-02	3.45E-03	3.46E-03
574572	8/29/2022 - 9/6/2022	Beta	2.14E-02	2.83E-03	2.86E-03
575043	9/6/2022 - 9/12/2022	Beta	1.29E-02	2.99E-03	3.74E-03
575745	9/12/2022 - 9/19/2022	Beta	3.58E-02	3.77E-03	3.31E-03
576128	9/19/2022 - 9/26/2022	Beta	3.07E-02	3.53E-03	3.28E-03
576299	9/26/2022 - 10/3/2022	Beta	1.78E-02	2.81E-03	2.95E-03
576601	7/5/2022 - 10/3/2022	Cs-134	<1.29E-03	0.00E+00	1.29E-03
		Cs-137	<1.72E-03	0.00E+00	1.72E-03
		Be-7	1.27E-01	3.47E-02	3.41E-02
		K-40	<3.13E-02	0.00E+00	3.13E-02
576595	10/3/2022 - 10/10/2022	Beta	3.04E-02	3.52E-03	3.22E-03

OCONEE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR PARTICULATE Concentration (Activity): pCi/m3

Sample Point 085 [INDICATOR - NNW @ 0.88 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
577212	10/10/2022 - 10/17/2022	Beta	3.56E-02	3.73E-03	3.23E-03
577802	10/17/2022 - 10/24/2022	Beta	2.99E-02	3.59E-03	3.46E-03
578155	10/24/2022 - 10/31/2022	Beta	2.46E-02	3.25E-03	3.23E-03
578866	10/31/2022 - 11/7/2022	Beta	2.27E-02	3.13E-03	3.14E-03
579065	11/7/2022 - 11/14/2022	Beta	1.53E-02	2.82E-03	3.28E-03
579830	11/14/2022 - 11/21/2022	Beta	2.88E-02	3.49E-03	3.41E-03
580638	11/21/2022 - 11/28/2022	Beta	3.20E-02	3.71E-03	3.55E-03
580851	11/28/2022 - 12/5/2022	Beta	1.95E-02	3.09E-03	3.39E-03
581170	12/5/2022 - 12/12/2022	Beta	2.23E-02	3.19E-03	3.37E-03
581743	12/12/2022 - 12/19/2022	Beta	2.60E-02	3.23E-03	2.96E-03
582271	12/19/2022 - 12/27/2022	Beta	2.33E-02	2.97E-03	2.97E-03
582459	12/27/2022 - 1/3/2023	Beta	2.73E-02	3.53E-03	3.57E-03
582726	10/3/2022 - 1/3/2023	Cs-134	<1.45E-03	0.00E+00	1.45E-03
		Cs-137	<1.20E-03	0.00E+00	1.20E-03
		Be-7	1.43E-01	3.30E-02	2.29E-02
		K-40	<3.16E-02	0.00E+00	3.16E-02

Sample Point 093 [CONTROL - SE @ 9.34 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
558859	1/4/2022 - 1/10/2022	Beta	2.98E-02	3.86E-03	3.69E-03
559086	1/10/2022 - 1/18/2022	Beta	2.38E-02	3.03E-03	3.02E-03
559479	1/18/2022 - 1/24/2022	Beta	2.21E-02	3.07E-03	3.07E-03
560086	1/24/2022 - 1/31/2022	Beta	2.90E-02	3.37E-03	2.88E-03
560303	1/31/2022 - 2/7/2022	Beta	2.33E-02	2.87E-03	2.76E-03
560548	2/7/2022 - 2/14/2022	Beta	2.14E-02	3.17E-03	3.34E-03
560858	2/14/2022 - 2/21/2022	Beta	2.16E-02	2.85E-03	2.93E-03
561189	2/21/2022 - 2/28/2022	Beta	1.91E-02	2.63E-03	2.63E-03
561688	2/28/2022 - 3/7/2022	Beta	2.88E-02	3.53E-03	3.48E-03
562290	3/7/2022 - 3/14/2022	Beta	1.44E-02	2.71E-03	3.10E-03
562897	3/14/2022 - 3/21/2022	Beta	1.34E-02	2.78E-03	3.41E-03

OCONEE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR PARTICULATE Concentration (Activity): pCi/m3

Sample Point 093 [CONTROL - SE @ 9.34 miles]

Sample ID	Sample Dates	Nuclide	Activity	2 Sigma Error	MDA
563483	3/21/2022 - 3/28/2022	Beta	1.63E-02	2.92E-03	3.38E-03
563816	3/28/2022 - 4/4/2022	Beta	2.15E-02	3.12E-03	3.20E-03
564066	1/4/2022 - 4/4/2022	Cs-134	<1.63E-03	0.00E+00	1.63E-03
		Cs-137	<1.46E-03	0.00E+00	1.46E-03
		Be-7	1.87E-01	4.00E-02	3.20E-02
		K-40	<4.16E-02	0.00E+00	4.16E-02
564060	4/4/2022 - 4/11/2022	Beta	1.38E-02	2.65E-03	3.07E-03
564587	4/11/2022 - 4/18/2022	Beta	1.80E-02	2.75E-03	3.12E-03
564849	4/18/2022 - 4/25/2022	Beta	2.23E-02	3.24E-03	3.49E-03
565340	4/25/2022 - 5/2/2022	Beta	2.67E-02	3.46E-03	3.48E-03
566006	5/2/2022 - 5/9/2022	Beta	1.71E-02	2.85E-03	3.07E-03
566604	5/9/2022 - 5/16/2022	Beta	1.40E-02	2.70E-03	3.10E-03
566985	5/16/2022 - 5/23/2022	Beta	2.60E-02	2.98E-03	2.74E-03
567175	5/23/2022 - 5/31/2022	Beta	1.36E-02	2.51E-03	3.00E-03
567613	5/31/2022 - 6/6/2022	Beta	2.20E-02	3.14E-03	3.31E-03
567781	6/6/2022 - 6/13/2022	Beta	2.28E-02	3.18E-03	3.19E-03
568427	6/13/2022 - 6/20/2022	Beta	2.69E-02	3.43E-03	3.36E-03
568656	6/20/2022 - 6/27/2022	Beta	2.92E-02	3.50E-03	3.27E-03
568872	6/27/2022 - 7/5/2022	Beta	1.86E-02	2.73E-03	2.91E-03
569130	4/4/2022 - 7/5/2022	Cs-134	<1.98E-03	0.00E+00	1.98E-03
		Cs-137	<1.42E-03	0.00E+00	1.42E-03
		Be-7	1.88E-01	3.90E-02	2.69E-02
		K-40	<3.84E-02	0.00E+00	3.84E-02
569124	7/5/2022 - 7/11/2022	Beta	1.25E-02	2.90E-03	3.64E-03
570343	7/11/2022 - 7/18/2022	Beta	2.48E-02	3.25E-03	3.07E-03
570897	7/18/2022 - 7/25/2022	Beta	2.00E-02	3.06E-03	3.29E-03
571143	7/25/2022 - 8/1/2022	Beta	1.42E-02	2.76E-03	3.23E-03
571462	8/1/2022 - 8/8/2022	Beta	1.56E-02	2.46E-03	2.66E-03
571762	8/8/2022 - 8/15/2022	Beta	1.94E-02	3.11E-03	3.44E-03

OCONEE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR PARTICULATE Concentration (Activity): pCi/m3

Sample Point 093 [CONTROL - SE @ 9.34 miles]

Sample ID	Sample Dates	Nuclide	Activity	2 Sigma Error	MDA
572754	8/15/2022 - 8/22/2022	Beta	2.27E-02	3.24E-03	3.44E-03
573957	8/22/2022 - 8/29/2022	Beta	2.90E-02	3.55E-03	3.46E-03
574573	8/29/2022 - 9/6/2022	Beta	1.89E-02	2.73E-03	2.89E-03
575044	9/6/2022 - 9/12/2022	Beta	1.57E-02	3.13E-03	3.72E-03
575746	9/12/2022 - 9/19/2022	Beta	3.07E-02	3.54E-03	3.28E-03
576129	9/19/2022 - 9/26/2022	Beta	3.37E-02	3.67E-03	3.30E-03
576300	9/26/2022 - 10/3/2022	Beta	2.11E-02	2.98E-03	2.95E-03
576602	7/5/2022 - 10/3/2022	Cs-134	<3.78E-04	0.00E+00	3.78E-04
		Cs-137	<1.51E-03	0.00E+00	1.51E-03
		Be-7	1.24E-01	3.60E-02	3.89E-02
		K-40	<3.72E-02	0.00E+00	3.72E-02
576596	10/3/2022 - 10/10/2022	Beta	2.72E-02	3.39E-03	3.23E-03
577213	10/10/2022 - 10/17/2022	Beta	3.60E-02	3.73E-03	3.20E-03
577803	10/17/2022 - 10/24/2022	Beta	2.63E-02	3.44E-03	3.48E-03
578156	10/24/2022 - 10/31/2022	Beta	2.30E-02	3.17E-03	3.23E-03
578867	10/31/2022 - 11/7/2022	Beta	2.20E-02	3.12E-03	3.17E-03
579066	11/7/2022 - 11/14/2022	Beta	1.57E-02	2.81E-03	3.24E-03
579831	11/14/2022 - 11/21/2022	Beta	2.51E-02	3.37E-03	3.46E-03
580639	11/21/2022 - 11/28/2022	Beta	2.80E-02	3.54E-03	3.55E-03
580852	11/28/2022 - 12/5/2022	Beta	2.05E-02	3.14E-03	3.39E-03
581171	12/5/2022 - 12/12/2022	Beta	2.31E-02	3.23E-03	3.38E-03
581744	12/12/2022 - 12/19/2022	Beta	2.67E-02	3.25E-03	2.94E-03
582272	12/19/2022 - 12/27/2022	Beta	2.32E-02	2.97E-03	2.98E-03
582460	12/27/2022 - 1/3/2023	Beta	2.32E-02	3.35E-03	3.57E-03
582727	10/3/2022 - 1/3/2023	Cs-134	<2.02E-03	0.00E+00	2.02E-03
		Cs-137	<1.42E-03	0.00E+00	1.42E-03
		Be-7	9.99E-02	3.08E-02	3.15E-02
		K-40	<2.86E-02	0.00E+00	2.86E-02

OCONEE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 077 [INDICATOR - SW @ 1 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
558860	1/4/2022 - 1/10/2022	I-131	<4.06E-02	0.00E+00	4.06E-02
		Cs-134	<3.57E-02	0.00E+00	3.57E-02
		Cs-137	<3.05E-02	0.00E+00	3.05E-02
		Be-7	<2.09E-01	0.00E+00	2.09E-01
		K-40	5.58E-01	3.18E-01	3.76E-01
559087	1/10/2022 - 1/20/2022	I-131	<3.76E-02	0.00E+00	3.76E-02
		Cs-134	<1.45E-02	0.00E+00	1.45E-02
		Cs-137	<1.50E-02	0.00E+00	1.50E-02
		Be-7	<1.13E-01	0.00E+00	1.13E-01
		K-40	2.45E-01	1.90E-01	2.70E-01
559482	1/20/2022 - 1/24/2022	I-131	<4.84E-02	0.00E+00	4.84E-02
		Cs-134	<4.48E-02	0.00E+00	4.48E-02
		Cs-137	<4.15E-02	0.00E+00	4.15E-02
		Be-7	<2.33E-01	0.00E+00	2.33E-01
		K-40	7.32E-01	4.05E-01	4.09E-01
560087	1/24/2022 - 1/31/2022	I-131	<2.76E-02	0.00E+00	2.76E-02
		Cs-134	<2.69E-02	0.00E+00	2.69E-02
		Cs-137	<1.96E-02	0.00E+00	1.96E-02
		Be-7	<1.93E-01	0.00E+00	1.93E-01
		K-40	4.56E-01	2.18E-01	6.86E-02
560304	1/31/2022 - 2/7/2022	I-131	<2.47E-02	0.00E+00	2.47E-02
		Cs-134	<2.73E-02	0.00E+00	2.73E-02
		Cs-137	<1.54E-02	0.00E+00	1.54E-02
		Be-7	<1.53E-01	0.00E+00	1.53E-01
		K-40	3.95E-01	2.47E-01	2.98E-01
560549	2/7/2022 - 2/14/2022	I-131	<3.01E-02	0.00E+00	3.01E-02
		Cs-134	<2.06E-02	0.00E+00	2.06E-02
		Cs-137	<3.00E-02	0.00E+00	3.00E-02
		Be-7	<1.84E-01	0.00E+00	1.84E-01
		K-40	4.54E-01	2.48E-01	2.71E-01
560859	2/14/2022 - 2/21/2022	I-131	<2.78E-02	0.00E+00	2.78E-02
		Cs-134	<2.06E-02	0.00E+00	2.06E-02
		Cs-137	<2.96E-02	0.00E+00	2.96E-02
		Be-7	<1.70E-01	0.00E+00	1.70E-01
		K-40	3.44E-01	2.14E-01	2.34E-01
561190	2/21/2022 - 2/28/2022	I-131	<3.28E-02	0.00E+00	3.28E-02
		Cs-134	<3.20E-02	0.00E+00	3.20E-02
		Cs-137	<2.31E-02	0.00E+00	2.31E-02
		Be-7	<1.61E-01	0.00E+00	1.61E-01
		K-40	<6.51E-01	0.00E+00	6.51E-01
561689	2/28/2022 - 3/7/2022	I-131	<3.19E-02	0.00E+00	3.19E-02
		Cs-134	<2.53E-02	0.00E+00	2.53E-02
		Cs-137	<2.47E-02	0.00E+00	2.47E-02
		Be-7	<1.71E-01	0.00E+00	1.71E-01
		K-40	7.17E-01	3.04E-01	2.77E-01
562291	3/7/2022 - 3/14/2022	I-131	<3.24E-02	0.00E+00	3.24E-02
		Cs-134	<1.77E-02	0.00E+00	1.77E-02
		Cs-137	<2.58E-02	0.00E+00	2.58E-02
		Be-7	<1.60E-01	0.00E+00	1.60E-01
		K-40	9.03E-01	3.40E-01	2.97E-01

OCONEE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 077 [INDICATOR - SW @ 1 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
562898	3/14/2022 - 3/21/2022	I-131	<2.94E-02	0.00E+00	2.94E-02
		Cs-134	<2.73E-02	0.00E+00	2.73E-02
		Cs-137	<2.17E-02	0.00E+00	2.17E-02
		Be-7	<1.89E-01	0.00E+00	1.89E-01
		K-40	<5.78E-01	0.00E+00	5.78E-01
563484	3/21/2022 - 3/28/2022	I-131	<3.80E-02	0.00E+00	3.80E-02
		Cs-134	<3.36E-02	0.00E+00	3.36E-02
		Cs-137	<2.47E-02	0.00E+00	2.47E-02
		Be-7	<1.62E-01	0.00E+00	1.62E-01
		K-40	3.82E-01	2.46E-01	3.05E-01
563817	3/28/2022 - 4/4/2022	I-131	<3.11E-02	0.00E+00	3.11E-02
		Cs-134	<1.79E-02	0.00E+00	1.79E-02
		Cs-137	<2.61E-02	0.00E+00	2.61E-02
		Be-7	<1.88E-01	0.00E+00	1.88E-01
		K-40	<5.31E-01	0.00E+00	5.31E-01
564067	4/4/2022 - 4/11/2022	I-131	<1.47E-02	0.00E+00	1.47E-02
		Cs-134	<2.42E-02	0.00E+00	2.42E-02
		Cs-137	<2.25E-02	0.00E+00	2.25E-02
		Be-7	<1.70E-01	0.00E+00	1.70E-01
		K-40	3.62E-01	2.88E-01	4.23E-01
564588	4/11/2022 - 4/18/2022	I-131	<2.17E-02	0.00E+00	2.17E-02
		Cs-134	<2.18E-02	0.00E+00	2.18E-02
		Cs-137	<1.45E-02	0.00E+00	1.45E-02
		Be-7	<1.57E-01	0.00E+00	1.57E-01
		K-40	5.78E-01	2.55E-01	2.14E-01
564850	4/18/2022 - 4/25/2022	I-131	<3.59E-02	0.00E+00	3.59E-02
		Cs-134	<3.07E-02	0.00E+00	3.07E-02
		Cs-137	<3.32E-02	0.00E+00	3.32E-02
		Be-7	<1.65E-01	0.00E+00	1.65E-01
		K-40	4.27E-01	2.80E-01	3.68E-01
565341	4/25/2022 - 5/2/2022	I-131	<2.33E-02	0.00E+00	2.33E-02
		Cs-134	<2.46E-02	0.00E+00	2.46E-02
		Cs-137	<2.12E-02	0.00E+00	2.12E-02
		Be-7	<1.41E-01	0.00E+00	1.41E-01
		K-40	<5.52E-01	0.00E+00	5.52E-01
566007	5/2/2022 - 5/9/2022	I-131	<2.02E-02	0.00E+00	2.02E-02
		Cs-134	<1.95E-02	0.00E+00	1.95E-02
		Cs-137	<2.05E-02	0.00E+00	2.05E-02
		Be-7	<1.26E-01	0.00E+00	1.26E-01
		K-40	2.90E-01	2.58E-01	3.87E-01
566605	5/9/2022 - 5/16/2022	I-131	<2.68E-02	0.00E+00	2.68E-02
		Cs-134	<2.49E-02	0.00E+00	2.49E-02
		Cs-137	<1.21E-02	0.00E+00	1.21E-02
		Be-7	<1.43E-01	0.00E+00	1.43E-01
		K-40	<4.68E-01	0.00E+00	4.68E-01
566986	5/16/2022 - 5/23/2022	I-131	<2.82E-02	0.00E+00	2.82E-02
		Cs-134	<1.80E-02	0.00E+00	1.80E-02
		Cs-137	<2.36E-02	0.00E+00	2.36E-02
		Be-7	<1.46E-01	0.00E+00	1.46E-01
		K-40	<4.91E-01	0.00E+00	4.91E-01

OCONEE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 077 [INDICATOR - SW @ 1 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
567176	5/23/2022 - 5/31/2022	I-131	<2.50E-02	0.00E+00	2.50E-02
		Cs-134	<2.05E-02	0.00E+00	2.05E-02
		Cs-137	<9.91E-03	0.00E+00	9.91E-03
		Be-7	<1.44E-01	0.00E+00	1.44E-01
		K-40	<4.09E-01	0.00E+00	4.09E-01
567614	5/31/2022 - 6/6/2022	I-131	<2.53E-02	0.00E+00	2.53E-02
		Cs-134	<3.14E-02	0.00E+00	3.14E-02
		Cs-137	<2.88E-02	0.00E+00	2.88E-02
		Be-7	<1.53E-01	0.00E+00	1.53E-01
		K-40	<5.83E-01	0.00E+00	5.83E-01
567782	6/6/2022 - 6/13/2022	I-131	<2.75E-02	0.00E+00	2.75E-02
		Cs-134	<2.47E-02	0.00E+00	2.47E-02
		Cs-137	<1.95E-02	0.00E+00	1.95E-02
		Be-7	<1.81E-01	0.00E+00	1.81E-01
		K-40	<5.74E-01	0.00E+00	5.74E-01
568428	6/13/2022 - 6/20/2022	I-131	<2.72E-02	0.00E+00	2.72E-02
		Cs-134	<2.41E-02	0.00E+00	2.41E-02
		Cs-137	<2.07E-02	0.00E+00	2.07E-02
		Be-7	<1.70E-01	0.00E+00	1.70E-01
		K-40	4.73E-01	2.46E-01	2.41E-01
568657	6/20/2022 - 6/27/2022	I-131	<2.55E-02	0.00E+00	2.55E-02
		Cs-134	<3.18E-02	0.00E+00	3.18E-02
		Cs-137	<1.98E-02	0.00E+00	1.98E-02
		Be-7	<1.32E-01	0.00E+00	1.32E-01
		K-40	<5.94E-01	0.00E+00	5.94E-01
568873	6/27/2022 - 7/5/2022	I-131	<2.28E-02	0.00E+00	2.28E-02
		Cs-134	<2.18E-02	0.00E+00	2.18E-02
		Cs-137	<2.38E-02	0.00E+00	2.38E-02
		Be-7	<1.26E-01	0.00E+00	1.26E-01
		K-40	<3.76E-01	0.00E+00	3.76E-01
569131	7/5/2022 - 7/11/2022	I-131	<3.12E-02	0.00E+00	3.12E-02
		Cs-134	<3.36E-02	0.00E+00	3.36E-02
		Cs-137	<3.03E-02	0.00E+00	3.03E-02
		Be-7	<2.34E-01	0.00E+00	2.34E-01
		K-40	<7.44E-01	0.00E+00	7.44E-01
570344	7/11/2022 - 7/18/2022	I-131	<3.21E-02	0.00E+00	3.21E-02
		Cs-134	<2.09E-02	0.00E+00	2.09E-02
		Cs-137	<1.78E-02	0.00E+00	1.78E-02
		Be-7	<1.80E-01	0.00E+00	1.80E-01
		K-40	4.50E-01	2.83E-01	3.68E-01
570898	7/18/2022 - 7/25/2022	I-131	<3.11E-02	0.00E+00	3.11E-02
		Cs-134	<2.89E-02	0.00E+00	2.89E-02
		Cs-137	<2.16E-02	0.00E+00	2.16E-02
		Be-7	<2.03E-01	0.00E+00	2.03E-01
		K-40	<5.88E-01	0.00E+00	5.88E-01
571144	7/25/2022 - 8/1/2022	I-131	<2.66E-02	0.00E+00	2.66E-02
		Cs-134	<3.19E-02	0.00E+00	3.19E-02
		Cs-137	<2.30E-02	0.00E+00	2.30E-02
		Be-7	<1.78E-01	0.00E+00	1.78E-01
		K-40	<6.60E-01	0.00E+00	6.60E-01

OCONEE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 077 [INDICATOR - SW @ 1 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
571463	8/1/2022 - 8/8/2022	I-131	<3.41E-02	0.00E+00	3.41E-02
		Cs-134	<3.04E-02	0.00E+00	3.04E-02
		Cs-137	<2.85E-02	0.00E+00	2.85E-02
		Be-7	<1.72E-01	0.00E+00	1.72E-01
		K-40	3.73E-01	2.59E-01	3.45E-01
571763	8/8/2022 - 8/15/2022	I-131	<3.29E-02	0.00E+00	3.29E-02
		Cs-134	<2.08E-02	0.00E+00	2.08E-02
		Cs-137	<1.98E-02	0.00E+00	1.98E-02
		Be-7	<1.88E-01	0.00E+00	1.88E-01
		K-40	<6.17E-01	0.00E+00	6.17E-01
572755	8/15/2022 - 8/22/2022	I-131	<3.47E-02	0.00E+00	3.47E-02
		Cs-134	<2.73E-02	0.00E+00	2.73E-02
		Cs-137	<2.75E-02	0.00E+00	2.75E-02
		Be-7	<1.62E-01	0.00E+00	1.62E-01
		K-40	5.05E-01	2.81E-01	3.33E-01
573958	8/22/2022 - 8/29/2022	I-131	<3.11E-02	0.00E+00	3.11E-02
		Cs-134	<2.30E-02	0.00E+00	2.30E-02
		Cs-137	<2.85E-02	0.00E+00	2.85E-02
		Be-7	<1.72E-01	0.00E+00	1.72E-01
		K-40	<5.58E-01	0.00E+00	5.58E-01
574574	8/29/2022 - 9/6/2022	I-131	<2.64E-02	0.00E+00	2.64E-02
		Cs-134	<1.85E-02	0.00E+00	1.85E-02
		Cs-137	<2.09E-02	0.00E+00	2.09E-02
		Be-7	<1.29E-01	0.00E+00	1.29E-01
		K-40	<3.67E-01	0.00E+00	3.67E-01
575045	9/6/2022 - 9/12/2022	I-131	<3.53E-02	0.00E+00	3.53E-02
		Cs-134	<3.83E-02	0.00E+00	3.83E-02
		Cs-137	<3.27E-02	0.00E+00	3.27E-02
		Be-7	<2.13E-01	0.00E+00	2.13E-01
		K-40	<7.64E-01	0.00E+00	7.64E-01
575747	9/12/2022 - 9/19/2022	I-131	<3.02E-02	0.00E+00	3.02E-02
		Cs-134	<2.55E-02	0.00E+00	2.55E-02
		Cs-137	<2.77E-02	0.00E+00	2.77E-02
		Be-7	<1.72E-01	0.00E+00	1.72E-01
		K-40	<4.50E-01	0.00E+00	4.50E-01
576130	9/19/2022 - 9/26/2022	I-131	<2.36E-02	0.00E+00	2.36E-02
		Cs-134	<2.22E-02	0.00E+00	2.22E-02
		Cs-137	<2.66E-02	0.00E+00	2.66E-02
		Be-7	<1.61E-01	0.00E+00	1.61E-01
		K-40	5.64E-01	2.85E-01	3.23E-01
576301	9/26/2022 - 10/3/2022	I-131	<4.09E-02	0.00E+00	4.09E-02
		Cs-134	<2.34E-02	0.00E+00	2.34E-02
		Cs-137	<2.35E-02	0.00E+00	2.35E-02
		Be-7	<2.16E-01	0.00E+00	2.16E-01
		K-40	3.74E-01	2.23E-01	2.38E-01
576603	10/3/2022 - 10/10/2022	I-131	<2.82E-02	0.00E+00	2.82E-02
		Cs-134	<2.96E-02	0.00E+00	2.96E-02
		Cs-137	<2.92E-02	0.00E+00	2.92E-02
		Be-7	<1.88E-01	0.00E+00	1.88E-01
		K-40	<5.03E-01	0.00E+00	5.03E-01

OCONEE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 077 [INDICATOR - SW @ 1 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
577214	10/10/2022 - 10/17/2022	I-131	<3.87E-02	0.00E+00	3.87E-02
		Cs-134	<3.38E-02	0.00E+00	3.38E-02
		Cs-137	<1.87E-02	0.00E+00	1.87E-02
		Be-7	<2.09E-01	0.00E+00	2.09E-01
		K-40	<7.09E-01	0.00E+00	7.09E-01
577804	10/17/2022 - 10/24/2022	I-131	<3.37E-02	0.00E+00	3.37E-02
		Cs-134	<2.41E-02	0.00E+00	2.41E-02
		Cs-137	<2.25E-02	0.00E+00	2.25E-02
		Be-7	<1.96E-01	0.00E+00	1.96E-01
		K-40	5.94E-01	2.77E-01	2.50E-01
578157	10/24/2022 - 10/31/2022	I-131	<3.01E-02	0.00E+00	3.01E-02
		Cs-134	<2.83E-02	0.00E+00	2.83E-02
		Cs-137	<2.13E-02	0.00E+00	2.13E-02
		Be-7	<1.64E-01	0.00E+00	1.64E-01
		K-40	6.34E-01	2.54E-01	6.61E-02
578868	10/31/2022 - 11/7/2022	I-131	<4.50E-02	0.00E+00	4.50E-02
		Cs-134	<2.64E-02	0.00E+00	2.64E-02
		Cs-137	<2.26E-02	0.00E+00	2.26E-02
		Be-7	<1.70E-01	0.00E+00	1.70E-01
		K-40	5.47E-01	2.78E-01	2.88E-01
579067	11/7/2022 - 11/14/2022	I-131	<4.27E-02	0.00E+00	4.27E-02
		Cs-134	<4.10E-02	0.00E+00	4.10E-02
		Cs-137	<2.91E-02	0.00E+00	2.91E-02
		Be-7	<2.31E-01	0.00E+00	2.31E-01
		K-40	<6.21E-01	0.00E+00	6.21E-01
579832	11/14/2022 - 11/21/2022	I-131	<1.83E-02	0.00E+00	1.83E-02
		Cs-134	<1.95E-02	0.00E+00	1.95E-02
		Cs-137	<2.05E-02	0.00E+00	2.05E-02
		Be-7	<1.74E-01	0.00E+00	1.74E-01
		K-40	1.47E-01	1.85E-01	2.97E-01
580640	11/21/2022 - 11/28/2022	I-131	<2.15E-02	0.00E+00	2.15E-02
		Cs-134	<1.85E-02	0.00E+00	1.85E-02
		Cs-137	<3.23E-02	0.00E+00	3.23E-02
		Be-7	<1.23E-01	0.00E+00	1.23E-01
		K-40	<3.83E-01	0.00E+00	3.83E-01
580853	11/28/2022 - 12/5/2022	I-131	<2.47E-02	0.00E+00	2.47E-02
		Cs-134	<2.42E-02	0.00E+00	2.42E-02
		Cs-137	<2.44E-02	0.00E+00	2.44E-02
		Be-7	<1.37E-01	0.00E+00	1.37E-01
		K-40	<3.10E-01	0.00E+00	3.10E-01
581172	12/5/2022 - 12/12/2022	I-131	<1.71E-02	0.00E+00	1.71E-02
		Cs-134	<2.05E-02	0.00E+00	2.05E-02
		Cs-137	<2.15E-02	0.00E+00	2.15E-02
		Be-7	<1.54E-01	0.00E+00	1.54E-01
		K-40	<5.42E-01	0.00E+00	5.42E-01
581745	12/12/2022 - 12/19/2022	I-131	<2.57E-02	0.00E+00	2.57E-02
		Cs-134	<1.96E-02	0.00E+00	1.96E-02
		Cs-137	<2.06E-02	0.00E+00	2.06E-02
		Be-7	<1.13E-01	0.00E+00	1.13E-01
		K-40	<4.75E-01	0.00E+00	4.75E-01

OCONEE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 077 [INDICATOR - SW @ 1 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
582273	12/19/2022 - 12/27/2022	I-131	<1.89E-02	0.00E+00	1.89E-02
		Cs-134	<2.00E-02	0.00E+00	2.00E-02
		Cs-137	<1.72E-02	0.00E+00	1.72E-02
		Be-7	<1.28E-01	0.00E+00	1.28E-01
		K-40	<5.68E-01	0.00E+00	5.68E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
582461	12/27/2022 - 1/3/2023	I-131	<3.93E-02	0.00E+00	3.93E-02
		Cs-134	<3.23E-02	0.00E+00	3.23E-02
		Cs-137	<2.61E-02	0.00E+00	2.61E-02
		Be-7	<2.15E-01	0.00E+00	2.15E-01
		K-40	<7.36E-01	0.00E+00	7.36E-01

Sample Point 078.1 [INDICATOR - WSW @ 0.53 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
558861	1/4/2022 - 1/10/2022	I-131	<2.67E-02	0.00E+00	2.67E-02
		Cs-134	<3.51E-02	0.00E+00	3.51E-02
		Cs-137	<3.46E-02	0.00E+00	3.46E-02
		Be-7	<2.30E-01	0.00E+00	2.30E-01
		K-40	4.87E-01	3.50E-01	4.97E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
559093	1/10/2022 - 1/18/2022	I-131	<1.79E-02	0.00E+00	1.79E-02
		Cs-134	<2.22E-02	0.00E+00	2.22E-02
		Cs-137	<1.57E-02	0.00E+00	1.57E-02
		Be-7	<1.48E-01	0.00E+00	1.48E-01
		K-40	1.52E-01	1.35E-01	1.72E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
559485	1/18/2022 - 1/24/2022	I-131	<3.52E-02	0.00E+00	3.52E-02
		Cs-134	<2.39E-02	0.00E+00	2.39E-02
		Cs-137	<1.77E-02	0.00E+00	1.77E-02
		Be-7	<1.79E-01	0.00E+00	1.79E-01
		K-40	4.24E-01	2.38E-01	2.19E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
560088	1/24/2022 - 1/31/2022	I-131	<2.97E-02	0.00E+00	2.97E-02
		Cs-134	<2.04E-02	0.00E+00	2.04E-02
		Cs-137	<1.96E-02	0.00E+00	1.96E-02
		Be-7	<1.31E-01	0.00E+00	1.31E-01
		K-40	<5.74E-01	0.00E+00	5.74E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
560305	1/31/2022 - 2/7/2022	I-131	<3.12E-02	0.00E+00	3.12E-02
		Cs-134	<2.68E-02	0.00E+00	2.68E-02
		Cs-137	<2.32E-02	0.00E+00	2.32E-02
		Be-7	<1.99E-01	0.00E+00	1.99E-01
		K-40	3.69E-01	1.93E-01	6.66E-02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
560550	2/7/2022 - 2/14/2022	I-131	<3.02E-02	0.00E+00	3.02E-02
		Cs-134	<3.21E-02	0.00E+00	3.21E-02
		Cs-137	<2.86E-02	0.00E+00	2.86E-02
		Be-7	<1.79E-01	0.00E+00	1.79E-01
		K-40	<5.45E-01	0.00E+00	5.45E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
560860	2/14/2022 - 2/21/2022	I-131	<3.17E-02	0.00E+00	3.17E-02
		Cs-134	<2.02E-02	0.00E+00	2.02E-02
		Cs-137	<1.95E-02	0.00E+00	1.95E-02
		Be-7	<1.63E-01	0.00E+00	1.63E-01
		K-40	4.98E-01	2.43E-01	2.26E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
561191	2/21/2022 - 2/28/2022	I-131	<3.09E-02	0.00E+00	3.09E-02
		Cs-134	<2.99E-02	0.00E+00	2.99E-02
		Cs-137	<2.45E-02	0.00E+00	2.45E-02
		Be-7	<1.73E-01	0.00E+00	1.73E-01
		K-40	<4.43E-01	0.00E+00	4.43E-01

OCONEE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 078.1 [INDICATOR - WSW @ 0.53 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
561690	2/28/2022 - 3/7/2022	I-131	<2.51E-02	0.00E+00	2.51E-02
		Cs-134	<3.00E-02	0.00E+00	3.00E-02
		Cs-137	<1.96E-02	0.00E+00	1.96E-02
		Be-7	<1.98E-01	0.00E+00	1.98E-01
		K-40	7.82E-01	2.83E-01	6.62E-02
562292	3/7/2022 - 3/14/2022	I-131	<2.60E-02	0.00E+00	2.60E-02
		Cs-134	<2.76E-02	0.00E+00	2.76E-02
		Cs-137	<2.24E-02	0.00E+00	2.24E-02
		Be-7	<1.70E-01	0.00E+00	1.70E-01
		K-40	2.17E-01	1.96E-01	2.83E-01
562899	3/14/2022 - 3/21/2022	I-131	<2.41E-02	0.00E+00	2.41E-02
		Cs-134	<3.12E-02	0.00E+00	3.12E-02
		Cs-137	<2.56E-02	0.00E+00	2.56E-02
		Be-7	<1.53E-01	0.00E+00	1.53E-01
		K-40	4.16E-01	2.05E-01	6.63E-02
563485	3/21/2022 - 3/28/2022	I-131	<3.31E-02	0.00E+00	3.31E-02
		Cs-134	<3.15E-02	0.00E+00	3.15E-02
		Cs-137	<2.14E-02	0.00E+00	2.14E-02
		Be-7	<1.54E-01	0.00E+00	1.54E-01
		K-40	<6.25E-01	0.00E+00	6.25E-01
563818	3/28/2022 - 4/4/2022	I-131	<2.24E-02	0.00E+00	2.24E-02
		Cs-134	<2.48E-02	0.00E+00	2.48E-02
		Cs-137	<1.20E-02	0.00E+00	1.20E-02
		Be-7	<1.73E-01	0.00E+00	1.73E-01
		K-40	8.21E-01	3.29E-01	3.19E-01
564068	4/4/2022 - 4/11/2022	I-131	<2.41E-02	0.00E+00	2.41E-02
		Cs-134	<2.70E-02	0.00E+00	2.70E-02
		Cs-137	<2.33E-02	0.00E+00	2.33E-02
		Be-7	<1.25E-01	0.00E+00	1.25E-01
		K-40	2.56E-01	2.14E-01	3.06E-01
564589	4/11/2022 - 4/18/2022	I-131	<2.56E-02	0.00E+00	2.56E-02
		Cs-134	<2.51E-02	0.00E+00	2.51E-02
		Cs-137	<2.16E-02	0.00E+00	2.16E-02
		Be-7	<2.00E-01	0.00E+00	2.00E-01
		K-40	4.14E-01	2.54E-01	3.13E-01
564851	4/18/2022 - 4/25/2022	I-131	<1.76E-02	0.00E+00	1.76E-02
		Cs-134	<2.35E-02	0.00E+00	2.35E-02
		Cs-137	<2.21E-02	0.00E+00	2.21E-02
		Be-7	<1.79E-01	0.00E+00	1.79E-01
		K-40	2.36E-01	2.01E-01	2.77E-01
565342	4/25/2022 - 5/2/2022	I-131	<1.71E-02	0.00E+00	1.71E-02
		Cs-134	<2.29E-02	0.00E+00	2.29E-02
		Cs-137	<2.16E-02	0.00E+00	2.16E-02
		Be-7	<2.06E-01	0.00E+00	2.06E-01
		K-40	4.39E-01	2.29E-01	2.13E-01
566008	5/2/2022 - 5/9/2022	I-131	<2.78E-02	0.00E+00	2.78E-02
		Cs-134	<2.87E-02	0.00E+00	2.87E-02
		Cs-137	<2.86E-02	0.00E+00	2.86E-02
		Be-7	<1.44E-01	0.00E+00	1.44E-01
		K-40	<5.14E-01	0.00E+00	5.14E-01

OCONEE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 078.1 [INDICATOR - WSW @ 0.53 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
566606	5/9/2022 - 5/16/2022	I-131	<2.35E-02	0.00E+00	2.35E-02
		Cs-134	<2.65E-02	0.00E+00	2.65E-02
		Cs-137	<1.51E-02	0.00E+00	1.51E-02
		Be-7	<1.41E-01	0.00E+00	1.41E-01
		K-40	<5.14E-01	0.00E+00	5.14E-01
566987	5/16/2022 - 5/23/2022	I-131	<3.20E-02	0.00E+00	3.20E-02
		Cs-134	<2.41E-02	0.00E+00	2.41E-02
		Cs-137	<1.70E-02	0.00E+00	1.70E-02
		Be-7	<1.76E-01	0.00E+00	1.76E-01
		K-40	2.73E-01	2.31E-01	3.35E-01
567177	5/23/2022 - 5/31/2022	I-131	<2.30E-02	0.00E+00	2.30E-02
		Cs-134	<1.22E-02	0.00E+00	1.22E-02
		Cs-137	<1.53E-02	0.00E+00	1.53E-02
		Be-7	<1.25E-01	0.00E+00	1.25E-01
		K-40	3.48E-01	2.10E-01	2.49E-01
567615	5/31/2022 - 6/6/2022	I-131	<4.12E-02	0.00E+00	4.12E-02
		Cs-134	<3.74E-02	0.00E+00	3.74E-02
		Cs-137	<3.33E-02	0.00E+00	3.33E-02
		Be-7	<1.77E-01	0.00E+00	1.77E-01
		K-40	7.84E-01	3.66E-01	3.97E-01
567783	6/6/2022 - 6/13/2022	I-131	<2.70E-02	0.00E+00	2.70E-02
		Cs-134	<2.65E-02	0.00E+00	2.65E-02
		Cs-137	<1.19E-02	0.00E+00	1.19E-02
		Be-7	<1.61E-01	0.00E+00	1.61E-01
		K-40	5.28E-01	2.29E-01	6.50E-02
568429	6/13/2022 - 6/20/2022	I-131	<2.92E-02	0.00E+00	2.92E-02
		Cs-134	<2.25E-02	0.00E+00	2.25E-02
		Cs-137	<1.94E-02	0.00E+00	1.94E-02
		Be-7	<1.70E-01	0.00E+00	1.70E-01
		K-40	5.90E-01	2.59E-01	2.15E-01
568658	6/20/2022 - 6/27/2022	I-131	<2.46E-02	0.00E+00	2.46E-02
		Cs-134	<1.35E-02	0.00E+00	1.35E-02
		Cs-137	<1.71E-02	0.00E+00	1.71E-02
		Be-7	<1.50E-01	0.00E+00	1.50E-01
		K-40	<3.98E-01	0.00E+00	3.98E-01
568874	6/27/2022 - 7/5/2022	I-131	<1.84E-02	0.00E+00	1.84E-02
		Cs-134	<1.20E-02	0.00E+00	1.20E-02
		Cs-137	<1.31E-02	0.00E+00	1.31E-02
		Be-7	<1.23E-01	0.00E+00	1.23E-01
		K-40	<5.23E-01	0.00E+00	5.23E-01
569132	7/5/2022 - 7/11/2022	I-131	<2.66E-02	0.00E+00	2.66E-02
		Cs-134	<2.36E-02	0.00E+00	2.36E-02
		Cs-137	<2.04E-02	0.00E+00	2.04E-02
		Be-7	<1.36E-01	0.00E+00	1.36E-01
		K-40	5.10E-01	2.94E-01	3.48E-01
570345	7/11/2022 - 7/18/2022	I-131	<2.78E-02	0.00E+00	2.78E-02
		Cs-134	<2.49E-02	0.00E+00	2.49E-02
		Cs-137	<1.77E-02	0.00E+00	1.77E-02
		Be-7	<1.44E-01	0.00E+00	1.44E-01
		K-40	6.88E-01	2.66E-01	6.66E-02

OCONEE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 078.1 [INDICATOR - WSW @ 0.53 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
570899	7/18/2022 - 7/25/2022	I-131	<3.00E-02	0.00E+00	3.00E-02
		Cs-134	<2.03E-02	0.00E+00	2.03E-02
		Cs-137	<1.76E-02	0.00E+00	1.76E-02
		Be-7	<1.73E-01	0.00E+00	1.73E-01
		K-40	7.33E-01	2.74E-01	6.62E-02
571145	7/25/2022 - 8/1/2022	I-131	<2.07E-02	0.00E+00	2.07E-02
		Cs-134	<3.17E-02	0.00E+00	3.17E-02
		Cs-137	<1.97E-02	0.00E+00	1.97E-02
		Be-7	<1.73E-01	0.00E+00	1.73E-01
		K-40	<4.82E-01	0.00E+00	4.82E-01
571464	8/1/2022 - 8/8/2022	I-131	<3.31E-02	0.00E+00	3.31E-02
		Cs-134	<2.26E-02	0.00E+00	2.26E-02
		Cs-137	<1.19E-02	0.00E+00	1.19E-02
		Be-7	<1.55E-01	0.00E+00	1.55E-01
		K-40	4.68E-01	3.34E-01	4.85E-01
571764	8/8/2022 - 8/15/2022	I-131	<2.51E-02	0.00E+00	2.51E-02
		Cs-134	<2.24E-02	0.00E+00	2.24E-02
		Cs-137	<2.11E-02	0.00E+00	2.11E-02
		Be-7	<1.72E-01	0.00E+00	1.72E-01
		K-40	6.82E-01	2.90E-01	2.67E-01
572756	8/15/2022 - 8/22/2022	I-131	<2.78E-02	0.00E+00	2.78E-02
		Cs-134	<2.49E-02	0.00E+00	2.49E-02
		Cs-137	<2.46E-02	0.00E+00	2.46E-02
		Be-7	<1.54E-01	0.00E+00	1.54E-01
		K-40	6.89E-01	2.91E-01	2.61E-01
573959	8/22/2022 - 8/29/2022	I-131	<2.40E-02	0.00E+00	2.40E-02
		Cs-134	<2.26E-02	0.00E+00	2.26E-02
		Cs-137	<2.70E-02	0.00E+00	2.70E-02
		Be-7	<1.55E-01	0.00E+00	1.55E-01
		K-40	5.60E-01	2.74E-01	2.91E-01
574575	8/29/2022 - 9/6/2022	I-131	<2.69E-02	0.00E+00	2.69E-02
		Cs-134	<2.32E-02	0.00E+00	2.32E-02
		Cs-137	<2.57E-02	0.00E+00	2.57E-02
		Be-7	<1.43E-01	0.00E+00	1.43E-01
		K-40	4.98E-01	2.26E-01	1.98E-01
575046	9/6/2022 - 9/12/2022	I-131	<3.05E-02	0.00E+00	3.05E-02
		Cs-134	<3.26E-02	0.00E+00	3.26E-02
		Cs-137	<1.74E-02	0.00E+00	1.74E-02
		Be-7	<1.98E-01	0.00E+00	1.98E-01
		K-40	5.35E-01	2.49E-01	7.63E-02
575748	9/12/2022 - 9/19/2022	I-131	<2.90E-02	0.00E+00	2.90E-02
		Cs-134	<2.29E-02	0.00E+00	2.29E-02
		Cs-137	<2.16E-02	0.00E+00	2.16E-02
		Be-7	<1.32E-01	0.00E+00	1.32E-01
		K-40	7.99E-01	3.05E-01	2.35E-01
576131	9/19/2022 - 9/26/2022	I-131	<2.40E-02	0.00E+00	2.40E-02
		Cs-134	<1.67E-02	0.00E+00	1.67E-02
		Cs-137	<1.67E-02	0.00E+00	1.67E-02
		Be-7	<1.46E-01	0.00E+00	1.46E-01
		K-40	<5.75E-01	0.00E+00	5.75E-01

OCONEE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 078.1 [INDICATOR - WSW @ 0.53 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
576302	9/26/2022 - 10/3/2022	I-131	<2.97E-02	0.00E+00	2.97E-02
		Cs-134	<2.47E-02	0.00E+00	2.47E-02
		Cs-137	<2.29E-02	0.00E+00	2.29E-02
		Be-7	<1.83E-01	0.00E+00	1.83E-01
		K-40	4.93E-01	2.48E-01	2.47E-01
576604	10/3/2022 - 10/10/2022	I-131	<2.86E-02	0.00E+00	2.86E-02
		Cs-134	<2.65E-02	0.00E+00	2.65E-02
		Cs-137	<2.70E-02	0.00E+00	2.70E-02
		Be-7	<1.54E-01	0.00E+00	1.54E-01
		K-40	<4.95E-01	0.00E+00	4.95E-01
577215	10/10/2022 - 10/17/2022	I-131	<2.87E-02	0.00E+00	2.87E-02
		Cs-134	<2.28E-02	0.00E+00	2.28E-02
		Cs-137	<2.31E-02	0.00E+00	2.31E-02
		Be-7	<1.56E-01	0.00E+00	1.56E-01
		K-40	<5.90E-01	0.00E+00	5.90E-01
577805	10/17/2022 - 10/24/2022	I-131	<2.75E-02	0.00E+00	2.75E-02
		Cs-134	<2.16E-02	0.00E+00	2.16E-02
		Cs-137	<1.44E-02	0.00E+00	1.44E-02
		Be-7	<1.64E-01	0.00E+00	1.64E-01
		K-40	5.43E-01	2.52E-01	2.37E-01
578158	10/24/2022 - 10/31/2022	I-131	<2.09E-02	0.00E+00	2.09E-02
		Cs-134	<2.23E-02	0.00E+00	2.23E-02
		Cs-137	<1.93E-02	0.00E+00	1.93E-02
		Be-7	<1.84E-01	0.00E+00	1.84E-01
		K-40	5.48E-01	2.53E-01	2.22E-01
578869	10/31/2022 - 11/7/2022	I-131	<2.73E-02	0.00E+00	2.73E-02
		Cs-134	<2.86E-02	0.00E+00	2.86E-02
		Cs-137	<1.67E-02	0.00E+00	1.67E-02
		Be-7	<1.36E-01	0.00E+00	1.36E-01
		K-40	<4.42E-01	0.00E+00	4.42E-01
579068	11/7/2022 - 11/14/2022	I-131	<2.54E-02	0.00E+00	2.54E-02
		Cs-134	<1.78E-02	0.00E+00	1.78E-02
		Cs-137	<1.98E-02	0.00E+00	1.98E-02
		Be-7	<1.45E-01	0.00E+00	1.45E-01
		K-40	6.93E-01	2.68E-01	6.71E-02
579833	11/14/2022 - 11/21/2022	I-131	<2.85E-02	0.00E+00	2.85E-02
		Cs-134	<1.99E-02	0.00E+00	1.99E-02
		Cs-137	<2.78E-02	0.00E+00	2.78E-02
		Be-7	<1.79E-01	0.00E+00	1.79E-01
		K-40	<5.17E-01	0.00E+00	5.17E-01
580641	11/21/2022 - 11/28/2022	I-131	<2.79E-02	0.00E+00	2.79E-02
		Cs-134	<2.87E-02	0.00E+00	2.87E-02
		Cs-137	<2.47E-02	0.00E+00	2.47E-02
		Be-7	<1.94E-01	0.00E+00	1.94E-01
		K-40	3.69E-01	2.71E-01	3.81E-01
580854	11/28/2022 - 12/5/2022	I-131	<3.24E-02	0.00E+00	3.24E-02
		Cs-134	<2.52E-02	0.00E+00	2.52E-02
		Cs-137	<2.77E-02	0.00E+00	2.77E-02
		Be-7	<2.01E-01	0.00E+00	2.01E-01
		K-40	5.53E-01	2.74E-01	2.89E-01

OCONEE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 078.1 [INDICATOR - WSW @ 0.53 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
581173	12/5/2022 - 12/12/2022	I-131	<3.01E-02	0.00E+00	3.01E-02
		Cs-134	<2.02E-02	0.00E+00	2.02E-02
		Cs-137	<2.12E-02	0.00E+00	2.12E-02
		Be-7	<7.88E-02	0.00E+00	7.88E-02
		K-40	<5.12E-01	0.00E+00	5.12E-01
581746	12/12/2022 - 12/19/2022	I-131	<2.77E-02	0.00E+00	2.77E-02
		Cs-134	<1.73E-02	0.00E+00	1.73E-02
		Cs-137	<2.41E-02	0.00E+00	2.41E-02
		Be-7	<1.30E-01	0.00E+00	1.30E-01
		K-40	<4.75E-01	0.00E+00	4.75E-01
582274	12/19/2022 - 12/27/2022	I-131	<2.53E-02	0.00E+00	2.53E-02
		Cs-134	<1.92E-02	0.00E+00	1.92E-02
		Cs-137	<1.65E-02	0.00E+00	1.65E-02
		Be-7	<1.23E-01	0.00E+00	1.23E-01
		K-40	4.83E-01	2.22E-01	2.03E-01
582462	12/27/2022 - 1/3/2023	I-131	<2.51E-02	0.00E+00	2.51E-02
		Cs-134	<2.01E-02	0.00E+00	2.01E-02
		Cs-137	<2.82E-02	0.00E+00	2.82E-02
		Be-7	<1.31E-01	0.00E+00	1.31E-01
		K-40	7.60E-01	2.80E-01	6.64E-02
Sample Point 079 [INDICATOR - NE @ 0.56 miles]					
558862	1/4/2022 - 1/10/2022	I-131	<3.37E-02	0.00E+00	3.37E-02
		Cs-134	<2.97E-02	0.00E+00	2.97E-02
		Cs-137	<2.53E-02	0.00E+00	2.53E-02
		Be-7	<1.65E-01	0.00E+00	1.65E-01
		K-40	<6.05E-01	0.00E+00	6.05E-01
559094	1/10/2022 - 1/18/2022	I-131	<2.98E-02	0.00E+00	2.98E-02
		Cs-134	<3.45E-02	0.00E+00	3.45E-02
		Cs-137	<2.29E-02	0.00E+00	2.29E-02
		Be-7	<1.85E-01	0.00E+00	1.85E-01
		K-40	4.76E-01	2.44E-01	2.60E-01
559488	1/18/2022 - 1/24/2022	I-131	<2.11E-02	0.00E+00	2.11E-02
		Cs-134	<2.46E-02	0.00E+00	2.46E-02
		Cs-137	<2.13E-02	0.00E+00	2.13E-02
		Be-7	<1.87E-01	0.00E+00	1.87E-01
		K-40	<4.45E-01	0.00E+00	4.45E-01
560089	1/24/2022 - 1/31/2022	I-131	<2.25E-02	0.00E+00	2.25E-02
		Cs-134	<2.16E-02	0.00E+00	2.16E-02
		Cs-137	<2.70E-02	0.00E+00	2.70E-02
		Be-7	<1.55E-01	0.00E+00	1.55E-01
		K-40	<4.08E-01	0.00E+00	4.08E-01
560306	1/31/2022 - 2/7/2022	I-131	<2.41E-02	0.00E+00	2.41E-02
		Cs-134	<2.72E-02	0.00E+00	2.72E-02
		Cs-137	<2.00E-02	0.00E+00	2.00E-02
		Be-7	<1.67E-01	0.00E+00	1.67E-01
		K-40	4.76E-01	2.48E-01	2.53E-01
560551	2/7/2022 - 2/14/2022	I-131	<2.55E-02	0.00E+00	2.55E-02
		Cs-134	<1.95E-02	0.00E+00	1.95E-02
		Cs-137	<1.45E-02	0.00E+00	1.45E-02
		Be-7	<1.25E-01	0.00E+00	1.25E-01
		K-40	<5.16E-01	0.00E+00	5.16E-01

OCONEE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 079 [INDICATOR - NE @ 0.56 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
560861	2/14/2022 - 2/21/2022	I-131	<2.37E-02	0.00E+00	2.37E-02
		Cs-134	<2.27E-02	0.00E+00	2.27E-02
		Cs-137	<1.52E-02	0.00E+00	1.52E-02
		Be-7	<1.90E-01	0.00E+00	1.90E-01
		K-40	5.20E-01	2.79E-01	3.29E-01
561192	2/21/2022 - 2/28/2022	I-131	<1.95E-02	0.00E+00	1.95E-02
		Cs-134	<1.94E-02	0.00E+00	1.94E-02
		Cs-137	<1.76E-02	0.00E+00	1.76E-02
		Be-7	<1.15E-01	0.00E+00	1.15E-01
		K-40	5.31E-01	2.17E-01	2.56E-01
561691	2/28/2022 - 3/7/2022	I-131	<2.27E-02	0.00E+00	2.27E-02
		Cs-134	<2.18E-02	0.00E+00	2.18E-02
		Cs-137	<2.05E-02	0.00E+00	2.05E-02
		Be-7	<1.37E-01	0.00E+00	1.37E-01
		K-40	<5.79E-01	0.00E+00	5.79E-01
562293	3/7/2022 - 3/14/2022	I-131	<1.95E-02	0.00E+00	1.95E-02
		Cs-134	<2.34E-02	0.00E+00	2.34E-02
		Cs-137	<1.42E-02	0.00E+00	1.42E-02
		Be-7	<1.44E-01	0.00E+00	1.44E-01
		K-40	5.02E-01	2.59E-01	2.91E-01
562900	3/14/2022 - 3/21/2022	I-131	<2.56E-02	0.00E+00	2.56E-02
		Cs-134	<2.39E-02	0.00E+00	2.39E-02
		Cs-137	<1.46E-02	0.00E+00	1.46E-02
		Be-7	<1.58E-01	0.00E+00	1.58E-01
		K-40	2.85E-01	1.66E-01	6.43E-02
563486	3/21/2022 - 3/28/2022	I-131	<2.76E-02	0.00E+00	2.76E-02
		Cs-134	<2.24E-02	0.00E+00	2.24E-02
		Cs-137	<1.93E-02	0.00E+00	1.93E-02
		Be-7	<1.88E-01	0.00E+00	1.88E-01
		K-40	<6.33E-01	0.00E+00	6.33E-01
563819	3/28/2022 - 4/4/2022	I-131	<2.76E-02	0.00E+00	2.76E-02
		Cs-134	<2.01E-02	0.00E+00	2.01E-02
		Cs-137	<2.42E-02	0.00E+00	2.42E-02
		Be-7	<1.17E-01	0.00E+00	1.17E-01
		K-40	6.03E-01	2.94E-01	3.28E-01
564069	4/4/2022 - 4/11/2022	I-131	<2.45E-02	0.00E+00	2.45E-02
		Cs-134	<1.80E-02	0.00E+00	1.80E-02
		Cs-137	<1.80E-02	0.00E+00	1.80E-02
		Be-7	<1.34E-01	0.00E+00	1.34E-01
		K-40	<4.55E-01	0.00E+00	4.55E-01
564590	4/11/2022 - 4/18/2022	I-131	<2.93E-02	0.00E+00	2.93E-02
		Cs-134	<2.25E-02	0.00E+00	2.25E-02
		Cs-137	<2.93E-02	0.00E+00	2.93E-02
		Be-7	<1.61E-01	0.00E+00	1.61E-01
		K-40	<6.56E-01	0.00E+00	6.56E-01
564852	4/18/2022 - 4/25/2022	I-131	<2.03E-02	0.00E+00	2.03E-02
		Cs-134	<2.27E-02	0.00E+00	2.27E-02
		Cs-137	<1.52E-02	0.00E+00	1.52E-02
		Be-7	<1.88E-01	0.00E+00	1.88E-01
		K-40	7.32E-01	2.93E-01	2.43E-01

OCONEE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 079 [INDICATOR - NE @ 0.56 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
565343	4/25/2022 - 5/2/2022	I-131	<2.27E-02	0.00E+00	2.27E-02
		Cs-134	<1.95E-02	0.00E+00	1.95E-02
		Cs-137	<1.68E-02	0.00E+00	1.68E-02
		Be-7	<1.47E-01	0.00E+00	1.47E-01
		K-40	5.64E-01	2.35E-01	6.37E-02
566009	5/2/2022 - 5/9/2022	I-131	<2.58E-02	0.00E+00	2.58E-02
		Cs-134	<2.25E-02	0.00E+00	2.25E-02
		Cs-137	<2.43E-02	0.00E+00	2.43E-02
		Be-7	<1.87E-01	0.00E+00	1.87E-01
		K-40	4.07E-01	2.00E-01	6.49E-02
566607	5/9/2022 - 5/16/2022	I-131	<2.45E-02	0.00E+00	2.45E-02
		Cs-134	<2.54E-02	0.00E+00	2.54E-02
		Cs-137	<1.80E-02	0.00E+00	1.80E-02
		Be-7	<1.34E-01	0.00E+00	1.34E-01
		K-40	<3.98E-01	0.00E+00	3.98E-01
566988	5/16/2022 - 5/23/2022	I-131	<2.55E-02	0.00E+00	2.55E-02
		Cs-134	<2.04E-02	0.00E+00	2.04E-02
		Cs-137	<2.31E-02	0.00E+00	2.31E-02
		Be-7	<1.44E-01	0.00E+00	1.44E-01
		K-40	<4.50E-01	0.00E+00	4.50E-01
567178	5/23/2022 - 5/31/2022	I-131	<2.45E-02	0.00E+00	2.45E-02
		Cs-134	<1.20E-02	0.00E+00	1.20E-02
		Cs-137	<2.34E-02	0.00E+00	2.34E-02
		Be-7	<1.01E-01	0.00E+00	1.01E-01
		K-40	3.28E-01	1.82E-01	1.76E-01
567616	5/31/2022 - 6/6/2022	I-131	<2.47E-02	0.00E+00	2.47E-02
		Cs-134	<2.88E-02	0.00E+00	2.88E-02
		Cs-137	<5.13E-03	0.00E+00	5.13E-03
		Be-7	<1.53E-01	0.00E+00	1.53E-01
		K-40	<6.84E-01	0.00E+00	6.84E-01
567784	6/6/2022 - 6/13/2022	I-131	<3.25E-02	0.00E+00	3.25E-02
		Cs-134	<2.51E-02	0.00E+00	2.51E-02
		Cs-137	<1.52E-02	0.00E+00	1.52E-02
		Be-7	<1.28E-01	0.00E+00	1.28E-01
		K-40	<5.84E-01	0.00E+00	5.84E-01
568430	6/13/2022 - 6/20/2022	I-131	<2.77E-02	0.00E+00	2.77E-02
		Cs-134	<2.30E-02	0.00E+00	2.30E-02
		Cs-137	<1.53E-02	0.00E+00	1.53E-02
		Be-7	<1.18E-01	0.00E+00	1.18E-01
		K-40	2.99E-01	2.58E-01	3.82E-01
568659	6/20/2022 - 6/27/2022	I-131	<2.53E-02	0.00E+00	2.53E-02
		Cs-134	<2.82E-02	0.00E+00	2.82E-02
		Cs-137	<2.13E-02	0.00E+00	2.13E-02
		Be-7	<1.73E-01	0.00E+00	1.73E-01
		K-40	4.09E-01	2.24E-01	2.20E-01
568875	6/27/2022 - 7/5/2022	I-131	<2.44E-02	0.00E+00	2.44E-02
		Cs-134	<2.28E-02	0.00E+00	2.28E-02
		Cs-137	<2.60E-02	0.00E+00	2.60E-02
		Be-7	<1.80E-01	0.00E+00	1.80E-01
		K-40	2.77E-01	1.82E-01	2.09E-01

OCONEE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 079 [INDICATOR - NE @ 0.56 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
569133	7/5/2022 - 7/11/2022	I-131	<3.26E-02	0.00E+00	3.26E-02
		Cs-134	<3.38E-02	0.00E+00	3.38E-02
		Cs-137	<3.05E-02	0.00E+00	3.05E-02
		Be-7	<2.44E-01	0.00E+00	2.44E-01
		K-40	<7.63E-01	0.00E+00	7.63E-01
570346	7/11/2022 - 7/18/2022	I-131	<2.39E-02	0.00E+00	2.39E-02
		Cs-134	<3.35E-02	0.00E+00	3.35E-02
		Cs-137	<4.48E-03	0.00E+00	4.48E-03
		Be-7	<1.55E-01	0.00E+00	1.55E-01
		K-40	4.49E-01	2.15E-01	6.76E-02
570900	7/18/2022 - 7/25/2022	I-131	<2.57E-02	0.00E+00	2.57E-02
		Cs-134	<2.57E-02	0.00E+00	2.57E-02
		Cs-137	<1.46E-02	0.00E+00	1.46E-02
		Be-7	<1.38E-01	0.00E+00	1.38E-01
		K-40	<5.18E-01	0.00E+00	5.18E-01
571146	7/25/2022 - 8/1/2022	I-131	<2.55E-02	0.00E+00	2.55E-02
		Cs-134	<1.38E-02	0.00E+00	1.38E-02
		Cs-137	<2.11E-02	0.00E+00	2.11E-02
		Be-7	<1.60E-01	0.00E+00	1.60E-01
		K-40	3.85E-01	2.25E-01	2.53E-01
571465	8/1/2022 - 8/8/2022	I-131	<3.46E-02	0.00E+00	3.46E-02
		Cs-134	<2.11E-02	0.00E+00	2.11E-02
		Cs-137	<2.03E-02	0.00E+00	2.03E-02
		Be-7	<1.72E-01	0.00E+00	1.72E-01
		K-40	<5.42E-01	0.00E+00	5.42E-01
571765	8/8/2022 - 8/15/2022	I-131	<2.54E-02	0.00E+00	2.54E-02
		Cs-134	<2.56E-02	0.00E+00	2.56E-02
		Cs-137	<1.88E-02	0.00E+00	1.88E-02
		Be-7	<1.13E-01	0.00E+00	1.13E-01
		K-40	<4.61E-01	0.00E+00	4.61E-01
572757	8/15/2022 - 8/22/2022	I-131	<2.31E-02	0.00E+00	2.31E-02
		Cs-134	<1.97E-02	0.00E+00	1.97E-02
		Cs-137	<1.46E-02	0.00E+00	1.46E-02
		Be-7	<1.58E-01	0.00E+00	1.58E-01
		K-40	<4.62E-01	0.00E+00	4.62E-01
573960	8/22/2022 - 8/29/2022	I-131	<2.32E-02	0.00E+00	2.32E-02
		Cs-134	<1.68E-02	0.00E+00	1.68E-02
		Cs-137	<2.04E-02	0.00E+00	2.04E-02
		Be-7	<1.49E-01	0.00E+00	1.49E-01
		K-40	4.81E-01	2.84E-01	3.69E-01
574576	8/29/2022 - 9/6/2022	I-131	<2.46E-02	0.00E+00	2.46E-02
		Cs-134	<2.84E-02	0.00E+00	2.84E-02
		Cs-137	<1.83E-02	0.00E+00	1.83E-02
		Be-7	<1.66E-01	0.00E+00	1.66E-01
		K-40	<4.49E-01	0.00E+00	4.49E-01
575047	9/6/2022 - 9/12/2022	I-131	<2.92E-02	0.00E+00	2.92E-02
		Cs-134	<3.10E-02	0.00E+00	3.10E-02
		Cs-137	<3.00E-02	0.00E+00	3.00E-02
		Be-7	<1.99E-01	0.00E+00	1.99E-01
		K-40	6.95E-01	3.13E-01	2.80E-01

OCONEE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 079 [INDICATOR - NE @ 0.56 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
575749	9/12/2022 - 9/19/2022	I-131	<2.18E-02	0.00E+00	2.18E-02
		Cs-134	<1.98E-02	0.00E+00	1.98E-02
		Cs-137	<1.70E-02	0.00E+00	1.70E-02
		Be-7	<1.27E-01	0.00E+00	1.27E-01
		K-40	5.51E-01	2.89E-01	3.46E-01
576132	9/19/2022 - 9/26/2022	I-131	<2.31E-02	0.00E+00	2.31E-02
		Cs-134	<2.45E-02	0.00E+00	2.45E-02
		Cs-137	<1.74E-02	0.00E+00	1.74E-02
		Be-7	<1.51E-01	0.00E+00	1.51E-01
		K-40	5.56E-01	2.58E-01	2.39E-01
576303	9/26/2022 - 10/3/2022	I-131	<2.45E-02	0.00E+00	2.45E-02
		Cs-134	<1.70E-02	0.00E+00	1.70E-02
		Cs-137	<2.23E-02	0.00E+00	2.23E-02
		Be-7	<1.59E-01	0.00E+00	1.59E-01
		K-40	4.40E-01	2.75E-01	3.65E-01
576605	10/3/2022 - 10/10/2022	I-131	<2.97E-02	0.00E+00	2.97E-02
		Cs-134	<1.99E-02	0.00E+00	1.99E-02
		Cs-137	<1.71E-02	0.00E+00	1.71E-02
		Be-7	<1.59E-01	0.00E+00	1.59E-01
		K-40	3.05E-01	2.54E-01	3.72E-01
577216	10/10/2022 - 10/17/2022	I-131	<2.62E-02	0.00E+00	2.62E-02
		Cs-134	<1.69E-02	0.00E+00	1.69E-02
		Cs-137	<2.05E-02	0.00E+00	2.05E-02
		Be-7	<1.77E-01	0.00E+00	1.77E-01
		K-40	<4.89E-01	0.00E+00	4.89E-01
577806	10/17/2022 - 10/24/2022	I-131	<2.09E-02	0.00E+00	2.09E-02
		Cs-134	<2.30E-02	0.00E+00	2.30E-02
		Cs-137	<2.33E-02	0.00E+00	2.33E-02
		Be-7	<1.44E-01	0.00E+00	1.44E-01
		K-40	2.57E-01	1.93E-01	2.43E-01
578159	10/24/2022 - 10/31/2022	I-131	<2.52E-02	0.00E+00	2.52E-02
		Cs-134	<2.53E-02	0.00E+00	2.53E-02
		Cs-137	<1.86E-02	0.00E+00	1.86E-02
		Be-7	<1.35E-01	0.00E+00	1.35E-01
		K-40	<4.55E-01	0.00E+00	4.55E-01
578870	10/31/2022 - 11/7/2022	I-131	<2.52E-02	0.00E+00	2.52E-02
		Cs-134	<2.89E-02	0.00E+00	2.89E-02
		Cs-137	<2.63E-02	0.00E+00	2.63E-02
		Be-7	<1.92E-01	0.00E+00	1.92E-01
		K-40	1.91E-01	2.26E-01	3.61E-01
579069	11/7/2022 - 11/14/2022	I-131	<2.02E-02	0.00E+00	2.02E-02
		Cs-134	<2.59E-02	0.00E+00	2.59E-02
		Cs-137	<2.08E-02	0.00E+00	2.08E-02
		Be-7	<1.14E-01	0.00E+00	1.14E-01
		K-40	<5.96E-01	0.00E+00	5.96E-01
579834	11/14/2022 - 11/21/2022	I-131	<1.81E-02	0.00E+00	1.81E-02
		Cs-134	<2.17E-02	0.00E+00	2.17E-02
		Cs-137	<1.86E-02	0.00E+00	1.86E-02
		Be-7	<1.12E-01	0.00E+00	1.12E-01
		K-40	3.75E-01	1.90E-01	6.35E-02

OCONEE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 079 [INDICATOR - NE @ 0.56 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
580642	11/21/2022 - 11/28/2022	I-131	<3.91E-02	0.00E+00	3.91E-02
		Cs-134	<2.82E-02	0.00E+00	2.82E-02
		Cs-137	<2.85E-02	0.00E+00	2.85E-02
		Be-7	<2.50E-01	0.00E+00	2.50E-01
		K-40	<6.48E-01	0.00E+00	6.48E-01
580855	11/28/2022 - 12/5/2022	I-131	<2.11E-02	0.00E+00	2.11E-02
		Cs-134	<2.90E-02	0.00E+00	2.90E-02
		Cs-137	<1.79E-02	0.00E+00	1.79E-02
		Be-7	<1.56E-01	0.00E+00	1.56E-01
		K-40	<4.18E-01	0.00E+00	4.18E-01
581174	12/5/2022 - 12/12/2022	I-131	<1.73E-02	0.00E+00	1.73E-02
		Cs-134	<1.85E-02	0.00E+00	1.85E-02
		Cs-137	<2.86E-02	0.00E+00	2.86E-02
		Be-7	<1.79E-01	0.00E+00	1.79E-01
		K-40	<4.44E-01	0.00E+00	4.44E-01
581747	12/12/2022 - 12/19/2022	I-131	<2.41E-02	0.00E+00	2.41E-02
		Cs-134	<3.06E-02	0.00E+00	3.06E-02
		Cs-137	<2.49E-02	0.00E+00	2.49E-02
		Be-7	<1.84E-01	0.00E+00	1.84E-01
		K-40	3.92E-01	2.50E-01	3.13E-01
582275	12/19/2022 - 12/27/2022	I-131	<2.57E-02	0.00E+00	2.57E-02
		Cs-134	<2.42E-02	0.00E+00	2.42E-02
		Cs-137	<1.96E-02	0.00E+00	1.96E-02
		Be-7	<8.84E-02	0.00E+00	8.84E-02
		K-40	4.43E-01	2.46E-01	3.02E-01
582463	12/27/2022 - 1/3/2023	I-131	<2.42E-02	0.00E+00	2.42E-02
		Cs-134	<2.75E-02	0.00E+00	2.75E-02
		Cs-137	<1.89E-02	0.00E+00	1.89E-02
		Be-7	<7.74E-02	0.00E+00	7.74E-02
		K-40	3.88E-01	2.33E-01	2.77E-01
Sample Point 084 [INDICATOR - NNE @ 2.58 miles]					
558863	1/4/2022 - 1/10/2022	I-131	<2.68E-02	0.00E+00	2.68E-02
		Cs-134	<2.38E-02	0.00E+00	2.38E-02
		Cs-137	<3.46E-02	0.00E+00	3.46E-02
		Be-7	<1.79E-01	0.00E+00	1.79E-01
		K-40	<5.76E-01	0.00E+00	5.76E-01
559095	1/10/2022 - 1/18/2022	I-131	<2.54E-02	0.00E+00	2.54E-02
		Cs-134	<2.19E-02	0.00E+00	2.19E-02
		Cs-137	<2.40E-02	0.00E+00	2.40E-02
		Be-7	<1.36E-01	0.00E+00	1.36E-01
		K-40	4.59E-01	2.76E-01	3.67E-01
559491	1/18/2022 - 1/24/2022	I-131	<4.44E-02	0.00E+00	4.44E-02
		Cs-134	<4.35E-02	0.00E+00	4.35E-02
		Cs-137	<2.22E-02	0.00E+00	2.22E-02
		Be-7	<2.29E-01	0.00E+00	2.29E-01
		K-40	4.09E-01	2.67E-01	3.13E-01
560090	1/24/2022 - 1/31/2022	I-131	<2.86E-02	0.00E+00	2.86E-02
		Cs-134	<1.76E-02	0.00E+00	1.76E-02
		Cs-137	<2.72E-02	0.00E+00	2.72E-02
		Be-7	<1.17E-01	0.00E+00	1.17E-01
		K-40	<5.11E-01	0.00E+00	5.11E-01

OCONEE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 084 [INDICATOR - NNE @ 2.58 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
560307	1/31/2022 - 2/7/2022	I-131	<2.89E-02	0.00E+00	2.89E-02
		Cs-134	<1.34E-02	0.00E+00	1.34E-02
		Cs-137	<2.96E-02	0.00E+00	2.96E-02
		Be-7	<1.38E-01	0.00E+00	1.38E-01
		K-40	4.74E-01	2.15E-01	6.42E-02
560552	2/7/2022 - 2/14/2022	I-131	<2.41E-02	0.00E+00	2.41E-02
		Cs-134	<2.87E-02	0.00E+00	2.87E-02
		Cs-137	<1.53E-02	0.00E+00	1.53E-02
		Be-7	<1.32E-01	0.00E+00	1.32E-01
		K-40	<5.30E-01	0.00E+00	5.30E-01
560862	2/14/2022 - 2/21/2022	I-131	<2.75E-02	0.00E+00	2.75E-02
		Cs-134	<2.17E-02	0.00E+00	2.17E-02
		Cs-137	<1.67E-02	0.00E+00	1.67E-02
		Be-7	<1.25E-01	0.00E+00	1.25E-01
		K-40	<4.42E-01	0.00E+00	4.42E-01
561193	2/21/2022 - 2/28/2022	I-131	<1.82E-02	0.00E+00	1.82E-02
		Cs-134	<1.94E-02	0.00E+00	1.94E-02
		Cs-137	<2.03E-02	0.00E+00	2.03E-02
		Be-7	<1.73E-01	0.00E+00	1.73E-01
		K-40	<4.86E-01	0.00E+00	4.86E-01
561692	2/28/2022 - 3/7/2022	I-131	<2.19E-02	0.00E+00	2.19E-02
		Cs-134	<1.39E-02	0.00E+00	1.39E-02
		Cs-137	<2.13E-02	0.00E+00	2.13E-02
		Be-7	<1.71E-01	0.00E+00	1.71E-01
		K-40	<6.27E-01	0.00E+00	6.27E-01
562294	3/7/2022 - 3/14/2022	I-131	<2.36E-02	0.00E+00	2.36E-02
		Cs-134	<2.04E-02	0.00E+00	2.04E-02
		Cs-137	<1.76E-02	0.00E+00	1.76E-02
		Be-7	<1.17E-01	0.00E+00	1.17E-01
		K-40	5.47E-01	2.60E-01	2.45E-01
562901	3/14/2022 - 3/21/2022	I-131	<2.43E-02	0.00E+00	2.43E-02
		Cs-134	<2.89E-02	0.00E+00	2.89E-02
		Cs-137	<2.34E-02	0.00E+00	2.34E-02
		Be-7	<1.33E-01	0.00E+00	1.33E-01
		K-40	<5.62E-01	0.00E+00	5.62E-01
563487	3/21/2022 - 3/28/2022	I-131	<3.18E-02	0.00E+00	3.18E-02
		Cs-134	<1.95E-02	0.00E+00	1.95E-02
		Cs-137	<1.68E-02	0.00E+00	1.68E-02
		Be-7	<1.47E-01	0.00E+00	1.47E-01
		K-40	<6.24E-01	0.00E+00	6.24E-01
563820	3/28/2022 - 4/4/2022	I-131	<2.29E-02	0.00E+00	2.29E-02
		Cs-134	<2.18E-02	0.00E+00	2.18E-02
		Cs-137	<2.60E-02	0.00E+00	2.60E-02
		Be-7	<1.37E-01	0.00E+00	1.37E-01
		K-40	4.71E-01	2.14E-01	6.38E-02
564070	4/4/2022 - 4/11/2022	I-131	<2.03E-02	0.00E+00	2.03E-02
		Cs-134	<2.25E-02	0.00E+00	2.25E-02
		Cs-137	<1.50E-02	0.00E+00	1.50E-02
		Be-7	<1.40E-01	0.00E+00	1.40E-01
		K-40	4.58E-01	2.22E-01	1.69E-01

OCONEE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 084 [INDICATOR - NNE @ 2.58 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
564591	4/11/2022 - 4/18/2022	I-131	<2.89E-02	0.00E+00	2.89E-02
		Cs-134	<2.10E-02	0.00E+00	2.10E-02
		Cs-137	<1.24E-02	0.00E+00	1.24E-02
		Be-7	<1.35E-01	0.00E+00	1.35E-01
		K-40	<4.92E-01	0.00E+00	4.92E-01
564853	4/18/2022 - 4/25/2022	I-131	<2.40E-02	0.00E+00	2.40E-02
		Cs-134	<3.20E-02	0.00E+00	3.20E-02
		Cs-137	<2.48E-02	0.00E+00	2.48E-02
		Be-7	<1.65E-01	0.00E+00	1.65E-01
		K-40	<6.00E-01	0.00E+00	6.00E-01
565344	4/25/2022 - 5/2/2022	I-131	<2.51E-02	0.00E+00	2.51E-02
		Cs-134	<1.72E-02	0.00E+00	1.72E-02
		Cs-137	<1.72E-02	0.00E+00	1.72E-02
		Be-7	<1.41E-01	0.00E+00	1.41E-01
		K-40	5.15E-01	2.63E-01	2.83E-01
566010	5/2/2022 - 5/9/2022	I-131	<2.15E-02	0.00E+00	2.15E-02
		Cs-134	<2.73E-02	0.00E+00	2.73E-02
		Cs-137	<2.01E-02	0.00E+00	2.01E-02
		Be-7	<1.21E-01	0.00E+00	1.21E-01
		K-40	<3.77E-01	0.00E+00	3.77E-01
566608	5/9/2022 - 5/16/2022	I-131	<3.72E-02	0.00E+00	3.72E-02
		Cs-134	<3.23E-02	0.00E+00	3.23E-02
		Cs-137	<2.93E-02	0.00E+00	2.93E-02
		Be-7	<2.42E-01	0.00E+00	2.42E-01
		K-40	4.65E-01	2.43E-01	2.27E-01
566989	5/16/2022 - 5/23/2022	I-131	<2.34E-02	0.00E+00	2.34E-02
		Cs-134	<2.21E-02	0.00E+00	2.21E-02
		Cs-137	<2.24E-02	0.00E+00	2.24E-02
		Be-7	<1.64E-01	0.00E+00	1.64E-01
		K-40	3.98E-01	2.43E-01	2.99E-01
567179	5/23/2022 - 5/31/2022	I-131	<2.75E-02	0.00E+00	2.75E-02
		Cs-134	<2.18E-02	0.00E+00	2.18E-02
		Cs-137	<2.02E-02	0.00E+00	2.02E-02
		Be-7	<1.26E-01	0.00E+00	1.26E-01
		K-40	4.99E-01	2.32E-01	2.16E-01
567617	5/31/2022 - 6/6/2022	I-131	<3.45E-02	0.00E+00	3.45E-02
		Cs-134	<1.56E-02	0.00E+00	1.56E-02
		Cs-137	<2.19E-02	0.00E+00	2.19E-02
		Be-7	<1.61E-01	0.00E+00	1.61E-01
		K-40	3.84E-01	2.07E-01	7.42E-02
567785	6/6/2022 - 6/13/2022	I-131	<3.09E-02	0.00E+00	3.09E-02
		Cs-134	<1.38E-02	0.00E+00	1.38E-02
		Cs-137	<1.75E-02	0.00E+00	1.75E-02
		Be-7	<1.42E-01	0.00E+00	1.42E-01
		K-40	<5.46E-01	0.00E+00	5.46E-01
568431	6/13/2022 - 6/20/2022	I-131	<2.52E-02	0.00E+00	2.52E-02
		Cs-134	<2.99E-02	0.00E+00	2.99E-02
		Cs-137	<1.96E-02	0.00E+00	1.96E-02
		Be-7	<1.54E-01	0.00E+00	1.54E-01
		K-40	5.19E-01	2.82E-01	3.37E-01

OCONEE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 084 [INDICATOR - NNE @ 2.58 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
568660	6/20/2022 - 6/27/2022	I-131	<2.68E-02	0.00E+00	2.68E-02
		Cs-134	<2.20E-02	0.00E+00	2.20E-02
		Cs-137	<1.70E-02	0.00E+00	1.70E-02
		Be-7	<1.38E-01	0.00E+00	1.38E-01
		K-40	4.39E-01	2.29E-01	2.23E-01
568876	6/27/2022 - 7/5/2022	I-131	<2.04E-02	0.00E+00	2.04E-02
		Cs-134	<2.35E-02	0.00E+00	2.35E-02
		Cs-137	<2.50E-02	0.00E+00	2.50E-02
		Be-7	<1.60E-01	0.00E+00	1.60E-01
		K-40	5.00E-01	2.83E-01	3.68E-01
569134	7/5/2022 - 7/11/2022	I-131	<2.67E-02	0.00E+00	2.67E-02
		Cs-134	<1.61E-02	0.00E+00	1.61E-02
		Cs-137	<1.76E-02	0.00E+00	1.76E-02
		Be-7	<1.89E-01	0.00E+00	1.89E-01
		K-40	7.66E-01	3.01E-01	7.68E-02
570347	7/11/2022 - 7/18/2022	I-131	<2.83E-02	0.00E+00	2.83E-02
		Cs-134	<2.67E-02	0.00E+00	2.67E-02
		Cs-137	<2.30E-02	0.00E+00	2.30E-02
		Be-7	<1.30E-01	0.00E+00	1.30E-01
		K-40	3.86E-01	2.66E-01	3.62E-01
570901	7/18/2022 - 7/25/2022	I-131	<2.78E-02	0.00E+00	2.78E-02
		Cs-134	<2.23E-02	0.00E+00	2.23E-02
		Cs-137	<2.41E-02	0.00E+00	2.41E-02
		Be-7	<1.63E-01	0.00E+00	1.63E-01
		K-40	4.38E-01	2.10E-01	6.60E-02
571147	7/25/2022 - 8/1/2022	I-131	<2.68E-02	0.00E+00	2.68E-02
		Cs-134	<2.46E-02	0.00E+00	2.46E-02
		Cs-137	<1.95E-02	0.00E+00	1.95E-02
		Be-7	<1.44E-01	0.00E+00	1.44E-01
		K-40	4.49E-01	2.33E-01	2.26E-01
571466	8/1/2022 - 8/8/2022	I-131	<2.39E-02	0.00E+00	2.39E-02
		Cs-134	<2.42E-02	0.00E+00	2.42E-02
		Cs-137	<2.09E-02	0.00E+00	2.09E-02
		Be-7	<1.72E-01	0.00E+00	1.72E-01
		K-40	<5.56E-01	0.00E+00	5.56E-01
571766	8/8/2022 - 8/15/2022	I-131	<2.90E-02	0.00E+00	2.90E-02
		Cs-134	<2.71E-02	0.00E+00	2.71E-02
		Cs-137	<2.48E-02	0.00E+00	2.48E-02
		Be-7	<1.55E-01	0.00E+00	1.55E-01
		K-40	6.02E-01	2.75E-01	2.59E-01
572758	8/15/2022 - 8/22/2022	I-131	<2.09E-02	0.00E+00	2.09E-02
		Cs-134	<3.26E-02	0.00E+00	3.26E-02
		Cs-137	<2.42E-02	0.00E+00	2.42E-02
		Be-7	<1.31E-01	0.00E+00	1.31E-01
		K-40	3.28E-01	2.40E-01	3.26E-01
573962	8/22/2022 - 8/29/2022	I-131	<2.96E-02	0.00E+00	2.96E-02
		Cs-134	<2.93E-02	0.00E+00	2.93E-02
		Cs-137	<1.72E-02	0.00E+00	1.72E-02
		Be-7	<1.63E-01	0.00E+00	1.63E-01
		K-40	5.77E-01	2.80E-01	3.00E-01

OCONEE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 084 [INDICATOR - NNE @ 2.58 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
574577	8/29/2022 - 9/6/2022	I-131	<2.38E-02	0.00E+00	2.38E-02
		Cs-134	<2.44E-02	0.00E+00	2.44E-02
		Cs-137	<1.68E-02	0.00E+00	1.68E-02
		Be-7	<1.50E-01	0.00E+00	1.50E-01
		K-40	4.70E-01	2.28E-01	2.33E-01
575048	9/6/2022 - 9/12/2022	I-131	<2.74E-02	0.00E+00	2.74E-02
		Cs-134	<2.12E-02	0.00E+00	2.12E-02
		Cs-137	<2.37E-02	0.00E+00	2.37E-02
		Be-7	<2.07E-01	0.00E+00	2.07E-01
		K-40	4.75E-01	2.91E-01	3.49E-01
575750	9/12/2022 - 9/19/2022	I-131	<2.16E-02	0.00E+00	2.16E-02
		Cs-134	<1.70E-02	0.00E+00	1.70E-02
		Cs-137	<1.69E-02	0.00E+00	1.69E-02
		Be-7	<1.58E-01	0.00E+00	1.58E-01
		K-40	6.28E-01	2.67E-01	2.24E-01
576133	9/19/2022 - 9/26/2022	I-131	<2.83E-02	0.00E+00	2.83E-02
		Cs-134	<2.15E-02	0.00E+00	2.15E-02
		Cs-137	<2.99E-02	0.00E+00	2.99E-02
		Be-7	<1.70E-01	0.00E+00	1.70E-01
		K-40	5.87E-01	2.49E-01	6.92E-02
576304	9/26/2022 - 10/3/2022	I-131	<2.63E-02	0.00E+00	2.63E-02
		Cs-134	<2.13E-02	0.00E+00	2.13E-02
		Cs-137	<1.25E-02	0.00E+00	1.25E-02
		Be-7	<1.89E-01	0.00E+00	1.89E-01
		K-40	1.40E-01	2.29E-01	3.91E-01
Sample Point 085 [INDICATOR - NNW @ 0.88 miles]					
588864	1/4/2022 - 1/10/2022	I-131	<2.69E-02	0.00E+00	2.69E-02
		Cs-134	<3.16E-02	0.00E+00	3.16E-02
		Cs-137	<2.54E-02	0.00E+00	2.54E-02
		Be-7	<1.38E-01	0.00E+00	1.38E-01
		K-40	4.85E-01	2.73E-01	2.94E-01
559096	1/10/2022 - 1/18/2022	I-131	<3.08E-02	0.00E+00	3.08E-02
		Cs-134	<2.51E-02	0.00E+00	2.51E-02
		Cs-137	<1.72E-02	0.00E+00	1.72E-02
		Be-7	<1.71E-01	0.00E+00	1.71E-01
		K-40	<4.99E-01	0.00E+00	4.99E-01
559494	1/18/2022 - 1/24/2022	I-131	<3.40E-02	0.00E+00	3.40E-02
		Cs-134	<3.40E-02	0.00E+00	3.40E-02
		Cs-137	<3.25E-02	0.00E+00	3.25E-02
		Be-7	<2.07E-01	0.00E+00	2.07E-01
		K-40	6.43E-01	4.00E-01	5.51E-01
560091	1/24/2022 - 1/31/2022	I-131	<2.89E-02	0.00E+00	2.89E-02
		Cs-134	<2.24E-02	0.00E+00	2.24E-02
		Cs-137	<1.93E-02	0.00E+00	1.93E-02
		Be-7	<1.60E-01	0.00E+00	1.60E-01
		K-40	5.21E-01	2.59E-01	2.71E-01
560308	1/31/2022 - 2/7/2022	I-131	<2.27E-02	0.00E+00	2.27E-02
		Cs-134	<5.22E-03	0.00E+00	5.22E-03
		Cs-137	<1.99E-02	0.00E+00	1.99E-02
		Be-7	<1.45E-01	0.00E+00	1.45E-01
		K-40	3.62E-01	2.18E-01	2.35E-01

OCONEE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 085 [INDICATOR - NNW @ 0.88 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
560553	2/7/2022 - 2/14/2022	I-131	<3.24E-02	0.00E+00	3.24E-02
		Cs-134	<2.46E-02	0.00E+00	2.46E-02
		Cs-137	<2.13E-02	0.00E+00	2.13E-02
		Be-7	<1.62E-01	0.00E+00	1.62E-01
		K-40	4.25E-01	2.50E-01	3.01E-01
560863	2/14/2022 - 2/21/2022	I-131	<2.38E-02	0.00E+00	2.38E-02
		Cs-134	<3.32E-02	0.00E+00	3.32E-02
		Cs-137	<1.52E-02	0.00E+00	1.52E-02
		Be-7	<1.90E-01	0.00E+00	1.90E-01
		K-40	<4.97E-01	0.00E+00	4.97E-01
561194	2/21/2022 - 2/28/2022	I-131	<2.99E-02	0.00E+00	2.99E-02
		Cs-134	<2.51E-02	0.00E+00	2.51E-02
		Cs-137	<1.98E-02	0.00E+00	1.98E-02
		Be-7	<1.83E-01	0.00E+00	1.83E-01
		K-40	5.21E-01	2.31E-01	6.73E-02
561693	2/28/2022 - 3/7/2022	I-131	<2.96E-02	0.00E+00	2.96E-02
		Cs-134	<2.56E-02	0.00E+00	2.56E-02
		Cs-137	<1.24E-02	0.00E+00	1.24E-02
		Be-7	<1.04E-01	0.00E+00	1.04E-01
		K-40	<4.21E-01	0.00E+00	4.21E-01
562295	3/7/2022 - 3/14/2022	I-131	<2.54E-02	0.00E+00	2.54E-02
		Cs-134	<2.23E-02	0.00E+00	2.23E-02
		Cs-137	<1.93E-02	0.00E+00	1.93E-02
		Be-7	<1.77E-01	0.00E+00	1.77E-01
		K-40	4.61E-01	2.77E-01	3.57E-01
562902	3/14/2022 - 3/21/2022	I-131	<2.36E-02	0.00E+00	2.36E-02
		Cs-134	<1.76E-02	0.00E+00	1.76E-02
		Cs-137	<2.14E-02	0.00E+00	2.14E-02
		Be-7	<1.63E-01	0.00E+00	1.63E-01
		K-40	<5.71E-01	0.00E+00	5.71E-01
563488	3/21/2022 - 3/28/2022	I-131	<3.12E-02	0.00E+00	3.12E-02
		Cs-134	<2.70E-02	0.00E+00	2.70E-02
		Cs-137	<2.62E-02	0.00E+00	2.62E-02
		Be-7	<1.65E-01	0.00E+00	1.65E-01
		K-40	<5.16E-01	0.00E+00	5.16E-01
563821	3/28/2022 - 4/4/2022	I-131	<2.39E-02	0.00E+00	2.39E-02
		Cs-134	<2.06E-02	0.00E+00	2.06E-02
		Cs-137	<2.99E-02	0.00E+00	2.99E-02
		Be-7	<1.18E-01	0.00E+00	1.18E-01
		K-40	6.70E-01	2.92E-01	2.74E-01
564071	4/4/2022 - 4/11/2022	I-131	<1.71E-02	0.00E+00	1.71E-02
		Cs-134	<2.68E-02	0.00E+00	2.68E-02
		Cs-137	<2.60E-02	0.00E+00	2.60E-02
		Be-7	<1.73E-01	0.00E+00	1.73E-01
		K-40	<4.65E-01	0.00E+00	4.65E-01
564592	4/11/2022 - 4/18/2022	I-131	<3.63E-02	0.00E+00	3.63E-02
		Cs-134	<2.88E-02	0.00E+00	2.88E-02
		Cs-137	<3.07E-02	0.00E+00	3.07E-02
		Be-7	<2.04E-01	0.00E+00	2.04E-01
		K-40	4.74E-01	2.94E-01	3.79E-01

OCONEE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 085 [INDICATOR - NNW @ 0.88 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
564854	4/18/2022 - 4/25/2022	I-131	<2.24E-02	0.00E+00	2.24E-02
		Cs-134	<1.76E-02	0.00E+00	1.76E-02
		Cs-137	<1.52E-02	0.00E+00	1.52E-02
		Be-7	<1.18E-01	0.00E+00	1.18E-01
		K-40	<6.48E-01	0.00E+00	6.48E-01
565345	4/25/2022 - 5/2/2022	I-131	<2.76E-02	0.00E+00	2.76E-02
		Cs-134	<2.47E-02	0.00E+00	2.47E-02
		Cs-137	<1.20E-02	0.00E+00	1.20E-02
		Be-7	<1.17E-01	0.00E+00	1.17E-01
		K-40	5.88E-01	2.69E-01	2.53E-01
566011	5/2/2022 - 5/9/2022	I-131	<2.64E-02	0.00E+00	2.64E-02
		Cs-134	<2.61E-02	0.00E+00	2.61E-02
		Cs-137	<2.40E-02	0.00E+00	2.40E-02
		Be-7	<1.62E-01	0.00E+00	1.62E-01
		K-40	6.60E-01	2.80E-01	2.42E-01
566609	5/9/2022 - 5/16/2022	I-131	<4.12E-02	0.00E+00	4.12E-02
		Cs-134	<2.31E-02	0.00E+00	2.31E-02
		Cs-137	<2.17E-02	0.00E+00	2.17E-02
		Be-7	<1.45E-01	0.00E+00	1.45E-01
		K-40	4.79E-01	2.72E-01	3.29E-01
566990	5/16/2022 - 5/23/2022	I-131	<2.55E-02	0.00E+00	2.55E-02
		Cs-134	<2.30E-02	0.00E+00	2.30E-02
		Cs-137	<1.98E-02	0.00E+00	1.98E-02
		Be-7	<1.66E-01	0.00E+00	1.66E-01
		K-40	4.03E-01	2.71E-01	3.66E-01
567180	5/23/2022 - 5/31/2022	I-131	<2.81E-02	0.00E+00	2.81E-02
		Cs-134	<2.14E-02	0.00E+00	2.14E-02
		Cs-137	<1.85E-02	0.00E+00	1.85E-02
		Be-7	<1.85E-01	0.00E+00	1.85E-01
		K-40	4.22E-01	1.92E-01	5.72E-02
567618	5/31/2022 - 6/6/2022	I-131	<2.83E-02	0.00E+00	2.83E-02
		Cs-134	<3.05E-02	0.00E+00	3.05E-02
		Cs-137	<1.73E-02	0.00E+00	1.73E-02
		Be-7	<1.78E-01	0.00E+00	1.78E-01
		K-40	6.22E-01	2.70E-01	7.66E-02
567786	6/6/2022 - 6/13/2022	I-131	<2.43E-02	0.00E+00	2.43E-02
		Cs-134	<2.88E-02	0.00E+00	2.88E-02
		Cs-137	<2.35E-02	0.00E+00	2.35E-02
		Be-7	<1.37E-01	0.00E+00	1.37E-01
		K-40	<4.88E-01	0.00E+00	4.88E-01
568432	6/13/2022 - 6/20/2022	I-131	<2.55E-02	0.00E+00	2.55E-02
		Cs-134	<2.37E-02	0.00E+00	2.37E-02
		Cs-137	<2.34E-02	0.00E+00	2.34E-02
		Be-7	<1.48E-01	0.00E+00	1.48E-01
		K-40	<4.58E-01	0.00E+00	4.58E-01
568661	6/20/2022 - 6/27/2022	I-131	<2.10E-02	0.00E+00	2.10E-02
		Cs-134	<2.32E-02	0.00E+00	2.32E-02
		Cs-137	<2.00E-02	0.00E+00	2.00E-02
		Be-7	<1.66E-01	0.00E+00	1.66E-01
		K-40	3.58E-01	2.22E-01	2.54E-01

OCONEE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 085 [INDICATOR - NNW @ 0.88 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
568877	6/27/2022 - 7/5/2022	I-131	<2.67E-02	0.00E+00	2.67E-02
		Cs-134	<1.52E-02	0.00E+00	1.52E-02
		Cs-137	<2.24E-02	0.00E+00	2.24E-02
		Be-7	<1.90E-01	0.00E+00	1.90E-01
		K-40	2.62E-01	1.71E-01	1.94E-01
569135	7/5/2022 - 7/11/2022	I-131	<4.09E-02	0.00E+00	4.09E-02
		Cs-134	<2.41E-02	0.00E+00	2.41E-02
		Cs-137	<3.18E-02	0.00E+00	3.18E-02
		Be-7	<1.99E-01	0.00E+00	1.99E-01
		K-40	7.45E-01	3.35E-01	3.15E-01
570348	7/11/2022 - 7/18/2022	I-131	<2.73E-02	0.00E+00	2.73E-02
		Cs-134	<2.17E-02	0.00E+00	2.17E-02
		Cs-137	<2.61E-02	0.00E+00	2.61E-02
		Be-7	<1.72E-01	0.00E+00	1.72E-01
		K-40	3.01E-01	2.02E-01	2.26E-01
570902	7/18/2022 - 7/25/2022	I-131	<2.77E-02	0.00E+00	2.77E-02
		Cs-134	<2.18E-02	0.00E+00	2.18E-02
		Cs-137	<1.45E-02	0.00E+00	1.45E-02
		Be-7	<1.74E-01	0.00E+00	1.74E-01
		K-40	5.65E-01	2.35E-01	6.38E-02
571148	7/25/2022 - 8/1/2022	I-131	<3.09E-02	0.00E+00	3.09E-02
		Cs-134	<2.06E-02	0.00E+00	2.06E-02
		Cs-137	<2.14E-02	0.00E+00	2.14E-02
		Be-7	<1.78E-01	0.00E+00	1.78E-01
		K-40	2.28E-01	2.51E-01	3.95E-01
571467	8/1/2022 - 8/8/2022	I-131	<2.71E-02	0.00E+00	2.71E-02
		Cs-134	<2.17E-02	0.00E+00	2.17E-02
		Cs-137	<2.19E-02	0.00E+00	2.19E-02
		Be-7	<1.37E-01	0.00E+00	1.37E-01
		K-40	<4.42E-01	0.00E+00	4.42E-01
571767	8/8/2022 - 8/15/2022	I-131	<3.28E-02	0.00E+00	3.28E-02
		Cs-134	<1.75E-02	0.00E+00	1.75E-02
		Cs-137	<1.95E-02	0.00E+00	1.95E-02
		Be-7	<1.41E-01	0.00E+00	1.41E-01
		K-40	5.60E-01	2.60E-01	2.43E-01
572759	8/15/2022 - 8/22/2022	I-131	<2.54E-02	0.00E+00	2.54E-02
		Cs-134	<2.73E-02	0.00E+00	2.73E-02
		Cs-137	<2.05E-02	0.00E+00	2.05E-02
		Be-7	<1.74E-01	0.00E+00	1.74E-01
		K-40	4.73E-01	2.15E-01	6.41E-02
573963	8/22/2022 - 8/29/2022	I-131	<2.45E-02	0.00E+00	2.45E-02
		Cs-134	<2.54E-02	0.00E+00	2.54E-02
		Cs-137	<2.04E-02	0.00E+00	2.04E-02
		Be-7	<1.57E-01	0.00E+00	1.57E-01
		K-40	4.45E-01	2.07E-01	6.35E-02
574578	8/29/2022 - 9/6/2022	I-131	<1.94E-02	0.00E+00	1.94E-02
		Cs-134	<2.04E-02	0.00E+00	2.04E-02
		Cs-137	<1.61E-02	0.00E+00	1.61E-02
		Be-7	<1.36E-01	0.00E+00	1.36E-01
		K-40	<4.64E-01	0.00E+00	4.64E-01

OCONEE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 085 [INDICATOR - NNW @ 0.88 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
575049	9/6/2022 - 9/12/2022	I-131	<2.66E-02	0.00E+00	2.66E-02
		Cs-134	<3.38E-02	0.00E+00	3.38E-02
		Cs-137	<2.33E-02	0.00E+00	2.33E-02
		Be-7	<2.03E-01	0.00E+00	2.03E-01
		K-40	5.34E-01	2.75E-01	2.60E-01
575751	9/12/2022 - 9/19/2022	I-131	<2.10E-02	0.00E+00	2.10E-02
		Cs-134	<3.37E-02	0.00E+00	3.37E-02
		Cs-137	<2.64E-02	0.00E+00	2.64E-02
		Be-7	<1.67E-01	0.00E+00	1.67E-01
		K-40	2.46E-01	2.58E-01	4.03E-01
576134	9/19/2022 - 9/26/2022	I-131	<2.52E-02	0.00E+00	2.52E-02
		Cs-134	<1.40E-02	0.00E+00	1.40E-02
		Cs-137	<2.47E-02	0.00E+00	2.47E-02
		Be-7	<1.91E-01	0.00E+00	1.91E-01
		K-40	6.52E-01	3.24E-01	3.88E-01
576305	9/26/2022 - 10/3/2022	I-131	<4.80E-02	0.00E+00	4.80E-02
		Cs-134	<2.80E-02	0.00E+00	2.80E-02
		Cs-137	<2.39E-02	0.00E+00	2.39E-02
		Be-7	<2.28E-01	0.00E+00	2.28E-01
		K-40	<5.89E-01	0.00E+00	5.89E-01
576607	10/3/2022 - 10/10/2022	I-131	<2.58E-02	0.00E+00	2.58E-02
		Cs-134	<3.16E-02	0.00E+00	3.16E-02
		Cs-137	<1.97E-02	0.00E+00	1.97E-02
		Be-7	<1.30E-01	0.00E+00	1.30E-01
		K-40	5.66E-01	2.61E-01	2.39E-01
577218	10/10/2022 - 10/17/2022	I-131	<2.57E-02	0.00E+00	2.57E-02
		Cs-134	<2.24E-02	0.00E+00	2.24E-02
		Cs-137	<1.94E-02	0.00E+00	1.94E-02
		Be-7	<1.74E-01	0.00E+00	1.74E-01
		K-40	3.38E-01	2.17E-01	2.56E-01
577808	10/17/2022 - 10/24/2022	I-131	<2.46E-02	0.00E+00	2.46E-02
		Cs-134	<2.25E-02	0.00E+00	2.25E-02
		Cs-137	<2.42E-02	0.00E+00	2.42E-02
		Be-7	<1.61E-01	0.00E+00	1.61E-01
		K-40	4.31E-01	2.06E-01	6.48E-02
578161	10/24/2022 - 10/31/2022	I-131	<2.79E-02	0.00E+00	2.79E-02
		Cs-134	<1.41E-02	0.00E+00	1.41E-02
		Cs-137	<2.16E-02	0.00E+00	2.16E-02
		Be-7	<1.55E-01	0.00E+00	1.55E-01
		K-40	<3.94E-01	0.00E+00	3.94E-01
578871	10/31/2022 - 11/7/2022	I-131	<2.90E-02	0.00E+00	2.90E-02
		Cs-134	<1.74E-02	0.00E+00	1.74E-02
		Cs-137	<2.43E-02	0.00E+00	2.43E-02
		Be-7	<1.29E-01	0.00E+00	1.29E-01
		K-40	3.94E-01	2.21E-01	2.29E-01
579070	11/7/2022 - 11/14/2022	I-131	<2.65E-02	0.00E+00	2.65E-02
		Cs-134	<2.26E-02	0.00E+00	2.26E-02
		Cs-137	<2.58E-02	0.00E+00	2.58E-02
		Be-7	<1.73E-01	0.00E+00	1.73E-01
		K-40	5.53E-01	2.57E-01	2.28E-01

OCONEE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 085 [INDICATOR - NNW @ 0.88 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
579835	11/14/2022 - 11/21/2022	I-131	<2.23E-02	0.00E+00	2.23E-02
		Cs-134	<1.77E-02	0.00E+00	1.77E-02
		Cs-137	<2.15E-02	0.00E+00	2.15E-02
		Be-7	<1.54E-01	0.00E+00	1.54E-01
		K-40	4.21E-01	2.07E-01	6.70E-02
580643	11/21/2022 - 11/28/2022	I-131	<2.98E-02	0.00E+00	2.98E-02
		Cs-134	<1.74E-02	0.00E+00	1.74E-02
		Cs-137	<2.28E-02	0.00E+00	2.28E-02
		Be-7	<1.01E-01	0.00E+00	1.01E-01
		K-40	2.70E-01	2.06E-01	2.75E-01
580856	11/28/2022 - 12/5/2022	I-131	<2.83E-02	0.00E+00	2.83E-02
		Cs-134	<2.47E-02	0.00E+00	2.47E-02
		Cs-137	<1.51E-02	0.00E+00	1.51E-02
		Be-7	<1.96E-01	0.00E+00	1.96E-01
		K-40	<5.68E-01	0.00E+00	5.68E-01
581175	12/5/2022 - 12/12/2022	I-131	<2.88E-02	0.00E+00	2.88E-02
		Cs-134	<3.03E-02	0.00E+00	3.03E-02
		Cs-137	<2.16E-02	0.00E+00	2.16E-02
		Be-7	<1.44E-01	0.00E+00	1.44E-01
		K-40	6.66E-01	2.62E-01	6.68E-02
581748	12/12/2022 - 12/19/2022	I-131	<2.72E-02	0.00E+00	2.72E-02
		Cs-134	<2.66E-02	0.00E+00	2.66E-02
		Cs-137	<2.44E-02	0.00E+00	2.44E-02
		Be-7	<1.30E-01	0.00E+00	1.30E-01
		K-40	<5.68E-01	0.00E+00	5.68E-01
582276	12/19/2022 - 12/27/2022	I-131	<2.20E-02	0.00E+00	2.20E-02
		Cs-134	<1.23E-02	0.00E+00	1.23E-02
		Cs-137	<2.02E-02	0.00E+00	2.02E-02
		Be-7	<1.46E-01	0.00E+00	1.46E-01
		K-40	<3.92E-01	0.00E+00	3.92E-01
582464	12/27/2022 - 1/3/2023	I-131	<2.53E-02	0.00E+00	2.53E-02
		Cs-134	<2.32E-02	0.00E+00	2.32E-02
		Cs-137	<2.18E-02	0.00E+00	2.18E-02
		Be-7	<2.08E-01	0.00E+00	2.08E-01
		K-40	<4.18E-01	0.00E+00	4.18E-01
Sample Point 093 [CONTROL - SE @ 9.34 miles]					
558865	1/4/2022 - 1/10/2022	I-131	<3.39E-02	0.00E+00	3.39E-02
		Cs-134	<2.94E-02	0.00E+00	2.94E-02
		Cs-137	<2.32E-02	0.00E+00	2.32E-02
		Be-7	<1.80E-01	0.00E+00	1.80E-01
		K-40	<5.28E-01	0.00E+00	5.28E-01
559098	1/10/2022 - 1/18/2022	I-131	<2.31E-02	0.00E+00	2.31E-02
		Cs-134	<2.15E-02	0.00E+00	2.15E-02
		Cs-137	<1.31E-02	0.00E+00	1.31E-02
		Be-7	<1.66E-01	0.00E+00	1.66E-01
		K-40	<4.26E-01	0.00E+00	4.26E-01
559497	1/18/2022 - 1/24/2022	I-131	<4.00E-02	0.00E+00	4.00E-02
		Cs-134	<3.42E-02	0.00E+00	3.42E-02
		Cs-137	<3.66E-02	0.00E+00	3.66E-02
		Be-7	<1.68E-01	0.00E+00	1.68E-01
		K-40	<6.45E-01	0.00E+00	6.45E-01

OCONEE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 093 [CONTROL - SE @ 9.34 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
560092	1/24/2022 - 1/31/2022	I-131	<2.58E-02	0.00E+00	2.58E-02
		Cs-134	<2.31E-02	0.00E+00	2.31E-02
		Cs-137	<1.79E-02	0.00E+00	1.79E-02
		Be-7	<1.34E-01	0.00E+00	1.34E-01
		K-40	<4.35E-01	0.00E+00	4.35E-01
560309	1/31/2022 - 2/7/2022	I-131	<2.36E-02	0.00E+00	2.36E-02
		Cs-134	<2.27E-02	0.00E+00	2.27E-02
		Cs-137	<2.14E-02	0.00E+00	2.14E-02
		Be-7	<1.53E-01	0.00E+00	1.53E-01
		K-40	<4.72E-01	0.00E+00	4.72E-01
560554	2/7/2022 - 2/14/2022	I-131	<2.17E-02	0.00E+00	2.17E-02
		Cs-134	<1.80E-02	0.00E+00	1.80E-02
		Cs-137	<1.23E-02	0.00E+00	1.23E-02
		Be-7	<1.21E-01	0.00E+00	1.21E-01
		K-40	<4.20E-01	0.00E+00	4.20E-01
560864	2/14/2022 - 2/21/2022	I-131	<2.48E-02	0.00E+00	2.48E-02
		Cs-134	<1.75E-02	0.00E+00	1.75E-02
		Cs-137	<1.51E-02	0.00E+00	1.51E-02
		Be-7	<1.30E-01	0.00E+00	1.30E-01
		K-40	3.85E-01	1.95E-01	6.53E-02
561195	2/21/2022 - 2/28/2022	I-131	<2.58E-02	0.00E+00	2.58E-02
		Cs-134	<1.74E-02	0.00E+00	1.74E-02
		Cs-137	<2.69E-02	0.00E+00	2.69E-02
		Be-7	<1.28E-01	0.00E+00	1.28E-01
		K-40	4.94E-01	2.63E-01	2.99E-01
561694	2/28/2022 - 3/7/2022	I-131	<3.61E-02	0.00E+00	3.61E-02
		Cs-134	<3.41E-02	0.00E+00	3.41E-02
		Cs-137	<3.32E-02	0.00E+00	3.32E-02
		Be-7	<2.04E-01	0.00E+00	2.04E-01
		K-40	4.60E-01	3.14E-01	4.34E-01
562296	3/7/2022 - 3/14/2022	I-131	<2.59E-02	0.00E+00	2.59E-02
		Cs-134	<2.32E-02	0.00E+00	2.32E-02
		Cs-137	<1.23E-02	0.00E+00	1.23E-02
		Be-7	<1.58E-01	0.00E+00	1.58E-01
		K-40	<4.88E-01	0.00E+00	4.88E-01
562903	3/14/2022 - 3/21/2022	I-131	<2.35E-02	0.00E+00	2.35E-02
		Cs-134	<1.82E-02	0.00E+00	1.82E-02
		Cs-137	<2.21E-02	0.00E+00	2.21E-02
		Be-7	<1.79E-01	0.00E+00	1.79E-01
		K-40	<4.60E-01	0.00E+00	4.60E-01
563489	3/21/2022 - 3/28/2022	I-131	<2.73E-02	0.00E+00	2.73E-02
		Cs-134	<5.09E-03	0.00E+00	5.09E-03
		Cs-137	<2.57E-02	0.00E+00	2.57E-02
		Be-7	<1.29E-01	0.00E+00	1.29E-01
		K-40	5.28E-01	3.20E-01	4.33E-01
563822	3/28/2022 - 4/4/2022	I-131	<2.72E-02	0.00E+00	2.72E-02
		Cs-134	<2.26E-02	0.00E+00	2.26E-02
		Cs-137	<1.95E-02	0.00E+00	1.95E-02
		Be-7	<1.88E-01	0.00E+00	1.88E-01
		K-40	6.02E-01	2.45E-01	6.52E-02

OCONEE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 093 [CONTROL - SE @ 9.34 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
564072	4/4/2022 - 4/11/2022	I-131	<2.33E-02	0.00E+00	2.33E-02
		Cs-134	<2.88E-02	0.00E+00	2.88E-02
		Cs-137	<2.31E-02	0.00E+00	2.31E-02
		Be-7	<1.79E-01	0.00E+00	1.79E-01
		K-40	4.47E-01	2.70E-01	3.34E-01
564593	4/11/2022 - 4/18/2022	I-131	<3.06E-02	0.00E+00	3.06E-02
		Cs-134	<2.88E-02	0.00E+00	2.88E-02
		Cs-137	<2.62E-02	0.00E+00	2.62E-02
		Be-7	<1.92E-01	0.00E+00	1.92E-01
		K-40	8.94E-01	3.29E-01	2.65E-01
564855	4/18/2022 - 4/25/2022	I-131	<3.39E-02	0.00E+00	3.39E-02
		Cs-134	<2.08E-02	0.00E+00	2.08E-02
		Cs-137	<3.10E-02	0.00E+00	3.10E-02
		Be-7	<2.10E-01	0.00E+00	2.10E-01
		K-40	<6.29E-01	0.00E+00	6.29E-01
565346	4/25/2022 - 5/2/2022	I-131	<3.21E-02	0.00E+00	3.21E-02
		Cs-134	<3.20E-02	0.00E+00	3.20E-02
		Cs-137	<2.60E-02	0.00E+00	2.60E-02
		Be-7	<1.62E-01	0.00E+00	1.62E-01
		K-40	5.00E-01	3.03E-01	3.94E-01
566012	5/2/2022 - 5/9/2022	I-131	<3.44E-02	0.00E+00	3.44E-02
		Cs-134	<2.37E-02	0.00E+00	2.37E-02
		Cs-137	<1.87E-02	0.00E+00	1.87E-02
		Be-7	<1.65E-01	0.00E+00	1.65E-01
		K-40	4.68E-01	2.45E-01	2.61E-01
566610	5/9/2022 - 5/16/2022	I-131	<2.60E-02	0.00E+00	2.60E-02
		Cs-134	<2.71E-02	0.00E+00	2.71E-02
		Cs-137	<2.86E-02	0.00E+00	2.86E-02
		Be-7	<1.71E-01	0.00E+00	1.71E-01
		K-40	7.14E-01	3.12E-01	3.09E-01
566991	5/16/2022 - 5/23/2022	I-131	<3.25E-02	0.00E+00	3.25E-02
		Cs-134	<2.75E-02	0.00E+00	2.75E-02
		Cs-137	<2.18E-02	0.00E+00	2.18E-02
		Be-7	<2.12E-01	0.00E+00	2.12E-01
		K-40	<6.85E-01	0.00E+00	6.85E-01
567181	5/23/2022 - 5/31/2022	I-131	<2.94E-02	0.00E+00	2.94E-02
		Cs-134	<2.65E-02	0.00E+00	2.65E-02
		Cs-137	<2.14E-02	0.00E+00	2.14E-02
		Be-7	<1.64E-01	0.00E+00	1.64E-01
		K-40	2.92E-01	2.53E-01	3.80E-01
567619	5/31/2022 - 6/6/2022	I-131	<2.90E-02	0.00E+00	2.90E-02
		Cs-134	<2.97E-02	0.00E+00	2.97E-02
		Cs-137	<1.95E-02	0.00E+00	1.95E-02
		Be-7	<1.83E-01	0.00E+00	1.83E-01
		K-40	6.85E-01	2.79E-01	7.43E-02
567787	6/6/2022 - 6/13/2022	I-131	<2.65E-02	0.00E+00	2.65E-02
		Cs-134	<2.43E-02	0.00E+00	2.43E-02
		Cs-137	<1.92E-02	0.00E+00	1.92E-02
		Be-7	<1.62E-01	0.00E+00	1.62E-01
		K-40	7.52E-01	2.77E-01	6.57E-02

OCONEE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 093 [CONTROL - SE @ 9.34 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
568433	6/13/2022 - 6/20/2022	I-131	<3.23E-02	0.00E+00	3.23E-02
		Cs-134	<2.08E-02	0.00E+00	2.08E-02
		Cs-137	<2.74E-02	0.00E+00	2.74E-02
		Be-7	<1.52E-01	0.00E+00	1.52E-01
		K-40	<5.61E-01	0.00E+00	5.61E-01
568662	6/20/2022 - 6/27/2022	I-131	<2.83E-02	0.00E+00	2.83E-02
		Cs-134	<2.65E-02	0.00E+00	2.65E-02
		Cs-137	<2.29E-02	0.00E+00	2.29E-02
		Be-7	<1.95E-01	0.00E+00	1.95E-01
		K-40	4.77E-01	2.32E-01	1.98E-01
568878	6/27/2022 - 7/5/2022	I-131	<2.51E-02	0.00E+00	2.51E-02
		Cs-134	<1.88E-02	0.00E+00	1.88E-02
		Cs-137	<2.12E-02	0.00E+00	2.12E-02
		Be-7	<1.31E-01	0.00E+00	1.31E-01
		K-40	<5.60E-01	0.00E+00	5.60E-01
569136	7/5/2022 - 7/11/2022	I-131	<3.69E-02	0.00E+00	3.69E-02
		Cs-134	<2.64E-02	0.00E+00	2.64E-02
		Cs-137	<1.76E-02	0.00E+00	1.76E-02
		Be-7	<2.22E-01	0.00E+00	2.22E-01
		K-40	<7.65E-01	0.00E+00	7.65E-01
570349	7/11/2022 - 7/18/2022	I-131	<3.34E-02	0.00E+00	3.34E-02
		Cs-134	<2.89E-02	0.00E+00	2.89E-02
		Cs-137	<3.01E-02	0.00E+00	3.01E-02
		Be-7	<1.56E-01	0.00E+00	1.56E-01
		K-40	8.71E-01	3.03E-01	6.75E-02
570903	7/18/2022 - 7/25/2022	I-131	<2.56E-02	0.00E+00	2.56E-02
		Cs-134	<2.06E-02	0.00E+00	2.06E-02
		Cs-137	<1.78E-02	0.00E+00	1.78E-02
		Be-7	<1.84E-01	0.00E+00	1.84E-01
		K-40	<5.01E-01	0.00E+00	5.01E-01
571149	7/25/2022 - 8/1/2022	I-131	<2.18E-02	0.00E+00	2.18E-02
		Cs-134	<1.95E-02	0.00E+00	1.95E-02
		Cs-137	<1.45E-02	0.00E+00	1.45E-02
		Be-7	<1.90E-01	0.00E+00	1.90E-01
		K-40	2.20E-01	1.89E-01	2.64E-01
571468	8/1/2022 - 8/8/2022	I-131	<2.73E-02	0.00E+00	2.73E-02
		Cs-134	<2.29E-02	0.00E+00	2.29E-02
		Cs-137	<1.77E-02	0.00E+00	1.77E-02
		Be-7	<1.56E-01	0.00E+00	1.56E-01
		K-40	<4.31E-01	0.00E+00	4.31E-01
571768	8/8/2022 - 8/15/2022	I-131	<3.62E-02	0.00E+00	3.62E-02
		Cs-134	<2.52E-02	0.00E+00	2.52E-02
		Cs-137	<2.17E-02	0.00E+00	2.17E-02
		Be-7	<1.33E-01	0.00E+00	1.33E-01
		K-40	6.70E-01	2.63E-01	6.73E-02
572760	8/15/2022 - 8/22/2022	I-131	<2.42E-02	0.00E+00	2.42E-02
		Cs-134	<2.31E-02	0.00E+00	2.31E-02
		Cs-137	<1.99E-02	0.00E+00	1.99E-02
		Be-7	<1.56E-01	0.00E+00	1.56E-01
		K-40	<5.18E-01	0.00E+00	5.18E-01

OCONEE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 093 [CONTROL - SE @ 9.34 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
573964	8/22/2022 - 8/29/2022	I-131	<2.73E-02	0.00E+00	2.73E-02
		Cs-134	<3.02E-02	0.00E+00	3.02E-02
		Cs-137	<2.31E-02	0.00E+00	2.31E-02
		Be-7	<1.66E-01	0.00E+00	1.66E-01
		K-40	6.42E-01	2.57E-01	6.69E-02
574579	8/29/2022 - 9/6/2022	I-131	<2.42E-02	0.00E+00	2.42E-02
		Cs-134	<1.68E-02	0.00E+00	1.68E-02
		Cs-137	<1.77E-02	0.00E+00	1.77E-02
		Be-7	<1.09E-01	0.00E+00	1.09E-01
		K-40	3.99E-01	1.98E-01	1.79E-01
575050	9/6/2022 - 9/12/2022	I-131	<2.24E-02	0.00E+00	2.24E-02
		Cs-134	<3.13E-02	0.00E+00	3.13E-02
		Cs-137	<2.69E-02	0.00E+00	2.69E-02
		Be-7	<1.76E-01	0.00E+00	1.76E-01
		K-40	5.97E-01	3.35E-01	4.01E-01
575752	9/12/2022 - 9/19/2022	I-131	<2.71E-02	0.00E+00	2.71E-02
		Cs-134	<2.03E-02	0.00E+00	2.03E-02
		Cs-137	<1.95E-02	0.00E+00	1.95E-02
		Be-7	<1.41E-01	0.00E+00	1.41E-01
		K-40	5.21E-01	2.96E-01	3.78E-01
576135	9/19/2022 - 9/26/2022	I-131	<3.01E-02	0.00E+00	3.01E-02
		Cs-134	<2.48E-02	0.00E+00	2.48E-02
		Cs-137	<2.14E-02	0.00E+00	2.14E-02
		Be-7	<1.73E-01	0.00E+00	1.73E-01
		K-40	7.81E-01	2.83E-01	6.61E-02
576306	9/26/2022 - 10/3/2022	I-131	<3.13E-02	0.00E+00	3.13E-02
		Cs-134	<2.44E-02	0.00E+00	2.44E-02
		Cs-137	<1.73E-02	0.00E+00	1.73E-02
		Be-7	<2.12E-01	0.00E+00	2.12E-01
		K-40	5.31E-01	2.58E-01	2.58E-01
576608	10/3/2022 - 10/10/2022	I-131	<2.74E-02	0.00E+00	2.74E-02
		Cs-134	<2.44E-02	0.00E+00	2.44E-02
		Cs-137	<2.29E-02	0.00E+00	2.29E-02
		Be-7	<1.73E-01	0.00E+00	1.73E-01
		K-40	<3.13E-01	0.00E+00	3.13E-01
577219	10/10/2022 - 10/17/2022	I-131	<3.20E-02	0.00E+00	3.20E-02
		Cs-134	<2.86E-02	0.00E+00	2.86E-02
		Cs-137	<2.19E-02	0.00E+00	2.19E-02
		Be-7	<1.48E-01	0.00E+00	1.48E-01
		K-40	4.18E-01	2.37E-01	2.71E-01
577809	10/17/2022 - 10/24/2022	I-131	<2.47E-02	0.00E+00	2.47E-02
		Cs-134	<1.48E-02	0.00E+00	1.48E-02
		Cs-137	<2.07E-02	0.00E+00	2.07E-02
		Be-7	<1.71E-01	0.00E+00	1.71E-01
		K-40	4.87E-01	2.27E-01	6.95E-02
578162	10/24/2022 - 10/31/2022	I-131	<2.21E-02	0.00E+00	2.21E-02
		Cs-134	<2.02E-02	0.00E+00	2.02E-02
		Cs-137	<2.43E-02	0.00E+00	2.43E-02
		Be-7	<1.62E-01	0.00E+00	1.62E-01
		K-40	<4.98E-01	0.00E+00	4.98E-01

OCONEE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 093 [CONTROL - SE @ 9.34 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
578872	10/31/2022 - 11/7/2022	I-131	<2.47E-02	0.00E+00	2.47E-02
		Cs-134	<2.65E-02	0.00E+00	2.65E-02
		Cs-137	<2.28E-02	0.00E+00	2.28E-02
		Be-7	<1.72E-01	0.00E+00	1.72E-01
		K-40	4.51E-01	2.42E-01	2.42E-01
579071	11/7/2022 - 11/14/2022	I-131	<2.15E-02	0.00E+00	2.15E-02
		Cs-134	<1.68E-02	0.00E+00	1.68E-02
		Cs-137	<1.68E-02	0.00E+00	1.68E-02
		Be-7	<1.74E-01	0.00E+00	1.74E-01
		K-40	5.28E-01	2.47E-01	2.25E-01
579836	11/14/2022 - 11/21/2022	I-131	<2.85E-02	0.00E+00	2.85E-02
		Cs-134	<2.49E-02	0.00E+00	2.49E-02
		Cs-137	<2.46E-02	0.00E+00	2.46E-02
		Be-7	<1.53E-01	0.00E+00	1.53E-01
		K-40	<5.60E-01	0.00E+00	5.60E-01
580644	11/21/2022 - 11/28/2022	I-131	<1.68E-02	0.00E+00	1.68E-02
		Cs-134	<1.47E-02	0.00E+00	1.47E-02
		Cs-137	<2.73E-02	0.00E+00	2.73E-02
		Be-7	<1.62E-01	0.00E+00	1.62E-01
		K-40	3.28E-01	2.03E-01	2.08E-01
580857	11/28/2022 - 12/5/2022	I-131	<1.74E-02	0.00E+00	1.74E-02
		Cs-134	<3.01E-02	0.00E+00	3.01E-02
		Cs-137	<1.52E-02	0.00E+00	1.52E-02
		Be-7	<1.32E-01	0.00E+00	1.32E-01
		K-40	5.08E-01	2.71E-01	3.10E-01
581176	12/5/2022 - 12/12/2022	I-131	<4.27E-02	0.00E+00	4.27E-02
		Cs-134	<2.84E-02	0.00E+00	2.84E-02
		Cs-137	<2.43E-02	0.00E+00	2.43E-02
		Be-7	<1.98E-01	0.00E+00	1.98E-01
		K-40	1.93E-01	2.92E-01	4.90E-01
581749	12/12/2022 - 12/19/2022	I-131	<2.86E-02	0.00E+00	2.86E-02
		Cs-134	<2.82E-02	0.00E+00	2.82E-02
		Cs-137	<1.60E-02	0.00E+00	1.60E-02
		Be-7	<2.06E-01	0.00E+00	2.06E-01
		K-40	<3.62E-01	0.00E+00	3.62E-01
582277	12/19/2022 - 12/27/2022	I-131	<2.78E-02	0.00E+00	2.78E-02
		Cs-134	<1.76E-02	0.00E+00	1.76E-02
		Cs-137	<1.99E-02	0.00E+00	1.99E-02
		Be-7	<1.35E-01	0.00E+00	1.35E-01
		K-40	5.58E-01	2.55E-01	2.67E-01
582465	12/27/2022 - 1/3/2023	I-131	<3.24E-02	0.00E+00	3.24E-02
		Cs-134	<2.04E-02	0.00E+00	2.04E-02
		Cs-137	<2.30E-02	0.00E+00	2.30E-02
		Be-7	<1.01E-01	0.00E+00	1.01E-01
		K-40	4.60E-01	2.14E-01	6.56E-02

Media Type: DRINKING WATER Concentration (Activity): pCi/l

Sample Point 060 [INDICATOR - NE @ 3.23 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
559500	12/27/2021 - 1/24/2022	Beta	<3.25E+00	0.00E+00	3.25E+00
		Mn-54	<2.31E+00	0.00E+00	2.31E+00
		Co-58	<2.55E+00	0.00E+00	2.55E+00

OCONEE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: DRINKING WATER Concentration (Activity): pCi/l

Sample Point 060 [INDICATOR - NE @ 3.23 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA		
559500	12/27/2021 - 1/24/2022	Fe-59	<5.20E+00	0.00E+00	5.20E+00		
		Co-60	<2.17E+00	0.00E+00	2.17E+00		
		Zn-65	<4.53E+00	0.00E+00	4.53E+00		
		Zr-95	<4.64E+00	0.00E+00	4.64E+00		
		Nb-95	<3.31E+00	0.00E+00	3.31E+00		
		I-131	<1.12E+01	0.00E+00	1.12E+01		
		Cs-134	<2.67E+00	0.00E+00	2.67E+00		
		Cs-137	<2.58E+00	0.00E+00	2.58E+00		
		BaLa-140	<6.41E+00	0.00E+00	6.41E+00		
		Be-7	<2.64E+01	0.00E+00	2.64E+01		
		K-40	7.27E+01	2.38E+01	3.06E+01		
		560951	1/24/2022 - 2/21/2022	Beta	<3.22E+00	0.00E+00	3.22E+00
				Mn-54	<2.69E+00	0.00E+00	2.69E+00
Co-58	<2.70E+00			0.00E+00	2.70E+00		
Fe-59	<5.33E+00			0.00E+00	5.33E+00		
Co-60	<2.41E+00			0.00E+00	2.41E+00		
Zn-65	<5.08E+00			0.00E+00	5.08E+00		
Zr-95	<3.99E+00			0.00E+00	3.99E+00		
Nb-95	<3.46E+00			0.00E+00	3.46E+00		
I-131	<1.05E+01			0.00E+00	1.05E+01		
Cs-134	<2.86E+00			0.00E+00	2.86E+00		
Cs-137	<3.11E+00			0.00E+00	3.11E+00		
BaLa-140	<6.73E+00			0.00E+00	6.73E+00		
Be-7	<2.83E+01			0.00E+00	2.83E+01		
K-40	8.87E+01	2.90E+01	3.50E+01				
563146	2/21/2022 - 3/21/2022	Beta	<3.28E+00	0.00E+00	3.28E+00		
		Mn-54	<5.24E+00	0.00E+00	5.24E+00		
		Co-58	<4.46E+00	0.00E+00	4.46E+00		
		Fe-59	<8.73E+00	0.00E+00	8.73E+00		
		Co-60	<5.32E+00	0.00E+00	5.32E+00		
		Zn-65	<8.73E+00	0.00E+00	8.73E+00		
		Zr-95	<9.72E+00	0.00E+00	9.72E+00		
		Nb-95	<4.75E+00	0.00E+00	4.75E+00		
		I-131	<1.15E+01	0.00E+00	1.15E+01		
		Cs-134	<4.45E+00	0.00E+00	4.45E+00		
		Cs-137	<3.46E+00	0.00E+00	3.46E+00		
		BaLa-140	<1.01E+01	0.00E+00	1.01E+01		
		Be-7	<4.34E+01	0.00E+00	4.34E+01		
K-40	<6.02E+01	0.00E+00	6.02E+01				
564485	12/27/2021 - 4/18/2022	Nuclide	Activity	2 Sigma Error	MDA		
		H3DW	<5.33E+01	0.00E+00	1.72E+02		
564657	3/21/2022 - 4/18/2022	Beta	<3.23E+00	0.00E+00	3.23E+00		
		Mn-54	<2.64E+00	0.00E+00	2.64E+00		
		Co-58	<3.55E+00	0.00E+00	3.55E+00		
		Fe-59	<7.69E+00	0.00E+00	7.69E+00		
		Co-60	<3.55E+00	0.00E+00	3.55E+00		
		Zn-65	<5.03E+00	0.00E+00	5.03E+00		
		Zr-95	<5.04E+00	0.00E+00	5.04E+00		
		Nb-95	<4.49E+00	0.00E+00	4.49E+00		
		I-131	<1.19E+01	0.00E+00	1.19E+01		
		Cs-134	<3.38E+00	0.00E+00	3.38E+00		
		Cs-137	<3.28E+00	0.00E+00	3.28E+00		
		BaLa-140	<7.69E+00	0.00E+00	7.69E+00		
		Be-7	<2.44E+01	0.00E+00	2.44E+01		
K-40	4.07E+01	2.85E+01	4.21E+01				
566738	4/18/2022 - 5/16/2022	Nuclide	Activity	2 Sigma Error	MDA		
		Beta	5.06E+00	4.37E+00	3.25E+00		
		Mn-54	<3.25E+00	0.00E+00	3.25E+00		
		Co-58	<2.50E+00	0.00E+00	2.50E+00		
		Fe-59	<6.52E+00	0.00E+00	6.52E+00		

OCONEE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: DRINKING WATER Concentration (Activity): pCi/l

Sample Point 060 [INDICATOR - NE @ 3.23 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
566738	4/18/2022 - 5/16/2022	Co-60	<2.48E+00	0.00E+00	2.48E+00
		Zn-65	<7.43E+00	0.00E+00	7.43E+00
		Zr-95	<6.42E+00	0.00E+00	6.42E+00
		Nb-95	<3.56E+00	0.00E+00	3.56E+00
		I-131	<1.19E+01	0.00E+00	1.19E+01
		Cs-134	<2.49E+00	0.00E+00	2.49E+00
		Cs-137	<2.07E+00	0.00E+00	2.07E+00
		BaLa-140	<7.47E+00	0.00E+00	7.47E+00
		Be-7	<2.97E+01	0.00E+00	2.97E+01
		K-40	9.41E+01	3.53E+01	4.14E+01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
568179	5/16/2022 - 6/13/2022	Beta	<3.21E+00	0.00E+00	3.21E+00
		Mn-54	<2.88E+00	0.00E+00	2.88E+00
		Co-58	<2.63E+00	0.00E+00	2.63E+00
		Fe-59	<6.28E+00	0.00E+00	6.28E+00
		Co-60	<2.98E+00	0.00E+00	2.98E+00
		Zn-65	<5.26E+00	0.00E+00	5.26E+00
		Zr-95	<5.81E+00	0.00E+00	5.81E+00
		Nb-95	<3.05E+00	0.00E+00	3.05E+00
		I-131	<1.17E+01	0.00E+00	1.17E+01
		Cs-134	<2.70E+00	0.00E+00	2.70E+00
		Cs-137	<2.63E+00	0.00E+00	2.63E+00
		BaLa-140	<6.66E+00	0.00E+00	6.66E+00
		Be-7	<2.45E+01	0.00E+00	2.45E+01
		K-40	5.82E+01	2.81E+01	3.72E+01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
570006	6/13/2022 - 7/11/2022	Beta	<3.19E+00	0.00E+00	3.19E+00
		Mn-54	<4.70E+00	0.00E+00	4.70E+00
		Co-58	<4.57E+00	0.00E+00	4.57E+00
		Fe-59	<7.03E+00	0.00E+00	7.03E+00
		Co-60	<4.96E+00	0.00E+00	4.96E+00
		Zn-65	<8.57E+00	0.00E+00	8.57E+00
		Zr-95	<7.73E+00	0.00E+00	7.73E+00
		Nb-95	<3.32E+00	0.00E+00	3.32E+00
		I-131	<1.20E+01	0.00E+00	1.20E+01
		Cs-134	<4.34E+00	0.00E+00	4.34E+00
		Cs-137	<4.35E+00	0.00E+00	4.35E+00
		BaLa-140	<9.94E+00	0.00E+00	9.94E+00
		Be-7	<4.50E+01	0.00E+00	4.50E+01
		K-40	<9.24E+01	0.00E+00	9.24E+01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
570244	4/18/2022 - 7/11/2022	H3DW	<2.24E+00	0.00E+00	1.78E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
571543	7/11/2022 - 8/8/2022	Beta	<3.23E+00	0.00E+00	3.23E+00
		Mn-54	<3.56E+00	0.00E+00	3.56E+00
		Co-58	<2.44E+00	0.00E+00	2.44E+00
		Fe-59	<6.03E+00	0.00E+00	6.03E+00
		Co-60	<2.65E+00	0.00E+00	2.65E+00
		Zn-65	<5.34E+00	0.00E+00	5.34E+00
		Zr-95	<5.86E+00	0.00E+00	5.86E+00
		Nb-95	<3.17E+00	0.00E+00	3.17E+00
		I-131	<1.09E+01	0.00E+00	1.09E+01
		Cs-134	<3.13E+00	0.00E+00	3.13E+00
		Cs-137	<2.48E+00	0.00E+00	2.48E+00
		BaLa-140	<5.62E+00	0.00E+00	5.62E+00
		Be-7	<2.83E+01	0.00E+00	2.83E+01
		K-40	7.32E+01	3.07E+01	3.92E+01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
574672	8/8/2022 - 9/6/2022	Beta	<3.24E+00	0.00E+00	3.24E+00
		Mn-54	<3.04E+00	0.00E+00	3.04E+00
		Co-58	<2.78E+00	0.00E+00	2.78E+00
		Fe-59	<5.85E+00	0.00E+00	5.85E+00
		Co-60	<2.92E+00	0.00E+00	2.92E+00

OCONEE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: DRINKING WATER Concentration (Activity): pCi/l

Sample Point 060 [INDICATOR - NE @ 3.23 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA		
574672	8/8/2022 - 9/6/2022	Zn-65	<4.99E+00	0.00E+00	4.99E+00		
		Zr-95	<6.92E+00	0.00E+00	6.92E+00		
		Nb-95	<3.77E+00	0.00E+00	3.77E+00		
		I-131	<1.08E+01	0.00E+00	1.08E+01		
		Cs-134	<3.12E+00	0.00E+00	3.12E+00		
		Cs-137	<2.60E+00	0.00E+00	2.60E+00		
		BaLa-140	<5.37E+00	0.00E+00	5.37E+00		
		Be-7	<2.34E+01	0.00E+00	2.34E+01		
		K-40	6.90E+01	3.18E+01	4.30E+01		
		<hr/>					
		576387	9/6/2022 - 10/3/2022	Beta	<3.23E+00	0.00E+00	3.23E+00
Mn-54	<3.16E+00			0.00E+00	3.16E+00		
Co-58	<3.06E+00			0.00E+00	3.06E+00		
Fe-59	<4.89E+00			0.00E+00	4.89E+00		
Co-60	<3.11E+00			0.00E+00	3.11E+00		
Zn-65	<6.01E+00			0.00E+00	6.01E+00		
Zr-95	<4.66E+00			0.00E+00	4.66E+00		
Nb-95	<3.23E+00			0.00E+00	3.23E+00		
I-131	<1.11E+01			0.00E+00	1.11E+01		
Cs-134	<3.59E+00			0.00E+00	3.59E+00		
Cs-137	<3.92E+00			0.00E+00	3.92E+00		
BaLa-140	<7.03E+00			0.00E+00	7.03E+00		
Be-7	<2.56E+01			0.00E+00	2.56E+01		
K-40	6.52E+01			3.40E+01	4.69E+01		
<hr/>							
577117	7/11/2022 - 10/3/2022	Nuclide	Activity	2 Sigma Error	MDA		
		H3DW	<-1.0E+02	0.00E+00	1.97E+02		
<hr/>							
578736	10/3/2022 - 10/31/2022	Beta	<3.20E+00	0.00E+00	3.20E+00		
		Mn-54	<2.81E+00	0.00E+00	2.81E+00		
		Co-58	<3.65E+00	0.00E+00	3.65E+00		
		Fe-59	<7.92E+00	0.00E+00	7.92E+00		
		Co-60	<3.72E+00	0.00E+00	3.72E+00		
		Zn-65	<7.27E+00	0.00E+00	7.27E+00		
		Zr-95	<7.00E+00	0.00E+00	7.00E+00		
		Nb-95	<4.48E+00	0.00E+00	4.48E+00		
		I-131	<1.36E+01	0.00E+00	1.36E+01		
		Cs-134	<3.75E+00	0.00E+00	3.75E+00		
		Cs-137	<3.85E+00	0.00E+00	3.85E+00		
		BaLa-140	<7.87E+00	0.00E+00	7.87E+00		
		Be-7	<3.85E+01	0.00E+00	3.85E+01		
		K-40	1.12E+02	3.65E+01	2.73E+01		
<hr/>							
580726	10/31/2022 - 11/28/2022	Beta	<3.18E+00	0.00E+00	3.18E+00		
		Mn-54	<3.30E+00	0.00E+00	3.30E+00		
		Co-58	<4.02E+00	0.00E+00	4.02E+00		
		Fe-59	<6.57E+00	0.00E+00	6.57E+00		
		Co-60	<2.61E+00	0.00E+00	2.61E+00		
		Zn-65	<6.69E+00	0.00E+00	6.69E+00		
		Zr-95	<6.77E+00	0.00E+00	6.77E+00		
		Nb-95	<4.69E+00	0.00E+00	4.69E+00		
		I-131	<1.34E+01	0.00E+00	1.34E+01		
		Cs-134	<4.45E+00	0.00E+00	4.45E+00		
		Cs-137	<4.05E+00	0.00E+00	4.05E+00		
		BaLa-140	<6.93E+00	0.00E+00	6.93E+00		
		Be-7	<2.85E+01	0.00E+00	2.85E+01		
		K-40	8.52E+01	3.38E+01	3.74E+01		
<hr/>							
582323	11/28/2022 - 12/27/2022	Nuclide	Activity	2 Sigma Error	MDA		
		Beta	<3.20E+00	0.00E+00	3.20E+00		
		Mn-54	<1.78E+00	0.00E+00	1.78E+00		
		Co-58	<2.42E+00	0.00E+00	2.42E+00		
		Fe-59	<4.81E+00	0.00E+00	4.81E+00		
		Co-60	<1.64E+00	0.00E+00	1.64E+00		
		Zn-65	<4.51E+00	0.00E+00	4.51E+00		

OCONEE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: DRINKING WATER Concentration (Activity): pCi/l

Sample Point 060 [INDICATOR - NE @ 3.23 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
582323	11/28/2022 - 12/27/2022	Zr-95	<4.12E+00	0.00E+00	4.12E+00
		Nb-95	<2.90E+00	0.00E+00	2.90E+00
		I-131	<1.26E+01	0.00E+00	1.26E+01
		Cs-134	<2.56E+00	0.00E+00	2.56E+00
		Cs-137	<1.96E+00	0.00E+00	1.96E+00
		BaLa-140	<5.08E+00	0.00E+00	5.08E+00
		Be-7	<2.33E+01	0.00E+00	2.33E+01
		K-40	9.73E+01	2.42E+01	2.55E+01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
582921	10/3/2022 - 12/27/2022	H3DW	<2.09E+01	0.00E+00	1.82E+02

Sample Point 064 [CONTROL - SSW @ 6.67 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
559501	12/27/2021 - 1/24/2022	Beta	<3.25E+00	0.00E+00	3.25E+00
		Mn-54	<2.96E+00	0.00E+00	2.96E+00
		Co-58	<3.24E+00	0.00E+00	3.24E+00
		Fe-59	<5.93E+00	0.00E+00	5.93E+00
		Co-60	<3.31E+00	0.00E+00	3.31E+00
		Zn-65	<6.36E+00	0.00E+00	6.36E+00
		Zr-95	<5.43E+00	0.00E+00	5.43E+00
		Nb-95	<3.45E+00	0.00E+00	3.45E+00
		I-131	<1.17E+01	0.00E+00	1.17E+01
		Cs-134	<3.23E+00	0.00E+00	3.23E+00
		Cs-137	<2.86E+00	0.00E+00	2.86E+00
		BaLa-140	<6.90E+00	0.00E+00	6.90E+00
		Be-7	<2.71E+01	0.00E+00	2.71E+01
		K-40	1.40E+02	3.59E+01	3.51E+01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
560952	1/24/2022 - 2/21/2022	Beta	<3.22E+00	0.00E+00	3.22E+00
		Mn-54	<2.77E+00	0.00E+00	2.77E+00
		Co-58	<3.00E+00	0.00E+00	3.00E+00
		Fe-59	<6.22E+00	0.00E+00	6.22E+00
		Co-60	<2.58E+00	0.00E+00	2.58E+00
		Zn-65	<6.97E+00	0.00E+00	6.97E+00
		Zr-95	<5.17E+00	0.00E+00	5.17E+00
		Nb-95	<3.07E+00	0.00E+00	3.07E+00
		I-131	<1.09E+01	0.00E+00	1.09E+01
		Cs-134	<3.39E+00	0.00E+00	3.39E+00
		Cs-137	<2.90E+00	0.00E+00	2.90E+00
		BaLa-140	<6.32E+00	0.00E+00	6.32E+00
		Be-7	<2.53E+01	0.00E+00	2.53E+01
		K-40	8.64E+01	3.26E+01	3.87E+01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
563147	2/21/2022 - 3/21/2022	Beta	<3.28E+00	0.00E+00	3.28E+00
		Mn-54	<3.20E+00	0.00E+00	3.20E+00
		Co-58	<3.01E+00	0.00E+00	3.01E+00
		Fe-59	<7.11E+00	0.00E+00	7.11E+00
		Co-60	<3.17E+00	0.00E+00	3.17E+00
		Zn-65	<6.43E+00	0.00E+00	6.43E+00
		Zr-95	<6.55E+00	0.00E+00	6.55E+00
		Nb-95	<4.36E+00	0.00E+00	4.36E+00
		I-131	<1.19E+01	0.00E+00	1.19E+01
		Cs-134	<3.74E+00	0.00E+00	3.74E+00
		Cs-137	<3.51E+00	0.00E+00	3.51E+00
		BaLa-140	<8.59E+00	0.00E+00	8.59E+00
		Be-7	<2.95E+01	0.00E+00	2.95E+01
		K-40	9.64E+01	3.92E+01	5.28E+01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
564486	12/27/2021 - 4/18/2022	H3DW	<-1.1E+01	0.00E+00	1.71E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
564658	3/21/2022 - 4/18/2022	Beta	<3.23E+00	0.00E+00	3.23E+00
		Mn-54	<3.08E+00	0.00E+00	3.08E+00
		Co-58	<3.02E+00	0.00E+00	3.02E+00

OCONEE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: DRINKING WATER Concentration (Activity): pCi/l

Sample Point 064 [CONTROL - SSW @ 6.67 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA		
564658	3/21/2022 - 4/18/2022	Fe-59	<4.90E+00	0.00E+00	4.90E+00		
		Co-60	<3.30E+00	0.00E+00	3.30E+00		
		Zn-65	<6.87E+00	0.00E+00	6.87E+00		
		Zr-95	<5.95E+00	0.00E+00	5.95E+00		
		Nb-95	<3.95E+00	0.00E+00	3.95E+00		
		I-131	<1.14E+01	0.00E+00	1.14E+01		
		Cs-134	<3.01E+00	0.00E+00	3.01E+00		
		Cs-137	<2.86E+00	0.00E+00	2.86E+00		
		BaLa-140	<6.50E+00	0.00E+00	6.50E+00		
		Be-7	<2.39E+01	0.00E+00	2.39E+01		
		K-40	6.62E+01	3.29E+01	4.49E+01		
		566739	4/18/2022 - 5/16/2022	Beta	<3.25E+00	0.00E+00	3.25E+00
				Mn-54	<4.00E+00	0.00E+00	4.00E+00
Co-58	<3.98E+00			0.00E+00	3.98E+00		
Fe-59	<8.59E+00			0.00E+00	8.59E+00		
Co-60	<3.84E+00			0.00E+00	3.84E+00		
Zn-65	<6.60E+00			0.00E+00	6.60E+00		
Zr-95	<6.44E+00			0.00E+00	6.44E+00		
Nb-95	<5.02E+00			0.00E+00	5.02E+00		
I-131	<1.17E+01			0.00E+00	1.17E+01		
Cs-134	<3.62E+00			0.00E+00	3.62E+00		
Cs-137	<3.32E+00			0.00E+00	3.32E+00		
BaLa-140	<7.10E+00			0.00E+00	7.10E+00		
Be-7	<3.35E+01			0.00E+00	3.35E+01		
K-40	<5.75E+01	0.00E+00	5.75E+01				
568180	5/16/2022 - 6/13/2022	Beta	<3.21E+00	0.00E+00	3.21E+00		
		Mn-54	<2.70E+00	0.00E+00	2.70E+00		
		Co-58	<3.51E+00	0.00E+00	3.51E+00		
		Fe-59	<6.78E+00	0.00E+00	6.78E+00		
		Co-60	<2.31E+00	0.00E+00	2.31E+00		
		Zn-65	<6.29E+00	0.00E+00	6.29E+00		
		Zr-95	<7.00E+00	0.00E+00	7.00E+00		
		Nb-95	<4.77E+00	0.00E+00	4.77E+00		
		I-131	<1.19E+01	0.00E+00	1.19E+01		
		Cs-134	<4.12E+00	0.00E+00	4.12E+00		
		Cs-137	<3.25E+00	0.00E+00	3.25E+00		
		BaLa-140	<9.08E+00	0.00E+00	9.08E+00		
		Be-7	<3.29E+01	0.00E+00	3.29E+01		
K-40	8.53E+01	3.60E+01	4.36E+01				
570007	6/13/2022 - 7/11/2022	Beta	<3.19E+00	0.00E+00	3.19E+00		
		Mn-54	<2.55E+00	0.00E+00	2.55E+00		
		Co-58	<3.18E+00	0.00E+00	3.18E+00		
		Fe-59	<5.83E+00	0.00E+00	5.83E+00		
		Co-60	<2.48E+00	0.00E+00	2.48E+00		
		Zn-65	<5.78E+00	0.00E+00	5.78E+00		
		Zr-95	<5.17E+00	0.00E+00	5.17E+00		
		Nb-95	<3.66E+00	0.00E+00	3.66E+00		
		I-131	<1.10E+01	0.00E+00	1.10E+01		
		Cs-134	<2.76E+00	0.00E+00	2.76E+00		
		Cs-137	<3.04E+00	0.00E+00	3.04E+00		
		BaLa-140	<6.96E+00	0.00E+00	6.96E+00		
		Be-7	<2.51E+01	0.00E+00	2.51E+01		
K-40	5.58E+01	3.22E+01	4.70E+01				
570245	4/18/2022 - 7/11/2022	Nuclide	Activity	2 Sigma Error	MDA		
		H3DW	<-5.4E+01	0.00E+00	1.79E+02		
571544	7/11/2022 - 8/8/2022	Nuclide	Activity	2 Sigma Error	MDA		
		Beta	<3.23E+00	0.00E+00	3.23E+00		
		Mn-54	<3.25E+00	0.00E+00	3.25E+00		
		Co-58	<3.05E+00	0.00E+00	3.05E+00		
Fe-59	<9.15E+00	0.00E+00	9.15E+00				

OCONEE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: DRINKING WATER Concentration (Activity): pCi/l

Sample Point 064 [CONTROL - SSW @ 6.67 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
571544	7/11/2022 - 8/8/2022	Co-60	<2.92E+00	0.00E+00	2.92E+00
		Zn-65	<5.67E+00	0.00E+00	5.67E+00
		Zr-95	<5.98E+00	0.00E+00	5.98E+00
		Nb-95	<4.14E+00	0.00E+00	4.14E+00
		I-131	<1.19E+01	0.00E+00	1.19E+01
		Cs-134	<3.77E+00	0.00E+00	3.77E+00
		Cs-137	<2.65E+00	0.00E+00	2.65E+00
		BaLa-140	<6.19E+00	0.00E+00	6.19E+00
		Be-7	<3.05E+01	0.00E+00	3.05E+01
		K-40	4.41E+01	3.23E+01	4.85E+01
		574673	8/8/2022 - 9/6/2022	Beta	<3.24E+00
Mn-54	<2.95E+00			0.00E+00	2.95E+00
Co-58	<2.70E+00			0.00E+00	2.70E+00
Fe-59	<6.23E+00			0.00E+00	6.23E+00
Co-60	<2.42E+00			0.00E+00	2.42E+00
Zn-65	<4.76E+00			0.00E+00	4.76E+00
Zr-95	<6.84E+00			0.00E+00	6.84E+00
Nb-95	<3.90E+00			0.00E+00	3.90E+00
I-131	<1.08E+01			0.00E+00	1.08E+01
Cs-134	<2.86E+00			0.00E+00	2.86E+00
Cs-137	<2.71E+00			0.00E+00	2.71E+00
BaLa-140	<8.35E+00			0.00E+00	8.35E+00
Be-7	<2.80E+01			0.00E+00	2.80E+01
K-40	6.03E+01			3.24E+01	4.56E+01
576388	9/6/2022 - 10/3/2022	Beta	<3.23E+00	0.00E+00	3.23E+00
		Mn-54	<2.41E+00	0.00E+00	2.41E+00
		Co-58	<2.77E+00	0.00E+00	2.77E+00
		Fe-59	<4.66E+00	0.00E+00	4.66E+00
		Co-60	<3.02E+00	0.00E+00	3.02E+00
		Zn-65	<6.27E+00	0.00E+00	6.27E+00
		Zr-95	<4.78E+00	0.00E+00	4.78E+00
		Nb-95	<3.45E+00	0.00E+00	3.45E+00
		I-131	<1.18E+01	0.00E+00	1.18E+01
		Cs-134	<2.89E+00	0.00E+00	2.89E+00
		Cs-137	<2.33E+00	0.00E+00	2.33E+00
		BaLa-140	<8.12E+00	0.00E+00	8.12E+00
		Be-7	<2.26E+01	0.00E+00	2.26E+01
		K-40	7.53E+01	3.07E+01	3.88E+01
577118	7/11/2022 - 10/3/2022	H3DW	<-1.3E+02	0.00E+00	1.98E+02
578737	10/3/2022 - 10/31/2022	Beta	<3.20E+00	0.00E+00	3.20E+00
		Mn-54	<3.14E+00	0.00E+00	3.14E+00
		Co-58	<3.12E+00	0.00E+00	3.12E+00
		Fe-59	<5.91E+00	0.00E+00	5.91E+00
		Co-60	<2.29E+00	0.00E+00	2.29E+00
		Zn-65	<3.21E+00	0.00E+00	3.21E+00
		Zr-95	<6.26E+00	0.00E+00	6.26E+00
		Nb-95	<3.55E+00	0.00E+00	3.55E+00
		I-131	<1.35E+01	0.00E+00	1.35E+01
		Cs-134	<3.22E+00	0.00E+00	3.22E+00
		Cs-137	<2.82E+00	0.00E+00	2.82E+00
		BaLa-140	<7.26E+00	0.00E+00	7.26E+00
		Be-7	<2.73E+01	0.00E+00	2.73E+01
		K-40	8.71E+01	3.49E+01	4.50E+01
580727	10/31/2022 - 11/28/2022	Beta	<3.18E+00	0.00E+00	3.18E+00
		Mn-54	<2.74E+00	0.00E+00	2.74E+00
		Co-58	<3.41E+00	0.00E+00	3.41E+00
		Fe-59	<7.38E+00	0.00E+00	7.38E+00
		Co-60	<1.87E+00	0.00E+00	1.87E+00

OCONEE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: DRINKING WATER Concentration (Activity): pCi/l

Sample Point 064 [CONTROL - SSW @ 6.67 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
580727	10/31/2022 - 11/28/2022	Zn-65	<6.77E+00	0.00E+00	6.77E+00
		Zr-95	<5.25E+00	0.00E+00	5.25E+00
		Nb-95	<3.76E+00	0.00E+00	3.76E+00
		I-131	<1.32E+01	0.00E+00	1.32E+01
		Cs-134	<2.66E+00	0.00E+00	2.66E+00
		Cs-137	<2.44E+00	0.00E+00	2.44E+00
		BaLa-140	<7.22E+00	0.00E+00	7.22E+00
		Be-7	<3.19E+01	0.00E+00	3.19E+01
		K-40	<6.05E+01	0.00E+00	6.05E+01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
582324	11/28/2022 - 12/27/2022	Beta	<3.20E+00	0.00E+00	3.20E+00
		Mn-54	<1.75E+00	0.00E+00	1.75E+00
		Co-58	<2.13E+00	0.00E+00	2.13E+00
		Fe-59	<4.91E+00	0.00E+00	4.91E+00
		Co-60	<1.74E+00	0.00E+00	1.74E+00
		Zn-65	<4.08E+00	0.00E+00	4.08E+00
		Zr-95	<4.16E+00	0.00E+00	4.16E+00
		Nb-95	<3.72E+00	0.00E+00	3.72E+00
		I-131	<1.34E+01	0.00E+00	1.34E+01
		Cs-134	<2.27E+00	0.00E+00	2.27E+00
		Cs-137	<1.97E+00	0.00E+00	1.97E+00
		BaLa-140	<7.05E+00	0.00E+00	7.05E+00
		Be-7	<1.93E+01	0.00E+00	1.93E+01
		K-40	6.59E+01	2.24E+01	2.80E+01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
582922	10/3/2022 - 12/27/2022	H3DW	<-2.8E+01	0.00E+00	1.83E+02

Sample Point 066 [INDICATOR - SSE @ 18.9 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
559502	12/27/2021 - 1/24/2022	Beta	<3.25E+00	0.00E+00	3.25E+00
		Mn-54	<2.35E+00	0.00E+00	2.35E+00
		Co-58	<3.18E+00	0.00E+00	3.18E+00
		Fe-59	<6.34E+00	0.00E+00	6.34E+00
		Co-60	<3.37E+00	0.00E+00	3.37E+00
		Zn-65	<5.36E+00	0.00E+00	5.36E+00
		Zr-95	<5.97E+00	0.00E+00	5.97E+00
		Nb-95	<3.89E+00	0.00E+00	3.89E+00
		I-131	<1.19E+01	0.00E+00	1.19E+01
		Cs-134	<3.22E+00	0.00E+00	3.22E+00
		Cs-137	<3.04E+00	0.00E+00	3.04E+00
		BaLa-140	<7.51E+00	0.00E+00	7.51E+00
		Be-7	<2.77E+01	0.00E+00	2.77E+01
		K-40	1.10E+02	3.31E+01	3.85E+01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
560953	1/24/2022 - 2/21/2022	Beta	<3.22E+00	0.00E+00	3.22E+00
		Mn-54	<3.39E+00	0.00E+00	3.39E+00
		Co-58	<3.26E+00	0.00E+00	3.26E+00
		Fe-59	<7.44E+00	0.00E+00	7.44E+00
		Co-60	<2.71E+00	0.00E+00	2.71E+00
		Zn-65	<8.60E+00	0.00E+00	8.60E+00
		Zr-95	<6.26E+00	0.00E+00	6.26E+00
		Nb-95	<3.97E+00	0.00E+00	3.97E+00
		I-131	<1.12E+01	0.00E+00	1.12E+01
		Cs-134	<4.76E+00	0.00E+00	4.76E+00
		Cs-137	<2.96E+00	0.00E+00	2.96E+00
		BaLa-140	<8.27E+00	0.00E+00	8.27E+00
		Be-7	<2.83E+01	0.00E+00	2.83E+01
		K-40	6.86E+01	3.95E+01	5.60E+01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
563148	2/21/2022 - 3/21/2022	Beta	<3.28E+00	0.00E+00	3.28E+00
		Mn-54	<3.50E+00	0.00E+00	3.50E+00
		Co-58	<3.22E+00	0.00E+00	3.22E+00
		Fe-59	<6.01E+00	0.00E+00	6.01E+00

OCONEE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: DRINKING WATER Concentration (Activity): pCi/l

Sample Point 066 [INDICATOR - SSE @ 18.9 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
563148	2/21/2022 - 3/21/2022	Co-60	<2.77E+00	0.00E+00	2.77E+00
		Zn-65	<6.01E+00	0.00E+00	6.01E+00
		Zr-95	<7.32E+00	0.00E+00	7.32E+00
		Nb-95	<3.80E+00	0.00E+00	3.80E+00
		I-131	<1.10E+01	0.00E+00	1.10E+01
		Cs-134	<3.76E+00	0.00E+00	3.76E+00
		Cs-137	<2.38E+00	0.00E+00	2.38E+00
		BaLa-140	<4.77E+00	0.00E+00	4.77E+00
		Be-7	<2.57E+01	0.00E+00	2.57E+01
		K-40	<4.87E+01	0.00E+00	4.87E+01
		564487	12/27/2021 - 4/18/2022	H3DW	3.52E+02
564659	3/21/2022 - 4/18/2022	Beta	<3.23E+00	0.00E+00	3.23E+00
		Mn-54	<2.77E+00	0.00E+00	2.77E+00
		Co-58	<2.97E+00	0.00E+00	2.97E+00
		Fe-59	<6.76E+00	0.00E+00	6.76E+00
		Co-60	<2.75E+00	0.00E+00	2.75E+00
		Zn-65	<6.01E+00	0.00E+00	6.01E+00
		Zr-95	<4.85E+00	0.00E+00	4.85E+00
		Nb-95	<3.72E+00	0.00E+00	3.72E+00
		I-131	<1.12E+01	0.00E+00	1.12E+01
		Cs-134	<3.07E+00	0.00E+00	3.07E+00
		Cs-137	<3.21E+00	0.00E+00	3.21E+00
		BaLa-140	<5.92E+00	0.00E+00	5.92E+00
		Be-7	<2.18E+01	0.00E+00	2.18E+01
		K-40	<4.23E+01	0.00E+00	4.23E+01
566740	4/18/2022 - 5/16/2022	Beta	3.86E+00	4.34E+00	3.25E+00
		Mn-54	<2.26E+00	0.00E+00	2.26E+00
		Co-58	<2.39E+00	0.00E+00	2.39E+00
		Fe-59	<4.91E+00	0.00E+00	4.91E+00
		Co-60	<1.80E+00	0.00E+00	1.80E+00
		Zn-65	<4.28E+00	0.00E+00	4.28E+00
		Zr-95	<3.28E+00	0.00E+00	3.28E+00
		Nb-95	<2.11E+00	0.00E+00	2.11E+00
		I-131	<1.04E+01	0.00E+00	1.04E+01
		Cs-134	<2.31E+00	0.00E+00	2.31E+00
		Cs-137	<2.29E+00	0.00E+00	2.29E+00
		BaLa-140	<4.99E+00	0.00E+00	4.99E+00
		Be-7	<2.17E+01	0.00E+00	2.17E+01
		K-40	8.60E+01	2.26E+01	2.71E+01
568181	5/16/2022 - 6/13/2022	Beta	<3.21E+00	0.00E+00	3.21E+00
		Mn-54	<3.28E+00	0.00E+00	3.28E+00
		Co-58	<3.29E+00	0.00E+00	3.29E+00
		Fe-59	<5.64E+00	0.00E+00	5.64E+00
		Co-60	<3.28E+00	0.00E+00	3.28E+00
		Zn-65	<6.80E+00	0.00E+00	6.80E+00
		Zr-95	<6.01E+00	0.00E+00	6.01E+00
		Nb-95	<4.11E+00	0.00E+00	4.11E+00
		I-131	<1.13E+01	0.00E+00	1.13E+01
		Cs-134	<4.04E+00	0.00E+00	4.04E+00
		Cs-137	<3.71E+00	0.00E+00	3.71E+00
		BaLa-140	<7.40E+00	0.00E+00	7.40E+00
		Be-7	<2.85E+01	0.00E+00	2.85E+01
		K-40	1.42E+02	4.15E+01	4.34E+01
570008	6/13/2022 - 7/11/2022	Beta	<3.19E+00	0.00E+00	3.19E+00
		Mn-54	<4.85E+00	0.00E+00	4.85E+00
		Co-58	<4.16E+00	0.00E+00	4.16E+00
		Fe-59	<1.10E+01	0.00E+00	1.10E+01
		Co-60	<4.38E+00	0.00E+00	4.38E+00

OCONEE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: DRINKING WATER Concentration (Activity): pCi/l

Sample Point 066 [INDICATOR - SSE @ 18.9 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
570008	6/13/2022 - 7/11/2022	Zn-65	<7.38E+00	0.00E+00	7.38E+00
		Zr-95	<8.18E+00	0.00E+00	8.18E+00
		Nb-95	<5.87E+00	0.00E+00	5.87E+00
		I-131	<1.19E+01	0.00E+00	1.19E+01
		Cs-134	<3.89E+00	0.00E+00	3.89E+00
		Cs-137	<4.37E+00	0.00E+00	4.37E+00
		BaLa-140	<6.91E+00	0.00E+00	6.91E+00
		Be-7	<4.86E+01	0.00E+00	4.86E+01
		K-40	<8.12E+01	0.00E+00	8.12E+01
		570246	4/18/2022 - 7/11/2022	H3DW	5.45E+02
571545	7/11/2022 - 8/8/2022	Beta	<3.23E+00	0.00E+00	3.23E+00
		Mn-54	<2.47E+00	0.00E+00	2.47E+00
		Co-58	<2.71E+00	0.00E+00	2.71E+00
		Fe-59	<5.16E+00	0.00E+00	5.16E+00
		Co-60	<2.47E+00	0.00E+00	2.47E+00
		Zn-65	<5.36E+00	0.00E+00	5.36E+00
		Zr-95	<5.02E+00	0.00E+00	5.02E+00
		Nb-95	<3.91E+00	0.00E+00	3.91E+00
		I-131	<1.05E+01	0.00E+00	1.05E+01
		Cs-134	<2.85E+00	0.00E+00	2.85E+00
		Cs-137	<2.54E+00	0.00E+00	2.54E+00
		BaLa-140	<8.10E+00	0.00E+00	8.10E+00
		Be-7	<2.37E+01	0.00E+00	2.37E+01
		K-40	8.02E+01	3.39E+01	4.65E+01
574674	8/8/2022 - 9/6/2022	Beta	<3.24E+00	0.00E+00	3.24E+00
		Mn-54	<3.16E+00	0.00E+00	3.16E+00
		Co-58	<2.79E+00	0.00E+00	2.79E+00
		Fe-59	<5.07E+00	0.00E+00	5.07E+00
		Co-60	<3.48E+00	0.00E+00	3.48E+00
		Zn-65	<5.39E+00	0.00E+00	5.39E+00
		Zr-95	<6.14E+00	0.00E+00	6.14E+00
		Nb-95	<4.45E+00	0.00E+00	4.45E+00
		I-131	<1.17E+01	0.00E+00	1.17E+01
		Cs-134	<3.07E+00	0.00E+00	3.07E+00
		Cs-137	<3.28E+00	0.00E+00	3.28E+00
		BaLa-140	<6.45E+00	0.00E+00	6.45E+00
		Be-7	<2.73E+01	0.00E+00	2.73E+01
		K-40	<6.03E+01	0.00E+00	6.03E+01
576389	9/6/2022 - 10/3/2022	Beta	<3.23E+00	0.00E+00	3.23E+00
		Mn-54	<2.95E+00	0.00E+00	2.95E+00
		Co-58	<3.12E+00	0.00E+00	3.12E+00
		Fe-59	<5.88E+00	0.00E+00	5.88E+00
		Co-60	<2.39E+00	0.00E+00	2.39E+00
		Zn-65	<4.65E+00	0.00E+00	4.65E+00
		Zr-95	<4.81E+00	0.00E+00	4.81E+00
		Nb-95	<3.59E+00	0.00E+00	3.59E+00
		I-131	<1.12E+01	0.00E+00	1.12E+01
		Cs-134	<3.39E+00	0.00E+00	3.39E+00
		Cs-137	<1.75E+00	0.00E+00	1.75E+00
		BaLa-140	<4.67E+00	0.00E+00	4.67E+00
		Be-7	<2.44E+01	0.00E+00	2.44E+01
		K-40	8.25E+01	3.40E+01	4.52E+01
577119	7/11/2022 - 10/3/2022	H3DW	3.63E+02	1.26E+02	1.97E+02
578738	10/3/2022 - 10/31/2022	Beta	<3.20E+00	0.00E+00	3.20E+00
		Mn-54	<4.36E+00	0.00E+00	4.36E+00
		Co-58	<3.82E+00	0.00E+00	3.82E+00
		Fe-59	<7.16E+00	0.00E+00	7.16E+00

OCONEE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: DRINKING WATER Concentration (Activity): pCi/l

Sample Point 066 [INDICATOR - SSE @ 18.9 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
578738	10/3/2022 - 10/31/2022	Co-60	<4.29E+00	0.00E+00	4.29E+00
		Zn-65	<7.06E+00	0.00E+00	7.06E+00
		Zr-95	<7.40E+00	0.00E+00	7.40E+00
		Nb-95	<5.25E+00	0.00E+00	5.25E+00
		I-131	<1.27E+01	0.00E+00	1.27E+01
		Cs-134	<3.78E+00	0.00E+00	3.78E+00
		Cs-137	<3.60E+00	0.00E+00	3.60E+00
		BaLa-140	<7.48E+00	0.00E+00	7.48E+00
		Be-7	<3.37E+01	0.00E+00	3.37E+01
		K-40	<7.68E+01	0.00E+00	7.68E+01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
580728	10/31/2022 - 11/28/2022	Beta	<3.18E+00	0.00E+00	3.18E+00
		Mn-54	<2.94E+00	0.00E+00	2.94E+00
		Co-58	<3.45E+00	0.00E+00	3.45E+00
		Fe-59	<7.54E+00	0.00E+00	7.54E+00
		Co-60	<2.54E+00	0.00E+00	2.54E+00
		Zn-65	<8.77E+00	0.00E+00	8.77E+00
		Zr-95	<6.61E+00	0.00E+00	6.61E+00
		Nb-95	<4.38E+00	0.00E+00	4.38E+00
		I-131	<1.32E+01	0.00E+00	1.32E+01
		Cs-134	<4.05E+00	0.00E+00	4.05E+00
		Cs-137	<3.91E+00	0.00E+00	3.91E+00
		BaLa-140	<1.06E+01	0.00E+00	1.06E+01
		Be-7	<2.89E+01	0.00E+00	2.89E+01
		K-40	5.67E+01	3.07E+01	3.88E+01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
582325	11/28/2022 - 12/27/2022	Beta	<3.20E+00	0.00E+00	3.20E+00
		Mn-54	<1.94E+00	0.00E+00	1.94E+00
		Co-58	<2.09E+00	0.00E+00	2.09E+00
		Fe-59	<4.09E+00	0.00E+00	4.09E+00
		Co-60	<2.36E+00	0.00E+00	2.36E+00
		Zn-65	<4.46E+00	0.00E+00	4.46E+00
		Zr-95	<4.36E+00	0.00E+00	4.36E+00
		Nb-95	<3.48E+00	0.00E+00	3.48E+00
		I-131	<1.30E+01	0.00E+00	1.30E+01
		Cs-134	<2.50E+00	0.00E+00	2.50E+00
		Cs-137	<1.95E+00	0.00E+00	1.95E+00
		BaLa-140	<7.63E+00	0.00E+00	7.63E+00
		Be-7	<1.98E+01	0.00E+00	1.98E+01
		K-40	6.72E+01	2.41E+01	3.17E+01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
582923	10/3/2022 - 12/27/2022	H3DW	4.94E+02	1.22E+02	1.82E+02

Media Type: FISH Concentration (Activity): pCi/kg wet

Sample Point 060 [CONTROL FISH / INDICATOR - NE @ 3.23 miles]

Sample ID:	Sample Dates:	Location	Nuclide	Activity	2 Sigma Error	MDA
564389	4/11/2022 - 4/11/2022	FREESWIM	Mn-54	<5.71E+01	0.00E+00	5.71E+01
			Co-58	<5.29E+01	0.00E+00	5.29E+01
			Fe-59	<1.13E+02	0.00E+00	1.13E+02
			Co-60	<6.49E+01	0.00E+00	6.49E+01
			Zn-65	<1.32E+02	0.00E+00	1.32E+02
			Nb-95	<7.77E+01	0.00E+00	7.77E+01
			I-131	<2.32E+02	0.00E+00	2.32E+02
			Cs-134	<7.41E+01	0.00E+00	7.41E+01
			Cs-137	<5.64E+01	0.00E+00	5.64E+01
			Be-7	<5.14E+02	0.00E+00	5.14E+02
			K-40	5.24E+03	1.08E+03	5.85E+02
			Ag-110M	<5.60E+01	0.00E+00	5.60E+01
			Sb-122	<6.09E+03	0.00E+00	6.09E+03
			Sb-125	<1.36E+02	0.00E+00	1.36E+02

Sample ID:	Sample Dates:	Location	Nuclide	Activity	2 Sigma Error	MDA
564390	4/11/2022 - 4/11/2022	BOTMFEEDER	Mn-54	<7.12E+01	0.00E+00	7.12E+01
			Co-58	<7.97E+01	0.00E+00	7.97E+01

OCONEE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: FISH Concentration (Activity): pCi/kg wet

Sample Point 060 [CONTROL FISH / INDICATOR - NE @ 3.23 miles]

Sample ID:	Sample Dates:	BOTMFEEDER	Nuclide	Activity	2 Sigma Error	MDA
564390	4/11/2022 - 4/11/2022		Fe-59	<1.56E+02	0.00E+00	1.56E+02
			Co-60	<7.17E+01	0.00E+00	7.17E+01
			Zn-65	<1.25E+02	0.00E+00	1.25E+02
			Nb-95	<8.57E+01	0.00E+00	8.57E+01
			I-131	<2.74E+02	0.00E+00	2.74E+02
			Cs-134	<6.36E+01	0.00E+00	6.36E+01
			Cs-137	<7.43E+01	0.00E+00	7.43E+01
			Be-7	<6.81E+02	0.00E+00	6.81E+02
			K-40	3.40E+03	8.46E+02	5.15E+02
			Ag-110M	<5.99E+01	0.00E+00	5.99E+01
			Sb-122	<5.58E+03	0.00E+00	5.58E+03
			Sb-125	<1.40E+02	0.00E+00	1.40E+02

Sample ID:	Sample Dates:	FREESWIM	Nuclide	Activity	2 Sigma Error	MDA
577018	10/11/2022 - 10/11/2022		Mn-54	<6.16E+01	0.00E+00	6.16E+01
			Co-58	<6.04E+01	0.00E+00	6.04E+01
			Fe-59	<9.40E+01	0.00E+00	9.40E+01
			Co-60	<7.78E+01	0.00E+00	7.78E+01
			Zn-65	<1.86E+02	0.00E+00	1.86E+02
			Nb-95	<7.01E+01	0.00E+00	7.01E+01
			I-131	<9.02E+01	0.00E+00	9.02E+01
			Cs-134	<6.56E+01	0.00E+00	6.56E+01
			Cs-137	<6.01E+01	0.00E+00	6.01E+01
			Be-7	<4.92E+02	0.00E+00	4.92E+02
			K-40	4.40E+03	1.08E+03	7.14E+02
			Ag-110M	<4.58E+01	0.00E+00	4.58E+01
			Sb-122	<3.34E+02	0.00E+00	3.34E+02
			Sb-125	<1.34E+02	0.00E+00	1.34E+02

Sample ID:	Sample Dates:	BOTMFEEDER	Nuclide	Activity	2 Sigma Error	MDA
577019	10/12/2022 - 10/12/2022		Mn-54	<6.32E+01	0.00E+00	6.32E+01
			Co-58	<6.95E+01	0.00E+00	6.95E+01
			Fe-59	<1.30E+02	0.00E+00	1.30E+02
			Co-60	<5.30E+01	0.00E+00	5.30E+01
			Zn-65	<1.31E+02	0.00E+00	1.31E+02
			Nb-95	<7.45E+01	0.00E+00	7.45E+01
			I-131	<8.14E+01	0.00E+00	8.14E+01
			Cs-134	<5.87E+01	0.00E+00	5.87E+01
			Cs-137	<7.26E+01	0.00E+00	7.26E+01
			Be-7	<4.74E+02	0.00E+00	4.74E+02
			K-40	4.67E+03	1.16E+03	1.02E+03
			Ag-110M	<6.70E+01	0.00E+00	6.70E+01
			Sb-122	<3.02E+02	0.00E+00	3.02E+02
			Sb-125	<1.62E+02	0.00E+00	1.62E+02

Sample Point 063 [INDICATOR - ESE @ 0.8 miles]

Sample ID:	Sample Dates:	FREESWIM	Nuclide	Activity	2 Sigma Error	MDA
564391	4/11/2022 - 4/11/2022		Mn-54	<6.25E+01	0.00E+00	6.25E+01
			Co-58	<5.87E+01	0.00E+00	5.87E+01
			Fe-59	<1.23E+02	0.00E+00	1.23E+02
			Co-60	<6.52E+01	0.00E+00	6.52E+01
			Zn-65	<5.55E+01	0.00E+00	5.55E+01
			Nb-95	<5.00E+01	0.00E+00	5.00E+01
			I-131	<1.24E+02	0.00E+00	1.24E+02
			Cs-134	<6.04E+01	0.00E+00	6.04E+01
			Cs-137	<3.45E+01	0.00E+00	3.45E+01
			Be-7	<4.13E+02	0.00E+00	4.13E+02
			K-40	4.28E+03	9.86E+02	7.64E+02
			Ag-110M	<2.86E+01	0.00E+00	2.86E+01
			Sb-122	<3.92E+03	0.00E+00	3.92E+03
			Sb-125	<1.00E+02	0.00E+00	1.00E+02

Sample ID:	Sample Dates:	BOTMFEEDER	Nuclide	Activity	2 Sigma Error	MDA
564392	4/12/2022 - 4/12/2022		Mn-54	<6.30E+01	0.00E+00	6.30E+01
			Co-58	<5.35E+01	0.00E+00	5.35E+01
			Fe-59	<1.07E+02	0.00E+00	1.07E+02
			Co-60	<4.48E+01	0.00E+00	4.48E+01

OCONEE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: FISH Concentration (Activity): pCi/kg wet

Sample Point 063 [INDICATOR - ESE @ 0.8 miles]

Sample ID:	Sample Dates:	BOTMFEEDER	Nuclide	Activity	2 Sigma Error	MDA
564392	4/12/2022 - 4/12/2022		Zn-65	<9.97E+01	0.00E+00	9.97E+01
			Nb-95	<9.47E+01	0.00E+00	9.47E+01
			I-131	<1.72E+02	0.00E+00	1.72E+02
			Cs-134	<4.40E+01	0.00E+00	4.40E+01
			Cs-137	<6.82E+01	0.00E+00	6.82E+01
			Be-7	<4.15E+02	0.00E+00	4.15E+02
			K-40	3.50E+03	9.36E+02	8.83E+02
			Ag-110M	<5.40E+01	0.00E+00	5.40E+01
			Sb-122	<3.21E+03	0.00E+00	3.21E+03
			Sb-125	<9.19E+01	0.00E+00	9.19E+01

Sample ID:	Sample Dates:	FREESWIM	Nuclide	Activity	2 Sigma Error	MDA
577020	10/10/2022 - 10/10/2022		Mn-54	<5.72E+01	0.00E+00	5.72E+01
			Co-58	<5.93E+01	0.00E+00	5.93E+01
			Fe-59	<1.18E+02	0.00E+00	1.18E+02
			Co-60	<6.01E+01	0.00E+00	6.01E+01
			Zn-65	<8.81E+01	0.00E+00	8.81E+01
			Nb-95	<6.33E+01	0.00E+00	6.33E+01
			I-131	<9.26E+01	0.00E+00	9.26E+01
			Cs-134	<7.15E+01	0.00E+00	7.15E+01
			Cs-137	<6.99E+01	0.00E+00	6.99E+01
			Be-7	<3.93E+02	0.00E+00	3.93E+02
			K-40	5.23E+03	1.10E+03	5.73E+02
			Ag-110M	<4.81E+01	0.00E+00	4.81E+01
			Sb-122	<3.26E+02	0.00E+00	3.26E+02
			Sb-125	<1.52E+02	0.00E+00	1.52E+02

Sample ID:	Sample Dates:	BOTMFEEDER	Nuclide	Activity	2 Sigma Error	MDA
577021	10/11/2022 - 10/11/2022		Mn-54	<7.03E+01	0.00E+00	7.03E+01
			Co-58	<6.01E+01	0.00E+00	6.01E+01
			Fe-59	<1.08E+02	0.00E+00	1.08E+02
			Co-60	<5.25E+01	0.00E+00	5.25E+01
			Zn-65	<1.31E+02	0.00E+00	1.31E+02
			Nb-95	<5.82E+01	0.00E+00	5.82E+01
			I-131	<7.99E+01	0.00E+00	7.99E+01
			Cs-134	<5.88E+01	0.00E+00	5.88E+01
			Cs-137	<6.18E+01	0.00E+00	6.18E+01
			Be-7	<3.76E+02	0.00E+00	3.76E+02
			K-40	4.70E+03	1.06E+03	5.60E+02
			Ag-110M	<4.33E+01	0.00E+00	4.33E+01
			Sb-122	<2.55E+02	0.00E+00	2.55E+02
			Sb-125	<1.56E+02	0.00E+00	1.56E+02

Sample Point 067 [INDICATOR - SSE @ 4.34 miles]

Sample ID:	Sample Dates:	BOTMFEEDER	Nuclide	Activity	2 Sigma Error	MDA
564394	4/12/2022 - 4/12/2022		Mn-54	<5.36E+01	0.00E+00	5.36E+01
			Co-58	<4.93E+01	0.00E+00	4.93E+01
			Fe-59	<1.45E+02	0.00E+00	1.45E+02
			Co-60	<5.77E+01	0.00E+00	5.77E+01
			Zn-65	<1.12E+02	0.00E+00	1.12E+02
			Nb-95	<7.41E+01	0.00E+00	7.41E+01
			I-131	<1.67E+02	0.00E+00	1.67E+02
			Cs-134	<4.60E+01	0.00E+00	4.60E+01
			Cs-137	<6.33E+01	0.00E+00	6.33E+01
			Be-7	<4.23E+02	0.00E+00	4.23E+02
			K-40	4.73E+03	1.03E+03	7.45E+02
			Ag-110M	<5.56E+01	0.00E+00	5.56E+01
			Sb-122	<4.25E+03	0.00E+00	4.25E+03
			Sb-125	<1.32E+02	0.00E+00	1.32E+02

Sample ID:	Sample Dates:	FREESWIM	Nuclide	Activity	2 Sigma Error	MDA
564393	4/12/2022 - 4/12/2022		Mn-54	<4.95E+01	0.00E+00	4.95E+01
			Co-58	<5.74E+01	0.00E+00	5.74E+01
			Fe-59	<1.33E+02	0.00E+00	1.33E+02
			Co-60	<6.12E+01	0.00E+00	6.12E+01
			Zn-65	<1.18E+02	0.00E+00	1.18E+02
			Nb-95	<4.43E+01	0.00E+00	4.43E+01

OCONEE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: FISH Concentration (Activity): pCi/kg wet

Sample Point 067 [INDICATOR - SSE @ 4.34 miles]

Sample ID:	Sample Dates:	Location:	Nuclide	Activity	2 Sigma Error	MDA
564393	4/12/2022 - 4/12/2022	FREESWIM	I-131	<1.77E+02	0.00E+00	1.77E+02
			Cs-134	<4.93E+01	0.00E+00	4.93E+01
			Cs-137	<5.14E+01	0.00E+00	5.14E+01
			Be-7	<4.66E+02	0.00E+00	4.66E+02
			K-40	4.96E+03	1.01E+03	5.00E+02
			Ag-110M	<3.70E+01	0.00E+00	3.70E+01
			Sb-122	<2.61E+03	0.00E+00	2.61E+03
			Sb-125	<1.18E+02	0.00E+00	1.18E+02
577022	10/10/2022 - 10/10/2022	FREESWIM	Mn-54	<6.73E+01	0.00E+00	6.73E+01
			Co-58	<7.25E+01	0.00E+00	7.25E+01
			Fe-59	<1.25E+02	0.00E+00	1.25E+02
			Co-60	<6.77E+01	0.00E+00	6.77E+01
			Zn-65	<1.30E+02	0.00E+00	1.30E+02
			Nb-95	<6.26E+01	0.00E+00	6.26E+01
			I-131	<9.80E+01	0.00E+00	9.80E+01
			Cs-134	<7.53E+01	0.00E+00	7.53E+01
			Cs-137	<6.54E+01	0.00E+00	6.54E+01
			Be-7	<4.59E+02	0.00E+00	4.59E+02
			K-40	3.92E+03	1.10E+03	1.03E+03
			Ag-110M	<6.76E+01	0.00E+00	6.76E+01
			Sb-122	<4.84E+02	0.00E+00	4.84E+02
			Sb-125	<1.65E+02	0.00E+00	1.65E+02
			577023	10/11/2022 - 10/11/2022	BOTMFEEDER	Mn-54
Co-58	<6.67E+01	0.00E+00				6.67E+01
Fe-59	<8.97E+01	0.00E+00				8.97E+01
Co-60	<7.49E+01	0.00E+00				7.49E+01
Zn-65	<1.44E+02	0.00E+00				1.44E+02
Nb-95	<8.87E+01	0.00E+00				8.87E+01
I-131	<1.37E+02	0.00E+00				1.37E+02
Cs-134	<7.95E+01	0.00E+00				7.95E+01
Cs-137	<9.34E+01	0.00E+00				9.34E+01
Be-7	<6.09E+02	0.00E+00				6.09E+02
K-40	5.47E+03	1.29E+03				9.50E+02
Ag-110M	<7.43E+01	0.00E+00				7.43E+01
Sb-122	<4.16E+02	0.00E+00				4.16E+02
Sb-125	<1.84E+02	0.00E+00				1.84E+02

Media Type: MILK Concentration (Activity): pCi/l

Sample Point 061 [INDICATOR - E @ 4.18 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
568449	6/6/2022 - 6/6/2022	LLI-131	<6.22E-01	0.00E+00	6.22E-01
		I-131	<7.27E+00	0.00E+00	7.27E+00
		Cs-134	<9.97E+00	0.00E+00	9.97E+00
		Cs-137	<8.87E+00	0.00E+00	8.87E+00
		BaLa-140	<7.59E+00	0.00E+00	7.59E+00
		Be-7	<5.59E+01	0.00E+00	5.59E+01
		K-40	1.68E+03	2.64E+02	1.66E+02
		568754	6/20/2022 - 6/20/2022	LLI-131	<6.19E-01
I-131	<6.71E+00			0.00E+00	6.71E+00
Cs-134	<7.79E+00			0.00E+00	7.79E+00
Cs-137	<8.89E+00			0.00E+00	8.89E+00
BaLa-140	<6.18E+00			0.00E+00	6.18E+00
Be-7	<3.04E+01			0.00E+00	3.04E+01
K-40	1.76E+03			2.65E+02	1.16E+02
568755	7/5/2022 - 7/5/2022	LLI-131	<6.49E-01	0.00E+00	6.49E-01
		I-131	<8.23E+00	0.00E+00	8.23E+00
		Cs-134	<8.30E+00	0.00E+00	8.30E+00
		Cs-137	<8.17E+00	0.00E+00	8.17E+00
		BaLa-140	<2.28E+00	0.00E+00	2.28E+00

OCONEE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: MILK Concentration (Activity): pCi/l

Sample Point 061 [INDICATOR - E @ 4.18 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA		
568755	7/5/2022 - 7/5/2022	Be-7	<4.29E+01	0.00E+00	4.29E+01		
		K-40	1.75E+03	2.59E+02	7.88E+01		
		570425	7/18/2022 - 7/18/2022	LLI-131	<6.42E-01	0.00E+00	6.42E-01
				I-131	<8.17E+00	0.00E+00	8.17E+00
Cs-134	<1.00E+01			0.00E+00	1.00E+01		
Cs-137	<9.55E+00			0.00E+00	9.55E+00		
BaLa-140	<2.27E+00			0.00E+00	2.27E+00		
Be-7	<5.93E+01			0.00E+00	5.93E+01		
571048	8/1/2022 - 8/1/2022	K-40	1.75E+03	2.63E+02	1.15E+02		
		571556	8/15/2022 - 8/15/2022	LLI-131	<6.40E-01	0.00E+00	6.40E-01
				I-131	<5.67E+00	0.00E+00	5.67E+00
				Cs-134	<9.60E+00	0.00E+00	9.60E+00
Cs-137	<8.13E+00			0.00E+00	8.13E+00		
BaLa-140	<7.73E+00			0.00E+00	7.73E+00		
Be-7	<4.57E+01			0.00E+00	4.57E+01		
573064	8/30/2022 - 8/30/2022	K-40	1.64E+03	2.49E+02	8.76E+01		
		574684	9/12/2022 - 9/12/2022	LLI-131	<6.50E-01	0.00E+00	6.50E-01
				I-131	<7.41E+00	0.00E+00	7.41E+00
				Cs-134	<6.62E+00	0.00E+00	6.62E+00
Cs-137	<7.74E+00			0.00E+00	7.74E+00		
BaLa-140	<8.99E+00			0.00E+00	8.99E+00		
Be-7	<6.11E+01			0.00E+00	6.11E+01		
575650	9/26/2022 - 9/26/2022	K-40	1.76E+03	2.67E+02	1.40E+02		
		576217	10/10/2022 - 10/10/2022	LLI-131	<6.04E-01	0.00E+00	6.04E-01
				I-131	<7.74E+00	0.00E+00	7.74E+00
				Cs-134	<7.83E+00	0.00E+00	7.83E+00
Cs-137	<9.25E+00			0.00E+00	9.25E+00		
BaLa-140	<5.96E+00			0.00E+00	5.96E+00		
Be-7	<6.29E+01			0.00E+00	6.29E+01		
577120	10/24/2022 - 10/24/2022	K-40	1.50E+03	2.53E+02	1.76E+02		
		577120	10/24/2022 - 10/24/2022	LLI-131	<6.50E-01	0.00E+00	6.50E-01
				I-131	<6.36E+00	0.00E+00	6.36E+00
				Cs-134	<9.60E+00	0.00E+00	9.60E+00
Cs-137	<6.40E+00			0.00E+00	6.40E+00		
BaLa-140	<1.01E+01			0.00E+00	1.01E+01		
Be-7	<5.65E+01			0.00E+00	5.65E+01		
577120	10/24/2022 - 10/24/2022	K-40	1.84E+03	2.69E+02	9.90E+01		
		577120	10/24/2022 - 10/24/2022	LLI-131	<5.51E-01	0.00E+00	5.51E-01
				I-131	<6.02E+00	0.00E+00	6.02E+00
				Cs-134	<9.60E+00	0.00E+00	9.60E+00
Cs-137	<9.19E+00			0.00E+00	9.19E+00		
BaLa-140	<8.98E+00			0.00E+00	8.98E+00		
Be-7	<4.25E+01			0.00E+00	4.25E+01		
577120	10/24/2022 - 10/24/2022	K-40	1.79E+03	2.66E+02	1.15E+02		
		577120	10/24/2022 - 10/24/2022	LLI-131	<5.49E-01	0.00E+00	5.49E-01
				I-131	<7.62E+00	0.00E+00	7.62E+00
				Cs-134	<7.79E+00	0.00E+00	7.79E+00
Cs-137	<7.78E+00			0.00E+00	7.78E+00		
BaLa-140	<6.12E+00			0.00E+00	6.12E+00		
Be-7	<4.28E+01			0.00E+00	4.28E+01		
577120	10/24/2022 - 10/24/2022	K-40	1.62E+03	2.48E+02	9.35E+01		
		577120	10/24/2022 - 10/24/2022	LLI-131	<5.85E-01	0.00E+00	5.85E-01
				I-131	<6.71E+00	0.00E+00	6.71E+00

OCONEE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: MILK Concentration (Activity): pCi/l

Sample Point 061 [INDICATOR - E @ 4.18 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
577120	10/24/2022 - 10/24/2022	Cs-134	<6.95E+00	0.00E+00	6.95E+00
		Cs-137	<7.48E+00	0.00E+00	7.48E+00
		BaLa-140	<6.00E+00	0.00E+00	6.00E+00
		Be-7	<5.59E+01	0.00E+00	5.59E+01
		K-40	1.81E+03	2.73E+02	1.44E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
578077	11/7/2022 - 11/7/2022	LLI-131	<7.21E-01	0.00E+00	7.21E-01
		I-131	<7.40E+00	0.00E+00	7.40E+00
		Cs-134	<7.78E+00	0.00E+00	7.78E+00
		Cs-137	<6.40E+00	0.00E+00	6.40E+00
		BaLa-140	<6.14E+00	0.00E+00	6.14E+00
		Be-7	<4.87E+01	0.00E+00	4.87E+01
K-40	2.00E+03	2.79E+02	1.79E+01		

Sample Point 071 [CONTROL - SSE @ 10.2 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
558853	1/4/2022 - 1/4/2022	LLI-131	<6.41E-01	0.00E+00	6.41E-01
		I-131	<6.07E+00	0.00E+00	6.07E+00
		Cs-134	<7.77E+00	0.00E+00	7.77E+00
		Cs-137	<6.87E+00	0.00E+00	6.87E+00
		BaLa-140	<9.03E+00	0.00E+00	9.03E+00
		Be-7	<5.13E+01	0.00E+00	5.13E+01
		K-40	1.38E+03	2.30E+02	1.35E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
559503	1/18/2022 - 1/18/2022	LLI-131	<6.00E-01	0.00E+00	6.00E-01
		I-131	<7.16E+00	0.00E+00	7.16E+00
		Cs-134	<8.28E+00	0.00E+00	8.28E+00
		Cs-137	<8.50E+00	0.00E+00	8.50E+00
		BaLa-140	<6.15E+00	0.00E+00	6.15E+00
		Be-7	<5.88E+01	0.00E+00	5.88E+01
		K-40	1.68E+03	2.49E+02	1.79E+01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
560310	1/31/2022 - 1/31/2022	LLI-131	<6.01E-01	0.00E+00	6.01E-01
		I-131	<7.16E+00	0.00E+00	7.16E+00
		Cs-134	<9.60E+00	0.00E+00	9.60E+00
		Cs-137	<8.50E+00	0.00E+00	8.50E+00
		BaLa-140	<1.09E+01	0.00E+00	1.09E+01
		Be-7	<6.11E+01	0.00E+00	6.11E+01
		K-40	1.05E+03	1.96E+02	1.18E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
560865	2/14/2022 - 2/14/2022	LLI-131	<8.77E-01	0.00E+00	8.77E-01
		I-131	<9.01E+00	0.00E+00	9.01E+00
		Cs-134	<1.21E+01	0.00E+00	1.21E+01
		Cs-137	<9.19E+00	0.00E+00	9.19E+00
		BaLa-140	<9.04E+00	0.00E+00	9.04E+00
		Be-7	<6.11E+01	0.00E+00	6.11E+01
		K-40	1.52E+03	2.41E+02	1.16E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
561695	2/28/2022 - 2/28/2022	LLI-131	<6.00E-01	0.00E+00	6.00E-01
		I-131	<7.62E+00	0.00E+00	7.62E+00
		Cs-134	<5.93E+00	0.00E+00	5.93E+00
		Cs-137	<8.12E+00	0.00E+00	8.12E+00
		BaLa-140	<7.74E+00	0.00E+00	7.74E+00
		Be-7	<6.89E+01	0.00E+00	6.89E+01
		K-40	1.52E+03	2.42E+02	1.26E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
562904	3/14/2022 - 3/14/2022	LLI-131	<6.01E-01	0.00E+00	6.01E-01
		I-131	<7.63E+00	0.00E+00	7.63E+00
		Cs-134	<9.93E+00	0.00E+00	9.93E+00
		Cs-137	<8.05E+00	0.00E+00	8.05E+00
		BaLa-140	<6.05E+00	0.00E+00	6.05E+00
		Be-7	<3.42E+01	0.00E+00	3.42E+01

OCONEE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: MILK Concentration (Activity): pCi/l

Sample Point 071 [CONTROL - SSE @ 10.2 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
562904	3/14/2022 - 3/14/2022	K-40	1.61E+03	2.49E+02	1.23E+02
563823	3/28/2022 - 3/28/2022	LLI-131	<6.56E-01	0.00E+00	6.56E-01
		I-131	<6.99E+00	0.00E+00	6.99E+00
		Cs-134	<9.54E+00	0.00E+00	9.54E+00
		Cs-137	<9.72E+00	0.00E+00	9.72E+00
		BaLa-140	<7.67E+00	0.00E+00	7.67E+00
		Be-7	<5.98E+01	0.00E+00	5.98E+01
		K-40	1.49E+03	2.44E+02	1.58E+02
564594	4/11/2022 - 4/11/2022	LLI-131	<6.40E-01	0.00E+00	6.40E-01
		I-131	<7.70E+00	0.00E+00	7.70E+00
		Cs-134	<9.19E+00	0.00E+00	9.19E+00
		Cs-137	<5.86E+00	0.00E+00	5.86E+00
		BaLa-140	<7.79E+00	0.00E+00	7.79E+00
		Be-7	<7.11E+01	0.00E+00	7.11E+01
		K-40	1.40E+03	2.25E+02	7.85E+01
565347	4/25/2022 - 4/25/2022	LLI-131	<6.26E-01	0.00E+00	6.26E-01
		I-131	<6.83E+00	0.00E+00	6.83E+00
		Cs-134	<8.49E+00	0.00E+00	8.49E+00
		Cs-137	<6.69E+00	0.00E+00	6.69E+00
		BaLa-140	<7.59E+00	0.00E+00	7.59E+00
		Be-7	<5.54E+01	0.00E+00	5.54E+01
		K-40	1.40E+03	2.24E+02	7.33E+01
566611	5/9/2022 - 5/9/2022	LLI-131	<6.37E-01	0.00E+00	6.37E-01
		I-131	<8.07E+00	0.00E+00	8.07E+00
		Cs-134	<5.76E+00	0.00E+00	5.76E+00
		Cs-137	<6.21E+00	0.00E+00	6.21E+00
		BaLa-140	<2.22E+00	0.00E+00	2.22E+00
		Be-7	<5.99E+01	0.00E+00	5.99E+01
		K-40	1.75E+03	2.59E+02	9.15E+01
567182	5/23/2022 - 5/23/2022	LLI-131	<6.43E-01	0.00E+00	6.43E-01
		I-131	<6.44E+00	0.00E+00	6.44E+00
		Cs-134	<8.35E+00	0.00E+00	8.35E+00
		Cs-137	<7.79E+00	0.00E+00	7.79E+00
		BaLa-140	<6.30E+00	0.00E+00	6.30E+00
		Be-7	<6.16E+01	0.00E+00	6.16E+01
		K-40	1.53E+03	2.48E+02	1.36E+02
567792	6/6/2022 - 6/6/2022	LLI-131	<6.28E-01	0.00E+00	6.28E-01
		I-131	<8.92E+00	0.00E+00	8.92E+00
		Cs-134	<6.64E+00	0.00E+00	6.64E+00
		Cs-137	<7.78E+00	0.00E+00	7.78E+00
		BaLa-140	<2.28E+00	0.00E+00	2.28E+00
		Be-7	<5.71E+01	0.00E+00	5.71E+01
		K-40	1.39E+03	2.31E+02	1.21E+02
568663	6/20/2022 - 6/20/2022	LLI-131	<5.50E-01	0.00E+00	5.50E-01
		I-131	<7.64E+00	0.00E+00	7.64E+00
		Cs-134	<8.92E+00	0.00E+00	8.92E+00
		Cs-137	<6.22E+00	0.00E+00	6.21E+00
		BaLa-140	<7.63E+00	0.00E+00	7.63E+00
		Be-7	<3.43E+01	0.00E+00	3.43E+01
		K-40	1.63E+03	2.43E+02	1.75E+01
569141	7/5/2022 - 7/5/2022	LLI-131	<6.36E-01	0.00E+00	6.36E-01
		I-131	<7.04E+00	0.00E+00	7.04E+00
		Cs-134	<8.35E+00	0.00E+00	8.35E+00

OCONEE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: MILK Concentration (Activity): pCi/l

Sample Point 071 [CONTROL - SSE @ 10.2 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
569141	7/5/2022 - 7/5/2022	Cs-137	<8.56E+00	0.00E+00	8.56E+00
		BaLa-140	<7.98E+00	0.00E+00	7.98E+00
		Be-7	<5.70E+01	0.00E+00	5.70E+01
		K-40	1.46E+03	2.41E+02	1.29E+02
570904	7/18/2022 - 7/18/2022	LLI-131	<5.62E-01	0.00E+00	5.62E-01
		I-131	<7.58E+00	0.00E+00	7.58E+00
		Cs-134	<1.08E+01	0.00E+00	1.08E+01
		Cs-137	<7.90E+00	0.00E+00	7.90E+00
		BaLa-140	<8.80E+00	0.00E+00	8.80E+00
		Be-7	<5.77E+01	0.00E+00	5.77E+01
		K-40	1.37E+03	2.24E+02	1.07E+02
571473	8/1/2022 - 8/1/2022	LLI-131	<5.83E-01	0.00E+00	5.83E-01
		I-131	<6.69E+00	0.00E+00	6.69E+00
		Cs-134	<6.36E+00	0.00E+00	6.36E+00
		Cs-137	<8.21E+00	0.00E+00	8.21E+00
		BaLa-140	<7.56E+00	0.00E+00	7.56E+00
		Be-7	<5.58E+01	0.00E+00	5.58E+01
		K-40	1.47E+03	2.34E+02	1.01E+02
572761	8/15/2022 - 8/15/2022	LLI-131	<6.19E-01	0.00E+00	6.19E-01
		I-131	<7.77E+00	0.00E+00	7.77E+00
		Cs-134	<4.92E+00	0.00E+00	4.92E+00
		Cs-137	<6.65E+00	0.00E+00	6.65E+00
		BaLa-140	<7.59E+00	0.00E+00	7.59E+00
		Be-7	<6.04E+01	0.00E+00	6.04E+01
		K-40	1.39E+03	2.28E+02	1.09E+02
574580	8/30/2022 - 8/30/2022	LLI-131	<6.35E-01	0.00E+00	6.35E-01
		I-131	<6.90E+00	0.00E+00	6.90E+00
		Cs-134	<7.61E+00	0.00E+00	7.61E+00
		Cs-137	<8.35E+00	0.00E+00	8.35E+00
		BaLa-140	<5.78E+00	0.00E+00	5.78E+00
		Be-7	<6.01E+01	0.00E+00	6.01E+01
		K-40	1.52E+03	2.33E+02	1.77E+01
575753	9/12/2022 - 9/12/2022	LLI-131	<6.48E-01	0.00E+00	6.48E-01
		I-131	<7.57E+00	0.00E+00	7.57E+00
		Cs-134	<7.29E+00	0.00E+00	7.29E+00
		Cs-137	<7.38E+00	0.00E+00	7.38E+00
		BaLa-140	<8.35E+00	0.00E+00	8.35E+00
		Be-7	<4.67E+01	0.00E+00	4.67E+01
		K-40	1.37E+03	2.24E+02	7.66E+01
576307	9/26/2022 - 9/26/2022	LLI-131	<6.49E-01	0.00E+00	6.49E-01
		I-131	<6.10E+00	0.00E+00	6.10E+00
		Cs-134	<6.36E+00	0.00E+00	6.36E+00
		Cs-137	<5.66E+00	0.00E+00	5.66E+00
		BaLa-140	<5.99E+00	0.00E+00	5.99E+00
		Be-7	<4.81E+01	0.00E+00	4.81E+01
		K-40	1.73E+03	2.69E+02	1.63E+02
577220	10/10/2022 - 10/10/2022	LLI-131	<5.98E-01	0.00E+00	5.98E-01
		I-131	<5.59E+00	0.00E+00	5.59E+00
		Cs-134	<7.55E+00	0.00E+00	7.55E+00
		Cs-137	<7.52E+00	0.00E+00	7.52E+00
		BaLa-140	<5.97E+00	0.00E+00	5.97E+00
		Be-7	<5.53E+01	0.00E+00	5.53E+01
		K-40	1.38E+03	2.22E+02	7.97E+01

OCONEE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: MILK Concentration (Activity): pCi/l

Sample Point 071 [CONTROL - SSE @ 10.2 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
578163	10/24/2022 - 10/24/2022	LLI-131	<6.49E-01	0.00E+00	6.49E-01
		I-131	<7.27E+00	0.00E+00	7.27E+00
		Cs-134	<9.21E+00	0.00E+00	9.21E+00
		Cs-137	<8.17E+00	0.00E+00	8.17E+00
		BaLa-140	<7.81E+00	0.00E+00	7.81E+00
		Be-7	<5.03E+01	0.00E+00	5.03E+01
		K-40	1.36E+03	2.22E+02	7.74E+01
		579075	11/7/2022 - 11/7/2022	LLI-131	<7.21E-01
I-131	<8.44E+00			0.00E+00	8.44E+00
Cs-134	<6.36E+00			0.00E+00	6.36E+00
Cs-137	<6.65E+00			0.00E+00	6.65E+00
BaLa-140	<2.21E+00			0.00E+00	2.21E+00
Be-7	<4.52E+01			0.00E+00	4.52E+01
K-40	1.18E+03			2.08E+02	1.18E+02
580645	11/21/2022 - 11/21/2022			LLI-131	<7.00E-01
		I-131	<7.86E+00	0.00E+00	7.86E+00
		Cs-134	<8.75E+00	0.00E+00	8.75E+00
		Cs-137	<5.86E+00	0.00E+00	5.86E+00
		BaLa-140	<7.75E+00	0.00E+00	7.75E+00
		Be-7	<4.87E+01	0.00E+00	4.87E+01
		K-40	1.77E+03	2.63E+02	1.08E+02
		581180	12/5/2022 - 12/5/2022	LLI-131	<7.65E-01
I-131	<7.80E+00			0.00E+00	7.80E+00
Cs-134	<7.24E+00			0.00E+00	7.24E+00
Cs-137	<7.78E+00			0.00E+00	7.78E+00
BaLa-140	<9.08E+00			0.00E+00	9.08E+00
Be-7	<4.62E+01			0.00E+00	4.62E+01
K-40	1.46E+03			2.29E+02	1.80E+01
582278	12/19/2022 - 12/19/2022			LLI-131	<7.76E-01
		I-131	<6.67E+00	0.00E+00	6.67E+00
		Cs-134	<1.00E+01	0.00E+00	1.00E+01
		Cs-137	<5.86E+00	0.00E+00	5.86E+00
		BaLa-140	<6.17E+00	0.00E+00	6.17E+00
		Be-7	<6.11E+01	0.00E+00	6.11E+01
		K-40	1.33E+03	2.18E+02	7.69E+01

Media Type: SEDIMENT_SHORE Concentration (Activity): pCi/kg

Sample Point 067 [INDICATOR - SSE @ 4.34 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
562905	4/11/2022 - 4/11/2022	Mn-54	<8.05E+01	0.00E+00	8.05E+01
		Co-58	<7.12E+01	0.00E+00	7.12E+01
		Fe-59	<1.19E+02	0.00E+00	1.19E+02
		Co-60	<5.42E+01	0.00E+00	5.42E+01
		Zn-65	<1.26E+02	0.00E+00	1.26E+02
		Zr-95	<1.53E+02	0.00E+00	1.53E+02
		Nb-95	<8.24E+01	0.00E+00	8.24E+01
		I-131	<3.52E+02	0.00E+00	3.52E+02
		Cs-134	<7.14E+01	0.00E+00	7.14E+01
		Cs-137	<5.24E+01	0.00E+00	5.24E+01
		Be-7	<6.51E+02	0.00E+00	6.51E+02
		K-40	8.12E+03	1.40E+03	6.41E+02
		Co-57	<5.38E+01	0.00E+00	5.38E+01
		Mo-99	<1.32E+05	0.00E+00	1.32E+05
		Ag-110M	<5.17E+01	0.00E+00	5.17E+01
		Sb-122	<2.17E+04	0.00E+00	2.17E+04
		Sb-125	<1.52E+02	0.00E+00	1.52E+02
		575754	10/26/2022 - 10/26/2022	Mn-54	<6.16E+01

OCONEE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: SEDIMENT_SHORE Concentration (Activity): pCi/kg

Sample Point 067 [INDICATOR - SSE @ 4.34 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
575754	10/26/2022 - 10/26/2022	Co-58	<6.77E+01	0.00E+00	6.77E+01
		Fe-59	<1.19E+02	0.00E+00	1.19E+02
		Co-60	<6.73E+01	0.00E+00	6.73E+01
		Zn-65	<1.54E+02	0.00E+00	1.54E+02
		Zr-95	<1.22E+02	0.00E+00	1.22E+02
		Nb-95	<7.04E+01	0.00E+00	7.04E+01
		I-131	<8.14E+01	0.00E+00	8.14E+01
		Cs-134	<8.75E+01	0.00E+00	8.75E+01
		Cs-137	<7.63E+01	0.00E+00	7.63E+01
		Be-7	<5.41E+02	0.00E+00	5.41E+02
		K-40	1.82E+04	2.46E+03	9.59E+02
		Co-57	<5.17E+01	0.00E+00	5.17E+01
		Mo-99	<1.96E+03	0.00E+00	1.96E+03
		Ag-110M	<4.21E+01	0.00E+00	4.21E+01
		Sb-122	<2.48E+02	0.00E+00	2.48E+02
		Sb-125	<1.66E+02	0.00E+00	1.66E+02

Sample Point 068 [CONTROL - W @ 1.82 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
562906	4/11/2022 - 4/11/2022	Mn-54	<7.43E+01	0.00E+00	7.43E+01
		Co-58	<8.19E+01	0.00E+00	8.19E+01
		Fe-59	<1.99E+02	0.00E+00	1.99E+02
		Co-60	<6.30E+01	0.00E+00	6.30E+01
		Zn-65	<1.63E+02	0.00E+00	1.63E+02
		Zr-95	<1.19E+02	0.00E+00	1.19E+02
		Nb-95	<1.05E+02	0.00E+00	1.05E+02
		I-131	<3.78E+02	0.00E+00	3.78E+02
		Cs-134	<7.65E+01	0.00E+00	7.65E+01
		Cs-137	<7.75E+01	0.00E+00	7.75E+01
		Be-7	<7.71E+02	0.00E+00	7.71E+02
		K-40	6.74E+03	1.31E+03	6.99E+02
		Co-57	<5.60E+01	0.00E+00	5.60E+01
		Mo-99	<1.71E+05	0.00E+00	1.71E+05
		Ag-110M	<6.97E+01	0.00E+00	6.97E+01
		Sb-122	<2.65E+04	0.00E+00	2.65E+04
		Sb-125	<1.95E+02	0.00E+00	1.95E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
575755	10/26/2022 - 10/26/2022	Mn-54	<4.80E+01	0.00E+00	4.80E+01
		Co-58	<4.91E+01	0.00E+00	4.91E+01
		Fe-59	<9.00E+01	0.00E+00	9.00E+01
		Co-60	<5.43E+01	0.00E+00	5.43E+01
		Zn-65	<2.17E+01	0.00E+00	2.17E+01
		Zr-95	<6.15E+01	0.00E+00	6.15E+01
		Nb-95	<4.64E+01	0.00E+00	4.64E+01
		I-131	<6.15E+01	0.00E+00	6.15E+01
		Cs-134	<6.24E+01	0.00E+00	6.24E+01
		Cs-137	<5.66E+01	0.00E+00	5.66E+01
		Be-7	<4.35E+02	0.00E+00	4.35E+02
		K-40	7.35E+03	1.30E+03	1.22E+02
		Co-57	<3.49E+01	0.00E+00	3.49E+01
		Mo-99	<1.40E+03	0.00E+00	1.40E+03
		Ag-110M	<3.96E+01	0.00E+00	3.96E+01
		Sb-122	<2.49E+02	0.00E+00	2.49E+02
		Sb-125	<8.69E+01	0.00E+00	8.69E+01

Sample Point 091 [INDICATOR - S @ 2.09 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
562907	4/11/2022 - 4/11/2022	Mn-54	<7.90E+01	0.00E+00	7.90E+01
		Co-58	<8.21E+01	0.00E+00	8.21E+01
		Fe-59	<1.55E+02	0.00E+00	1.55E+02
		Co-60	<6.29E+01	0.00E+00	6.29E+01
		Zn-65	<1.61E+02	0.00E+00	1.61E+02
		Zr-95	<1.34E+02	0.00E+00	1.34E+02
		Nb-95	<8.74E+01	0.00E+00	8.74E+01
		I-131	<3.78E+02	0.00E+00	3.78E+02

OCONEE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: SEDIMENT_SHORE Concentration (Activity): pCi/kg

Sample Point 091 [INDICATOR - S @ 2.09 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
562907	4/11/2022 - 4/11/2022	Cs-134	<9.01E+01	0.00E+00	9.01E+01
		Cs-137	<7.10E+01	0.00E+00	7.10E+01
		Be-7	<6.33E+02	0.00E+00	6.33E+02
		K-40	1.81E+04	2.35E+03	9.14E+02
		Co-57	<5.48E+01	0.00E+00	5.48E+01
		Mo-99	<1.95E+05	0.00E+00	1.95E+05
		Ag-110M	<6.21E+01	0.00E+00	6.21E+01
		Sb-122	<3.05E+04	0.00E+00	3.05E+04
		Sb-125	<1.44E+02	0.00E+00	1.44E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
575756	10/26/2022 - 10/26/2022	Mn-54	<4.06E+01	0.00E+00	4.06E+01
		Co-58	<4.24E+01	0.00E+00	4.24E+01
		Fe-59	<1.06E+02	0.00E+00	1.06E+02
		Co-60	<4.12E+01	0.00E+00	4.12E+01
		Zn-65	<1.11E+02	0.00E+00	1.11E+02
		Zr-95	<6.07E+01	0.00E+00	6.07E+01
		Nb-95	<3.91E+01	0.00E+00	3.91E+01
		I-131	<5.96E+01	0.00E+00	5.96E+01
		Cs-134	<5.65E+01	0.00E+00	5.65E+01
		Cs-137	7.61E+01	3.69E+01	5.13E+01
		Be-7	<4.02E+02	0.00E+00	4.02E+02
		K-40	2.38E+04	2.46E+03	5.83E+02
		Co-57	<3.29E+01	0.00E+00	3.29E+01
		Mo-99	<1.07E+03	0.00E+00	1.07E+03
		Ag-110M	<2.89E+01	0.00E+00	2.89E+01
		Sb-122	<1.65E+02	0.00E+00	1.65E+02
		Sb-125	<1.17E+02	0.00E+00	1.17E+02

Media Type: SURFACE WATER Concentration (Activity): pCi/l

Sample Point 062 [CONTROL - ENE @ 0.85 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
559504	12/27/2021 - 1/24/2022	Mn-54	<3.25E+00	0.00E+00	3.25E+00
		Co-58	<3.33E+00	0.00E+00	3.33E+00
		Fe-59	<5.63E+00	0.00E+00	5.63E+00
		Co-60	<2.56E+00	0.00E+00	2.56E+00
		Zn-65	<6.87E+00	0.00E+00	6.87E+00
		Zr-95	<5.78E+00	0.00E+00	5.78E+00
		Nb-95	<3.11E+00	0.00E+00	3.11E+00
		I-131	<1.17E+01	0.00E+00	1.17E+01
		Cs-134	<3.47E+00	0.00E+00	3.47E+00
		Cs-137	<2.91E+00	0.00E+00	2.91E+00
		BaLa-140	<6.25E+00	0.00E+00	6.25E+00
		Be-7	<2.83E+01	0.00E+00	2.83E+01
		K-40	6.83E+01	3.15E+01	4.14E+01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
560954	1/24/2022 - 2/21/2022	Mn-54	<3.08E+00	0.00E+00	3.08E+00
		Co-58	<3.52E+00	0.00E+00	3.52E+00
		Fe-59	<6.08E+00	0.00E+00	6.08E+00
		Co-60	<3.26E+00	0.00E+00	3.26E+00
		Zn-65	<5.32E+00	0.00E+00	5.32E+00
		Zr-95	<6.06E+00	0.00E+00	6.06E+00
		Nb-95	<4.58E+00	0.00E+00	4.58E+00
		I-131	<1.16E+01	0.00E+00	1.16E+01
		Cs-134	<2.95E+00	0.00E+00	2.95E+00
		Cs-137	<2.78E+00	0.00E+00	2.78E+00
		BaLa-140	<6.86E+00	0.00E+00	6.86E+00
		Be-7	<3.36E+01	0.00E+00	3.36E+01
		K-40	2.11E+01	3.15E+01	5.26E+01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
563149	2/21/2022 - 3/21/2022	Mn-54	<2.63E+00	0.00E+00	2.63E+00
		Co-58	<2.68E+00	0.00E+00	2.68E+00
		Fe-59	<5.78E+00	0.00E+00	5.78E+00
		Co-60	<2.84E+00	0.00E+00	2.84E+00
		Zn-65	<5.65E+00	0.00E+00	5.65E+00

OCONEE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: SURFACE WATER Concentration (Activity): pCi/l

Sample Point 062 [CONTROL - ENE @ 0.85 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
563149	2/21/2022 - 3/21/2022	Zr-95	<5.14E+00	0.00E+00	5.14E+00
		Nb-95	<3.08E+00	0.00E+00	3.08E+00
		I-131	<1.16E+01	0.00E+00	1.16E+01
		Cs-134	<2.78E+00	0.00E+00	2.78E+00
		Cs-137	<2.66E+00	0.00E+00	2.66E+00
		BaLa-140	<5.27E+00	0.00E+00	5.27E+00
		Be-7	<2.59E+01	0.00E+00	2.59E+01
		K-40	7.56E+01	2.62E+01	3.40E+01
564488	12/27/2021 - 4/18/2022	H3SW	<3.55E+01	0.00E+00	1.72E+02
564660	3/21/2022 - 4/18/2022	Mn-54	<2.46E+00	0.00E+00	2.46E+00
		Co-58	<2.97E+00	0.00E+00	2.97E+00
		Fe-59	<6.10E+00	0.00E+00	6.10E+00
		Co-60	<2.37E+00	0.00E+00	2.37E+00
		Zn-65	<6.37E+00	0.00E+00	6.37E+00
		Zr-95	<5.52E+00	0.00E+00	5.52E+00
		Nb-95	<3.86E+00	0.00E+00	3.86E+00
		I-131	<1.14E+01	0.00E+00	1.14E+01
		Cs-134	<3.48E+00	0.00E+00	3.48E+00
		Cs-137	<2.58E+00	0.00E+00	2.58E+00
		BaLa-140	<5.79E+00	0.00E+00	5.79E+00
		Be-7	<2.62E+01	0.00E+00	2.62E+01
		K-40	9.40E+01	3.24E+01	3.76E+01
566741	4/18/2022 - 5/16/2022	Mn-54	<3.01E+00	0.00E+00	3.01E+00
		Co-58	<2.93E+00	0.00E+00	2.93E+00
		Fe-59	<5.39E+00	0.00E+00	5.39E+00
		Co-60	<3.49E+00	0.00E+00	3.49E+00
		Zn-65	<5.01E+00	0.00E+00	5.01E+00
		Zr-95	<7.45E+00	0.00E+00	7.45E+00
		Nb-95	<3.17E+00	0.00E+00	3.17E+00
		I-131	<1.13E+01	0.00E+00	1.13E+01
		Cs-134	<3.62E+00	0.00E+00	3.62E+00
		Cs-137	<3.66E+00	0.00E+00	3.66E+00
		BaLa-140	<8.10E+00	0.00E+00	8.10E+00
		Be-7	<2.62E+01	0.00E+00	2.62E+01
		K-40	9.52E+01	3.25E+01	3.23E+01
568182	5/16/2022 - 6/13/2022	Mn-54	<3.01E+00	0.00E+00	3.01E+00
		Co-58	<2.77E+00	0.00E+00	2.77E+00
		Fe-59	<6.60E+00	0.00E+00	6.60E+00
		Co-60	<2.63E+00	0.00E+00	2.63E+00
		Zn-65	<6.94E+00	0.00E+00	6.94E+00
		Zr-95	<5.15E+00	0.00E+00	5.15E+00
		Nb-95	<4.10E+00	0.00E+00	4.10E+00
		I-131	<1.16E+01	0.00E+00	1.16E+01
		Cs-134	<3.24E+00	0.00E+00	3.24E+00
		Cs-137	<3.19E+00	0.00E+00	3.19E+00
		BaLa-140	<6.03E+00	0.00E+00	6.03E+00
		Be-7	<2.24E+01	0.00E+00	2.24E+01
		K-40	6.81E+01	3.28E+01	4.24E+01
570009	6/13/2022 - 7/11/2022	Mn-54	<2.65E+00	0.00E+00	2.65E+00
		Co-58	<3.61E+00	0.00E+00	3.61E+00
		Fe-59	<6.41E+00	0.00E+00	6.41E+00
		Co-60	<3.56E+00	0.00E+00	3.56E+00
		Zn-65	<5.65E+00	0.00E+00	5.65E+00
		Zr-95	<5.65E+00	0.00E+00	5.65E+00
		Nb-95	<4.38E+00	0.00E+00	4.38E+00
		I-131	<1.10E+01	0.00E+00	1.10E+01
		Cs-134	<3.06E+00	0.00E+00	3.06E+00
		Cs-137	<3.31E+00	0.00E+00	3.31E+00

OCONEE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: SURFACE WATER Concentration (Activity): pCi/l

Sample Point 062 [CONTROL - ENE @ 0.85 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
570009	6/13/2022 - 7/11/2022	BaLa-140	<7.51E+00	0.00E+00	7.51E+00
		Be-7	<3.03E+01	0.00E+00	3.03E+01
		K-40	7.82E+01	3.46E+01	4.32E+01
570247	4/18/2022 - 7/11/2022	H3SW	<3.39E+01	0.00E+00	1.79E+02
571546	7/11/2022 - 8/8/2022	Mn-54	<2.77E+00	0.00E+00	2.77E+00
		Co-58	<3.37E+00	0.00E+00	3.37E+00
		Fe-59	<5.12E+00	0.00E+00	5.12E+00
		Co-60	<2.27E+00	0.00E+00	2.27E+00
		Zn-65	<4.71E+00	0.00E+00	4.71E+00
		Zr-95	<5.75E+00	0.00E+00	5.75E+00
		Nb-95	<3.08E+00	0.00E+00	3.08E+00
		I-131	<1.15E+01	0.00E+00	1.15E+01
		Cs-134	<2.84E+00	0.00E+00	2.84E+00
		Cs-137	<2.80E+00	0.00E+00	2.80E+00
		BaLa-140	<6.64E+00	0.00E+00	6.64E+00
		Be-7	<2.44E+01	0.00E+00	2.44E+01
		K-40	3.77E+01	2.84E+01	4.33E+01
574675	8/8/2022 - 9/6/2022	Mn-54	<2.81E+00	0.00E+00	2.81E+00
		Co-58	<2.32E+00	0.00E+00	2.32E+00
		Fe-59	<6.32E+00	0.00E+00	6.32E+00
		Co-60	<2.43E+00	0.00E+00	2.43E+00
		Zn-65	<5.12E+00	0.00E+00	5.12E+00
		Zr-95	<4.97E+00	0.00E+00	4.97E+00
		Nb-95	<3.48E+00	0.00E+00	3.48E+00
		I-131	<1.14E+01	0.00E+00	1.14E+01
		Cs-134	<2.55E+00	0.00E+00	2.55E+00
		Cs-137	<2.37E+00	0.00E+00	2.37E+00
		BaLa-140	<7.34E+00	0.00E+00	7.34E+00
		Be-7	<3.04E+01	0.00E+00	3.04E+01
		K-40	7.04E+01	3.21E+01	4.35E+01
576390	9/6/2022 - 10/3/2022	Mn-54	<2.52E+00	0.00E+00	2.52E+00
		Co-58	<3.47E+00	0.00E+00	3.47E+00
		Fe-59	<7.43E+00	0.00E+00	7.43E+00
		Co-60	<2.79E+00	0.00E+00	2.79E+00
		Zn-65	<5.97E+00	0.00E+00	5.97E+00
		Zr-95	<6.72E+00	0.00E+00	6.72E+00
		Nb-95	<3.40E+00	0.00E+00	3.40E+00
		I-131	<1.17E+01	0.00E+00	1.17E+01
		Cs-134	<3.28E+00	0.00E+00	3.28E+00
		Cs-137	<3.42E+00	0.00E+00	3.42E+00
		BaLa-140	<5.69E+00	0.00E+00	5.69E+00
		Be-7	<3.10E+01	0.00E+00	3.10E+01
		K-40	6.06E+01	3.28E+01	4.54E+01
577121	7/11/2022 - 10/3/2022	H3SW	<-6.3E+01	0.00E+00	1.97E+02
578739	10/3/2022 - 10/31/2022	Mn-54	<3.54E+00	0.00E+00	3.54E+00
		Co-58	<4.25E+00	0.00E+00	4.25E+00
		Fe-59	<8.29E+00	0.00E+00	8.29E+00
		Co-60	<3.41E+00	0.00E+00	3.41E+00
		Zn-65	<7.22E+00	0.00E+00	7.22E+00
		Zr-95	<7.56E+00	0.00E+00	7.56E+00
		Nb-95	<4.99E+00	0.00E+00	4.99E+00
		I-131	<1.31E+01	0.00E+00	1.31E+01
		Cs-134	<4.07E+00	0.00E+00	4.07E+00
		Cs-137	<4.24E+00	0.00E+00	4.24E+00
		BaLa-140	<7.10E+00	0.00E+00	7.10E+00
		Be-7	<4.10E+01	0.00E+00	4.10E+01

OCONEE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: SURFACE WATER Concentration (Activity): pCi/l

Sample Point 062 [CONTROL - ENE @ 0.85 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
578739	10/3/2022 - 10/31/2022	K-40	8.96E+01	3.94E+01	4.66E+01
580729	10/31/2022 - 11/28/2022	Mn-54	<2.30E+00	0.00E+00	2.30E+00
		Co-58	<2.19E+00	0.00E+00	2.19E+00
		Fe-59	<4.69E+00	0.00E+00	4.69E+00
		Co-60	<2.26E+00	0.00E+00	2.26E+00
		Zn-65	<4.31E+00	0.00E+00	4.31E+00
		Zr-95	<3.89E+00	0.00E+00	3.89E+00
		Nb-95	<3.08E+00	0.00E+00	3.08E+00
		I-131	<1.09E+01	0.00E+00	1.09E+01
		Cs-134	<2.05E+00	0.00E+00	2.05E+00
		Cs-137	<2.34E+00	0.00E+00	2.34E+00
		BaLa-140	<4.84E+00	0.00E+00	4.84E+00
		Be-7	<2.32E+01	0.00E+00	2.32E+01
		K-40	8.53E+01	3.05E+01	3.97E+01
582326	11/28/2022 - 12/27/2022	Mn-54	<1.60E+00	0.00E+00	1.60E+00
		Co-58	<2.66E+00	0.00E+00	2.66E+00
		Fe-59	<4.89E+00	0.00E+00	4.89E+00
		Co-60	<2.03E+00	0.00E+00	2.03E+00
		Zn-65	<3.78E+00	0.00E+00	3.78E+00
		Zr-95	<3.61E+00	0.00E+00	3.61E+00
		Nb-95	<2.83E+00	0.00E+00	2.83E+00
		I-131	<1.30E+01	0.00E+00	1.30E+01
		Cs-134	<2.20E+00	0.00E+00	2.20E+00
		Cs-137	<1.79E+00	0.00E+00	1.79E+00
		BaLa-140	<5.85E+00	0.00E+00	5.85E+00
		Be-7	<2.13E+01	0.00E+00	2.13E+01
		K-40	5.90E+01	2.26E+01	2.97E+01
582924	10/3/2022 - 12/27/2022	H3SW	<-4.4E+01	0.00E+00	1.82E+02
59505	12/27/2021 - 1/24/2022	Mn-54	<2.55E+00	0.00E+00	2.55E+00
		Co-58	<2.49E+00	0.00E+00	2.49E+00
		Fe-59	<4.71E+00	0.00E+00	4.71E+00
		Co-60	<1.57E+00	0.00E+00	1.57E+00
		Zn-65	<4.83E+00	0.00E+00	4.83E+00
		Zr-95	<3.95E+00	0.00E+00	3.95E+00
		Nb-95	<2.71E+00	0.00E+00	2.71E+00
		I-131	<9.49E+00	0.00E+00	9.49E+00
		Cs-134	<2.93E+00	0.00E+00	2.93E+00
		Cs-137	<2.53E+00	0.00E+00	2.53E+00
		BaLa-140	<5.24E+00	0.00E+00	5.24E+00
		Be-7	<2.04E+01	0.00E+00	2.04E+01
		K-40	5.61E+01	2.38E+01	3.15E+01
560955	1/24/2022 - 2/21/2022	Mn-54	<4.93E+00	0.00E+00	4.93E+00
		Co-58	<4.48E+00	0.00E+00	4.48E+00
		Fe-59	<8.99E+00	0.00E+00	8.99E+00
		Co-60	<3.76E+00	0.00E+00	3.76E+00
		Zn-65	<7.92E+00	0.00E+00	7.92E+00
		Zr-95	<6.71E+00	0.00E+00	6.71E+00
		Nb-95	<4.02E+00	0.00E+00	4.02E+00
		I-131	<1.20E+01	0.00E+00	1.20E+01
		Cs-134	<3.77E+00	0.00E+00	3.77E+00
		Cs-137	<3.92E+00	0.00E+00	3.92E+00
		BaLa-140	<8.60E+00	0.00E+00	8.60E+00
		Be-7	<3.91E+01	0.00E+00	3.91E+01
		K-40	6.82E+01	3.91E+01	5.21E+01
563150	2/21/2022 - 3/21/2022	Mn-54	<3.20E+00	0.00E+00	3.20E+00

OCONEE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: SURFACE WATER Concentration (Activity): pCi/l

Sample Point 063.1 [INDICATOR - E @ 0.79 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA		
563150	2/21/2022 - 3/21/2022	Co-58	<3.29E+00	0.00E+00	3.29E+00		
		Fe-59	<7.14E+00	0.00E+00	7.14E+00		
		Co-60	<4.12E+00	0.00E+00	4.12E+00		
		Zn-65	<8.16E+00	0.00E+00	8.16E+00		
		Zr-95	<6.95E+00	0.00E+00	6.95E+00		
		Nb-95	<3.37E+00	0.00E+00	3.37E+00		
		I-131	<1.13E+01	0.00E+00	1.13E+01		
		Cs-134	<2.99E+00	0.00E+00	2.99E+00		
		Cs-137	<2.99E+00	0.00E+00	2.99E+00		
		BaLa-140	<4.67E+00	0.00E+00	4.67E+00		
		Be-7	<2.85E+01	0.00E+00	2.85E+01		
		K-40	5.92E+01	3.26E+01	4.32E+01		
		564489	12/27/2021 - 4/18/2022	H3SW	1.54E+04	3.46E+02	1.72E+02
564661	3/21/2022 - 4/18/2022	Mn-54	<2.91E+00	0.00E+00	2.91E+00		
		Co-58	<2.92E+00	0.00E+00	2.92E+00		
		Fe-59	<6.59E+00	0.00E+00	6.59E+00		
		Co-60	<2.64E+00	0.00E+00	2.64E+00		
		Zn-65	<6.13E+00	0.00E+00	6.13E+00		
		Zr-95	<5.65E+00	0.00E+00	5.65E+00		
		Nb-95	<4.86E+00	0.00E+00	4.86E+00		
		I-131	<1.17E+01	0.00E+00	1.17E+01		
		Cs-134	<3.58E+00	0.00E+00	3.58E+00		
		Cs-137	<3.22E+00	0.00E+00	3.22E+00		
		BaLa-140	<7.43E+00	0.00E+00	7.43E+00		
		Be-7	<2.75E+01	0.00E+00	2.75E+01		
		K-40	5.65E+01	3.06E+01	4.36E+01		
		566742	4/18/2022 - 5/16/2022	Mn-54	<2.69E+00	0.00E+00	2.69E+00
Co-58	<3.37E+00			0.00E+00	3.37E+00		
Fe-59	<6.77E+00			0.00E+00	6.77E+00		
Co-60	<2.83E+00			0.00E+00	2.83E+00		
Zn-65	<7.48E+00			0.00E+00	7.48E+00		
Zr-95	<5.54E+00			0.00E+00	5.54E+00		
Nb-95	<3.93E+00			0.00E+00	3.93E+00		
I-131	<1.16E+01			0.00E+00	1.16E+01		
Cs-134	<3.11E+00			0.00E+00	3.11E+00		
Cs-137	<2.94E+00			0.00E+00	2.94E+00		
BaLa-140	<8.49E+00			0.00E+00	8.49E+00		
Be-7	<3.36E+01			0.00E+00	3.36E+01		
K-40	<5.84E+01			0.00E+00	5.84E+01		
568183	5/16/2022 - 6/13/2022			Mn-54	<3.00E+00	0.00E+00	3.00E+00
		Co-58	<2.94E+00	0.00E+00	2.94E+00		
		Fe-59	<7.35E+00	0.00E+00	7.35E+00		
		Co-60	<3.17E+00	0.00E+00	3.17E+00		
		Zn-65	<5.66E+00	0.00E+00	5.66E+00		
		Zr-95	<6.30E+00	0.00E+00	6.30E+00		
		Nb-95	<4.43E+00	0.00E+00	4.43E+00		
		I-131	<1.15E+01	0.00E+00	1.15E+01		
		Cs-134	<3.68E+00	0.00E+00	3.68E+00		
		Cs-137	<3.18E+00	0.00E+00	3.18E+00		
		BaLa-140	<8.16E+00	0.00E+00	8.16E+00		
		Be-7	<2.68E+01	0.00E+00	2.68E+01		
		K-40	1.26E+02	4.39E+01	5.63E+01		
		570010	6/13/2022 - 7/11/2022	Mn-54	<3.55E+00	0.00E+00	3.55E+00
Co-58	<3.53E+00			0.00E+00	3.53E+00		
Fe-59	<5.73E+00			0.00E+00	5.73E+00		
Co-60	<2.52E+00			0.00E+00	2.52E+00		
Zn-65	<6.18E+00			0.00E+00	6.18E+00		
Zr-95	<6.88E+00			0.00E+00	6.88E+00		

OCONEE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: SURFACE WATER Concentration (Activity): pCi/l

Sample Point 063.1 [INDICATOR - E @ 0.79 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
570010	6/13/2022 - 7/11/2022	Nb-95	<3.29E+00	0.00E+00	3.29E+00
		I-131	<1.15E+01	0.00E+00	1.15E+01
		Cs-134	<3.70E+00	0.00E+00	3.70E+00
		Cs-137	<3.46E+00	0.00E+00	3.46E+00
		BaLa-140	<8.56E+00	0.00E+00	8.56E+00
		Be-7	<2.91E+01	0.00E+00	2.91E+01
		K-40	7.30E+01	3.45E+01	4.54E+01
570248	4/18/2022 - 7/11/2022	H3SW	7.26E+03	2.51E+02	1.79E+02
571547	7/11/2022 - 8/8/2022	Mn-54	<2.91E+00	0.00E+00	2.91E+00
		Co-58	<4.28E+00	0.00E+00	4.28E+00
		Fe-59	<8.51E+00	0.00E+00	8.51E+00
		Co-60	<2.81E+00	0.00E+00	2.81E+00
		Zn-65	<5.66E+00	0.00E+00	5.66E+00
		Zr-95	<7.40E+00	0.00E+00	7.40E+00
		Nb-95	<4.73E+00	0.00E+00	4.73E+00
		I-131	<1.15E+01	0.00E+00	1.15E+01
		Cs-134	<3.77E+00	0.00E+00	3.77E+00
		Cs-137	<3.88E+00	0.00E+00	3.88E+00
		BaLa-140	<8.25E+00	0.00E+00	8.25E+00
		Be-7	<2.93E+01	0.00E+00	2.93E+01
		K-40	5.27E+01	3.26E+01	4.51E+01
		574676	8/8/2022 - 9/6/2022	Mn-54	<2.32E+00
Co-58	<3.42E+00			0.00E+00	3.42E+00
Fe-59	<7.26E+00			0.00E+00	7.26E+00
Co-60	<2.97E+00			0.00E+00	2.97E+00
Zn-65	<3.78E+00			0.00E+00	3.78E+00
Zr-95	<4.93E+00			0.00E+00	4.93E+00
Nb-95	<3.62E+00			0.00E+00	3.62E+00
I-131	<1.19E+01			0.00E+00	1.19E+01
Cs-134	<3.10E+00			0.00E+00	3.10E+00
Cs-137	<2.91E+00			0.00E+00	2.91E+00
BaLa-140	<5.28E+00			0.00E+00	5.28E+00
Be-7	<2.94E+01			0.00E+00	2.94E+01
K-40	5.92E+01			2.91E+01	3.86E+01
576391	9/6/2022 - 10/3/2022			Mn-54	<2.28E+00
		Co-58	<2.93E+00	0.00E+00	2.93E+00
		Fe-59	<5.53E+00	0.00E+00	5.53E+00
		Co-60	<2.93E+00	0.00E+00	2.93E+00
		Zn-65	<6.08E+00	0.00E+00	6.08E+00
		Zr-95	<6.09E+00	0.00E+00	6.09E+00
		Nb-95	<3.96E+00	0.00E+00	3.96E+00
		I-131	<1.11E+01	0.00E+00	1.11E+01
		Cs-134	<3.70E+00	0.00E+00	3.70E+00
		Cs-137	<2.48E+00	0.00E+00	2.48E+00
		BaLa-140	<6.57E+00	0.00E+00	6.57E+00
		Be-7	<2.83E+01	0.00E+00	2.83E+01
		K-40	6.67E+01	2.91E+01	3.56E+01
		577122	7/11/2022 - 10/3/2022	H3SW	5.91E+03
578740	10/3/2022 - 10/31/2022	Mn-54	<3.43E+00	0.00E+00	3.43E+00
		Co-58	<4.13E+00	0.00E+00	4.13E+00
		Fe-59	<7.64E+00	0.00E+00	7.64E+00
		Co-60	<3.05E+00	0.00E+00	3.05E+00
		Zn-65	<6.60E+00	0.00E+00	6.60E+00
		Zr-95	<5.97E+00	0.00E+00	5.97E+00
		Nb-95	<5.78E+00	0.00E+00	5.78E+00
		I-131	<1.31E+01	0.00E+00	1.31E+01
		Cs-134	<3.95E+00	0.00E+00	3.95E+00

OCONEE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: SURFACE WATER Concentration (Activity): pCi/l

Sample Point 063.1 [INDICATOR - E @ 0.79 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
578740	10/3/2022 - 10/31/2022	Cs-137	<3.56E+00	0.00E+00	3.56E+00
		BaLa-140	<8.05E+00	0.00E+00	8.05E+00
		Be-7	<3.09E+01	0.00E+00	3.09E+01
		K-40	7.76E+01	3.38E+01	3.66E+01
580730	10/31/2022 - 11/28/2022	Mn-54	<2.26E+00	0.00E+00	2.26E+00
		Co-58	<3.06E+00	0.00E+00	3.06E+00
		Fe-59	<7.05E+00	0.00E+00	7.05E+00
		Co-60	<2.42E+00	0.00E+00	2.42E+00
		Zn-65	<7.48E+00	0.00E+00	7.48E+00
		Zr-95	<6.89E+00	0.00E+00	6.89E+00
		Nb-95	<4.09E+00	0.00E+00	4.09E+00
		I-131	<1.27E+01	0.00E+00	1.27E+01
		Cs-134	<3.55E+00	0.00E+00	3.55E+00
		Cs-137	<2.93E+00	0.00E+00	2.93E+00
		BaLa-140	<9.43E+00	0.00E+00	9.43E+00
		Be-7	<2.82E+01	0.00E+00	2.82E+01
		K-40	8.19E+01	3.25E+01	3.68E+01
582327	11/28/2022 - 12/27/2022	Mn-54	<2.01E+00	0.00E+00	2.01E+00
		Co-58	<2.07E+00	0.00E+00	2.07E+00
		Fe-59	<5.08E+00	0.00E+00	5.08E+00
		Co-60	<1.49E+00	0.00E+00	1.49E+00
		Zn-65	<3.92E+00	0.00E+00	3.92E+00
		Zr-95	<3.69E+00	0.00E+00	3.69E+00
		Nb-95	<2.42E+00	0.00E+00	2.42E+00
		I-131	<1.32E+01	0.00E+00	1.32E+01
		Cs-134	<1.67E+00	0.00E+00	1.67E+00
		Cs-137	<1.85E+00	0.00E+00	1.85E+00
		BaLa-140	<7.41E+00	0.00E+00	7.41E+00
		Be-7	<2.24E+01	0.00E+00	2.24E+01
		K-40	8.75E+01	2.33E+01	2.49E+01
582925	10/3/2022 - 12/27/2022	H3SW	1.83E+03	1.57E+02	1.81E+02

Media Type: TLD Concentration (Activity): mR/Standard Quarter

Sample Point 020 [INDICATOR - N @ 0.16 miles]

TLD RING TLD_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
562546	12/14/2021 - 3/15/2022	mR/Std Qtr	22.42
568038	3/15/2022 - 6/21/2022	mR/Std Qtr	19.13
575455	6/21/2022 - 9/14/2022	mR/Std Qtr	19.14
581526	9/14/2022 - 12/13/2022	mR/Std Qtr	21.68

Sample Point 021 [INDICATOR - NNE @ 0.25 miles]

TLD RING TLD_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
562547	12/14/2021 - 3/15/2022	mR/Std Qtr	18.82
568039	3/15/2022 - 6/21/2022	mR/Std Qtr	15.34
575456	6/21/2022 - 9/14/2022	mR/Std Qtr	13.72
581527	9/14/2022 - 12/13/2022	mR/Std Qtr	15.75

Sample Point 022 [INDICATOR - NE @ 0.53 miles]

TLD RING TLD_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
562548	12/14/2021 - 3/15/2022	mR/Std Qtr	29.84

OCONEE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: TLD Concentration (Activity): mR/Standard Quarter

Sample Point 022 [INDICATOR - NE @ 0.53 miles]

TLD RING TLD_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
568040	3/15/2022 - 6/21/2022	mR/Std Qtr	24.34
575457	6/21/2022 - 9/14/2022	mR/Std Qtr	20.32
581528	9/14/2022 - 12/13/2022	mR/Std Qtr	25.06

Sample Point 023 [INDICATOR - ENE @ 0.93 miles]

TLD RING TLD_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
562549	12/14/2021 - 3/15/2022	mR/Std Qtr	29.59
568041	3/15/2022 - 6/21/2022	mR/Std Qtr	23.88
575458	6/21/2022 - 9/14/2022	mR/Std Qtr	20.54
581529	9/14/2022 - 12/13/2022	mR/Std Qtr	23.44

Sample Point 024 [INDICATOR - E @ 0.81 miles]

TLD RING TLD_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
562550	12/14/2021 - 3/15/2022	mR/Std Qtr	35.41
568042	3/15/2022 - 6/21/2022	mR/Std Qtr	29.89
575459	6/21/2022 - 9/14/2022	mR/Std Qtr	25.31
581530	9/14/2022 - 12/13/2022	mR/Std Qtr	30.09

Sample Point 025 [INDICATOR - ESE @ 0.42 miles]

TLD RING TLD_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
562551	12/14/2021 - 3/15/2022	mR/Std Qtr	22.50
568043	3/15/2022 - 6/21/2022	mR/Std Qtr	20.55
575460	6/21/2022 - 9/14/2022	mR/Std Qtr	18.00
581531	9/14/2022 - 12/13/2022	mR/Std Qtr	20.84

Sample Point 026 [INDICATOR - SE @ 0.34 miles]

TLD RING TLD_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
562552	12/14/2021 - 3/15/2022	mR/Std Qtr	20.85
568044	3/15/2022 - 6/21/2022	mR/Std Qtr	17.20
575461	6/21/2022 - 9/14/2022	mR/Std Qtr	15.84
581532	9/14/2022 - 12/13/2022	mR/Std Qtr	18.08

Sample Point 027 [INDICATOR - SSE @ 0.49 miles]

TLD RING TLD_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
562553	12/14/2021 - 3/15/2022	mR/Std Qtr	21.12
568045	3/15/2022 - 6/21/2022	mR/Std Qtr	18.33
575462	6/21/2022 - 9/14/2022	mR/Std Qtr	17.99

OCONEE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: TLD Concentration (Activity): mR/Standard Quarter

Sample Point 027 [INDICATOR - SSE @ 0.49 miles]

TLD RING TLD_INNER

Sample ID: 581533	Sample Dates: 9/14/2022 - 12/13/2022	Nuclide mR/Std Qtr	Activity 20.78
-------------------	--------------------------------------	-----------------------	-------------------

Sample Point 028 [INDICATOR - S @ 0.46 miles]

TLD RING TLD_INNER

Sample ID: 562554	Sample Dates: 12/14/2021 - 3/15/2022	Nuclide mR/Std Qtr	Activity 20.62
-------------------	--------------------------------------	-----------------------	-------------------

Sample ID: 568046	Sample Dates: 3/15/2022 - 6/21/2022	Nuclide mR/Std Qtr	Activity 17.87
-------------------	-------------------------------------	-----------------------	-------------------

Sample ID: 575463	Sample Dates: 6/21/2022 - 9/14/2022	Nuclide mR/Std Qtr	Activity 16.28
-------------------	-------------------------------------	-----------------------	-------------------

Sample ID: 581534	Sample Dates: 9/14/2022 - 12/13/2022	Nuclide mR/Std Qtr	Activity 19.44
-------------------	--------------------------------------	-----------------------	-------------------

Sample Point 029 [INDICATOR - SSW @ 0.56 miles]

TLD RING TLD_INNER

Sample ID: 562555	Sample Dates: 12/14/2021 - 3/15/2022	Nuclide mR/Std Qtr	Activity 19.23
-------------------	--------------------------------------	-----------------------	-------------------

Sample ID: 568047	Sample Dates: 3/15/2022 - 6/21/2022	Nuclide mR/Std Qtr	Activity 17.62
-------------------	-------------------------------------	-----------------------	-------------------

Sample ID: 575464	Sample Dates: 6/21/2022 - 9/14/2022	Nuclide mR/Std Qtr	Activity 14.85
-------------------	-------------------------------------	-----------------------	-------------------

Sample ID: 581535	Sample Dates: 9/14/2022 - 12/13/2022	Nuclide mR/Std Qtr	Activity 19.23
-------------------	--------------------------------------	-----------------------	-------------------

Sample Point 030 [INDICATOR - SW @ 0.42 miles]

TLD RING TLD_INNER

Sample ID: 562556	Sample Dates: 12/14/2021 - 3/15/2022	Nuclide mR/Std Qtr	Activity 21.72
-------------------	--------------------------------------	-----------------------	-------------------

Sample ID: 568048	Sample Dates: 3/15/2022 - 6/21/2022	Nuclide mR/Std Qtr	Activity 17.34
-------------------	-------------------------------------	-----------------------	-------------------

Sample ID: 575465	Sample Dates: 6/21/2022 - 9/14/2022	Nuclide mR/Std Qtr	Activity 16.77
-------------------	-------------------------------------	-----------------------	-------------------

Sample ID: 581536	Sample Dates: 9/14/2022 - 12/13/2022	Nuclide mR/Std Qtr	Activity 19.85
-------------------	--------------------------------------	-----------------------	-------------------

Sample Point 031 [INDICATOR - WSW @ 0.27 miles]

TLD RING TLD_INNER

Sample ID: 562557	Sample Dates: 12/14/2021 - 3/15/2022	Nuclide mR/Std Qtr	Activity 21.36
-------------------	--------------------------------------	-----------------------	-------------------

Sample ID: 568049	Sample Dates: 3/15/2022 - 6/21/2022	Nuclide mR/Std Qtr	Activity 18.33
-------------------	-------------------------------------	-----------------------	-------------------

Sample ID: 575466	Sample Dates: 6/21/2022 - 9/14/2022	Nuclide mR/Std Qtr	Activity 15.68
-------------------	-------------------------------------	-----------------------	-------------------

Sample ID: 581537	Sample Dates: 9/14/2022 - 12/13/2022	Nuclide mR/Std Qtr	Activity 20.40
-------------------	--------------------------------------	-----------------------	-------------------

Sample Point 032 [INDICATOR - WNW @ 0.19 miles]

TLD RING TLD_INNER

Sample ID: 562558	Sample Dates: 12/14/2021 - 3/15/2022	Nuclide mR/Std Qtr	Activity 25.54
-------------------	--------------------------------------	-----------------------	-------------------

Sample ID: 568050	Sample Dates: 3/15/2022 - 6/21/2022	Nuclide mR/Std Qtr	Activity 21.26
-------------------	-------------------------------------	-----------------------	-------------------

Sample ID: 575467	Sample Dates: 6/21/2022 - 9/14/2022	Nuclide mR/Std Qtr	Activity 18.89
-------------------	-------------------------------------	-----------------------	-------------------

Sample ID: 581538	Sample Dates: 9/14/2022 - 12/13/2022	Nuclide mR/Std Qtr	Activity 21.89
-------------------	--------------------------------------	-----------------------	-------------------

OCONEE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: TLD Concentration (Activity): mR/Standard Quarter

Sample Point 033 [INDICATOR - WNW @ 0.21 miles]

TLD RING TLD_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
562559	12/14/2021 - 3/15/2022	mR/Std Qtr	23.10
568051	3/15/2022 - 6/21/2022	mR/Std Qtr	19.03
575468	6/21/2022 - 9/14/2022	mR/Std Qtr	16.55
581539	9/14/2022 - 12/13/2022	mR/Std Qtr	18.80

Sample Point 034 [INDICATOR - NW @ 0.22 miles]

TLD RING TLD_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
562560	12/14/2021 - 3/15/2022	mR/Std Qtr	24.19
568052	3/15/2022 - 6/21/2022	mR/Std Qtr	19.11
575469	6/21/2022 - 9/14/2022	mR/Std Qtr	17.07
581540	9/14/2022 - 12/13/2022	mR/Std Qtr	21.14

Sample Point 035 [INDICATOR - NNW @ 0.17 miles]

TLD RING TLD_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
562561	12/14/2021 - 3/15/2022	mR/Std Qtr	30.16
568053	3/15/2022 - 6/21/2022	mR/Std Qtr	25.03
575470	6/21/2022 - 9/14/2022	mR/Std Qtr	22.49
581541	9/14/2022 - 12/13/2022	mR/Std Qtr	25.61

Sample Point 036 [INDICATOR - N @ 4.18 miles]

TLD RING TLD_OUTER

Sample ID:	Sample Dates:	Nuclide	Activity
562562	12/14/2021 - 3/15/2022	mR/Std Qtr	31.49
568054	3/15/2022 - 6/21/2022	mR/Std Qtr	28.59
575471	6/21/2022 - 9/14/2022	mR/Std Qtr	25.07
581542	9/14/2022 - 12/13/2022	mR/Std Qtr	26.99

Sample Point 037 [INDICATOR - NNE @ 4.85 miles]

TLD RING TLD_OUTER

Sample ID:	Sample Dates:	Nuclide	Activity
562563	12/14/2021 - 3/15/2022	mR/Std Qtr	23.59
568055	3/15/2022 - 6/21/2022	mR/Std Qtr	18.65
581543	9/14/2022 - 12/13/2022	mR/Std Qtr	18.84

Sample Point 038 [INDICATOR - NE @ 4.24 miles]

TLD RING TLD_OUTER

Sample ID:	Sample Dates:	Nuclide	Activity
562564	12/14/2021 - 3/15/2022	mR/Std Qtr	25.72
568056	3/15/2022 - 6/21/2022	mR/Std Qtr	22.43
575473	6/21/2022 - 9/14/2022	mR/Std Qtr	20.14

OCONEE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: TLD Concentration (Activity): mR/Standard Quarter

Sample Point 038 [INDICATOR - NE @ 4.24 miles]

TLD RING TLD_OUTER

Sample ID: 581544	Sample Dates: 9/14/2022 - 12/13/2022	Nuclide mR/Std Qtr	Activity 21.99
-------------------	--------------------------------------	-----------------------	-------------------

Sample Point 039 [INDICATOR - ENE @ 4.02 miles]

TLD RING TLD_OUTER

Sample ID: 562565	Sample Dates: 12/14/2021 - 3/15/2022	Nuclide mR/Std Qtr	Activity 28.85
-------------------	--------------------------------------	-----------------------	-------------------

Sample ID: 568057	Sample Dates: 3/15/2022 - 6/21/2022	Nuclide mR/Std Qtr	Activity 26.39
-------------------	-------------------------------------	-----------------------	-------------------

Sample ID: 575474	Sample Dates: 6/21/2022 - 9/14/2022	Nuclide mR/Std Qtr	Activity 23.99
-------------------	-------------------------------------	-----------------------	-------------------

Sample ID: 581545	Sample Dates: 9/14/2022 - 12/13/2022	Nuclide mR/Std Qtr	Activity 23.20
-------------------	--------------------------------------	-----------------------	-------------------

Sample Point 040 [INDICATOR - E @ 4.74 miles]

TLD RING TLD_OUTER

Sample ID: 562566	Sample Dates: 12/14/2021 - 3/15/2022	Nuclide mR/Std Qtr	Activity 32.37
-------------------	--------------------------------------	-----------------------	-------------------

Sample ID: 568058	Sample Dates: 3/15/2022 - 6/21/2022	Nuclide mR/Std Qtr	Activity 27.55
-------------------	-------------------------------------	-----------------------	-------------------

Sample ID: 575475	Sample Dates: 6/21/2022 - 9/14/2022	Nuclide mR/Std Qtr	Activity 24.47
-------------------	-------------------------------------	-----------------------	-------------------

Sample ID: 581546	Sample Dates: 9/14/2022 - 12/13/2022	Nuclide mR/Std Qtr	Activity 25.25
-------------------	--------------------------------------	-----------------------	-------------------

Sample Point 041 [INDICATOR - ESE @ 4.25 miles]

TLD RING TLD_OUTER

Sample ID: 562567	Sample Dates: 12/14/2021 - 3/15/2022	Nuclide mR/Std Qtr	Activity 20.73
-------------------	--------------------------------------	-----------------------	-------------------

Sample ID: 568059	Sample Dates: 3/15/2022 - 6/21/2022	Nuclide mR/Std Qtr	Activity 18.54
-------------------	-------------------------------------	-----------------------	-------------------

Sample ID: 575476	Sample Dates: 6/21/2022 - 9/14/2022	Nuclide mR/Std Qtr	Activity 16.31
-------------------	-------------------------------------	-----------------------	-------------------

Sample ID: 581547	Sample Dates: 9/14/2022 - 12/13/2022	Nuclide mR/Std Qtr	Activity 19.55
-------------------	--------------------------------------	-----------------------	-------------------

Sample Point 042 [INDICATOR - SE @ 4.93 miles]

TLD RING TLD_OUTER

Sample ID: 562568	Sample Dates: 12/14/2021 - 3/15/2022	Nuclide mR/Std Qtr	Activity 31.75
-------------------	--------------------------------------	-----------------------	-------------------

Sample ID: 568060	Sample Dates: 3/15/2022 - 6/21/2022	Nuclide mR/Std Qtr	Activity 26.80
-------------------	-------------------------------------	-----------------------	-------------------

Sample ID: 575477	Sample Dates: 6/21/2022 - 9/14/2022	Nuclide mR/Std Qtr	Activity 24.27
-------------------	-------------------------------------	-----------------------	-------------------

Sample ID: 581548	Sample Dates: 9/14/2022 - 12/13/2022	Nuclide mR/Std Qtr	Activity 27.50
-------------------	--------------------------------------	-----------------------	-------------------

Sample Point 043 [INDICATOR - SSE @ 4.09 miles]

TLD RING TLD_OUTER

Sample ID: 568061	Sample Dates: 3/15/2022 - 6/21/2022	Nuclide mR/Std Qtr	Activity 24.70
-------------------	-------------------------------------	-----------------------	-------------------

Sample ID: 575478	Sample Dates: 6/21/2022 - 9/14/2022	Nuclide mR/Std Qtr	Activity 23.34
-------------------	-------------------------------------	-----------------------	-------------------

Sample ID: 581549	Sample Dates: 9/14/2022 - 12/13/2022	Nuclide mR/Std Qtr	Activity 25.54
-------------------	--------------------------------------	-----------------------	-------------------

Sample Point 044 [INDICATOR - S @ 3.96 miles]

TLD RING TLD_OUTER

Sample ID: 562570	Sample Dates: 12/14/2021 - 3/15/2022	Nuclide mR/Std Qtr	Activity 23.65
-------------------	--------------------------------------	-----------------------	-------------------

OCONEE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: TLD Concentration (Activity): mR/Standard Quarter

Sample Point 044 [INDICATOR - S @ 3.96 miles]

TLD RING TLD_OUTER

Sample ID:	568062	Sample Dates:	3/15/2022 - 6/21/2022	Nuclide	Activity
				mR/Std Qtr	19.10
Sample ID:	575479	Sample Dates:	6/21/2022 - 9/14/2022	Nuclide	Activity
				mR/Std Qtr	17.49
Sample ID:	581550	Sample Dates:	9/14/2022 - 12/13/2022	Nuclide	Activity
				mR/Std Qtr	20.78

Sample Point 045 [INDICATOR - SSW @ 4.78 miles]

TLD RING TLD_OUTER

Sample ID:	562571	Sample Dates:	12/14/2021 - 3/15/2022	Nuclide	Activity
				mR/Std Qtr	22.39
Sample ID:	568063	Sample Dates:	3/15/2022 - 6/21/2022	Nuclide	Activity
				mR/Std Qtr	19.35
Sample ID:	575480	Sample Dates:	6/21/2022 - 9/14/2022	Nuclide	Activity
				mR/Std Qtr	16.58
Sample ID:	581551	Sample Dates:	9/14/2022 - 12/13/2022	Nuclide	Activity
				mR/Std Qtr	20.31

Sample Point 046 [INDICATOR - SW @ 4.61 miles]

TLD RING TLD_OUTER

Sample ID:	562572	Sample Dates:	12/14/2021 - 3/15/2022	Nuclide	Activity
				mR/Std Qtr	24.23
Sample ID:	568064	Sample Dates:	3/15/2022 - 6/21/2022	Nuclide	Activity
				mR/Std Qtr	21.52
Sample ID:	575481	Sample Dates:	6/21/2022 - 9/14/2022	Nuclide	Activity
				mR/Std Qtr	19.93
Sample ID:	581552	Sample Dates:	9/14/2022 - 12/13/2022	Nuclide	Activity
				mR/Std Qtr	22.48

Sample Point 048 [INDICATOR - W @ 3.64 miles]

TLD RING TLD_OUTER

Sample ID:	562573	Sample Dates:	12/14/2021 - 3/15/2022	Nuclide	Activity
				mR/Std Qtr	31.01
Sample ID:	568065	Sample Dates:	3/15/2022 - 6/21/2022	Nuclide	Activity
				mR/Std Qtr	26.94
Sample ID:	575482	Sample Dates:	6/21/2022 - 9/14/2022	Nuclide	Activity
				mR/Std Qtr	24.66
Sample ID:	581553	Sample Dates:	9/14/2022 - 12/13/2022	Nuclide	Activity
				mR/Std Qtr	30.77

Sample Point 049 [INDICATOR - WNW @ 3.6 miles]

TLD RING TLD_OUTER

Sample ID:	562574	Sample Dates:	12/14/2021 - 3/15/2022	Nuclide	Activity
				mR/Std Qtr	25.95
Sample ID:	568066	Sample Dates:	3/15/2022 - 6/21/2022	Nuclide	Activity
				mR/Std Qtr	21.25
Sample ID:	575483	Sample Dates:	6/21/2022 - 9/14/2022	Nuclide	Activity
				mR/Std Qtr	21.01
Sample ID:	581554	Sample Dates:	9/14/2022 - 12/13/2022	Nuclide	Activity
				mR/Std Qtr	24.05

Sample Point 050 [INDICATOR - NW @ 3.53 miles]

TLD RING TLD_OUTER

Sample ID:	562575	Sample Dates:	12/14/2021 - 3/15/2022	Nuclide	Activity
				mR/Std Qtr	22.32
Sample ID:	568067	Sample Dates:	3/15/2022 - 6/21/2022	Nuclide	Activity
				mR/Std Qtr	18.73
Sample ID:	575484	Sample Dates:	6/21/2022 - 9/14/2022	Nuclide	Activity
				mR/Std Qtr	16.16

OCONEE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: TLD Concentration (Activity): mR/Standard Quarter

Sample Point 050 [INDICATOR - NW @ 3.53 miles]

TLD RING TLD_OUTER

Sample ID:	581555	Sample Dates:	9/14/2022 - 12/13/2022	Nuclide	Activity
				mR/Std Qtr	20.57

Sample Point 051 [INDICATOR - NNW @ 4.64 miles]

TLD RING TLD_OUTER

Sample ID:	562576	Sample Dates:	12/14/2021 - 3/15/2022	Nuclide	Activity
				mR/Std Qtr	21.91

Sample ID:	568068	Sample Dates:	3/15/2022 - 6/21/2022	Nuclide	Activity
				mR/Std Qtr	20.30

Sample ID:	575485	Sample Dates:	6/21/2022 - 9/14/2022	Nuclide	Activity
				mR/Std Qtr	17.84

Sample ID:	581556	Sample Dates:	9/14/2022 - 12/13/2022	Nuclide	Activity
				mR/Std Qtr	20.45

Sample Point 052 [INDICATOR - ENE @ 12.4 miles]

TLD RING TLD_SPEC

Sample ID:	562577	Sample Dates:	12/14/2021 - 3/15/2022	Nuclide	Activity
				mR/Std Qtr	25.69

Sample ID:	568069	Sample Dates:	3/15/2022 - 6/21/2022	Nuclide	Activity
				mR/Std Qtr	20.94

Sample ID:	575486	Sample Dates:	6/21/2022 - 9/14/2022	Nuclide	Activity
				mR/Std Qtr	21.38

Sample ID:	581557	Sample Dates:	9/14/2022 - 12/13/2022	Nuclide	Activity
				mR/Std Qtr	26.41

Sample Point 053 [INDICATOR - E @ 11.7 miles]

TLD RING TLD_SPEC

Sample ID:	562578	Sample Dates:	12/14/2021 - 3/15/2022	Nuclide	Activity
				mR/Std Qtr	31.64

Sample ID:	568070	Sample Dates:	3/15/2022 - 6/21/2022	Nuclide	Activity
				mR/Std Qtr	25.80

Sample ID:	575487	Sample Dates:	6/21/2022 - 9/14/2022	Nuclide	Activity
				mR/Std Qtr	22.96

Sample ID:	581558	Sample Dates:	9/14/2022 - 12/13/2022	Nuclide	Activity
				mR/Std Qtr	28.20

Sample Point 054 [INDICATOR - ESE @ 8.6 miles]

TLD RING TLD_SPEC

Sample ID:	562579	Sample Dates:	12/14/2021 - 3/15/2022	Nuclide	Activity
				mR/Std Qtr	23.00

Sample ID:	568071	Sample Dates:	3/15/2022 - 6/21/2022	Nuclide	Activity
				mR/Std Qtr	19.80

Sample ID:	575488	Sample Dates:	6/21/2022 - 9/14/2022	Nuclide	Activity
				mR/Std Qtr	17.28

Sample ID:	581559	Sample Dates:	9/14/2022 - 12/13/2022	Nuclide	Activity
				mR/Std Qtr	18.68

Sample Point 055 [INDICATOR - SSE @ 9.27 miles]

TLD RING TLD_SPEC

Sample ID:	562580	Sample Dates:	12/14/2021 - 3/15/2022	Nuclide	Activity
				mR/Std Qtr	20.25

Sample ID:	575489	Sample Dates:	6/21/2022 - 9/14/2022	Nuclide	Activity
				mR/Std Qtr	15.42

Sample ID:	581560	Sample Dates:	9/14/2022 - 12/13/2022	Nuclide	Activity
				mR/Std Qtr	16.50

Sample Point 056 [INDICATOR - SSW @ 7.3 miles]

TLD RING TLD_SPEC

Sample ID:	562581	Sample Dates:	12/14/2021 - 3/15/2022	Nuclide	Activity
				mR/Std Qtr	27.95

OCONEE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: TLD Concentration (Activity): mR/Standard Quarter

Sample Point 056 [INDICATOR - SSW @ 7.3 miles]

TLD RING TLD_SPEC

Sample ID:	568073	Sample Dates:	3/15/2022 - 6/21/2022	Nuclide	Activity
				mR/Std Qtr	23.45
Sample ID:	575490	Sample Dates:	6/21/2022 - 9/14/2022	Nuclide	Activity
				mR/Std Qtr	22.11
Sample ID:	581561	Sample Dates:	9/14/2022 - 12/13/2022	Nuclide	Activity
				mR/Std Qtr	26.44

Sample Point 057 [INDICATOR - SW @ 8.42 miles]

TLD RING TLD_SPEC

Sample ID:	562582	Sample Dates:	12/14/2021 - 3/15/2022	Nuclide	Activity
				mR/Std Qtr	24.88
Sample ID:	568074	Sample Dates:	3/15/2022 - 6/21/2022	Nuclide	Activity
				mR/Std Qtr	19.95
Sample ID:	575491	Sample Dates:	6/21/2022 - 9/14/2022	Nuclide	Activity
				mR/Std Qtr	17.94
Sample ID:	581562	Sample Dates:	9/14/2022 - 12/13/2022	Nuclide	Activity
				mR/Std Qtr	22.24

Sample Point 058 [CONTROL - WSW @ 9.39 miles]

TLD RING TLD_CTRL

Sample ID:	562583	Sample Dates:	12/14/2021 - 3/15/2022	Nuclide	Activity
				mR/Std Qtr	37.91
Sample ID:	568075	Sample Dates:	3/15/2022 - 6/21/2022	Nuclide	Activity
				mR/Std Qtr	31.13
Sample ID:	575492	Sample Dates:	6/21/2022 - 9/14/2022	Nuclide	Activity
				mR/Std Qtr	28.87
Sample ID:	581563	Sample Dates:	9/14/2022 - 12/13/2022	Nuclide	Activity
				mR/Std Qtr	30.60

Sample Point 059 [INDICATOR - NW @ 9.2 miles]

TLD RING TLD_SPEC

Sample ID:	562584	Sample Dates:	12/14/2021 - 3/15/2022	Nuclide	Activity
				mR/Std Qtr	27.73
Sample ID:	568076	Sample Dates:	3/15/2022 - 6/21/2022	Nuclide	Activity
				mR/Std Qtr	23.62
Sample ID:	575493	Sample Dates:	6/21/2022 - 9/14/2022	Nuclide	Activity
				mR/Std Qtr	20.65

Sample Point 076 [INDICATOR - W @ 0.19 miles]

TLD RING TLD_INNER

Sample ID:	562585	Sample Dates:	12/14/2021 - 3/15/2022	Nuclide	Activity
				mR/Std Qtr	29.13
Sample ID:	568077	Sample Dates:	3/15/2022 - 6/21/2022	Nuclide	Activity
				mR/Std Qtr	25.10
Sample ID:	575494	Sample Dates:	6/21/2022 - 9/14/2022	Nuclide	Activity
				mR/Std Qtr	22.86
Sample ID:	581565	Sample Dates:	9/14/2022 - 12/13/2022	Nuclide	Activity
				mR/Std Qtr	27.24

Sample Point 077 [INDICATOR - SW @ 1 miles]

TLD RING TLD_INNER

Sample ID:	562586	Sample Dates:	12/14/2021 - 3/15/2022	Nuclide	Activity
				mR/Std Qtr	24.34
Sample ID:	568078	Sample Dates:	3/15/2022 - 6/21/2022	Nuclide	Activity
				mR/Std Qtr	20.49
Sample ID:	575495	Sample Dates:	6/21/2022 - 9/14/2022	Nuclide	Activity
				mR/Std Qtr	16.86
Sample ID:	581566	Sample Dates:	9/14/2022 - 12/13/2022	Nuclide	Activity
				mR/Std Qtr	21.08

OCONEE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: TLD Concentration (Activity): mR/Standard Quarter

Sample Point 078.1 [INDICATOR - WSW @ 0.53 miles]

TLD RING TLD_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
562587	12/14/2021 - 3/15/2022	mR/Std Qtr	33.07
568079	3/15/2022 - 6/21/2022	mR/Std Qtr	28.37
575496	6/21/2022 - 9/14/2022	mR/Std Qtr	26.12
581567	9/14/2022 - 12/13/2022	mR/Std Qtr	29.65

Sample Point 085 [INDICATOR - NNW @ 0.88 miles]

TLD RING TLD_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
562588	12/14/2021 - 3/15/2022	mR/Std Qtr	25.23
568080	3/15/2022 - 6/21/2022	mR/Std Qtr	20.16
575497	6/21/2022 - 9/14/2022	mR/Std Qtr	18.89
581568	9/14/2022 - 12/13/2022	mR/Std Qtr	23.70

Sample Point 086 [INDICATOR - NW @ 0.83 miles]

TLD RING TLD_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
562589	12/14/2021 - 3/15/2022	mR/Std Qtr	22.19
568081	3/15/2022 - 6/21/2022	mR/Std Qtr	17.22
575498	6/21/2022 - 9/14/2022	mR/Std Qtr	16.82
581569	9/14/2022 - 12/13/2022	mR/Std Qtr	18.67

Sample Point 087 [INDICATOR - WNW @ 1.33 miles]

TLD RING TLD_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
562590	12/14/2021 - 3/15/2022	mR/Std Qtr	21.39
568082	3/15/2022 - 6/21/2022	mR/Std Qtr	18.87
575499	6/21/2022 - 9/14/2022	mR/Std Qtr	17.30
581570	9/14/2022 - 12/13/2022	mR/Std Qtr	18.37

Sample Point 088 [INDICATOR - SSW @ 1 miles]

TLD RING TLD_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
562591	12/14/2021 - 3/15/2022	mR/Std Qtr	24.43
568083	3/15/2022 - 6/21/2022	mR/Std Qtr	20.60
575500	6/21/2022 - 9/14/2022	mR/Std Qtr	20.69
581571	9/14/2022 - 12/13/2022	mR/Std Qtr	23.85

Sample Point 089 [INDICATOR - S @ 1.19 miles]

TLD RING TLD_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
562592	12/14/2021 - 3/15/2022	mR/Std Qtr	27.76
568084	3/15/2022 - 6/21/2022	mR/Std Qtr	24.41

OCONEE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: TLD Concentration (Activity): mR/Standard Quarter

Sample Point 089 [INDICATOR - S @ 1.19 miles]

TLD RING TLD_INNER

Sample ID:	575501	Sample Dates:	6/21/2022 - 9/14/2022	Nuclide	Activity
				mR/Std Qtr	21.99

Sample ID:	581572	Sample Dates:	9/14/2022 - 12/13/2022	Nuclide	Activity
				mR/Std Qtr	24.08

Sample Point 090 [INDICATOR - SE @ 0.79 miles] TLD RING TLD_INNER

Sample ID:	562593	Sample Dates:	12/14/2021 - 3/15/2022	Nuclide	Activity
				mR/Std Qtr	28.53

Sample ID:	568085	Sample Dates:	3/15/2022 - 6/21/2022	Nuclide	Activity
				mR/Std Qtr	23.80

Sample ID:	575502	Sample Dates:	6/21/2022 - 9/14/2022	Nuclide	Activity
				mR/Std Qtr	23.16

Sample ID:	581573	Sample Dates:	9/14/2022 - 12/13/2022	Nuclide	Activity
				mR/Std Qtr	27.32

Sample Point 092 [INDICATOR - WSW @ 3.62 miles] TLD RING TLD_OUTER

Sample ID:	562594	Sample Dates:	12/14/2021 - 3/15/2022	Nuclide	Activity
				mR/Std Qtr	25.93

Sample ID:	568086	Sample Dates:	3/15/2022 - 6/21/2022	Nuclide	Activity
				mR/Std Qtr	19.80

Sample ID:	575503	Sample Dates:	6/21/2022 - 9/14/2022	Nuclide	Activity
				mR/Std Qtr	19.76

Sample ID:	581574	Sample Dates:	9/14/2022 - 12/13/2022	Nuclide	Activity
				mR/Std Qtr	23.86

Sample Point 093 [CONTROL - SE @ 9.34 miles] TLD RING TLD_CTRL

Sample ID:	562595	Sample Dates:	12/14/2021 - 3/15/2022	Nuclide	Activity
				mR/Std Qtr	28.90

Sample ID:	568087	Sample Dates:	3/15/2022 - 6/21/2022	Nuclide	Activity
				mR/Std Qtr	23.96

Sample ID:	575504	Sample Dates:	6/21/2022 - 9/14/2022	Nuclide	Activity
				mR/Std Qtr	24.49

Sample ID:	581575	Sample Dates:	9/14/2022 - 12/13/2022	Nuclide	Activity
				mR/Std Qtr	26.27

Media Type: VEGETATION Concentration (Activity): pCi/kg wet

Sample Point 077 [INDICATOR - SW @ 1 miles]

Sample ID:	558849	Sample Dates:	1/4/2022 - 1/4/2022	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
					Mn-54	<2.73E+01	0.00E+00	2.73E+01
					Co-58	<2.75E+01	0.00E+00	2.75E+01
					Fe-59	<5.75E+01	0.00E+00	5.75E+01
					Co-60	<3.17E+01	0.00E+00	3.17E+01
					Zn-65	<6.22E+01	0.00E+00	6.22E+01
					Zr-95	<5.42E+01	0.00E+00	5.42E+01
					Nb-95	<3.43E+01	0.00E+00	3.43E+01
					I-131	<4.74E+01	0.00E+00	4.74E+01
					Cs-134	<2.62E+01	0.00E+00	2.62E+01
					Cs-137	<3.36E+01	0.00E+00	3.36E+01
					BaLa-140	<5.64E+01	0.00E+00	5.64E+01
					Be-7	3.00E+03	4.67E+02	4.12E+02
					K-40	2.88E+03	5.60E+02	5.03E+02

Sample ID:	560555	Sample Dates:	2/7/2022 - 2/7/2022	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
					Mn-54	<2.33E+01	0.00E+00	2.33E+01
					Co-58	<2.27E+01	0.00E+00	2.27E+01
					Fe-59	<4.22E+01	0.00E+00	4.22E+01
					Co-60	<1.91E+01	0.00E+00	1.91E+01
					Zn-65	<4.33E+01	0.00E+00	4.33E+01
					Zr-95	<3.55E+01	0.00E+00	3.55E+01

OCONEE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: VEGETATION Concentration (Activity): pCi/kg wet

Sample Point 077 [INDICATOR - SW @ 1 miles]

Sample ID:	Sample Dates:	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
560555	2/7/2022 - 2/7/2022	MIXEDBLV	Nb-95	<2.14E+01	0.00E+00	2.14E+01
			I-131	<2.39E+01	0.00E+00	2.39E+01
			Cs-134	<2.16E+01	0.00E+00	2.16E+01
			Cs-137	<2.44E+01	0.00E+00	2.44E+01
			BaLa-140	<2.30E+01	0.00E+00	2.30E+01
			Be-7	3.05E+03	4.17E+02	3.00E+02
			K-40	2.60E+03	4.52E+02	3.11E+02
			562297	3/7/2022 - 3/7/2022	MIXEDBLV	Mn-54
Co-58	<2.49E+01	0.00E+00				2.49E+01
Fe-59	<5.31E+01	0.00E+00				5.31E+01
Co-60	<3.03E+01	0.00E+00				3.03E+01
Zn-65	<6.46E+01	0.00E+00				6.46E+01
Zr-95	<3.26E+01	0.00E+00				3.26E+01
Nb-95	<2.08E+01	0.00E+00				2.08E+01
I-131	<2.33E+01	0.00E+00				2.33E+01
Cs-134	<2.75E+01	0.00E+00				2.75E+01
Cs-137	<2.15E+01	0.00E+00				2.15E+01
BaLa-140	<2.40E+01	0.00E+00				2.40E+01
Be-7	1.19E+03	2.74E+02				3.15E+02
K-40	3.43E+03	5.52E+02				2.54E+02
564073	4/4/2022 - 4/4/2022	MIXEDBLV				Mn-54
			Co-58	<1.97E+01	0.00E+00	1.97E+01
			Fe-59	<3.12E+01	0.00E+00	3.12E+01
			Co-60	<1.93E+01	0.00E+00	1.93E+01
			Zn-65	<4.41E+01	0.00E+00	4.41E+01
			Zr-95	<3.67E+01	0.00E+00	3.67E+01
			Nb-95	<2.33E+01	0.00E+00	2.33E+01
			I-131	<1.80E+01	0.00E+00	1.80E+01
			Cs-134	<2.63E+01	0.00E+00	2.63E+01
			Cs-137	<2.24E+01	0.00E+00	2.24E+01
			BaLa-140	<1.78E+01	0.00E+00	1.78E+01
			Be-7	2.74E+03	3.65E+02	2.44E+02
			K-40	3.56E+03	5.32E+02	3.28E+02
			566013	5/2/2022 - 5/2/2022	MIXEDBLV	Mn-54
Co-58	<2.22E+01	0.00E+00				2.22E+01
Fe-59	<3.86E+01	0.00E+00				3.86E+01
Co-60	<1.61E+01	0.00E+00				1.61E+01
Zn-65	<4.24E+01	0.00E+00				4.24E+01
Zr-95	<3.60E+01	0.00E+00				3.60E+01
Nb-95	<2.23E+01	0.00E+00				2.23E+01
I-131	<2.67E+01	0.00E+00				2.67E+01
Cs-134	<2.32E+01	0.00E+00				2.32E+01
Cs-137	<2.10E+01	0.00E+00				2.10E+01
BaLa-140	<2.65E+01	0.00E+00				2.65E+01
Be-7	2.85E+02	1.58E+02				2.36E+02
K-40	3.26E+03	5.24E+02				3.11E+02
567788	6/6/2022 - 6/6/2022	MIXEDBLV				Mn-54
			Co-58	<2.05E+01	0.00E+00	2.05E+01
			Fe-59	<3.48E+01	0.00E+00	3.48E+01
			Co-60	<2.61E+01	0.00E+00	2.61E+01
			Zn-65	<5.39E+01	0.00E+00	5.39E+01
			Zr-95	<4.06E+01	0.00E+00	4.06E+01
			Nb-95	<2.47E+01	0.00E+00	2.47E+01
			I-131	<2.30E+01	0.00E+00	2.30E+01
			Cs-134	<2.38E+01	0.00E+00	2.38E+01
			Cs-137	<2.18E+01	0.00E+00	2.18E+01
			BaLa-140	<2.31E+01	0.00E+00	2.31E+01
			Be-7	8.16E+02	2.07E+02	2.45E+02
			K-40	2.84E+03	4.83E+02	3.46E+02

OCONEE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: VEGETATION Concentration (Activity): pCi/kg wet

Sample Point 077 [INDICATOR - SW @ 1 miles]

Sample ID:	Sample Dates:	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
569137	7/5/2022 - 7/5/2022	MIXEDBLV	Mn-54	<1.78E+01	0.00E+00	1.78E+01
			Co-58	<1.35E+01	0.00E+00	1.35E+01
			Fe-59	<2.63E+01	0.00E+00	2.63E+01
			Co-60	<1.46E+01	0.00E+00	1.46E+01
			Zn-65	<3.48E+01	0.00E+00	3.48E+01
			Zr-95	<3.08E+01	0.00E+00	3.08E+01
			Nb-95	<2.00E+01	0.00E+00	2.00E+01
			I-131	<2.58E+01	0.00E+00	2.58E+01
			Cs-134	<2.02E+01	0.00E+00	2.02E+01
			Cs-137	<1.45E+01	0.00E+00	1.45E+01
			BaLa-140	<2.03E+01	0.00E+00	2.03E+01
			Be-7	8.64E+02	1.68E+02	1.53E+02
			K-40	3.79E+03	4.95E+02	1.68E+02
			571469	8/1/2022 - 8/1/2022	MIXEDBLV	Mn-54
Co-58	<1.96E+01	0.00E+00				1.96E+01
Fe-59	<4.07E+01	0.00E+00				4.07E+01
Co-60	<1.95E+01	0.00E+00				1.95E+01
Zn-65	<5.13E+01	0.00E+00				5.13E+01
Zr-95	<4.40E+01	0.00E+00				4.40E+01
Nb-95	<1.96E+01	0.00E+00				1.96E+01
I-131	<2.18E+01	0.00E+00				2.18E+01
Cs-134	<2.55E+01	0.00E+00				2.55E+01
Cs-137	<2.51E+01	0.00E+00				2.51E+01
BaLa-140	<1.72E+01	0.00E+00				1.72E+01
Be-7	1.17E+03	2.45E+02				2.54E+02
K-40	3.42E+03	5.64E+02				4.17E+02
575051	9/6/2022 - 9/6/2022	MIXEDBLV				Mn-54
			Co-58	<2.07E+01	0.00E+00	2.07E+01
			Fe-59	<4.82E+01	0.00E+00	4.82E+01
			Co-60	<2.77E+01	0.00E+00	2.77E+01
			Zn-65	<4.45E+01	0.00E+00	4.45E+01
			Zr-95	<3.52E+01	0.00E+00	3.52E+01
			Nb-95	<2.05E+01	0.00E+00	2.05E+01
			I-131	<2.25E+01	0.00E+00	2.25E+01
			Cs-134	<2.38E+01	0.00E+00	2.38E+01
			Cs-137	<2.39E+01	0.00E+00	2.39E+01
			BaLa-140	<2.74E+01	0.00E+00	2.74E+01
			Be-7	2.13E+03	3.33E+02	2.91E+02
			K-40	4.97E+03	6.67E+02	2.87E+02
			576609	10/3/2022 - 10/3/2022	MIXEDBLV	Mn-54
Co-58	<2.78E+01	0.00E+00				2.78E+01
Fe-59	<4.86E+01	0.00E+00				4.86E+01
Co-60	<2.64E+01	0.00E+00				2.64E+01
Zn-65	<5.58E+01	0.00E+00				5.58E+01
Zr-95	<4.58E+01	0.00E+00				4.58E+01
Nb-95	<2.74E+01	0.00E+00				2.74E+01
I-131	<3.33E+01	0.00E+00				3.33E+01
Cs-134	<2.92E+01	0.00E+00				2.92E+01
Cs-137	<2.98E+01	0.00E+00				2.98E+01
BaLa-140	<3.58E+01	0.00E+00				3.58E+01
Be-7	1.85E+03	5.46E+02				2.61E+02
K-40	6.57E+03	8.39E+02				2.29E+02
579072	11/7/2022 - 11/7/2022	MIXEDBLV				Mn-54
			Co-58	<3.60E+01	0.00E+00	3.60E+01
			Fe-59	<8.25E+01	0.00E+00	8.25E+01
			Co-60	<4.92E+01	0.00E+00	4.92E+01
			Zn-65	<9.47E+01	0.00E+00	9.47E+01
			Zr-95	<5.95E+01	0.00E+00	5.95E+01
			Nb-95	<4.52E+01	0.00E+00	4.52E+01
			I-131	<4.63E+01	0.00E+00	4.63E+01

OCONEE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: VEGETATION Concentration (Activity): pCi/kg wet

Sample Point 077 [INDICATOR - SW @ 1 miles]

Sample ID:	579072	Sample Dates:	11/7/2022 - 11/7/2022	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
					Cs-134	<4.70E+01	0.00E+00	4.70E+01
					Cs-137	<5.50E+01	0.00E+00	5.50E+01
					BaLa-140	<6.59E+01	0.00E+00	6.59E+01
					Be-7	2.82E+03	5.52E+02	5.18E+02
					K-40	4.28E+03	9.40E+02	8.78E+02

Sample ID:	581177	Sample Dates:	12/5/2022 - 12/5/2022	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
					Mn-54	<2.42E+01	0.00E+00	2.42E+01
					Co-58	<2.31E+01	0.00E+00	2.31E+01
					Fe-59	<4.57E+01	0.00E+00	4.57E+01
					Co-60	<2.07E+01	0.00E+00	2.07E+01
					Zn-65	<6.25E+01	0.00E+00	6.25E+01
					Zr-95	<4.73E+01	0.00E+00	4.73E+01
					Nb-95	<2.04E+01	0.00E+00	2.04E+01
					I-131	<2.20E+01	0.00E+00	2.20E+01
					Cs-134	<3.54E+01	0.00E+00	3.54E+01
					Cs-137	<2.12E+01	0.00E+00	2.12E+01
					BaLa-140	<2.33E+01	0.00E+00	2.33E+01
					Be-7	2.14E+03	3.27E+02	2.49E+02
					K-40	4.81E+03	6.78E+02	3.45E+02

Sample Point 079 [INDICATOR - NE @ 0.56 miles]

Sample ID:	558850	Sample Dates:	1/4/2022 - 1/4/2022	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
					Mn-54	<2.20E+01	0.00E+00	2.20E+01
					Co-58	<1.84E+01	0.00E+00	1.84E+01
					Fe-59	<5.08E+01	0.00E+00	5.08E+01
					Co-60	<2.31E+01	0.00E+00	2.31E+01
					Zn-65	<6.27E+01	0.00E+00	6.27E+01
					Zr-95	<3.09E+01	0.00E+00	3.09E+01
					Nb-95	<2.24E+01	0.00E+00	2.24E+01
					I-131	<3.12E+01	0.00E+00	3.12E+01
					Cs-134	<2.66E+01	0.00E+00	2.66E+01
					Cs-137	<2.62E+01	0.00E+00	2.62E+01
					BaLa-140	<2.90E+01	0.00E+00	2.90E+01
					Be-7	3.60E+03	4.58E+02	2.74E+02
					K-40	4.45E+03	6.53E+02	4.23E+02

Sample ID:	560556	Sample Dates:	2/7/2022 - 2/7/2022	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
					Mn-54	<2.84E+01	0.00E+00	2.84E+01
					Co-58	<2.55E+01	0.00E+00	2.55E+01
					Fe-59	<4.85E+01	0.00E+00	4.85E+01
					Co-60	<3.32E+01	0.00E+00	3.32E+01
					Zn-65	<5.79E+01	0.00E+00	5.79E+01
					Zr-95	<3.70E+01	0.00E+00	3.70E+01
					Nb-95	<2.12E+01	0.00E+00	2.12E+01
					I-131	<2.76E+01	0.00E+00	2.76E+01
					Cs-134	<3.55E+01	0.00E+00	3.55E+01
					Cs-137	<2.50E+01	0.00E+00	2.50E+01
					BaLa-140	<2.60E+01	0.00E+00	2.60E+01
					Be-7	4.03E+03	5.16E+02	3.10E+02
					K-40	5.26E+03	7.60E+02	4.48E+02

Sample ID:	562298	Sample Dates:	3/7/2022 - 3/7/2022	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
					Mn-54	<2.61E+01	0.00E+00	2.61E+01
					Co-58	<2.02E+01	0.00E+00	2.02E+01
					Fe-59	<4.88E+01	0.00E+00	4.88E+01
					Co-60	<3.13E+01	0.00E+00	3.13E+01
					Zn-65	<6.14E+01	0.00E+00	6.14E+01
					Zr-95	<4.43E+01	0.00E+00	4.43E+01
					Nb-95	<2.52E+01	0.00E+00	2.52E+01
					I-131	<2.31E+01	0.00E+00	2.31E+01
					Cs-134	<2.93E+01	0.00E+00	2.93E+01
					Cs-137	<2.67E+01	0.00E+00	2.67E+01
					BaLa-140	<3.24E+01	0.00E+00	3.24E+01
					Be-7	2.84E+03	4.04E+02	2.71E+02
					K-40	3.35E+03	5.72E+02	4.38E+02

OCONEE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: VEGETATION Concentration (Activity): pCi/kg wet

Sample Point 079 [INDICATOR - NE @ 0.56 miles]

Sample ID:	Sample Dates:	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
564074	4/4/2022 - 4/4/2022	MIXEDBLV	Mn-54	<2.38E+01	0.00E+00	2.38E+01
			Co-58	<2.10E+01	0.00E+00	2.10E+01
			Fe-59	<3.04E+01	0.00E+00	3.04E+01
			Co-60	<1.48E+01	0.00E+00	1.48E+01
			Zn-65	<4.07E+01	0.00E+00	4.07E+01
			Zr-95	<3.39E+01	0.00E+00	3.39E+01
			Nb-95	<1.66E+01	0.00E+00	1.66E+01
			I-131	<2.12E+01	0.00E+00	2.12E+01
			Cs-134	<2.64E+01	0.00E+00	2.64E+01
			Cs-137	<1.77E+01	0.00E+00	1.77E+01
			BaLa-140	<1.55E+01	0.00E+00	1.55E+01
			Be-7	3.49E+03	4.25E+02	2.29E+02
			K-40	5.03E+03	6.45E+02	2.43E+02
			566014	5/2/2022 - 5/2/2022	MIXEDBLV	Mn-54
Co-58	<2.62E+01	0.00E+00				2.62E+01
Fe-59	<5.26E+01	0.00E+00				5.26E+01
Co-60	<2.86E+01	0.00E+00				2.86E+01
Zn-65	<5.01E+01	0.00E+00				5.01E+01
Zr-95	<3.85E+01	0.00E+00				3.85E+01
Nb-95	<1.77E+01	0.00E+00				1.77E+01
I-131	<2.93E+01	0.00E+00				2.93E+01
Cs-134	<2.71E+01	0.00E+00				2.71E+01
Cs-137	<2.80E+01	0.00E+00				2.80E+01
BaLa-140	<3.46E+01	0.00E+00				3.46E+01
Be-7	<1.65E+02	0.00E+00				1.65E+02
K-40	4.23E+03	6.83E+02				4.66E+02
567789	6/6/2022 - 6/6/2022	MIXEDBLV				Mn-54
			Co-58	<2.05E+01	0.00E+00	2.05E+01
			Fe-59	<2.72E+01	0.00E+00	2.72E+01
			Co-60	<2.29E+01	0.00E+00	2.29E+01
			Zn-65	<4.79E+01	0.00E+00	4.79E+01
			Zr-95	<2.84E+01	0.00E+00	2.84E+01
			Nb-95	<1.74E+01	0.00E+00	1.74E+01
			I-131	<2.21E+01	0.00E+00	2.21E+01
			Cs-134	<2.37E+01	0.00E+00	2.37E+01
			Cs-137	<1.58E+01	0.00E+00	1.58E+01
			BaLa-140	<2.25E+01	0.00E+00	2.25E+01
			Be-7	6.73E+02	1.90E+02	2.41E+02
			K-40	3.68E+03	5.28E+02	2.53E+02
			569138	7/5/2022 - 7/5/2022	MIXEDBLV	Mn-54
Co-58	<2.14E+01	0.00E+00				2.14E+01
Fe-59	<3.54E+01	0.00E+00				3.54E+01
Co-60	<2.20E+01	0.00E+00				2.20E+01
Zn-65	<3.54E+01	0.00E+00				3.54E+01
Zr-95	<3.55E+01	0.00E+00				3.55E+01
Nb-95	<2.23E+01	0.00E+00				2.23E+01
I-131	<3.30E+01	0.00E+00				3.30E+01
Cs-134	<2.48E+01	0.00E+00				2.48E+01
Cs-137	<1.99E+01	0.00E+00				1.99E+01
BaLa-140	<2.91E+01	0.00E+00				2.91E+01
Be-7	2.53E+03	3.39E+02				2.08E+02
K-40	5.82E+03	7.07E+02				2.93E+02
571470	8/1/2022 - 8/1/2022	MIXEDBLV				Mn-54
			Co-58	<2.52E+01	0.00E+00	2.52E+01
			Fe-59	<4.53E+01	0.00E+00	4.53E+01
			Co-60	<3.66E+01	0.00E+00	3.66E+01
			Zn-65	<5.98E+01	0.00E+00	5.98E+01
			Zr-95	<5.63E+01	0.00E+00	5.63E+01
			Nb-95	<3.21E+01	0.00E+00	3.21E+01
			I-131	<3.09E+01	0.00E+00	3.09E+01

OCONEE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: VEGETATION Concentration (Activity): pCi/kg wet

Sample Point 079 [INDICATOR - NE @ 0.56 miles]

Sample ID:	Sample Dates:	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
571470	8/1/2022 - 8/1/2022	MIXEDBLV	Cs-134	<4.03E+01	0.00E+00	4.03E+01
			Cs-137	<2.66E+01	0.00E+00	2.66E+01
			BaLa-140	<3.19E+01	0.00E+00	3.19E+01
			Be-7	2.01E+03	3.79E+02	3.81E+02
			K-40	5.13E+03	8.04E+02	5.47E+02
575052	9/6/2022 - 9/6/2022	MIXEDBLV	Mn-54	<1.78E+01	0.00E+00	1.78E+01
			Co-58	<1.68E+01	0.00E+00	1.68E+01
			Fe-59	<3.59E+01	0.00E+00	3.59E+01
			Co-60	<1.84E+01	0.00E+00	1.84E+01
			Zn-65	<4.80E+01	0.00E+00	4.80E+01
			Zr-95	<2.41E+01	0.00E+00	2.41E+01
			Nb-95	<1.86E+01	0.00E+00	1.86E+01
			I-131	<1.77E+01	0.00E+00	1.77E+01
			Cs-134	<1.93E+01	0.00E+00	1.93E+01
			Cs-137	<1.92E+01	0.00E+00	1.92E+01
			BaLa-140	<1.82E+01	0.00E+00	1.82E+01
			Be-7	2.97E+03	3.78E+02	2.38E+02
			K-40	7.46E+03	8.17E+02	2.12E+02
576610	10/3/2022 - 10/3/2022	MIXEDBLV	Mn-54	<2.06E+01	0.00E+00	2.06E+01
			Co-58	<2.07E+01	0.00E+00	2.07E+01
			Fe-59	<4.48E+01	0.00E+00	4.48E+01
			Co-60	<2.13E+01	0.00E+00	2.13E+01
			Zn-65	<4.37E+01	0.00E+00	4.37E+01
			Zr-95	<3.66E+01	0.00E+00	3.66E+01
			Nb-95	<2.28E+01	0.00E+00	2.28E+01
			I-131	<2.16E+01	0.00E+00	2.16E+01
			Cs-134	<2.56E+01	0.00E+00	2.56E+01
			Cs-137	<2.72E+01	0.00E+00	2.72E+01
			BaLa-140	<2.62E+01	0.00E+00	2.62E+01
			Be-7	2.25E+03	3.35E+02	2.67E+02
			K-40	6.16E+03	7.80E+02	3.91E+02
579073	11/7/2022 - 11/7/2022	MIXEDBLV	Mn-54	<3.57E+01	0.00E+00	3.57E+01
			Co-58	<3.76E+01	0.00E+00	3.76E+01
			Fe-59	<6.82E+01	0.00E+00	6.82E+01
			Co-60	<2.84E+01	0.00E+00	2.84E+01
			Zn-65	<7.50E+01	0.00E+00	7.50E+01
			Zr-95	<6.53E+01	0.00E+00	6.53E+01
			Nb-95	<4.02E+01	0.00E+00	4.02E+01
			I-131	<4.49E+01	0.00E+00	4.49E+01
			Cs-134	<4.66E+01	0.00E+00	4.66E+01
			Cs-137	<3.96E+01	0.00E+00	3.96E+01
			BaLa-140	<4.38E+01	0.00E+00	4.38E+01
			Be-7	1.82E+03	4.36E+02	5.12E+02
			K-40	4.84E+03	8.87E+02	7.25E+02
581178	12/5/2022 - 12/5/2022	MIXEDBLV	Mn-54	<2.52E+01	0.00E+00	2.52E+01
			Co-58	<2.62E+01	0.00E+00	2.62E+01
			Fe-59	<4.69E+01	0.00E+00	4.69E+01
			Co-60	<2.48E+01	0.00E+00	2.48E+01
			Zn-65	<5.67E+01	0.00E+00	5.67E+01
			Zr-95	<5.47E+01	0.00E+00	5.47E+01
			Nb-95	<2.75E+01	0.00E+00	2.75E+01
			I-131	<2.38E+01	0.00E+00	2.38E+01
			Cs-134	<2.97E+01	0.00E+00	2.97E+01
			Cs-137	<3.37E+01	0.00E+00	3.37E+01
			BaLa-140	<3.19E+01	0.00E+00	3.19E+01
			Be-7	2.84E+03	4.73E+02	3.88E+02
			K-40	4.20E+03	7.52E+02	4.62E+02

OCONEE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: VEGETATION Concentration (Activity): pCi/kg wet

Sample Point 084 [INDICATOR - NNE @ 2.58 miles]

Sample ID:	Sample Dates:	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
558851	1/4/2022 - 1/4/2022	MIXEDBLV	Mn-54	<2.17E+01	0.00E+00	2.17E+01
			Co-58	<2.11E+01	0.00E+00	2.11E+01
			Fe-59	<4.61E+01	0.00E+00	4.61E+01
			Co-60	<2.75E+01	0.00E+00	2.75E+01
			Zn-65	<4.68E+01	0.00E+00	4.68E+01
			Zr-95	<3.78E+01	0.00E+00	3.78E+01
			Nb-95	<2.27E+01	0.00E+00	2.27E+01
			I-131	<3.02E+01	0.00E+00	3.02E+01
			Cs-134	<2.67E+01	0.00E+00	2.67E+01
			Cs-137	<2.63E+01	0.00E+00	2.63E+01
			BaLa-140	<2.94E+01	0.00E+00	2.94E+01
			Be-7	5.52E+03	6.43E+02	3.08E+02
			K-40	3.70E+03	5.65E+02	2.41E+02
			560557	2/7/2022 - 2/7/2022	MIXEDBLV	Mn-54
Co-58	<1.77E+01	0.00E+00				1.77E+01
Fe-59	<2.98E+01	0.00E+00				2.98E+01
Co-60	<1.39E+01	0.00E+00				1.39E+01
Zn-65	<3.93E+01	0.00E+00				3.93E+01
Zr-95	<2.73E+01	0.00E+00				2.73E+01
Nb-95	<2.04E+01	0.00E+00				2.04E+01
I-131	<1.68E+01	0.00E+00				1.68E+01
Cs-134	<2.20E+01	0.00E+00				2.20E+01
Cs-137	<1.83E+01	0.00E+00				1.83E+01
BaLa-140	<1.63E+01	0.00E+00				1.63E+01
Be-7	6.48E+03	6.94E+02				2.09E+02
K-40	3.49E+03	4.98E+02				2.65E+02
562299	3/7/2022 - 3/7/2022	MIXEDBLV				Mn-54
			Co-58	<1.60E+01	0.00E+00	1.60E+01
			Fe-59	<4.03E+01	0.00E+00	4.03E+01
			Co-60	<2.16E+01	0.00E+00	2.16E+01
			Zn-65	<3.93E+01	0.00E+00	3.93E+01
			Zr-95	<3.61E+01	0.00E+00	3.61E+01
			Nb-95	<1.76E+01	0.00E+00	1.76E+01
			I-131	<1.93E+01	0.00E+00	1.93E+01
			Cs-134	<2.30E+01	0.00E+00	2.30E+01
			Cs-137	<1.66E+01	0.00E+00	1.66E+01
			BaLa-140	<2.16E+01	0.00E+00	2.16E+01
			Be-7	4.10E+03	4.91E+02	2.80E+02
			K-40	3.62E+03	5.45E+02	3.07E+02
			564075	4/4/2022 - 4/4/2022	MIXEDBLV	Mn-54
Co-58	<2.46E+01	0.00E+00				2.46E+01
Fe-59	<5.33E+01	0.00E+00				5.33E+01
Co-60	<3.07E+01	0.00E+00				3.07E+01
Zn-65	<5.68E+01	0.00E+00				5.68E+01
Zr-95	<4.45E+01	0.00E+00				4.45E+01
Nb-95	<3.08E+01	0.00E+00				3.08E+01
I-131	<2.75E+01	0.00E+00				2.75E+01
Cs-134	<2.72E+01	0.00E+00				2.72E+01
Cs-137	<3.40E+01	0.00E+00				3.40E+01
BaLa-140	<3.37E+01	0.00E+00				3.37E+01
Be-7	3.84E+03	5.20E+02				3.62E+02
K-40	4.61E+03	6.86E+02				3.81E+02
566015	5/2/2022 - 5/2/2022	MIXEDBLV				Mn-54
			Co-58	<2.35E+01	0.00E+00	2.35E+01
			Fe-59	<4.78E+01	0.00E+00	4.78E+01
			Co-60	<2.56E+01	0.00E+00	2.56E+01
			Zn-65	<6.27E+01	0.00E+00	6.27E+01
			Zr-95	<3.82E+01	0.00E+00	3.82E+01
			Nb-95	<2.50E+01	0.00E+00	2.50E+01
			I-131	<3.27E+01	0.00E+00	3.27E+01

OCONEE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: VEGETATION Concentration (Activity): pCi/kg wet

Sample Point 084 [INDICATOR - NNE @ 2.58 miles]

Sample ID:	Sample Dates:	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
566015	5/2/2022 - 5/2/2022	MIXEDBLV	Cs-134	<2.50E+01	0.00E+00	2.50E+01
			Cs-137	<2.67E+01	0.00E+00	2.67E+01
			BaLa-140	<2.67E+01	0.00E+00	2.67E+01
			Be-7	3.21E+02	1.58E+02	2.32E+02
			K-40	3.17E+03	5.06E+02	3.54E+02
567790	6/6/2022 - 6/6/2022	MIXEDBLV	Mn-54	<4.26E+01	0.00E+00	4.26E+01
			Co-58	<3.74E+01	0.00E+00	3.74E+01
			Fe-59	<7.80E+01	0.00E+00	7.80E+01
			Co-60	<4.18E+01	0.00E+00	4.18E+01
			Zn-65	<8.58E+01	0.00E+00	8.58E+01
			Zr-95	<7.17E+01	0.00E+00	7.17E+01
			Nb-95	<4.26E+01	0.00E+00	4.26E+01
			I-131	<4.16E+01	0.00E+00	4.16E+01
			Cs-134	<4.08E+01	0.00E+00	4.08E+01
			Cs-137	<3.84E+01	0.00E+00	3.84E+01
			BaLa-140	<4.25E+01	0.00E+00	4.25E+01
			Be-7	6.69E+02	3.31E+02	4.91E+02
			K-40	5.39E+03	8.90E+02	5.87E+02
569139	7/5/2022 - 7/5/2022	MIXEDBLV	Mn-54	<1.61E+01	0.00E+00	1.61E+01
			Co-58	<1.57E+01	0.00E+00	1.57E+01
			Fe-59	<3.50E+01	0.00E+00	3.50E+01
			Co-60	<1.78E+01	0.00E+00	1.78E+01
			Zn-65	<3.91E+01	0.00E+00	3.91E+01
			Zr-95	<2.17E+01	0.00E+00	2.17E+01
			Nb-95	<1.53E+01	0.00E+00	1.53E+01
			I-131	<2.98E+01	0.00E+00	2.98E+01
			Cs-134	<1.88E+01	0.00E+00	1.88E+01
			Cs-137	<1.58E+01	0.00E+00	1.58E+01
			BaLa-140	<2.36E+01	0.00E+00	2.36E+01
			Be-7	1.04E+03	1.95E+02	1.82E+02
			K-40	3.48E+03	4.97E+02	2.95E+02
571471	8/1/2022 - 8/1/2022	MIXEDBLV	Mn-54	<2.93E+01	0.00E+00	2.93E+01
			Co-58	<2.43E+01	0.00E+00	2.43E+01
			Fe-59	<6.34E+01	0.00E+00	6.34E+01
			Co-60	<2.93E+01	0.00E+00	2.93E+01
			Zn-65	<7.63E+01	0.00E+00	7.63E+01
			Zr-95	<5.57E+01	0.00E+00	5.57E+01
			Nb-95	<3.31E+01	0.00E+00	3.31E+01
			I-131	<3.53E+01	0.00E+00	3.53E+01
			Cs-134	<3.61E+01	0.00E+00	3.61E+01
			Cs-137	<3.72E+01	0.00E+00	3.72E+01
			BaLa-140	<4.14E+01	0.00E+00	4.14E+01
			Be-7	1.58E+03	3.49E+02	3.87E+02
			K-40	3.68E+03	7.07E+02	6.26E+02
575053	9/6/2022 - 9/6/2022	MIXEDBLV	Mn-54	<1.33E+01	0.00E+00	1.33E+01
			Co-58	<1.19E+01	0.00E+00	1.19E+01
			Fe-59	<3.22E+01	0.00E+00	3.22E+01
			Co-60	<1.73E+01	0.00E+00	1.73E+01
			Zn-65	<3.20E+01	0.00E+00	3.20E+01
			Zr-95	<2.49E+01	0.00E+00	2.49E+01
			Nb-95	<1.42E+01	0.00E+00	1.42E+01
			I-131	<1.64E+01	0.00E+00	1.64E+01
			Cs-134	<1.68E+01	0.00E+00	1.68E+01
			Cs-137	<1.50E+01	0.00E+00	1.50E+01
			BaLa-140	<1.78E+01	0.00E+00	1.78E+01
			Be-7	5.08E+03	5.36E+02	1.75E+02
			K-40	3.95E+03	5.08E+02	2.47E+02
576611	10/3/2022 - 10/3/2022	MIXEDBLV	Mn-54	<2.04E+01	0.00E+00	2.04E+01

OCONEE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: VEGETATION Concentration (Activity): pCi/kg wet

Sample Point 084 [INDICATOR - NNE @ 2.58 miles]

Sample ID:	Sample Dates:	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
576611	10/3/2022 - 10/3/2022		Co-58	<2.12E+01	0.00E+00	2.12E+01
			Fe-59	<4.65E+01	0.00E+00	4.65E+01
			Co-60	<2.60E+01	0.00E+00	2.60E+01
			Zn-65	<5.03E+01	0.00E+00	5.03E+01
			Zr-95	<4.45E+01	0.00E+00	4.45E+01
			Nb-95	<2.27E+01	0.00E+00	2.27E+01
			I-131	<3.02E+01	0.00E+00	3.02E+01
			Cs-134	<2.34E+01	0.00E+00	2.34E+01
			Cs-137	<2.22E+01	0.00E+00	2.22E+01
			BaLa-140	<1.94E+01	0.00E+00	1.94E+01
			Be-7	3.55E+03	4.68E+02	3.10E+02
			K-40	4.10E+03	6.04E+02	2.87E+02

Sample Point 093 [CONTROL - SE @ 9.34 miles]

Sample ID:	Sample Dates:	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
558852	1/4/2022 - 1/4/2022		Mn-54	<2.61E+01	0.00E+00	2.61E+01
			Co-58	<3.27E+01	0.00E+00	3.27E+01
			Fe-59	<7.08E+01	0.00E+00	7.08E+01
			Co-60	<2.80E+01	0.00E+00	2.80E+01
			Zn-65	<6.49E+01	0.00E+00	6.49E+01
			Zr-95	<5.94E+01	0.00E+00	5.94E+01
			Nb-95	<3.36E+01	0.00E+00	3.36E+01
			I-131	<4.69E+01	0.00E+00	4.69E+01
			Cs-134	<3.70E+01	0.00E+00	3.70E+01
			Cs-137	<3.51E+01	0.00E+00	3.51E+01
			BaLa-140	<4.06E+01	0.00E+00	4.06E+01
			Be-7	1.73E+03	3.61E+02	4.11E+02
			K-40	6.07E+03	8.46E+02	5.12E+02

Sample ID:	Sample Dates:	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
560558	2/7/2022 - 2/7/2022		Mn-54	<1.42E+01	0.00E+00	1.42E+01
			Co-58	<1.16E+01	0.00E+00	1.16E+01
			Fe-59	<2.71E+01	0.00E+00	2.71E+01
			Co-60	<1.70E+01	0.00E+00	1.70E+01
			Zn-65	<3.12E+01	0.00E+00	3.12E+01
			Zr-95	<2.44E+01	0.00E+00	2.44E+01
			Nb-95	<1.31E+01	0.00E+00	1.31E+01
			I-131	<1.38E+01	0.00E+00	1.38E+01
			Cs-134	<1.41E+01	0.00E+00	1.41E+01
			Cs-137	<1.30E+01	0.00E+00	1.30E+01
			BaLa-140	<1.54E+01	0.00E+00	1.54E+01
			Be-7	1.44E+03	2.07E+02	1.54E+02
			K-40	2.91E+03	4.08E+02	2.25E+02

Sample ID:	Sample Dates:	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
562300	3/7/2022 - 3/7/2022		Mn-54	<1.61E+01	0.00E+00	1.61E+01
			Co-58	<1.61E+01	0.00E+00	1.61E+01
			Fe-59	<3.25E+01	0.00E+00	3.25E+01
			Co-60	<1.76E+01	0.00E+00	1.76E+01
			Zn-65	<3.52E+01	0.00E+00	3.52E+01
			Zr-95	<2.96E+01	0.00E+00	2.96E+01
			Nb-95	<1.59E+01	0.00E+00	1.59E+01
			I-131	<1.39E+01	0.00E+00	1.39E+01
			Cs-134	<1.96E+01	0.00E+00	1.96E+01
			Cs-137	<1.35E+01	0.00E+00	1.35E+01
			BaLa-140	<1.94E+01	0.00E+00	1.94E+01
			Be-7	1.75E+03	2.50E+02	1.71E+02
			K-40	3.51E+03	4.77E+02	1.99E+02

Sample ID:	Sample Dates:	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
564076	4/4/2022 - 4/4/2022		Mn-54	<2.56E+01	0.00E+00	2.56E+01
			Co-58	<1.81E+01	0.00E+00	1.81E+01
			Fe-59	<5.19E+01	0.00E+00	5.19E+01
			Co-60	<2.99E+01	0.00E+00	2.99E+01
			Zn-65	<6.17E+01	0.00E+00	6.17E+01
			Zr-95	<3.52E+01	0.00E+00	3.52E+01
			Nb-95	<2.20E+01	0.00E+00	2.20E+01

OCONEE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: VEGETATION Concentration (Activity): pCi/kg wet

Sample Point 093 [CONTROL - SE @ 9.34 miles]

Sample ID:	Sample Dates:	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
564076	4/4/2022 - 4/4/2022	MIXEDBLV	I-131	<2.54E+01	0.00E+00	2.54E+01
			Cs-134	<2.78E+01	0.00E+00	2.78E+01
			Cs-137	<2.48E+01	0.00E+00	2.48E+01
			BaLa-140	<3.06E+01	0.00E+00	3.06E+01
			Be-7	1.86E+03	3.01E+02	2.55E+02
			K-40	4.66E+03	6.78E+02	4.26E+02
566016	5/2/2022 - 5/2/2022	MIXEDBLV	Mn-54	<1.54E+01	0.00E+00	1.54E+01
			Co-58	<1.87E+01	0.00E+00	1.87E+01
			Fe-59	<2.95E+01	0.00E+00	2.95E+01
			Co-60	<2.24E+01	0.00E+00	2.24E+01
			Zn-65	<3.91E+01	0.00E+00	3.91E+01
			Zr-95	<2.82E+01	0.00E+00	2.82E+01
			Nb-95	<1.77E+01	0.00E+00	1.77E+01
			I-131	<1.93E+01	0.00E+00	1.93E+01
			Cs-134	<2.19E+01	0.00E+00	2.19E+01
			Cs-137	<2.04E+01	0.00E+00	2.04E+01
			BaLa-140	<1.73E+01	0.00E+00	1.73E+01
			Be-7	<1.12E+02	0.00E+00	1.12E+02
			K-40	4.04E+03	5.46E+02	2.87E+02
			567791	6/6/2022 - 6/6/2022	MIXEDBLV	Mn-54
Co-58	<3.15E+01	0.00E+00				3.15E+01
Fe-59	<6.06E+01	0.00E+00				6.06E+01
Co-60	<2.34E+01	0.00E+00				2.34E+01
Zn-65	<6.65E+01	0.00E+00				6.65E+01
Zr-95	<5.36E+01	0.00E+00				5.36E+01
Nb-95	<3.04E+01	0.00E+00				3.04E+01
I-131	<2.94E+01	0.00E+00				2.94E+01
Cs-134	<3.02E+01	0.00E+00				3.02E+01
Cs-137	<2.97E+01	0.00E+00				2.97E+01
BaLa-140	<2.35E+01	0.00E+00				2.35E+01
Be-7	1.67E+02	2.06E+02				3.38E+02
K-40	3.48E+03	6.37E+02				5.00E+02
569140	7/5/2022 - 7/5/2022	MIXEDBLV				Mn-54
			Co-58	<1.84E+01	0.00E+00	1.84E+01
			Fe-59	<3.94E+01	0.00E+00	3.94E+01
			Co-60	<1.66E+01	0.00E+00	1.66E+01
			Zn-65	<4.64E+01	0.00E+00	4.64E+01
			Zr-95	<3.41E+01	0.00E+00	3.41E+01
			Nb-95	<2.27E+01	0.00E+00	2.27E+01
			I-131	<3.08E+01	0.00E+00	3.08E+01
			Cs-134	<2.20E+01	0.00E+00	2.20E+01
			Cs-137	<2.37E+01	0.00E+00	2.37E+01
			BaLa-140	<3.50E+01	0.00E+00	3.50E+01
			Be-7	3.47E+02	1.61E+02	2.29E+02
			K-40	3.05E+03	5.12E+02	3.95E+02
			571472	8/1/2022 - 8/1/2022	MIXEDBLV	Mn-54
Co-58	<4.28E+01	0.00E+00				4.28E+01
Fe-59	<7.66E+01	0.00E+00				7.66E+01
Co-60	<4.26E+01	0.00E+00				4.26E+01
Zn-65	<8.26E+01	0.00E+00				8.26E+01
Zr-95	<5.09E+01	0.00E+00				5.09E+01
Nb-95	<3.94E+01	0.00E+00				3.94E+01
I-131	<3.91E+01	0.00E+00				3.91E+01
Cs-134	<4.89E+01	0.00E+00				4.89E+01
Cs-137	<3.35E+01	0.00E+00				3.35E+01
BaLa-140	<4.14E+01	0.00E+00				4.14E+01
Be-7	6.80E+02	4.04E+02				3.08E+02
K-40	3.80E+03	7.48E+02				5.94E+02

OCONEE Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: VEGETATION Concentration (Activity): pCi/kg wet

Sample Point 093 [CONTROL - SE @ 9.34 miles]

Sample ID:	Sample Dates:	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
575054	9/6/2022 - 9/6/2022	MIXEDBLV	Mn-54	<1.70E+01	0.00E+00	1.70E+01
			Co-58	<1.38E+01	0.00E+00	1.38E+01
			Fe-59	<3.36E+01	0.00E+00	3.36E+01
			Co-60	<1.60E+01	0.00E+00	1.60E+01
			Zn-65	<3.44E+01	0.00E+00	3.44E+01
			Zr-95	<1.86E+01	0.00E+00	1.86E+01
			Nb-95	<1.59E+01	0.00E+00	1.59E+01
			I-131	<2.17E+01	0.00E+00	2.17E+01
			Cs-134	<1.60E+01	0.00E+00	1.60E+01
			Cs-137	<1.56E+01	0.00E+00	1.56E+01
			BaLa-140	<1.51E+01	0.00E+00	1.51E+01
			Be-7	1.71E+03	2.47E+02	2.09E+02
			K-40	3.77E+03	4.63E+02	2.17E+02
			576612	10/3/2022 - 10/3/2022	MIXEDBLV	Mn-54
Co-58	<2.48E+01	0.00E+00				2.48E+01
Fe-59	<5.38E+01	0.00E+00				5.38E+01
Co-60	<2.73E+01	0.00E+00				2.73E+01
Zn-65	<5.55E+01	0.00E+00				5.55E+01
Zr-95	<4.89E+01	0.00E+00				4.89E+01
Nb-95	<2.25E+01	0.00E+00				2.25E+01
I-131	<3.08E+01	0.00E+00				3.08E+01
Cs-134	<3.34E+01	0.00E+00				3.34E+01
Cs-137	<2.89E+01	0.00E+00				2.89E+01
BaLa-140	<3.06E+01	0.00E+00				3.06E+01
Be-7	9.86E+02	2.92E+02				3.92E+02
K-40	4.37E+03	6.57E+02				3.73E+02
579074	11/7/2022 - 11/7/2022	MIXEDBLV				Mn-54
			Co-58	<3.43E+01	0.00E+00	3.43E+01
			Fe-59	<6.31E+01	0.00E+00	6.31E+01
			Co-60	<4.31E+01	0.00E+00	4.31E+01
			Zn-65	<6.92E+01	0.00E+00	6.92E+01
			Zr-95	<5.96E+01	0.00E+00	5.96E+01
			Nb-95	<4.52E+01	0.00E+00	4.52E+01
			I-131	<4.53E+01	0.00E+00	4.53E+01
			Cs-134	<3.59E+01	0.00E+00	3.59E+01
			Cs-137	<3.66E+01	0.00E+00	3.66E+01
			BaLa-140	<6.13E+01	0.00E+00	6.13E+01
			Be-7	7.64E+02	3.51E+02	4.87E+02
			K-40	6.45E+03	1.18E+03	9.34E+02
			581179	12/5/2022 - 12/5/2022	MIXEDBLV	Mn-54
Co-58	<2.34E+01	0.00E+00				2.34E+01
Fe-59	<7.37E+01	0.00E+00				7.37E+01
Co-60	<3.41E+01	0.00E+00				3.41E+01
Zn-65	<7.00E+01	0.00E+00				7.00E+01
Zr-95	<5.34E+01	0.00E+00				5.34E+01
Nb-95	<2.98E+01	0.00E+00				2.98E+01
I-131	<3.04E+01	0.00E+00				3.04E+01
Cs-134	<4.14E+01	0.00E+00				4.14E+01
Cs-137	<3.17E+01	0.00E+00				3.17E+01
BaLa-140	<4.40E+01	0.00E+00				4.40E+01
Be-7	1.09E+03	3.36E+02				4.01E+02
K-40	5.57E+03	9.35E+02				3.47E+02

APPENDIX F

**ERRATA TO
PREVIOUS REPORTS**

There are no errata to be appended to the
2022 Oconee Nuclear Station AREOR.

Enclosure 6
RA-23-0047

ENCLOSURE 6: [RNP Annual Radiological Environmental Operating Report](#)



ANNUAL RADIOLOGICAL ENVIRONMENTAL OPERATING REPORT

DUKE ENERGY PROGRESS, LLC
H. B. ROBINSON STEAM ELECTRIC PLANT
Unit No. 2

2022



TABLE OF CONTENTS

1.0 Executive Summary	1-1
2.0 Introduction	2-1
2.1 Site Description and Sample Locations	2-1
2.2 Scope and Requirements of the REMP	2-1
2.3 Statistical and Calculational Methodology	2-2
2.3.1 Estimation of the Mean Value	2-2
2.3.2 Lower Limit of Detection and Minimum Detectable Activity	2-3
2.3.3 Trend Identification	2-3
3.0 Interpretation of Results	3-1
3.1 Airborne Radioiodine and Particulates	3-2
3.2 Surface Water	3-5
3.3 Ground Water	3-7
3.4 Milk	3-8
3.5 Broadleaf Vegetation	3-9
3.6 Food Products	3-12
3.7 Fish	3-13
3.8 Shoreline Sediment	3-15
3.9 Direct Gamma Radiation	3-16
3.9.1 Environmental TLD	3-16
3.10 Land Use Census	3-20
4.0 Quality Assurance	4-1
4.1 Sample Collection	4-1
4.2 Sample Analysis	4-1
4.3 Dosimetry Analysis	4-1
4.4 Laboratory Equipment Quality Assurance	4-1
4.4.1 Daily Quality Control	4-1
4.4.2 Calibration Verification	4-1
4.4.3 Batch Processing	4-1
4.5 Duke Energy Interlaboratory Comparison Program	4-2
4.5.1 Eckert & Ziegler Analytics Cross Check Program	4-2
4.6 Split Comparison Program	4-2
4.7 TLD Intercomparison Program	4-2
 Appendices	
Appendix A: Environmental Sampling and Analysis Procedures	A-1
I. Change of Sampling Procedures	A-2
II. Description of Analysis Procedures	A-2
III. Change of Analysis Procedures	A-3
Appendix B: Radiological Environmental Monitoring Program – Data Summary	B-1
Air Particulate	B-2
Air Radioiodine	B-2
Surface Water	B-2
Ground Water	B-2
Food Products	B-2
Broadleaf Vegetation	B-3
Fish	B-3
Shoreline Sediments	B-3

Direct Gamma Radiation (TLD)	B-3
Appendix C: Sampling Deviations and Unavailable Analyses	C-1
C.1 Sampling Deviations	C-2
C.2 Unavailable Analyses	C-3
Appendix D: Analytical Deviations	D-1
Appendix E: Radiological Environmental Monitoring Program Results	E-1
Appendix F: Errata to Previous Reports	F-1

LIST OF FIGURES

2.1-1	Radiological Environmental Sampling Locations (One Mile Radius)	2-4
2.1-2	Radiological Environmental Sampling Locations (Ten Mile Radius)	2-5
2.1-3	Radiological Environmental Sampling Locations (>10 Mile Radius)	2-6
3.1	Concentration of Gross Beta in Air Particulate	3-3
3.2	Concentration of Tritium in Surface Water	3-5
3.5	Concentration of Cs-137 in Broadleaf Vegetation	3-10
3.7	Concentration of Cs-137 in Fish	3-13
3.9	Direct Gamma Radiation (TLD) Results	3-18
3.10	Robinson Nuclear Plant 2022 Land Use Census Map	3-22

LIST OF TABLES

2.1-A	Radiological Monitoring Program Sampling Locations	2-7
2.1-B	Radiological Monitoring Program Sampling Locations (TLD Sites)	2-8
2.2-A	Reporting Levels for Radioactivity Concentrations in Environmental Samples	2-9
2.2-B	REMP Analysis Frequency	2-9
2.2-C	A Priori Lower Limits of Detection (LLD)	2-10
3.1-A	Mean Concentration of Gross Beta in Air Particulate	3-3
3.1-B	Mean Concentration of Gross Beta in Air Radioiodine (I-131)	3-4
3.2	Mean Concentration of Tritium in Surface Water	3-6
3.5	Mean Concentration of Radionuclides in Broadleaf Vegetation (pCi/kg)	3-11
3.7	Mean Concentration of Radionuclides in Fish (pCi/kg)	3-14
3.9	Direct Gamma Radiation (TLD) Results	3-19
3.10	HBRSEP Land Use Census Comparison (2021 – 2022)	3-21
4.0-A	Eckert & Ziegler Analytics Cross Check Program	4-3
4.0-B	2022 Environmental Dosimeter Cross Check Results	4-5

LIST OF ACRONYMS USED IN THIS TEXT *(in alphabetical order)*

A	Annually
AP	Air Particulate
AR	Air Radioiodine/ Air Cartridge
AREOR	Annual Radiological Environmental Operating Report
BLV	Broadleaf Vegetation
C	Control
CM	Community
CR	Condition Report (analogous to Nuclear Condition Report (NCR))
EZA	Eckert & Ziegler Analytics
FI	Fish
FP	Food Product
GEL	General Engineering Laboratories, LLC
GPS	Global Positioning System
GW	Ground Water
I	Indicator
IR	Inner Ring - TLDs
ISFSI	Independent Spent Fuel Storage Installation
HBRSEP or RNP	H. B. Robinson Steam Electric Plant, Unit No. 2
LLD	Lower Limit of Detection
M	Monthly
MAPEP	Department of Energy Mixed Analyte Performance Evaluation Program
MDA	Minimum Detectable Activity
mR	milliroentgen
mR/Std-Qtr	milliroentgen per standard quarter
MWe	Megawatt (electrical)
NCR	Nuclear Condition Report (analogous to Condition Report (CR))
NIST	National Institute of Standards and Technology
NRC	Nuclear Regulatory Commission
ODCM	Off-Site Dose Calculation Manual
OR	Outer Ring - TLDs
pCi/kg	picocurie per kilogram
pCi/l	picocurie per liter
pCi/m ³	picocurie per cubic meter
PI	Power Interrupt
Q	Quarterly
REMP	Radiological Environmental Monitoring Program
SA	Semiannually
SB	Site Boundary
SS	Sediment – Shoreline
SI	Special Interest - TLDs
SW	Surface Water
TECH SPECS	Technical Specifications
TLD	Thermoluminescent Dosimeter
UFSAR	Updated Final Safety Analysis Report
W	Weekly

1.0 EXECUTIVE SUMMARY

This Annual Radiological Environmental Operating Report describes the H. B. Robinson Steam Electric Plant, Unit No. 2 (HBRSEP or Robinson Nuclear Plant) Radiological Environmental Monitoring Program (REMP), and the program results for the calendar year 2022.

Included in the report are the identification of sampling locations, descriptions of environmental sampling and analysis procedures, comparisons of present environmental radioactivity levels and pre-operational environmental data, analysis of trends in environmental radiological data as potentially affected by plant operations, and a summary of environmental radiological sampling results. Quality assurance practices and program changes are also discussed.

Sampling activities were conducted as prescribed by the HBRSEP ODCM. Required analyses were performed and detection capabilities were met for the collected samples required by the ODCM. One-thousand-one-hundred-ninety-eight samples were analyzed comprising 1,198 test results in order to compile data for the 2022 HBRSEP Annual Radiological Environmental Operating Report (AREOR). No new sampling locations were added to the HBRSEP REMP as a result of the 2022 land use census.

Concentrations observed in the environment in 2022 for plant related radionuclides were within the ranges of concentrations observed in the past. Inspection of data showed that radioactivity concentrations in surface water are higher than the activities reported for samples collected at control locations. The radioactivity concentrations of the control location samples of broadleaf vegetation were higher than those samples collected at the indicator locations. All positively identified measurements attributable to plant operation were within limits as specified in ODCM.

The continued operation of HBRSEP has not contributed measurable radiation or the presence of gamma radioactivity in the environmental media monitored. The Lake Robinson surface water samples revealed tritium concentrations that are well within the applicable regulatory limits. The radiological environmental data for 2022 indicates that radioactivity concentrations were not higher than expected and all positively identified measurements attributable to HBRSEP operations in 2022 were within limits as specified in the HBRSEP ODCM, thus presenting no significant impact on the environment or public safety.

2.0 INTRODUCTION

2.1 SITE DESCRIPTION AND SAMPLE LOCATIONS

The H. B. Robinson Steam Electric Plant, Unit No. 2 (HBRSEP) is located in Darlington County, South Carolina, approximately five (5) miles northwest of Hartsville, and approximately twenty five (25) miles northwest of Florence, South Carolina. Lake Robinson is adjacent to the plant and is the source of cooling water. The lake was impounded during the construction of Robinson Unit No.1 (coal fired). The lake is fed by Black Creek and is approximately 2,250 acres in area. The plant intake is at the southern portion of the lake near the dam. The discharge is to a canal which conveys the cooling water to a point 4.2 miles north of the plant, where it returns to Lake Robinson.

HBRSEP consists of a pressurized water reactor (Unit No. 2) that is designed to produce 2339 Megawatts thermal (MWt). The site was shared with a pulverized coal unit (Unit No.1), which established commercial operation in 1960. Unit 1 is now offline and has been decommissioned since October 2012. Commercial production was initiated by Unit No. 2 on March 7, 1971.

The H. B. Robinson Steam Electric Plant site centerline used for GPS measurements was referenced from the H. B. Robinson Steam Electric Plant (HBSEP) Updated Final Safety Analysis Report (UFSAR). Waypoint coordinates used for HBSEP GPS measurements were latitude 34° 24' 02" N and longitude 80° 09' 05" W. Maps and tables were generated using North American Datum (NAD) 27. Data normally reflect accuracy to within 2 to 5 meters from point of measurement. All GPS field measurements were taken as close as possible to the item of interest. Distances for the locations are displayed using two significant figures.

Figures 2.1-1, 2.1-2 and 2.1-3 are One Mile Radius, Ten Mile Radius, and >10 Mile Radius maps, respectively, depicting the Thermoluminescent Dosimeter (TLD) monitoring locations and the sampling locations. The location numbers shown on these maps correspond to those listed in Tables 2.1-A and 2.1-B.

2.2 SCOPE AND REQUIREMENTS OF THE REMP

The Radiological Environmental Monitoring Program (REMP) has been in effect at HBRSEP since 1973. The operational program provides surveillance and backup support of detailed effluent monitoring, which is necessary to evaluate the significance, if any, of the contributions to the existing environmental radioactivity levels that result from station operation.

This monitoring program is based on NRC guidance as reflected in the HBRSEP Off-Site Dose Calculation Manual (ODCM), with regards to sample media, sampling locations, sampling frequency and analytical sensitivity requirements. Indicator and control locations were established for comparison purposes to distinguish radioactivity of plant origin from natural or other "man-made" environmental radioactivity. The environmental monitoring program also verifies projected and anticipated radionuclide concentrations in the environment and related

exposures from releases of radionuclides from HBRSEP. This program satisfies the requirements of Section IV.B.2 of Appendix I to 10 CFR 50 and provides surveillance of all appropriate critical exposure pathways to man and protects vital interests of the company, public and state and federal agencies concerned with the environment. Reporting levels for activity found in environmental samples are listed in Table 2.2-A. Table 2.2-B lists the REMP analysis and frequency schedule.

The Annual Land Use Census, required by the HBRSEP Off-Site Dose Calculation Manual (ODCM), is performed to ensure that changes in the use of areas at or beyond the site boundary are identified and that modifications to the REMP are made if required by changes in land use. This census satisfies the requirements of Section IV.B.3 of Appendix I to 10 CFR 50. Results are shown in Table 3.10.

Participation in an interlaboratory comparison program as required by HBRSEP ODCM Operational Requirements provides for independent checks on the precision and accuracy of measurements of radioactive material in REMP sample matrices. Such checks are performed as part of the quality assurance program for environmental monitoring in order to demonstrate that the results are valid for the purposes of Section IV.B.2 of Appendix I to 10 CFR 50. A summary of the results obtained as part of this comparison program are in Section 4 of this annual report.

2.3 STATISTICAL AND CALCULATIONAL METHODOLOGY

2.3.1 ESTIMATION OF THE MEAN VALUE

There was one (1) basic statistical calculation performed on the raw data resulting from the environmental sample analysis program. The calculation involved the determination of the mean value for the indicator and the control samples for each sample medium. The mean is a widely used statistic. This value was used in the reduction of the data generated by the sampling and analysis of the various media in the Radiological Environmental Monitoring Program. "Net activity (or concentration)" is the activity (or concentration) determined to be present in the sample. No "Minimum Detectable Activity", "Lower Limit of Detection", "Less Than Level", or negative activities or concentrations are included in the calculation of the mean. The following equation was used to estimate the mean:

$$\bar{x} = \frac{\sum_{i=1}^N x_i}{N}$$

Where:

\bar{x} = estimate of the mean,

i = individual sample,

N = total number of samples with a net activity (or concentration),

x_i = net activity (or concentration) for sample i .

2.3.2 LOWER LIMIT OF DETECTION AND MINIMUM DETECTABLE ACTIVITY

The Lower Limit of Detection (LLD) and Minimum Detectable Activity (MDA) are used throughout the REMP.

LLD - The LLD, as defined in the ODCM as the smallest concentration of radioactive material in a sample that will yield a net count, above the system background, that will be detected with 95% probability with only 5% probability of falsely concluding that a blank observation represents a "real" signal. The LLD is an *a priori* (before the fact) lower limit of detection. The actual LLD is dependent upon the standard deviation of the background counting rate, the counting efficiency, the sample size (mass or volume), the radiochemical yield and the radioactive decay of the sample between sample collection and counting. The "required" LLD's for each sample medium and selected radionuclides are given in the ODCM and are listed in Table 2.2-C.

MDA - The MDA is the net counting rate (sample after subtraction of background) that must be surpassed before a sample is considered to contain a scientifically measurable amount of a radioactive material exceeding background amounts. The MDA is calculated using a sample background and may be thought of as an "actual" LLD for a particular sample measurement. Certain gross counting measurements display a calculated negative value, indicating background is greater than sample activity.

2.3.3 TREND IDENTIFICATION

One of the purposes of an environmental monitoring program is to determine if there is a buildup of radionuclides in the environment due to the operation of the nuclear station. Visual inspection of tabular or graphical presentations of data (including preoperational) is used to determine if a trend exists. A decrease in a particular radionuclide's concentration in an environmental medium does not indicate that reactor operations are removing radioactivity from the environment but that reactor operations are not adding that radionuclide to the environment in quantities exceeding the preoperational level and that the normal removal processes (radioactive decay, deposition, resuspension, etc.) are influencing the concentration.

Substantial increases or decreases in the amount of a particular radionuclide's release from the nuclear plant will greatly affect the resulting environmental levels; therefore, a knowledge of the release of a radionuclide from the nuclear plant is necessary to completely interpret the trends, or lack of trends, determined from the environmental data. Factors that may affect environmental levels of radionuclides include prevailing weather conditions (periods of drought, solar cycles or heavier than normal precipitation), construction in or around either the nuclear plant or the sampling location, and addition or deletion of other sources of radioactive materials (such as the 1986 Chernobyl accident and the 2011 Japan earthquake and tsunami, which triggered the Fukushima Dai-ichi nuclear power plant incident). Some of these factors may be obvious while others are sometimes unknown. Therefore, how trends are identified will include some judgment by plant personnel.

Figure 2.1-1

**Radiological Environmental Sampling Locations
(One Mile Radius)**

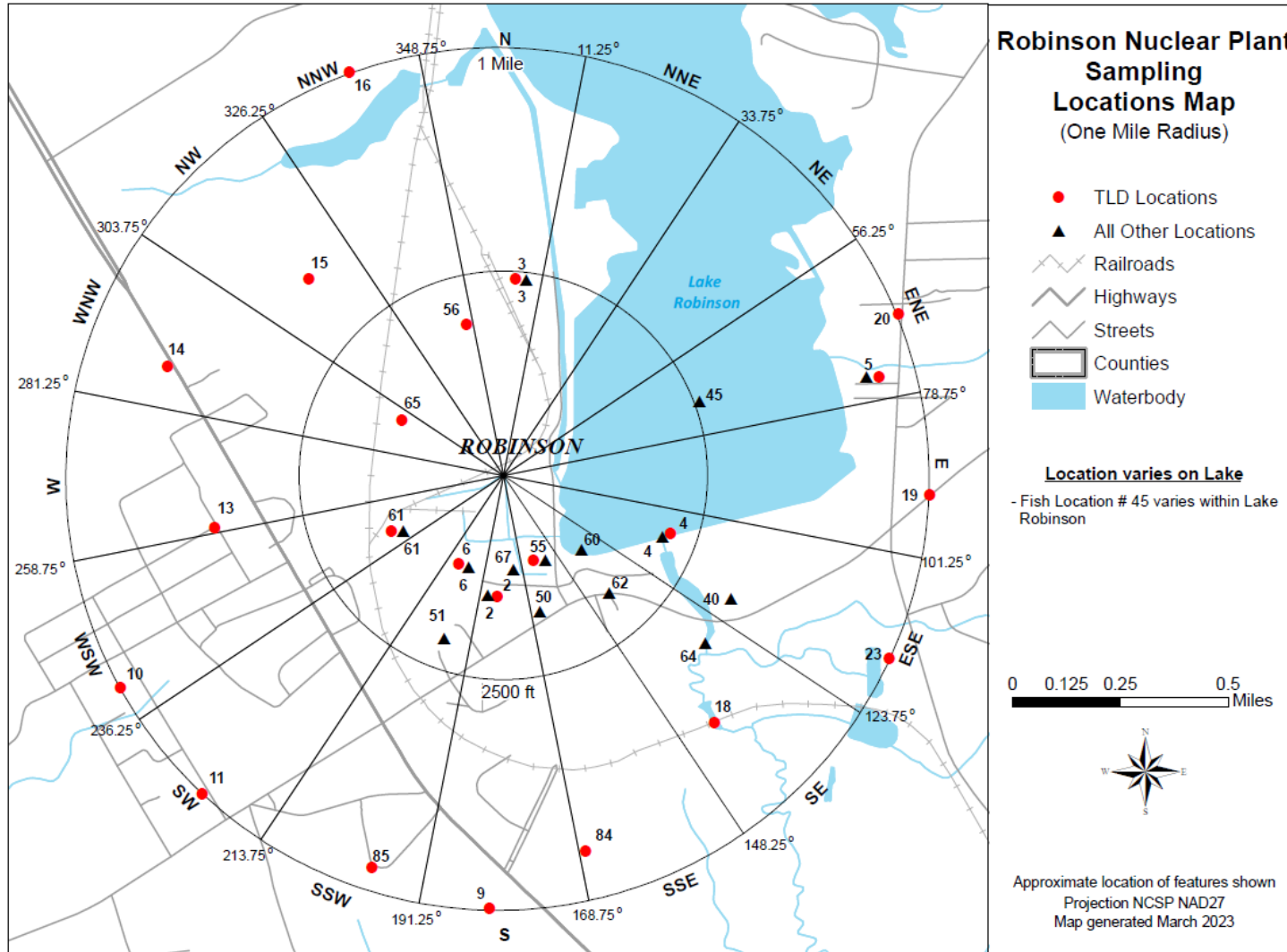


Figure 2.1-2

**Radiological Environmental Sampling Locations
(Ten Mile Radius)**

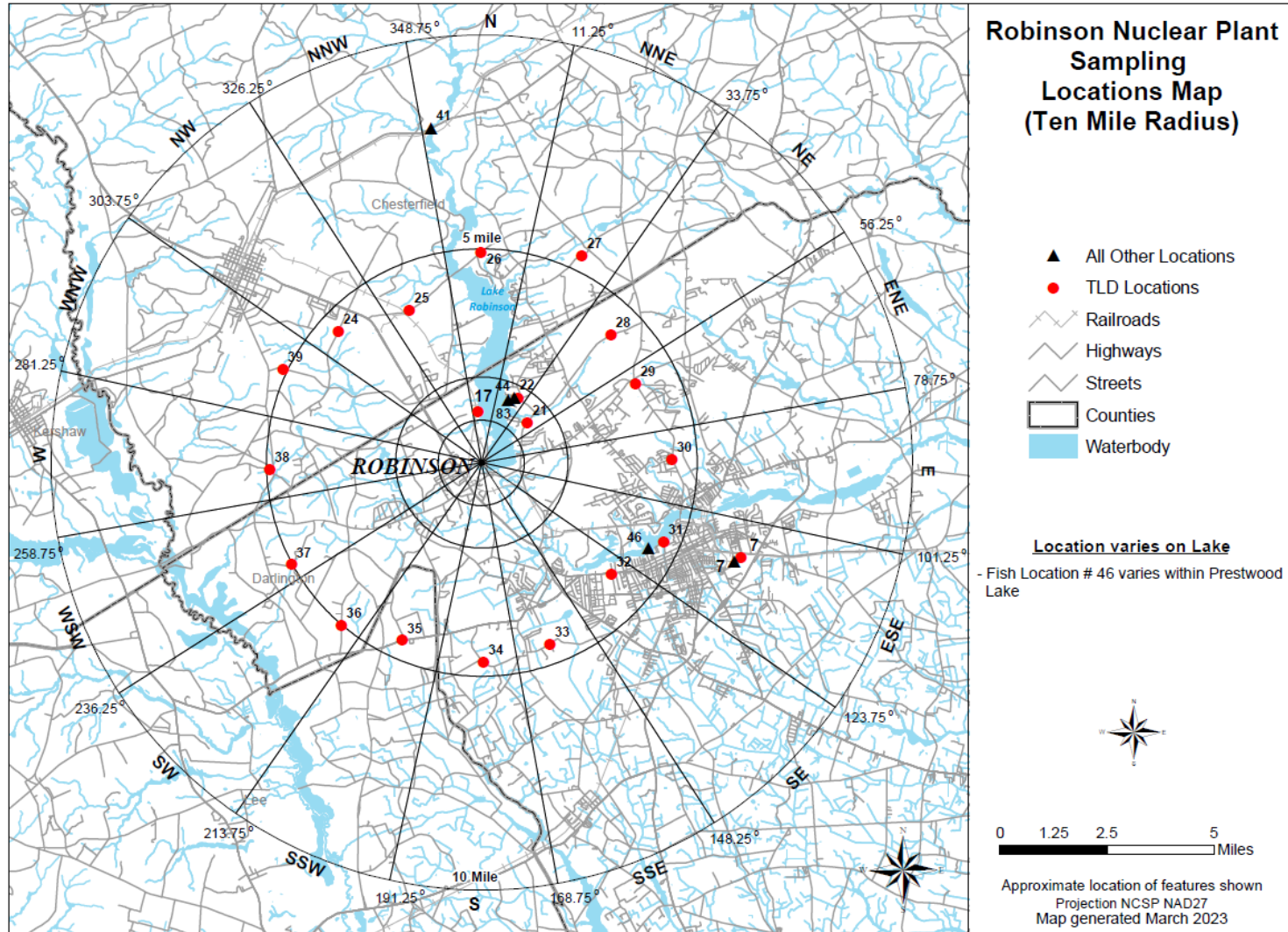


Figure 2.1-3

**Radiological Environmental Sampling Locations
(>10 Mile Radius)**

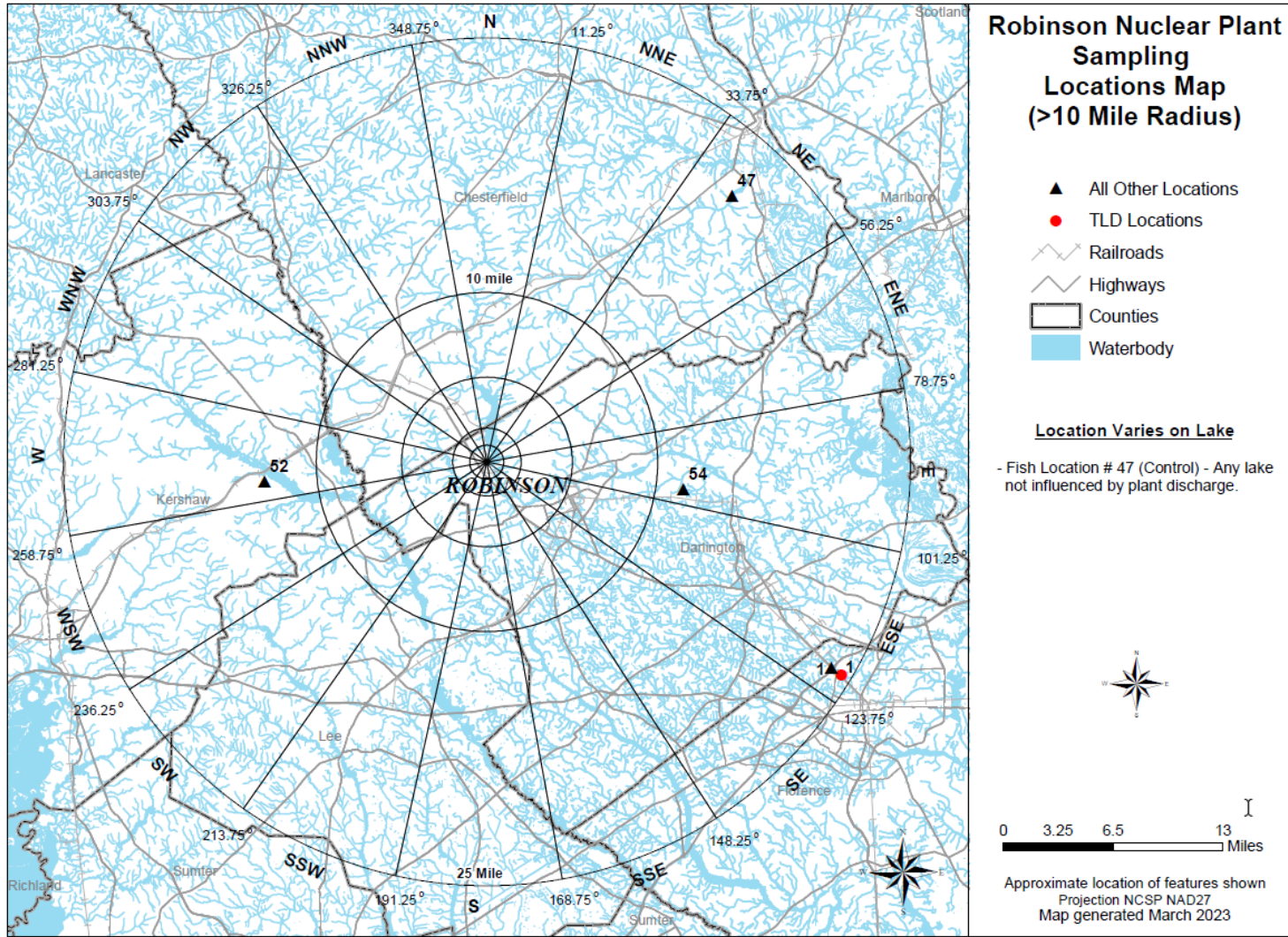


TABLE 2.1-A

**H. B. ROBINSON STEAM ELECTRIC PLANT, UNIT NO. 2 (HBRSEP)
RADIOLOGICAL MONITORING PROGRAM SAMPLING LOCATIONS**

Table 2.1-A Codes			
BW	BiWeekly	Q	Quarterly
C	Control	SA	Semiannually
CM	Community	SB	Site Boundary
I	Indicator	SM	Semimonthly
M	Monthly	W	Weekly

Site #	Measure Type*	Location Description**	Air Rad. & Particulate*	Surface Water ^{(c)*}	Shoreline Sediment*	Food Product ^{(a)*}	Fish*	Broadleaf Vegetation ^{(b)*}	Ground Water*
1	C ^(d)	24.4 miles ESE Florence, S.C.	W/Q						
2	I	0.2 miles S Information Center	W/Q						
3	I	0.5 miles N Microwave Tower	W/Q, SB						
4	I	0.4 miles ESE Spillway	W/Q						
5	I	0.9 miles ENE East shore of lake near Johnson's Landing	W/Q, CM						
6	I	0.2 miles SSW Information Center	W/Q, SB						
7	I	6.4 miles ESE CP&L facility on RR Avenue, Hartsville	W/Q						
40	I	0.6 miles ESE Black Creek at Old Camden Road (S-16-23) – Lake Robinson		M					
41	C ^(d)	8.0 miles N Black Creek at US Hwy 1		M					
44	I	1.6 miles NNE East Shore of Lake, Shady Rest Club			SA				
45	I	Site varies within Lake Robinson					SA		
46	I	Site varies within Prestwood Lake					SA		
47	C ^(d)	Control station, any lake not influenced by plant discharge					SA		
50	I	SSE Close to Site Boundary						M, SB	
51	I	SSW Close to Site Boundary						M, SB	
52	C ^(d)	10 miles W near Bethune						M	
54	I	10.1 miles E Auburndale Plantation (if irrigating from Black Creek)				A			
55	I	0.2 miles SSE South of West Settling Pond	W/Q, SB						
60	I	0.2 miles SE Robinson Picnic Area	W/Q						
61	I	0.3 miles WSW West Parking lot near RR tracks	W/Q						
62	I	SE Close to Site Boundary						M, SB	
64	I	0.6 miles SE Artesian Well							Q
67	I	S Close to Site Boundary						M, SB	
83	I	1.60 miles NNE						M	

(a) During Harvest/Growing Season.

(b) During the growing season May through October.

(c) The "upstream sample" shall be taken at a distance beyond significant influence of the discharge. The "downstream" sample shall be taken in an area beyond but near mixing zone.

(d) The purpose of this sample is to obtain background information.

* Refer to List of Acronyms Used in this Text in Table of Contents

** GPS data reflect approximate accuracy to within 2-5 meters. GPS field measurements were taken as close as possible to the item of interest.

TABLE 2.1-B

H. B. ROBINSON STEAM ELECTRIC PLANT, UNIT NO. 2 (HBRSEP)

RADIOLOGICAL MONITORING PROGRAM SAMPLING LOCATIONS (TLD SITES)^(a)

Table 2.1-B Codes	
C	Control ^(b)
IR	Inner Ring
OR	Outer Ring

Site #	Measure Type	Location*	Distance (miles)*	Sector	Site #	Measure Type	Location*	Distance (miles)*	Sector
1	C ^(b)	Florence, SC	24.4	ESE	25	OR	Lake Robinson Road (#S-13-346)	4.0	NNW
2	IR	Information Center ^{(c)(d)}	0.2	S	26	OR	Lake Robinson Road (#S-13-346)	5.0	N
3	IR	Microwave Tower	0.5	N	27	OR	Prospect Church Road (#S-13-763)	5.4	NNE
4	IR	Spillway	0.4	ESE	28	OR	New Market Road (#S-13-39)	4.3	NE
5	IR	East shore of lake near Johnson's Landing	0.9	ENE	29	OR	Ruby Road (#S-16-20)	4.0	ENE
6	IR	Information Center ^{(c)(d)}	0.2	SSW	30	OR	Ruby Road (#S-16-20)	4.4	E
7	OR	CP&L Facility on RR Avenue, Hartsville	6.4	ESE	31	OR	Lakeshore Drive	4.6	ESE
9	IR	Transmission right-of-way	1.0	S	32	OR	Transmission right-of-way	4.0	SE
10	IR	Clyde Church of God	1.0	WSW	33	OR	Bay Road (#S-16-493)	4.5	SSE
11	IR	Old Camden Road	1.0	SW	34	OR	Kellybell Road (#S-16-772)	4.7	S
13	IR	Corner of Saluda and Sandpit Roads	0.7	W	35	OR	Kelly Bridge Road (#S-31-51)	4.5	SSW
14	IR	First Baptist Church of Pine Ridge	0.8	WNW	36	OR	Kingston Drive	5.0	SW
15	IR	Transmission right-of-way	0.7	NW	37	OR	Pine Cone Road	5.0	WSW
16	IR	South side of Darlington Co. I.C. Turbine Plant	1.0	NNW	38	OR	Union Church Road	4.9	W
17	IR	Darlington Co. Plant emergency fire pump	1.2	N	39	OR	King's Pond Road	5.1	WNW
18	IR	Old Black Creek RR trestle	0.7	SE	55	IR	South of the West Settling Pond	0.2	SSE
19	IR	Old Camden Road (#S-16-23)	1.0	E	56	IR	North of the center of the 7P-ISFSI ^{(c)(d)}	0.4	NNW
20	IR	New Market Road (#S-16-39)	1.0	ENE	61	IR	West Parking lot near RR tracks ^(d)	0.3	WSW
21	IR	New Market Road (#S-16-39)	1.4	NE	65	IR	Northwest of the 24P-ISFSI ^(d)	0.3	WNW
22	IR	Shady Rest entrance off of Cloverdale Drive	1.7	NNE	84	IR	Greater Heights Baptist Church	0.9	SSE
23	IR	New Market Road (#S-16-39)	1.0	ESE	85	IR	Off Hayden Lane	0.9	SSW
24	OR	Sowell Road (#S-13-711)	4.6	NW					

(a) One or more instruments, such as a pressurized ion chamber, for measuring and recording dose rate continuously may be used in place of, or in addition to, integrating, dosimeters. For the purpose of this table, a thermoluminescent dosimeter (TLD) is considered to be one phosphor; two or more phosphors in a packet are considered as two or more dosimeters. Film badges shall not be used as dosimeters for measuring direct radiation.

(b) The purpose of this sample is to obtain background information.

(c) Required for monitoring of the 7P-ISFSI.

(d) Required for monitoring of the 24P-ISFSI.

* GPS data reflect approximate accuracy to within 2-5 meters. GPS field measurements were taken as close as possible to the item of interest.

TABLE 2.2-A

**REPORTING LEVELS FOR RADIOACTIVITY
CONCENTRATIONS IN ENVIRONMENTAL SAMPLES**

Analysis	Water (pCi/liter)	Airborne (pCi/m ³)	Fish (pCi/kg-wet)	Milk (pCi/liter)	Food Products (pCi/kg-wet)
H-3	20,000 ^(a)				
Mn-54	1,000		30,000		
Fe-59	400		10,000		
Co-58	1,000		30,000		
Co-60	300		10,000		
Zn-65	300		20,000		
Zr-Nb-95	400				
I-131	2 ^(b)	0.9		3	100
Cs-134	30	10	1,000	60	1,000
Cs-137	50	20	2,000	70	2,000
Ba-La-140	200			300	

- (a) For drinking water samples. This is 40 CFR Part 141 value. If no drinking water pathway exists, a value of 30,000 pCi/liter may be used.
 (b) If no drinking water pathway exists, a value of 20 pCi/liter may be used.

TABLE 2.2-B

REMP ANALYSIS FREQUENCY

Sample Medium	Analysis Schedule	Gamma Isotopic ^(b)	Tritium	Low Level I-131	Gross Beta	TLD
Air Radioiodine	Weekly	X				
Air Particulate	Weekly				X ^(a)	
	Quarterly	X				
Direct Radiation	Quarterly					X
Surface Water	Monthly Composite ^(c)	X	X			
Ground Water	Quarterly ^(d)	X	X			
Shoreline Sediment	Semiannually	X				
Fish	Semiannually	X				
Broadleaf Vegetation	Monthly ^(f)	X				
Food Products	Annually ^(e)	X				

- (a) Airborne particulate sample filters shall be analyzed for gross beta radioactivity 24 hours or more after sampling to allow for radon and thoron daughter decay. If gross beta activity in air particulate samples is greater than ten times the yearly mean of control samples, gamma isotopic analysis shall be performed on the individual samples.
 (b) Gamma isotopic analysis means the identification and quantification of gamma-emitting radionuclides that may be attributable to the effluents from the facility.
 (c) A composite sample is one which the quantity (aliquot) of liquid sampled is proportional to the quantity of flowing liquid and in which the method of sampling employed results in a specimen that is representative of the liquid flow. In this program composite sample aliquots shall be collected at time intervals that very short (e.g., hourly) relative to the compositing period (e.g., monthly) in order to assure obtaining a representative sample.
 (d) Ground water samples shall be taken when this source is tapped for drinking or irrigation purposes in areas where the hydraulic gradient or recharge properties are suitable for contamination.
 (e) If harvest occurs more than once a year, sampling shall be performed during each discrete harvest. If harvest occurs continuously, sampling shall be monthly. Attention shall be paid to including samples of tuberous and root food products.
 (f) When Available

TABLE 2.2-C***A PRIORI LOWER LIMITS OF DETECTION (LLD)^(a)***

Analysis	Water (pCi/liter)	Airborne (pCi/m ³)	Fish (pCi/kg-wet)	Milk (pCi/liter)	Food Products (pCi/kg-wet)	Sediment (pCi/kg-dry)
Gross Beta		0.01				
H-3	2000 ^(c)					
Mn-54	15		130			
Fe-59	30		260			
Co-58, 60	15		130			
Zn-65	30		260			
Zr-Nb-95 ^(b)	15					
I-131	1 ^(d)	0.07		1	60	
Cs-134	15	0.05	130	15	60	150
Cs-137	18	0.06	150	18	80	180
Ba-La-140 ^(b)	15			15		

(a) The LLD is defined in Section 2.3.2.

(b) The specified LLD applies to the daughter nuclide of an equilibrium mixture of the parent and daughter nuclides.

(c) If no drinking water pathway exists, a value of 3000 pCi/liter may be used.

(d) If no drinking water pathway exists, a value of 15 pCi/liter may be used.

3.0 INTERPRETATION OF RESULTS

Review of the 2022 analysis results was performed to identify changes in environmental levels as a results of plant operations. The review is summarized in this section. Data from 2022 was compared to historical data. Sample data for some media is not directly comparable to earlier operational sample results because of either significant changes in the analysis methods or changes in the reporting of the results. Summary tables containing 2022 information required by Technical Specifications Administrative Control 5.6.2 are located in Appendix B. REMP results for 2022 are located in Appendix E.

Evaluation for significant trends was performed for the radionuclides listed as required LLDs within the HBRSEP ODCM. The radionuclides include: H-3, Mn-54, Fe-59, Co-58, Co-60, Zn-65, Zr-95, Nb-95, I-131, Cs-134, Cs-137, Ba-140 and La-140. Trending of air particulate gross beta results is being performed. Trending is also performed for other radionuclides that are detected and could have been the result of station effluents. Only ODCM required radionuclides were detected in 2022.

Trending was performed by comparing annual mean concentrations of any effluent related detected radionuclide to historical results. Factors evaluated include the frequency of detection and the concentration terms of the percent of the radionuclide's ODCM reporting level (Table 2.2-A). All maximum percent of reporting level values were well below the 100% action level. The highest value reached during 2022 due to HBRSEP operation was 6,570 pCi/liter which is 21.9% of the reporting level for H-3 in surface water sample collected at location 40.

Review of the 2022 data presented in this section supports the conclusion that there were no significant changes in environmental sample radionuclide concentrations of samples collected and analyzed from HBRSEP and surrounding areas that were attributable to plant operations. The radiological environmental data for 2022 indicates that radioactivity concentrations were not higher than expected and all positively identified measurements attributable to HBRSEP operations in 2022 were within limits as specified in the HBRSEP ODCM, thus presenting no significant impact on the environment or public safety.

Data presented in Sections 3.1 – 3.9 support the conclusion that there were no significant increases in radionuclides in the environment around HBRSEP due to plant operations in 2022. Similarly, there was no significant increase in ambient background radiation levels in the surrounding areas. The 2022 land use census data, shown in Section 3.10, indicates that no program changes are required as a result of the census.

3.1 AIRBORNE RADIOIODINE AND PARTICULATES

Airborne particulate and radioiodine samples at each of ten locations were composited continuously by means of continuous air samplers. Supplemental air sampling locations 3 and 61 were removed from the program 4/5/2022. Air particulates were collected on a particulate filter and radioiodines were collected in a charcoal cartridge positioned behind the filter in the sampler. The samplers are designed to operate at a constant flow rate (in order to compensate for any filter loading) and are set to sample approximately 2 cubic feet per minute. Filters and cartridges were collected weekly.

During 2022, 440 continuously composited radioiodine and particulate samples were collected and analyzed, 388 from nine indicator locations and 52 from the control location. Particulate samples were analyzed weekly for gross beta. A quarterly gamma analysis was performed on the quarterly filter composite (by location). Radioiodine samples received a weekly gamma analysis.

There was no detectable I-131 in air samples in 2022. Table 3.1-B gives the highest indicator location annual mean and control location annual mean for I-131 since 1999. The tables show similar historical concentrations for both the indicator and control locations.

There were no detectable gamma emitting radionuclides detected in air particulate samples in 2022 due to HBRSEP operations. No gamma emitting particulate due to HBRSEP operations have been detected in indicator location samples from 1999-2022.

Gross beta analyses indicated $2.19\text{E-}2$ pCi/m³ at the indicator location with the highest annual mean and $2.11\text{E-}2$ pCi/m³ at the control location. Figure 3.1 and Table 3.1-A provide individual sample gross beta results for the highest annual mean indicator location and the control location concentrations since 1999 to 2022. The two sample locations' results are similar in concentration and have negligible variance. The gross beta activities decreased following the retirement of the coal steam unit in October 2012.

K-40 and Be-7 observed in air samples are naturally occurring radionuclides.

Figure 3.1

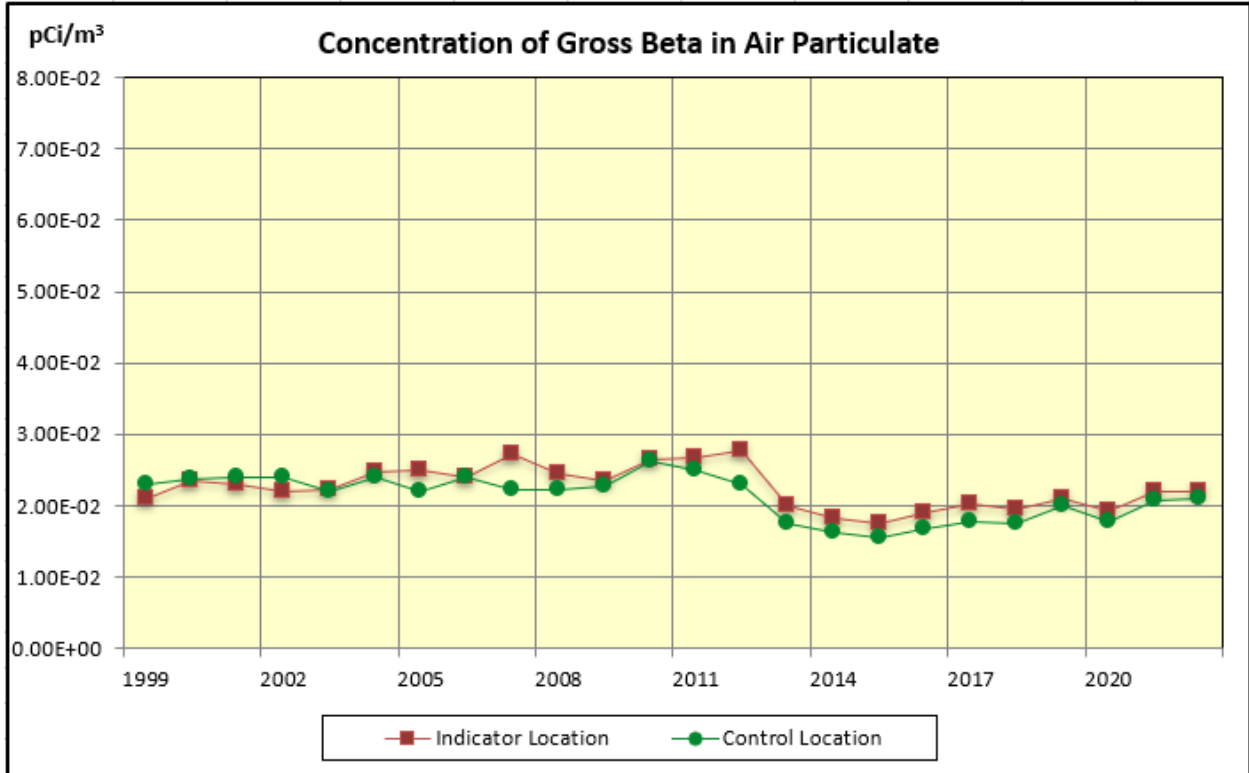


Table 3.1-A Mean Concentration of Gross Beta in Air Particulate

Year	Indicator Location (pCi/m³)	Control Location (pCi/m³)
1999	2.09E-2	2.29E-2
2000	2.35E-2	2.37E-2
2001	2.31E-2	2.39E-2
2002	2.21E-2	2.41E-2
2003	2.22E-2	2.19E-2
2004	2.48E-2	2.41E-2
2005	2.50E-2	2.19E-2
2006	2.40E-2	2.40E-2
2007	2.71E-2	2.23E-2
2008	2.44E-2	2.23E-2
2009	2.34E-2	2.27E-2
2010	2.65E-2	2.62E-2
2011	2.68E-2	2.51E-2
2012	2.78E-2	2.30E-2
2013	2.01E-2	1.74E-2
2014	1.82E-2	1.63E-2
2015	1.74E-2	1.54E-2
2016	1.90E-2	1.68E-2
2017	2.03E-2	1.78E-2
2018	1.94E-2	1.75E-2
2019	2.09E-2	1.99E-2
2020	1.92E-2	1.77E-2
2021	2.19E-2	2.07E-2
2022	2.19E-2	2.11E-2

Table 3.1-B Mean Concentration of Air Radioiodine (I-131)

Year	Indicator Location (pCi/m³)	Control Location (pCi/m³)
1999	0.00E+0	0.00E+0
2000	0.00E+0	0.00E+0
2001	0.00E+0	0.00E+0
2002	0.00E+0	0.00E+0
2003	0.00E+0	0.00E+0
2004	0.00E+0	0.00E+0
2005	0.00E+0	0.00E+0
2006	0.00E+0	0.00E+0
2007	0.00E+0	0.00E+0
2008	0.00E+0	0.00E+0
2009	0.00E+0	0.00E+0
2010	0.00E+0	0.00E+0
2011 ⁽¹⁾	8.23E-2	8.10E-2
2012	0.00E+0	0.00E+0
2013	0.00E+0	0.00E+0
2014 ⁽²⁾	0.00E+0	0.00E+0
2015	0.00E+0	0.00E+0
2016	0.00E+0	0.00E+0
2017	0.00E+0	0.00E+0
2018	0.00E+0	0.00E+0
2019	0.00E+0	0.00E+0
2020	0.00E+0	0.00E+0
2021	0.00E+0	0.00E+0
2022	0.00E+0	0.00E+0

0.00E+0 indicates no detectable measurements

(1) 2011 concentrations affected by Fukushima Dai-ichi

(2) 2014 Gamma spectroscopy system was replaced 10JUL2014. Gamma spectroscopy system hardware, detector cooling apparatus, software, electronics, nuclide identification libraries, and analytical test matrix components for test matrices were modified (NCR # 0739995). No analytical changes were observed due to the 2014 gamma spectroscopy system change.

3.2 SURFACE WATER

Gamma spectroscopy and tritium analyses were performed on 24 monthly surface water samples that were composited using water samplers that collected an aliquot every two hours. One indicator and one control location were sampled. The indicator is downstream of the liquid effluent release point.

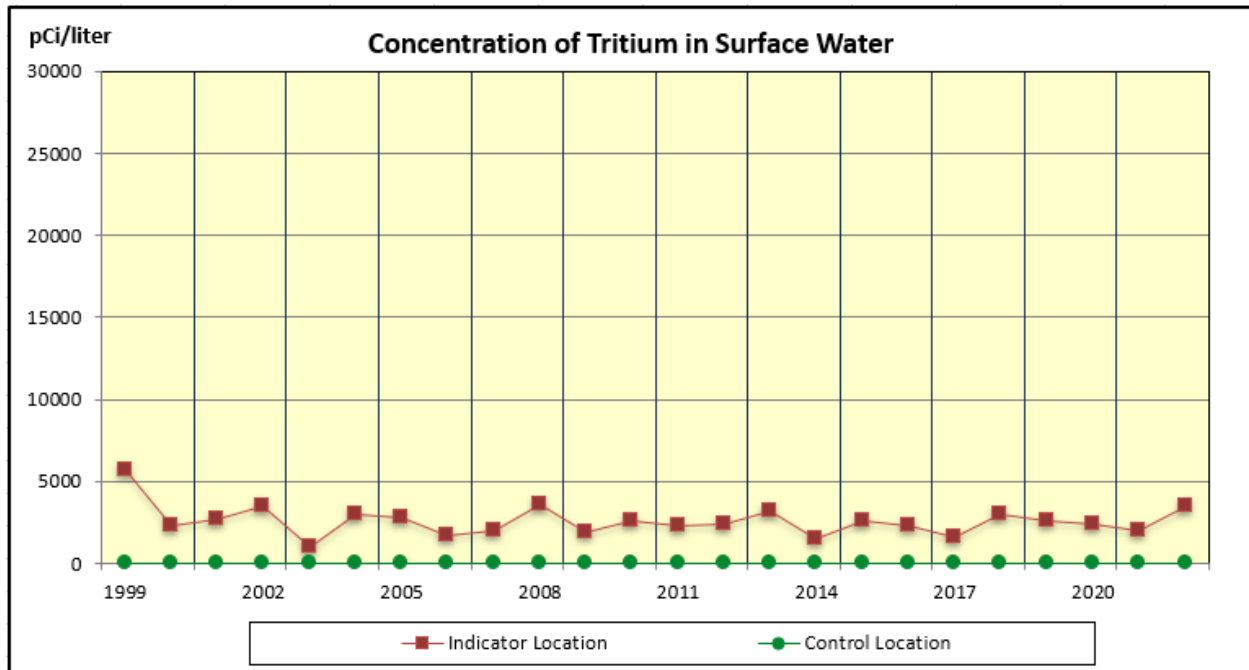
Tritium was detected in the 12 of the 12 indicator samples. The 2022 surface water highest annual mean tritium concentration was 3,500 pCi/liter. The individual samples ranged from 1,040 to 6,570 pCi/liter. For comparison purposes, the 2021 highest annual mean concentration was 2,020 pCi/liter. Tritium was not detected in any of the control surface water samples.

Figure 3.2 shows the indicator and control annual means for tritium since 1999. Table 3.2 lists the indicator and control annual means since 1999.

Gamma spectroscopy analysis did not detect any station related gamma activity during 2022. No gamma emitting radionuclides attributable to plant operations have been detected in surface water samples since 1999.

K-40 observed in surface water samples is a naturally occurring radionuclide.

Figure 3.2



There is no reporting level for tritium in surface water; however, if no drinking water pathway exists, a value of 30,000 pCi/l may be used.

Table 3.2 Mean Concentration of Tritium in Surface Water

Year	Indicator Location (pCi/l)	Control Location (pCi/l)
1999	5.64E+3	0.00E+0
2000	2.30E+3	0.00E+0
2001	2.64E+3	0.00E+0
2002	3.47E+3	0.00E+0
2003	9.53E+2	0.00E+0
2004	3.03E+3	0.00E+0
2005	2.83E+3	0.00E+0
2006	1.65E+3	0.00E+0
2007	2.03E+3	0.00E+0
2008	3.59E+3	0.00E+0
2009	1.86E+3	0.00E+0
2010	2.55E+3	0.00E+0
2011	2.29E+3	0.00E+0
2012	2.38E+3	0.00E+0
2013	3.14E+3	0.00E+0
2014	1.50E+3	0.00E+0
2015	2.56E+3	0.00E+0
2016	2.28E+3	0.00E+0
2017	1.62E+3	0.00E+0
2018	3.03E+3	0.00E+0
2019	2.56E+3	0.00E+0
2020	2.43E+3	0.00E+0
2021	2.02E+3	0.00E+0
2022	3.50E+3	0.00E+0

0.00E+0 indicates no detectable measurements

3.3 GROUND WATER

Gamma spectroscopy and tritium analyses were performed on 4 quarterly ground water grab samples collected at one indicator location during 2022. There is no control ground water location.

Tritium analysis did not detect tritium in any of the indicator samples in 2022.

Gamma spectroscopy analyses did not detect any gamma emitting radionuclides attributable to plant operations during 2022.

K-40 observed in ground water samples is a naturally occurring radionuclide.

3.4 MILK

Milk monitoring has not been conducted due to the unavailability of milk samples in the area since July 17, 1998, when the dairy ceased operation. The 2022 Land use Census did not identify any milk animals within the 5 mile radius of the plant. Broadleaf sampling is conducted and is used to calculate dose to an individual via the vegetation-milk-man pathway.

3.5 BROADLEAF VEGETATION

Monthly samples were collected and a gamma spectroscopy analysis was performed on 42 broadleaf vegetation samples during 2022. Five indicator locations and one control location were sampled.

During 2022, 13 of the 35 samples taken from the indicator locations identified Cs-137 activity with the highest annual mean concentration of 72.1 pCi/kg. Cs-137 was detected in 6 of the 7 samples taken from the control location with an annual mean concentration of 170 pCi/kg.

It is not unusual for Cs-137 to be present in vegetation. It is a constituent of nuclear weapons test fallout, nuclear plant accidents and has been observed in samples from indicator and control locations since 1999. Figure 3.5 displays the highest annual mean indicator and control location concentrations for Cs-137 in broadleaf vegetation from 1999 to 2022 and Table 3.5 lists these values. Visual inspection of the tabular data reveals a slight increasing trend in Cs-137 activity, but is well below the 50 percent reporting limit.

K-40 and Be-7 observed in broadleaf vegetation samples are naturally occurring radionuclides.

Figure 3.5

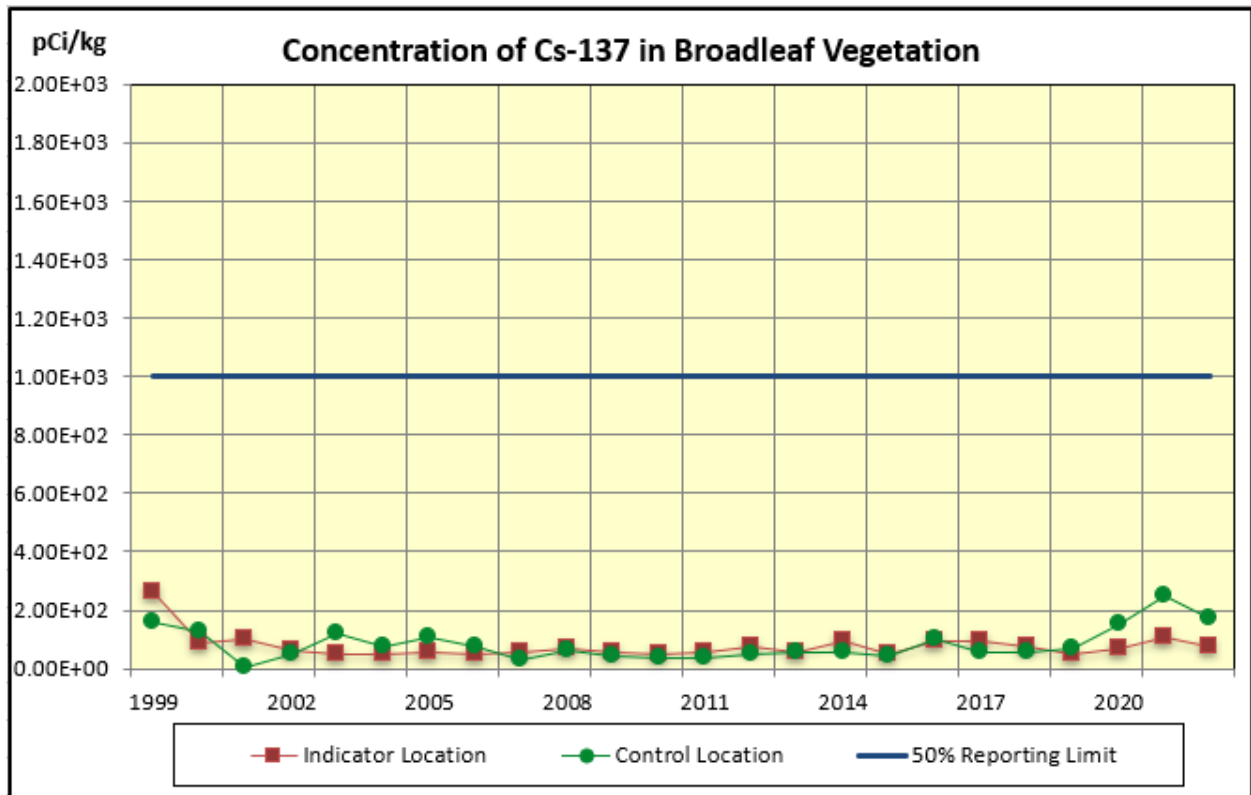


Table 3.5 Mean Concentrations of Radionuclides in Broadleaf Vegetation (pCi/kg)

Year	Cs-137 Indicator Location	Cs-137 Control Location
1999	2.59E+2	1.58E+2
2000	8.86E+1	1.29E+2
2001	9.72E+1	1.53E+0
2002	6.15E+1	4.96E+1
2003	4.66E+1	1.19E+2
2004	4.66E+1	7.64E+1
2005	5.27E+1	1.07E+2
2006	5.11E+1	7.76E+1
2007	5.38E+1	3.25E+1
2008	6.76E+1	6.06E+1
2009	5.84E+1	4.22E+1
2010	8.02E+1	3.38E+1
2011	5.84E+1	3.41E+1
2012	7.32E+1	4.83E+1
2013	5.27E+1	5.31E+1
2014 ⁽¹⁾	9.62E+1	5.51E+1
2015	4.68E+1	4.21E+1
2016	9.23E+1	9.72E+1
2017	9.12E+1	5.40E+1
2018	7.29E+1	5.34E+1
2019	4.60E+1	6.98E+1
2020	6.66E+1	1.50E+2
2021	1.06E+2	2.51E+2
2022	7.21E+1	1.70E+2

(1) 2014 Gamma spectroscopy system was replaced 10JUL2014. Gamma spectroscopy system hardware, detector cooling apparatus, software, electronics, nuclide identification libraries, and analytical test matrix components for test matrices were modified (NCR # 0739995). No analytical changes were observed due to the 2014 gamma spectroscopy system change.

3.6 FOOD PRODUCTS

Gamma spectroscopy was performed on 2 food products samples collected during the harvest season of 2022. One indicator location was sampled. There were no gamma emitting radionuclides due to RNP plant operations identified in food product samples in 2022.

K-40 and Be-7 observed in food products samples are naturally occurring radionuclides.

3.7 FISH

Gamma spectroscopy was performed on the edible portions of 12 fish samples during 2022. Two indicator locations and one control location were sampled. There were no other gamma emitting radionuclides due to RNP plant operations identified in fish samples in 2022.

Figure 3.7 is a graph displaying the high annual means for Cs-137 from 1999 to 2022. Table 3.7 displays the highest annual mean indicator and control location concentrations for Cs-137 in fish from 1999 to 2022.

K-40 observed in fish samples is a naturally occurring radionuclide.

Figure 3.7

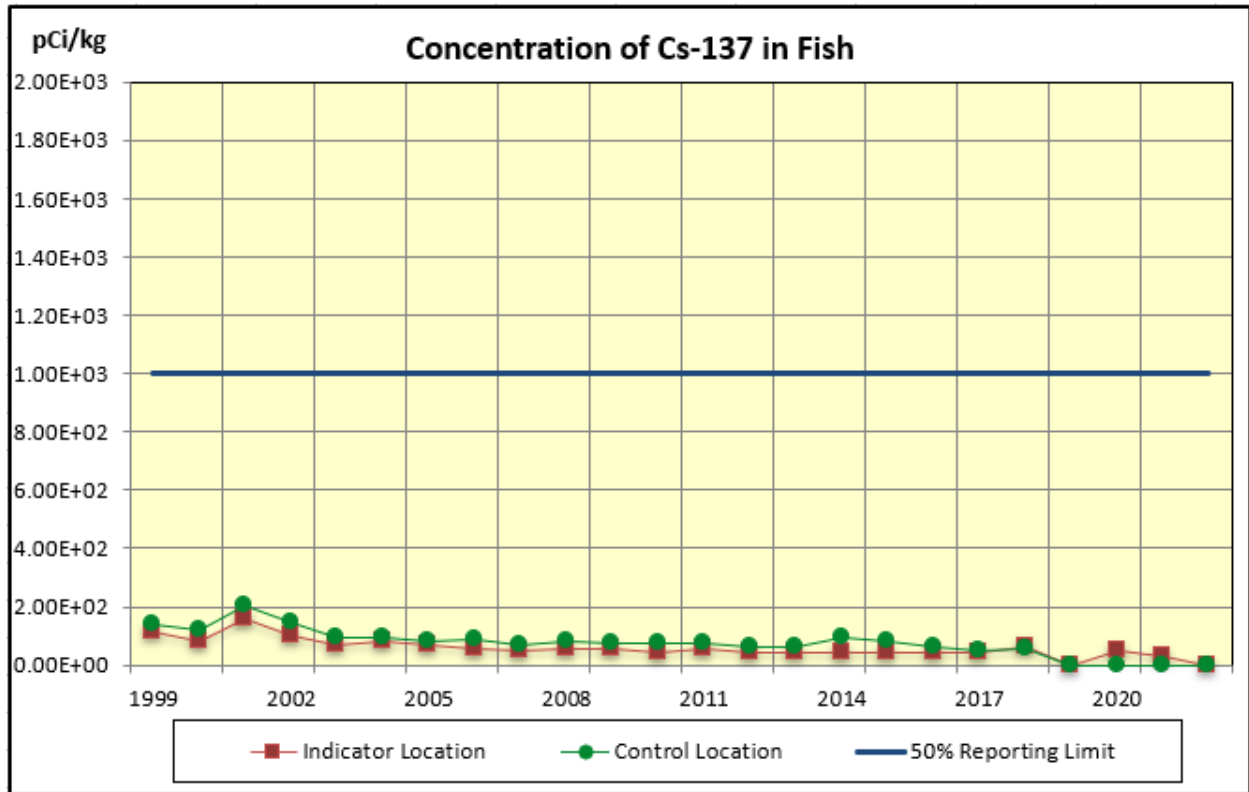


Table 3.7 Mean Concentrations of Radionuclides in Fish (pCi/kg)

Year	Cs-137 Indicator Location	Cs-137 Control Location
1999	1.13E+2	1.38E+2
2000	8.14E+1	1.20E+2
2001	1.58E+2	2.02E+2
2002	1.02E+2	1.48E+2
2003	6.87E+1	9.40E+1
2004	8.35E+1	9.16E+1
2005	7.00E+1	8.21E+1
2006	5.74E+1	8.56E+1
2007	5.15E+1	6.74E+1
2008	5.47E+1	8.04E+1
2009	5.59E+1	7.26E+1
2010	4.47E+1	7.28E+1
2011	5.52E+1	7.48E+1
2012	4.36E+1	5.97E+1
2013	4.47E+1	5.97E+1
2014 ⁽¹⁾	4.24E+1	9.32E+1
2015	4.16E+1	8.04E+1
2016	4.24E+1	6.06E+1
2017	4.09E+1	4.70E+1
2018	6.07E+1	5.53E+1
2019	0.00E+0	0.00E+0
2020	4.58E+1	0.00E+0
2021	3.23E+1	0.00E+0
2022	0.00E+0	0.00E+0

0.00E+0 indicates no detectable measurements

(1) 2014 Gamma spectroscopy system was replaced 10JUL2014. Gamma spectroscopy system hardware, detector cooling apparatus, software, electronics, nuclide identification libraries, and analytical test matrix components for test matrices were modified (NCR # 0739995). No analytical changes were observed due to the 2014 gamma spectroscopy system change.

3.8 SHORELINE SEDIMENT

Gamma spectroscopy was performed on 2 sediment samples following the drying and removal of rocks and clams from the one indicator location during 2022. There were no gamma emitting radionuclides due to RNP plant operations identified in the sediment sample in 2022. There is no control shoreline sediment location.

K-40 observed in the sediment samples is a naturally occurring radionuclide.

3.9 DIRECT GAMMA RADIATION

3.9.1 ENVIRONMENTAL TLD

Robinson is licensed with an exclusion area boundary and low population distance defined by UFSAR Section 1.2.1 as 1400 ft and 4.5 miles respectively. The exclusion distance is the distance from the reactor to the closest point on the boundary of the exclusion area defined in 10CFR100. The low population distance is the distance from the reactor to the boundary of the low population zone defined in 10CFR100. No permanent public access is permitted within the exclusion area.

Thermoluminescent dosimeters (TLD) were collected quarterly at forty-three locations, and Environmental TLD (Alpha & Bravo) dual placement was implemented for all RNP ODCM TLD locations effective first quarter 2020. There are 25 locations, one or more in each meteorological sector, designated as "inner ring" placed at distances within one mile from the site and in the general area of the site boundary. Due to close proximity with HBRSEP, and most being within the exclusion area boundary, inner ring TLD locations are not good indicators of radiation exposure to a member of the public but are good at determining nearby environmental effects due to plant operation. Based on their placement, inner ring TLD locations are expected to occasionally be influenced by normal plant operation. There are 17 TLD locations, one or more in each meteorological sector, designated as "outer ring" placed at distances of 6 to 8 kilometers from the site as is reasonably accessible and practical. All outer ring TLD locations are used as indicators. The one "control" location is 24.4 miles ESE from station center. This location was chosen to reduce the probability of influence from HBRSEP operation on data. The control location is not used as background subtraction in the TLD analysis. Its purpose is to provide a comparison to indicator locations.

A gamma exposure rate was determined for each TLD. In 2022, 170 TLDs were analyzed, 166 at indicator locations and 4 at the control location. TLDs are collected and analyzed quarterly. Transit TLDs and laboratory background TLDs were used for determining transit and laboratory background dose and were subtracted from gross field readings as required by ANSI N545-1975. Figure 3.9 and Table 3.9 show TLD inner ring, outer ring, and control location annual averages in mR/Standard Quarter. Data is provided from 1999. As shown in the graph, historical inner and outer ring averages compare similarly, while control data is somewhat higher since the resurfacing of the parking lot at this location in 2018. Other differences among these locations are attributed to variations in soils, local geology, and are not the result of plant operations.

Quarterly, environmental ODCM TLD results are compared by location to its historical data to evaluate any significant changes. The comparison utilizes the location's average exposure history to determine if quarterly results fall within expected low and high ranges and provides a reliable indication of potential changes occurring at a specific TLD location. The low and high ranges are determined by the historical average + two standard deviations. The quarterly TLD evaluation implements portions of American National Standard ANSI/HPS N13.37-2014, "Environmental Dosimetry – Criteria for System Design and Implementation, for environmental Thermoluminescent Dosimeters (TLD)". The WP-RP-

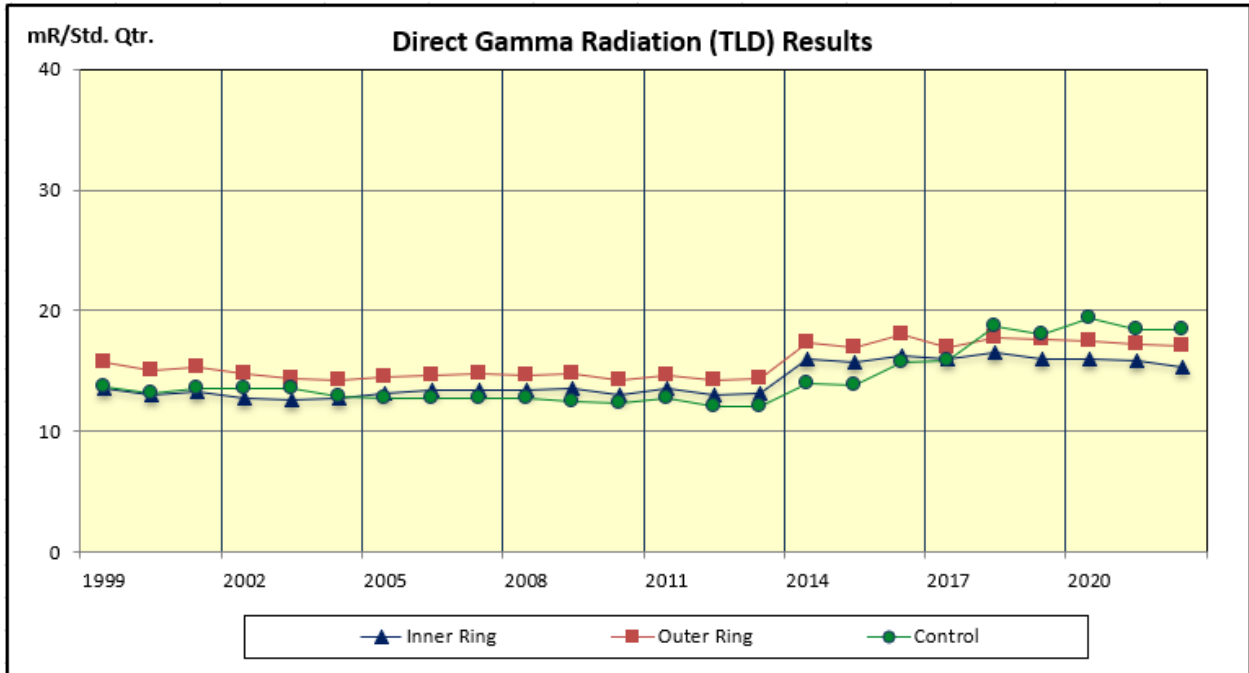
ALL-0030 – Updated Radiological Environmental Monitoring Program TLD Analytical Method, describes the process implemented in late 2018 for the fleet TLD programs. TLD values identified as < Low Range or > High Range are evaluated in consideration of factors including possible TLD damage, sampling deviations, glow curve irregularities, and any known environmental location changes which may affect results. TLD results are found in Appendix E. There were no TLD values that exceeded the < Low Range or > High Range in 2022.

The environmental data on external radiation exposure for 2022 was essentially unchanged from 1999-2022, with an average exposure for all of 2022 indicator locations of 16.0 mR per standard quarter. The TLD location with the highest annual mean of 22.8 mR per standard quarter was location 37, which is located 5.00 miles WSW of the plant. Control TLD location 1 had an annual mean of 18.4 mR per std. quarter.

During 2022, TLD locations 8 and 12 were removed from the program on 1/13/2022, and TLD locations 84 and 85 were added to the program on 1/13/2022.

A TLD Intercomparison Program is conducted as part of the quality assurance program. Results of this program are included in Section 4.7.

Figure 3.9



There is no reporting level for Direct Radiation (TLD)

Table 3.9 Direct Gamma Radiation (TLD) Results

Year	Inner Ring Average (mR/Std. Qtr.)	Outer Ring Average (mR/Std. Qtr.)	Control Average (mR/Std. Qtr.)
1999	1.35E+1	1.57E+1	1.37E+1
2000	1.30E+1	1.51E+1	1.32E+1
2001	1.34E+1	1.53E+1	1.36E+1
2002	1.27E+1	1.47E+1	1.35E+1
2003	1.26E+1	1.44E+1	1.36E+1
2004	1.28E+1	1.43E+1	1.30E+1
2005	1.32E+1	1.45E+1	1.27E+1
2006	1.35E+1	1.47E+1	1.28E+1
2007	1.35E+1	1.48E+1	1.27E+1
2008	1.35E+1	1.47E+1	1.27E+1
2009	1.36E+1	1.47E+1	1.25E+1
2010	1.31E+1	1.43E+1	1.24E+1
2011	1.35E+1	1.46E+1	1.27E+1
2012	1.30E+1	1.42E+1	1.21E+1
2013	1.32E+1	1.44E+1	1.21E+1
2014 ⁽¹⁾	1.59E+1	1.74E+1	1.40E+1
2015	1.57E+1	1.70E+1	1.39E+1
2016	1.63E+1	1.80E+1	1.57E+1
2017	1.60E+1	1.69E+1	1.58E+1
2018	1.65E+1	1.78E+1	1.87E+1
2019	1.60E+1	1.76E+1	1.80E+1
2020	1.59E+1	1.75E+1	1.93E+1
2021	1.59E+1	1.72E+1	1.85E+1
2022	1.53E+1	1.71E+1	1.84E+1

(1) As of first quarter 2014, the environmental TLDs utilized for the HBRSEP REMP were Harshaw TLDs, replacing Panasonic TLDs which were utilized prior to 2014 (NCR # 01982479).

3.10 LAND USE CENSUS

The 2022 HBRSEP Annual Land Use Census was conducted during the growing season on 6/13-6/15/2022 to meet the requirements of the HBRSEP ODCM 4.4.1. An Annual Land Use Census was conducted to identify within a distance of 8 kilometers (5.0 miles) from the plant and in each of the 16 meteorological sectors, the nearest residence, the nearest garden greater than 500 square feet or 50 square meters, producing broadleaf vegetables (fresh leafy vegetables), the nearest Milk-giving Animal (cow, goat, etc.), and the nearest meat animal (beef, hogs, etc.) was only identified at the nearest garden or closer in each sector. Poultry and egg laying animals were not classified as meat animals for the 2022 census.

Table 3.10 summarizes the HBRSEP 2022 census results. A map indicating identified locations is shown in Figure 3.10. The nearest residence is located in the SSE sector at 0.33 miles, and there were no milk locations identified during the performance of the land use census. No program changes were required based on the results of the census

Table 3.10 HBRSEP Land Use Census Comparison (2021 – 2022)

Nearest Pathway (Miles)

SECTOR	RESIDENCE		GARDEN		MEAT ANIMAL ⁽¹⁾		MILK ANIMAL	
	2021	2022	2021	2022	2021	2022	2021	2022
North	2.83	2.51	4.34	4.48*	---	---	----	----
North-Northeast	1.53	1.53	2.13	2.13	---	---	----	----
Northeast	1.11	1.11	2.57	2.57	2.57	2.57	----	----
East-Northeast	0.85	0.85	1.08	0.96*	---	---	----	----
East	0.90	0.90	2.94	2.94	---	---	----	----
East-Southeast	0.62	0.62	1.28	1.28	---	---	----	----
Southeast	0.38	0.38	3.63	3.63	1.96	1.96	----	----
South-Southeast	0.33	0.33	2.56	2.69*	---	---	----	----
South	0.44	0.44	2.26	2.26	---	---	----	----
South-Southwest	0.42	0.43	2.49	4.11*	---	---	----	----
Southwest	0.44	0.44	2.11	2.02*	---	---	----	----
West-Southwest	0.44	0.44	0.86	0.88*	---	---	----	----
West	0.56	0.56	0.70	0.70	---	---	----	----
West-Northwest	0.57	0.57	4.54	4.54	---	---	----	----
Northwest	1.56	1.56	1.60	1.60	---	---	----	----
North-Northwest	2.00	2.00	2.85	2.85	---	---	----	----

NOTE: Sector and distance determined by Global Positioning System.

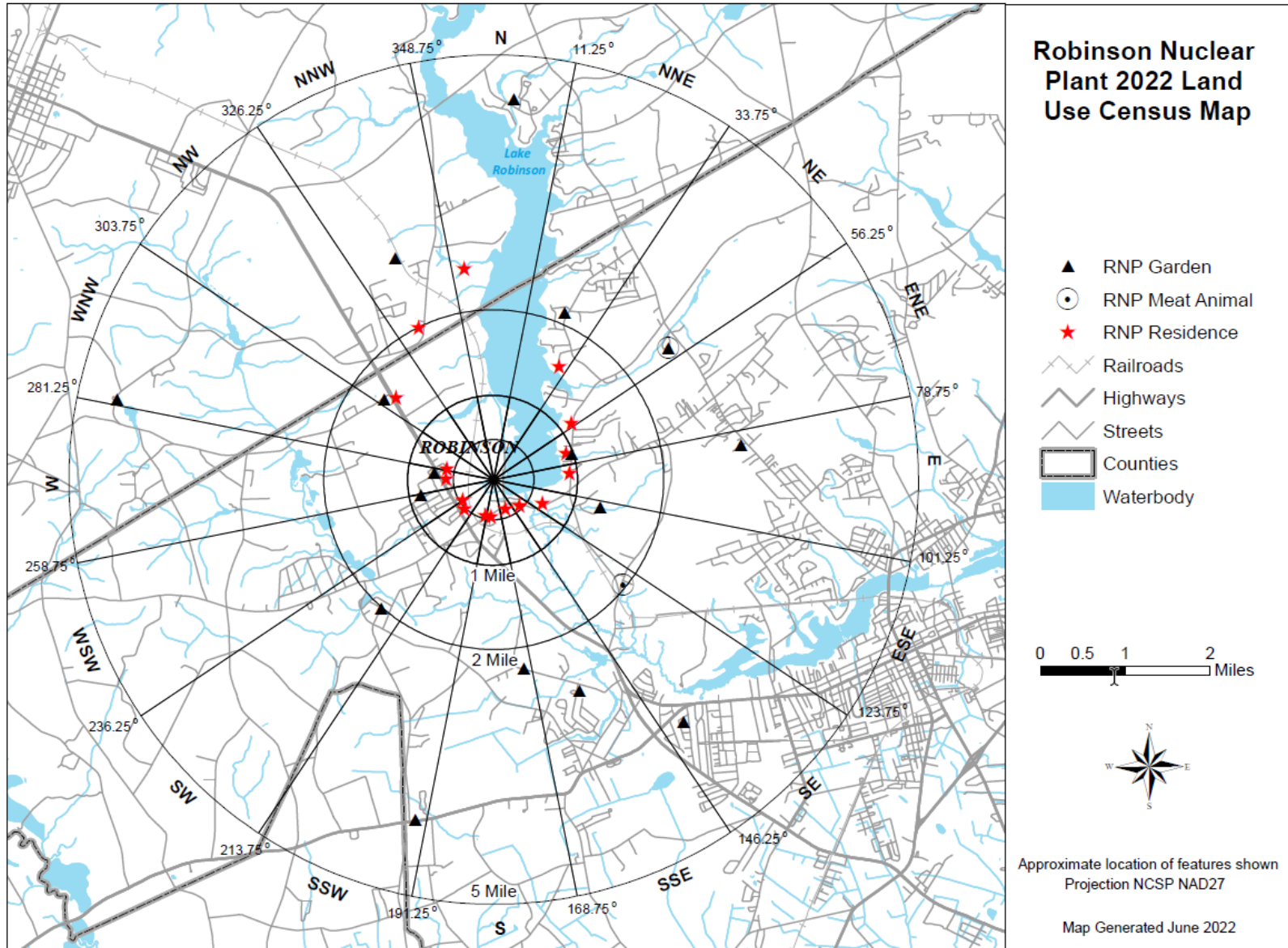
* Represents a change from the previous year.

** Represents a change from the previous year – different address, same mileage

“----” indicates no occurrences within the 5 mile radius

(1) Meat animal was only identified at the nearest garden or closer in each sector.

Figure 3.10



4.0 QUALITY ASSURANCE

4.1 SAMPLE COLLECTION

HBRSEP Chemistry and the Environmental Services performed the environmental sample collections as specified by approved sample collection procedures.

4.2 SAMPLE ANALYSIS

EnRad Laboratories performed the environmental sample analyses as specified by approved analysis procedures. EnRad Laboratories is in Huntersville, North Carolina, at Duke Energy's Environmental Center.

4.3 DOSIMETRY ANALYSIS

The Dosimetry and Records group performed the environmental dosimetry measurements as specified by approved dosimetry analysis procedures. The Dosimetry and Records Laboratory is in Huntersville, North Carolina, at Duke Energy's Environmental Center.

4.4 LABORATORY EQUIPMENT QUALITY ASSURANCE

4.4.1 DAILY QUALITY CONTROL

EnRad Laboratories has an internal quality assurance program which monitors each type of instrumentation for reliability and accuracy. Daily quality control checks ensure that instruments are in proper working order and these checks are used to monitor instrument performance.

4.4.2 CALIBRATION VERIFICATION

National Institute of Standards and Technology (NIST) standards that represent counting geometries are analyzed as unknowns at various frequencies ranging from weekly to annually to verify that efficiency calibrations are valid. The frequency is dependent upon instrument use and performance. Investigations are performed and documented should calibration verification data fall outside of the acceptable limits.

4.4.3 BATCH PROCESSING

Method quality control samples are analyzed with sample analyses that are processed in batches. This includes tritium analyses in surface water samples.

4.5 DUKE ENERGY INTERLABORATORY COMPARISON PROGRAM

In 2022 Duke Energy Environmental Laboratory (EnRad) participated in interlaboratory programs to satisfy Radiological Environmental Monitoring Program requirements in Duke Energy nuclear plant Offsite Dose Calculation Manuals and Selected Licensee Commitments Manuals, as applicable.

EnRad Laboratory participated in an interlaboratory program with Eckert & Ziegler Analytics (EZA) in 2022. EZA results were evaluated against the NRC Inspection Manual Procedure 84750 (IP 84750) acceptance criteria stated in EnRad Procedure 515, Cross Check Program Administration. All regulatory requirements continue to be met by the EZA Cross Check Program.

4.5.1 ECKERT & ZIEGLER ANALYTICS CROSS CHECK PROGRAM

EZA mixed gamma in liquid, mixed gamma in vegetation, mixed gamma in soil, low-level I-131 in liquid, mixed gamma air filter composites, I-131 air cartridges, gross beta in water, gross beta in filters, and tritium in water were analyzed at various times of the year at EnRad Laboratories. A summary of the applicable REMP EnRad Laboratory program results for 2022 is documented in Table 4.0-A.

Interlaboratory cross check samples from EZA were received and analyzed in two of the four quarters of 2022. Table 4.0-A lists the performance for specific samples. Forty-one nuclide results were reported to EZA of which forty-one (100 %) met the acceptance criteria based on IP 84750.

4.6 SPLIT COMPARISON PROGRAM

HBRSEP routinely participates in an environmental sample intercomparison program. Program elements include sampling frequency and analysis for surface water, fish, broadleaf vegetation, and shoreline sediment samples that have been collected. Samples are routinely split with a vendor laboratory for intercomparison.

4.7 TLD INTERCOMPARISON PROGRAM

Radiation Dosimetry and Records participates in a quarterly TLD internal comparison program administered internally by the Dosimetry Lab. The Dosimetry Lab Staff irradiates environmental dosimeters quarterly using the NIST-traceable Hopewell and submits them for analysis of the unknown estimated delivered exposure. The TLD results were evaluated against Radiation Dosimetry and Records Procedure RD/0/B/2000/09, Harshaw TLD Dose Algorithm Verification. Forty TLD results were evaluated of which forty (100%) met the acceptance criteria. A summary of the 2022 Internal Cross Check (Duke Energy) Program is documented in Table 4.0-B.

TABLE 4.0-A

ECKERT & ZIEGLER ANALYTICS

CROSS CHECK PROGRAM

2022 Cross Check Results for EnRad Laboratories

Interlaboratory cross check samples from EZA were received and analyzed in two of the four quarters of 2022. Results are reported directly to Eckert & Ziegler Analytics. Environmental cross check samples were analyzed in replicate, and the result closest to the mean is reported to Eckert & Ziegler Analytics. The acceptance criteria for the program was based on the NRC Inspection Manual Procedure 84750 (IP 84750). Table 4.0-A lists the performance for specific samples. Forty-one nuclide results were reported to EZA of which forty-one (100%) met the acceptance criteria based on IP 84750.

Sample	Sample ID	Nuclide	Quarter	Units	EnRad Value	EZA Value	EnRad/EZA Ratio	Evaluation
Beta Filter in Planchet	E13430A	Cs-137	2	pCi	126	126	1.00	Agreement
I-131 in Charcoal Cartridge	E13428	I-131	2	pCi	95.5	92.8	1.03	Agreement
Gamma in Soil	E13429	Ce-141	2	pCi/g	0.158	0.163	0.97	Agreement
		Co-58	2	pCi/g	0.155	0.162	0.96	Agreement
		Co-60	2	pCi/g	0.176	0.195	0.90	Agreement
		Cr-51	2	pCi/g	0.430	0.482	0.89	Agreement
		Cs-134	2	pCi/g	0.202	0.193	1.05	Agreement
		Cs-137	2	pCi/g	0.222	0.242	0.92	Agreement
		Fe-59	2	pCi/g	0.168	0.166	1.01	Agreement
		Mn-54	2	pCi/g	0.226	0.226	1.00	Agreement
		Zn-65	2	pCi/g	0.267	0.272	0.98	Agreement
Gamma in Simulated Vegetation	E13437	Ce-141	3	pCi/g	0.194	0.194	1.00	Agreement
		Co-58	3	pCi/g	0.208	0.200	1.04	Agreement
		Co-60	3	pCi/g	0.258	0.246	1.05	Agreement
		Cr-51	3	pCi/g	0.373	0.401	0.93	Agreement
		Cs-134	3	pCi/g	0.141	0.158	0.89	Agreement
		Cs-137	3	pCi/g	0.193	0.190	1.02	Agreement
		Fe-59	3	pCi/g	0.183	0.173	1.06	Agreement
		Mn-54	3	pCi/g	0.226	0.218	1.04	Agreement
		Zn-65	3	pCi/g	0.274	0.260	1.05	Agreement

TABLE 4.0-A (Cont.)

Sample	Sample ID	Nuclide	Quarter	Units	EnRad Value	EZA Value	EnRad/EZA Ratio	Evaluation
Gamma in Composite Filter	E13562	Ce-141	3	pCi	112	108	1.04	Agreement
		Co-58	3	pCi	130	126	1.03	Agreement
		Co-60	3	pCi	179	174	1.03	Agreement
		Cr-51	3	pCi	309	305	1.01	Agreement
		Cs-134	3	pCi	162	169	0.96	Agreement
		Cs-137	3	pCi	151	148	1.02	Agreement
		Fe-59	3	pCi	126	116	1.09	Agreement
		Mn-54	3	pCi	199	189	1.05	Agreement
		Zn-65	3	pCi	269	250	1.08	Agreement
Gamma in Water	E13563	Ce-141	3	pCi/L	168	157	1.07	Agreement
		Co-58	3	pCi/L	192	184	1.04	Agreement
		Co-60	3	pCi/L	266	253	1.05	Agreement
		Cr-51	3	pCi/L	490	444	1.10	Agreement
		Cs-134	3	pCi/L	233	246	0.95	Agreement
		Cs-137	3	pCi/L	231	216	1.07	Agreement
		Fe-59	3	pCi/L	190	168	1.13	Agreement
		Mn-54	3	pCi/L	297	275	1.08	Agreement
		Zn-65	3	pCi/L	396	364	1.09	Agreement
Milk LLI-131	E13559	I-131	2	pCi/L	100	93.3	1.07	Agreement
Gross Beta in Water	E13561	Cs-137	2	pCi/L	252	279	0.90	Agreement
Tritium in Water	E13565	H-3	3	pCi/L	11600	12500	0.93	Agreement

TABLE 4.0-B

2022 ENVIRONMENTAL DOSIMETER

CROSS CHECK RESULTS

Internal Crosscheck (Duke Energy)

Radiation Dosimetry and Records participates in a quarterly TLD internal comparison program administered internally by the Dosimetry Lab. The Dosimetry Lab Staff irradiates environmental dosimetry quarterly and submits them for analysis of the unknown estimated delivered exposure. The TLD results were evaluated against Radiation Dosimetry and Records Procedure RD/0/B/2000/09, Harshaw TLD Dose Algorithm Verification. Forty TLD results were evaluated of which forty (100%) met the acceptance criteria.

1st Quarter 2022						2nd Quarter 2022					
TLD Number	Reported (mR)	Delivered (mR)	Bias (% diff)	Pass/Fail Criteria	Pass/Fail	TLD Number	Reported (mR)	Delivered (mR)	Bias (% diff)	Pass/Fail Criteria	Pass/Fail
103615	59.74	58.21	2.63	<+/-20%	Pass	102931	19.48	18.49	5.35	<+/-20%	Pass
102059	56.77	58.21	-2.47	<+/-20%	Pass	100029	18.10	18.49	-2.11	<+/-20%	Pass
100164	55.78	58.21	-4.17	<+/-20%	Pass	100033	17.98	18.49	-2.76	<+/-20%	Pass
102407	57.37	58.21	-1.44	<+/-20%	Pass	103721	19.90	18.49	7.63	<+/-20%	Pass
103098	60.15	58.21	3.33	<+/-20%	Pass	103212	19.62	18.49	6.11	<+/-20%	Pass
100007	56.16	58.21	-3.52	<+/-20%	Pass	100224	18.18	18.49	-1.68	<+/-20%	Pass
100038	56.16	58.21	-3.52	<+/-20%	Pass	100074	18.32	18.49	-0.92	<+/-20%	Pass
100245	54.99	58.21	-5.53	<+/-20%	Pass	102018	19.49	18.49	5.41	<+/-20%	Pass
102442	55.54	58.21	-4.59	<+/-20%	Pass	100068	18.12	18.49	-2.00	<+/-20%	Pass
100170	55.95	58.21	-3.88	<+/-20%	Pass	100028	18.22	18.49	-1.46	<+/-20%	Pass
Average Bias (B)			-2.32			Average Bias (B)			1.36		
Standard Deviation (S)			3.01			Standard Deviation (S)			4.17		
Measure Performance B +S			5.33	<20%	Pass	Measure Performance B +S			5.53	<20%	Pass
3rd Quarter 2022						4th Quarter 2022					
TLD Number	Reported (mR)	Delivered (mR)	Bias (% diff)	Pass/Fail Criteria	Pass/Fail	TLD Number	Reported (mR)	Delivered (mR)	Bias (% diff)	Pass/Fail Criteria	Pass/Fail
104776	37.17	40.39	-7.97	<+/-20%	Pass	104757	27.93	29.67	-5.86	<+/-20%	Pass
104826	37.06	40.39	-8.24	<+/-20%	Pass	104823	28.05	29.67	-5.46	<+/-20%	Pass
104474	37.27	40.39	-7.72	<+/-20%	Pass	104475	27.76	29.67	-6.44	<+/-20%	Pass
104775	36.47	40.39	-9.71	<+/-20%	Pass	104824	28.14	29.67	-5.16	<+/-20%	Pass
104827	38.17	40.39	-5.50	<+/-20%	Pass	104750	28.20	29.67	-4.95	<+/-20%	Pass
104357	36.64	40.39	-9.28	<+/-20%	Pass	104776	28.03	29.67	-5.53	<+/-20%	Pass
104353	37.42	40.39	-7.35	<+/-20%	Pass	104755	28.25	29.67	-4.79	<+/-20%	Pass
104358	35.99	40.39	-10.89	<+/-20%	Pass	104355	28.04	29.67	-5.49	<+/-20%	Pass
104355	38.17	40.39	-5.50	<+/-20%	Pass	104828	27.20	29.67	-8.32	<+/-20%	Pass
104475	36.55	40.39	-9.51	<+/-20%	Pass	104354	27.63	29.67	-6.88	<+/-20%	Pass
Average Bias (B)			-8.17			Average Bias (B)			-5.89		
Standard Deviation (S)			1.76			Standard Deviation (S)			1.07		
Measure Performance B +S			9.93	<20%	Pass	Measure Performance B +S			6.96	<20%	Pass

APPENDIX A

ENVIRONMENTAL SAMPLING
&
ANALYSIS PROCEDURES

APPENDIX A

ENVIRONMENTAL SAMPLING AND ANALYSIS PROCEDURES

Adherence to established procedures for sampling and analysis of environmental media at the H. B. Robinson Steam Electric Plant, Unit No. 2 (HBRSEP) is required to ensure compliance with the HBRSEP Off-Site Dose Calculation Manual (ODCM). Analytical procedures were employed to ensure that the ODCM detection capabilities were achieved.

Environmental sampling was performed by HBRSEP Station Sciences and Environmental Services. Environmental analyses were performed by EnRad Laboratories and Dosimetry and Records.

This appendix provides a description of the specific analyses performed on samples collected in the field. Changes to the sampling procedures and analyses procedures are also discussed in the section. All analytical procedures listed in this section may not apply to the REMP.

I. CHANGE OF SAMPLING PROCEDURES

Food Products were changed to be collected monthly during the growing season, effective February 24, 2022.

Broadleaf Vegetation was changed to be collected during the growing season May through October, effective February 24, 2022.

Air Particulate/Radioiodine locations 3 and 61 were removed from the REMP on April 5, 2022.

TLD locations 8 and 12 were removed from the REMP on January 13, 2022.

TLD locations 84 and 85 were added to the REMP on January 13, 2022.

Broadleaf Vegetation location 83 was added to the REMP on February 24, 2022.

II. DESCRIPTION OF ANALYSIS PROCEDURES

Gamma spectroscopy analyses are performed using high purity germanium gamma detectors and Mirion analytical software. Designated sample volumes are transferred to appropriate counting geometries and analyzed by gamma spectroscopy. Perishable samples such as fish and broadleaf vegetation are ground to achieve a homogeneous mixture. Soils and sediments are dried, sifted to remove foreign objects (rocks, clams, glass, etc.) and then transferred to appropriate counting geometry.

Low-level iodine analyses are performed by passing a designated sample aliquot through a pre-determined amount of ion exchange resin to remove and concentrate any iodine in the aqueous sample (milk). The resin is then dried and mixed thoroughly, before being transferred to appropriate counting geometry and analyzed by gamma spectroscopy.

Tritium analyses are performed by using low-level environmental liquid scintillation analysis technique on a Perkin-Elmer 4910TR liquid scintillation system or a Perkin-Elmer 3110TR liquid scintillation system. Tritium samples are distilled and batch processed with a laboratory fortified blank, matrix spike, matrix spike duplicate, and blank to verify instrument performance and sample preparation technique are acceptable.

Gross beta analysis of air filters is performed by analyzing filters on Tennelec XLB Series 5 gas-flow proportional counters. Samples are batch processed with a blank to ensure sample contamination has not occurred.

Gross beta analysis of liquid samples is performed by concentrating a designated aliquot of sample and analyzing by Perkin-Elmer 4910TR liquid scintillation system. Samples are batch processed with a laboratory fortified blank and a blank to verify instrument performance and to ensure sample contamination has not occurred.

III. CHANGE OF ANALYSIS PROCEDURES

There were no changes to the analysis procedures during 2022.

APPENDIX B

**RADIOLOGICAL
ENVIRONMENTAL MONITORING
PROGRAM**

SUMMARY OF RESULTS

2022

**H. B. ROBINSON STEAM ELECTRIC PLANT, UNIT NO. 2 (HBRSEP)
RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM DATA SUMMARY**

H. B. Robinson Steam Electric Plant, Unit No. 2
Darlington County, South Carolina

Docket Numbers: 50-261
Calendar Year: 2022

Medium or Pathway Sampled or Measured (Unit of Measurement)	Type and Total No. of Measurements Performed	Lower Limit of Detection (LLD) ⁽¹⁾	All Indicator Locations ^{(2) (3)} Mean Range	Location w/Highest Annual Mean		Control Locations Mean Range ^{(2) (3)}	No. of Non-Routine Report Meas.
				Name, Distance, and Direction	Mean Range ^{(2) (3)}		
Air Particulate (pCi/m ³)	Gross Beta 440 ⁽⁴⁾	See Table 2.2-C	2.07E-02 (388/388) 7.81E-03 – 3.74E-02	2 (0.20 mi S)	2.19E-02 (52/52) 9.77E-03 – 3.74E-02	1 (24.4 mi ESE) 2.11E-02 (52/52) 1.16E-02 – 3.78E-02	0
	Gamma 34 ⁽⁴⁾	See Table 2.2-C	All less than LLD	----	----	All less than LLD	0
Air Radioiodine (pCi/m ³)	Gamma 440 ⁽⁴⁾	See Table 2.2-C	All less than LLD	----	----	All less than LLD	0
Surface Water (pCi/l)	Gamma 24 ⁽⁴⁾	See Table 2.2-C	All less than LLD	----	----	All less than LLD	0
	Tritium 24 ⁽⁴⁾	See Table 2.2-C	3.50E+03 (12/12) 1.04E+03 – 6.57E+03	40 (0.60 mi ESE)	3.50E+03 (12/12) 1.04E+03 – 6.57E+03	All less than LLD	0
Ground Water (pCi/l)	Gamma 4	See Table 2.2-C	All less than LLD	----	----	No Control	0
	Tritium 4	See Table 2.2-C	All less than LLD	----	----	No Control	0
Food Products (pCi/l)	Gamma 2	See Table 2.2-C	All less than LLD	----	----	All less than LLD	0

**H. B. ROBINSON STEAM ELECTRIC PLANT, UNIT NO. 2 (HBRSEP)
RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM DATA SUMMARY**

H. B. Robinson Steam Electric Plant, Unit No. 2
Darlington County, South Carolina

Docket Numbers: 50-261
Calendar Year: 2022

Medium or Pathway Sampled or Measured (Unit of Measurement)	Type and Total No. of Measurements Performed	Lower Limit of Detection (LLD) ⁽¹⁾	All Indicator Locations ^{(2) (3)} Mean Range	Location w/Highest Annual Mean		Control Locations Mean Range ^{(2) (3)}	No. of Non-Routine Report Meas.
				Name, Distance, and Direction	Mean Range ^{(2) (3)}		
Broadleaf Vegetation ⁽⁴⁾ (pCi/kg, wet)	Gamma 42 ⁽⁴⁾	See Table 2.2-C					0
	Cs-137	See Table 2.2-C	3.88E+01 (13/35) 1.55E+01 – 1.24E+02	67 (0.0 mi S)	7.21E+01 (2/7) 2.01E+01 – 1.24E+02	52 (10 mi W) 1.70E+02 (6/7) 2.20E+01 – 2.73E+02	
Fish (pCi/kg, wet)	Gamma 12	See Table 2.2-C	All less than LLD	----	All less than LLD	All less than LLD	0
Sediments--Shoreline (pCi/kg, dry)	Gamma 2	See Table 2.2-C	All less than LLD	-----	-----	All less than LLD	0
TLD (mR per quarter) ⁽⁵⁾	TLD Readout 170 ⁽⁴⁾	-----	1.60E+01 (166/166) 9.68E+00 – 2.55E+01	37 (5.00 mi WSW)	2.28E+01 (4/4) 1.98E+01 – 2.48E+01	1 (24.4 mi ESE) 1.84E+01 (4/4) 1.64E+01 – 2.050E+01	0

Footnotes to Appendix B

1. The Lower Limit of Detection (LLD) is the smallest concentration of radioactive material in a sample that will yield a net count above system background which will be detected with 95 percent probability and with only 5 percent probability of falsely concluding that a blank observation represents a "real" signal. Due to counting statistics and varying volumes, occasionally lower LLDs are achieved. Refer to Section 2.3.2 for an explanation of how LLD values were derived.
2. Mean and range are based on detectable measurements only.
3. The fractions of all samples with detectable activities at specific locations are indicated in parentheses.
4. Missing samples or surveillances are discussed in Appendix C or Appendix D.
5. TLD exposure is reported in milliroentgen (mR) per standard quarter (91 days).

APPENDIX C

**SAMPLING DEVIATIONS
&
UNAVAILABLE ANALYSES**

APPENDIX C

H. B. ROBINSON NUCLEAR PLANT SAMPLING DEVIATIONS & UNAVAILABLE ANALYSES

DEVIATION & UNAVAILABLE REASON CODES			
BF	Blown Fuse	PM	Preventive Maintenance
CN	Construction	PO	Power Outage
FZ	Sample Frozen	PS	Pump out of service / Undergoing repair
IV	Insufficient Volume	SL	Sample Loss/Lost due to Lab Accident
IW	Inclement Weather	SM	Motor / Rotor Seized
LC	Line Clog to Sampler	SU	Seasonally Unavailable
OT	Other	TF	Torn Filter
PI	Power Interrupt	VN	Vandalism

C.1 SAMPLING DEVIATIONS

Air Particulate and Air Radioiodine

REMP weekly air samples (Air Particulate (AP) or Air Radioiodine (AR)) that experience any downtime during a surveillance period are reported as a Deviation and classified as a “Sampling Deviation.” However, the sample is counted and the data reported, whereas a Deviation with no available sample is classified as an “Unavailable Analyses” and does not have any data reported. The air samplers operated for a total of 98.53% availability in 2022.

Location	Scheduled Collection Dates	Code	Description & Action to Prevent Recurrence	Corrective Action
5	1/11-1/18/2022	PI	8.45 hours downtime due to unknown power interrupt.	NCR # 02412337
7	1/11-1/18/2022	PI	2.97 hours downtime due to unknown power interrupt.	NCR # 02412337
5	5/3-5/10/2022	PI	3.24 hours downtime due to power interrupt due to inclement weather in the area.	NCR # 02426748
4	6/7-6/14/2022	PO	29.24 hours downtime due to power outage due to Unit 1 decommissioning project.	NCR # 02430113 NCR # 02431469
6	6/14-6/21/2022	PI	4.64 hours downtime due to power interrupt due to severe weather.	NCR # 02431766
2	6/14-6/21/2022	PI	4.60 hours downtime due to power interrupt due to severe weather.	NCR # 02431766
60	6/14-6/21/2022	PI	6.56 hours downtime due to power interrupt due to severe weather.	NCR # 02431766
4	6/14-6/21/2022	PI	4.60 hours downtime due to power interrupt due to severe weather.	NCR # 02431766
5	6/14-6/21/2022	PI	17.28 hours downtime due to power interrupt due to severe weather.	NCR # 02431766
7	9/26-10/3/2022	PI	1.58 hours downtime due to unknown power interrupt.	NCR # 02443900
4	10/3-10/11/2022	PO	24.83 hours downtime due to unknown power outage.	NCR # 02445734
4	10/11-10/18/2022	PI	30.05 hours downtime due to unknown power interrupt.	NCR # 02445734
1	11/8-11/15/2022	PI	0.51 hours downtime due to unknown power interrupt.	NCR # 02449984
55	11/22-11/29/2022	PI	64.67 hours downtime due to unknown power interrupt.	NCR # 02451032
5	12/20-12/27/2022	PI	3.01 hours downtime due to unknown power interrupt.	NCR # 02454322

Surface Water

REMP monthly surface water (SW) samples that experience any downtime during a surveillance period are reported as a Deviation and classified as a “Sampling Deviation.” The sample is counted and the data reported; whereas, a Deviation with no available sample is classified as an “Unavailable Analyses” and does not have any data reported. The Robinson REMP water samplers operated for a total of 99.87% availability in 2022.

Location	Scheduled Collection Dates	Code	Description & Action to Prevent Recurrence	Corrective Action
41	7/25-8/29/2022	PI	24 hours downtime due to loss of utility power. The local electrical company was called upon to restore power.	NCR # 02436480

C.2 UNAVAILABLE ANALYSES

Air Particulate and Air Radioiodine

Location	Scheduled Collection Dates	Code	Description & Action to Prevent Recurrence	Corrective Action
7	3/22-3/28/2022	OT	142.45 hours downtime due to air sampler issues. The flow was adjusted to 2.0 CFM on the sampler.	NCR # 02421651
4	5/31-6/7/2022	PO	162.21 hours downtime due to power outage due to Unit 1 decommissioning project.	NCR # 02430113

Broadleaf Vegetation (BLV)

Location	Scheduled Collection Dates	Code	Description & Action to Prevent Recurrence	Corrective Action
All BLV ⁽¹⁾	January 2022	SU	Broadleaf Vegetation was seasonally unavailable	NCR # 02410723
All BLV ⁽¹⁾	February 2022	SU	Broadleaf Vegetation was seasonally unavailable	NCR # 02414195

(1) All “BLV” represents HBRSEP Broadleaf Vegetation locations 50, 51, 52, 62, 67, and 83.

Direct Gamma Radiation (TLD)

Location	Scheduled Collection Dates	Code	Description & Action to Prevent Recurrence	Corrective Action
56	1/13-4/20/2022 4/20-7/14/2022	OT	It was discovered during the 2 nd quarter 2022 that the TLDs were placed incorrectly in the field in January 2022 and April 2022, so the TLDs are considered to be unavailable. Collection personnel were coached in May 2022 not relocate TLDs.	NCR # 02426893

APPENDIX D

ANALYTICAL DEVIATIONS

No Analytical deviations were incurred for the
2022 Radiological Environmental Monitoring Program

APPENDIX E

**RADIOLOGICAL
ENVIRONMENTAL MONITORING
PROGRAM RESULTS**

2022

This appendix includes sample analysis report summaries and supportive data generated from each sample medium for 2022

ROBINSON Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR PARTICULATE Concentration (Activity): pCi/m3

Sample Point 1 [CONTROL - ESE @ 24.4 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
558815	1/4/2022 - 1/11/2022	Beta	2.30E-02	3.13E-03	3.13E-03
559030	1/11/2022 - 1/18/2022	Beta	2.36E-02	3.14E-03	3.01E-03
559506	1/18/2022 - 1/25/2022	Beta	2.25E-02	3.23E-03	3.36E-03
559507	1/25/2022 - 2/1/2022	Beta	2.21E-02	2.98E-03	2.84E-03
560223	2/1/2022 - 2/8/2022	Beta	1.84E-02	2.92E-03	3.17E-03
560093	2/8/2022 - 2/14/2022	Beta	2.74E-02	3.76E-03	3.71E-03
560772	2/14/2022 - 2/22/2022	Beta	1.99E-02	2.77E-03	2.85E-03
561108	2/22/2022 - 3/1/2022	Beta	1.96E-02	3.07E-03	3.38E-03
561608	3/1/2022 - 3/8/2022	Beta	2.73E-02	3.32E-03	3.04E-03
562191	3/8/2022 - 3/15/2022	Beta	1.23E-02	2.65E-03	3.25E-03
562798	3/15/2022 - 3/22/2022	Beta	1.59E-02	2.71E-03	3.04E-03
563393	3/22/2022 - 3/28/2022	Beta	1.69E-02	3.36E-03	4.13E-03
563736	3/28/2022 - 4/5/2022	Beta	2.23E-02	2.64E-03	2.49E-03
564077	1/4/2022 - 4/5/2022	Cs-134	<1.95E-03	0.00E+00	1.95E-03
		Cs-137	<1.71E-03	0.00E+00	1.71E-03
		Be-7	1.64E-01	3.61E-02	2.55E-02
		K-40	8.37E-03	9.41E-03	1.38E-02
563945	4/5/2022 - 4/13/2022	Beta	1.67E-02	2.55E-03	2.64E-03
564500	4/13/2022 - 4/19/2022	Beta	1.69E-02	3.13E-03	3.64E-03
564742	4/19/2022 - 4/25/2022	Beta	2.71E-02	3.84E-03	4.02E-03
565260	4/25/2022 - 5/3/2022	Beta	2.10E-02	2.44E-03	2.23E-03
565922	5/3/2022 - 5/10/2022	Beta	1.58E-02	2.47E-03	2.60E-03
566514	5/10/2022 - 5/17/2022	Beta	1.51E-02	2.75E-03	3.13E-03
566850	5/17/2022 - 5/24/2022	Beta	2.33E-02	3.07E-03	2.94E-03
567099	5/24/2022 - 5/31/2022	Beta	1.63E-02	2.61E-03	3.03E-03
567529	5/31/2022 - 6/7/2022	Beta	2.12E-02	3.09E-03	3.13E-03
567705	6/7/2022 - 6/14/2022	Beta	1.97E-02	2.76E-03	2.83E-03

ROBINSON Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR PARTICULATE Concentration (Activity): pCi/m3

Sample Point 1 [CONTROL - ESE @ 24.4 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
568341	6/14/2022 - 6/21/2022	Beta	2.30E-02	3.20E-03	3.29E-03
568571	6/21/2022 - 6/28/2022	Beta	2.33E-02	2.80E-03	2.62E-03
568785	6/28/2022 - 7/5/2022	Beta	1.34E-02	2.30E-03	2.50E-03
569142	4/5/2022 - 7/5/2022	Cs-134	<1.60E-03	0.00E+00	1.60E-03
		Cs-137	<1.43E-03	0.00E+00	1.43E-03
		Be-7	1.99E-01	4.11E-02	2.99E-02
		K-40	2.82E-02	1.59E-02	1.74E-02
569018	7/5/2022 - 7/12/2022	Beta	1.16E-02	2.57E-03	3.21E-03
570254	7/12/2022 - 7/19/2022	Beta	1.23E-02	2.37E-03	2.80E-03
570818	7/19/2022 - 7/25/2022	Beta	1.38E-02	3.10E-03	3.90E-03
571059	7/25/2022 - 8/2/2022	Beta	1.64E-02	2.37E-03	2.44E-03
571352	8/2/2022 - 8/9/2022	Beta	1.62E-02	2.87E-03	3.23E-03
571638	8/9/2022 - 8/16/2022	Beta	1.74E-02	2.47E-03	2.49E-03
572666	8/16/2022 - 8/23/2022	Beta	1.83E-02	2.94E-03	3.15E-03
573965	8/23/2022 - 8/29/2022	Beta	1.69E-02	2.98E-03	3.50E-03
574495	8/29/2022 - 9/6/2022	Beta	1.73E-02	2.68E-03	2.90E-03
574962	9/6/2022 - 9/14/2022	Beta	1.40E-02	2.20E-03	2.38E-03
575651	9/14/2022 - 9/19/2022	Beta	3.44E-02	4.12E-03	4.01E-03
576016	9/19/2022 - 9/26/2022	Beta	2.90E-02	3.09E-03	2.76E-03
576218	9/26/2022 - 10/3/2022	Beta	1.58E-02	2.54E-03	2.83E-03
576613	7/5/2022 - 10/3/2022	Cs-134	<1.68E-03	0.00E+00	1.68E-03
		Cs-137	<1.91E-03	0.00E+00	1.91E-03
		Be-7	1.62E-01	3.68E-02	2.34E-02
		K-40	2.89E-02	1.96E-02	2.69E-02
576489	10/3/2022 - 10/11/2022	Beta	2.95E-02	2.89E-03	2.50E-03
577127	10/11/2022 - 10/18/2022	Beta	3.30E-02	3.20E-03	2.52E-03
577716	10/18/2022 - 10/25/2022	Beta	2.48E-02	2.86E-03	2.57E-03
578078	10/25/2022 - 11/1/2022	Beta	1.38E-02	2.52E-03	3.02E-03
578788	11/1/2022 - 11/8/2022	Beta	2.31E-02	2.79E-03	2.57E-03

ROBINSON Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR PARTICULATE Concentration (Activity): pCi/m3

Sample Point 1 [CONTROL - ESE @ 24.4 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
578980	11/8/2022 - 11/15/2022	Beta	1.35E-02	2.39E-03	2.75E-03
579732	11/15/2022 - 11/22/2022	Beta	3.78E-02	3.70E-03	2.83E-03
580554	11/22/2022 - 11/29/2022	Beta	3.04E-02	2.44E-03	2.12E-03
580769	11/29/2022 - 12/6/2022	Beta	3.01E-02	3.46E-03	3.05E-03
581091	12/6/2022 - 12/13/2022	Beta	3.44E-02	3.36E-03	2.93E-03
581653	12/13/2022 - 12/20/2022	Beta	2.69E-02	3.26E-03	2.92E-03
582197	12/20/2022 - 12/27/2022	Beta	2.49E-02	3.23E-03	3.13E-03
582384	12/27/2022 - 1/3/2023	Beta	2.24E-02	2.75E-03	2.58E-03
582737	10/3/2022 - 1/3/2023	Cs-134	<1.98E-03	0.00E+00	1.98E-03
		Cs-137	<1.17E-03	0.00E+00	1.17E-03
		Be-7	1.58E-01	3.33E-02	1.40E-02
		K-40	<3.19E-02	0.00E+00	3.19E-02

Sample Point 2 [INDICATOR - S @ 0.2 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
558816	1/4/2022 - 1/11/2022	Beta	2.67E-02	3.33E-03	3.17E-03
559031	1/11/2022 - 1/18/2022	Beta	2.35E-02	3.13E-03	2.97E-03
559509	1/18/2022 - 1/25/2022	Beta	2.27E-02	3.18E-03	3.26E-03
559510	1/25/2022 - 2/1/2022	Beta	2.37E-02	3.11E-03	2.94E-03
560224	2/1/2022 - 2/8/2022	Beta	1.84E-02	2.95E-03	3.21E-03
560094	2/8/2022 - 2/14/2022	Beta	2.30E-02	3.39E-03	3.47E-03
560773	2/14/2022 - 2/22/2022	Beta	1.98E-02	2.84E-03	2.98E-03
561109	2/22/2022 - 3/1/2022	Beta	1.98E-02	3.08E-03	3.38E-03
561609	3/1/2022 - 3/8/2022	Beta	3.08E-02	3.47E-03	3.02E-03
562192	3/8/2022 - 3/15/2022	Beta	1.76E-02	2.86E-03	3.12E-03
562799	3/15/2022 - 3/22/2022	Beta	1.33E-02	2.66E-03	3.17E-03
563394	3/22/2022 - 3/28/2022	Beta	1.40E-02	3.24E-03	4.19E-03
563737	3/28/2022 - 4/5/2022	Beta	2.03E-02	2.49E-03	2.39E-03
564078	1/4/2022 - 4/5/2022	Cs-134	<2.16E-03	0.00E+00	2.16E-03
		Cs-137	<1.58E-03	0.00E+00	1.58E-03
		Be-7	1.56E-01	3.68E-02	3.16E-02

ROBINSON Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR PARTICULATE Concentration (Activity): pCi/m3

Sample Point 2 [INDICATOR - S @ 0.2 miles]

Sample ID	Sample Dates	Nuclide	Activity	2 Sigma Error	MDA
564078	1/4/2022 - 4/5/2022	K-40	2.17E-02	1.34E-02	1.35E-02
563946	4/5/2022 - 4/13/2022	Beta	1.96E-02	2.70E-03	2.64E-03
564501	4/13/2022 - 4/19/2022	Beta	1.74E-02	3.22E-03	3.74E-03
564743	4/19/2022 - 4/25/2022	Beta	2.82E-02	3.82E-03	3.91E-03
565261	4/25/2022 - 5/3/2022	Beta	2.69E-02	2.74E-03	2.31E-03
565923	5/3/2022 - 5/10/2022	Beta	1.96E-02	2.64E-03	2.58E-03
566515	5/10/2022 - 5/17/2022	Beta	1.17E-02	2.54E-03	3.11E-03
566851	5/17/2022 - 5/24/2022	Beta	2.52E-02	3.23E-03	3.03E-03
567100	5/24/2022 - 5/31/2022	Beta	1.69E-02	2.66E-03	3.07E-03
567530	5/31/2022 - 6/7/2022	Beta	2.46E-02	3.25E-03	3.12E-03
567706	6/7/2022 - 6/14/2022	Beta	2.05E-02	2.73E-03	2.73E-03
568342	6/14/2022 - 6/21/2022	Beta	2.49E-02	3.39E-03	3.46E-03
568572	6/21/2022 - 6/28/2022	Beta	2.43E-02	2.87E-03	2.66E-03
568786	6/28/2022 - 7/5/2022	Beta	1.56E-02	2.40E-03	2.47E-03
569143	4/5/2022 - 7/5/2022	Cs-134	<1.75E-03	0.00E+00	1.75E-03
		Cs-137	<1.18E-03	0.00E+00	1.18E-03
		Be-7	2.06E-01	4.24E-02	3.20E-02
		K-40	<2.89E-02	0.00E+00	2.89E-02
569019	7/5/2022 - 7/12/2022	Beta	9.77E-03	2.47E-03	3.22E-03
570255	7/12/2022 - 7/19/2022	Beta	1.84E-02	2.63E-03	2.74E-03
570819	7/19/2022 - 7/25/2022	Beta	1.53E-02	3.24E-03	4.00E-03
571060	7/25/2022 - 8/2/2022	Beta	1.65E-02	2.32E-03	2.36E-03
571353	8/2/2022 - 8/9/2022	Beta	1.49E-02	2.81E-03	3.27E-03
571639	8/9/2022 - 8/16/2022	Beta	1.86E-02	2.56E-03	2.54E-03
572667	8/16/2022 - 8/23/2022	Beta	2.06E-02	2.98E-03	3.02E-03
573966	8/23/2022 - 8/29/2022	Beta	2.28E-02	3.69E-03	4.19E-03
574496	8/29/2022 - 9/6/2022	Beta	2.11E-02	2.85E-03	2.87E-03

ROBINSON Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR PARTICULATE Concentration (Activity): pCi/m3

Sample Point 2 [INDICATOR - S @ 0.2 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
574963	9/6/2022 - 9/14/2022	Beta	1.39E-02	2.17E-03	2.33E-03
575652	9/14/2022 - 9/19/2022	Beta	2.86E-02	3.92E-03	4.09E-03
576017	9/19/2022 - 9/26/2022	Beta	3.39E-02	3.30E-03	2.80E-03
576219	9/26/2022 - 10/3/2022	Beta	1.71E-02	2.60E-03	2.82E-03
576614	7/5/2022 - 10/3/2022	Cs-134	<1.62E-03	0.00E+00	1.62E-03
		Cs-137	<1.33E-03	0.00E+00	1.33E-03
		Be-7	1.63E-01	6.09E-02	1.23E-02
		K-40	2.31E-02	1.37E-02	1.37E-02
576490	10/3/2022 - 10/11/2022	Beta	2.88E-02	2.87E-03	2.51E-03
577128	10/11/2022 - 10/18/2022	Beta	3.74E-02	3.36E-03	2.49E-03
577717	10/18/2022 - 10/25/2022	Beta	2.38E-02	2.83E-03	2.59E-03
578079	10/25/2022 - 11/1/2022	Beta	1.52E-02	2.58E-03	3.01E-03
578789	11/1/2022 - 11/8/2022	Beta	2.19E-02	2.74E-03	2.57E-03
578981	11/8/2022 - 11/15/2022	Beta	1.41E-02	2.41E-03	2.73E-03
579733	11/15/2022 - 11/22/2022	Beta	3.37E-02	3.55E-03	2.86E-03
580555	11/22/2022 - 11/29/2022	Beta	3.19E-02	2.49E-03	2.13E-03
580770	11/29/2022 - 12/6/2022	Beta	2.90E-02	3.37E-03	2.98E-03
581092	12/6/2022 - 12/13/2022	Beta	3.02E-02	3.16E-03	2.88E-03
581654	12/13/2022 - 12/20/2022	Beta	2.71E-02	3.30E-03	2.97E-03
582198	12/20/2022 - 12/27/2022	Beta	2.45E-02	3.13E-03	3.00E-03
582385	12/27/2022 - 1/3/2023	Beta	1.88E-02	2.68E-03	2.72E-03
582738	10/3/2022 - 1/3/2023	Cs-134	<1.62E-03	0.00E+00	1.62E-03
		Cs-137	<1.33E-03	0.00E+00	1.33E-03
		Be-7	1.38E-01	3.62E-02	3.63E-02
		K-40	<2.78E-02	0.00E+00	2.78E-02

Sample Point 3 [INDICATOR - N @ 0.5 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
558817	1/4/2022 - 1/11/2022	Beta	2.40E-02	3.25E-03	3.24E-03
559032	1/11/2022 - 1/18/2022	Beta	2.30E-02	3.10E-03	2.97E-03
559512	1/18/2022 - 1/25/2022	Beta	2.05E-02	3.01E-03	3.17E-03

ROBINSON Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR PARTICULATE Concentration (Activity): pCi/m3

Sample Point 3 [INDICATOR - N @ 0.5 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
559513	1/25/2022 - 2/1/2022	Beta	2.57E-02	3.27E-03	3.02E-03
560225	2/1/2022 - 2/8/2022	Beta	1.98E-02	2.99E-03	3.17E-03
560095	2/8/2022 - 2/14/2022	Beta	2.62E-02	3.64E-03	3.61E-03
560774	2/14/2022 - 2/22/2022	Beta	1.96E-02	2.75E-03	2.85E-03
561110	2/22/2022 - 3/1/2022	Beta	2.25E-02	3.26E-03	3.46E-03
561610	3/1/2022 - 3/8/2022	Beta	2.63E-02	3.28E-03	3.04E-03
562193	3/8/2022 - 3/15/2022	Beta	1.59E-02	2.76E-03	3.11E-03
562800	3/15/2022 - 3/22/2022	Beta	1.27E-02	2.63E-03	3.18E-03
563395	3/22/2022 - 3/28/2022	Beta	1.86E-02	3.45E-03	4.14E-03
563738	3/28/2022 - 4/5/2022	Beta	2.14E-02	2.52E-03	2.36E-03
564079	1/4/2022 - 4/5/2022	Cs-134	<1.48E-03	0.00E+00	1.48E-03
		Cs-137	<1.05E-03	0.00E+00	1.05E-03
		Be-7	1.70E-01	3.79E-02	3.02E-02
		K-40	3.24E-02	1.78E-02	2.01E-02

Sample Point 4 [INDICATOR - ESE @ 0.4 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
558818	1/4/2022 - 1/11/2022	Beta	2.15E-02	3.09E-03	3.18E-03
559033	1/11/2022 - 1/18/2022	Beta	2.21E-02	3.05E-03	2.97E-03
559515	1/18/2022 - 1/25/2022	Beta	1.82E-02	2.91E-03	3.19E-03
559516	1/25/2022 - 2/1/2022	Beta	2.43E-02	3.19E-03	3.00E-03
560226	2/1/2022 - 2/8/2022	Beta	2.09E-02	3.08E-03	3.21E-03
560096	2/8/2022 - 2/14/2022	Beta	2.31E-02	3.40E-03	3.47E-03
560775	2/14/2022 - 2/22/2022	Beta	2.02E-02	2.86E-03	2.98E-03
561111	2/22/2022 - 3/1/2022	Beta	2.09E-02	3.13E-03	3.38E-03
561611	3/1/2022 - 3/8/2022	Beta	2.40E-02	3.16E-03	3.02E-03
562194	3/8/2022 - 3/15/2022	Beta	1.47E-02	2.71E-03	3.12E-03
562801	3/15/2022 - 3/22/2022	Beta	1.21E-02	2.58E-03	3.17E-03
563396	3/22/2022 - 3/28/2022	Beta	1.73E-02	3.41E-03	4.19E-03

ROBINSON Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR PARTICULATE Concentration (Activity): pCi/m3

Sample Point 4 [INDICATOR - ESE @ 0.4 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
563739	3/28/2022 - 4/5/2022	Beta	2.16E-02	2.54E-03	2.39E-03
564080	1/4/2022 - 4/5/2022	Nuclide	Activity	2 Sigma Error	MDA
		Cs-134	<1.02E-03	0.00E+00	1.02E-03
		Cs-137	<1.36E-03	0.00E+00	1.36E-03
		Be-7	1.78E-01	3.93E-02	3.20E-02
		K-40	<3.58E-02	0.00E+00	3.58E-02
563948	4/5/2022 - 4/13/2022	Nuclide	Activity	2 Sigma Error	MDA
		Beta	1.68E-02	2.56E-03	2.64E-03
564503	4/13/2022 - 4/19/2022	Nuclide	Activity	2 Sigma Error	MDA
		Beta	1.42E-02	3.04E-03	3.75E-03
564745	4/19/2022 - 4/25/2022	Nuclide	Activity	2 Sigma Error	MDA
		Beta	2.49E-02	3.66E-03	3.91E-03
565263	4/25/2022 - 5/3/2022	Nuclide	Activity	2 Sigma Error	MDA
		Beta	2.82E-02	2.79E-03	2.31E-03
565924	5/3/2022 - 5/10/2022	Nuclide	Activity	2 Sigma Error	MDA
		Beta	1.72E-02	2.52E-03	2.58E-03
566516	5/10/2022 - 5/17/2022	Nuclide	Activity	2 Sigma Error	MDA
		Beta	1.07E-02	2.49E-03	3.12E-03
566852	5/17/2022 - 5/24/2022	Nuclide	Activity	2 Sigma Error	MDA
		Beta	2.62E-02	3.27E-03	3.03E-03
567101	5/24/2022 - 5/31/2022	Nuclide	Activity	2 Sigma Error	MDA
		Beta	1.46E-02	2.55E-03	3.07E-03
567707	6/8/2022 - 6/14/2022	Nuclide	Activity	2 Sigma Error	MDA
		Beta	1.64E-02	2.89E-03	3.30E-03
568343	6/14/2022 - 6/21/2022	Nuclide	Activity	2 Sigma Error	MDA
		Beta	2.16E-02	3.25E-03	3.47E-03
568573	6/21/2022 - 6/28/2022	Nuclide	Activity	2 Sigma Error	MDA
		Beta	1.94E-02	2.65E-03	2.66E-03
568787	6/28/2022 - 7/5/2022	Nuclide	Activity	2 Sigma Error	MDA
		Beta	1.37E-02	2.30E-03	2.47E-03
569144	4/5/2022 - 7/5/2022	Nuclide	Activity	2 Sigma Error	MDA
		Cs-134	<1.96E-03	0.00E+00	1.96E-03
		Cs-137	<1.85E-03	0.00E+00	1.85E-03
		Be-7	2.15E-01	4.27E-02	2.18E-02
		K-40	<3.62E-02	0.00E+00	3.62E-02
569020	7/5/2022 - 7/12/2022	Nuclide	Activity	2 Sigma Error	MDA
		Beta	1.08E-02	2.53E-03	3.23E-03
570256	7/12/2022 - 7/19/2022	Nuclide	Activity	2 Sigma Error	MDA
		Beta	1.48E-02	2.45E-03	2.73E-03
570820	7/19/2022 - 7/25/2022	Nuclide	Activity	2 Sigma Error	MDA
		Beta	1.55E-02	3.26E-03	4.01E-03
571061	7/25/2022 - 8/2/2022	Nuclide	Activity	2 Sigma Error	MDA
		Beta	1.43E-02	2.21E-03	2.36E-03
571354	8/2/2022 - 8/9/2022	Nuclide	Activity	2 Sigma Error	MDA
		Beta	1.86E-02	3.01E-03	3.27E-03
571640	8/9/2022 - 8/16/2022	Nuclide	Activity	2 Sigma Error	MDA
		Beta	1.89E-02	2.58E-03	2.55E-03
572668	8/16/2022 - 8/23/2022	Nuclide	Activity	2 Sigma Error	MDA
		Beta	2.16E-02	3.02E-03	3.01E-03
573967	8/23/2022 - 8/29/2022	Nuclide	Activity	2 Sigma Error	MDA
		Beta	2.37E-02	3.73E-03	4.19E-03

ROBINSON Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR PARTICULATE Concentration (Activity): pCi/m3

Sample Point 4 [INDICATOR - ESE @ 0.4 miles]

Sample ID:	574497	Sample Dates:	8/29/2022 - 9/6/2022	Nuclide	Activity	2 Sigma Error	MDA
				Beta	1.77E-02	2.68E-03	2.87E-03
Sample ID:	574964	Sample Dates:	9/6/2022 - 9/14/2022	Nuclide	Activity	2 Sigma Error	MDA
				Beta	1.28E-02	2.11E-03	2.33E-03
Sample ID:	575653	Sample Dates:	9/14/2022 - 9/19/2022	Nuclide	Activity	2 Sigma Error	MDA
				Beta	3.55E-02	4.21E-03	4.09E-03
Sample ID:	576018	Sample Dates:	9/19/2022 - 9/26/2022	Nuclide	Activity	2 Sigma Error	MDA
				Beta	3.01E-02	3.14E-03	2.78E-03
Sample ID:	576220	Sample Dates:	9/26/2022 - 10/3/2022	Nuclide	Activity	2 Sigma Error	MDA
				Beta	1.50E-02	2.50E-03	2.83E-03
Sample ID:	576615	Sample Dates:	7/5/2022 - 10/3/2022	Nuclide	Activity	2 Sigma Error	MDA
				Cs-134	<1.81E-03	0.00E+00	1.81E-03
				Cs-137	<1.36E-03	0.00E+00	1.36E-03
				Be-7	1.39E-01	3.92E-02	4.36E-02
				K-40	<3.83E-02	0.00E+00	3.83E-02
Sample ID:	576491	Sample Dates:	10/3/2022 - 10/10/2022	Nuclide	Activity	2 Sigma Error	MDA
				Beta	2.44E-02	2.95E-03	2.89E-03
Sample ID:	577129	Sample Dates:	10/11/2022 - 10/18/2022	Nuclide	Activity	2 Sigma Error	MDA
				Beta	2.99E-02	3.45E-03	3.03E-03
Sample ID:	577718	Sample Dates:	10/18/2022 - 10/25/2022	Nuclide	Activity	2 Sigma Error	MDA
				Beta	2.12E-02	2.72E-03	2.60E-03
Sample ID:	578080	Sample Dates:	10/25/2022 - 11/1/2022	Nuclide	Activity	2 Sigma Error	MDA
				Beta	2.01E-02	2.80E-03	3.01E-03
Sample ID:	578790	Sample Dates:	11/1/2022 - 11/8/2022	Nuclide	Activity	2 Sigma Error	MDA
				Beta	2.61E-02	2.92E-03	2.57E-03
Sample ID:	578982	Sample Dates:	11/8/2022 - 11/15/2022	Nuclide	Activity	2 Sigma Error	MDA
				Beta	1.58E-02	2.50E-03	2.73E-03
Sample ID:	579734	Sample Dates:	11/15/2022 - 11/22/2022	Nuclide	Activity	2 Sigma Error	MDA
				Beta	3.21E-02	3.48E-03	2.86E-03
Sample ID:	580556	Sample Dates:	11/22/2022 - 11/29/2022	Nuclide	Activity	2 Sigma Error	MDA
				Beta	2.74E-02	2.35E-03	2.13E-03
Sample ID:	580771	Sample Dates:	11/29/2022 - 12/6/2022	Nuclide	Activity	2 Sigma Error	MDA
				Beta	1.99E-02	2.95E-03	2.98E-03
Sample ID:	581093	Sample Dates:	12/6/2022 - 12/13/2022	Nuclide	Activity	2 Sigma Error	MDA
				Beta	2.76E-02	3.06E-03	2.88E-03
Sample ID:	581655	Sample Dates:	12/13/2022 - 12/20/2022	Nuclide	Activity	2 Sigma Error	MDA
				Beta	2.40E-02	3.16E-03	2.97E-03
Sample ID:	582199	Sample Dates:	12/20/2022 - 12/27/2022	Nuclide	Activity	2 Sigma Error	MDA
				Beta	2.20E-02	3.03E-03	3.00E-03
Sample ID:	582386	Sample Dates:	12/27/2022 - 1/3/2023	Nuclide	Activity	2 Sigma Error	MDA
				Beta	1.91E-02	2.69E-03	2.72E-03
Sample ID:	582739	Sample Dates:	10/3/2022 - 1/3/2023	Nuclide	Activity	2 Sigma Error	MDA
				Cs-134	<1.83E-03	0.00E+00	1.83E-03
				Cs-137	<1.24E-03	0.00E+00	1.24E-03
				Be-7	1.29E-01	3.50E-02	3.49E-02
				K-40	<3.69E-02	0.00E+00	3.69E-02

Sample Point 5 [INDICATOR - ENE @ 0.9 miles]

Sample ID:	558819	Sample Dates:	1/4/2022 - 1/11/2022	Nuclide	Activity	2 Sigma Error	MDA
				Beta	2.24E-02	3.16E-03	3.21E-03
Sample ID:	559034	Sample Dates:	1/11/2022 - 1/18/2022	Nuclide	Activity	2 Sigma Error	MDA
				Beta	2.31E-02	3.21E-03	3.14E-03

ROBINSON Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR PARTICULATE Concentration (Activity): pCi/m3

Sample Point 5 [INDICATOR - ENE @ 0.9 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
559518	1/18/2022 - 1/25/2022	Beta	2.02E-02	3.02E-03	3.21E-03
559519	1/25/2022 - 2/1/2022	Beta	2.33E-02	3.12E-03	2.97E-03
560227	2/1/2022 - 2/8/2022	Beta	1.85E-02	2.96E-03	3.22E-03
560097	2/8/2022 - 2/14/2022	Beta	2.13E-02	3.36E-03	3.55E-03
560776	2/14/2022 - 2/22/2022	Beta	2.02E-02	2.83E-03	2.93E-03
561112	2/22/2022 - 3/1/2022	Beta	1.84E-02	3.01E-03	3.37E-03
561612	3/1/2022 - 3/8/2022	Beta	2.23E-02	3.09E-03	3.02E-03
562195	3/8/2022 - 3/15/2022	Beta	1.56E-02	2.75E-03	3.10E-03
562802	3/15/2022 - 3/22/2022	Beta	1.30E-02	2.64E-03	3.18E-03
563397	3/22/2022 - 3/28/2022	Beta	1.69E-02	3.36E-03	4.14E-03
563740	3/28/2022 - 4/5/2022	Beta	1.90E-02	2.44E-03	2.40E-03
564081	1/4/2022 - 4/5/2022	Cs-134	<1.25E-03	0.00E+00	1.25E-03
		Cs-137	<1.19E-03	0.00E+00	1.19E-03
		Be-7	1.63E-01	3.79E-02	3.41E-02
		K-40	3.59E-02	1.93E-02	2.26E-02
563949	4/5/2022 - 4/13/2022	Beta	1.72E-02	2.57E-03	2.63E-03
564504	4/13/2022 - 4/19/2022	Beta	1.59E-02	3.17E-03	3.80E-03
564746	4/19/2022 - 4/25/2022	Beta	2.89E-02	3.85E-03	3.90E-03
565264	4/25/2022 - 5/3/2022	Beta	2.78E-02	2.76E-03	2.29E-03
565925	5/3/2022 - 5/10/2022	Beta	1.69E-02	2.52E-03	2.60E-03
566517	5/10/2022 - 5/17/2022	Beta	1.17E-02	2.55E-03	3.12E-03
566853	5/17/2022 - 5/24/2022	Beta	2.22E-02	3.08E-03	3.03E-03
567102	5/24/2022 - 5/31/2022	Beta	1.60E-02	2.71E-03	3.23E-03
567532	5/31/2022 - 6/7/2022	Beta	2.53E-02	3.20E-03	2.99E-03
567708	6/7/2022 - 6/14/2022	Beta	1.85E-02	2.66E-03	2.76E-03
568344	6/14/2022 - 6/21/2022	Beta	2.51E-02	3.55E-03	3.68E-03
568574	6/21/2022 - 6/28/2022	Beta	2.36E-02	2.87E-03	2.71E-03

ROBINSON Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR PARTICULATE Concentration (Activity): pCi/m3

Sample Point 5 [INDICATOR - ENE @ 0.9 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
568788	6/28/2022 - 7/5/2022	Beta	1.69E-02	2.43E-03	2.42E-03
569145	4/5/2022 - 7/5/2022	Nuclide	Activity	2 Sigma Error	MDA
		Cs-134	<1.96E-03	0.00E+00	1.96E-03
		Cs-137	<1.81E-03	0.00E+00	1.81E-03
		Be-7	2.15E-01	4.23E-02	2.66E-02
		K-40	<3.57E-02	0.00E+00	3.57E-02
569021	7/5/2022 - 7/12/2022	Nuclide	Activity	2 Sigma Error	MDA
		Beta	1.01E-02	2.53E-03	3.29E-03
570257	7/12/2022 - 7/19/2022	Nuclide	Activity	2 Sigma Error	MDA
		Beta	1.49E-02	2.48E-03	2.77E-03
570821	7/19/2022 - 7/25/2022	Nuclide	Activity	2 Sigma Error	MDA
		Beta	1.69E-02	3.24E-03	3.86E-03
571062	7/25/2022 - 8/2/2022	Nuclide	Activity	2 Sigma Error	MDA
		Beta	1.56E-02	2.30E-03	2.40E-03
571355	8/2/2022 - 8/9/2022	Nuclide	Activity	2 Sigma Error	MDA
		Beta	1.68E-02	2.88E-03	3.20E-03
571641	8/9/2022 - 8/16/2022	Nuclide	Activity	2 Sigma Error	MDA
		Beta	1.72E-02	2.54E-03	2.60E-03
572669	8/16/2022 - 8/23/2022	Nuclide	Activity	2 Sigma Error	MDA
		Beta	1.86E-02	2.87E-03	3.02E-03
573968	8/23/2022 - 8/29/2022	Nuclide	Activity	2 Sigma Error	MDA
		Beta	2.01E-02	3.48E-03	4.06E-03
574498	8/29/2022 - 9/6/2022	Nuclide	Activity	2 Sigma Error	MDA
		Beta	1.99E-02	2.79E-03	2.88E-03
574965	9/6/2022 - 9/14/2022	Nuclide	Activity	2 Sigma Error	MDA
		Beta	1.33E-02	2.17E-03	2.39E-03
575654	9/14/2022 - 9/19/2022	Nuclide	Activity	2 Sigma Error	MDA
		Beta	2.73E-02	3.73E-03	3.90E-03
576019	9/19/2022 - 9/26/2022	Nuclide	Activity	2 Sigma Error	MDA
		Beta	2.77E-02	3.06E-03	2.80E-03
576221	9/26/2022 - 10/3/2022	Nuclide	Activity	2 Sigma Error	MDA
		Beta	1.39E-02	2.44E-03	2.81E-03
576616	7/5/2022 - 10/3/2022	Nuclide	Activity	2 Sigma Error	MDA
		Cs-134	<2.09E-03	0.00E+00	2.09E-03
		Cs-137	<1.50E-03	0.00E+00	1.50E-03
		Be-7	1.47E-01	3.78E-02	3.72E-02
		K-40	2.81E-02	1.60E-02	1.70E-02
576492	10/3/2022 - 10/11/2022	Nuclide	Activity	2 Sigma Error	MDA
		Beta	2.59E-02	2.80E-03	2.57E-03
577130	10/11/2022 - 10/18/2022	Nuclide	Activity	2 Sigma Error	MDA
		Beta	2.86E-02	2.99E-03	2.46E-03
577719	10/18/2022 - 10/25/2022	Nuclide	Activity	2 Sigma Error	MDA
		Beta	2.44E-02	2.84E-03	2.57E-03
578081	10/25/2022 - 11/1/2022	Nuclide	Activity	2 Sigma Error	MDA
		Beta	1.37E-02	2.49E-03	3.00E-03
578791	11/1/2022 - 11/8/2022	Nuclide	Activity	2 Sigma Error	MDA
		Beta	2.17E-02	2.73E-03	2.57E-03
578983	11/8/2022 - 11/15/2022	Nuclide	Activity	2 Sigma Error	MDA
		Beta	1.28E-02	2.35E-03	2.75E-03
579735	11/15/2022 - 11/22/2022	Nuclide	Activity	2 Sigma Error	MDA
		Beta	3.32E-02	3.52E-03	2.84E-03

ROBINSON Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR PARTICULATE Concentration (Activity): pCi/m3

Sample Point 5 [INDICATOR - ENE @ 0.9 miles]

Sample ID	Sample Dates	Nuclide	Activity	2 Sigma Error	MDA
580557	11/22/2022 - 11/29/2022	Beta	2.67E-02	2.33E-03	2.12E-03
580772	11/29/2022 - 12/6/2022	Beta	2.83E-02	3.40E-03	3.08E-03
581094	12/6/2022 - 12/13/2022	Beta	2.61E-02	3.01E-03	2.89E-03
581656	12/13/2022 - 12/20/2022	Beta	2.36E-02	3.08E-03	2.89E-03
582200	12/20/2022 - 12/27/2022	Beta	2.04E-02	3.07E-03	3.22E-03
582387	12/27/2022 - 1/3/2023	Beta	2.05E-02	2.67E-03	2.59E-03
582740	10/3/2022 - 1/3/2023	Cs-134	<1.47E-03	0.00E+00	1.47E-03
		Cs-137	<1.88E-03	0.00E+00	1.88E-03
		Be-7	1.00E-01	3.16E-02	3.49E-02
		K-40	2.25E-02	1.49E-02	1.78E-02

Sample Point 6 [INDICATOR - SSW @ 0.2 miles]

Sample ID	Sample Dates	Nuclide	Activity	2 Sigma Error	MDA
558821	1/4/2022 - 1/11/2022	Beta	1.48E-02	2.74E-03	3.17E-03
559036	1/11/2022 - 1/18/2022	Beta	1.87E-02	2.88E-03	2.97E-03
559524	1/18/2022 - 1/25/2022	Beta	1.45E-02	2.76E-03	3.26E-03
559525	1/25/2022 - 2/1/2022	Beta	1.76E-02	2.81E-03	2.94E-03
560229	2/1/2022 - 2/8/2022	Beta	1.61E-02	2.83E-03	3.21E-03
560099	2/8/2022 - 2/14/2022	Beta	2.58E-02	3.52E-03	3.47E-03
560778	2/14/2022 - 2/22/2022	Beta	1.66E-02	2.69E-03	2.98E-03
561114	2/22/2022 - 3/1/2022	Beta	1.90E-02	3.04E-03	3.38E-03
561614	3/1/2022 - 3/8/2022	Beta	2.74E-02	3.31E-03	3.02E-03
562197	3/8/2022 - 3/15/2022	Beta	1.26E-02	2.60E-03	3.12E-03
562804	3/15/2022 - 3/22/2022	Beta	1.33E-02	2.65E-03	3.17E-03
563399	3/22/2022 - 3/28/2022	Beta	1.47E-02	3.28E-03	4.19E-03
563742	3/28/2022 - 4/5/2022	Beta	1.80E-02	2.39E-03	2.39E-03
564083	1/4/2022 - 4/5/2022	Cs-134	<1.94E-03	0.00E+00	1.94E-03
		Cs-137	<1.93E-03	0.00E+00	1.93E-03
		Be-7	1.40E-01	3.77E-02	3.75E-02
		K-40	2.04E-02	1.50E-02	1.90E-02
563951	4/5/2022 - 4/13/2022	Beta	1.39E-02	2.41E-03	2.64E-03

ROBINSON Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR PARTICULATE Concentration (Activity): pCi/m3

Sample Point 6 [INDICATOR - SSW @ 0.2 miles]

Sample ID	Sample Dates	Nuclide	Activity	2 Sigma Error	MDA
564506	4/13/2022 - 4/19/2022	Beta	1.40E-02	3.03E-03	3.75E-03
564748	4/19/2022 - 4/25/2022	Beta	2.38E-02	3.62E-03	3.91E-03
565266	4/25/2022 - 5/3/2022	Beta	2.61E-02	2.70E-03	2.31E-03
565927	5/3/2022 - 5/10/2022	Beta	1.99E-02	2.65E-03	2.58E-03
566519	5/10/2022 - 5/17/2022	Beta	1.16E-02	2.53E-03	3.09E-03
566855	5/17/2022 - 5/24/2022	Beta	2.29E-02	3.13E-03	3.06E-03
567104	5/24/2022 - 5/31/2022	Beta	1.53E-02	2.59E-03	3.07E-03
567534	5/31/2022 - 6/7/2022	Beta	2.28E-02	3.16E-03	3.12E-03
567710	6/7/2022 - 6/14/2022	Beta	1.87E-02	2.65E-03	2.73E-03
568346	6/14/2022 - 6/21/2022	Beta	2.28E-02	3.31E-03	3.46E-03
568576	6/21/2022 - 6/28/2022	Beta	2.35E-02	2.84E-03	2.66E-03
568790	6/28/2022 - 7/5/2022	Beta	1.43E-02	2.33E-03	2.47E-03
569147	4/5/2022 - 7/5/2022	Cs-134	<1.45E-03	0.00E+00	1.45E-03
		Cs-137	<1.45E-03	0.00E+00	1.45E-03
		Be-7	1.98E-01	3.35E-02	2.57E-02
		K-40	<3.28E-02	0.00E+00	3.28E-02
569023	7/5/2022 - 7/12/2022	Beta	7.81E-03	2.35E-03	3.22E-03
570259	7/12/2022 - 7/19/2022	Beta	1.51E-02	2.48E-03	2.74E-03
570823	7/19/2022 - 7/25/2022	Beta	1.75E-02	3.35E-03	4.00E-03
571064	7/25/2022 - 8/2/2022	Beta	1.52E-02	2.23E-03	2.32E-03
571357	8/2/2022 - 8/9/2022	Beta	1.60E-02	2.92E-03	3.35E-03
571643	8/9/2022 - 8/16/2022	Beta	1.77E-02	2.52E-03	2.54E-03
572671	8/16/2022 - 8/23/2022	Beta	1.78E-02	2.84E-03	3.02E-03
573970	8/23/2022 - 8/29/2022	Beta	2.30E-02	3.70E-03	4.19E-03
574500	8/29/2022 - 9/6/2022	Beta	1.75E-02	2.67E-03	2.87E-03
574967	9/6/2022 - 9/14/2022	Beta	1.41E-02	2.18E-03	2.33E-03
575656	9/14/2022 - 9/19/2022	Beta	3.46E-02	4.18E-03	4.09E-03

ROBINSON Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR PARTICULATE Concentration (Activity): pCi/m3

Sample Point 6 [INDICATOR - SSW @ 0.2 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
576021	9/19/2022 - 9/26/2022	Beta	2.78E-02	3.07E-03	2.80E-03
576223	9/26/2022 - 10/3/2022	Beta	1.56E-02	2.52E-03	2.82E-03
576618	7/5/2022 - 10/3/2022	Cs-134	<1.81E-03	0.00E+00	1.81E-03
		Cs-137	<1.23E-03	0.00E+00	1.23E-03
		Be-7	1.70E-01	3.76E-02	2.81E-02
		K-40	4.31E-02	1.91E-02	1.73E-02
576494	10/3/2022 - 10/11/2022	Beta	2.45E-02	2.70E-03	2.51E-03
577132	10/11/2022 - 10/18/2022	Beta	2.91E-02	3.03E-03	2.49E-03
577721	10/18/2022 - 10/25/2022	Beta	2.43E-02	2.85E-03	2.59E-03
578083	10/25/2022 - 11/1/2022	Beta	1.41E-02	2.51E-03	2.99E-03
578793	11/1/2022 - 11/8/2022	Beta	1.99E-02	2.66E-03	2.58E-03
578985	11/8/2022 - 11/15/2022	Beta	1.35E-02	2.38E-03	2.73E-03
579737	11/15/2022 - 11/22/2022	Beta	3.09E-02	3.43E-03	2.86E-03
580559	11/22/2022 - 11/29/2022	Beta	2.86E-02	2.39E-03	2.13E-03
580774	11/29/2022 - 12/6/2022	Beta	2.79E-02	3.32E-03	2.98E-03
581096	12/6/2022 - 12/13/2022	Beta	2.91E-02	3.12E-03	2.88E-03
581658	12/13/2022 - 12/20/2022	Beta	2.78E-02	3.34E-03	2.97E-03
582202	12/20/2022 - 12/27/2022	Beta	2.02E-02	2.95E-03	3.04E-03
582389	12/27/2022 - 1/3/2023	Beta	2.09E-02	2.76E-03	2.69E-03
582742	10/3/2022 - 1/3/2023	Cs-134	<1.87E-03	0.00E+00	1.87E-03
		Cs-137	<1.42E-03	0.00E+00	1.42E-03
		Be-7	1.08E-01	3.34E-02	3.63E-02
		K-40	<2.86E-02	0.00E+00	2.86E-02

Sample Point 7 [INDICATOR - ESE @ 6.4 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
558824	1/4/2022 - 1/11/2022	Beta	2.13E-02	3.06E-03	3.15E-03
559039	1/11/2022 - 1/18/2022	Beta	2.55E-02	3.27E-03	3.04E-03
559533	1/18/2022 - 1/25/2022	Beta	2.04E-02	3.04E-03	3.22E-03
559534	1/25/2022 - 2/1/2022	Beta	2.85E-02	3.37E-03	2.97E-03
560232	2/1/2022 - 2/8/2022	Beta	2.03E-02	3.02E-03	3.16E-03

ROBINSON Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR PARTICULATE Concentration (Activity): pCi/m3

Sample Point 7 [INDICATOR - ESE @ 6.4 miles]

Sample ID	Sample Dates	Nuclide	Activity	2 Sigma Error	MDA
560102	2/8/2022 - 2/14/2022	Beta	2.23E-02	3.49E-03	3.68E-03
560781	2/14/2022 - 2/22/2022	Beta	2.00E-02	2.77E-03	2.86E-03
561117	2/22/2022 - 3/1/2022	Beta	1.94E-02	3.06E-03	3.38E-03
561617	3/1/2022 - 3/8/2022	Beta	2.71E-02	3.34E-03	3.07E-03
562200	3/8/2022 - 3/15/2022	Beta	1.38E-02	2.66E-03	3.12E-03
562807	3/15/2022 - 3/22/2022	Beta	1.47E-02	2.73E-03	3.16E-03
563745	3/28/2022 - 4/5/2022	Beta	2.06E-02	2.60E-03	2.54E-03
564086	1/4/2022 - 4/5/2022	Cs-134	<1.78E-03	0.00E+00	1.78E-03
		Cs-137	<1.31E-03	0.00E+00	1.31E-03
		Be-7	1.84E-01	4.27E-02	3.88E-02
		K-40	2.16E-02	1.42E-02	1.53E-02
563954	4/5/2022 - 4/13/2022	Beta	1.89E-02	2.67E-03	2.63E-03
564509	4/13/2022 - 4/19/2022	Beta	1.63E-02	3.19E-03	3.80E-03
564751	4/19/2022 - 4/25/2022	Beta	2.56E-02	3.70E-03	3.89E-03
565269	4/25/2022 - 5/3/2022	Beta	2.62E-02	2.70E-03	2.29E-03
565929	5/3/2022 - 5/10/2022	Beta	1.76E-02	2.53E-03	2.57E-03
566521	5/10/2022 - 5/17/2022	Beta	1.10E-02	2.52E-03	3.12E-03
566857	5/17/2022 - 5/24/2022	Beta	2.22E-02	3.11E-03	3.07E-03
567106	5/24/2022 - 5/31/2022	Beta	1.61E-02	2.69E-03	3.17E-03
567536	5/31/2022 - 6/7/2022	Beta	2.26E-02	3.07E-03	2.99E-03
567712	6/7/2022 - 6/14/2022	Beta	1.87E-02	2.66E-03	2.75E-03
568348	6/14/2022 - 6/21/2022	Beta	2.42E-02	3.32E-03	3.38E-03
568578	6/21/2022 - 6/28/2022	Beta	2.46E-02	2.86E-03	2.63E-03
568792	6/28/2022 - 7/5/2022	Beta	1.31E-02	2.28E-03	2.49E-03
569149	4/5/2022 - 7/5/2022	Cs-134	<2.41E-03	0.00E+00	2.41E-03
		Cs-137	<1.60E-03	0.00E+00	1.60E-03
		Be-7	1.88E-01	4.33E-02	3.84E-02
		K-40	4.44E-02	1.97E-02	1.85E-02
569025	7/5/2022 - 7/12/2022	Beta	9.65E-03	2.46E-03	3.22E-03

ROBINSON Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR PARTICULATE Concentration (Activity): pCi/m3

Sample Point 7 [INDICATOR - ESE @ 6.4 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
570261	7/12/2022 - 7/19/2022	Beta	1.28E-02	2.38E-03	2.79E-03
570825	7/19/2022 - 7/25/2022	Beta	1.40E-02	3.10E-03	3.91E-03
571066	7/25/2022 - 8/2/2022	Beta	1.47E-02	2.21E-03	2.33E-03
571359	8/2/2022 - 8/9/2022	Beta	1.48E-02	2.81E-03	3.27E-03
571645	8/9/2022 - 8/16/2022	Beta	1.53E-02	2.42E-03	2.57E-03
572673	8/16/2022 - 8/23/2022	Beta	1.85E-02	2.95E-03	3.14E-03
573972	8/23/2022 - 8/29/2022	Beta	2.16E-02	3.51E-03	3.98E-03
574502	8/29/2022 - 9/6/2022	Beta	2.12E-02	2.86E-03	2.89E-03
574969	9/6/2022 - 9/14/2022	Beta	1.49E-02	2.24E-03	2.37E-03
575658	9/14/2022 - 9/19/2022	Beta	2.98E-02	3.92E-03	4.00E-03
576023	9/19/2022 - 9/26/2022	Beta	3.17E-02	3.21E-03	2.78E-03
576225	9/26/2022 - 10/3/2022	Beta	1.50E-02	2.52E-03	2.86E-03
576620	7/5/2022 - 10/3/2022	Cs-134	<2.10E-03	0.00E+00	2.10E-03
		Cs-137	<1.51E-03	0.00E+00	1.51E-03
		Be-7	1.03E-01	3.55E-02	4.28E-02
		K-40	3.61E-02	2.24E-02	3.03E-02
576496	10/3/2022 - 10/11/2022	Beta	2.88E-02	2.86E-03	2.50E-03
577134	10/11/2022 - 10/18/2022	Beta	3.02E-02	3.08E-03	2.50E-03
577723	10/18/2022 - 10/25/2022	Beta	2.17E-02	2.75E-03	2.60E-03
578085	10/25/2022 - 11/1/2022	Beta	1.60E-02	2.61E-03	3.01E-03
578795	11/1/2022 - 11/8/2022	Beta	2.14E-02	2.72E-03	2.57E-03
578987	11/8/2022 - 11/15/2022	Beta	1.29E-02	2.35E-03	2.74E-03
579739	11/15/2022 - 11/22/2022	Beta	3.33E-02	3.52E-03	2.85E-03
580561	11/22/2022 - 11/29/2022	Beta	2.83E-02	2.38E-03	2.13E-03
580776	11/29/2022 - 12/6/2022	Beta	2.47E-02	3.19E-03	2.99E-03
581098	12/6/2022 - 12/13/2022	Beta	2.79E-02	3.11E-03	2.93E-03
581660	12/13/2022 - 12/20/2022	Beta	2.56E-02	3.18E-03	2.88E-03

ROBINSON Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR PARTICULATE Concentration (Activity): pCi/m3

Sample Point 7 [INDICATOR - ESE @ 6.4 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
582204	12/20/2022 - 12/27/2022	Beta	2.10E-02	3.08E-03	3.18E-03
582391	12/27/2022 - 1/3/2023	Beta	2.15E-02	2.74E-03	2.61E-03
582744	10/3/2022 - 1/3/2023	Cs-134	<1.42E-03	0.00E+00	1.42E-03
		Cs-137	<1.42E-03	0.00E+00	1.42E-03
		Be-7	1.48E-01	3.38E-02	2.35E-02
		K-40	<1.76E-02	0.00E+00	1.76E-02

Sample Point 55 [INDICATOR - SSE @ 0.2 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
558820	1/4/2022 - 1/11/2022	Beta	1.82E-02	2.92E-03	3.16E-03
559035	1/11/2022 - 1/18/2022	Beta	2.39E-02	3.15E-03	2.98E-03
559521	1/18/2022 - 1/25/2022	Beta	2.17E-02	3.12E-03	3.25E-03
559522	1/25/2022 - 2/1/2022	Beta	2.50E-02	3.18E-03	2.95E-03
560228	2/1/2022 - 2/8/2022	Beta	1.92E-02	2.99E-03	3.21E-03
560098	2/8/2022 - 2/14/2022	Beta	2.52E-02	3.50E-03	3.47E-03
560777	2/14/2022 - 2/22/2022	Beta	2.15E-02	2.91E-03	2.97E-03
561113	2/22/2022 - 3/1/2022	Beta	1.82E-02	3.00E-03	3.38E-03
561613	3/1/2022 - 3/8/2022	Beta	2.53E-02	3.22E-03	3.02E-03
562196	3/8/2022 - 3/15/2022	Beta	1.45E-02	2.70E-03	3.12E-03
562803	3/15/2022 - 3/22/2022	Beta	1.33E-02	2.66E-03	3.17E-03
563398	3/22/2022 - 3/28/2022	Beta	1.39E-02	3.22E-03	4.18E-03
563741	3/28/2022 - 4/5/2022	Beta	1.93E-02	2.45E-03	2.39E-03
564082	1/4/2022 - 4/5/2022	Cs-134	<1.28E-03	0.00E+00	1.28E-03
		Cs-137	<8.38E-04	0.00E+00	8.38E-04
		Be-7	1.74E-01	3.67E-02	2.32E-02
		K-40	<2.41E-02	0.00E+00	2.41E-02
563950	4/5/2022 - 4/13/2022	Beta	1.77E-02	2.60E-03	2.64E-03
564505	4/13/2022 - 4/19/2022	Beta	1.42E-02	3.01E-03	3.69E-03
564747	4/19/2022 - 4/25/2022	Beta	2.80E-02	3.85E-03	3.98E-03
565265	4/25/2022 - 5/3/2022	Beta	2.65E-02	2.72E-03	2.31E-03
565926	5/3/2022 - 5/10/2022	Beta	1.94E-02	2.63E-03	2.59E-03

ROBINSON Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR PARTICULATE Concentration (Activity): pCi/m3

Sample Point 55 [INDICATOR - SSE @ 0.2 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
566518	5/10/2022 - 5/17/2022	Beta	1.10E-02	2.51E-03	3.11E-03
566854	5/17/2022 - 5/24/2022	Beta	2.65E-02	3.23E-03	2.96E-03
567103	5/24/2022 - 5/31/2022	Beta	1.43E-02	2.58E-03	3.14E-03
567533	5/31/2022 - 6/7/2022	Beta	2.42E-02	3.23E-03	3.13E-03
567709	6/7/2022 - 6/14/2022	Beta	1.86E-02	2.64E-03	2.73E-03
568345	6/14/2022 - 6/21/2022	Beta	2.33E-02	3.22E-03	3.30E-03
568575	6/21/2022 - 6/28/2022	Beta	2.03E-02	2.72E-03	2.71E-03
568789	6/28/2022 - 7/5/2022	Beta	1.29E-02	2.26E-03	2.48E-03
569146	4/5/2022 - 7/5/2022	Cs-134	<2.08E-03	0.00E+00	2.08E-03
		Cs-137	<1.06E-03	0.00E+00	1.06E-03
		Be-7	1.89E-01	4.24E-02	3.82E-02
		K-40	<3.47E-02	0.00E+00	3.47E-02
569022	7/5/2022 - 7/12/2022	Beta	9.05E-03	2.44E-03	3.24E-03
570258	7/12/2022 - 7/19/2022	Beta	1.44E-02	2.43E-03	2.72E-03
570822	7/19/2022 - 7/25/2022	Beta	1.33E-02	3.14E-03	4.03E-03
571063	7/25/2022 - 8/2/2022	Beta	1.48E-02	2.23E-03	2.35E-03
571356	8/2/2022 - 8/9/2022	Beta	1.53E-02	2.85E-03	3.28E-03
571642	8/9/2022 - 8/16/2022	Beta	1.88E-02	2.58E-03	2.56E-03
572670	8/16/2022 - 8/23/2022	Beta	1.79E-02	2.83E-03	3.00E-03
573969	8/23/2022 - 8/29/2022	Beta	2.34E-02	3.72E-03	4.19E-03
574499	8/29/2022 - 9/6/2022	Beta	1.93E-02	2.76E-03	2.87E-03
574966	9/6/2022 - 9/14/2022	Beta	1.41E-02	2.18E-03	2.33E-03
575655	9/14/2022 - 9/19/2022	Beta	3.04E-02	4.00E-03	4.09E-03
576020	9/19/2022 - 9/26/2022	Beta	3.00E-02	3.15E-03	2.80E-03
576222	9/26/2022 - 10/3/2022	Beta	1.62E-02	2.56E-03	2.82E-03
576617	7/5/2022 - 10/3/2022	Cs-134	<1.51E-03	0.00E+00	1.51E-03
		Cs-137	<1.07E-03	0.00E+00	1.07E-03
		Be-7	1.33E-01	3.39E-02	2.91E-02
		K-40	<4.11E-02	0.00E+00	4.11E-02

ROBINSON Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR PARTICULATE Concentration (Activity): pCi/m3

Sample Point 55 [INDICATOR - SSE @ 0.2 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
576493	10/3/2022 - 10/11/2022	Beta	2.39E-02	2.67E-03	2.51E-03
577131	10/11/2022 - 10/18/2022	Beta	3.26E-02	3.17E-03	2.49E-03
577720	10/18/2022 - 10/25/2022	Beta	2.71E-02	2.98E-03	2.60E-03
578082	10/25/2022 - 11/1/2022	Beta	1.45E-02	2.54E-03	3.01E-03
578792	11/1/2022 - 11/8/2022	Beta	2.12E-02	2.71E-03	2.57E-03
578984	11/8/2022 - 11/15/2022	Beta	1.42E-02	2.42E-03	2.74E-03
579736	11/15/2022 - 11/22/2022	Beta	2.92E-02	3.36E-03	2.86E-03
580558	11/22/2022 - 11/29/2022	Beta	3.33E-02	3.45E-03	3.46E-03
580773	11/29/2022 - 12/6/2022	Beta	2.53E-02	3.21E-03	2.99E-03
581095	12/6/2022 - 12/13/2022	Beta	3.04E-02	3.17E-03	2.88E-03
581657	12/13/2022 - 12/20/2022	Beta	2.39E-02	3.16E-03	2.97E-03
582201	12/20/2022 - 12/27/2022	Beta	2.33E-02	3.08E-03	3.00E-03
582388	12/27/2022 - 1/3/2023	Beta	2.14E-02	2.81E-03	2.73E-03
582741	10/3/2022 - 1/3/2023	Cs-134	<2.09E-03	0.00E+00	2.09E-03
		Cs-137	<1.91E-03	0.00E+00	1.91E-03
		Be-7	1.55E-01	3.57E-02	2.77E-02
		K-40	2.41E-02	1.30E-02	4.67E-03

Sample Point 60 [INDICATOR - SE @ 0.2 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
558822	1/4/2022 - 1/11/2022	Beta	2.08E-02	3.05E-03	3.16E-03
559037	1/11/2022 - 1/18/2022	Beta	2.05E-02	2.98E-03	2.99E-03
559527	1/18/2022 - 1/25/2022	Beta	1.81E-02	2.91E-03	3.19E-03
559528	1/25/2022 - 2/1/2022	Beta	2.34E-02	3.14E-03	3.00E-03
560230	2/1/2022 - 2/8/2022	Beta	1.73E-02	2.89E-03	3.20E-03
560100	2/8/2022 - 2/14/2022	Beta	2.28E-02	3.38E-03	3.48E-03
560779	2/14/2022 - 2/22/2022	Beta	1.86E-02	2.79E-03	2.98E-03
561115	2/22/2022 - 3/1/2022	Beta	1.79E-02	2.99E-03	3.38E-03
561615	3/1/2022 - 3/8/2022	Beta	2.41E-02	3.16E-03	3.02E-03

ROBINSON Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR PARTICULATE Concentration (Activity): pCi/m3

Sample Point 60 [INDICATOR - SE @ 0.2 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
562198	3/8/2022 - 3/15/2022	Beta	1.44E-02	2.70E-03	3.12E-03
562805	3/15/2022 - 3/22/2022	Beta	1.39E-02	2.68E-03	3.16E-03
563400	3/22/2022 - 3/28/2022	Beta	1.67E-02	3.39E-03	4.18E-03
563743	3/28/2022 - 4/5/2022	Beta	2.08E-02	2.51E-03	2.39E-03
564084	1/4/2022 - 4/5/2022	Cs-134	<1.81E-03	0.00E+00	1.81E-03
		Cs-137	<1.80E-03	0.00E+00	1.80E-03
		Be-7	2.00E-01	4.26E-02	3.13E-02
		K-40	<3.74E-02	0.00E+00	3.74E-02
563952	4/5/2022 - 4/13/2022	Beta	1.60E-02	2.51E-03	2.64E-03
564507	4/13/2022 - 4/19/2022	Beta	1.47E-02	3.07E-03	3.75E-03
564749	4/19/2022 - 4/25/2022	Beta	2.34E-02	3.60E-03	3.91E-03
565267	4/25/2022 - 5/3/2022	Beta	2.74E-02	2.76E-03	2.31E-03
565928	5/3/2022 - 5/10/2022	Beta	1.68E-02	2.50E-03	2.59E-03
566520	5/10/2022 - 5/17/2022	Beta	1.10E-02	2.51E-03	3.11E-03
566856	5/17/2022 - 5/24/2022	Beta	2.42E-02	3.18E-03	3.03E-03
567105	5/24/2022 - 5/31/2022	Beta	1.27E-02	2.47E-03	3.07E-03
567535	5/31/2022 - 6/7/2022	Beta	2.56E-02	3.30E-03	3.12E-03
567711	6/7/2022 - 6/14/2022	Beta	1.79E-02	2.60E-03	2.72E-03
568347	6/14/2022 - 6/21/2022	Beta	2.33E-02	3.36E-03	3.51E-03
568577	6/21/2022 - 6/28/2022	Beta	2.23E-02	2.78E-03	2.66E-03
568791	6/28/2022 - 7/5/2022	Beta	1.38E-02	2.31E-03	2.48E-03
569148	4/5/2022 - 7/5/2022	Cs-134	<2.18E-03	0.00E+00	2.18E-03
		Cs-137	<1.80E-03	0.00E+00	1.80E-03
		Be-7	1.91E-01	4.20E-02	3.40E-02
		K-40	<4.20E-02	0.00E+00	4.20E-02
569024	7/5/2022 - 7/12/2022	Beta	8.24E-03	2.38E-03	3.23E-03
570260	7/12/2022 - 7/19/2022	Beta	1.46E-02	2.44E-03	2.73E-03
570824	7/19/2022 - 7/25/2022	Beta	1.52E-02	3.24E-03	4.02E-03
571065	7/25/2022 - 8/2/2022	Beta	1.44E-02	2.21E-03	2.36E-03

ROBINSON Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR PARTICULATE Concentration (Activity): pCi/m3

Sample Point 60 [INDICATOR - SE @ 0.2 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
571358	8/2/2022 - 8/9/2022	Beta	1.76E-02	2.96E-03	3.28E-03
571644	8/9/2022 - 8/16/2022	Beta	1.68E-02	2.48E-03	2.54E-03
572672	8/16/2022 - 8/23/2022	Beta	1.77E-02	2.83E-03	3.01E-03
573971	8/23/2022 - 8/29/2022	Beta	2.45E-02	3.77E-03	4.19E-03
574501	8/29/2022 - 9/6/2022	Beta	1.93E-02	2.76E-03	2.87E-03
574968	9/6/2022 - 9/14/2022	Beta	1.64E-02	2.29E-03	2.33E-03
575657	9/14/2022 - 9/19/2022	Beta	3.30E-02	4.12E-03	4.09E-03
576022	9/19/2022 - 9/26/2022	Beta	3.18E-02	3.21E-03	2.77E-03
576224	9/26/2022 - 10/3/2022	Beta	1.72E-02	2.61E-03	2.83E-03
576619	7/5/2022 - 10/3/2022	Cs-134	<1.76E-03	0.00E+00	1.76E-03
		Cs-137	<1.30E-03	0.00E+00	1.30E-03
		Be-7	1.55E-01	3.74E-02	3.08E-02
		K-40	2.07E-02	1.88E-02	2.81E-02
576495	10/3/2022 - 10/11/2022	Beta	2.81E-02	2.85E-03	2.52E-03
577133	10/11/2022 - 10/18/2022	Beta	3.31E-02	3.19E-03	2.50E-03
577722	10/18/2022 - 10/25/2022	Beta	2.56E-02	2.90E-03	2.59E-03
578084	10/25/2022 - 11/1/2022	Beta	1.47E-02	2.55E-03	3.01E-03
578794	11/1/2022 - 11/8/2022	Beta	2.31E-02	2.79E-03	2.57E-03
578986	11/8/2022 - 11/15/2022	Beta	1.55E-02	2.48E-03	2.73E-03
579738	11/15/2022 - 11/22/2022	Beta	3.26E-02	3.50E-03	2.86E-03
580560	11/22/2022 - 11/29/2022	Beta	2.84E-02	2.39E-03	2.13E-03
580775	11/29/2022 - 12/6/2022	Beta	2.71E-02	3.29E-03	2.99E-03
581097	12/6/2022 - 12/13/2022	Beta	3.15E-02	3.21E-03	2.88E-03
581659	12/13/2022 - 12/20/2022	Beta	2.33E-02	3.12E-03	2.97E-03
582203	12/20/2022 - 12/27/2022	Beta	2.32E-02	3.08E-03	3.01E-03
582390	12/27/2022 - 1/3/2023	Beta	2.35E-02	2.90E-03	2.72E-03
582743	10/3/2022 - 1/3/2023	Cs-134	<2.38E-03	0.00E+00	2.38E-03
		Cs-137	<1.47E-03	0.00E+00	1.47E-03

ROBINSON Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR PARTICULATE Concentration (Activity): pCi/m3

Sample Point 60 [INDICATOR - SE @ 0.2 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
582743	10/3/2022 - 1/3/2023	Be-7	1.37E-01	3.41E-02	2.69E-02
		K-40	2.76E-02	1.62E-02	1.85E-02

Sample Point 61 [INDICATOR - WSW @ 0.3 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
558823	1/4/2022 - 1/11/2022	Beta	2.22E-02	3.12E-03	3.17E-03
559038	1/11/2022 - 1/18/2022	Beta	2.15E-02	3.02E-03	2.98E-03
559530	1/18/2022 - 1/25/2022	Beta	1.92E-02	3.00E-03	3.26E-03
559531	1/25/2022 - 2/1/2022	Beta	2.68E-02	3.26E-03	2.94E-03
560231	2/1/2022 - 2/8/2022	Beta	1.65E-02	2.85E-03	3.21E-03
560101	2/8/2022 - 2/14/2022	Beta	2.39E-02	3.43E-03	3.46E-03
560780	2/14/2022 - 2/22/2022	Beta	1.85E-02	2.78E-03	2.98E-03
561116	2/22/2022 - 3/1/2022	Beta	1.55E-02	2.86E-03	3.38E-03
561616	3/1/2022 - 3/8/2022	Beta	2.74E-02	3.31E-03	3.02E-03
562199	3/8/2022 - 3/15/2022	Beta	1.60E-02	2.78E-03	3.12E-03
562806	3/15/2022 - 3/22/2022	Beta	1.52E-02	2.76E-03	3.17E-03
563401	3/22/2022 - 3/28/2022	Beta	1.75E-02	3.43E-03	4.19E-03
563744	3/28/2022 - 4/5/2022	Beta	1.95E-02	2.46E-03	2.39E-03
564085	1/4/2022 - 4/5/2022	Cs-134	<1.92E-03	0.00E+00	1.92E-03
		Cs-137	<1.34E-03	0.00E+00	1.34E-03
		Be-7	2.01E-01	4.09E-02	2.82E-02
		K-40	3.37E-02	1.53E-02	4.57E-03

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 1 [CONTROL - ESE @ 24.4 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
558825	1/4/2022 - 1/11/2022	I-131	<2.38E-02	0.00E+00	2.38E-02
		Cs-134	<2.63E-02	0.00E+00	2.63E-02
		Cs-137	<2.27E-02	0.00E+00	2.27E-02
		Be-7	<2.12E-01	0.00E+00	2.12E-01
		K-40	6.32E-01	2.99E-01	3.32E-01
559040	1/11/2022 - 1/18/2022	I-131	<3.56E-02	0.00E+00	3.56E-02
		Cs-134	<2.56E-02	0.00E+00	2.56E-02
		Cs-137	<2.77E-02	0.00E+00	2.77E-02
		Be-7	<1.02E-01	0.00E+00	1.02E-01
		K-40	5.43E-01	2.80E-01	3.04E-01
559536	1/18/2022 - 1/25/2022	I-131	<2.77E-02	0.00E+00	2.77E-02
		Cs-134	<2.37E-02	0.00E+00	2.37E-02
		Cs-137	<2.56E-02	0.00E+00	2.56E-02
		Be-7	<1.49E-01	0.00E+00	1.49E-01

ROBINSON Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 1 [CONTROL - ESE @ 24.4 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
559536	1/18/2022 - 1/25/2022	K-40	<5.11E-01	0.00E+00	5.11E-01
559537	1/25/2022 - 2/1/2022	I-131	<2.19E-02	0.00E+00	2.19E-02
		Cs-134	<2.39E-02	0.00E+00	2.39E-02
		Cs-137	<1.46E-02	0.00E+00	1.46E-02
		Be-7	<2.18E-01	0.00E+00	2.18E-01
		K-40	4.32E-01	2.36E-01	2.59E-01
560233	2/1/2022 - 2/8/2022	I-131	<3.03E-02	0.00E+00	3.03E-02
		Cs-134	<3.31E-02	0.00E+00	3.31E-02
		Cs-137	<2.70E-02	0.00E+00	2.70E-02
		Be-7	<1.59E-01	0.00E+00	1.59E-01
		K-40	<6.55E-01	0.00E+00	6.55E-01
560103	2/8/2022 - 2/14/2022	I-131	<3.60E-02	0.00E+00	3.60E-02
		Cs-134	<3.49E-02	0.00E+00	3.49E-02
		Cs-137	<3.34E-02	0.00E+00	3.34E-02
		Be-7	<1.87E-01	0.00E+00	1.87E-01
		K-40	5.14E-01	2.89E-01	3.16E-01
560782	2/14/2022 - 2/22/2022	I-131	<3.46E-02	0.00E+00	3.46E-02
		Cs-134	<2.63E-02	0.00E+00	2.63E-02
		Cs-137	<2.26E-02	0.00E+00	2.26E-02
		Be-7	<2.42E-01	0.00E+00	2.42E-01
		K-40	<4.10E-01	0.00E+00	4.10E-01
561118	2/22/2022 - 3/1/2022	I-131	<3.44E-02	0.00E+00	3.44E-02
		Cs-134	<2.52E-02	0.00E+00	2.52E-02
		Cs-137	<2.60E-02	0.00E+00	2.60E-02
		Be-7	<2.25E-01	0.00E+00	2.25E-01
		K-40	<6.87E-01	0.00E+00	6.87E-01
561618	3/1/2022 - 3/8/2022	I-131	<2.59E-02	0.00E+00	2.59E-02
		Cs-134	<3.23E-02	0.00E+00	3.23E-02
		Cs-137	<3.12E-02	0.00E+00	3.12E-02
		Be-7	<1.81E-01	0.00E+00	1.81E-01
		K-40	<6.32E-01	0.00E+00	6.32E-01
562201	3/8/2022 - 3/15/2022	I-131	<3.72E-02	0.00E+00	3.72E-02
		Cs-134	<2.99E-02	0.00E+00	2.99E-02
		Cs-137	<2.96E-02	0.00E+00	2.96E-02
		Be-7	<2.52E-01	0.00E+00	2.52E-01
		K-40	3.85E-01	2.27E-01	2.37E-01
562808	3/15/2022 - 3/22/2022	I-131	<3.15E-02	0.00E+00	3.15E-02
		Cs-134	<2.58E-02	0.00E+00	2.58E-02
		Cs-137	<2.37E-02	0.00E+00	2.37E-02
		Be-7	<1.26E-01	0.00E+00	1.26E-01
		K-40	8.64E-01	3.24E-01	2.87E-01
563403	3/22/2022 - 3/28/2022	I-131	<2.75E-02	0.00E+00	2.75E-02
		Cs-134	<3.01E-02	0.00E+00	3.01E-02
		Cs-137	<1.84E-02	0.00E+00	1.84E-02
		Be-7	<1.42E-01	0.00E+00	1.42E-01
		K-40	6.83E-01	2.90E-01	8.05E-02
563746	3/28/2022 - 4/5/2022	I-131	<2.88E-02	0.00E+00	2.88E-02
		Cs-134	<2.47E-02	0.00E+00	2.47E-02
		Cs-137	<1.95E-02	0.00E+00	1.95E-02

ROBINSON Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 1 [CONTROL - ESE @ 24.4 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
563746	3/28/2022 - 4/5/2022	Be-7	<1.58E-01	0.00E+00	1.58E-01
		K-40	<5.45E-01	0.00E+00	5.45E-01
563955	4/5/2022 - 4/13/2022	I-131	<3.97E-02	0.00E+00	3.97E-02
		Cs-134	<2.54E-02	0.00E+00	2.54E-02
		Cs-137	<2.16E-02	0.00E+00	2.16E-02
		Be-7	<1.66E-01	0.00E+00	1.66E-01
		K-40	<5.48E-01	0.00E+00	5.48E-01
564510	4/13/2022 - 4/19/2022	I-131	<3.87E-02	0.00E+00	3.87E-02
		Cs-134	<2.86E-02	0.00E+00	2.86E-02
		Cs-137	<3.10E-02	0.00E+00	3.10E-02
		Be-7	<2.02E-01	0.00E+00	2.02E-01
		K-40	7.23E-01	3.28E-01	3.16E-01
564752	4/19/2022 - 4/25/2022	I-131	<3.12E-02	0.00E+00	3.12E-02
		Cs-134	<2.71E-02	0.00E+00	2.71E-02
		Cs-137	<2.10E-02	0.00E+00	2.10E-02
		Be-7	<1.68E-01	0.00E+00	1.68E-01
		K-40	7.13E-01	3.40E-01	3.65E-01
565270	4/25/2022 - 5/3/2022	I-131	<2.52E-02	0.00E+00	2.52E-02
		Cs-134	<1.17E-02	0.00E+00	1.17E-02
		Cs-137	<2.06E-02	0.00E+00	2.06E-02
		Be-7	<1.32E-01	0.00E+00	1.32E-01
		K-40	<4.50E-01	0.00E+00	4.50E-01
565930	5/3/2022 - 5/10/2022	I-131	<3.85E-02	0.00E+00	3.85E-02
		Cs-134	<2.16E-02	0.00E+00	2.16E-02
		Cs-137	<2.42E-02	0.00E+00	2.42E-02
		Be-7	<1.87E-01	0.00E+00	1.87E-01
		K-40	4.17E-01	2.67E-01	3.35E-01
566522	5/10/2022 - 5/17/2022	I-131	<3.97E-02	0.00E+00	3.97E-02
		Cs-134	<3.40E-02	0.00E+00	3.40E-02
		Cs-137	<2.64E-02	0.00E+00	2.64E-02
		Be-7	<2.31E-01	0.00E+00	2.31E-01
		K-40	2.61E-01	2.57E-01	3.94E-01
566862	5/17/2022 - 5/24/2022	I-131	<2.75E-02	0.00E+00	2.75E-02
		Cs-134	<1.74E-02	0.00E+00	1.74E-02
		Cs-137	<1.49E-02	0.00E+00	1.49E-02
		Be-7	<1.48E-01	0.00E+00	1.48E-01
		K-40	<6.36E-01	0.00E+00	6.36E-01
567107	5/24/2022 - 5/31/2022	I-131	<4.51E-02	0.00E+00	4.51E-02
		Cs-134	<2.22E-02	0.00E+00	2.22E-02
		Cs-137	<2.38E-02	0.00E+00	2.38E-02
		Be-7	<1.47E-01	0.00E+00	1.47E-01
		K-40	4.76E-01	2.16E-01	6.44E-02
567537	5/31/2022 - 6/7/2022	I-131	<2.97E-02	0.00E+00	2.97E-02
		Cs-134	<2.09E-02	0.00E+00	2.09E-02
		Cs-137	<2.51E-02	0.00E+00	2.51E-02
		Be-7	<2.01E-01	0.00E+00	2.01E-01
		K-40	4.32E-01	2.34E-01	2.37E-01
567713	6/7/2022 - 6/14/2022	I-131	<2.50E-02	0.00E+00	2.50E-02
		Cs-134	<2.14E-02	0.00E+00	2.14E-02

ROBINSON Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 1 [CONTROL - ESE @ 24.4 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
567713	6/7/2022 - 6/14/2022	Cs-137	<1.84E-02	0.00E+00	1.84E-02
		Be-7	<1.63E-01	0.00E+00	1.63E-01
		K-40	<6.34E-01	0.00E+00	6.34E-01
568349	6/14/2022 - 6/21/2022	I-131	<1.96E-02	0.00E+00	1.96E-02
		Cs-134	<2.12E-02	0.00E+00	2.12E-02
		Cs-137	<1.41E-02	0.00E+00	1.41E-02
		Be-7	<1.43E-01	0.00E+00	1.43E-01
		K-40	<4.76E-01	0.00E+00	4.76E-01
568579	6/21/2022 - 6/28/2022	I-131	<2.37E-02	0.00E+00	2.37E-02
		Cs-134	<2.79E-02	0.00E+00	2.79E-02
		Cs-137	<2.10E-02	0.00E+00	2.10E-02
		Be-7	<1.72E-01	0.00E+00	1.72E-01
		K-40	4.32E-01	2.06E-01	6.50E-02
568793	6/28/2022 - 7/5/2022	I-131	<1.98E-02	0.00E+00	1.98E-02
		Cs-134	<1.99E-02	0.00E+00	1.99E-02
		Cs-137	<2.08E-02	0.00E+00	2.08E-02
		Be-7	<1.61E-01	0.00E+00	1.61E-01
		K-40	5.51E-01	2.61E-01	2.55E-01
569026	7/5/2022 - 7/12/2022	I-131	<4.18E-02	0.00E+00	4.18E-02
		Cs-134	<2.37E-02	0.00E+00	2.37E-02
		Cs-137	<2.03E-02	0.00E+00	2.03E-02
		Be-7	<2.23E-01	0.00E+00	2.23E-01
		K-40	5.79E-01	2.75E-01	2.72E-01
570262	7/12/2022 - 7/19/2022	I-131	<5.52E-02	0.00E+00	5.52E-02
		Cs-134	<1.85E-02	0.00E+00	1.85E-02
		Cs-137	<2.95E-02	0.00E+00	2.95E-02
		Be-7	<1.96E-01	0.00E+00	1.96E-01
		K-40	6.96E-01	3.50E-01	4.25E-01
570826	7/19/2022 - 7/25/2022	I-131	<3.46E-02	0.00E+00	3.46E-02
		Cs-134	<2.97E-02	0.00E+00	2.97E-02
		Cs-137	<2.73E-02	0.00E+00	2.73E-02
		Be-7	<2.12E-01	0.00E+00	2.12E-01
		K-40	<5.89E-01	0.00E+00	5.89E-01
571067	7/25/2022 - 8/2/2022	I-131	<4.48E-02	0.00E+00	4.48E-02
		Cs-134	<1.63E-02	0.00E+00	1.63E-02
		Cs-137	<2.24E-02	0.00E+00	2.24E-02
		Be-7	<1.76E-01	0.00E+00	1.76E-01
		K-40	3.58E-01	2.08E-01	2.20E-01
571360	8/2/2022 - 8/9/2022	I-131	<3.74E-02	0.00E+00	3.74E-02
		Cs-134	<3.20E-02	0.00E+00	3.20E-02
		Cs-137	<2.46E-02	0.00E+00	2.46E-02
		Be-7	<1.61E-01	0.00E+00	1.61E-01
		K-40	<6.38E-01	0.00E+00	6.38E-01
571646	8/9/2022 - 8/16/2022	I-131	<2.93E-02	0.00E+00	2.93E-02
		Cs-134	<2.79E-02	0.00E+00	2.79E-02
		Cs-137	<2.65E-02	0.00E+00	2.65E-02
		Be-7	<2.09E-01	0.00E+00	2.09E-01
		K-40	4.44E-01	2.12E-01	6.69E-02
572674	8/16/2022 - 8/23/2022	I-131	<3.85E-02	0.00E+00	3.85E-02

ROBINSON Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 1 [CONTROL - ESE @ 24.4 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
572674	8/16/2022 - 8/23/2022	Cs-134	<2.79E-02	0.00E+00	2.79E-02
		Cs-137	<1.82E-02	0.00E+00	1.82E-02
		Be-7	<2.25E-01	0.00E+00	2.25E-01
		K-40	<4.58E-01	0.00E+00	4.58E-01
573973	8/23/2022 - 8/29/2022	I-131	<2.64E-02	0.00E+00	2.64E-02
		Cs-134	<5.72E-03	0.00E+00	5.72E-03
		Cs-137	<1.69E-02	0.00E+00	1.69E-02
		Be-7	<1.57E-01	0.00E+00	1.57E-01
		K-40	<6.64E-01	0.00E+00	6.64E-01
574503	8/29/2022 - 9/6/2022	I-131	<3.11E-02	0.00E+00	3.11E-02
		Cs-134	<2.40E-02	0.00E+00	2.40E-02
		Cs-137	<2.05E-02	0.00E+00	2.05E-02
		Be-7	<1.47E-01	0.00E+00	1.47E-01
		K-40	<4.10E-01	0.00E+00	4.10E-01
574970	9/6/2022 - 9/14/2022	I-131	<3.04E-02	0.00E+00	3.04E-02
		Cs-134	<2.56E-02	0.00E+00	2.56E-02
		Cs-137	<2.74E-02	0.00E+00	2.74E-02
		Be-7	<1.67E-01	0.00E+00	1.67E-01
		K-40	7.24E-01	2.62E-01	6.13E-02
575659	9/14/2022 - 9/19/2022	I-131	<3.40E-02	0.00E+00	3.40E-02
		Cs-134	<2.72E-02	0.00E+00	2.72E-02
		Cs-137	<2.62E-02	0.00E+00	2.62E-02
		Be-7	<1.36E-01	0.00E+00	1.36E-01
		K-40	8.51E-01	3.78E-01	3.60E-01
576024	9/19/2022 - 9/26/2022	I-131	<2.39E-02	0.00E+00	2.39E-02
		Cs-134	<2.24E-02	0.00E+00	2.24E-02
		Cs-137	<4.36E-03	0.00E+00	4.36E-03
		Be-7	<1.64E-01	0.00E+00	1.64E-01
		K-40	3.14E-01	2.20E-01	2.84E-01
576226	9/26/2022 - 10/3/2022	I-131	<4.31E-02	0.00E+00	4.31E-02
		Cs-134	<2.85E-02	0.00E+00	2.85E-02
		Cs-137	<1.86E-02	0.00E+00	1.86E-02
		Be-7	<2.24E-01	0.00E+00	2.24E-01
		K-40	5.18E-01	2.63E-01	2.54E-01
576497	10/3/2022 - 10/11/2022	I-131	<3.87E-02	0.00E+00	3.87E-02
		Cs-134	<2.10E-02	0.00E+00	2.10E-02
		Cs-137	<2.60E-02	0.00E+00	2.60E-02
		Be-7	<2.02E-01	0.00E+00	2.02E-01
		K-40	<5.30E-01	0.00E+00	5.30E-01
577135	10/11/2022 - 10/18/2022	I-131	<4.06E-02	0.00E+00	4.06E-02
		Cs-134	<2.68E-02	0.00E+00	2.68E-02
		Cs-137	<2.62E-02	0.00E+00	2.62E-02
		Be-7	<2.61E-01	0.00E+00	2.61E-01
		K-40	6.02E-01	3.22E-01	3.88E-01
577724	10/18/2022 - 10/25/2022	I-131	<3.33E-02	0.00E+00	3.33E-02
		Cs-134	<2.40E-02	0.00E+00	2.40E-02
		Cs-137	<2.05E-02	0.00E+00	2.05E-02
		Be-7	<2.03E-01	0.00E+00	2.03E-01
		K-40	5.89E-01	3.05E-01	3.52E-01

ROBINSON Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 1 [CONTROL - ESE @ 24.4 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
578086	10/25/2022 - 11/1/2022	I-131	<3.99E-02	0.00E+00	3.99E-02
		Cs-134	<2.65E-02	0.00E+00	2.65E-02
		Cs-137	<2.44E-02	0.00E+00	2.44E-02
		Be-7	<2.39E-01	0.00E+00	2.39E-01
		K-40	<6.70E-01	0.00E+00	6.70E-01
578796	11/1/2022 - 11/8/2022	I-131	<4.49E-02	0.00E+00	4.49E-02
		Cs-134	<2.86E-02	0.00E+00	2.86E-02
		Cs-137	<3.02E-02	0.00E+00	3.02E-02
		Be-7	<2.65E-01	0.00E+00	2.65E-01
		K-40	<6.70E-01	0.00E+00	6.70E-01
578988	11/8/2022 - 11/15/2022	I-131	<3.21E-02	0.00E+00	3.21E-02
		Cs-134	<2.85E-02	0.00E+00	2.85E-02
		Cs-137	<2.44E-02	0.00E+00	2.44E-02
		Be-7	<2.09E-01	0.00E+00	2.09E-01
		K-40	<5.85E-01	0.00E+00	5.85E-01
579740	11/15/2022 - 11/22/2022	I-131	<3.53E-02	0.00E+00	3.53E-02
		Cs-134	<2.87E-02	0.00E+00	2.87E-02
		Cs-137	<1.67E-02	0.00E+00	1.67E-02
		Be-7	<1.34E-01	0.00E+00	1.34E-01
		K-40	4.22E-01	2.31E-01	2.50E-01
580562	11/22/2022 - 11/29/2022	I-131	<2.92E-02	0.00E+00	2.92E-02
		Cs-134	<2.30E-02	0.00E+00	2.30E-02
		Cs-137	<2.48E-02	0.00E+00	2.48E-02
		Be-7	<1.55E-01	0.00E+00	1.55E-01
		K-40	5.10E-01	2.72E-01	3.10E-01
580777	11/29/2022 - 12/6/2022	I-131	<2.93E-02	0.00E+00	2.93E-02
		Cs-134	<2.76E-02	0.00E+00	2.76E-02
		Cs-137	<2.21E-02	0.00E+00	2.21E-02
		Be-7	<1.80E-01	0.00E+00	1.80E-01
		K-40	<5.82E-01	0.00E+00	5.82E-01
581099	12/6/2022 - 12/13/2022	I-131	<3.14E-02	0.00E+00	3.14E-02
		Cs-134	<1.34E-02	0.00E+00	1.34E-02
		Cs-137	<2.21E-02	0.00E+00	2.21E-02
		Be-7	<1.60E-01	0.00E+00	1.60E-01
		K-40	2.99E-01	2.20E-01	2.96E-01
581661	12/13/2022 - 12/20/2022	I-131	<5.01E-02	0.00E+00	5.01E-02
		Cs-134	<2.67E-02	0.00E+00	2.67E-02
		Cs-137	<2.58E-02	0.00E+00	2.58E-02
		Be-7	<1.87E-01	0.00E+00	1.87E-01
		K-40	7.80E-01	2.83E-01	6.61E-02
582205	12/20/2022 - 12/27/2022	I-131	<4.98E-02	0.00E+00	4.98E-02
		Cs-134	<2.39E-02	0.00E+00	2.39E-02
		Cs-137	<1.88E-02	0.00E+00	1.88E-02
		Be-7	<1.06E-01	0.00E+00	1.06E-01
		K-40	<5.16E-01	0.00E+00	5.16E-01
582392	12/27/2022 - 1/3/2023	I-131	<2.17E-02	0.00E+00	2.17E-02
		Cs-134	<2.00E-02	0.00E+00	2.00E-02
		Cs-137	<1.93E-02	0.00E+00	1.93E-02
		Be-7	<1.50E-01	0.00E+00	1.50E-01
		K-40	<3.97E-01	0.00E+00	3.97E-01

ROBINSON Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 2 [INDICATOR - S @ 0.2 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
558826	1/4/2022 - 1/11/2022	I-131	<5.51E-02	0.00E+00	5.51E-02
		Cs-134	<2.68E-02	0.00E+00	2.68E-02
		Cs-137	<2.28E-02	0.00E+00	2.28E-02
		Be-7	<1.61E-01	0.00E+00	1.61E-01
		K-40	4.94E-01	2.37E-01	2.31E-01
559041	1/11/2022 - 1/18/2022	I-131	<2.27E-02	0.00E+00	2.27E-02
		Cs-134	<2.67E-02	0.00E+00	2.67E-02
		Cs-137	<1.96E-02	0.00E+00	1.96E-02
		Be-7	<1.45E-01	0.00E+00	1.45E-01
		K-40	4.53E-01	2.65E-01	3.24E-01
559539	1/18/2022 - 1/25/2022	I-131	<4.18E-02	0.00E+00	4.18E-02
		Cs-134	<3.23E-02	0.00E+00	3.23E-02
		Cs-137	<2.64E-02	0.00E+00	2.64E-02
		Be-7	<2.62E-01	0.00E+00	2.62E-01
		K-40	3.23E-01	2.60E-01	3.70E-01
559540	1/25/2022 - 2/1/2022	I-131	<2.56E-02	0.00E+00	2.56E-02
		Cs-134	<2.29E-02	0.00E+00	2.29E-02
		Cs-137	<2.16E-02	0.00E+00	2.16E-02
		Be-7	<2.21E-01	0.00E+00	2.21E-01
		K-40	<5.37E-01	0.00E+00	5.37E-01
560234	2/1/2022 - 2/8/2022	I-131	<2.78E-02	0.00E+00	2.78E-02
		Cs-134	<2.03E-02	0.00E+00	2.03E-02
		Cs-137	<2.13E-02	0.00E+00	2.13E-02
		Be-7	<1.82E-01	0.00E+00	1.82E-01
		K-40	<5.34E-01	0.00E+00	5.34E-01
560104	2/8/2022 - 2/14/2022	I-131	<3.15E-02	0.00E+00	3.15E-02
		Cs-134	<3.46E-02	0.00E+00	3.46E-02
		Cs-137	<2.44E-02	0.00E+00	2.44E-02
		Be-7	<1.92E-01	0.00E+00	1.92E-01
		K-40	<6.50E-01	0.00E+00	6.50E-01
560783	2/14/2022 - 2/22/2022	I-131	<2.49E-02	0.00E+00	2.49E-02
		Cs-134	<1.85E-02	0.00E+00	1.85E-02
		Cs-137	<2.09E-02	0.00E+00	2.09E-02
		Be-7	<1.07E-01	0.00E+00	1.07E-01
		K-40	5.26E-01	2.58E-01	2.82E-01
561119	2/22/2022 - 3/1/2022	I-131	<2.45E-02	0.00E+00	2.45E-02
		Cs-134	<2.66E-02	0.00E+00	2.66E-02
		Cs-137	<2.44E-02	0.00E+00	2.44E-02
		Be-7	<1.66E-01	0.00E+00	1.66E-01
		K-40	6.42E-01	3.00E-01	3.25E-01
561619	3/1/2022 - 3/8/2022	I-131	<2.57E-02	0.00E+00	2.57E-02
		Cs-134	<3.02E-02	0.00E+00	3.02E-02
		Cs-137	<1.45E-02	0.00E+00	1.45E-02
		Be-7	<1.47E-01	0.00E+00	1.47E-01
		K-40	4.31E-01	2.29E-01	2.35E-01
562202	3/8/2022 - 3/15/2022	I-131	<2.44E-02	0.00E+00	2.44E-02
		Cs-134	<2.32E-02	0.00E+00	2.32E-02
		Cs-137	<2.00E-02	0.00E+00	2.00E-02
		Be-7	<1.78E-01	0.00E+00	1.78E-01
		K-40	5.29E-01	2.59E-01	2.54E-01

ROBINSON Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 2 [INDICATOR - S @ 0.2 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
562809	3/15/2022 - 3/22/2022	I-131	<2.74E-02	0.00E+00	2.74E-02
		Cs-134	<2.45E-02	0.00E+00	2.45E-02
		Cs-137	<2.56E-02	0.00E+00	2.56E-02
		Be-7	<1.52E-01	0.00E+00	1.52E-01
		K-40	4.84E-01	2.20E-01	6.56E-02
563404	3/22/2022 - 3/28/2022	I-131	<4.55E-02	0.00E+00	4.55E-02
		Cs-134	<4.06E-02	0.00E+00	4.06E-02
		Cs-137	<3.15E-02	0.00E+00	3.15E-02
		Be-7	<2.61E-01	0.00E+00	2.61E-01
		K-40	6.27E-01	3.59E-01	4.43E-01
563747	3/28/2022 - 4/5/2022	I-131	<3.08E-02	0.00E+00	3.08E-02
		Cs-134	<1.77E-02	0.00E+00	1.77E-02
		Cs-137	<2.25E-02	0.00E+00	2.25E-02
		Be-7	<1.46E-01	0.00E+00	1.46E-01
		K-40	4.26E-01	1.93E-01	5.77E-02
563956	4/5/2022 - 4/13/2022	I-131	<3.80E-02	0.00E+00	3.80E-02
		Cs-134	<2.34E-02	0.00E+00	2.34E-02
		Cs-137	<1.71E-02	0.00E+00	1.71E-02
		Be-7	<1.83E-01	0.00E+00	1.83E-01
		K-40	7.12E-01	2.69E-01	2.09E-01
564511	4/13/2022 - 4/19/2022	I-131	<2.97E-02	0.00E+00	2.97E-02
		Cs-134	<3.30E-02	0.00E+00	3.30E-02
		Cs-137	<2.04E-02	0.00E+00	2.04E-02
		Be-7	<2.00E-01	0.00E+00	2.00E-01
		K-40	<6.98E-01	0.00E+00	6.98E-01
564753	4/19/2022 - 4/25/2022	I-131	<2.59E-02	0.00E+00	2.59E-02
		Cs-134	<2.45E-02	0.00E+00	2.45E-02
		Cs-137	<2.36E-02	0.00E+00	2.36E-02
		Be-7	<1.21E-01	0.00E+00	1.21E-01
		K-40	5.01E-01	2.46E-01	7.99E-02
565271	4/25/2022 - 5/3/2022	I-131	<2.88E-02	0.00E+00	2.88E-02
		Cs-134	<2.37E-02	0.00E+00	2.37E-02
		Cs-137	<2.02E-02	0.00E+00	2.02E-02
		Be-7	<1.67E-01	0.00E+00	1.67E-01
		K-40	<5.12E-01	0.00E+00	5.12E-01
565931	5/3/2022 - 5/10/2022	I-131	<2.71E-02	0.00E+00	2.71E-02
		Cs-134	<1.75E-02	0.00E+00	1.75E-02
		Cs-137	<1.51E-02	0.00E+00	1.51E-02
		Be-7	<1.80E-01	0.00E+00	1.80E-01
		K-40	5.31E-01	2.30E-01	6.54E-02
566523	5/10/2022 - 5/17/2022	I-131	<2.14E-02	0.00E+00	2.14E-02
		Cs-134	<2.54E-02	0.00E+00	2.54E-02
		Cs-137	<1.23E-02	0.00E+00	1.23E-02
		Be-7	<3.07E-02	0.00E+00	3.07E-02
		K-40	<3.54E-01	0.00E+00	3.54E-01
566863	5/17/2022 - 5/24/2022	I-131	<3.03E-02	0.00E+00	3.03E-02
		Cs-134	<2.68E-02	0.00E+00	2.68E-02
		Cs-137	<2.31E-02	0.00E+00	2.31E-02
		Be-7	<1.65E-01	0.00E+00	1.65E-01
		K-40	4.36E-01	2.55E-01	3.04E-01

ROBINSON Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 2 [INDICATOR - S @ 0.2 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
567108	5/24/2022 - 5/31/2022	I-131	<3.46E-02	0.00E+00	3.46E-02
		Cs-134	<1.97E-02	0.00E+00	1.97E-02
		Cs-137	<2.06E-02	0.00E+00	2.06E-02
		Be-7	<1.20E-01	0.00E+00	1.20E-01
		K-40	<5.85E-01	0.00E+00	5.85E-01
567538	5/31/2022 - 6/7/2022	I-131	<3.60E-02	0.00E+00	3.60E-02
		Cs-134	<2.78E-02	0.00E+00	2.78E-02
		Cs-137	<2.55E-02	0.00E+00	2.55E-02
		Be-7	<1.89E-01	0.00E+00	1.89E-01
		K-40	7.38E-01	3.09E-01	2.81E-01
567714	6/7/2022 - 6/14/2022	I-131	<2.65E-02	0.00E+00	2.65E-02
		Cs-134	<2.47E-02	0.00E+00	2.47E-02
		Cs-137	<1.75E-02	0.00E+00	1.75E-02
		Be-7	<1.73E-01	0.00E+00	1.73E-01
		K-40	<5.29E-01	0.00E+00	5.29E-01
568350	6/14/2022 - 6/21/2022	I-131	<2.26E-02	0.00E+00	2.26E-02
		Cs-134	<2.08E-02	0.00E+00	2.08E-02
		Cs-137	<1.79E-02	0.00E+00	1.79E-02
		Be-7	<1.84E-01	0.00E+00	1.84E-01
		K-40	<6.06E-01	0.00E+00	6.06E-01
568580	6/21/2022 - 6/28/2022	I-131	<2.06E-02	0.00E+00	2.06E-02
		Cs-134	<1.99E-02	0.00E+00	1.99E-02
		Cs-137	<1.72E-02	0.00E+00	1.72E-02
		Be-7	<1.17E-01	0.00E+00	1.17E-01
		K-40	<5.17E-01	0.00E+00	5.17E-01
568794	6/28/2022 - 7/5/2022	I-131	<3.20E-02	0.00E+00	3.20E-02
		Cs-134	<2.63E-02	0.00E+00	2.63E-02
		Cs-137	<1.94E-02	0.00E+00	1.94E-02
		Be-7	<1.91E-01	0.00E+00	1.91E-01
		K-40	4.64E-01	2.16E-01	6.61E-02
569027	7/5/2022 - 7/12/2022	I-131	<3.03E-02	0.00E+00	3.03E-02
		Cs-134	<2.62E-02	0.00E+00	2.62E-02
		Cs-137	<2.25E-02	0.00E+00	2.25E-02
		Be-7	<1.96E-01	0.00E+00	1.96E-01
		K-40	2.13E-01	1.58E-01	1.78E-01
570263	7/12/2022 - 7/19/2022	I-131	<4.53E-02	0.00E+00	4.53E-02
		Cs-134	<3.05E-02	0.00E+00	3.05E-02
		Cs-137	<2.28E-02	0.00E+00	2.28E-02
		Be-7	<1.46E-01	0.00E+00	1.46E-01
		K-40	6.47E-01	2.92E-01	2.78E-01
570827	7/19/2022 - 7/25/2022	I-131	<3.43E-02	0.00E+00	3.43E-02
		Cs-134	<2.53E-02	0.00E+00	2.53E-02
		Cs-137	<1.68E-02	0.00E+00	1.68E-02
		Be-7	<1.45E-01	0.00E+00	1.45E-01
		K-40	6.30E-01	2.67E-01	7.42E-02
571068	7/25/2022 - 8/2/2022	I-131	<3.73E-02	0.00E+00	3.73E-02
		Cs-134	<1.79E-02	0.00E+00	1.79E-02
		Cs-137	<1.54E-02	0.00E+00	1.54E-02
		Be-7	<1.34E-01	0.00E+00	1.34E-01
		K-40	<4.98E-01	0.00E+00	4.98E-01

ROBINSON Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 2 [INDICATOR - S @ 0.2 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
571361	8/2/2022 - 8/9/2022	I-131	<2.71E-02	0.00E+00	2.71E-02
		Cs-134	<2.73E-02	0.00E+00	2.73E-02
		Cs-137	<2.51E-02	0.00E+00	2.51E-02
		Be-7	<1.46E-01	0.00E+00	1.46E-01
		K-40	6.76E-01	2.66E-01	6.79E-02
571647	8/9/2022 - 8/16/2022	I-131	<2.23E-02	0.00E+00	2.23E-02
		Cs-134	<2.00E-02	0.00E+00	2.00E-02
		Cs-137	<1.49E-02	0.00E+00	1.49E-02
		Be-7	<1.62E-01	0.00E+00	1.62E-01
		K-40	<5.28E-01	0.00E+00	5.28E-01
572675	8/16/2022 - 8/23/2022	I-131	<2.98E-02	0.00E+00	2.98E-02
		Cs-134	<3.31E-02	0.00E+00	3.31E-02
		Cs-137	<3.26E-02	0.00E+00	3.26E-02
		Be-7	<1.70E-01	0.00E+00	1.70E-01
		K-40	<4.91E-01	0.00E+00	4.91E-01
573974	8/23/2022 - 8/29/2022	I-131	<3.37E-02	0.00E+00	3.37E-02
		Cs-134	<2.58E-02	0.00E+00	2.58E-02
		Cs-137	<2.71E-02	0.00E+00	2.71E-02
		Be-7	<1.77E-01	0.00E+00	1.77E-01
		K-40	4.37E-01	2.73E-01	3.13E-01
574504	8/29/2022 - 9/6/2022	I-131	<3.13E-02	0.00E+00	3.13E-02
		Cs-134	<3.70E-02	0.00E+00	3.70E-02
		Cs-137	<2.51E-02	0.00E+00	2.51E-02
		Be-7	<1.89E-01	0.00E+00	1.89E-01
		K-40	6.40E-01	2.76E-01	2.71E-01
574971	9/6/2022 - 9/14/2022	I-131	<2.40E-02	0.00E+00	2.40E-02
		Cs-134	<2.15E-02	0.00E+00	2.15E-02
		Cs-137	<1.04E-02	0.00E+00	1.04E-02
		Be-7	<1.51E-01	0.00E+00	1.51E-01
		K-40	<5.51E-01	0.00E+00	5.51E-01
575660	9/14/2022 - 9/19/2022	I-131	<4.09E-02	0.00E+00	4.09E-02
		Cs-134	<2.45E-02	0.00E+00	2.45E-02
		Cs-137	<3.22E-02	0.00E+00	3.22E-02
		Be-7	<2.79E-01	0.00E+00	2.79E-01
		K-40	6.23E-01	2.98E-01	9.37E-02
576025	9/19/2022 - 9/26/2022	I-131	<2.01E-02	0.00E+00	2.01E-02
		Cs-134	<1.96E-02	0.00E+00	1.96E-02
		Cs-137	<1.15E-02	0.00E+00	1.15E-02
		Be-7	<1.50E-01	0.00E+00	1.50E-01
		K-40	2.28E-01	1.84E-01	2.45E-01
576227	9/26/2022 - 10/3/2022	I-131	<2.80E-02	0.00E+00	2.80E-02
		Cs-134	<2.26E-02	0.00E+00	2.26E-02
		Cs-137	<1.95E-02	0.00E+00	1.95E-02
		Be-7	<1.84E-01	0.00E+00	1.84E-01
		K-40	2.84E-01	2.22E-01	3.05E-01
576498	10/3/2022 - 10/11/2022	I-131	<3.04E-02	0.00E+00	3.04E-02
		Cs-134	<2.32E-02	0.00E+00	2.32E-02
		Cs-137	<1.86E-02	0.00E+00	1.86E-02
		Be-7	<1.75E-01	0.00E+00	1.75E-01
		K-40	5.15E-01	2.56E-01	2.91E-01

ROBINSON Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 2 [INDICATOR - S @ 0.2 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
577136	10/11/2022 - 10/18/2022	I-131	<3.57E-02	0.00E+00	3.57E-02
		Cs-134	<2.49E-02	0.00E+00	2.49E-02
		Cs-137	<1.97E-02	0.00E+00	1.97E-02
		Be-7	<1.45E-01	0.00E+00	1.45E-01
		K-40	<5.51E-01	0.00E+00	5.51E-01
577725	10/18/2022 - 10/25/2022	I-131	<1.18E-02	0.00E+00	1.18E-02
		Cs-134	<2.66E-02	0.00E+00	2.66E-02
		Cs-137	<2.13E-02	0.00E+00	2.13E-02
		Be-7	<1.54E-01	0.00E+00	1.54E-01
		K-40	<5.21E-01	0.00E+00	5.21E-01
578087	10/25/2022 - 11/1/2022	I-131	<4.04E-02	0.00E+00	4.04E-02
		Cs-134	<2.65E-02	0.00E+00	2.65E-02
		Cs-137	<2.43E-02	0.00E+00	2.43E-02
		Be-7	<1.92E-01	0.00E+00	1.92E-01
		K-40	5.33E-01	3.05E-01	3.78E-01
578797	11/1/2022 - 11/8/2022	I-131	<3.26E-02	0.00E+00	3.26E-02
		Cs-134	<2.28E-02	0.00E+00	2.28E-02
		Cs-137	<1.76E-02	0.00E+00	1.76E-02
		Be-7	<1.56E-01	0.00E+00	1.56E-01
		K-40	6.63E-01	2.86E-01	2.61E-01
578989	11/8/2022 - 11/15/2022	I-131	<3.15E-02	0.00E+00	3.15E-02
		Cs-134	<2.03E-02	0.00E+00	2.03E-02
		Cs-137	<1.20E-02	0.00E+00	1.20E-02
		Be-7	<1.56E-01	0.00E+00	1.56E-01
		K-40	5.12E-01	2.64E-01	2.87E-01
579741	11/15/2022 - 11/22/2022	I-131	<5.30E-02	0.00E+00	5.30E-02
		Cs-134	<2.48E-02	0.00E+00	2.48E-02
		Cs-137	<1.66E-02	0.00E+00	1.66E-02
		Be-7	<1.74E-01	0.00E+00	1.74E-01
		K-40	4.83E-01	2.30E-01	2.45E-01
580563	11/22/2022 - 11/29/2022	I-131	<4.02E-02	0.00E+00	4.02E-02
		Cs-134	<2.17E-02	0.00E+00	2.17E-02
		Cs-137	<2.73E-02	0.00E+00	2.73E-02
		Be-7	<1.89E-01	0.00E+00	1.89E-01
		K-40	3.17E-01	2.72E-01	3.99E-01
580778	11/29/2022 - 12/6/2022	I-131	<3.81E-02	0.00E+00	3.81E-02
		Cs-134	<3.02E-02	0.00E+00	3.02E-02
		Cs-137	<2.73E-02	0.00E+00	2.73E-02
		Be-7	<1.62E-01	0.00E+00	1.62E-01
		K-40	<6.12E-01	0.00E+00	6.12E-01
581100	12/6/2022 - 12/13/2022	I-131	<3.17E-02	0.00E+00	3.17E-02
		Cs-134	<2.19E-02	0.00E+00	2.19E-02
		Cs-137	<2.22E-02	0.00E+00	2.22E-02
		Be-7	<1.51E-01	0.00E+00	1.51E-01
		K-40	<5.23E-01	0.00E+00	5.23E-01
581662	12/13/2022 - 12/20/2022	I-131	<4.36E-02	0.00E+00	4.36E-02
		Cs-134	<2.62E-02	0.00E+00	2.62E-02
		Cs-137	<1.91E-02	0.00E+00	1.91E-02
		Be-7	<1.51E-01	0.00E+00	1.51E-01
		K-40	<6.23E-01	0.00E+00	6.23E-01

ROBINSON Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 2 [INDICATOR - S @ 0.2 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
582206	12/20/2022 - 12/27/2022	I-131	<3.59E-02	0.00E+00	3.59E-02
		Cs-134	<1.99E-02	0.00E+00	1.99E-02
		Cs-137	<2.51E-02	0.00E+00	2.51E-02
		Be-7	<1.62E-01	0.00E+00	1.62E-01
		K-40	<4.33E-01	0.00E+00	4.33E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
582393	12/27/2022 - 1/3/2023	I-131	<3.72E-02	0.00E+00	3.72E-02
		Cs-134	<2.96E-02	0.00E+00	2.96E-02
		Cs-137	<1.67E-02	0.00E+00	1.67E-02
		Be-7	<2.38E-01	0.00E+00	2.38E-01
		K-40	<7.22E-01	0.00E+00	7.22E-01

Sample Point 3 [INDICATOR - N @ 0.5 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
558827	1/4/2022 - 1/11/2022	I-131	<5.21E-02	0.00E+00	5.21E-02
		Cs-134	<3.23E-02	0.00E+00	3.23E-02
		Cs-137	<1.79E-02	0.00E+00	1.79E-02
		Be-7	<2.63E-01	0.00E+00	2.63E-01
		K-40	4.00E-01	2.36E-01	2.67E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
559042	1/11/2022 - 1/18/2022	I-131	<2.59E-02	0.00E+00	2.59E-02
		Cs-134	<2.06E-02	0.00E+00	2.06E-02
		Cs-137	<2.75E-02	0.00E+00	2.75E-02
		Be-7	<1.77E-01	0.00E+00	1.77E-01
		K-40	<4.11E-01	0.00E+00	4.11E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
559542	1/18/2022 - 1/25/2022	I-131	<2.09E-02	0.00E+00	2.09E-02
		Cs-134	<1.40E-02	0.00E+00	1.40E-02
		Cs-137	<1.52E-02	0.00E+00	1.52E-02
		Be-7	<1.32E-01	0.00E+00	1.32E-01
		K-40	<4.46E-01	0.00E+00	4.46E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
559543	1/25/2022 - 2/1/2022	I-131	<2.20E-02	0.00E+00	2.20E-02
		Cs-134	<2.79E-02	0.00E+00	2.79E-02
		Cs-137	<1.72E-02	0.00E+00	1.72E-02
		Be-7	<1.40E-01	0.00E+00	1.40E-01
		K-40	2.86E-01	1.85E-01	1.92E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
560235	2/1/2022 - 2/8/2022	I-131	<2.05E-02	0.00E+00	2.05E-02
		Cs-134	<2.82E-02	0.00E+00	2.82E-02
		Cs-137	<1.75E-02	0.00E+00	1.75E-02
		Be-7	<1.80E-01	0.00E+00	1.80E-01
		K-40	<4.04E-01	0.00E+00	4.04E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
560105	2/8/2022 - 2/14/2022	I-131	<3.25E-02	0.00E+00	3.25E-02
		Cs-134	<2.40E-02	0.00E+00	2.40E-02
		Cs-137	<2.89E-02	0.00E+00	2.89E-02
		Be-7	<1.80E-01	0.00E+00	1.80E-01
		K-40	3.32E-01	2.43E-01	3.12E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
560784	2/14/2022 - 2/22/2022	I-131	<2.66E-02	0.00E+00	2.66E-02
		Cs-134	<1.77E-02	0.00E+00	1.77E-02
		Cs-137	<2.13E-02	0.00E+00	2.13E-02
		Be-7	<1.02E-01	0.00E+00	1.02E-01
		K-40	<4.29E-01	0.00E+00	4.29E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
561120	2/22/2022 - 3/1/2022	I-131	<3.65E-02	0.00E+00	3.65E-02
		Cs-134	<2.56E-02	0.00E+00	2.56E-02
		Cs-137	<2.21E-02	0.00E+00	2.21E-02
		Be-7	<1.71E-01	0.00E+00	1.71E-01

ROBINSON Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 3 [INDICATOR - N @ 0.5 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
561120	2/22/2022 - 3/1/2022	K-40	6.16E-01	2.73E-01	2.33E-01
561620	3/1/2022 - 3/8/2022	I-131	<2.13E-02	0.00E+00	2.13E-02
		Cs-134	<2.72E-02	0.00E+00	2.72E-02
		Cs-137	<2.18E-02	0.00E+00	2.18E-02
		Be-7	<1.76E-01	0.00E+00	1.76E-01
		K-40	3.46E-01	2.77E-01	4.03E-01
562203	3/8/2022 - 3/15/2022	I-131	<3.07E-02	0.00E+00	3.07E-02
		Cs-134	<3.02E-02	0.00E+00	3.02E-02
		Cs-137	<2.88E-02	0.00E+00	2.88E-02
		Be-7	<1.39E-01	0.00E+00	1.39E-01
		K-40	6.46E-01	3.03E-01	3.15E-01
562810	3/15/2022 - 3/22/2022	I-131	<2.55E-02	0.00E+00	2.55E-02
		Cs-134	<3.48E-02	0.00E+00	3.48E-02
		Cs-137	<1.76E-02	0.00E+00	1.76E-02
		Be-7	<2.40E-01	0.00E+00	2.40E-01
		K-40	4.15E-01	2.66E-01	3.42E-01
563405	3/22/2022 - 3/28/2022	I-131	<3.82E-02	0.00E+00	3.82E-02
		Cs-134	<3.21E-02	0.00E+00	3.21E-02
		Cs-137	<2.55E-02	0.00E+00	2.55E-02
		Be-7	<2.38E-01	0.00E+00	2.38E-01
		K-40	7.56E-01	3.43E-01	3.28E-01
563748	3/28/2022 - 4/5/2022	I-131	<3.00E-02	0.00E+00	3.00E-02
		Cs-134	<2.41E-02	0.00E+00	2.41E-02
		Cs-137	<1.81E-02	0.00E+00	1.81E-02
		Be-7	<1.50E-01	0.00E+00	1.50E-01
		K-40	<4.35E-01	0.00E+00	4.35E-01

Sample Point 4 [INDICATOR - ESE @ 0.4 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
558828	1/4/2022 - 1/11/2022	I-131	<4.09E-02	0.00E+00	4.09E-02
		Cs-134	<4.02E-02	0.00E+00	4.02E-02
		Cs-137	<2.32E-02	0.00E+00	2.32E-02
		Be-7	<2.19E-01	0.00E+00	2.19E-01
		K-40	6.43E-01	2.88E-01	2.67E-01
559043	1/11/2022 - 1/18/2022	I-131	<2.88E-02	0.00E+00	2.88E-02
		Cs-134	<2.38E-02	0.00E+00	2.38E-02
		Cs-137	<2.20E-02	0.00E+00	2.20E-02
		Be-7	<1.59E-01	0.00E+00	1.59E-01
		K-40	<4.44E-01	0.00E+00	4.44E-01
559545	1/18/2022 - 1/25/2022	I-131	<2.85E-02	0.00E+00	2.85E-02
		Cs-134	<2.26E-02	0.00E+00	2.26E-02
		Cs-137	<2.41E-02	0.00E+00	2.41E-02
		Be-7	<1.98E-01	0.00E+00	1.98E-01
		K-40	4.43E-01	2.31E-01	2.15E-01
559546	1/25/2022 - 2/1/2022	I-131	<2.85E-02	0.00E+00	2.85E-02
		Cs-134	<2.75E-02	0.00E+00	2.75E-02
		Cs-137	<2.80E-02	0.00E+00	2.80E-02
		Be-7	<1.47E-01	0.00E+00	1.47E-01
		K-40	<4.41E-01	0.00E+00	4.41E-01
560236	2/1/2022 - 2/8/2022	I-131	<2.98E-02	0.00E+00	2.98E-02

ROBINSON Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 4 [INDICATOR - ESE @ 0.4 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
560236	2/1/2022 - 2/8/2022	Cs-134	<1.95E-02	0.00E+00	1.95E-02
		Cs-137	<2.04E-02	0.00E+00	2.04E-02
		Be-7	<1.47E-01	0.00E+00	1.47E-01
		K-40	3.95E-01	2.33E-01	2.73E-01
560106	2/8/2022 - 2/14/2022	I-131	<3.14E-02	0.00E+00	3.14E-02
		Cs-134	<2.60E-02	0.00E+00	2.60E-02
		Cs-137	<2.25E-02	0.00E+00	2.25E-02
		Be-7	<1.97E-01	0.00E+00	1.97E-01
		K-40	5.90E-01	2.91E-01	2.89E-01
560785	2/14/2022 - 2/22/2022	I-131	<2.92E-02	0.00E+00	2.92E-02
		Cs-134	<2.21E-02	0.00E+00	2.21E-02
		Cs-137	<1.57E-02	0.00E+00	1.57E-02
		Be-7	<1.83E-01	0.00E+00	1.83E-01
		K-40	3.88E-01	2.20E-01	2.54E-01
561121	2/22/2022 - 3/1/2022	I-131	<2.77E-02	0.00E+00	2.77E-02
		Cs-134	<2.17E-02	0.00E+00	2.17E-02
		Cs-137	<2.04E-02	0.00E+00	2.04E-02
		Be-7	<1.27E-01	0.00E+00	1.27E-01
		K-40	3.48E-01	2.38E-01	3.14E-01
561621	3/1/2022 - 3/8/2022	I-131	<1.89E-02	0.00E+00	1.89E-02
		Cs-134	<2.26E-02	0.00E+00	2.26E-02
		Cs-137	<1.95E-02	0.00E+00	1.95E-02
		Be-7	<1.62E-01	0.00E+00	1.62E-01
		K-40	<6.03E-01	0.00E+00	6.03E-01
562204	3/8/2022 - 3/15/2022	I-131	<3.39E-02	0.00E+00	3.39E-02
		Cs-134	<2.68E-02	0.00E+00	2.68E-02
		Cs-137	<3.08E-02	0.00E+00	3.08E-02
		Be-7	<1.18E-01	0.00E+00	1.18E-01
		K-40	8.18E-01	3.49E-01	3.86E-01
562811	3/15/2022 - 3/22/2022	I-131	<2.50E-02	0.00E+00	2.50E-02
		Cs-134	<2.02E-02	0.00E+00	2.02E-02
		Cs-137	<1.94E-02	0.00E+00	1.94E-02
		Be-7	<1.30E-01	0.00E+00	1.30E-01
		K-40	5.33E-01	2.31E-01	6.56E-02
563406	3/22/2022 - 3/28/2022	I-131	<3.32E-02	0.00E+00	3.32E-02
		Cs-134	<2.43E-02	0.00E+00	2.43E-02
		Cs-137	<2.34E-02	0.00E+00	2.34E-02
		Be-7	<1.70E-01	0.00E+00	1.70E-01
		K-40	<6.23E-01	0.00E+00	6.23E-01
563749	3/28/2022 - 4/5/2022	I-131	<2.27E-02	0.00E+00	2.27E-02
		Cs-134	<2.07E-02	0.00E+00	2.07E-02
		Cs-137	<2.36E-02	0.00E+00	2.36E-02
		Be-7	<9.96E-02	0.00E+00	9.96E-02
		K-40	<4.93E-01	0.00E+00	4.93E-01
563958	4/5/2022 - 4/13/2022	I-131	<3.50E-02	0.00E+00	3.50E-02
		Cs-134	<2.30E-02	0.00E+00	2.30E-02
		Cs-137	<2.11E-02	0.00E+00	2.11E-02
		Be-7	<1.59E-01	0.00E+00	1.59E-01
		K-40	4.14E-01	2.35E-01	2.84E-01

ROBINSON Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 4 [INDICATOR - ESE @ 0.4 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
564513	4/13/2022 - 4/19/2022	I-131	<1.91E-02	0.00E+00	1.91E-02
		Cs-134	<2.01E-02	0.00E+00	2.01E-02
		Cs-137	<2.45E-02	0.00E+00	2.45E-02
		Be-7	<1.88E-01	0.00E+00	1.88E-01
		K-40	5.83E-01	2.83E-01	2.56E-01
564755	4/19/2022 - 4/25/2022	I-131	<3.68E-02	0.00E+00	3.68E-02
		Cs-134	<3.36E-02	0.00E+00	3.36E-02
		Cs-137	<4.00E-02	0.00E+00	4.00E-02
		Be-7	<3.04E-01	0.00E+00	3.04E-01
		K-40	5.11E-01	3.13E-01	3.85E-01
565273	4/25/2022 - 5/3/2022	I-131	<3.92E-02	0.00E+00	3.92E-02
		Cs-134	<2.52E-02	0.00E+00	2.52E-02
		Cs-137	<2.27E-02	0.00E+00	2.27E-02
		Be-7	<1.74E-01	0.00E+00	1.74E-01
		K-40	5.56E-01	2.27E-01	6.03E-02
565932	5/3/2022 - 5/10/2022	I-131	<2.61E-02	0.00E+00	2.61E-02
		Cs-134	<2.34E-02	0.00E+00	2.34E-02
		Cs-137	<1.56E-02	0.00E+00	1.56E-02
		Be-7	<1.48E-01	0.00E+00	1.48E-01
		K-40	<4.93E-01	0.00E+00	4.93E-01
566524	5/10/2022 - 5/17/2022	I-131	<3.19E-02	0.00E+00	3.19E-02
		Cs-134	<1.38E-02	0.00E+00	1.38E-02
		Cs-137	<2.56E-02	0.00E+00	2.56E-02
		Be-7	<1.89E-01	0.00E+00	1.89E-01
		K-40	4.31E-01	2.06E-01	6.49E-02
566864	5/17/2022 - 5/24/2022	I-131	<2.36E-02	0.00E+00	2.36E-02
		Cs-134	<2.48E-02	0.00E+00	2.48E-02
		Cs-137	<2.14E-02	0.00E+00	2.14E-02
		Be-7	<1.42E-01	0.00E+00	1.42E-01
		K-40	<4.87E-01	0.00E+00	4.87E-01
567109	5/24/2022 - 5/31/2022	I-131	<4.30E-02	0.00E+00	4.30E-02
		Cs-134	<2.02E-02	0.00E+00	2.02E-02
		Cs-137	<1.92E-02	0.00E+00	1.92E-02
		Be-7	<2.02E-01	0.00E+00	2.02E-01
		K-40	<5.57E-01	0.00E+00	5.57E-01
567715	6/8/2022 - 6/14/2022	I-131	<2.12E-02	0.00E+00	2.12E-02
		Cs-134	<1.71E-02	0.00E+00	1.71E-02
		Cs-137	<3.01E-02	0.00E+00	3.01E-02
		Be-7	<1.75E-01	0.00E+00	1.75E-01
		K-40	<6.41E-01	0.00E+00	6.41E-01
568351	6/14/2022 - 6/21/2022	I-131	<2.81E-02	0.00E+00	2.81E-02
		Cs-134	<2.48E-02	0.00E+00	2.48E-02
		Cs-137	<2.82E-02	0.00E+00	2.82E-02
		Be-7	<1.76E-01	0.00E+00	1.76E-01
		K-40	<5.63E-01	0.00E+00	5.63E-01
568581	6/21/2022 - 6/28/2022	I-131	<2.75E-02	0.00E+00	2.75E-02
		Cs-134	<2.37E-02	0.00E+00	2.37E-02
		Cs-137	<1.44E-02	0.00E+00	1.44E-02
		Be-7	<9.76E-02	0.00E+00	9.76E-02
		K-40	2.95E-01	1.90E-01	2.09E-01

ROBINSON Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 4 [INDICATOR - ESE @ 0.4 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
568795	6/28/2022 - 7/5/2022	I-131	<2.99E-02	0.00E+00	2.99E-02
		Cs-134	<5.13E-03	0.00E+00	5.13E-03
		Cs-137	<1.76E-02	0.00E+00	1.76E-02
		Be-7	<1.75E-01	0.00E+00	1.75E-01
		K-40	4.89E-01	2.55E-01	2.71E-01
569028	7/5/2022 - 7/12/2022	I-131	<3.97E-02	0.00E+00	3.97E-02
		Cs-134	<2.27E-02	0.00E+00	2.27E-02
		Cs-137	<2.44E-02	0.00E+00	2.44E-02
		Be-7	<1.51E-01	0.00E+00	1.51E-01
		K-40	4.09E-01	2.20E-01	2.08E-01
570264	7/12/2022 - 7/19/2022	I-131	<4.50E-02	0.00E+00	4.50E-02
		Cs-134	<2.55E-02	0.00E+00	2.55E-02
		Cs-137	<2.48E-02	0.00E+00	2.48E-02
		Be-7	<1.92E-01	0.00E+00	1.92E-01
		K-40	5.92E-01	2.79E-01	2.71E-01
570828	7/19/2022 - 7/25/2022	I-131	<2.98E-02	0.00E+00	2.98E-02
		Cs-134	<2.68E-02	0.00E+00	2.68E-02
		Cs-137	<2.89E-02	0.00E+00	2.89E-02
		Be-7	<1.53E-01	0.00E+00	1.53E-01
		K-40	6.14E-01	3.15E-01	3.41E-01
571069	7/25/2022 - 8/2/2022	I-131	<4.72E-02	0.00E+00	4.72E-02
		Cs-134	<2.23E-02	0.00E+00	2.23E-02
		Cs-137	<1.89E-02	0.00E+00	1.89E-02
		Be-7	<1.86E-01	0.00E+00	1.86E-01
		K-40	<5.16E-01	0.00E+00	5.16E-01
571362	8/2/2022 - 8/9/2022	I-131	<2.86E-02	0.00E+00	2.86E-02
		Cs-134	<2.55E-02	0.00E+00	2.55E-02
		Cs-137	<2.18E-02	0.00E+00	2.18E-02
		Be-7	<1.97E-01	0.00E+00	1.97E-01
		K-40	4.04E-01	2.68E-01	3.50E-01
571648	8/9/2022 - 8/16/2022	I-131	<2.56E-02	0.00E+00	2.56E-02
		Cs-134	<2.16E-02	0.00E+00	2.16E-02
		Cs-137	<1.14E-02	0.00E+00	1.14E-02
		Be-7	<1.65E-01	0.00E+00	1.65E-01
		K-40	<5.72E-01	0.00E+00	5.72E-01
572676	8/16/2022 - 8/23/2022	I-131	<3.40E-02	0.00E+00	3.40E-02
		Cs-134	<2.84E-02	0.00E+00	2.84E-02
		Cs-137	<2.28E-02	0.00E+00	2.28E-02
		Be-7	<2.08E-01	0.00E+00	2.08E-01
		K-40	5.34E-01	2.60E-01	2.50E-01
573975	8/23/2022 - 8/29/2022	I-131	<3.55E-02	0.00E+00	3.55E-02
		Cs-134	<3.64E-02	0.00E+00	3.64E-02
		Cs-137	<1.46E-02	0.00E+00	1.46E-02
		Be-7	<1.84E-01	0.00E+00	1.84E-01
		K-40	<6.33E-01	0.00E+00	6.33E-01
574505	8/29/2022 - 9/6/2022	I-131	<4.33E-02	0.00E+00	4.33E-02
		Cs-134	<1.57E-02	0.00E+00	1.57E-02
		Cs-137	<1.55E-02	0.00E+00	1.55E-02
		Be-7	<1.54E-01	0.00E+00	1.54E-01
		K-40	<5.71E-01	0.00E+00	5.71E-01

ROBINSON Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 4 [INDICATOR - ESE @ 0.4 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
574972	9/6/2022 - 9/14/2022	I-131	<2.86E-02	0.00E+00	2.86E-02
		Cs-134	<1.89E-02	0.00E+00	1.89E-02
		Cs-137	<1.63E-02	0.00E+00	1.63E-02
		Be-7	<1.71E-01	0.00E+00	1.71E-01
		K-40	<6.27E-01	0.00E+00	6.27E-01
575661	9/14/2022 - 9/19/2022	I-131	<3.44E-02	0.00E+00	3.44E-02
		Cs-134	<3.63E-02	0.00E+00	3.63E-02
		Cs-137	<2.39E-02	0.00E+00	2.39E-02
		Be-7	<1.94E-01	0.00E+00	1.94E-01
		K-40	4.92E-01	3.75E-01	5.36E-01
576026	9/19/2022 - 9/26/2022	I-131	<2.97E-02	0.00E+00	2.97E-02
		Cs-134	<1.99E-02	0.00E+00	1.99E-02
		Cs-137	<2.78E-02	0.00E+00	2.78E-02
		Be-7	<1.31E-01	0.00E+00	1.31E-01
		K-40	<4.72E-01	0.00E+00	4.72E-01
576228	9/26/2022 - 10/3/2022	I-131	<2.24E-02	0.00E+00	2.24E-02
		Cs-134	<2.19E-02	0.00E+00	2.19E-02
		Cs-137	<2.06E-02	0.00E+00	2.06E-02
		Be-7	<1.51E-01	0.00E+00	1.51E-01
		K-40	3.54E-01	2.26E-01	2.79E-01
576499	10/3/2022 - 10/10/2022	I-131	<5.10E-02	0.00E+00	5.10E-02
		Cs-134	<2.17E-02	0.00E+00	2.17E-02
		Cs-137	<2.43E-02	0.00E+00	2.43E-02
		Be-7	<2.11E-01	0.00E+00	2.11E-01
		K-40	6.05E-01	3.05E-01	3.39E-01
577137	10/11/2022 - 10/18/2022	I-131	<3.13E-02	0.00E+00	3.13E-02
		Cs-134	<2.44E-02	0.00E+00	2.44E-02
		Cs-137	<1.44E-02	0.00E+00	1.44E-02
		Be-7	<1.88E-01	0.00E+00	1.88E-01
		K-40	<6.83E-01	0.00E+00	6.83E-01
577726	10/18/2022 - 10/25/2022	I-131	<2.32E-02	0.00E+00	2.32E-02
		Cs-134	<1.96E-02	0.00E+00	1.96E-02
		Cs-137	<2.06E-02	0.00E+00	2.06E-02
		Be-7	<1.13E-01	0.00E+00	1.13E-01
		K-40	4.30E-01	2.60E-01	3.28E-01
578088	10/25/2022 - 11/1/2022	I-131	<3.95E-02	0.00E+00	3.95E-02
		Cs-134	<3.36E-02	0.00E+00	3.36E-02
		Cs-137	<2.59E-02	0.00E+00	2.59E-02
		Be-7	<2.09E-01	0.00E+00	2.09E-01
		K-40	<6.41E-01	0.00E+00	6.41E-01
578798	11/1/2022 - 11/8/2022	I-131	<2.65E-02	0.00E+00	2.65E-02
		Cs-134	<2.57E-02	0.00E+00	2.57E-02
		Cs-137	<1.89E-02	0.00E+00	1.89E-02
		Be-7	<1.50E-01	0.00E+00	1.50E-01
		K-40	4.82E-01	2.38E-01	2.26E-01
578990	11/8/2022 - 11/15/2022	I-131	<2.20E-02	0.00E+00	2.20E-02
		Cs-134	<2.56E-02	0.00E+00	2.56E-02
		Cs-137	<1.45E-02	0.00E+00	1.45E-02
		Be-7	<1.50E-01	0.00E+00	1.50E-01
		K-40	<4.88E-01	0.00E+00	4.88E-01

ROBINSON Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 4 [INDICATOR - ESE @ 0.4 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
579742	11/15/2022 - 11/22/2022	I-131	<4.87E-02	0.00E+00	4.87E-02
		Cs-134	<2.05E-02	0.00E+00	2.05E-02
		Cs-137	<1.76E-02	0.00E+00	1.76E-02
		Be-7	<1.53E-01	0.00E+00	1.53E-01
		K-40	8.08E-01	2.89E-01	6.64E-02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
580564	11/22/2022 - 11/29/2022	I-131	<2.77E-02	0.00E+00	2.77E-02
		Cs-134	<1.74E-02	0.00E+00	1.74E-02
		Cs-137	<2.12E-02	0.00E+00	2.12E-02
		Be-7	<1.80E-01	0.00E+00	1.80E-01
		K-40	<5.40E-01	0.00E+00	5.40E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
580779	11/29/2022 - 12/6/2022	I-131	<2.90E-02	0.00E+00	2.90E-02
		Cs-134	<2.99E-02	0.00E+00	2.99E-02
		Cs-137	<1.95E-02	0.00E+00	1.95E-02
		Be-7	<1.75E-01	0.00E+00	1.75E-01
		K-40	4.14E-01	2.37E-01	2.66E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
581101	12/6/2022 - 12/13/2022	I-131	<2.04E-02	0.00E+00	2.04E-02
		Cs-134	<2.47E-02	0.00E+00	2.47E-02
		Cs-137	<1.50E-02	0.00E+00	1.50E-02
		Be-7	<1.54E-01	0.00E+00	1.54E-01
		K-40	1.95E-01	1.94E-01	2.88E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
581663	12/13/2022 - 12/20/2022	I-131	<4.69E-02	0.00E+00	4.69E-02
		Cs-134	<3.31E-02	0.00E+00	3.31E-02
		Cs-137	<2.30E-02	0.00E+00	2.30E-02
		Be-7	<1.88E-01	0.00E+00	1.88E-01
		K-40	3.31E-01	2.10E-01	2.37E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
582207	12/20/2022 - 12/27/2022	I-131	<5.02E-02	0.00E+00	5.02E-02
		Cs-134	<1.69E-02	0.00E+00	1.69E-02
		Cs-137	<2.20E-02	0.00E+00	2.20E-02
		Be-7	<1.79E-01	0.00E+00	1.79E-01
		K-40	<5.32E-01	0.00E+00	5.32E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
582394	12/27/2022 - 1/3/2023	I-131	<4.25E-02	0.00E+00	4.25E-02
		Cs-134	<2.75E-02	0.00E+00	2.75E-02
		Cs-137	<1.93E-02	0.00E+00	1.93E-02
		Be-7	<2.58E-01	0.00E+00	2.58E-01
		K-40	3.51E-01	2.93E-01	4.29E-01

Sample Point 5 [INDICATOR - ENE @ 0.9 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
558829	1/4/2022 - 1/11/2022	I-131	<3.99E-02	0.00E+00	3.99E-02
		Cs-134	<1.78E-02	0.00E+00	1.78E-02
		Cs-137	<1.78E-02	0.00E+00	1.78E-02
		Be-7	<2.24E-01	0.00E+00	2.24E-01
		K-40	<5.12E-01	0.00E+00	5.12E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
559044	1/11/2022 - 1/18/2022	I-131	<3.67E-02	0.00E+00	3.67E-02
		Cs-134	<2.66E-02	0.00E+00	2.66E-02
		Cs-137	<2.91E-02	0.00E+00	2.91E-02
		Be-7	<1.96E-01	0.00E+00	1.96E-01
		K-40	4.73E-01	2.26E-01	7.12E-02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
559548	1/18/2022 - 1/25/2022	I-131	<2.50E-02	0.00E+00	2.50E-02
		Cs-134	<2.47E-02	0.00E+00	2.47E-02
		Cs-137	<1.75E-02	0.00E+00	1.75E-02
		Be-7	<1.89E-01	0.00E+00	1.89E-01

ROBINSON Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 5 [INDICATOR - ENE @ 0.9 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
559548	1/18/2022 - 1/25/2022	K-40	<4.57E-01	0.00E+00	4.57E-01
559549	1/25/2022 - 2/1/2022	I-131	<2.49E-02	0.00E+00	2.49E-02
		Cs-134	<1.76E-02	0.00E+00	1.76E-02
		Cs-137	<1.97E-02	0.00E+00	1.97E-02
		Be-7	<1.53E-01	0.00E+00	1.53E-01
		K-40	<5.18E-01	0.00E+00	5.18E-01
560237	2/1/2022 - 2/8/2022	I-131	<1.72E-02	0.00E+00	1.72E-02
		Cs-134	<2.30E-02	0.00E+00	2.30E-02
		Cs-137	<1.53E-02	0.00E+00	1.53E-02
		Be-7	<1.74E-01	0.00E+00	1.74E-01
		K-40	<4.68E-01	0.00E+00	4.68E-01
560107	2/8/2022 - 2/14/2022	I-131	<2.69E-02	0.00E+00	2.69E-02
		Cs-134	<2.52E-02	0.00E+00	2.52E-02
		Cs-137	<2.55E-02	0.00E+00	2.55E-02
		Be-7	<2.26E-01	0.00E+00	2.26E-01
		K-40	<5.33E-01	0.00E+00	5.33E-01
560786	2/14/2022 - 2/22/2022	I-131	<1.40E-02	0.00E+00	1.40E-02
		Cs-134	<1.60E-02	0.00E+00	1.60E-02
		Cs-137	<4.01E-03	0.00E+00	4.01E-03
		Be-7	<1.58E-01	0.00E+00	1.58E-01
		K-40	<2.92E-01	0.00E+00	2.92E-01
561122	2/22/2022 - 3/1/2022	I-131	<3.14E-02	0.00E+00	3.14E-02
		Cs-134	<2.06E-02	0.00E+00	2.06E-02
		Cs-137	<2.32E-02	0.00E+00	2.32E-02
		Be-7	<1.93E-01	0.00E+00	1.93E-01
		K-40	<6.56E-01	0.00E+00	6.56E-01
561622	3/1/2022 - 3/8/2022	I-131	<2.17E-02	0.00E+00	2.17E-02
		Cs-134	<2.56E-02	0.00E+00	2.56E-02
		Cs-137	<1.24E-02	0.00E+00	1.24E-02
		Be-7	<1.48E-01	0.00E+00	1.48E-01
		K-40	4.29E-01	2.11E-01	6.84E-02
562205	3/8/2022 - 3/15/2022	I-131	<2.92E-02	0.00E+00	2.92E-02
		Cs-134	<3.16E-02	0.00E+00	3.16E-02
		Cs-137	<3.04E-02	0.00E+00	3.04E-02
		Be-7	<1.51E-01	0.00E+00	1.51E-01
		K-40	9.54E-01	3.64E-01	3.56E-01
562812	3/15/2022 - 3/22/2022	I-131	<2.73E-02	0.00E+00	2.73E-02
		Cs-134	<1.99E-02	0.00E+00	1.99E-02
		Cs-137	<1.92E-02	0.00E+00	1.92E-02
		Be-7	<1.71E-01	0.00E+00	1.71E-01
		K-40	<4.57E-01	0.00E+00	4.57E-01
563407	3/22/2022 - 3/28/2022	I-131	<2.68E-02	0.00E+00	2.68E-02
		Cs-134	<2.63E-02	0.00E+00	2.63E-02
		Cs-137	<2.48E-02	0.00E+00	2.48E-02
		Be-7	<1.66E-01	0.00E+00	1.66E-01
		K-40	5.63E-01	3.20E-01	3.90E-01
563750	3/28/2022 - 4/5/2022	I-131	<2.63E-02	0.00E+00	2.63E-02
		Cs-134	<1.24E-02	0.00E+00	1.24E-02
		Cs-137	<2.52E-02	0.00E+00	2.52E-02

ROBINSON Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 5 [INDICATOR - ENE @ 0.9 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
563750	3/28/2022 - 4/5/2022	Be-7	<1.29E-01	0.00E+00	1.29E-01
		K-40	<5.01E-01	0.00E+00	5.01E-01
563959	4/5/2022 - 4/13/2022	I-131	<3.03E-02	0.00E+00	3.03E-02
		Cs-134	<2.08E-02	0.00E+00	2.08E-02
		Cs-137	<1.63E-02	0.00E+00	1.63E-02
		Be-7	<1.44E-01	0.00E+00	1.44E-01
		K-40	<4.94E-01	0.00E+00	4.94E-01
564514	4/13/2022 - 4/19/2022	I-131	<3.12E-02	0.00E+00	3.12E-02
		Cs-134	<3.01E-02	0.00E+00	3.01E-02
		Cs-137	<2.21E-02	0.00E+00	2.21E-02
		Be-7	<1.60E-01	0.00E+00	1.60E-01
		K-40	6.87E-01	3.30E-01	3.57E-01
564756	4/19/2022 - 4/25/2022	I-131	<3.48E-02	0.00E+00	3.48E-02
		Cs-134	<2.41E-02	0.00E+00	2.41E-02
		Cs-137	<2.08E-02	0.00E+00	2.08E-02
		Be-7	<2.49E-01	0.00E+00	2.49E-01
		K-40	9.26E-01	3.35E-01	7.84E-02
565274	4/25/2022 - 5/3/2022	I-131	<3.03E-02	0.00E+00	3.03E-02
		Cs-134	<2.14E-02	0.00E+00	2.14E-02
		Cs-137	<1.51E-02	0.00E+00	1.51E-02
		Be-7	<1.44E-01	0.00E+00	1.44E-01
		K-40	5.19E-01	2.27E-01	1.86E-01
565933	5/3/2022 - 5/10/2022	I-131	<2.80E-02	0.00E+00	2.80E-02
		Cs-134	<2.09E-02	0.00E+00	2.09E-02
		Cs-137	<1.54E-02	0.00E+00	1.54E-02
		Be-7	<2.04E-01	0.00E+00	2.04E-01
		K-40	<5.94E-01	0.00E+00	5.94E-01
566525	5/10/2022 - 5/17/2022	I-131	<2.58E-02	0.00E+00	2.58E-02
		Cs-134	<2.51E-02	0.00E+00	2.51E-02
		Cs-137	<2.74E-02	0.00E+00	2.74E-02
		Be-7	<1.45E-01	0.00E+00	1.45E-01
		K-40	<4.84E-01	0.00E+00	4.84E-01
566865	5/17/2022 - 5/24/2022	I-131	<2.78E-02	0.00E+00	2.78E-02
		Cs-134	<2.08E-02	0.00E+00	2.08E-02
		Cs-137	<2.64E-02	0.00E+00	2.64E-02
		Be-7	<1.84E-01	0.00E+00	1.84E-01
		K-40	6.27E-01	2.80E-01	2.58E-01
567110	5/24/2022 - 5/31/2022	I-131	<4.83E-02	0.00E+00	4.83E-02
		Cs-134	<3.07E-02	0.00E+00	3.07E-02
		Cs-137	<2.35E-02	0.00E+00	2.35E-02
		Be-7	<1.67E-01	0.00E+00	1.67E-01
		K-40	4.05E-01	2.95E-01	4.20E-01
567540	5/31/2022 - 6/7/2022	I-131	<1.99E-02	0.00E+00	1.99E-02
		Cs-134	<1.92E-02	0.00E+00	1.92E-02
		Cs-137	<1.85E-02	0.00E+00	1.85E-02
		Be-7	<1.24E-01	0.00E+00	1.24E-01
		K-40	4.37E-01	2.18E-01	1.86E-01
567716	6/7/2022 - 6/14/2022	I-131	<3.92E-02	0.00E+00	3.92E-02
		Cs-134	<2.94E-02	0.00E+00	2.94E-02

ROBINSON Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 5 [INDICATOR - ENE @ 0.9 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
567716	6/7/2022 - 6/14/2022	Cs-137	<2.78E-02	0.00E+00	2.78E-02
		Be-7	<1.55E-01	0.00E+00	1.55E-01
		K-40	<5.22E-01	0.00E+00	5.22E-01
568352	6/14/2022 - 6/21/2022	I-131	<3.29E-02	0.00E+00	3.29E-02
		Cs-134	<3.15E-02	0.00E+00	3.15E-02
		Cs-137	<1.33E-02	0.00E+00	1.33E-02
		Be-7	<1.29E-01	0.00E+00	1.29E-01
		K-40	7.06E-01	3.11E-01	2.89E-01
568582	6/21/2022 - 6/28/2022	I-131	<2.92E-02	0.00E+00	2.92E-02
		Cs-134	<2.09E-02	0.00E+00	2.09E-02
		Cs-137	<1.55E-02	0.00E+00	1.55E-02
		Be-7	<1.21E-01	0.00E+00	1.21E-01
		K-40	<5.38E-01	0.00E+00	5.38E-01
568796	6/28/2022 - 7/5/2022	I-131	<2.81E-02	0.00E+00	2.81E-02
		Cs-134	<2.34E-02	0.00E+00	2.34E-02
		Cs-137	<1.66E-02	0.00E+00	1.66E-02
		Be-7	<1.89E-01	0.00E+00	1.89E-01
		K-40	3.01E-01	2.47E-01	3.60E-01
569029	7/5/2022 - 7/12/2022	I-131	<3.82E-02	0.00E+00	3.82E-02
		Cs-134	<1.69E-02	0.00E+00	1.69E-02
		Cs-137	<1.68E-02	0.00E+00	1.68E-02
		Be-7	<1.34E-01	0.00E+00	1.34E-01
		K-40	5.92E-01	2.67E-01	2.51E-01
570265	7/12/2022 - 7/19/2022	I-131	<4.72E-02	0.00E+00	4.72E-02
		Cs-134	<2.08E-02	0.00E+00	2.08E-02
		Cs-137	<2.18E-02	0.00E+00	2.18E-02
		Be-7	<1.78E-01	0.00E+00	1.78E-01
		K-40	6.97E-01	2.69E-01	6.74E-02
570829	7/19/2022 - 7/25/2022	I-131	<3.02E-02	0.00E+00	3.02E-02
		Cs-134	<3.05E-02	0.00E+00	3.05E-02
		Cs-137	<1.99E-02	0.00E+00	1.99E-02
		Be-7	<1.91E-01	0.00E+00	1.91E-01
		K-40	6.74E-01	3.05E-01	2.66E-01
571070	7/25/2022 - 8/2/2022	I-131	<4.94E-02	0.00E+00	4.94E-02
		Cs-134	<2.26E-02	0.00E+00	2.26E-02
		Cs-137	<1.59E-02	0.00E+00	1.59E-02
		Be-7	<1.60E-01	0.00E+00	1.60E-01
		K-40	2.07E-01	2.21E-01	3.47E-01
571363	8/2/2022 - 8/9/2022	I-131	<2.30E-02	0.00E+00	2.30E-02
		Cs-134	<2.62E-02	0.00E+00	2.62E-02
		Cs-137	<1.72E-02	0.00E+00	1.72E-02
		Be-7	<1.59E-01	0.00E+00	1.59E-01
		K-40	<5.59E-01	0.00E+00	5.59E-01
571649	8/9/2022 - 8/16/2022	I-131	<2.26E-02	0.00E+00	2.26E-02
		Cs-134	<2.25E-02	0.00E+00	2.25E-02
		Cs-137	<1.95E-02	0.00E+00	1.95E-02
		Be-7	<1.90E-01	0.00E+00	1.90E-01
		K-40	4.67E-01	2.17E-01	6.66E-02
572677	8/16/2022 - 8/23/2022	I-131	<3.69E-02	0.00E+00	3.69E-02

ROBINSON Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 5 [INDICATOR - ENE @ 0.9 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
572677	8/16/2022 - 8/23/2022	Cs-134	<2.85E-02	0.00E+00	2.85E-02
		Cs-137	<2.57E-02	0.00E+00	2.57E-02
		Be-7	<1.79E-01	0.00E+00	1.79E-01
		K-40	5.88E-01	2.70E-01	2.45E-01
573976	8/23/2022 - 8/29/2022	I-131	<3.30E-02	0.00E+00	3.30E-02
		Cs-134	<2.93E-02	0.00E+00	2.93E-02
		Cs-137	<3.18E-02	0.00E+00	3.18E-02
		Be-7	<1.96E-01	0.00E+00	1.96E-01
		K-40	5.15E-01	2.80E-01	2.87E-01
574506	8/29/2022 - 9/6/2022	I-131	<2.10E-02	0.00E+00	2.10E-02
		Cs-134	<1.90E-02	0.00E+00	1.90E-02
		Cs-137	<1.99E-02	0.00E+00	1.99E-02
		Be-7	<1.72E-01	0.00E+00	1.72E-01
		K-40	<3.94E-01	0.00E+00	3.94E-01
574973	9/6/2022 - 9/14/2022	I-131	<2.08E-02	0.00E+00	2.08E-02
		Cs-134	<2.56E-02	0.00E+00	2.56E-02
		Cs-137	<1.92E-02	0.00E+00	1.92E-02
		Be-7	<1.18E-01	0.00E+00	1.18E-01
		K-40	2.50E-01	2.40E-01	3.68E-01
575662	9/14/2022 - 9/19/2022	I-131	<2.58E-02	0.00E+00	2.58E-02
		Cs-134	<3.12E-02	0.00E+00	3.12E-02
		Cs-137	<2.41E-02	0.00E+00	2.41E-02
		Be-7	<1.95E-01	0.00E+00	1.95E-01
		K-40	<7.93E-01	0.00E+00	7.93E-01
576027	9/19/2022 - 9/26/2022	I-131	<2.83E-02	0.00E+00	2.83E-02
		Cs-134	<4.91E-03	0.00E+00	4.91E-03
		Cs-137	<1.68E-02	0.00E+00	1.68E-02
		Be-7	<9.79E-02	0.00E+00	9.79E-02
		K-40	<4.60E-01	0.00E+00	4.60E-01
576229	9/26/2022 - 10/3/2022	I-131	<2.58E-02	0.00E+00	2.58E-02
		Cs-134	<1.72E-02	0.00E+00	1.72E-02
		Cs-137	<2.90E-02	0.00E+00	2.90E-02
		Be-7	<1.17E-01	0.00E+00	1.17E-01
		K-40	4.85E-01	2.79E-01	3.49E-01
576500	10/3/2022 - 10/11/2022	I-131	<2.38E-02	0.00E+00	2.38E-02
		Cs-134	<2.37E-02	0.00E+00	2.37E-02
		Cs-137	<1.35E-02	0.00E+00	1.35E-02
		Be-7	<1.56E-01	0.00E+00	1.56E-01
		K-40	<4.37E-01	0.00E+00	4.37E-01
577138	10/11/2022 - 10/18/2022	I-131	<2.28E-02	0.00E+00	2.28E-02
		Cs-134	<2.53E-02	0.00E+00	2.53E-02
		Cs-137	<1.43E-02	0.00E+00	1.43E-02
		Be-7	<1.56E-01	0.00E+00	1.56E-01
		K-40	<4.69E-01	0.00E+00	4.69E-01
577727	10/18/2022 - 10/25/2022	I-131	<2.60E-02	0.00E+00	2.60E-02
		Cs-134	<1.71E-02	0.00E+00	1.71E-02
		Cs-137	<2.65E-02	0.00E+00	2.65E-02
		Be-7	<1.40E-01	0.00E+00	1.40E-01
		K-40	<3.83E-01	0.00E+00	3.83E-01

ROBINSON Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 5 [INDICATOR - ENE @ 0.9 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
578089	10/25/2022 - 11/1/2022	I-131	<4.60E-02	0.00E+00	4.60E-02
		Cs-134	<3.02E-02	0.00E+00	3.02E-02
		Cs-137	<2.73E-02	0.00E+00	2.73E-02
		Be-7	<2.23E-01	0.00E+00	2.23E-01
		K-40	<6.65E-01	0.00E+00	6.65E-01
578799	11/1/2022 - 11/8/2022	I-131	<3.19E-02	0.00E+00	3.19E-02
		Cs-134	<2.63E-02	0.00E+00	2.63E-02
		Cs-137	<2.27E-02	0.00E+00	2.27E-02
		Be-7	<1.18E-01	0.00E+00	1.18E-01
		K-40	6.11E-01	2.49E-01	6.62E-02
578991	11/8/2022 - 11/15/2022	I-131	<3.65E-02	0.00E+00	3.65E-02
		Cs-134	<2.44E-02	0.00E+00	2.44E-02
		Cs-137	<2.80E-02	0.00E+00	2.80E-02
		Be-7	<1.43E-01	0.00E+00	1.43E-01
		K-40	<5.05E-01	0.00E+00	5.05E-01
579743	11/15/2022 - 11/22/2022	I-131	<2.54E-02	0.00E+00	2.54E-02
		Cs-134	<2.19E-02	0.00E+00	2.19E-02
		Cs-137	<2.05E-02	0.00E+00	2.05E-02
		Be-7	<1.47E-01	0.00E+00	1.47E-01
		K-40	<4.74E-01	0.00E+00	4.74E-01
580565	11/22/2022 - 11/29/2022	I-131	<2.14E-02	0.00E+00	2.14E-02
		Cs-134	<2.82E-02	0.00E+00	2.82E-02
		Cs-137	<2.58E-02	0.00E+00	2.58E-02
		Be-7	<1.60E-01	0.00E+00	1.60E-01
		K-40	4.49E-01	2.38E-01	2.30E-01
580780	11/29/2022 - 12/6/2022	I-131	<2.43E-02	0.00E+00	2.43E-02
		Cs-134	<2.02E-02	0.00E+00	2.02E-02
		Cs-137	<1.94E-02	0.00E+00	1.94E-02
		Be-7	<1.64E-01	0.00E+00	1.64E-01
		K-40	<5.45E-01	0.00E+00	5.45E-01
581102	12/6/2022 - 12/13/2022	I-131	<3.23E-02	0.00E+00	3.23E-02
		Cs-134	<2.43E-02	0.00E+00	2.43E-02
		Cs-137	<1.72E-02	0.00E+00	1.72E-02
		Be-7	<1.29E-01	0.00E+00	1.29E-01
		K-40	4.03E-01	1.98E-01	6.43E-02
581664	12/13/2022 - 12/20/2022	I-131	<3.93E-02	0.00E+00	3.93E-02
		Cs-134	<1.40E-02	0.00E+00	1.40E-02
		Cs-137	<2.14E-02	0.00E+00	2.14E-02
		Be-7	<1.95E-01	0.00E+00	1.95E-01
		K-40	4.50E-01	2.38E-01	2.40E-01
582208	12/20/2022 - 12/27/2022	I-131	<5.63E-02	0.00E+00	5.63E-02
		Cs-134	<1.93E-02	0.00E+00	1.93E-02
		Cs-137	<1.65E-02	0.00E+00	1.65E-02
		Be-7	<1.92E-01	0.00E+00	1.92E-01
		K-40	<3.73E-01	0.00E+00	3.73E-01
582395	12/27/2022 - 1/3/2023	I-131	<3.96E-02	0.00E+00	3.96E-02
		Cs-134	<2.62E-02	0.00E+00	2.62E-02
		Cs-137	<2.57E-02	0.00E+00	2.57E-02
		Be-7	<1.89E-01	0.00E+00	1.89E-01
		K-40	4.81E-01	2.58E-01	2.68E-01

ROBINSON Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 6 [INDICATOR - SSW @ 0.2 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
558831	1/4/2022 - 1/11/2022	I-131	<3.83E-02	0.00E+00	3.83E-02
		Cs-134	<2.19E-02	0.00E+00	2.19E-02
		Cs-137	<1.87E-02	0.00E+00	1.87E-02
		Be-7	<1.05E-01	0.00E+00	1.05E-01
		K-40	<5.54E-01	0.00E+00	5.54E-01
559046	1/11/2022 - 1/18/2022	I-131	<3.24E-02	0.00E+00	3.24E-02
		Cs-134	<1.81E-02	0.00E+00	1.81E-02
		Cs-137	<1.56E-02	0.00E+00	1.56E-02
		Be-7	<1.06E-01	0.00E+00	1.06E-01
		K-40	2.49E-01	2.08E-01	2.89E-01
559554	1/18/2022 - 1/25/2022	I-131	<3.83E-02	0.00E+00	3.83E-02
		Cs-134	<3.70E-02	0.00E+00	3.70E-02
		Cs-137	<2.30E-02	0.00E+00	2.30E-02
		Be-7	<1.85E-01	0.00E+00	1.85E-01
		K-40	2.54E-01	2.28E-01	3.30E-01
559555	1/25/2022 - 2/1/2022	I-131	<4.35E-02	0.00E+00	4.35E-02
		Cs-134	<2.66E-02	0.00E+00	2.66E-02
		Cs-137	<2.47E-02	0.00E+00	2.47E-02
		Be-7	<2.41E-01	0.00E+00	2.41E-01
		K-40	6.34E-01	2.88E-01	2.65E-01
560239	2/1/2022 - 2/8/2022	I-131	<2.16E-02	0.00E+00	2.16E-02
		Cs-134	<2.55E-02	0.00E+00	2.55E-02
		Cs-137	<2.37E-02	0.00E+00	2.37E-02
		Be-7	<1.04E-01	0.00E+00	1.04E-01
		K-40	<4.20E-01	0.00E+00	4.20E-01
560109	2/8/2022 - 2/14/2022	I-131	<3.39E-02	0.00E+00	3.39E-02
		Cs-134	<2.79E-02	0.00E+00	2.79E-02
		Cs-137	<2.41E-02	0.00E+00	2.41E-02
		Be-7	<2.11E-01	0.00E+00	2.11E-01
		K-40	<5.65E-01	0.00E+00	5.65E-01
560788	2/14/2022 - 2/22/2022	I-131	<2.49E-02	0.00E+00	2.49E-02
		Cs-134	<2.73E-02	0.00E+00	2.73E-02
		Cs-137	<2.09E-02	0.00E+00	2.09E-02
		Be-7	<2.00E-01	0.00E+00	2.00E-01
		K-40	4.45E-01	2.30E-01	2.42E-01
561124	2/22/2022 - 3/1/2022	I-131	<2.15E-02	0.00E+00	2.15E-02
		Cs-134	<2.55E-02	0.00E+00	2.55E-02
		Cs-137	<1.24E-02	0.00E+00	1.24E-02
		Be-7	<1.61E-01	0.00E+00	1.61E-01
		K-40	<5.52E-01	0.00E+00	5.52E-01
561624	3/1/2022 - 3/8/2022	I-131	<3.06E-02	0.00E+00	3.06E-02
		Cs-134	<3.20E-02	0.00E+00	3.20E-02
		Cs-137	<2.17E-02	0.00E+00	2.17E-02
		Be-7	<1.45E-01	0.00E+00	1.45E-01
		K-40	9.42E-01	3.15E-01	6.72E-02
562207	3/8/2022 - 3/15/2022	I-131	<4.20E-02	0.00E+00	4.20E-02
		Cs-134	<3.03E-02	0.00E+00	3.03E-02
		Cs-137	<2.61E-02	0.00E+00	2.61E-02
		Be-7	<2.27E-01	0.00E+00	2.27E-01
		K-40	7.20E-01	3.14E-01	3.07E-01

ROBINSON Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 6 [INDICATOR - SSW @ 0.2 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
562814	3/15/2022 - 3/22/2022	I-131	<2.37E-02	0.00E+00	2.37E-02
		Cs-134	<2.68E-02	0.00E+00	2.68E-02
		Cs-137	<1.52E-02	0.00E+00	1.52E-02
		Be-7	<1.81E-01	0.00E+00	1.81E-01
		K-40	<4.47E-01	0.00E+00	4.47E-01
563409	3/22/2022 - 3/28/2022	I-131	<3.46E-02	0.00E+00	3.46E-02
		Cs-134	<3.23E-02	0.00E+00	3.23E-02
		Cs-137	<2.12E-02	0.00E+00	2.12E-02
		Be-7	<1.96E-01	0.00E+00	1.96E-01
		K-40	<6.51E-01	0.00E+00	6.51E-01
563752	3/28/2022 - 4/5/2022	I-131	<2.72E-02	0.00E+00	2.72E-02
		Cs-134	<1.83E-02	0.00E+00	1.83E-02
		Cs-137	<1.08E-02	0.00E+00	1.08E-02
		Be-7	<1.50E-01	0.00E+00	1.50E-01
		K-40	<4.29E-01	0.00E+00	4.29E-01
563961	4/5/2022 - 4/13/2022	I-131	<2.97E-02	0.00E+00	2.97E-02
		Cs-134	<1.78E-02	0.00E+00	1.78E-02
		Cs-137	<1.32E-02	0.00E+00	1.32E-02
		Be-7	<2.00E-01	0.00E+00	2.00E-01
		K-40	5.32E-01	2.35E-01	2.09E-01
564516	4/13/2022 - 4/19/2022	I-131	<2.62E-02	0.00E+00	2.62E-02
		Cs-134	<2.03E-02	0.00E+00	2.03E-02
		Cs-137	<1.39E-02	0.00E+00	1.39E-02
		Be-7	<1.87E-01	0.00E+00	1.87E-01
		K-40	5.79E-01	3.08E-01	3.52E-01
564758	4/19/2022 - 4/25/2022	I-131	<2.68E-02	0.00E+00	2.68E-02
		Cs-134	<2.02E-02	0.00E+00	2.02E-02
		Cs-137	<3.13E-02	0.00E+00	3.13E-02
		Be-7	<1.65E-01	0.00E+00	1.65E-01
		K-40	6.38E-01	3.56E-01	4.50E-01
565276	4/25/2022 - 5/3/2022	I-131	<2.41E-02	0.00E+00	2.41E-02
		Cs-134	<1.90E-02	0.00E+00	1.90E-02
		Cs-137	<1.78E-02	0.00E+00	1.78E-02
		Be-7	<1.39E-01	0.00E+00	1.39E-01
		K-40	3.69E-01	1.76E-01	5.56E-02
565935	5/3/2022 - 5/10/2022	I-131	<2.33E-02	0.00E+00	2.33E-02
		Cs-134	<1.44E-02	0.00E+00	1.44E-02
		Cs-137	<1.24E-02	0.00E+00	1.24E-02
		Be-7	<1.05E-01	0.00E+00	1.05E-01
		K-40	<4.93E-01	0.00E+00	4.93E-01
566527	5/10/2022 - 5/17/2022	I-131	<2.56E-02	0.00E+00	2.56E-02
		Cs-134	<2.20E-02	0.00E+00	2.20E-02
		Cs-137	<2.23E-02	0.00E+00	2.23E-02
		Be-7	<1.30E-01	0.00E+00	1.30E-01
		K-40	4.56E-01	2.12E-01	6.50E-02
566867	5/17/2022 - 5/24/2022	I-131	<1.95E-02	0.00E+00	1.95E-02
		Cs-134	<1.78E-02	0.00E+00	1.78E-02
		Cs-137	<1.54E-02	0.00E+00	1.54E-02
		Be-7	<1.45E-01	0.00E+00	1.45E-01
		K-40	4.39E-01	2.53E-01	2.95E-01

ROBINSON Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 6 [INDICATOR - SSW @ 0.2 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
567112	5/24/2022 - 5/31/2022	I-131	<4.42E-02	0.00E+00	4.42E-02
		Cs-134	<2.37E-02	0.00E+00	2.37E-02
		Cs-137	<2.34E-02	0.00E+00	2.34E-02
		Be-7	<1.20E-01	0.00E+00	1.20E-01
		K-40	4.78E-01	2.73E-01	3.39E-01
567542	5/31/2022 - 6/7/2022	I-131	<2.21E-02	0.00E+00	2.21E-02
		Cs-134	<2.62E-02	0.00E+00	2.62E-02
		Cs-137	<2.10E-02	0.00E+00	2.10E-02
		Be-7	<1.61E-01	0.00E+00	1.61E-01
		K-40	<4.72E-01	0.00E+00	4.72E-01
567718	6/7/2022 - 6/14/2022	I-131	<2.88E-02	0.00E+00	2.88E-02
		Cs-134	<2.19E-02	0.00E+00	2.19E-02
		Cs-137	<1.89E-02	0.00E+00	1.89E-02
		Be-7	<1.39E-01	0.00E+00	1.39E-01
		K-40	4.25E-01	2.03E-01	6.40E-02
568354	6/14/2022 - 6/21/2022	I-131	<3.30E-02	0.00E+00	3.30E-02
		Cs-134	<2.54E-02	0.00E+00	2.54E-02
		Cs-137	<1.80E-02	0.00E+00	1.80E-02
		Be-7	<2.11E-01	0.00E+00	2.11E-01
		K-40	<5.49E-01	0.00E+00	5.49E-01
568584	6/21/2022 - 6/28/2022	I-131	<2.66E-02	0.00E+00	2.66E-02
		Cs-134	<3.01E-02	0.00E+00	3.01E-02
		Cs-137	<2.58E-02	0.00E+00	2.58E-02
		Be-7	<1.72E-01	0.00E+00	1.72E-01
		K-40	4.86E-01	2.26E-01	6.94E-02
568798	6/28/2022 - 7/5/2022	I-131	<2.88E-02	0.00E+00	2.88E-02
		Cs-134	<2.68E-02	0.00E+00	2.68E-02
		Cs-137	<1.76E-02	0.00E+00	1.76E-02
		Be-7	<1.19E-01	0.00E+00	1.19E-01
		K-40	5.23E-01	2.82E-01	3.36E-01
569031	7/5/2022 - 7/12/2022	I-131	<3.98E-02	0.00E+00	3.98E-02
		Cs-134	<2.52E-02	0.00E+00	2.52E-02
		Cs-137	<1.43E-02	0.00E+00	1.43E-02
		Be-7	<1.74E-01	0.00E+00	1.74E-01
		K-40	6.00E-01	2.40E-01	6.26E-02
570267	7/12/2022 - 7/19/2022	I-131	<4.96E-02	0.00E+00	4.96E-02
		Cs-134	<1.74E-02	0.00E+00	1.74E-02
		Cs-137	<2.43E-02	0.00E+00	2.43E-02
		Be-7	<1.39E-01	0.00E+00	1.39E-01
		K-40	6.36E-01	2.83E-01	2.68E-01
570831	7/19/2022 - 7/25/2022	I-131	<2.73E-02	0.00E+00	2.73E-02
		Cs-134	<3.17E-02	0.00E+00	3.17E-02
		Cs-137	<2.73E-02	0.00E+00	2.73E-02
		Be-7	<1.59E-01	0.00E+00	1.59E-01
		K-40	<4.97E-01	0.00E+00	4.97E-01
571072	7/25/2022 - 8/2/2022	I-131	<2.87E-02	0.00E+00	2.87E-02
		Cs-134	<2.18E-02	0.00E+00	2.18E-02
		Cs-137	<1.72E-02	0.00E+00	1.72E-02
		Be-7	<1.64E-01	0.00E+00	1.64E-01
		K-40	5.78E-01	2.27E-01	5.80E-02

ROBINSON Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 6 [INDICATOR - SSW @ 0.2 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
571365	8/2/2022 - 8/9/2022	I-131	<3.15E-02	0.00E+00	3.15E-02
		Cs-134	<2.81E-02	0.00E+00	2.81E-02
		Cs-137	<2.69E-02	0.00E+00	2.69E-02
		Be-7	<1.77E-01	0.00E+00	1.77E-01
		K-40	7.62E-01	3.70E-01	4.49E-01
571651	8/9/2022 - 8/16/2022	I-131	<2.52E-02	0.00E+00	2.52E-02
		Cs-134	<2.47E-02	0.00E+00	2.47E-02
		Cs-137	<1.75E-02	0.00E+00	1.75E-02
		Be-7	<1.72E-01	0.00E+00	1.72E-01
		K-40	2.20E-01	1.48E-01	6.63E-02
572679	8/16/2022 - 8/23/2022	I-131	<3.54E-02	0.00E+00	3.54E-02
		Cs-134	<2.49E-02	0.00E+00	2.49E-02
		Cs-137	<2.28E-02	0.00E+00	2.28E-02
		Be-7	<1.52E-01	0.00E+00	1.52E-01
		K-40	<5.07E-01	0.00E+00	5.07E-01
573979	8/23/2022 - 8/29/2022	I-131	<2.48E-02	0.00E+00	2.48E-02
		Cs-134	<2.85E-02	0.00E+00	2.85E-02
		Cs-137	<2.02E-02	0.00E+00	2.02E-02
		Be-7	<1.16E-01	0.00E+00	1.16E-01
		K-40	3.22E-01	2.40E-01	3.13E-01
574508	8/29/2022 - 9/6/2022	I-131	<3.43E-02	0.00E+00	3.43E-02
		Cs-134	<2.95E-02	0.00E+00	2.95E-02
		Cs-137	<2.03E-02	0.00E+00	2.03E-02
		Be-7	<1.97E-01	0.00E+00	1.97E-01
		K-40	3.91E-01	2.10E-01	2.08E-01
574975	9/6/2022 - 9/14/2022	I-131	<3.01E-02	0.00E+00	3.01E-02
		Cs-134	<2.64E-02	0.00E+00	2.64E-02
		Cs-137	<1.88E-02	0.00E+00	1.88E-02
		Be-7	<1.36E-01	0.00E+00	1.36E-01
		K-40	7.07E-01	2.78E-01	2.47E-01
575664	9/14/2022 - 9/19/2022	I-131	<4.22E-02	0.00E+00	4.22E-02
		Cs-134	<2.10E-02	0.00E+00	2.10E-02
		Cs-137	<3.69E-02	0.00E+00	3.69E-02
		Be-7	<2.57E-01	0.00E+00	2.57E-01
		K-40	1.12E+00	4.62E-01	4.35E-01
576029	9/19/2022 - 9/26/2022	I-131	<2.67E-02	0.00E+00	2.67E-02
		Cs-134	<2.16E-02	0.00E+00	2.16E-02
		Cs-137	<4.68E-03	0.00E+00	4.68E-03
		Be-7	<1.63E-01	0.00E+00	1.63E-01
		K-40	4.41E-01	2.47E-01	2.67E-01
576231	9/26/2022 - 10/3/2022	I-131	<2.32E-02	0.00E+00	2.32E-02
		Cs-134	<2.70E-02	0.00E+00	2.70E-02
		Cs-137	<2.32E-02	0.00E+00	2.32E-02
		Be-7	<1.03E-01	0.00E+00	1.03E-01
		K-40	<6.08E-01	0.00E+00	6.08E-01
576502	10/3/2022 - 10/11/2022	I-131	<2.49E-02	0.00E+00	2.49E-02
		Cs-134	<2.61E-02	0.00E+00	2.61E-02
		Cs-137	<1.70E-02	0.00E+00	1.70E-02
		Be-7	<1.45E-01	0.00E+00	1.45E-01
		K-40	<5.00E-01	0.00E+00	5.00E-01

ROBINSON Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 6 [INDICATOR - SSW @ 0.2 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
577140	10/11/2022 - 10/18/2022	I-131	<3.29E-02	0.00E+00	3.29E-02
		Cs-134	<2.04E-02	0.00E+00	2.04E-02
		Cs-137	<1.96E-02	0.00E+00	1.96E-02
		Be-7	<1.82E-01	0.00E+00	1.82E-01
		K-40	6.34E-01	2.74E-01	2.42E-01
577729	10/18/2022 - 10/25/2022	I-131	<2.41E-02	0.00E+00	2.41E-02
		Cs-134	<3.33E-02	0.00E+00	3.33E-02
		Cs-137	<1.53E-02	0.00E+00	1.53E-02
		Be-7	<1.44E-01	0.00E+00	1.44E-01
		K-40	2.73E-01	2.15E-01	2.92E-01
578091	10/25/2022 - 11/1/2022	I-131	<3.94E-02	0.00E+00	3.94E-02
		Cs-134	<2.63E-02	0.00E+00	2.63E-02
		Cs-137	<2.98E-02	0.00E+00	2.98E-02
		Be-7	<2.44E-01	0.00E+00	2.44E-01
		K-40	6.27E-01	2.92E-01	2.82E-01
578801	11/1/2022 - 11/8/2022	I-131	<1.29E-02	0.00E+00	1.29E-02
		Cs-134	<2.08E-02	0.00E+00	2.08E-02
		Cs-137	<2.64E-02	0.00E+00	2.64E-02
		Be-7	<1.21E-01	0.00E+00	1.21E-01
		K-40	<5.05E-01	0.00E+00	5.05E-01
578993	11/8/2022 - 11/15/2022	I-131	<3.04E-02	0.00E+00	3.04E-02
		Cs-134	<2.70E-02	0.00E+00	2.70E-02
		Cs-137	<1.77E-02	0.00E+00	1.77E-02
		Be-7	<1.57E-01	0.00E+00	1.57E-01
		K-40	3.64E-01	2.43E-01	3.11E-01
579745	11/15/2022 - 11/22/2022	I-131	<3.99E-02	0.00E+00	3.99E-02
		Cs-134	<2.39E-02	0.00E+00	2.39E-02
		Cs-137	<1.88E-02	0.00E+00	1.88E-02
		Be-7	<1.47E-01	0.00E+00	1.47E-01
		K-40	<5.31E-01	0.00E+00	5.31E-01
580567	11/22/2022 - 11/29/2022	I-131	<4.60E-02	0.00E+00	4.60E-02
		Cs-134	<3.92E-02	0.00E+00	3.92E-02
		Cs-137	<2.73E-02	0.00E+00	2.73E-02
		Be-7	<2.44E-01	0.00E+00	2.44E-01
		K-40	<6.92E-01	0.00E+00	6.92E-01
580782	11/29/2022 - 12/6/2022	I-131	<2.51E-02	0.00E+00	2.51E-02
		Cs-134	<1.68E-02	0.00E+00	1.68E-02
		Cs-137	<2.33E-02	0.00E+00	2.33E-02
		Be-7	<1.27E-01	0.00E+00	1.27E-01
		K-40	3.78E-01	2.21E-01	2.46E-01
581104	12/6/2022 - 12/13/2022	I-131	<3.21E-02	0.00E+00	3.21E-02
		Cs-134	<2.47E-02	0.00E+00	2.47E-02
		Cs-137	<2.58E-02	0.00E+00	2.58E-02
		Be-7	<1.74E-01	0.00E+00	1.74E-01
		K-40	4.98E-01	2.93E-01	3.78E-01
581666	12/13/2022 - 12/20/2022	I-131	<4.84E-02	0.00E+00	4.84E-02
		Cs-134	<2.69E-02	0.00E+00	2.69E-02
		Cs-137	<2.64E-02	0.00E+00	2.64E-02
		Be-7	<1.35E-01	0.00E+00	1.35E-01
		K-40	<5.58E-01	0.00E+00	5.58E-01

ROBINSON Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 6 [INDICATOR - SSW @ 0.2 miles]

Sample ID:	582210	Sample Dates:	12/20/2022 - 12/27/2022	Nuclide	Activity	2 Sigma Error	MDA
				I-131	<6.08E-02	0.00E+00	6.08E-02
				Cs-134	<2.40E-02	0.00E+00	2.40E-02
				Cs-137	<2.71E-02	0.00E+00	2.71E-02
				Be-7	<2.69E-01	0.00E+00	2.69E-01
				K-40	8.01E-01	3.04E-01	2.40E-01

Sample ID:	582397	Sample Dates:	12/27/2022 - 1/3/2023	Nuclide	Activity	2 Sigma Error	MDA
				I-131	<3.06E-02	0.00E+00	3.06E-02
				Cs-134	<2.58E-02	0.00E+00	2.58E-02
				Cs-137	<2.23E-02	0.00E+00	2.23E-02
				Be-7	<1.50E-01	0.00E+00	1.50E-01
				K-40	2.47E-01	2.03E-01	2.75E-01

Sample Point 7 [INDICATOR - ESE @ 6.4 miles]

Sample ID:	558834	Sample Dates:	1/4/2022 - 1/11/2022	Nuclide	Activity	2 Sigma Error	MDA
				I-131	<4.71E-02	0.00E+00	4.71E-02
				Cs-134	<1.81E-02	0.00E+00	1.81E-02
				Cs-137	<4.52E-03	0.00E+00	4.52E-03
				Be-7	<1.70E-01	0.00E+00	1.70E-01
				K-40	1.79E-01	1.73E-01	2.46E-01

Sample ID:	559049	Sample Dates:	1/11/2022 - 1/18/2022	Nuclide	Activity	2 Sigma Error	MDA
				I-131	<3.21E-02	0.00E+00	3.21E-02
				Cs-134	<3.29E-02	0.00E+00	3.29E-02
				Cs-137	<2.93E-02	0.00E+00	2.93E-02
				Be-7	<2.02E-01	0.00E+00	2.02E-01
				K-40	3.22E-01	2.27E-01	2.86E-01

Sample ID:	559563	Sample Dates:	1/18/2022 - 1/25/2022	Nuclide	Activity	2 Sigma Error	MDA
				I-131	<2.62E-02	0.00E+00	2.62E-02
				Cs-134	<2.84E-02	0.00E+00	2.84E-02
				Cs-137	<1.85E-02	0.00E+00	1.85E-02
				Be-7	<1.24E-01	0.00E+00	1.24E-01
				K-40	<5.71E-01	0.00E+00	5.71E-01

Sample ID:	559564	Sample Dates:	1/25/2022 - 2/1/2022	Nuclide	Activity	2 Sigma Error	MDA
				I-131	<2.68E-02	0.00E+00	2.68E-02
				Cs-134	<2.86E-02	0.00E+00	2.86E-02
				Cs-137	<2.86E-02	0.00E+00	2.86E-02
				Be-7	<2.28E-01	0.00E+00	2.28E-01
				K-40	5.66E-01	2.40E-01	6.67E-02

Sample ID:	560242	Sample Dates:	2/1/2022 - 2/8/2022	Nuclide	Activity	2 Sigma Error	MDA
				I-131	<3.13E-02	0.00E+00	3.13E-02
				Cs-134	<2.84E-02	0.00E+00	2.84E-02
				Cs-137	<2.57E-02	0.00E+00	2.57E-02
				Be-7	<1.99E-01	0.00E+00	1.99E-01
				K-40	3.60E-01	2.87E-01	4.20E-01

Sample ID:	560112	Sample Dates:	2/8/2022 - 2/14/2022	Nuclide	Activity	2 Sigma Error	MDA
				I-131	<3.67E-02	0.00E+00	3.67E-02
				Cs-134	<2.78E-02	0.00E+00	2.78E-02
				Cs-137	<3.29E-02	0.00E+00	3.29E-02
				Be-7	<2.14E-01	0.00E+00	2.14E-01
				K-40	5.22E-01	3.09E-01	3.66E-01

Sample ID:	560791	Sample Dates:	2/14/2022 - 2/22/2022	Nuclide	Activity	2 Sigma Error	MDA
				I-131	<2.38E-02	0.00E+00	2.38E-02
				Cs-134	<2.16E-02	0.00E+00	2.16E-02
				Cs-137	<2.36E-02	0.00E+00	2.36E-02
				Be-7	<1.25E-01	0.00E+00	1.25E-01
				K-40	3.31E-01	1.90E-01	1.96E-01

Sample ID:	561127	Sample Dates:	2/22/2022 - 3/1/2022	Nuclide	Activity	2 Sigma Error	MDA
				I-131	<3.01E-02	0.00E+00	3.01E-02
				Cs-134	<2.89E-02	0.00E+00	2.89E-02
				Cs-137	<2.15E-02	0.00E+00	2.15E-02
				Be-7	<1.97E-01	0.00E+00	1.97E-01

ROBINSON Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 7 [INDICATOR - ESE @ 6.4 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
561127	2/22/2022 - 3/1/2022	K-40	<7.51E-01	0.00E+00	7.51E-01
561627	3/1/2022 - 3/8/2022	I-131	<2.59E-02	0.00E+00	2.59E-02
		Cs-134	<1.44E-02	0.00E+00	1.44E-02
		Cs-137	<2.37E-02	0.00E+00	2.37E-02
		Be-7	<1.59E-01	0.00E+00	1.59E-01
		K-40	6.69E-01	2.85E-01	2.39E-01
562210	3/8/2022 - 3/15/2022	I-131	<2.60E-02	0.00E+00	2.60E-02
		Cs-134	<2.07E-02	0.00E+00	2.07E-02
		Cs-137	<1.54E-02	0.00E+00	1.54E-02
		Be-7	<1.69E-01	0.00E+00	1.69E-01
		K-40	4.73E-01	2.20E-01	6.75E-02
562817	3/15/2022 - 3/22/2022	I-131	<3.81E-02	0.00E+00	3.81E-02
		Cs-134	<2.64E-02	0.00E+00	2.64E-02
		Cs-137	<3.60E-02	0.00E+00	3.60E-02
		Be-7	<2.01E-01	0.00E+00	2.01E-01
		K-40	5.48E-01	2.73E-01	2.78E-01
563755	3/28/2022 - 4/5/2022	I-131	<2.93E-02	0.00E+00	2.93E-02
		Cs-134	<2.34E-02	0.00E+00	2.34E-02
		Cs-137	<2.41E-02	0.00E+00	2.41E-02
		Be-7	<1.43E-01	0.00E+00	1.43E-01
		K-40	4.59E-01	2.67E-01	3.32E-01
563964	4/5/2022 - 4/13/2022	I-131	<5.50E-02	0.00E+00	5.50E-02
		Cs-134	<2.83E-02	0.00E+00	2.83E-02
		Cs-137	<2.16E-02	0.00E+00	2.16E-02
		Be-7	<2.41E-01	0.00E+00	2.41E-01
		K-40	4.35E-01	2.03E-01	6.20E-02
564519	4/13/2022 - 4/19/2022	I-131	<4.27E-02	0.00E+00	4.27E-02
		Cs-134	<4.36E-02	0.00E+00	4.36E-02
		Cs-137	<3.76E-02	0.00E+00	3.76E-02
		Be-7	<2.91E-01	0.00E+00	2.91E-01
		K-40	7.43E-01	3.46E-01	3.39E-01
564761	4/19/2022 - 4/25/2022	I-131	<2.97E-02	0.00E+00	2.97E-02
		Cs-134	<3.14E-02	0.00E+00	3.14E-02
		Cs-137	<1.41E-02	0.00E+00	1.41E-02
		Be-7	<9.35E-02	0.00E+00	9.35E-02
		K-40	2.89E-01	2.18E-01	2.70E-01
565279	4/25/2022 - 5/3/2022	I-131	<1.64E-02	0.00E+00	1.64E-02
		Cs-134	<2.13E-02	0.00E+00	2.13E-02
		Cs-137	<1.51E-02	0.00E+00	1.51E-02
		Be-7	<8.79E-02	0.00E+00	8.79E-02
		K-40	<5.69E-01	0.00E+00	5.69E-01
565937	5/3/2022 - 5/10/2022	I-131	<1.66E-02	0.00E+00	1.66E-02
		Cs-134	<1.38E-02	0.00E+00	1.38E-02
		Cs-137	<2.43E-02	0.00E+00	2.43E-02
		Be-7	<1.61E-01	0.00E+00	1.61E-01
		K-40	6.24E-01	2.77E-01	2.62E-01
566529	5/10/2022 - 5/17/2022	I-131	<3.73E-02	0.00E+00	3.73E-02
		Cs-134	<2.89E-02	0.00E+00	2.89E-02
		Cs-137	<2.73E-02	0.00E+00	2.73E-02

ROBINSON Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 7 [INDICATOR - ESE @ 6.4 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
566529	5/10/2022 - 5/17/2022	Be-7	<1.53E-01	0.00E+00	1.53E-01
		K-40	<5.14E-01	0.00E+00	5.14E-01
566869	5/17/2022 - 5/24/2022	I-131	<2.70E-02	0.00E+00	2.70E-02
		Cs-134	<1.78E-02	0.00E+00	1.78E-02
		Cs-137	<1.99E-02	0.00E+00	1.99E-02
		Be-7	<1.45E-01	0.00E+00	1.45E-01
		K-40	3.01E-01	2.57E-01	3.79E-01
567114	5/24/2022 - 5/31/2022	I-131	<3.69E-02	0.00E+00	3.69E-02
		Cs-134	<2.08E-02	0.00E+00	2.08E-02
		Cs-137	<2.49E-02	0.00E+00	2.49E-02
		Be-7	<2.05E-01	0.00E+00	2.05E-01
		K-40	<3.52E-01	0.00E+00	3.52E-01
567544	5/31/2022 - 6/7/2022	I-131	<2.61E-02	0.00E+00	2.61E-02
		Cs-134	<2.44E-02	0.00E+00	2.44E-02
		Cs-137	<2.26E-02	0.00E+00	2.26E-02
		Be-7	<1.95E-01	0.00E+00	1.95E-01
		K-40	4.56E-01	2.12E-01	6.51E-02
567720	6/7/2022 - 6/14/2022	I-131	<3.38E-02	0.00E+00	3.38E-02
		Cs-134	<1.97E-02	0.00E+00	1.97E-02
		Cs-137	<2.22E-02	0.00E+00	2.22E-02
		Be-7	<1.27E-01	0.00E+00	1.27E-01
		K-40	<4.64E-01	0.00E+00	4.64E-01
568356	6/14/2022 - 6/21/2022	I-131	<2.52E-02	0.00E+00	2.52E-02
		Cs-134	<2.62E-02	0.00E+00	2.62E-02
		Cs-137	<4.35E-03	0.00E+00	4.35E-03
		Be-7	<1.72E-01	0.00E+00	1.72E-01
		K-40	<5.98E-01	0.00E+00	5.98E-01
568586	6/21/2022 - 6/28/2022	I-131	<2.69E-02	0.00E+00	2.69E-02
		Cs-134	<1.73E-02	0.00E+00	1.73E-02
		Cs-137	<1.18E-02	0.00E+00	1.18E-02
		Be-7	<1.63E-01	0.00E+00	1.63E-01
		K-40	3.61E-01	1.88E-01	6.52E-02
568800	6/28/2022 - 7/5/2022	I-131	<2.87E-02	0.00E+00	2.87E-02
		Cs-134	<2.03E-02	0.00E+00	2.03E-02
		Cs-137	<2.58E-02	0.00E+00	2.58E-02
		Be-7	<1.19E-01	0.00E+00	1.19E-01
		K-40	5.97E-01	3.05E-01	3.60E-01
569033	7/5/2022 - 7/12/2022	I-131	<4.72E-02	0.00E+00	4.72E-02
		Cs-134	<2.28E-02	0.00E+00	2.28E-02
		Cs-137	<2.27E-02	0.00E+00	2.27E-02
		Be-7	<1.78E-01	0.00E+00	1.78E-01
		K-40	<6.16E-01	0.00E+00	6.16E-01
570269	7/12/2022 - 7/19/2022	I-131	<3.80E-02	0.00E+00	3.80E-02
		Cs-134	<2.37E-02	0.00E+00	2.37E-02
		Cs-137	<2.22E-02	0.00E+00	2.22E-02
		Be-7	<1.58E-01	0.00E+00	1.58E-01
		K-40	3.74E-01	2.60E-01	3.47E-01
570833	7/19/2022 - 7/25/2022	I-131	<2.77E-02	0.00E+00	2.77E-02
		Cs-134	<1.91E-02	0.00E+00	1.91E-02

ROBINSON Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 7 [INDICATOR - ESE @ 6.4 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
570833	7/19/2022 - 7/25/2022	Cs-137	<2.32E-02	0.00E+00	2.32E-02
		Be-7	<1.87E-01	0.00E+00	1.87E-01
		K-40	3.32E-01	2.20E-01	2.54E-01
571074	7/25/2022 - 8/2/2022	I-131	<4.18E-02	0.00E+00	4.18E-02
		Cs-134	<2.51E-02	0.00E+00	2.51E-02
		Cs-137	<1.72E-02	0.00E+00	1.72E-02
		Be-7	<1.56E-01	0.00E+00	1.56E-01
		K-40	<4.32E-01	0.00E+00	4.32E-01
571367	8/2/2022 - 8/9/2022	I-131	<2.10E-02	0.00E+00	2.10E-02
		Cs-134	<2.46E-02	0.00E+00	2.46E-02
		Cs-137	<2.43E-02	0.00E+00	2.43E-02
		Be-7	<1.31E-01	0.00E+00	1.31E-01
		K-40	6.62E-01	2.60E-01	6.65E-02
571653	8/9/2022 - 8/16/2022	I-131	<2.89E-02	0.00E+00	2.89E-02
		Cs-134	<2.51E-02	0.00E+00	2.51E-02
		Cs-137	<2.33E-02	0.00E+00	2.33E-02
		Be-7	<1.83E-01	0.00E+00	1.83E-01
		K-40	5.77E-01	2.91E-01	3.31E-01
572681	8/16/2022 - 8/23/2022	I-131	<4.04E-02	0.00E+00	4.04E-02
		Cs-134	<2.79E-02	0.00E+00	2.79E-02
		Cs-137	<2.81E-02	0.00E+00	2.81E-02
		Be-7	<1.70E-01	0.00E+00	1.70E-01
		K-40	2.26E-01	2.56E-01	4.07E-01
573981	8/23/2022 - 8/29/2022	I-131	<3.32E-02	0.00E+00	3.32E-02
		Cs-134	<3.09E-02	0.00E+00	3.09E-02
		Cs-137	<2.81E-02	0.00E+00	2.81E-02
		Be-7	<1.41E-01	0.00E+00	1.41E-01
		K-40	4.43E-01	2.44E-01	2.43E-01
574510	8/29/2022 - 9/6/2022	I-131	<4.53E-02	0.00E+00	4.53E-02
		Cs-134	<1.58E-02	0.00E+00	1.58E-02
		Cs-137	<2.18E-02	0.00E+00	2.18E-02
		Be-7	<1.53E-01	0.00E+00	1.53E-01
		K-40	3.63E-01	2.12E-01	2.37E-01
574977	9/6/2022 - 9/14/2022	I-131	<2.07E-02	0.00E+00	2.07E-02
		Cs-134	<2.00E-02	0.00E+00	2.00E-02
		Cs-137	<1.06E-02	0.00E+00	1.06E-02
		Be-7	<7.12E-02	0.00E+00	7.12E-02
		K-40	5.00E-01	2.90E-01	3.87E-01
575666	9/14/2022 - 9/19/2022	I-131	<3.02E-02	0.00E+00	3.02E-02
		Cs-134	<3.31E-02	0.00E+00	3.31E-02
		Cs-137	<2.86E-02	0.00E+00	2.86E-02
		Be-7	<2.06E-01	0.00E+00	2.06E-01
		K-40	<7.54E-01	0.00E+00	7.54E-01
576031	9/19/2022 - 9/26/2022	I-131	<2.05E-02	0.00E+00	2.05E-02
		Cs-134	<2.99E-02	0.00E+00	2.99E-02
		Cs-137	<1.75E-02	0.00E+00	1.75E-02
		Be-7	<1.02E-01	0.00E+00	1.02E-01
		K-40	<5.19E-01	0.00E+00	5.19E-01
576233	9/26/2022 - 10/3/2022	I-131	<2.83E-02	0.00E+00	2.83E-02

ROBINSON Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 7 [INDICATOR - ESE @ 6.4 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
576233	9/26/2022 - 10/3/2022	Cs-134	<2.74E-02	0.00E+00	2.74E-02
		Cs-137	<2.51E-02	0.00E+00	2.51E-02
		Be-7	<1.88E-01	0.00E+00	1.88E-01
		K-40	5.22E-01	2.46E-01	2.04E-01
576504	10/3/2022 - 10/11/2022	I-131	<2.34E-02	0.00E+00	2.34E-02
		Cs-134	<1.20E-02	0.00E+00	1.20E-02
		Cs-137	<1.52E-02	0.00E+00	1.52E-02
		Be-7	<1.52E-01	0.00E+00	1.52E-01
		K-40	<4.86E-01	0.00E+00	4.86E-01
577142	10/11/2022 - 10/18/2022	I-131	<3.00E-02	0.00E+00	3.00E-02
		Cs-134	<2.32E-02	0.00E+00	2.32E-02
		Cs-137	<1.79E-02	0.00E+00	1.79E-02
		Be-7	<2.11E-01	0.00E+00	2.11E-01
		K-40	6.92E-01	3.48E-01	4.33E-01
577731	10/18/2022 - 10/25/2022	I-131	<1.96E-02	0.00E+00	1.96E-02
		Cs-134	<1.87E-02	0.00E+00	1.87E-02
		Cs-137	<1.86E-02	0.00E+00	1.86E-02
		Be-7	<1.90E-01	0.00E+00	1.90E-01
		K-40	3.34E-01	2.34E-01	3.02E-01
578093	10/25/2022 - 11/1/2022	I-131	<3.51E-02	0.00E+00	3.51E-02
		Cs-134	<2.64E-02	0.00E+00	2.64E-02
		Cs-137	<2.07E-02	0.00E+00	2.07E-02
		Be-7	<1.92E-01	0.00E+00	1.92E-01
		K-40	3.27E-01	2.60E-01	3.67E-01
578803	11/1/2022 - 11/8/2022	I-131	<3.55E-02	0.00E+00	3.55E-02
		Cs-134	<5.46E-03	0.00E+00	5.46E-03
		Cs-137	<2.60E-02	0.00E+00	2.60E-02
		Be-7	<1.83E-01	0.00E+00	1.83E-01
		K-40	3.44E-01	2.30E-01	2.82E-01
578995	11/8/2022 - 11/15/2022	I-131	<2.50E-02	0.00E+00	2.50E-02
		Cs-134	<2.41E-02	0.00E+00	2.41E-02
		Cs-137	<2.44E-02	0.00E+00	2.44E-02
		Be-7	<1.62E-01	0.00E+00	1.62E-01
		K-40	<4.66E-01	0.00E+00	4.66E-01
579747	11/15/2022 - 11/22/2022	I-131	<3.40E-02	0.00E+00	3.40E-02
		Cs-134	<2.27E-02	0.00E+00	2.27E-02
		Cs-137	<1.95E-02	0.00E+00	1.95E-02
		Be-7	<1.82E-01	0.00E+00	1.82E-01
		K-40	4.33E-01	2.71E-01	3.53E-01
580569	11/22/2022 - 11/29/2022	I-131	<2.33E-02	0.00E+00	2.33E-02
		Cs-134	<1.95E-02	0.00E+00	1.95E-02
		Cs-137	<1.15E-02	0.00E+00	1.15E-02
		Be-7	<1.76E-01	0.00E+00	1.76E-01
		K-40	3.10E-01	2.41E-01	3.41E-01
580784	11/29/2022 - 12/6/2022	I-131	<2.54E-02	0.00E+00	2.54E-02
		Cs-134	<1.75E-02	0.00E+00	1.75E-02
		Cs-137	<1.95E-02	0.00E+00	1.95E-02
		Be-7	<1.54E-01	0.00E+00	1.54E-01
		K-40	3.51E-01	2.07E-01	2.13E-01

ROBINSON Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 7 [INDICATOR - ESE @ 6.4 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
581106	12/6/2022 - 12/13/2022	I-131	<3.60E-02	0.00E+00	3.60E-02
		Cs-134	<1.79E-02	0.00E+00	1.79E-02
		Cs-137	<2.49E-02	0.00E+00	2.49E-02
		Be-7	<1.58E-01	0.00E+00	1.58E-01
		K-40	4.98E-01	3.22E-01	4.45E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
581668	12/13/2022 - 12/20/2022	I-131	<4.93E-02	0.00E+00	4.93E-02
		Cs-134	<2.45E-02	0.00E+00	2.45E-02
		Cs-137	<1.93E-02	0.00E+00	1.93E-02
		Be-7	<1.52E-01	0.00E+00	1.52E-01
		K-40	<5.14E-01	0.00E+00	5.14E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
582212	12/20/2022 - 12/27/2022	I-131	<6.26E-02	0.00E+00	6.26E-02
		Cs-134	<2.73E-02	0.00E+00	2.73E-02
		Cs-137	<1.97E-02	0.00E+00	1.97E-02
		Be-7	<2.37E-01	0.00E+00	2.37E-01
		K-40	6.09E-01	2.53E-01	6.88E-02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
582399	12/27/2022 - 1/3/2023	I-131	<3.30E-02	0.00E+00	3.30E-02
		Cs-134	<1.86E-02	0.00E+00	1.86E-02
		Cs-137	<2.26E-02	0.00E+00	2.26E-02
		Be-7	<2.00E-01	0.00E+00	2.00E-01
		K-40	<4.07E-01	0.00E+00	4.07E-01

Sample Point 55 [INDICATOR - SSE @ 0.2 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
558830	1/4/2022 - 1/11/2022	I-131	<4.22E-02	0.00E+00	4.22E-02
		Cs-134	<2.06E-02	0.00E+00	2.06E-02
		Cs-137	<2.32E-02	0.00E+00	2.32E-02
		Be-7	<1.97E-01	0.00E+00	1.97E-01
		K-40	6.13E-01	2.50E-01	6.64E-02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
559045	1/11/2022 - 1/18/2022	I-131	<2.54E-02	0.00E+00	2.54E-02
		Cs-134	<2.66E-02	0.00E+00	2.66E-02
		Cs-137	<2.71E-02	0.00E+00	2.71E-02
		Be-7	<1.73E-01	0.00E+00	1.73E-01
		K-40	2.96E-01	2.44E-01	3.53E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
559551	1/18/2022 - 1/25/2022	I-131	<1.73E-02	0.00E+00	1.73E-02
		Cs-134	<2.87E-02	0.00E+00	2.87E-02
		Cs-137	<1.98E-02	0.00E+00	1.98E-02
		Be-7	<1.65E-01	0.00E+00	1.65E-01
		K-40	<4.32E-01	0.00E+00	4.32E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
559552	1/25/2022 - 2/1/2022	I-131	<2.89E-02	0.00E+00	2.89E-02
		Cs-134	<2.55E-02	0.00E+00	2.55E-02
		Cs-137	<1.81E-02	0.00E+00	1.81E-02
		Be-7	<1.21E-01	0.00E+00	1.21E-01
		K-40	2.84E-01	1.82E-01	1.72E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
560238	2/1/2022 - 2/8/2022	I-131	<3.04E-02	0.00E+00	3.04E-02
		Cs-134	<1.38E-02	0.00E+00	1.38E-02
		Cs-137	<1.74E-02	0.00E+00	1.74E-02
		Be-7	<1.95E-01	0.00E+00	1.95E-01
		K-40	5.77E-01	2.40E-01	6.51E-02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
560108	2/8/2022 - 2/14/2022	I-131	<2.08E-02	0.00E+00	2.08E-02
		Cs-134	<2.01E-02	0.00E+00	2.01E-02
		Cs-137	<1.38E-02	0.00E+00	1.38E-02
		Be-7	<1.74E-01	0.00E+00	1.74E-01

ROBINSON Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 55 [INDICATOR - SSE @ 0.2 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
560108	2/8/2022 - 2/14/2022	K-40	<3.98E-01	0.00E+00	3.98E-01
560787	2/14/2022 - 2/22/2022	I-131	<3.25E-02	0.00E+00	3.25E-02
		Cs-134	<3.17E-02	0.00E+00	3.17E-02
		Cs-137	<2.21E-02	0.00E+00	2.21E-02
		Be-7	<1.83E-01	0.00E+00	1.83E-01
		K-40	3.32E-01	2.10E-01	2.46E-01
561123	2/22/2022 - 3/1/2022	I-131	<3.19E-02	0.00E+00	3.19E-02
		Cs-134	<1.75E-02	0.00E+00	1.75E-02
		Cs-137	<2.13E-02	0.00E+00	2.13E-02
		Be-7	<1.54E-01	0.00E+00	1.54E-01
		K-40	4.81E-01	2.85E-01	3.67E-01
561623	3/1/2022 - 3/8/2022	I-131	<4.01E-02	0.00E+00	4.01E-02
		Cs-134	<2.45E-02	0.00E+00	2.45E-02
		Cs-137	<3.18E-02	0.00E+00	3.18E-02
		Be-7	<2.12E-01	0.00E+00	2.12E-01
		K-40	4.77E-01	2.57E-01	2.70E-01
562206	3/8/2022 - 3/15/2022	I-131	<2.75E-02	0.00E+00	2.75E-02
		Cs-134	<2.53E-02	0.00E+00	2.53E-02
		Cs-137	<1.55E-02	0.00E+00	1.55E-02
		Be-7	<1.59E-01	0.00E+00	1.59E-01
		K-40	2.74E-01	1.67E-01	6.76E-02
562813	3/15/2022 - 3/22/2022	I-131	<2.51E-02	0.00E+00	2.51E-02
		Cs-134	<1.93E-02	0.00E+00	1.93E-02
		Cs-137	<1.86E-02	0.00E+00	1.86E-02
		Be-7	<1.72E-01	0.00E+00	1.72E-01
		K-40	<4.85E-01	0.00E+00	4.85E-01
563408	3/22/2022 - 3/28/2022	I-131	<2.62E-02	0.00E+00	2.62E-02
		Cs-134	<2.83E-02	0.00E+00	2.83E-02
		Cs-137	<2.23E-02	0.00E+00	2.23E-02
		Be-7	<2.15E-01	0.00E+00	2.15E-01
		K-40	7.29E-01	2.92E-01	7.60E-02
563751	3/28/2022 - 4/5/2022	I-131	<3.19E-02	0.00E+00	3.19E-02
		Cs-134	<1.53E-02	0.00E+00	1.53E-02
		Cs-137	<2.12E-02	0.00E+00	2.12E-02
		Be-7	<1.59E-01	0.00E+00	1.59E-01
		K-40	4.48E-01	2.41E-01	2.86E-01
563960	4/5/2022 - 4/13/2022	I-131	<3.38E-02	0.00E+00	3.38E-02
		Cs-134	<2.37E-02	0.00E+00	2.37E-02
		Cs-137	<2.52E-02	0.00E+00	2.52E-02
		Be-7	<7.49E-02	0.00E+00	7.49E-02
		K-40	<4.77E-01	0.00E+00	4.77E-01
564515	4/13/2022 - 4/19/2022	I-131	<2.30E-02	0.00E+00	2.30E-02
		Cs-134	<2.36E-02	0.00E+00	2.36E-02
		Cs-137	<2.84E-02	0.00E+00	2.84E-02
		Be-7	<1.50E-01	0.00E+00	1.50E-01
		K-40	6.64E-01	3.06E-01	2.81E-01
564757	4/19/2022 - 4/25/2022	I-131	<3.01E-02	0.00E+00	3.01E-02
		Cs-134	<2.42E-02	0.00E+00	2.42E-02
		Cs-137	<2.74E-02	0.00E+00	2.74E-02

ROBINSON Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 55 [INDICATOR - SSE @ 0.2 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
564757	4/19/2022 - 4/25/2022	Be-7	<2.04E-01	0.00E+00	2.04E-01
		K-40	7.15E-01	3.13E-01	2.58E-01
		I-131	<2.22E-02	0.00E+00	2.22E-02
		Cs-134	<2.43E-02	0.00E+00	2.43E-02
565275	4/25/2022 - 5/3/2022	Cs-137	<1.30E-02	0.00E+00	1.30E-02
		Be-7	<1.67E-01	0.00E+00	1.67E-01
		K-40	3.21E-01	2.25E-01	3.07E-01
		I-131	<2.95E-02	0.00E+00	2.95E-02
565934	5/3/2022 - 5/10/2022	Cs-134	<2.27E-02	0.00E+00	2.27E-02
		Cs-137	<2.14E-02	0.00E+00	2.14E-02
		Be-7	<1.88E-01	0.00E+00	1.88E-01
		K-40	<5.82E-01	0.00E+00	5.82E-01
566526	5/10/2022 - 5/17/2022	I-131	<2.48E-02	0.00E+00	2.48E-02
		Cs-134	<2.36E-02	0.00E+00	2.36E-02
		Cs-137	<2.03E-02	0.00E+00	2.03E-02
		Be-7	<1.26E-01	0.00E+00	1.26E-01
566866	5/17/2022 - 5/24/2022	K-40	<4.72E-01	0.00E+00	4.72E-01
		I-131	<3.32E-02	0.00E+00	3.32E-02
		Cs-134	<3.00E-02	0.00E+00	3.00E-02
		Cs-137	<3.14E-02	0.00E+00	3.14E-02
567111	5/24/2022 - 5/31/2022	Be-7	<1.76E-01	0.00E+00	1.76E-01
		K-40	3.43E-01	2.41E-01	3.18E-01
		I-131	<3.03E-02	0.00E+00	3.03E-02
		Cs-134	<2.55E-02	0.00E+00	2.55E-02
567541	5/31/2022 - 6/7/2022	Cs-137	<2.82E-02	0.00E+00	2.82E-02
		Be-7	<1.45E-01	0.00E+00	1.45E-01
		K-40	<4.71E-01	0.00E+00	4.71E-01
		I-131	<2.84E-02	0.00E+00	2.84E-02
567717	6/7/2022 - 6/14/2022	Cs-134	<2.51E-02	0.00E+00	2.51E-02
		Cs-137	<2.62E-02	0.00E+00	2.62E-02
		Be-7	<2.09E-01	0.00E+00	2.09E-01
		K-40	4.96E-01	2.93E-01	3.75E-01
567717	6/7/2022 - 6/14/2022	I-131	<2.57E-02	0.00E+00	2.57E-02
		Cs-134	<2.28E-02	0.00E+00	2.28E-02
		Cs-137	<1.52E-02	0.00E+00	1.52E-02
		Be-7	<1.84E-01	0.00E+00	1.84E-01
568353	6/14/2022 - 6/21/2022	K-40	4.98E-01	2.56E-01	2.68E-01
		I-131	<2.94E-02	0.00E+00	2.94E-02
		Cs-134	<2.47E-02	0.00E+00	2.47E-02
		Cs-137	<2.26E-02	0.00E+00	2.26E-02
568583	6/21/2022 - 6/28/2022	Be-7	<1.83E-01	0.00E+00	1.83E-01
		K-40	5.32E-01	2.85E-01	3.34E-01
		I-131	<2.56E-02	0.00E+00	2.56E-02
		Cs-134	<2.69E-02	0.00E+00	2.69E-02
568583	6/21/2022 - 6/28/2022	Cs-137	<2.61E-02	0.00E+00	2.61E-02
		Be-7	<1.92E-01	0.00E+00	1.92E-01
		K-40	<5.06E-01	0.00E+00	5.06E-01
		I-131	<2.57E-02	0.00E+00	2.57E-02
568797	6/28/2022 - 7/5/2022	Cs-134	<2.24E-02	0.00E+00	2.24E-02
		I-131	<3.54E-02	0.00E+00	3.54E-02

ROBINSON Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 55 [INDICATOR - SSE @ 0.2 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA	
568797	6/28/2022 - 7/5/2022	Cs-137	<2.28E-02	0.00E+00	2.28E-02	
		Be-7	<1.91E-01	0.00E+00	1.91E-01	
		K-40	<5.88E-01	0.00E+00	5.88E-01	
569030	7/5/2022 - 7/12/2022	I-131	<3.56E-02	0.00E+00	3.56E-02	
		Cs-134	<2.60E-02	0.00E+00	2.60E-02	
		Cs-137	<1.17E-02	0.00E+00	1.17E-02	
		Be-7	<1.89E-01	0.00E+00	1.89E-01	
		K-40	3.76E-01	2.40E-01	3.02E-01	
570266	7/12/2022 - 7/19/2022	I-131	<3.95E-02	0.00E+00	3.95E-02	
		Cs-134	<1.96E-02	0.00E+00	1.96E-02	
		Cs-137	<1.88E-02	0.00E+00	1.88E-02	
		Be-7	<1.20E-01	0.00E+00	1.20E-01	
		K-40	3.92E-01	2.40E-01	2.95E-01	
570830	7/19/2022 - 7/25/2022	I-131	<2.53E-02	0.00E+00	2.53E-02	
		Cs-134	<2.38E-02	0.00E+00	2.38E-02	
		Cs-137	<2.29E-02	0.00E+00	2.29E-02	
		Be-7	<2.02E-01	0.00E+00	2.02E-01	
		K-40	3.80E-01	2.46E-01	2.88E-01	
571071	7/25/2022 - 8/2/2022	I-131	<4.58E-02	0.00E+00	4.58E-02	
		Cs-134	<1.82E-02	0.00E+00	1.82E-02	
		Cs-137	<1.88E-02	0.00E+00	1.88E-02	
		Be-7	<1.86E-01	0.00E+00	1.86E-01	
		K-40	<5.14E-01	0.00E+00	5.14E-01	
571364	8/2/2022 - 8/9/2022	I-131	<2.85E-02	0.00E+00	2.85E-02	
		Cs-134	<2.74E-02	0.00E+00	2.74E-02	
		Cs-137	<1.80E-02	0.00E+00	1.80E-02	
		Be-7	<2.02E-01	0.00E+00	2.02E-01	
		K-40	5.86E-01	2.69E-01	2.42E-01	
571650	8/9/2022 - 8/16/2022	I-131	<2.29E-02	0.00E+00	2.29E-02	
		Cs-134	<2.16E-02	0.00E+00	2.16E-02	
		Cs-137	<2.58E-02	0.00E+00	2.58E-02	
		Be-7	<1.36E-01	0.00E+00	1.36E-01	
		K-40	3.97E-01	1.95E-01	6.32E-02	
572678	8/16/2022 - 8/23/2022	I-131	<3.51E-02	0.00E+00	3.51E-02	
		Cs-134	<2.99E-02	0.00E+00	2.99E-02	
		Cs-137	<2.42E-02	0.00E+00	2.42E-02	
		Be-7	<1.40E-01	0.00E+00	1.40E-01	
		K-40	<6.02E-01	0.00E+00	6.02E-01	
573978	8/23/2022 - 8/29/2022	I-131	<3.16E-02	0.00E+00	3.16E-02	
		Cs-134	<2.96E-02	0.00E+00	2.96E-02	
		Cs-137	<5.27E-03	0.00E+00	5.27E-03	
		Be-7	<2.25E-01	0.00E+00	2.25E-01	
		K-40	4.91E-01	2.98E-01	3.64E-01	
574507	8/29/2022 - 9/6/2022	I-131	<2.44E-02	0.00E+00	2.44E-02	
		Cs-134	<2.67E-02	0.00E+00	2.67E-02	
		Cs-137	<1.74E-02	0.00E+00	1.74E-02	
		Be-7	<1.66E-01	0.00E+00	1.66E-01	
		K-40	3.86E-01	2.78E-01	4.00E-01	
574974	9/6/2022 - 9/14/2022	Nuclide	Activity	2 Sigma Error	MDA	
		I-131	<2.35E-02	0.00E+00	2.35E-02	

ROBINSON Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 55 [INDICATOR - SSE @ 0.2 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
574974	9/6/2022 - 9/14/2022	Cs-134	<1.20E-02	0.00E+00	1.20E-02
		Cs-137	<1.04E-02	0.00E+00	1.04E-02
		Be-7	<1.13E-01	0.00E+00	1.13E-01
		K-40	6.27E-01	2.34E-01	5.66E-02
575663	9/14/2022 - 9/19/2022	I-131	<3.51E-02	0.00E+00	3.51E-02
		Cs-134	<2.48E-02	0.00E+00	2.48E-02
		Cs-137	<3.84E-02	0.00E+00	3.84E-02
		Be-7	<2.16E-01	0.00E+00	2.16E-01
		K-40	<7.68E-01	0.00E+00	7.68E-01
576028	9/19/2022 - 9/26/2022	I-131	<3.07E-02	0.00E+00	3.07E-02
		Cs-134	<2.47E-02	0.00E+00	2.47E-02
		Cs-137	<2.58E-02	0.00E+00	2.58E-02
		Be-7	<8.03E-02	0.00E+00	8.03E-02
		K-40	4.10E-01	2.01E-01	6.53E-02
576230	9/26/2022 - 10/3/2022	I-131	<3.18E-02	0.00E+00	3.18E-02
		Cs-134	<2.55E-02	0.00E+00	2.55E-02
		Cs-137	<2.04E-02	0.00E+00	2.04E-02
		Be-7	<1.49E-01	0.00E+00	1.49E-01
		K-40	3.81E-01	2.20E-01	2.41E-01
576501	10/3/2022 - 10/11/2022	I-131	<3.77E-02	0.00E+00	3.77E-02
		Cs-134	<1.62E-02	0.00E+00	1.62E-02
		Cs-137	<2.11E-02	0.00E+00	2.11E-02
		Be-7	<1.67E-01	0.00E+00	1.67E-01
		K-40	<5.67E-01	0.00E+00	5.67E-01
577139	10/11/2022 - 10/18/2022	I-131	<2.74E-02	0.00E+00	2.74E-02
		Cs-134	<2.31E-02	0.00E+00	2.31E-02
		Cs-137	<2.17E-02	0.00E+00	2.17E-02
		Be-7	<1.68E-01	0.00E+00	1.68E-01
		K-40	3.49E-01	1.89E-01	6.76E-02
577728	10/18/2022 - 10/25/2022	I-131	<3.07E-02	0.00E+00	3.07E-02
		Cs-134	<2.55E-02	0.00E+00	2.55E-02
		Cs-137	<1.68E-02	0.00E+00	1.68E-02
		Be-7	<1.12E-01	0.00E+00	1.12E-01
		K-40	3.29E-01	2.23E-01	2.86E-01
578090	10/25/2022 - 11/1/2022	I-131	<3.75E-02	0.00E+00	3.75E-02
		Cs-134	<2.64E-02	0.00E+00	2.64E-02
		Cs-137	<2.87E-02	0.00E+00	2.87E-02
		Be-7	<1.73E-01	0.00E+00	1.73E-01
		K-40	<6.27E-01	0.00E+00	6.27E-01
578800	11/1/2022 - 11/8/2022	I-131	<2.17E-02	0.00E+00	2.17E-02
		Cs-134	<1.34E-02	0.00E+00	1.34E-02
		Cs-137	<1.45E-02	0.00E+00	1.45E-02
		Be-7	<1.49E-01	0.00E+00	1.49E-01
		K-40	<5.56E-01	0.00E+00	5.56E-01
578992	11/8/2022 - 11/15/2022	I-131	<2.18E-02	0.00E+00	2.18E-02
		Cs-134	<1.68E-02	0.00E+00	1.68E-02
		Cs-137	<1.68E-02	0.00E+00	1.68E-02
		Be-7	<1.58E-01	0.00E+00	1.58E-01
		K-40	<4.10E-01	0.00E+00	4.10E-01

ROBINSON Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 55 [INDICATOR - SSE @ 0.2 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
579744	11/15/2022 - 11/22/2022	I-131	<4.68E-02	0.00E+00	4.68E-02
		Cs-134	<2.64E-02	0.00E+00	2.64E-02
		Cs-137	<2.11E-02	0.00E+00	2.11E-02
		Be-7	<1.84E-01	0.00E+00	1.84E-01
		K-40	3.07E-01	2.33E-01	3.21E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
580566	11/22/2022 - 11/29/2022	I-131	<5.32E-02	0.00E+00	5.32E-02
		Cs-134	<2.10E-02	0.00E+00	2.10E-02
		Cs-137	<2.11E-02	0.00E+00	2.11E-02
		Be-7	<1.87E-01	0.00E+00	1.87E-01
		K-40	7.33E-01	2.89E-01	3.63E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
580781	11/29/2022 - 12/6/2022	I-131	<2.45E-02	0.00E+00	2.45E-02
		Cs-134	<2.23E-02	0.00E+00	2.23E-02
		Cs-137	<2.10E-02	0.00E+00	2.10E-02
		Be-7	<1.64E-01	0.00E+00	1.64E-01
		K-40	<5.71E-01	0.00E+00	5.71E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
581103	12/6/2022 - 12/13/2022	I-131	<2.61E-02	0.00E+00	2.61E-02
		Cs-134	<3.13E-02	0.00E+00	3.13E-02
		Cs-137	<2.55E-02	0.00E+00	2.55E-02
		Be-7	<1.05E-01	0.00E+00	1.05E-01
		K-40	4.50E-01	2.77E-01	3.54E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
581665	12/13/2022 - 12/20/2022	I-131	<3.96E-02	0.00E+00	3.96E-02
		Cs-134	<1.41E-02	0.00E+00	1.41E-02
		Cs-137	<1.98E-02	0.00E+00	1.98E-02
		Be-7	<1.55E-01	0.00E+00	1.55E-01
		K-40	4.31E-01	2.26E-01	2.13E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
582209	12/20/2022 - 12/27/2022	I-131	<6.00E-02	0.00E+00	6.00E-02
		Cs-134	<2.23E-02	0.00E+00	2.23E-02
		Cs-137	<2.24E-02	0.00E+00	2.24E-02
		Be-7	<1.63E-01	0.00E+00	1.63E-01
		K-40	7.91E-01	3.01E-01	2.38E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
582396	12/27/2022 - 1/3/2023	I-131	<2.95E-02	0.00E+00	2.95E-02
		Cs-134	<3.00E-02	0.00E+00	3.00E-02
		Cs-137	<2.13E-02	0.00E+00	2.13E-02
		Be-7	<1.91E-01	0.00E+00	1.91E-01
		K-40	4.82E-01	2.38E-01	2.14E-01

Sample Point 60 [INDICATOR - SE @ 0.2 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
558832	1/4/2022 - 1/11/2022	I-131	<3.99E-02	0.00E+00	3.99E-02
		Cs-134	<1.41E-02	0.00E+00	1.41E-02
		Cs-137	<2.32E-02	0.00E+00	2.32E-02
		Be-7	<1.42E-01	0.00E+00	1.42E-01
		K-40	3.52E-01	2.20E-01	2.54E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
559047	1/11/2022 - 1/18/2022	I-131	<3.34E-02	0.00E+00	3.34E-02
		Cs-134	<3.42E-02	0.00E+00	3.42E-02
		Cs-137	<3.20E-02	0.00E+00	3.20E-02
		Be-7	<2.73E-01	0.00E+00	2.73E-01
		K-40	6.37E-01	2.93E-01	2.76E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
559557	1/18/2022 - 1/25/2022	I-131	<2.42E-02	0.00E+00	2.42E-02
		Cs-134	<1.40E-02	0.00E+00	1.40E-02
		Cs-137	<4.45E-03	0.00E+00	4.45E-03
		Be-7	<1.75E-01	0.00E+00	1.75E-01

ROBINSON Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 60 [INDICATOR - SE @ 0.2 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
559557	1/18/2022 - 1/25/2022	K-40	<3.71E-01	0.00E+00	3.71E-01
559558	1/25/2022 - 2/1/2022	I-131	<2.86E-02	0.00E+00	2.86E-02
		Cs-134	<2.35E-02	0.00E+00	2.35E-02
		Cs-137	<2.38E-02	0.00E+00	2.38E-02
		Be-7	<1.21E-01	0.00E+00	1.21E-01
		K-40	5.82E-01	3.08E-01	3.71E-01
560240	2/1/2022 - 2/8/2022	I-131	<4.31E-02	0.00E+00	4.31E-02
		Cs-134	<3.05E-02	0.00E+00	3.05E-02
		Cs-137	<2.47E-02	0.00E+00	2.47E-02
		Be-7	<2.26E-01	0.00E+00	2.26E-01
		K-40	1.74E-01	2.15E-01	3.46E-01
560110	2/8/2022 - 2/14/2022	I-131	<2.14E-02	0.00E+00	2.14E-02
		Cs-134	<5.98E-03	0.00E+00	5.98E-03
		Cs-137	<2.69E-02	0.00E+00	2.69E-02
		Be-7	<1.66E-01	0.00E+00	1.66E-01
		K-40	<5.40E-01	0.00E+00	5.40E-01
560789	2/14/2022 - 2/22/2022	I-131	<2.62E-02	0.00E+00	2.62E-02
		Cs-134	<2.43E-02	0.00E+00	2.43E-02
		Cs-137	<1.37E-02	0.00E+00	1.37E-02
		Be-7	<1.54E-01	0.00E+00	1.54E-01
		K-40	<5.14E-01	0.00E+00	5.14E-01
561125	2/22/2022 - 3/1/2022	I-131	<3.93E-02	0.00E+00	3.93E-02
		Cs-134	<2.45E-02	0.00E+00	2.45E-02
		Cs-137	<1.63E-02	0.00E+00	1.63E-02
		Be-7	<2.52E-01	0.00E+00	2.52E-01
		K-40	6.03E-01	3.14E-01	3.70E-01
561625	3/1/2022 - 3/8/2022	I-131	<4.07E-02	0.00E+00	4.07E-02
		Cs-134	<2.53E-02	0.00E+00	2.53E-02
		Cs-137	<2.74E-02	0.00E+00	2.74E-02
		Be-7	<2.32E-01	0.00E+00	2.32E-01
		K-40	8.94E-01	3.11E-01	6.92E-02
562208	3/8/2022 - 3/15/2022	I-131	<2.69E-02	0.00E+00	2.69E-02
		Cs-134	<2.85E-02	0.00E+00	2.85E-02
		Cs-137	<1.97E-02	0.00E+00	1.97E-02
		Be-7	<1.92E-01	0.00E+00	1.92E-01
		K-40	6.91E-01	3.36E-01	4.05E-01
562815	3/15/2022 - 3/22/2022	I-131	<2.68E-02	0.00E+00	2.68E-02
		Cs-134	<2.44E-02	0.00E+00	2.44E-02
		Cs-137	<2.10E-02	0.00E+00	2.10E-02
		Be-7	<1.77E-01	0.00E+00	1.77E-01
		K-40	<5.35E-01	0.00E+00	5.35E-01
563410	3/22/2022 - 3/28/2022	I-131	<2.51E-02	0.00E+00	2.51E-02
		Cs-134	<3.37E-02	0.00E+00	3.37E-02
		Cs-137	<1.80E-02	0.00E+00	1.80E-02
		Be-7	<1.67E-01	0.00E+00	1.67E-01
		K-40	<6.29E-01	0.00E+00	6.29E-01
563753	3/28/2022 - 4/5/2022	I-131	<3.94E-02	0.00E+00	3.94E-02
		Cs-134	<2.33E-02	0.00E+00	2.33E-02
		Cs-137	<2.88E-02	0.00E+00	2.88E-02

ROBINSON Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 60 [INDICATOR - SE @ 0.2 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
563753	3/28/2022 - 4/5/2022	Be-7	<1.95E-01	0.00E+00	1.95E-01
		K-40	5.18E-01	2.79E-01	3.41E-01
563962	4/5/2022 - 4/13/2022	I-131	<3.47E-02	0.00E+00	3.47E-02
		Cs-134	<2.41E-02	0.00E+00	2.41E-02
		Cs-137	<1.93E-02	0.00E+00	1.93E-02
		Be-7	<1.47E-01	0.00E+00	1.47E-01
		K-40	3.06E-01	1.80E-01	1.76E-01
564517	4/13/2022 - 4/19/2022	I-131	<2.41E-02	0.00E+00	2.41E-02
		Cs-134	<2.98E-02	0.00E+00	2.98E-02
		Cs-137	<1.44E-02	0.00E+00	1.44E-02
		Be-7	<1.57E-01	0.00E+00	1.57E-01
		K-40	<5.34E-01	0.00E+00	5.34E-01
564759	4/19/2022 - 4/25/2022	I-131	<2.72E-02	0.00E+00	2.72E-02
		Cs-134	<2.54E-02	0.00E+00	2.54E-02
		Cs-137	<2.74E-02	0.00E+00	2.74E-02
		Be-7	<1.82E-01	0.00E+00	1.82E-01
		K-40	6.09E-01	3.05E-01	3.27E-01
565277	4/25/2022 - 5/3/2022	I-131	<2.65E-02	0.00E+00	2.65E-02
		Cs-134	<1.55E-02	0.00E+00	1.55E-02
		Cs-137	<2.28E-02	0.00E+00	2.28E-02
		Be-7	<1.63E-01	0.00E+00	1.63E-01
		K-40	3.67E-01	1.81E-01	5.86E-02
565936	5/3/2022 - 5/10/2022	I-131	<3.14E-02	0.00E+00	3.14E-02
		Cs-134	<3.07E-02	0.00E+00	3.07E-02
		Cs-137	<2.62E-02	0.00E+00	2.62E-02
		Be-7	<2.11E-01	0.00E+00	2.11E-01
		K-40	<5.76E-01	0.00E+00	5.76E-01
566528	5/10/2022 - 5/17/2022	I-131	<4.75E-02	0.00E+00	4.75E-02
		Cs-134	<2.26E-02	0.00E+00	2.26E-02
		Cs-137	<1.95E-02	0.00E+00	1.95E-02
		Be-7	<2.97E-02	0.00E+00	2.97E-02
		K-40	6.72E-01	2.94E-01	2.91E-01
566868	5/17/2022 - 5/24/2022	I-131	<3.60E-02	0.00E+00	3.60E-02
		Cs-134	<2.73E-02	0.00E+00	2.73E-02
		Cs-137	<3.11E-02	0.00E+00	3.11E-02
		Be-7	<1.89E-01	0.00E+00	1.89E-01
		K-40	5.56E-01	2.88E-01	3.23E-01
567113	5/24/2022 - 5/31/2022	I-131	<3.19E-02	0.00E+00	3.19E-02
		Cs-134	<2.65E-02	0.00E+00	2.65E-02
		Cs-137	<1.41E-02	0.00E+00	1.41E-02
		Be-7	<1.52E-01	0.00E+00	1.52E-01
		K-40	3.95E-01	2.47E-01	3.18E-01
567543	5/31/2022 - 6/7/2022	I-131	<3.64E-02	0.00E+00	3.64E-02
		Cs-134	<2.79E-02	0.00E+00	2.79E-02
		Cs-137	<2.81E-02	0.00E+00	2.81E-02
		Be-7	<2.00E-01	0.00E+00	2.00E-01
		K-40	2.08E-01	2.57E-01	4.17E-01
567719	6/7/2022 - 6/14/2022	I-131	<2.96E-02	0.00E+00	2.96E-02
		Cs-134	<2.95E-02	0.00E+00	2.95E-02

ROBINSON Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 60 [INDICATOR - SE @ 0.2 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
567719	6/7/2022 - 6/14/2022	Cs-137	<1.73E-02	0.00E+00	1.73E-02
		Be-7	<1.17E-01	0.00E+00	1.17E-01
		K-40	<5.19E-01	0.00E+00	5.19E-01
568355	6/14/2022 - 6/21/2022	I-131	<2.42E-02	0.00E+00	2.42E-02
		Cs-134	<2.27E-02	0.00E+00	2.27E-02
		Cs-137	<2.14E-02	0.00E+00	2.14E-02
		Be-7	<1.64E-01	0.00E+00	1.64E-01
		K-40	<5.24E-01	0.00E+00	5.24E-01
568585	6/21/2022 - 6/28/2022	I-131	<2.27E-02	0.00E+00	2.27E-02
		Cs-134	<2.70E-02	0.00E+00	2.70E-02
		Cs-137	<1.93E-02	0.00E+00	1.93E-02
		Be-7	<1.46E-01	0.00E+00	1.46E-01
		K-40	6.91E-01	2.67E-01	6.69E-02
568799	6/28/2022 - 7/5/2022	I-131	<2.91E-02	0.00E+00	2.91E-02
		Cs-134	<2.40E-02	0.00E+00	2.40E-02
		Cs-137	<2.37E-02	0.00E+00	2.37E-02
		Be-7	<1.15E-01	0.00E+00	1.15E-01
		K-40	5.21E-01	2.26E-01	6.42E-02
569032	7/5/2022 - 7/12/2022	I-131	<3.95E-02	0.00E+00	3.95E-02
		Cs-134	<2.45E-02	0.00E+00	2.45E-02
		Cs-137	<1.93E-02	0.00E+00	1.93E-02
		Be-7	<3.09E-02	0.00E+00	3.09E-02
		K-40	<4.19E-01	0.00E+00	4.19E-01
570268	7/12/2022 - 7/19/2022	I-131	<3.54E-02	0.00E+00	3.54E-02
		Cs-134	<3.18E-02	0.00E+00	3.18E-02
		Cs-137	<1.88E-02	0.00E+00	1.88E-02
		Be-7	<1.77E-01	0.00E+00	1.77E-01
		K-40	5.03E-01	2.44E-01	2.32E-01
570832	7/19/2022 - 7/25/2022	I-131	<3.48E-02	0.00E+00	3.48E-02
		Cs-134	<2.84E-02	0.00E+00	2.84E-02
		Cs-137	<5.07E-03	0.00E+00	5.07E-03
		Be-7	<2.09E-01	0.00E+00	2.09E-01
		K-40	4.54E-01	3.11E-01	4.22E-01
571073	7/25/2022 - 8/2/2022	I-131	<3.56E-02	0.00E+00	3.56E-02
		Cs-134	<2.23E-02	0.00E+00	2.23E-02
		Cs-137	<2.40E-02	0.00E+00	2.40E-02
		Be-7	<1.54E-01	0.00E+00	1.54E-01
		K-40	<4.65E-01	0.00E+00	4.65E-01
571366	8/2/2022 - 8/9/2022	I-131	<3.19E-02	0.00E+00	3.19E-02
		Cs-134	<3.03E-02	0.00E+00	3.03E-02
		Cs-137	<2.16E-02	0.00E+00	2.16E-02
		Be-7	<1.56E-01	0.00E+00	1.56E-01
		K-40	5.68E-01	2.41E-01	6.69E-02
571652	8/9/2022 - 8/16/2022	I-131	<2.33E-02	0.00E+00	2.33E-02
		Cs-134	<1.72E-02	0.00E+00	1.72E-02
		Cs-137	<1.49E-02	0.00E+00	1.49E-02
		Be-7	<1.50E-01	0.00E+00	1.50E-01
		K-40	3.80E-01	1.92E-01	6.43E-02
572680	8/16/2022 - 8/23/2022	Nuclide	Activity	2 Sigma Error	MDA
		I-131	<2.91E-02	0.00E+00	2.91E-02

ROBINSON Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 60 [INDICATOR - SE @ 0.2 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
572680	8/16/2022 - 8/23/2022	Cs-134	<2.04E-02	0.00E+00	2.04E-02
		Cs-137	<2.82E-02	0.00E+00	2.82E-02
		Be-7	<1.95E-01	0.00E+00	1.95E-01
		K-40	<5.21E-01	0.00E+00	5.21E-01
573980	8/23/2022 - 8/29/2022	I-131	<3.41E-02	0.00E+00	3.41E-02
		Cs-134	<2.91E-02	0.00E+00	2.91E-02
		Cs-137	<2.88E-02	0.00E+00	2.88E-02
		Be-7	<1.54E-01	0.00E+00	1.54E-01
		K-40	7.80E-01	3.44E-01	3.33E-01
574509	8/29/2022 - 9/6/2022	I-131	<4.53E-02	0.00E+00	4.53E-02
		Cs-134	<2.54E-02	0.00E+00	2.54E-02
		Cs-137	<3.53E-02	0.00E+00	3.53E-02
		Be-7	<2.22E-01	0.00E+00	2.22E-01
		K-40	5.59E-01	2.71E-01	3.03E-01
574976	9/6/2022 - 9/14/2022	I-131	<3.08E-02	0.00E+00	3.08E-02
		Cs-134	<2.19E-02	0.00E+00	2.19E-02
		Cs-137	<2.49E-02	0.00E+00	2.49E-02
		Be-7	<1.33E-01	0.00E+00	1.33E-01
		K-40	4.88E-01	2.62E-01	3.14E-01
575665	9/14/2022 - 9/19/2022	I-131	<4.27E-02	0.00E+00	4.27E-02
		Cs-134	<4.03E-02	0.00E+00	4.03E-02
		Cs-137	<3.68E-02	0.00E+00	3.68E-02
		Be-7	<2.33E-01	0.00E+00	2.33E-01
		K-40	5.18E-01	2.92E-01	2.73E-01
576030	9/19/2022 - 9/26/2022	I-131	<2.59E-02	0.00E+00	2.59E-02
		Cs-134	<2.29E-02	0.00E+00	2.29E-02
		Cs-137	<2.32E-02	0.00E+00	2.32E-02
		Be-7	<1.56E-01	0.00E+00	1.56E-01
		K-40	4.92E-01	2.24E-01	6.67E-02
576232	9/26/2022 - 10/3/2022	I-131	<2.56E-02	0.00E+00	2.56E-02
		Cs-134	<2.17E-02	0.00E+00	2.17E-02
		Cs-137	<2.08E-02	0.00E+00	2.08E-02
		Be-7	<1.84E-01	0.00E+00	1.84E-01
		K-40	2.82E-01	2.08E-01	2.62E-01
576503	10/3/2022 - 10/11/2022	I-131	<3.45E-02	0.00E+00	3.45E-02
		Cs-134	<2.64E-02	0.00E+00	2.64E-02
		Cs-137	<2.38E-02	0.00E+00	2.38E-02
		Be-7	<2.15E-01	0.00E+00	2.15E-01
		K-40	3.85E-01	2.23E-01	2.51E-01
577141	10/11/2022 - 10/18/2022	I-131	<3.13E-02	0.00E+00	3.13E-02
		Cs-134	<1.43E-02	0.00E+00	1.43E-02
		Cs-137	<1.99E-02	0.00E+00	1.99E-02
		Be-7	<1.51E-01	0.00E+00	1.51E-01
		K-40	4.44E-01	1.70E-01	1.40E-01
577730	10/18/2022 - 10/25/2022	I-131	<2.34E-02	0.00E+00	2.34E-02
		Cs-134	<2.02E-02	0.00E+00	2.02E-02
		Cs-137	<1.50E-02	0.00E+00	1.50E-02
		Be-7	<1.79E-01	0.00E+00	1.79E-01
		K-40	<5.26E-01	0.00E+00	5.26E-01

ROBINSON Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 60 [INDICATOR - SE @ 0.2 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
578092	10/25/2022 - 11/1/2022	I-131	<2.03E-02	0.00E+00	2.03E-02
		Cs-134	<1.33E-02	0.00E+00	1.33E-02
		Cs-137	<1.68E-02	0.00E+00	1.68E-02
		Be-7	<9.83E-02	0.00E+00	9.83E-02
		K-40	<5.03E-01	0.00E+00	5.03E-01
578802	11/1/2022 - 11/8/2022	I-131	<3.07E-02	0.00E+00	3.07E-02
		Cs-134	<1.75E-02	0.00E+00	1.75E-02
		Cs-137	<2.13E-02	0.00E+00	2.13E-02
		Be-7	<1.64E-01	0.00E+00	1.64E-01
		K-40	8.04E-01	3.25E-01	3.23E-01
578994	11/8/2022 - 11/15/2022	I-131	<3.08E-02	0.00E+00	3.08E-02
		Cs-134	<1.74E-02	0.00E+00	1.74E-02
		Cs-137	<1.74E-02	0.00E+00	1.74E-02
		Be-7	<1.01E-01	0.00E+00	1.01E-01
		K-40	3.09E-01	2.33E-01	3.20E-01
579746	11/15/2022 - 11/22/2022	I-131	<3.98E-02	0.00E+00	3.98E-02
		Cs-134	<2.32E-02	0.00E+00	2.32E-02
		Cs-137	<2.63E-02	0.00E+00	2.63E-02
		Be-7	<1.77E-01	0.00E+00	1.77E-01
		K-40	4.15E-01	2.64E-01	3.39E-01
580568	11/22/2022 - 11/29/2022	I-131	<3.25E-02	0.00E+00	3.25E-02
		Cs-134	<2.66E-02	0.00E+00	2.66E-02
		Cs-137	<1.75E-02	0.00E+00	1.75E-02
		Be-7	<1.45E-01	0.00E+00	1.45E-01
		K-40	<5.21E-01	0.00E+00	5.21E-01
580783	11/29/2022 - 12/6/2022	I-131	<2.47E-02	0.00E+00	2.47E-02
		Cs-134	<2.30E-02	0.00E+00	2.30E-02
		Cs-137	<1.53E-02	0.00E+00	1.53E-02
		Be-7	<1.67E-01	0.00E+00	1.67E-01
		K-40	<5.70E-01	0.00E+00	5.70E-01
581105	12/6/2022 - 12/13/2022	I-131	<2.91E-02	0.00E+00	2.91E-02
		Cs-134	<2.13E-02	0.00E+00	2.13E-02
		Cs-137	<2.23E-02	0.00E+00	2.23E-02
		Be-7	<1.80E-01	0.00E+00	1.80E-01
		K-40	2.61E-01	2.08E-01	2.79E-01
581667	12/13/2022 - 12/20/2022	I-131	<3.57E-02	0.00E+00	3.57E-02
		Cs-134	<1.44E-02	0.00E+00	1.44E-02
		Cs-137	<2.52E-02	0.00E+00	2.52E-02
		Be-7	<1.71E-01	0.00E+00	1.71E-01
		K-40	7.13E-01	2.95E-01	2.49E-01
582211	12/20/2022 - 12/27/2022	I-131	<4.41E-02	0.00E+00	4.41E-02
		Cs-134	<2.30E-02	0.00E+00	2.30E-02
		Cs-137	<2.26E-02	0.00E+00	2.26E-02
		Be-7	<1.92E-01	0.00E+00	1.92E-01
		K-40	4.35E-01	2.27E-01	2.32E-01
582398	12/27/2022 - 1/3/2023	I-131	<2.73E-02	0.00E+00	2.73E-02
		Cs-134	<2.35E-02	0.00E+00	2.35E-02
		Cs-137	<2.21E-02	0.00E+00	2.21E-02
		Be-7	<2.05E-01	0.00E+00	2.05E-01
		K-40	6.63E-01	2.81E-01	2.30E-01

ROBINSON Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 61 [INDICATOR - WSW @ 0.3 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
558833	1/4/2022 - 1/11/2022	I-131	<4.34E-02	0.00E+00	4.34E-02
		Cs-134	<2.48E-02	0.00E+00	2.48E-02
		Cs-137	<1.95E-02	0.00E+00	1.95E-02
		Be-7	<2.03E-01	0.00E+00	2.03E-01
		K-40	<5.27E-01	0.00E+00	5.27E-01
559048	1/11/2022 - 1/18/2022	I-131	<3.51E-02	0.00E+00	3.51E-02
		Cs-134	<2.52E-02	0.00E+00	2.52E-02
		Cs-137	<2.89E-02	0.00E+00	2.89E-02
		Be-7	<1.58E-01	0.00E+00	1.58E-01
		K-40	5.54E-01	3.18E-01	4.12E-01
559560	1/18/2022 - 1/25/2022	I-131	<2.92E-02	0.00E+00	2.92E-02
		Cs-134	<3.00E-02	0.00E+00	3.00E-02
		Cs-137	<2.59E-02	0.00E+00	2.59E-02
		Be-7	<1.73E-01	0.00E+00	1.73E-01
		K-40	4.80E-01	2.65E-01	3.09E-01
559561	1/25/2022 - 2/1/2022	I-131	<3.05E-02	0.00E+00	3.05E-02
		Cs-134	<2.88E-02	0.00E+00	2.88E-02
		Cs-137	<2.60E-02	0.00E+00	2.60E-02
		Be-7	<1.87E-01	0.00E+00	1.87E-01
		K-40	<5.44E-01	0.00E+00	5.44E-01
560241	2/1/2022 - 2/8/2022	I-131	<2.92E-02	0.00E+00	2.92E-02
		Cs-134	<1.41E-02	0.00E+00	1.41E-02
		Cs-137	<2.48E-02	0.00E+00	2.48E-02
		Be-7	<1.32E-01	0.00E+00	1.32E-01
		K-40	3.45E-01	3.48E-01	5.51E-01
560111	2/8/2022 - 2/14/2022	I-131	<3.03E-02	0.00E+00	3.03E-02
		Cs-134	<2.85E-02	0.00E+00	2.85E-02
		Cs-137	<2.97E-02	0.00E+00	2.97E-02
		Be-7	<1.62E-01	0.00E+00	1.62E-01
		K-40	7.24E-01	3.28E-01	3.25E-01
560790	2/14/2022 - 2/22/2022	I-131	<2.40E-02	0.00E+00	2.40E-02
		Cs-134	<2.07E-02	0.00E+00	2.07E-02
		Cs-137	<2.08E-02	0.00E+00	2.08E-02
		Be-7	<1.62E-01	0.00E+00	1.62E-01
		K-40	3.59E-01	2.29E-01	2.89E-01
561126	2/22/2022 - 3/1/2022	I-131	<2.92E-02	0.00E+00	2.92E-02
		Cs-134	<2.30E-02	0.00E+00	2.30E-02
		Cs-137	<2.48E-02	0.00E+00	2.48E-02
		Be-7	<1.67E-01	0.00E+00	1.67E-01
		K-40	7.67E-01	2.82E-01	6.71E-02
561626	3/1/2022 - 3/8/2022	I-131	<2.60E-02	0.00E+00	2.60E-02
		Cs-134	<2.55E-02	0.00E+00	2.55E-02
		Cs-137	<1.15E-02	0.00E+00	1.15E-02
		Be-7	<1.83E-01	0.00E+00	1.83E-01
		K-40	<4.59E-01	0.00E+00	4.59E-01
562209	3/8/2022 - 3/15/2022	I-131	<3.09E-02	0.00E+00	3.09E-02
		Cs-134	<2.69E-02	0.00E+00	2.69E-02
		Cs-137	<2.71E-02	0.00E+00	2.71E-02
		Be-7	<1.71E-01	0.00E+00	1.71E-01
		K-40	6.32E-01	2.58E-01	6.85E-02

ROBINSON Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: AIR RADIOIODINE Concentration (Activity): pCi/m3

Sample Point 61 [INDICATOR - WSW @ 0.3 miles]

Sample ID:	Sample Dates:		Nuclide	Activity	2 Sigma Error	MDA
562816	3/15/2022 - 3/22/2022		I-131	<1.95E-02	0.00E+00	1.95E-02
			Cs-134	<3.22E-02	0.00E+00	3.22E-02
			Cs-137	<2.35E-02	0.00E+00	2.35E-02
			Be-7	<1.77E-01	0.00E+00	1.77E-01
			K-40	2.84E-01	2.43E-01	3.53E-01

Sample ID:	Sample Dates:		Nuclide	Activity	2 Sigma Error	MDA
563411	3/22/2022 - 3/28/2022		I-131	<3.15E-02	0.00E+00	3.15E-02
			Cs-134	<1.71E-02	0.00E+00	1.71E-02
			Cs-137	<2.16E-02	0.00E+00	2.16E-02
			Be-7	<2.01E-01	0.00E+00	2.01E-01
			K-40	<5.26E-01	0.00E+00	5.26E-01

Sample ID:	Sample Dates:		Nuclide	Activity	2 Sigma Error	MDA
563754	3/28/2022 - 4/5/2022		I-131	<3.30E-02	0.00E+00	3.30E-02
			Cs-134	<2.79E-02	0.00E+00	2.79E-02
			Cs-137	<2.17E-02	0.00E+00	2.17E-02
			Be-7	<1.18E-01	0.00E+00	1.18E-01
			K-40	5.62E-01	3.01E-01	3.88E-01

Media Type: CROPS Concentration (Activity): pCi/kg wet

Sample Point 54 [INDICATOR - E @ 10.1 miles]

Sample ID:	Sample Dates:		Nuclide	Activity	2 Sigma Error	MDA
571348	7/12/2022 - 7/12/2022	CORN	Mn-54	<9.12E+00	0.00E+00	9.12E+00
			Co-58	<9.68E+00	0.00E+00	9.68E+00
			Fe-59	<2.22E+01	0.00E+00	2.22E+01
			Co-60	<1.21E+01	0.00E+00	1.21E+01
			Zn-65	<2.43E+01	0.00E+00	2.43E+01
			Zr-95	<1.65E+01	0.00E+00	1.65E+01
			Nb-95	<9.42E+00	0.00E+00	9.42E+00
			I-131	<1.70E+01	0.00E+00	1.70E+01
			Cs-134	<1.11E+01	0.00E+00	1.11E+01
			Cs-137	<8.75E+00	0.00E+00	8.75E+00
			BaLa-140	<1.23E+01	0.00E+00	1.23E+01
			Be-7	<7.75E+01	0.00E+00	7.75E+01
			K-40	2.62E+03	3.37E+02	1.38E+02

Sample ID:	Sample Dates:		Nuclide	Activity	2 Sigma Error	MDA
581081	11/16/2022 - 11/16/2022	SOYBEANS	Mn-54	<2.30E+01	0.00E+00	2.30E+01
			Co-58	<2.36E+01	0.00E+00	2.36E+01
			Fe-59	<7.29E+01	0.00E+00	7.29E+01
			Co-60	<2.51E+01	0.00E+00	2.51E+01
			Zn-65	<7.77E+01	0.00E+00	7.77E+01
			Zr-95	<4.94E+01	0.00E+00	4.94E+01
			Nb-95	<2.56E+01	0.00E+00	2.56E+01
			I-131	<1.77E+01	0.00E+00	1.77E+01
			Cs-134	<3.51E+01	0.00E+00	3.51E+01
			Cs-137	<2.60E+01	0.00E+00	2.60E+01
			BaLa-140	<6.16E+00	0.00E+00	6.16E+00
			Be-7	<1.54E+02	0.00E+00	1.54E+02
			K-40	1.54E+04	1.65E+03	3.44E+02

Media Type: FISH Concentration (Activity): pCi/kg wet

Sample Point 45 [INDICATOR - @ 0 miles]

Sample ID:	Sample Dates:		Nuclide	Activity	2 Sigma Error	MDA
566470	5/12/2022 - 5/12/2022	FRESWIM	Mn-54	<6.09E+01	0.00E+00	6.09E+01
			Co-58	<4.82E+01	0.00E+00	4.82E+01
			Fe-59	<1.04E+02	0.00E+00	1.04E+02
			Co-60	<5.75E+01	0.00E+00	5.75E+01
			Zn-65	<1.41E+02	0.00E+00	1.41E+02
			Nb-95	<6.92E+01	0.00E+00	6.92E+01
			I-131	<7.42E+01	0.00E+00	7.42E+01
			Cs-134	<5.26E+01	0.00E+00	5.26E+01
			Cs-137	<6.51E+01	0.00E+00	6.51E+01
			Be-7	<4.15E+02	0.00E+00	4.15E+02

ROBINSON Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: FISH Concentration (Activity): pCi/kg wet

Sample Point 45 [INDICATOR - @ 0 miles]

Sample ID:	566470	Sample Dates:	5/12/2022 - 5/12/2022	FREESWIM	Nuclide	Activity	2 Sigma Error	MDA
					K-40	4.13E+03	9.55E+02	5.53E+02
					Ag-110M	<4.79E+01	0.00E+00	4.79E+01
					Sb-122	<2.49E+02	0.00E+00	2.49E+02
					Sb-125	<1.13E+02	0.00E+00	1.13E+02

Sample ID:	566471	Sample Dates:	5/12/2022 - 5/12/2022	BOTMFEEDER	Nuclide	Activity	2 Sigma Error	MDA
					Mn-54	<5.81E+01	0.00E+00	5.81E+01
					Co-58	<6.41E+01	0.00E+00	6.41E+01
					Fe-59	<1.07E+02	0.00E+00	1.07E+02
					Co-60	<5.92E+01	0.00E+00	5.92E+01
					Zn-65	<1.27E+02	0.00E+00	1.27E+02
					Nb-95	<6.48E+01	0.00E+00	6.48E+01
					I-131	<7.14E+01	0.00E+00	7.14E+01
					Cs-134	<5.97E+01	0.00E+00	5.97E+01
					Cs-137	<8.40E+01	0.00E+00	8.40E+01
					Be-7	<4.24E+02	0.00E+00	4.24E+02
					K-40	4.53E+03	1.04E+03	7.06E+02
					Ag-110M	<4.90E+01	0.00E+00	4.90E+01
					Sb-122	<3.03E+02	0.00E+00	3.03E+02
					Sb-125	<1.41E+02	0.00E+00	1.41E+02

Sample ID:	579113	Sample Dates:	11/9/2022 - 11/9/2022	BOTMFEEDER	Nuclide	Activity	2 Sigma Error	MDA
					Mn-54	<5.89E+01	0.00E+00	5.89E+01
					Co-58	<6.67E+01	0.00E+00	6.67E+01
					Fe-59	<1.46E+02	0.00E+00	1.46E+02
					Co-60	<8.27E+01	0.00E+00	8.27E+01
					Zn-65	<9.98E+01	0.00E+00	9.98E+01
					Nb-95	<4.19E+01	0.00E+00	4.19E+01
					I-131	<1.07E+02	0.00E+00	1.07E+02
					Cs-134	<5.45E+01	0.00E+00	5.45E+01
					Cs-137	<7.93E+01	0.00E+00	7.93E+01
					Be-7	<4.03E+02	0.00E+00	4.03E+02
					K-40	5.28E+03	1.17E+03	6.29E+02
					Ag-110M	<4.90E+01	0.00E+00	4.90E+01
					Sb-122	<2.83E+02	0.00E+00	2.83E+02
					Sb-125	<1.28E+02	0.00E+00	1.28E+02

Sample ID:	579114	Sample Dates:	11/9/2022 - 11/9/2022	FREESWIM	Nuclide	Activity	2 Sigma Error	MDA
					Mn-54	<7.06E+01	0.00E+00	7.06E+01
					Co-58	<6.92E+01	0.00E+00	6.92E+01
					Fe-59	<1.42E+02	0.00E+00	1.42E+02
					Co-60	<6.43E+01	0.00E+00	6.43E+01
					Zn-65	<1.50E+02	0.00E+00	1.50E+02
					Nb-95	<6.65E+01	0.00E+00	6.65E+01
					I-131	<1.11E+02	0.00E+00	1.11E+02
					Cs-134	<8.92E+01	0.00E+00	8.92E+01
					Cs-137	<9.71E+01	0.00E+00	9.71E+01
					Be-7	<4.81E+02	0.00E+00	4.81E+02
					K-40	5.03E+03	1.33E+03	1.19E+03
					Ag-110M	<7.71E+01	0.00E+00	7.71E+01
					Sb-122	<4.47E+02	0.00E+00	4.47E+02
					Sb-125	<1.97E+02	0.00E+00	1.97E+02

Sample Point 46 [INDICATOR - @ 0 miles]

Sample ID:	566472	Sample Dates:	5/12/2022 - 5/12/2022	FREESWIM	Nuclide	Activity	2 Sigma Error	MDA
					Mn-54	<5.70E+01	0.00E+00	5.70E+01
					Co-58	<5.43E+01	0.00E+00	5.43E+01
					Fe-59	<8.59E+01	0.00E+00	8.59E+01
					Co-60	<7.06E+01	0.00E+00	7.06E+01
					Zn-65	<1.26E+02	0.00E+00	1.26E+02
					Nb-95	<5.52E+01	0.00E+00	5.52E+01
					I-131	<8.63E+01	0.00E+00	8.63E+01
					Cs-134	<6.61E+01	0.00E+00	6.61E+01
					Cs-137	<6.79E+01	0.00E+00	6.79E+01
					Be-7	<3.88E+02	0.00E+00	3.88E+02
					K-40	4.55E+03	1.10E+03	1.02E+03

ROBINSON Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: FISH Concentration (Activity): pCi/kg wet

Sample Point 46 [INDICATOR - @ 0 miles]

Sample ID:	566472	Sample Dates:	5/12/2022 - 5/12/2022	FREESWIM	Nuclide	Activity	2 Sigma Error	MDA
					Ag-110M	<4.64E+01	0.00E+00	4.64E+01
					Sb-122	<2.95E+02	0.00E+00	2.95E+02
					Sb-125	<1.13E+02	0.00E+00	1.13E+02

Sample ID:	566473	Sample Dates:	5/12/2022 - 5/12/2022	BOTMFEEDER	Nuclide	Activity	2 Sigma Error	MDA
					Mn-54	<5.05E+01	0.00E+00	5.05E+01
					Co-58	<5.44E+01	0.00E+00	5.44E+01
					Fe-59	<1.13E+02	0.00E+00	1.13E+02
					Co-60	<5.54E+01	0.00E+00	5.54E+01
					Zn-65	<1.31E+02	0.00E+00	1.31E+02
					Nb-95	<4.47E+01	0.00E+00	4.47E+01
					I-131	<6.17E+01	0.00E+00	6.17E+01
					Cs-134	<4.79E+01	0.00E+00	4.79E+01
					Cs-137	<5.76E+01	0.00E+00	5.76E+01
					Be-7	<4.00E+02	0.00E+00	4.00E+02
					K-40	4.32E+03	9.56E+02	5.39E+02
					Ag-110M	<5.52E+01	0.00E+00	5.52E+01
					Sb-122	<3.04E+02	0.00E+00	3.04E+02
					Sb-125	<9.84E+01	0.00E+00	9.84E+01

Sample ID:	579115	Sample Dates:	11/10/2022 - 11/10/2022	BOTMFEEDER	Nuclide	Activity	2 Sigma Error	MDA
					Mn-54	<7.28E+01	0.00E+00	7.28E+01
					Co-58	<6.79E+01	0.00E+00	6.79E+01
					Fe-59	<1.28E+02	0.00E+00	1.28E+02
					Co-60	<9.29E+01	0.00E+00	9.29E+01
					Zn-65	<1.56E+02	0.00E+00	1.56E+02
					Nb-95	<6.47E+01	0.00E+00	6.47E+01
					I-131	<1.04E+02	0.00E+00	1.04E+02
					Cs-134	<7.81E+01	0.00E+00	7.81E+01
					Cs-137	<6.81E+01	0.00E+00	6.81E+01
					Be-7	<5.49E+02	0.00E+00	5.49E+02
					K-40	5.10E+03	1.32E+03	1.17E+03
					Ag-110M	<6.40E+01	0.00E+00	6.40E+01
					Sb-122	<2.90E+02	0.00E+00	2.90E+02
					Sb-125	<1.68E+02	0.00E+00	1.68E+02

Sample ID:	579116	Sample Dates:	11/10/2022 - 11/10/2022	FREESWIM	Nuclide	Activity	2 Sigma Error	MDA
					Mn-54	<6.98E+01	0.00E+00	6.98E+01
					Co-58	<5.62E+01	0.00E+00	5.62E+01
					Fe-59	<1.17E+02	0.00E+00	1.17E+02
					Co-60	<7.66E+01	0.00E+00	7.66E+01
					Zn-65	<1.47E+02	0.00E+00	1.47E+02
					Nb-95	<7.82E+01	0.00E+00	7.82E+01
					I-131	<7.90E+01	0.00E+00	7.90E+01
					Cs-134	<6.15E+01	0.00E+00	6.15E+01
					Cs-137	<9.61E+01	0.00E+00	9.61E+01
					Be-7	<5.47E+02	0.00E+00	5.47E+02
					K-40	4.37E+03	1.25E+03	1.24E+03
					Ag-110M	<7.83E+01	0.00E+00	7.83E+01
					Sb-122	<2.34E+02	0.00E+00	2.34E+02
					Sb-125	<1.61E+02	0.00E+00	1.61E+02

Sample Point 47 [CONTROL - @ 0 miles]

Sample ID:	566474	Sample Dates:	5/11/2022 - 5/11/2022	FREESWIM	Nuclide	Activity	2 Sigma Error	MDA
					Mn-54	<4.60E+01	0.00E+00	4.60E+01
					Co-58	<4.35E+01	0.00E+00	4.35E+01
					Fe-59	<9.13E+01	0.00E+00	9.13E+01
					Co-60	<5.34E+01	0.00E+00	5.34E+01
					Zn-65	<1.12E+02	0.00E+00	1.12E+02
					Nb-95	<4.44E+01	0.00E+00	4.44E+01
					I-131	<6.84E+01	0.00E+00	6.84E+01
					Cs-134	<6.24E+01	0.00E+00	6.24E+01
					Cs-137	<7.79E+01	0.00E+00	7.79E+01
					Be-7	<3.94E+02	0.00E+00	3.94E+02
					K-40	3.56E+03	8.84E+02	5.55E+02
					Ag-110M	<3.37E+01	0.00E+00	3.37E+01

ROBINSON Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: FISH Concentration (Activity): pCi/kg wet

Sample Point 47 [CONTROL - @ 0 miles]

Sample ID:	566474	Sample Dates:	5/11/2022 - 5/11/2022	FREESWIM	Nuclide	Activity	2 Sigma Error	MDA
					Sb-122	<2.85E+02	0.00E+00	2.85E+02
					Sb-125	<1.22E+02	0.00E+00	1.22E+02

Sample ID:	566475	Sample Dates:	5/11/2022 - 5/11/2022	BOTMFEEDER	Nuclide	Activity	2 Sigma Error	MDA
					Mn-54	<3.61E+01	0.00E+00	3.61E+01
					Co-58	<4.76E+01	0.00E+00	4.76E+01
					Fe-59	<8.63E+01	0.00E+00	8.63E+01
					Co-60	<4.64E+01	0.00E+00	4.64E+01
					Zn-65	<1.03E+02	0.00E+00	1.03E+02
					Nb-95	<5.09E+01	0.00E+00	5.09E+01
					I-131	<7.18E+01	0.00E+00	7.18E+01
					Cs-134	<5.37E+01	0.00E+00	5.37E+01
					Cs-137	<4.87E+01	0.00E+00	4.87E+01
					Be-7	<3.83E+02	0.00E+00	3.83E+02
					K-40	3.89E+03	8.81E+02	5.45E+02
					Ag-110M	<3.85E+01	0.00E+00	3.85E+01
					Sb-122	<2.90E+02	0.00E+00	2.90E+02
					Sb-125	<1.11E+02	0.00E+00	1.11E+02

Sample ID:	579117	Sample Dates:	11/8/2022 - 11/8/2022	BOTMFEEDER	Nuclide	Activity	2 Sigma Error	MDA
					Mn-54	<6.38E+01	0.00E+00	6.38E+01
					Co-58	<6.62E+01	0.00E+00	6.62E+01
					Fe-59	<7.46E+01	0.00E+00	7.46E+01
					Co-60	<6.36E+01	0.00E+00	6.36E+01
					Zn-65	<1.49E+02	0.00E+00	1.49E+02
					Nb-95	<7.17E+01	0.00E+00	7.17E+01
					I-131	<1.12E+02	0.00E+00	1.12E+02
					Cs-134	<7.54E+01	0.00E+00	7.54E+01
					Cs-137	<8.31E+01	0.00E+00	8.31E+01
					Be-7	<5.25E+02	0.00E+00	5.25E+02
					K-40	3.41E+03	1.21E+03	1.41E+03
					Ag-110M	<8.17E+01	0.00E+00	8.17E+01
					Sb-122	<4.22E+02	0.00E+00	4.22E+02
					Sb-125	<1.84E+02	0.00E+00	1.84E+02

Sample ID:	579118	Sample Dates:	11/8/2022 - 11/8/2022	FREESWIM	Nuclide	Activity	2 Sigma Error	MDA
					Mn-54	<6.66E+01	0.00E+00	6.66E+01
					Co-58	<7.59E+01	0.00E+00	7.59E+01
					Fe-59	<1.42E+02	0.00E+00	1.42E+02
					Co-60	<6.32E+01	0.00E+00	6.32E+01
					Zn-65	<1.37E+02	0.00E+00	1.37E+02
					Nb-95	<8.40E+01	0.00E+00	8.40E+01
					I-131	<1.24E+02	0.00E+00	1.24E+02
					Cs-134	<8.18E+01	0.00E+00	8.18E+01
					Cs-137	<1.08E+02	0.00E+00	1.08E+02
					Be-7	<5.80E+02	0.00E+00	5.80E+02
					K-40	5.65E+03	1.31E+03	8.78E+02
					Ag-110M	<6.15E+01	0.00E+00	6.15E+01
					Sb-122	<5.77E+02	0.00E+00	5.77E+02
					Sb-125	<2.03E+02	0.00E+00	2.03E+02

Media Type: GROUND WATER Concentration (Activity): pCi/l

Sample Point 64 [INDICATOR - SE @ 0.6 miles]

Sample ID:	558777	Sample Dates:	1/5/2022 - 1/5/2022	Nuclide	Activity	2 Sigma Error	MDA
				Mn-54	<6.06E+00	0.00E+00	6.06E+00
				Co-58	<5.17E+00	0.00E+00	5.17E+00
				Fe-59	<8.57E+00	0.00E+00	8.57E+00
				Co-60	<4.56E+00	0.00E+00	4.56E+00
				Zn-65	<1.20E+01	0.00E+00	1.20E+01
				Zr-95	<9.82E+00	0.00E+00	9.82E+00
				Nb-95	<6.52E+00	0.00E+00	6.52E+00
				I-131	<1.00E+01	0.00E+00	1.00E+01
				Cs-134	<6.56E+00	0.00E+00	6.56E+00
				Cs-137	<6.39E+00	0.00E+00	6.39E+00
				BaLa-140	<6.53E+00	0.00E+00	6.53E+00
				Be-7	<4.62E+01	0.00E+00	4.62E+01

ROBINSON Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: GROUND WATER Concentration (Activity): pCi/l

Sample Point 64 [INDICATOR - SE @ 0.6 miles]

Sample ID: 558777	Sample Dates: 1/5/2022 - 1/5/2022	Nuclide	Activity	2 Sigma Error	MDA
		K-40	<1.10E+02	0.00E+00	1.10E+02
		H3GW	<-1.1E+02	0.00E+00	1.83E+02

Sample ID: 563936	Sample Dates: 4/25/2022 - 4/25/2022	Nuclide	Activity	2 Sigma Error	MDA
		Mn-54	<6.15E+00	0.00E+00	6.15E+00
		Co-58	<6.00E+00	0.00E+00	6.00E+00
		Fe-59	<1.36E+01	0.00E+00	1.36E+01
		Co-60	<7.32E+00	0.00E+00	7.32E+00
		Zn-65	<1.34E+01	0.00E+00	1.34E+01
		Zr-95	<1.04E+01	0.00E+00	1.04E+01
		Nb-95	<6.08E+00	0.00E+00	6.08E+00
		I-131	<7.14E+00	0.00E+00	7.14E+00
		Cs-134	<6.70E+00	0.00E+00	6.70E+00
		Cs-137	<6.01E+00	0.00E+00	6.01E+00
		BaLa-140	<4.33E+00	0.00E+00	4.33E+00
		Be-7	<4.62E+01	0.00E+00	4.62E+01
		K-40	1.91E+02	7.65E+01	9.25E+01
		H3GW	<-4.9E+01	0.00E+00	1.81E+02

Sample ID: 569014	Sample Dates: 7/12/2022 - 7/12/2022	Nuclide	Activity	2 Sigma Error	MDA
		Mn-54	<5.53E+00	0.00E+00	5.53E+00
		Co-58	<5.87E+00	0.00E+00	5.87E+00
		Fe-59	<7.65E+00	0.00E+00	7.65E+00
		Co-60	<6.39E+00	0.00E+00	6.39E+00
		Zn-65	<1.18E+01	0.00E+00	1.18E+01
		Zr-95	<9.57E+00	0.00E+00	9.57E+00
		Nb-95	<6.17E+00	0.00E+00	6.17E+00
		I-131	<6.26E+00	0.00E+00	6.26E+00
		Cs-134	<6.01E+00	0.00E+00	6.01E+00
		Cs-137	<5.02E+00	0.00E+00	5.02E+00
		BaLa-140	<5.72E+00	0.00E+00	5.72E+00
		Be-7	<4.51E+01	0.00E+00	4.51E+01
		K-40	6.66E+01	5.24E+01	7.78E+01
		H3GW	<2.83E+01	0.00E+00	1.77E+02

Sample ID: 576471	Sample Dates: 10/11/2022 - 10/11/2022	Nuclide	Activity	2 Sigma Error	MDA
		Mn-54	<7.70E+00	0.00E+00	7.70E+00
		Co-58	<5.97E+00	0.00E+00	5.97E+00
		Fe-59	<9.40E+00	0.00E+00	9.40E+00
		Co-60	<6.30E+00	0.00E+00	6.30E+00
		Zn-65	<1.23E+01	0.00E+00	1.23E+01
		Zr-95	<1.13E+01	0.00E+00	1.13E+01
		Nb-95	<6.81E+00	0.00E+00	6.81E+00
		I-131	<7.16E+00	0.00E+00	7.16E+00
		Cs-134	<6.71E+00	0.00E+00	6.71E+00
		Cs-137	<8.06E+00	0.00E+00	8.06E+00
		BaLa-140	<6.10E+00	0.00E+00	6.10E+00
		Be-7	<4.70E+01	0.00E+00	4.70E+01
		K-40	1.62E+02	8.48E+01	1.20E+02
		H3GW	<-6.6E+01	0.00E+00	1.92E+02

Media Type: SEDIMENT_SHORE Concentration (Activity): pCi/kg dry

Sample Point 44 [INDICATOR - NNE @ 1.6 miles]

Sample ID: 549223	Sample Dates: 1/18/2022 - 1/18/2022	Nuclide	Activity	2 Sigma Error	MDA
		Mn-54	<3.56E+01	0.00E+00	3.56E+01
		Co-58	<4.28E+01	0.00E+00	4.28E+01
		Fe-59	<4.97E+01	0.00E+00	4.97E+01
		Co-60	<4.19E+01	0.00E+00	4.19E+01
		Zn-65	<7.44E+01	0.00E+00	7.44E+01
		Zr-95	<7.02E+01	0.00E+00	7.02E+01
		Nb-95	<3.88E+01	0.00E+00	3.88E+01
		I-131	<5.43E+01	0.00E+00	5.43E+01
		Cs-134	<3.63E+01	0.00E+00	3.63E+01
		Cs-137	<3.41E+01	0.00E+00	3.41E+01
		Be-7	<2.58E+02	0.00E+00	2.58E+02
		K-40	<8.09E+02	0.00E+00	8.09E+02

ROBINSON Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: SEDIMENT_SHORE Concentration (Activity): pCi/kg dry

Sample Point 44 [INDICATOR - NNE @ 1.6 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
549223	1/18/2022 - 1/18/2022	Co-57	<2.39E+01	0.00E+00	2.39E+01
		Mo-99	<2.50E+03	0.00E+00	2.50E+03
		Ag-110M	<3.93E+01	0.00E+00	3.93E+01
		Sb-122	<4.40E+02	0.00E+00	4.40E+02
		Sb-125	<7.52E+01	0.00E+00	7.52E+01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
560636	7/12/2022 - 7/12/2022	Mn-54	<4.22E+01	0.00E+00	4.22E+01
		Co-58	<3.40E+01	0.00E+00	3.40E+01
		Fe-59	<7.92E+01	0.00E+00	7.92E+01
		Co-60	<5.01E+01	0.00E+00	5.01E+01
		Zn-65	<5.51E+01	0.00E+00	5.51E+01
		Zr-95	<1.04E+02	0.00E+00	1.04E+02
		Nb-95	<4.95E+01	0.00E+00	4.95E+01
		I-131	<9.01E+01	0.00E+00	9.01E+01
		Cs-134	<3.60E+01	0.00E+00	3.60E+01
		Cs-137	<4.84E+01	0.00E+00	4.84E+01
		Be-7	<3.51E+02	0.00E+00	3.51E+02
		K-40	1.04E+03	4.24E+02	1.13E+02
		Co-57	<3.80E+01	0.00E+00	3.80E+01
		Mo-99	<2.57E+03	0.00E+00	2.57E+03
		Ag-110M	<3.72E+01	0.00E+00	3.72E+01
		Sb-122	<4.39E+02	0.00E+00	4.39E+02
		Sb-125	<9.75E+01	0.00E+00	9.75E+01

Media Type: SURFACE WATER Concentration (Activity): pCi/l

Sample Point 40 [INDICATOR - ESE @ 0.6 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
560431	12/28/2021 - 2/1/2022	Mn-54	<1.45E+00	0.00E+00	1.45E+00
		Co-58	<1.92E+00	0.00E+00	1.92E+00
		Fe-59	<3.36E+00	0.00E+00	3.36E+00
		Co-60	<1.43E+00	0.00E+00	1.43E+00
		Zn-65	<3.00E+00	0.00E+00	3.00E+00
		Zr-95	<3.44E+00	0.00E+00	3.44E+00
		Nb-95	<2.45E+00	0.00E+00	2.45E+00
		I-131	<1.14E+01	0.00E+00	1.14E+01
		Cs-134	<1.45E+00	0.00E+00	1.45E+00
		Cs-137	<1.58E+00	0.00E+00	1.58E+00
		BaLa-140	<5.68E+00	0.00E+00	5.68E+00
		Be-7	<1.94E+01	0.00E+00	1.94E+01
		K-40	9.29E+01	1.95E+01	2.07E+01
		H3SW	5.03E+03	2.15E+02	1.77E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
562188	2/1/2022 - 2/22/2022	Mn-54	<3.74E+00	0.00E+00	3.74E+00
		Co-58	<3.89E+00	0.00E+00	3.89E+00
		Fe-59	<7.57E+00	0.00E+00	7.57E+00
		Co-60	<3.62E+00	0.00E+00	3.62E+00
		Zn-65	<6.62E+00	0.00E+00	6.62E+00
		Zr-95	<6.08E+00	0.00E+00	6.08E+00
		Nb-95	<4.99E+00	0.00E+00	4.99E+00
		I-131	<1.17E+01	0.00E+00	1.17E+01
		Cs-134	<4.44E+00	0.00E+00	4.44E+00
		Cs-137	<4.61E+00	0.00E+00	4.61E+00
		BaLa-140	<8.52E+00	0.00E+00	8.52E+00
		Be-7	<4.15E+01	0.00E+00	4.15E+01
		K-40	1.03E+02	4.07E+01	4.51E+01
		H3SW	4.40E+03	2.12E+02	1.90E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
564087	2/22/2022 - 3/28/2022	Mn-54	<2.20E+00	0.00E+00	2.20E+00
		Co-58	<2.68E+00	0.00E+00	2.68E+00
		Fe-59	<4.59E+00	0.00E+00	4.59E+00
		Co-60	<2.07E+00	0.00E+00	2.07E+00
		Zn-65	<4.42E+00	0.00E+00	4.42E+00
		Zr-95	<5.13E+00	0.00E+00	5.13E+00

ROBINSON Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: SURFACE WATER Concentration (Activity): pCi/l

Sample Point 40 [INDICATOR - ESE @ 0.6 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
564087	2/22/2022 - 3/28/2022	Nb-95	<3.03E+00	0.00E+00	3.03E+00
		I-131	<1.17E+01	0.00E+00	1.17E+01
		Cs-134	<2.52E+00	0.00E+00	2.52E+00
		Cs-137	<1.95E+00	0.00E+00	1.95E+00
		BaLa-140	<7.00E+00	0.00E+00	7.00E+00
		Be-7	<2.18E+01	0.00E+00	2.18E+01
		K-40	8.30E+01	2.04E+01	2.24E+01
		H3SW	2.34E+03	1.70E+02	1.85E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
566055	3/28/2022 - 4/25/2022	Mn-54	<2.52E+00	0.00E+00	2.52E+00
		Co-58	<2.76E+00	0.00E+00	2.76E+00
		Fe-59	<5.78E+00	0.00E+00	5.78E+00
		Co-60	<2.62E+00	0.00E+00	2.62E+00
		Zn-65	<5.85E+00	0.00E+00	5.85E+00
		Zr-95	<5.23E+00	0.00E+00	5.23E+00
		Nb-95	<3.84E+00	0.00E+00	3.84E+00
		I-131	<1.01E+01	0.00E+00	1.01E+01
		Cs-134	<2.85E+00	0.00E+00	2.85E+00
		Cs-137	<2.40E+00	0.00E+00	2.40E+00
		BaLa-140	<7.54E+00	0.00E+00	7.54E+00
		Be-7	<2.65E+01	0.00E+00	2.65E+01
		K-40	9.02E+01	3.07E+01	3.80E+01
		H3SW	1.04E+03	1.39E+02	1.87E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
567696	4/25/2022 - 5/31/2022	Mn-54	<1.29E+00	0.00E+00	1.29E+00
		Co-58	<1.64E+00	0.00E+00	1.64E+00
		Fe-59	<4.31E+00	0.00E+00	4.31E+00
		Co-60	<1.48E+00	0.00E+00	1.48E+00
		Zn-65	<2.58E+00	0.00E+00	2.58E+00
		Zr-95	<3.41E+00	0.00E+00	3.41E+00
		Nb-95	<2.35E+00	0.00E+00	2.35E+00
		I-131	<1.20E+01	0.00E+00	1.20E+01
		Cs-134	<1.70E+00	0.00E+00	1.70E+00
		Cs-137	<1.62E+00	0.00E+00	1.62E+00
		BaLa-140	<5.28E+00	0.00E+00	5.28E+00
		Be-7	<1.68E+01	0.00E+00	1.68E+01
		K-40	5.89E+01	1.97E+01	2.68E+01
		H3SW	1.78E+03	1.57E+02	1.84E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
569034	5/31/2022 - 6/28/2022	Mn-54	<1.99E+00	0.00E+00	1.99E+00
		Co-58	<2.54E+00	0.00E+00	2.54E+00
		Fe-59	<3.32E+00	0.00E+00	3.32E+00
		Co-60	<2.34E+00	0.00E+00	2.34E+00
		Zn-65	<4.34E+00	0.00E+00	4.34E+00
		Zr-95	<4.61E+00	0.00E+00	4.61E+00
		Nb-95	<3.31E+00	0.00E+00	3.31E+00
		I-131	<1.19E+01	0.00E+00	1.19E+01
		Cs-134	<2.24E+00	0.00E+00	2.24E+00
		Cs-137	<1.81E+00	0.00E+00	1.81E+00
		BaLa-140	<5.71E+00	0.00E+00	5.71E+00
		Be-7	<2.15E+01	0.00E+00	2.15E+01
		K-40	9.64E+01	2.49E+01	2.37E+01
		H3SW	1.67E+03	1.58E+02	1.91E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
571502	6/28/2022 - 7/25/2022	Mn-54	<2.46E+00	0.00E+00	2.46E+00
		Co-58	<3.73E+00	0.00E+00	3.73E+00
		Fe-59	<6.57E+00	0.00E+00	6.57E+00
		Co-60	<3.51E+00	0.00E+00	3.51E+00
		Zn-65	<5.26E+00	0.00E+00	5.26E+00
		Zr-95	<5.83E+00	0.00E+00	5.83E+00
		Nb-95	<4.15E+00	0.00E+00	4.15E+00
		I-131	<1.02E+01	0.00E+00	1.02E+01
		Cs-134	<2.89E+00	0.00E+00	2.89E+00

ROBINSON Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: SURFACE WATER Concentration (Activity): pCi/l

Sample Point 40 [INDICATOR - ESE @ 0.6 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
571502	6/28/2022 - 7/25/2022	Cs-137	<2.61E+00	0.00E+00	2.61E+00
		BaLa-140	<5.67E+00	0.00E+00	5.67E+00
		Be-7	<2.42E+01	0.00E+00	2.42E+01
		K-40	5.97E+01	2.77E+01	3.55E+01
		H3SW	1.22E+03	1.49E+02	1.94E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
574703	7/25/2022 - 8/29/2022	Mn-54	<1.97E+00	0.00E+00	1.97E+00
		Co-58	<1.98E+00	0.00E+00	1.98E+00
		Fe-59	<3.96E+00	0.00E+00	3.96E+00
		Co-60	<1.92E+00	0.00E+00	1.92E+00
		Zn-65	<3.56E+00	0.00E+00	3.56E+00
		Zr-95	<3.98E+00	0.00E+00	3.98E+00
		Nb-95	<2.92E+00	0.00E+00	2.92E+00
		I-131	<1.05E+01	0.00E+00	1.05E+01
		Cs-134	<2.19E+00	0.00E+00	2.19E+00
		Cs-137	<2.11E+00	0.00E+00	2.11E+00
		BaLa-140	<6.64E+00	0.00E+00	6.64E+00
		Be-7	<1.83E+01	0.00E+00	1.83E+01
		K-40	7.35E+01	2.13E+01	2.43E+01
H3SW	2.78E+03	1.81E+02	1.81E+02		

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
576483	8/29/2022 - 9/26/2022	Mn-54	<3.44E+00	0.00E+00	3.44E+00
		Co-58	<2.37E+00	0.00E+00	2.37E+00
		Fe-59	<6.34E+00	0.00E+00	6.34E+00
		Co-60	<2.98E+00	0.00E+00	2.98E+00
		Zn-65	<5.52E+00	0.00E+00	5.52E+00
		Zr-95	<7.01E+00	0.00E+00	7.01E+00
		Nb-95	<3.46E+00	0.00E+00	3.46E+00
		I-131	<1.18E+01	0.00E+00	1.18E+01
		Cs-134	<3.54E+00	0.00E+00	3.54E+00
		Cs-137	<3.09E+00	0.00E+00	3.09E+00
		BaLa-140	<8.76E+00	0.00E+00	8.76E+00
		Be-7	<3.38E+01	0.00E+00	3.38E+01
		K-40	8.44E+01	4.34E+01	6.18E+01
H3SW	2.99E+03	1.86E+02	1.86E+02		

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
578873	9/26/2022 - 11/1/2022	Mn-54	<1.58E+00	0.00E+00	1.58E+00
		Co-58	<1.94E+00	0.00E+00	1.94E+00
		Fe-59	<3.71E+00	0.00E+00	3.71E+00
		Co-60	<1.68E+00	0.00E+00	1.68E+00
		Zn-65	<3.17E+00	0.00E+00	3.17E+00
		Zr-95	<2.87E+00	0.00E+00	2.87E+00
		Nb-95	<2.38E+00	0.00E+00	2.38E+00
		I-131	<9.47E+00	0.00E+00	9.47E+00
		Cs-134	<1.77E+00	0.00E+00	1.77E+00
		Cs-137	<1.62E+00	0.00E+00	1.62E+00
		BaLa-140	<4.29E+00	0.00E+00	4.29E+00
		Be-7	<1.63E+01	0.00E+00	1.63E+01
		K-40	7.26E+01	2.18E+01	2.83E+01
H3SW	6.57E+03	2.49E+02	1.80E+02		

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
580895	11/1/2022 - 11/29/2022	Mn-54	<2.94E+00	0.00E+00	2.94E+00
		Co-58	<3.28E+00	0.00E+00	3.28E+00
		Fe-59	<6.03E+00	0.00E+00	6.03E+00
		Co-60	<2.76E+00	0.00E+00	2.76E+00
		Zn-65	<6.85E+00	0.00E+00	6.85E+00
		Zr-95	<6.73E+00	0.00E+00	6.73E+00
		Nb-95	<3.78E+00	0.00E+00	3.78E+00
		I-131	<1.34E+01	0.00E+00	1.34E+01
		Cs-134	<3.26E+00	0.00E+00	3.26E+00
		Cs-137	<2.56E+00	0.00E+00	2.56E+00
		BaLa-140	<8.13E+00	0.00E+00	8.13E+00
		Be-7	<2.66E+01	0.00E+00	2.66E+01

ROBINSON Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: SURFACE WATER Concentration (Activity): pCi/l

Sample Point 40 [INDICATOR - ESE @ 0.6 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
580895	11/1/2022 - 11/29/2022	K-40	1.06E+02	3.63E+01	4.21E+01
		H3SW	6.54E+03	2.55E+02	2.02E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
582608	11/29/2022 - 12/27/2022	Mn-54	<2.38E+00	0.00E+00	2.38E+00
		Co-58	<2.24E+00	0.00E+00	2.24E+00
		Fe-59	<5.40E+00	0.00E+00	5.40E+00
		Co-60	<1.96E+00	0.00E+00	1.96E+00
		Zn-65	<4.50E+00	0.00E+00	4.50E+00
		Zr-95	<3.61E+00	0.00E+00	3.61E+00
		Nb-95	<2.81E+00	0.00E+00	2.81E+00
		I-131	<1.35E+01	0.00E+00	1.35E+01
		Cs-134	<2.09E+00	0.00E+00	2.09E+00
		Cs-137	<2.26E+00	0.00E+00	2.26E+00
		BaLa-140	<7.08E+00	0.00E+00	7.08E+00
		Be-7	<1.98E+01	0.00E+00	1.98E+01
		K-40	8.28E+01	2.86E+01	3.75E+01
H3SW	5.64E+03	2.50E+02	2.02E+02		

Sample Point 41 [CONTROL - N @ 8 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
560432	12/28/2021 - 2/1/2022	Mn-54	<1.88E+00	0.00E+00	1.88E+00
		Co-58	<1.67E+00	0.00E+00	1.67E+00
		Fe-59	<3.92E+00	0.00E+00	3.92E+00
		Co-60	<1.51E+00	0.00E+00	1.51E+00
		Zn-65	<3.49E+00	0.00E+00	3.49E+00
		Zr-95	<3.94E+00	0.00E+00	3.94E+00
		Nb-95	<2.43E+00	0.00E+00	2.43E+00
		I-131	<1.11E+01	0.00E+00	1.11E+01
		Cs-134	<1.93E+00	0.00E+00	1.93E+00
		Cs-137	<1.65E+00	0.00E+00	1.65E+00
		BaLa-140	<5.72E+00	0.00E+00	5.72E+00
		Be-7	<1.56E+01	0.00E+00	1.56E+01
		K-40	8.83E+01	2.22E+01	2.73E+01
H3SW	<-2.7E+01	0.00E+00	1.76E+02		

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
562189	2/1/2022 - 2/22/2022	Mn-54	<4.15E+00	0.00E+00	4.15E+00
		Co-58	<5.23E+00	0.00E+00	5.23E+00
		Fe-59	<9.83E+00	0.00E+00	9.83E+00
		Co-60	<3.09E+00	0.00E+00	3.09E+00
		Zn-65	<1.01E+01	0.00E+00	1.01E+01
		Zr-95	<7.90E+00	0.00E+00	7.90E+00
		Nb-95	<5.03E+00	0.00E+00	5.03E+00
		I-131	<1.19E+01	0.00E+00	1.19E+01
		Cs-134	<4.18E+00	0.00E+00	4.18E+00
		Cs-137	<4.06E+00	0.00E+00	4.06E+00
		BaLa-140	<1.04E+01	0.00E+00	1.04E+01
		Be-7	<3.84E+01	0.00E+00	3.84E+01
		K-40	<7.58E+01	0.00E+00	7.58E+01
H3SW	<-1.3E+02	0.00E+00	1.90E+02		

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
564088	2/22/2022 - 3/28/2022	Mn-54	<2.11E+00	0.00E+00	2.11E+00
		Co-58	<2.38E+00	0.00E+00	2.38E+00
		Fe-59	<5.00E+00	0.00E+00	5.00E+00
		Co-60	<1.87E+00	0.00E+00	1.87E+00
		Zn-65	<4.73E+00	0.00E+00	4.73E+00
		Zr-95	<4.25E+00	0.00E+00	4.25E+00
		Nb-95	<3.25E+00	0.00E+00	3.25E+00
		I-131	<1.18E+01	0.00E+00	1.18E+01
		Cs-134	<2.02E+00	0.00E+00	2.02E+00
		Cs-137	<2.03E+00	0.00E+00	2.03E+00
		BaLa-140	<6.08E+00	0.00E+00	6.08E+00
		Be-7	<1.96E+01	0.00E+00	1.96E+01
		K-40	8.61E+01	2.65E+01	3.29E+01

ROBINSON Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: SURFACE WATER Concentration (Activity): pCi/l

Sample Point 41 [CONTROL - N @ 8 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
564088	2/22/2022 - 3/28/2022	H3SW	<-2.3E+00	0.00E+00	1.84E+02
566056	3/28/2022 - 4/25/2022	Mn-54	<2.79E+00	0.00E+00	2.79E+00
		Co-58	<2.90E+00	0.00E+00	2.90E+00
		Fe-59	<6.37E+00	0.00E+00	6.37E+00
		Co-60	<2.26E+00	0.00E+00	2.26E+00
		Zn-65	<5.42E+00	0.00E+00	5.42E+00
		Zr-95	<5.83E+00	0.00E+00	5.83E+00
		Nb-95	<4.36E+00	0.00E+00	4.36E+00
		I-131	<1.16E+01	0.00E+00	1.16E+01
		Cs-134	<3.21E+00	0.00E+00	3.21E+00
		Cs-137	<3.25E+00	0.00E+00	3.25E+00
		BaLa-140	<6.34E+00	0.00E+00	6.34E+00
		Be-7	<2.73E+01	0.00E+00	2.73E+01
		K-40	5.87E+01	3.12E+01	4.44E+01
		H3SW	<-5.4E+01	0.00E+00	1.87E+02
567697	4/25/2022 - 5/31/2022	Mn-54	<1.41E+00	0.00E+00	1.41E+00
		Co-58	<1.25E+00	0.00E+00	1.25E+00
		Fe-59	<3.43E+00	0.00E+00	3.43E+00
		Co-60	<1.26E+00	0.00E+00	1.26E+00
		Zn-65	<3.24E+00	0.00E+00	3.24E+00
		Zr-95	<2.86E+00	0.00E+00	2.86E+00
		Nb-95	<1.90E+00	0.00E+00	1.90E+00
		I-131	<1.12E+01	0.00E+00	1.12E+01
		Cs-134	<1.45E+00	0.00E+00	1.45E+00
		Cs-137	<1.27E+00	0.00E+00	1.27E+00
		BaLa-140	<4.75E+00	0.00E+00	4.75E+00
		Be-7	<1.45E+01	0.00E+00	1.45E+01
		K-40	6.95E+01	1.83E+01	2.35E+01
		H3SW	<-6.8E+01	0.00E+00	1.84E+02
569035	5/31/2022 - 6/28/2022	Mn-54	<2.07E+00	0.00E+00	2.07E+00
		Co-58	<1.79E+00	0.00E+00	1.79E+00
		Fe-59	<4.60E+00	0.00E+00	4.60E+00
		Co-60	<1.72E+00	0.00E+00	1.72E+00
		Zn-65	<2.73E+00	0.00E+00	2.73E+00
		Zr-95	<3.98E+00	0.00E+00	3.98E+00
		Nb-95	<3.10E+00	0.00E+00	3.10E+00
		I-131	<1.12E+01	0.00E+00	1.12E+01
		Cs-134	<1.99E+00	0.00E+00	1.99E+00
		Cs-137	<2.06E+00	0.00E+00	2.06E+00
		BaLa-140	<6.63E+00	0.00E+00	6.63E+00
		Be-7	<2.12E+01	0.00E+00	2.12E+01
		K-40	7.54E+01	2.48E+01	3.22E+01
		H3SW	<-3.1E+01	0.00E+00	1.90E+02
571503	6/28/2022 - 7/25/2022	Mn-54	<2.67E+00	0.00E+00	2.67E+00
		Co-58	<3.09E+00	0.00E+00	3.09E+00
		Fe-59	<7.84E+00	0.00E+00	7.84E+00
		Co-60	<3.25E+00	0.00E+00	3.25E+00
		Zn-65	<5.72E+00	0.00E+00	5.72E+00
		Zr-95	<5.69E+00	0.00E+00	5.69E+00
		Nb-95	<3.74E+00	0.00E+00	3.74E+00
		I-131	<1.14E+01	0.00E+00	1.14E+01
		Cs-134	<2.59E+00	0.00E+00	2.59E+00
		Cs-137	<3.78E+00	0.00E+00	3.78E+00
		BaLa-140	<7.91E+00	0.00E+00	7.91E+00
		Be-7	<2.85E+01	0.00E+00	2.85E+01
		K-40	8.62E+01	3.21E+01	3.45E+01
		H3SW	<-9.8E+01	0.00E+00	1.93E+02

ROBINSON Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: SURFACE WATER Concentration (Activity): pCi/l

Sample Point 41 [CONTROL - N @ 8 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
574704	7/25/2022 - 8/29/2022	Mn-54	<2.05E+00	0.00E+00	2.05E+00
		Co-58	<2.27E+00	0.00E+00	2.27E+00
		Fe-59	<4.71E+00	0.00E+00	4.71E+00
		Co-60	<1.88E+00	0.00E+00	1.88E+00
		Zn-65	<4.74E+00	0.00E+00	4.74E+00
		Zr-95	<4.29E+00	0.00E+00	4.29E+00
		Nb-95	<2.83E+00	0.00E+00	2.83E+00
		I-131	<1.18E+01	0.00E+00	1.18E+01
		Cs-134	<2.46E+00	0.00E+00	2.46E+00
		Cs-137	<2.08E+00	0.00E+00	2.08E+00
		BaLa-140	<6.35E+00	0.00E+00	6.35E+00
		Be-7	<1.91E+01	0.00E+00	1.91E+01
		K-40	7.06E+01	2.48E+01	3.30E+01
		H3SW	<-1.9E+01	0.00E+00	1.79E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
576484	8/29/2022 - 9/26/2022	Mn-54	<3.01E+00	0.00E+00	3.01E+00
		Co-58	<3.38E+00	0.00E+00	3.38E+00
		Fe-59	<6.33E+00	0.00E+00	6.33E+00
		Co-60	<2.18E+00	0.00E+00	2.18E+00
		Zn-65	<5.80E+00	0.00E+00	5.80E+00
		Zr-95	<5.48E+00	0.00E+00	5.48E+00
		Nb-95	<3.42E+00	0.00E+00	3.42E+00
		I-131	<1.18E+01	0.00E+00	1.18E+01
		Cs-134	<2.88E+00	0.00E+00	2.88E+00
		Cs-137	<2.79E+00	0.00E+00	2.79E+00
		BaLa-140	<6.50E+00	0.00E+00	6.50E+00
		Be-7	<2.71E+01	0.00E+00	2.71E+01
		K-40	<6.32E+01	0.00E+00	6.32E+01
		H3SW	<-1.5E+01	0.00E+00	1.86E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
578874	9/26/2022 - 11/1/2022	Mn-54	<2.04E+00	0.00E+00	2.04E+00
		Co-58	<2.10E+00	0.00E+00	2.10E+00
		Fe-59	<4.90E+00	0.00E+00	4.90E+00
		Co-60	<1.78E+00	0.00E+00	1.78E+00
		Zn-65	<4.16E+00	0.00E+00	4.16E+00
		Zr-95	<4.08E+00	0.00E+00	4.08E+00
		Nb-95	<2.62E+00	0.00E+00	2.62E+00
		I-131	<1.20E+01	0.00E+00	1.20E+01
		Cs-134	<1.96E+00	0.00E+00	1.96E+00
		Cs-137	<1.89E+00	0.00E+00	1.89E+00
		BaLa-140	<5.11E+00	0.00E+00	5.11E+00
		Be-7	<2.06E+01	0.00E+00	2.06E+01
		K-40	8.42E+01	2.53E+01	3.12E+01
		H3SW	<5.61E+01	0.00E+00	1.80E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
580896	11/1/2022 - 11/29/2022	Mn-54	<4.22E+00	0.00E+00	4.22E+00
		Co-58	<4.49E+00	0.00E+00	4.49E+00
		Fe-59	<8.43E+00	0.00E+00	8.43E+00
		Co-60	<4.27E+00	0.00E+00	4.27E+00
		Zn-65	<9.49E+00	0.00E+00	9.49E+00
		Zr-95	<7.97E+00	0.00E+00	7.97E+00
		Nb-95	<3.98E+00	0.00E+00	3.98E+00
		I-131	<1.21E+01	0.00E+00	1.21E+01
		Cs-134	<4.03E+00	0.00E+00	4.03E+00
		Cs-137	<2.83E+00	0.00E+00	2.83E+00
		BaLa-140	<8.50E+00	0.00E+00	8.50E+00
		Be-7	<3.39E+01	0.00E+00	3.39E+01
		K-40	8.65E+01	3.73E+01	3.35E+01
		H3SW	<-1.5E+02	0.00E+00	2.03E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
582609	11/29/2022 - 12/27/2022	Mn-54	<1.97E+00	0.00E+00	1.97E+00
		Co-58	<2.28E+00	0.00E+00	2.28E+00
		Fe-59	<5.41E+00	0.00E+00	5.41E+00

ROBINSON Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: SURFACE WATER Concentration (Activity): pCi/l

Sample Point 41 [CONTROL - N @ 8 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
582609	11/29/2022 - 12/27/2022	Co-60	<1.83E+00	0.00E+00	1.83E+00
		Zn-65	<4.06E+00	0.00E+00	4.06E+00
		Zr-95	<4.06E+00	0.00E+00	4.06E+00
		Nb-95	<3.08E+00	0.00E+00	3.08E+00
		I-131	<1.26E+01	0.00E+00	1.26E+01
		Cs-134	<2.27E+00	0.00E+00	2.27E+00
		Cs-137	<2.28E+00	0.00E+00	2.28E+00
		BaLa-140	<6.28E+00	0.00E+00	6.28E+00
		Be-7	<2.00E+01	0.00E+00	2.00E+01
		K-40	9.49E+01	2.48E+01	2.55E+01
		H3SW	<-2.2E+01	0.00E+00	2.01E+02

Media Type: TLD Concentration (Activity): mR/Standard Quarter

Sample Point 1 [CONTROL - ESE @ 24.4 miles]

TLD RING TLD_CTRL

Sample ID:	Sample Dates:	Nuclide	Activity
566616	1/13/2022 - 4/20/2022	mR/Std Qtr	20.54
564395	4/20/2022 - 7/14/2022	mR/Std Qtr	16.95
570161	7/14/2022 - 10/13/2022	mR/Std Qtr	16.36
577024	10/13/2022 - 1/12/2023	mR/Std Qtr	19.89

Sample Point 2 [INDICATOR - S @ 0.2 miles]

TLD RING TLD_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
566626	1/13/2022 - 4/20/2022	mR/Std Qtr	16.91
564405	4/20/2022 - 7/14/2022	mR/Std Qtr	14.00
570171	7/14/2022 - 10/13/2022	mR/Std Qtr	11.73
577034	10/13/2022 - 1/12/2023	mR/Std Qtr	15.44

Sample Point 3 [INDICATOR - N @ 0.5 miles]

TLD RING TLD_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
566637	1/13/2022 - 4/20/2022	mR/Std Qtr	17.42
564416	4/20/2022 - 7/14/2022	mR/Std Qtr	14.92
570182	7/14/2022 - 10/13/2022	mR/Std Qtr	14.50
577045	10/13/2022 - 1/12/2023	mR/Std Qtr	15.55

Sample Point 4 [INDICATOR - ESE @ 0.4 miles]

TLD RING TLD_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
566648	1/13/2022 - 4/20/2022	mR/Std Qtr	14.23
564427	4/20/2022 - 7/14/2022	mR/Std Qtr	10.47
570193	7/14/2022 - 10/13/2022	mR/Std Qtr	9.73
577056	10/13/2022 - 1/12/2023	mR/Std Qtr	13.10

ROBINSON Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: TLD Concentration (Activity): mR/Standard Quarter

Sample Point 5 [INDICATOR - ENE @ 0.9 miles]

TLD RING TLD_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
566649	1/13/2022 - 4/20/2022	mR/Std Qtr	16.44
564428	4/20/2022 - 7/14/2022	mR/Std Qtr	13.20
570194	7/14/2022 - 10/13/2022	mR/Std Qtr	11.88
577057	10/13/2022 - 1/12/2023	mR/Std Qtr	14.12

Sample Point 6 [INDICATOR - SSW @ 0.2 miles]

TLD RING TLD_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
566652	1/13/2022 - 4/20/2022	mR/Std Qtr	18.00
564431	4/20/2022 - 7/14/2022	mR/Std Qtr	14.32
570197	7/14/2022 - 10/13/2022	mR/Std Qtr	14.18
577060	10/13/2022 - 1/12/2023	mR/Std Qtr	15.82

Sample Point 7 [INDICATOR - ESE @ 6.4 miles]

TLD RING TLD_OUTER

Sample ID:	Sample Dates:	Nuclide	Activity
566655	1/13/2022 - 4/20/2022	mR/Std Qtr	16.35
564434	4/20/2022 - 7/14/2022	mR/Std Qtr	13.77
570200	7/14/2022 - 10/13/2022	mR/Std Qtr	13.33
577063	10/13/2022 - 1/12/2023	mR/Std Qtr	16.24

Sample Point 9 [INDICATOR - S @ 1 miles]

TLD RING TLD_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
566658	1/13/2022 - 4/20/2022	mR/Std Qtr	15.24
564437	4/20/2022 - 7/14/2022	mR/Std Qtr	12.18
570203	7/14/2022 - 10/13/2022	mR/Std Qtr	11.08
577066	10/13/2022 - 1/12/2023	mR/Std Qtr	14.06

Sample Point 10 [INDICATOR - WSW @ 1 miles]

TLD RING TLD_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
566617	1/13/2022 - 4/20/2022	mR/Std Qtr	14.72
564396	4/20/2022 - 7/14/2022	mR/Std Qtr	12.37
570162	7/14/2022 - 10/13/2022	mR/Std Qtr	11.42
577025	10/13/2022 - 1/12/2023	mR/Std Qtr	14.74

Sample Point 11 [INDICATOR - SW @ 1 miles]

TLD RING TLD_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
566618	1/13/2022 - 4/20/2022	mR/Std Qtr	14.87
564397	4/20/2022 - 7/14/2022	mR/Std Qtr	11.55

ROBINSON Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: TLD Concentration (Activity): mR/Standard Quarter

Sample Point 11 [INDICATOR - SW @ 1 miles]

TLD RING TLD_INNER

Sample ID:	570163	Sample Dates:	7/14/2022 - 10/13/2022	Nuclide	Activity
				mR/Std Qtr	10.88

Sample ID:	577026	Sample Dates:	10/13/2022 - 1/12/2023	Nuclide	Activity
				mR/Std Qtr	13.97

Sample Point 13 [INDICATOR - W @ 0.7 miles] TLD RING TLD_INNER

Sample ID:	566619	Sample Dates:	1/13/2022 - 4/20/2022	Nuclide	Activity
				mR/Std Qtr	16.95

Sample ID:	564398	Sample Dates:	4/20/2022 - 7/14/2022	Nuclide	Activity
				mR/Std Qtr	15.89

Sample ID:	570164	Sample Dates:	7/14/2022 - 10/13/2022	Nuclide	Activity
				mR/Std Qtr	13.76

Sample ID:	577027	Sample Dates:	10/13/2022 - 1/12/2023	Nuclide	Activity
				mR/Std Qtr	15.42

Sample Point 14 [INDICATOR - WNW @ 0.8 miles] TLD RING TLD_INNER

Sample ID:	566620	Sample Dates:	1/13/2022 - 4/20/2022	Nuclide	Activity
				mR/Std Qtr	18.78

Sample ID:	564399	Sample Dates:	4/20/2022 - 7/14/2022	Nuclide	Activity
				mR/Std Qtr	15.91

Sample ID:	570165	Sample Dates:	7/14/2022 - 10/13/2022	Nuclide	Activity
				mR/Std Qtr	16.91

Sample ID:	577028	Sample Dates:	10/13/2022 - 1/12/2023	Nuclide	Activity
				mR/Std Qtr	20.90

Sample Point 15 [INDICATOR - NW @ 0.7 miles] TLD RING TLD_INNER

Sample ID:	566621	Sample Dates:	1/13/2022 - 4/20/2022	Nuclide	Activity
				mR/Std Qtr	13.55

Sample ID:	564400	Sample Dates:	4/20/2022 - 7/14/2022	Nuclide	Activity
				mR/Std Qtr	14.01

Sample ID:	570166	Sample Dates:	7/14/2022 - 10/13/2022	Nuclide	Activity
				mR/Std Qtr	12.13

Sample ID:	577029	Sample Dates:	10/13/2022 - 1/12/2023	Nuclide	Activity
				mR/Std Qtr	14.46

Sample Point 16 [INDICATOR - NNW @ 1 miles] TLD RING TLD_INNER

Sample ID:	566622	Sample Dates:	1/13/2022 - 4/20/2022	Nuclide	Activity
				mR/Std Qtr	17.20

Sample ID:	564401	Sample Dates:	4/20/2022 - 7/14/2022	Nuclide	Activity
				mR/Std Qtr	13.98

Sample ID:	570167	Sample Dates:	7/14/2022 - 10/13/2022	Nuclide	Activity
				mR/Std Qtr	11.83

Sample ID:	577030	Sample Dates:	10/13/2022 - 1/12/2023	Nuclide	Activity
				mR/Std Qtr	17.05

Sample Point 17 [INDICATOR - N @ 1.2 miles] TLD RING TLD_INNER

Sample ID:	566623	Sample Dates:	1/13/2022 - 4/20/2022	Nuclide	Activity
				mR/Std Qtr	21.69

Sample ID:	564402	Sample Dates:	4/20/2022 - 7/14/2022	Nuclide	Activity
				mR/Std Qtr	16.30

Sample ID:	570168	Sample Dates:	7/14/2022 - 10/13/2022	Nuclide	Activity
				mR/Std Qtr	15.62

Sample ID:	577031	Sample Dates:	10/13/2022 - 1/12/2023	Nuclide	Activity
				mR/Std Qtr	20.38

ROBINSON Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: TLD Concentration (Activity): mR/Standard Quarter

Sample Point 18 [INDICATOR - SE @ 0.7 miles]

TLD RING TLD_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
566624	1/13/2022 - 4/20/2022	mR/Std Qtr	20.12
564403	4/20/2022 - 7/14/2022	mR/Std Qtr	15.94
570169	7/14/2022 - 10/13/2022	mR/Std Qtr	15.90
577032	10/13/2022 - 1/12/2023	mR/Std Qtr	17.97

Sample Point 19 [INDICATOR - E @ 1 miles]

TLD RING TLD_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
566625	1/13/2022 - 4/20/2022	mR/Std Qtr	15.92
564404	4/20/2022 - 7/14/2022	mR/Std Qtr	14.22
570170	7/14/2022 - 10/13/2022	mR/Std Qtr	12.96
577033	10/13/2022 - 1/12/2023	mR/Std Qtr	16.77

Sample Point 20 [INDICATOR - ENE @ 1 miles]

TLD RING TLD_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
566627	1/13/2022 - 4/20/2022	mR/Std Qtr	17.33
564406	4/20/2022 - 7/14/2022	mR/Std Qtr	14.15
570172	7/14/2022 - 10/13/2022	mR/Std Qtr	13.61
577035	10/13/2022 - 1/12/2023	mR/Std Qtr	17.24

Sample Point 21 [INDICATOR - NE @ 1.4 miles]

TLD RING TLD_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
566628	1/13/2022 - 4/20/2022	mR/Std Qtr	15.47
564407	4/20/2022 - 7/14/2022	mR/Std Qtr	12.07
570173	7/14/2022 - 10/13/2022	mR/Std Qtr	12.92
577036	10/13/2022 - 1/12/2023	mR/Std Qtr	15.47

Sample Point 22 [INDICATOR - NNE @ 1.7 miles]

TLD RING TLD_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
566629	1/13/2022 - 4/20/2022	mR/Std Qtr	17.19
564408	4/20/2022 - 7/14/2022	mR/Std Qtr	15.19
570174	7/14/2022 - 10/13/2022	mR/Std Qtr	13.60
577037	10/13/2022 - 1/12/2023	mR/Std Qtr	16.79

Sample Point 23 [INDICATOR - ESE @ 1 miles]

TLD RING TLD_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
566630	1/13/2022 - 4/20/2022	mR/Std Qtr	18.64
564409	4/20/2022 - 7/14/2022	mR/Std Qtr	15.43

ROBINSON Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: TLD Concentration (Activity): mR/Standard Quarter

Sample Point 23 [INDICATOR - ESE @ 1 miles]

TLD RING TLD_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
570175	7/14/2022 - 10/13/2022	mR/Std Qtr	12.76
577038	10/13/2022 - 1/12/2023	mR/Std Qtr	17.10

Sample Point 24 [INDICATOR - NW @ 4.6 miles]

TLD RING TLD_OUTER

Sample ID:	Sample Dates:	Nuclide	Activity
566631	1/13/2022 - 4/20/2022	mR/Std Qtr	21.74
564410	4/20/2022 - 7/14/2022	mR/Std Qtr	17.35
570176	7/14/2022 - 10/13/2022	mR/Std Qtr	16.51
577039	10/13/2022 - 1/12/2023	mR/Std Qtr	19.39

Sample Point 25 [INDICATOR - NNW @ 4 miles]

TLD RING TLD_OUTER

Sample ID:	Sample Dates:	Nuclide	Activity
566632	1/13/2022 - 4/20/2022	mR/Std Qtr	17.61
564411	4/20/2022 - 7/14/2022	mR/Std Qtr	13.56
570177	7/14/2022 - 10/13/2022	mR/Std Qtr	13.84
577040	10/13/2022 - 1/12/2023	mR/Std Qtr	17.65

Sample Point 26 [INDICATOR - N @ 5 miles]

TLD RING TLD_OUTER

Sample ID:	Sample Dates:	Nuclide	Activity
566633	1/13/2022 - 4/20/2022	mR/Std Qtr	17.59
564412	4/20/2022 - 7/14/2022	mR/Std Qtr	14.93
570178	7/14/2022 - 10/13/2022	mR/Std Qtr	13.04
577041	10/13/2022 - 1/12/2023	mR/Std Qtr	16.81

Sample Point 27 [INDICATOR - NNE @ 5.4 miles]

TLD RING TLD_OUTER

Sample ID:	Sample Dates:	Nuclide	Activity
566634	1/13/2022 - 4/20/2022	mR/Std Qtr	15.68
564413	4/20/2022 - 7/14/2022	mR/Std Qtr	12.71
570179	7/14/2022 - 10/13/2022	mR/Std Qtr	12.74
577042	10/13/2022 - 1/12/2023	mR/Std Qtr	15.78

Sample Point 28 [INDICATOR - NE @ 4.3 miles]

TLD RING TLD_OUTER

Sample ID:	Sample Dates:	Nuclide	Activity
566635	1/13/2022 - 4/20/2022	mR/Std Qtr	20.31
564414	4/20/2022 - 7/14/2022	mR/Std Qtr	16.81
570180	7/14/2022 - 10/13/2022	mR/Std Qtr	17.17
577043	10/13/2022 - 1/12/2023	mR/Std Qtr	21.25

ROBINSON Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: TLD Concentration (Activity): mR/Standard Quarter

Sample Point 29 [INDICATOR - ENE @ 4 miles]

TLD RING TLD_OUTER

Sample ID:	Sample Dates:	Nuclide	Activity
566636	1/13/2022 - 4/20/2022	mR/Std Qtr	14.28
564415	4/20/2022 - 7/14/2022	mR/Std Qtr	11.60
570181	7/14/2022 - 10/13/2022	mR/Std Qtr	11.79
577044	10/13/2022 - 1/12/2023	mR/Std Qtr	14.55

Sample Point 30 [INDICATOR - E @ 4.4 miles]

TLD RING TLD_OUTER

Sample ID:	Sample Dates:	Nuclide	Activity
566638	1/13/2022 - 4/20/2022	mR/Std Qtr	19.04
564417	4/20/2022 - 7/14/2022	mR/Std Qtr	15.61
570183	7/14/2022 - 10/13/2022	mR/Std Qtr	14.25
577046	10/13/2022 - 1/12/2023	mR/Std Qtr	16.44

Sample Point 31 [INDICATOR - ESE @ 4.6 miles]

TLD RING TLD_OUTER

Sample ID:	Sample Dates:	Nuclide	Activity
566639	1/13/2022 - 4/20/2022	mR/Std Qtr	17.85
564418	4/20/2022 - 7/14/2022	mR/Std Qtr	15.51
570184	7/14/2022 - 10/13/2022	mR/Std Qtr	15.71
577047	10/13/2022 - 1/12/2023	mR/Std Qtr	18.27

Sample Point 32 [INDICATOR - SE @ 4 miles]

TLD RING TLD_OUTER

Sample ID:	Sample Dates:	Nuclide	Activity
566640	1/13/2022 - 4/20/2022	mR/Std Qtr	18.04
564419	4/20/2022 - 7/14/2022	mR/Std Qtr	15.18
570185	7/14/2022 - 10/13/2022	mR/Std Qtr	14.03
577048	10/13/2022 - 1/12/2023	mR/Std Qtr	16.35

Sample Point 33 [INDICATOR - SSE @ 4.5 miles]

TLD RING TLD_OUTER

Sample ID:	Sample Dates:	Nuclide	Activity
566641	1/13/2022 - 4/20/2022	mR/Std Qtr	20.81
564420	4/20/2022 - 7/14/2022	mR/Std Qtr	15.78
570186	7/14/2022 - 10/13/2022	mR/Std Qtr	14.54
577049	10/13/2022 - 1/12/2023	mR/Std Qtr	18.14

Sample Point 34 [INDICATOR - S @ 4.7 miles]

TLD RING TLD_OUTER

Sample ID:	Sample Dates:	Nuclide	Activity
566642	1/13/2022 - 4/20/2022	mR/Std Qtr	13.67
564421	4/20/2022 - 7/14/2022	mR/Std Qtr	11.67

ROBINSON Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: TLD Concentration (Activity): mR/Standard Quarter

Sample Point 34 [INDICATOR - S @ 4.7 miles]

TLD RING TLD_OUTER

Sample ID:	570187	Sample Dates:	7/14/2022 - 10/13/2022	Nuclide	Activity
				mR/Std Qtr	9.68

Sample ID:	577050	Sample Dates:	10/13/2022 - 1/12/2023	Nuclide	Activity
				mR/Std Qtr	14.04

Sample Point 35 [INDICATOR - SSW @ 4.5 miles] TLD RING TLD_OUTER

Sample ID:	566643	Sample Dates:	1/13/2022 - 4/20/2022	Nuclide	Activity
				mR/Std Qtr	25.48

Sample ID:	564422	Sample Dates:	4/20/2022 - 7/14/2022	Nuclide	Activity
				mR/Std Qtr	20.51

Sample ID:	570188	Sample Dates:	7/14/2022 - 10/13/2022	Nuclide	Activity
				mR/Std Qtr	20.22

Sample ID:	577051	Sample Dates:	10/13/2022 - 1/12/2023	Nuclide	Activity
				mR/Std Qtr	24.81

Sample Point 36 [INDICATOR - SW @ 5 miles] TLD RING TLD_OUTER

Sample ID:	566644	Sample Dates:	1/13/2022 - 4/20/2022	Nuclide	Activity
				mR/Std Qtr	24.31

Sample ID:	564423	Sample Dates:	4/20/2022 - 7/14/2022	Nuclide	Activity
				mR/Std Qtr	18.27

Sample ID:	570189	Sample Dates:	7/14/2022 - 10/13/2022	Nuclide	Activity
				mR/Std Qtr	17.87

Sample ID:	577052	Sample Dates:	10/13/2022 - 1/12/2023	Nuclide	Activity
				mR/Std Qtr	24.18

Sample Point 37 [INDICATOR - WSW @ 5 miles] TLD RING TLD_OUTER

Sample ID:	566645	Sample Dates:	1/13/2022 - 4/20/2022	Nuclide	Activity
				mR/Std Qtr	24.27

Sample ID:	564424	Sample Dates:	4/20/2022 - 7/14/2022	Nuclide	Activity
				mR/Std Qtr	22.30

Sample ID:	570190	Sample Dates:	7/14/2022 - 10/13/2022	Nuclide	Activity
				mR/Std Qtr	19.80

Sample ID:	577053	Sample Dates:	10/13/2022 - 1/12/2023	Nuclide	Activity
				mR/Std Qtr	24.76

Sample Point 38 [INDICATOR - W @ 4.9 miles] TLD RING TLD_OUTER

Sample ID:	566646	Sample Dates:	1/13/2022 - 4/20/2022	Nuclide	Activity
				mR/Std Qtr	18.79

Sample ID:	564425	Sample Dates:	4/20/2022 - 7/14/2022	Nuclide	Activity
				mR/Std Qtr	16.56

Sample ID:	570191	Sample Dates:	7/14/2022 - 10/13/2022	Nuclide	Activity
				mR/Std Qtr	15.44

Sample ID:	577054	Sample Dates:	10/13/2022 - 1/12/2023	Nuclide	Activity
				mR/Std Qtr	16.88

Sample Point 39 [INDICATOR - WNW @ 5.1 miles] TLD RING TLD_OUTER

Sample ID:	566647	Sample Dates:	1/13/2022 - 4/20/2022	Nuclide	Activity
				mR/Std Qtr	18.72

Sample ID:	564426	Sample Dates:	4/20/2022 - 7/14/2022	Nuclide	Activity
				mR/Std Qtr	13.67

Sample ID:	570192	Sample Dates:	7/14/2022 - 10/13/2022	Nuclide	Activity
				mR/Std Qtr	15.10

Sample ID:	577055	Sample Dates:	10/13/2022 - 1/12/2023	Nuclide	Activity
				mR/Std Qtr	18.69

ROBINSON Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: TLD Concentration (Activity): mR/Standard Quarter

Sample Point 55 [INDICATOR - SSE @ 0.2 miles]

TLD RING TLD_INNER

Sample ID: 566650	Sample Dates: 1/13/2022 - 4/20/2022	Nuclide mR/Std Qtr	Activity 19.06
Sample ID: 564429	Sample Dates: 4/20/2022 - 7/14/2022	Nuclide mR/Std Qtr	Activity 14.94
Sample ID: 570195	Sample Dates: 7/14/2022 - 10/13/2022	Nuclide mR/Std Qtr	Activity 14.81
Sample ID: 577058	Sample Dates: 10/13/2022 - 1/12/2023	Nuclide mR/Std Qtr	Activity 17.35

Sample Point 56 [INDICATOR - NNW @ 0.4 miles]

TLD RING TLD_INNER

Sample ID: 570196	Sample Dates: 7/14/2022 - 10/13/2022	Nuclide mR/Std Qtr	Activity 13.13
Sample ID: 577059	Sample Dates: 10/13/2022 - 1/12/2023	Nuclide mR/Std Qtr	Activity 15.85

Sample Point 61 [INDICATOR - WSW @ 0.3 miles]

TLD RING TLD_INNER

Sample ID: 566653	Sample Dates: 1/13/2022 - 4/20/2022	Nuclide mR/Std Qtr	Activity 22.46
Sample ID: 564432	Sample Dates: 4/20/2022 - 7/14/2022	Nuclide mR/Std Qtr	Activity 20.42
Sample ID: 570198	Sample Dates: 7/14/2022 - 10/13/2022	Nuclide mR/Std Qtr	Activity 18.21
Sample ID: 577061	Sample Dates: 10/13/2022 - 1/12/2023	Nuclide mR/Std Qtr	Activity 23.35

Sample Point 65 [INDICATOR - WNW @ 0.3 miles]

TLD RING TLD_INNER

Sample ID: 566654	Sample Dates: 1/13/2022 - 4/20/2022	Nuclide mR/Std Qtr	Activity 23.19
Sample ID: 564433	Sample Dates: 4/20/2022 - 7/14/2022	Nuclide mR/Std Qtr	Activity 19.94
Sample ID: 570199	Sample Dates: 7/14/2022 - 10/13/2022	Nuclide mR/Std Qtr	Activity 17.50
Sample ID: 577062	Sample Dates: 10/13/2022 - 1/12/2023	Nuclide mR/Std Qtr	Activity 22.37

Sample Point 84 [INDICATOR - SSE @ 0.9 miles]

TLD RING TLD_INNER

Sample ID: 566656	Sample Dates: 1/13/2022 - 4/20/2022	Nuclide mR/Std Qtr	Activity 14.25
Sample ID: 564435	Sample Dates: 4/20/2022 - 7/14/2022	Nuclide mR/Std Qtr	Activity 10.67
Sample ID: 570201	Sample Dates: 7/14/2022 - 10/13/2022	Nuclide mR/Std Qtr	Activity 9.72
Sample ID: 577064	Sample Dates: 10/13/2022 - 1/12/2023	Nuclide mR/Std Qtr	Activity 14.33

Sample Point 85 [INDICATOR - SSW @ 0.9 miles]

TLD RING TLD_INNER

Sample ID: 566657	Sample Dates: 1/13/2022 - 4/20/2022	Nuclide mR/Std Qtr	Activity 13.80
Sample ID: 564436	Sample Dates: 4/20/2022 - 7/14/2022	Nuclide mR/Std Qtr	Activity 11.63
Sample ID: 570202	Sample Dates: 7/14/2022 - 10/13/2022	Nuclide mR/Std Qtr	Activity 10.44
Sample ID: 577065	Sample Dates: 10/13/2022 - 1/12/2023	Nuclide mR/Std Qtr	Activity 13.89

ROBINSON Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: VEGETATION Concentration (Activity): pCi/kg wet

Sample Point 50 [INDICATOR - SSE @ 0 miles]

Sample ID:	Sample Dates:	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
566795	5/5/2022 - 5/5/2022	MIXEDBLV	Mn-54	<1.72E+01	0.00E+00	1.72E+01
			Co-58	<1.46E+01	0.00E+00	1.46E+01
			Fe-59	<3.05E+01	0.00E+00	3.05E+01
			Co-60	<1.41E+01	0.00E+00	1.41E+01
			Zn-65	<2.87E+01	0.00E+00	2.87E+01
			Zr-95	<2.67E+01	0.00E+00	2.67E+01
			Nb-95	<1.59E+01	0.00E+00	1.59E+01
			I-131	<1.88E+01	0.00E+00	1.88E+01
			Cs-134	<2.32E+01	0.00E+00	2.32E+01
			Cs-137	5.64E+01	1.81E+01	2.34E+01
			BaLa-140	<1.65E+01	0.00E+00	1.65E+01
			Be-7	5.95E+02	1.38E+02	1.54E+02
			K-40	5.72E+03	6.45E+02	1.90E+02
568202	6/9/2022 - 6/9/2022	MIXEDBLV	Mn-54	<2.23E+01	0.00E+00	2.23E+01
			Co-58	<1.88E+01	0.00E+00	1.88E+01
			Fe-59	<4.52E+01	0.00E+00	4.52E+01
			Co-60	<2.57E+01	0.00E+00	2.57E+01
			Zn-65	<4.99E+01	0.00E+00	4.99E+01
			Zr-95	<3.05E+01	0.00E+00	3.05E+01
			Nb-95	<1.69E+01	0.00E+00	1.69E+01
			I-131	<3.15E+01	0.00E+00	3.15E+01
			Cs-134	<2.94E+01	0.00E+00	2.94E+01
			Cs-137	<2.37E+01	0.00E+00	2.37E+01
			BaLa-140	<2.57E+01	0.00E+00	2.57E+01
			Be-7	7.38E+02	1.92E+02	2.16E+02
			K-40	3.78E+03	5.81E+02	3.34E+02
570605	7/5/2022 - 7/5/2022	MIXEDBLV	Mn-54	<1.57E+01	0.00E+00	1.57E+01
			Co-58	<9.55E+00	0.00E+00	9.55E+00
			Fe-59	<3.13E+01	0.00E+00	3.13E+01
			Co-60	<1.52E+01	0.00E+00	1.52E+01
			Zn-65	<3.27E+01	0.00E+00	3.27E+01
			Zr-95	<2.58E+01	0.00E+00	2.58E+01
			Nb-95	<1.39E+01	0.00E+00	1.39E+01
			I-131	<2.02E+01	0.00E+00	2.02E+01
			Cs-134	<1.92E+01	0.00E+00	1.92E+01
			Cs-137	<1.28E+01	0.00E+00	1.28E+01
			BaLa-140	<1.57E+01	0.00E+00	1.57E+01
			Be-7	4.75E+02	1.29E+02	1.60E+02
			K-40	4.91E+03	5.74E+02	2.39E+02
572160	8/4/2022 - 8/4/2022	MIXEDBLV	Mn-54	<1.93E+01	0.00E+00	1.93E+01
			Co-58	<1.88E+01	0.00E+00	1.88E+01
			Fe-59	<3.51E+01	0.00E+00	3.51E+01
			Co-60	<2.39E+01	0.00E+00	2.39E+01
			Zn-65	<4.12E+01	0.00E+00	4.12E+01
			Zr-95	<3.16E+01	0.00E+00	3.16E+01
			Nb-95	<2.07E+01	0.00E+00	2.07E+01
			I-131	<2.45E+01	0.00E+00	2.45E+01
			Cs-134	<2.41E+01	0.00E+00	2.41E+01
			Cs-137	1.55E+01	1.89E+01	3.10E+01
			BaLa-140	<2.22E+01	0.00E+00	2.22E+01
			Be-7	2.10E+03	3.05E+02	2.30E+02
			K-40	2.66E+03	4.42E+02	3.44E+02
575582	9/6/2022 - 9/6/2022	MIXEDBLV	Mn-54	<2.64E+01	0.00E+00	2.64E+01
			Co-58	<2.23E+01	0.00E+00	2.23E+01
			Fe-59	<5.44E+01	0.00E+00	5.44E+01
			Co-60	<3.34E+01	0.00E+00	3.34E+01
			Zn-65	<7.03E+01	0.00E+00	7.03E+01
			Zr-95	<4.64E+01	0.00E+00	4.64E+01
			Nb-95	<2.84E+01	0.00E+00	2.84E+01

ROBINSON Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: VEGETATION Concentration (Activity): pCi/kg wet

Sample Point 50 [INDICATOR - SSE @ 0 miles]

Sample ID:	Sample Dates:	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
575582	9/6/2022 - 9/6/2022		I-131	<3.70E+01	0.00E+00	3.70E+01
			Cs-134	<3.27E+01	0.00E+00	3.27E+01
			Cs-137	<2.53E+01	0.00E+00	2.53E+01
			BaLa-140	<4.98E+01	0.00E+00	4.98E+01
			Be-7	1.74E+03	3.73E+02	4.28E+02
			K-40	3.88E+03	6.24E+02	3.56E+02

Sample ID:	Sample Dates:	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
577325	10/3/2022 - 10/3/2022		Mn-54	<3.47E+01	0.00E+00	3.47E+01
			Co-58	<3.21E+01	0.00E+00	3.21E+01
			Fe-59	<5.16E+01	0.00E+00	5.16E+01
			Co-60	<3.45E+01	0.00E+00	3.45E+01
			Zn-65	<6.86E+01	0.00E+00	6.86E+01
			Zr-95	<5.47E+01	0.00E+00	5.47E+01
			Nb-95	<3.24E+01	0.00E+00	3.24E+01
			I-131	<3.05E+01	0.00E+00	3.05E+01
			Cs-134	<4.00E+01	0.00E+00	4.00E+01
			Cs-137	<2.94E+01	0.00E+00	2.94E+01
			BaLa-140	<4.31E+01	0.00E+00	4.31E+01
			Be-7	8.93E+02	2.99E+02	4.06E+02
			K-40	3.87E+03	6.85E+02	5.19E+02

Sample ID:	Sample Dates:	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
564679	11/1/2022 - 11/1/2022		Mn-54	<3.97E+01	0.00E+00	3.97E+01
			Co-58	<3.35E+01	0.00E+00	3.35E+01
			Fe-59	<6.30E+01	0.00E+00	6.30E+01
			Co-60	<4.36E+01	0.00E+00	4.36E+01
			Zn-65	<6.93E+01	0.00E+00	6.93E+01
			Zr-95	<6.08E+01	0.00E+00	6.08E+01
			Nb-95	<3.50E+01	0.00E+00	3.50E+01
			I-131	<3.97E+01	0.00E+00	3.97E+01
			Cs-134	<3.47E+01	0.00E+00	3.47E+01
			Cs-137	<3.31E+01	0.00E+00	3.31E+01
			BaLa-140	<4.15E+01	0.00E+00	4.15E+01
			Be-7	1.09E+03	3.24E+02	4.11E+02
			K-40	4.56E+03	7.68E+02	4.69E+02

Sample Point 51 [INDICATOR - SSW @ 0 miles]

Sample ID:	Sample Dates:	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
566796	5/5/2022 - 5/5/2022		Mn-54	<1.77E+01	0.00E+00	1.77E+01
			Co-58	<1.30E+01	0.00E+00	1.30E+01
			Fe-59	<3.03E+01	0.00E+00	3.03E+01
			Co-60	<1.66E+01	0.00E+00	1.66E+01
			Zn-65	<3.24E+01	0.00E+00	3.24E+01
			Zr-95	<2.47E+01	0.00E+00	2.47E+01
			Nb-95	<1.34E+01	0.00E+00	1.34E+01
			I-131	<1.71E+01	0.00E+00	1.71E+01
			Cs-134	<2.09E+01	0.00E+00	2.09E+01
			Cs-137	<1.50E+01	0.00E+00	1.50E+01
			BaLa-140	<1.54E+01	0.00E+00	1.54E+01
			Be-7	7.55E+02	1.54E+02	1.48E+02
			K-40	3.21E+03	4.54E+02	2.44E+02

Sample ID:	Sample Dates:	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
568203	6/9/2022 - 6/9/2022		Mn-54	<2.87E+01	0.00E+00	2.87E+01
			Co-58	<2.79E+01	0.00E+00	2.79E+01
			Fe-59	<5.90E+01	0.00E+00	5.90E+01
			Co-60	<2.82E+01	0.00E+00	2.82E+01
			Zn-65	<6.19E+01	0.00E+00	6.19E+01
			Zr-95	<5.17E+01	0.00E+00	5.17E+01
			Nb-95	<2.89E+01	0.00E+00	2.89E+01
			I-131	<3.77E+01	0.00E+00	3.77E+01
			Cs-134	<2.90E+01	0.00E+00	2.90E+01
			Cs-137	<2.64E+01	0.00E+00	2.64E+01
			BaLa-140	<3.54E+01	0.00E+00	3.54E+01
			Be-7	8.16E+02	2.42E+02	3.10E+02

ROBINSON Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: VEGETATION Concentration (Activity): pCi/kg wet

Sample Point 51 [INDICATOR - SSW @ 0 miles]

Sample ID:	Sample Dates:	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
568203	6/9/2022 - 6/9/2022		K-40	4.07E+03	6.30E+02	3.81E+02
570606	7/5/2022 - 7/5/2022		Mn-54	<1.58E+01	0.00E+00	1.58E+01
			Co-58	<1.48E+01	0.00E+00	1.48E+01
			Fe-59	<3.38E+01	0.00E+00	3.38E+01
			Co-60	<1.08E+01	0.00E+00	1.08E+01
			Zn-65	<3.81E+01	0.00E+00	3.81E+01
			Zr-95	<2.46E+01	0.00E+00	2.46E+01
			Nb-95	<1.72E+01	0.00E+00	1.72E+01
			I-131	<2.75E+01	0.00E+00	2.75E+01
			Cs-134	<2.05E+01	0.00E+00	2.05E+01
			Cs-137	3.92E+01	1.47E+01	1.98E+01
			BaLa-140	<2.11E+01	0.00E+00	2.11E+01
			Be-7	8.43E+02	1.76E+02	2.01E+02
			K-40	2.92E+03	3.97E+02	2.43E+02
572161	8/2/2022 - 8/2/2022		Mn-54	<2.59E+01	0.00E+00	2.59E+01
			Co-58	<2.81E+01	0.00E+00	2.81E+01
			Fe-59	<5.94E+01	0.00E+00	5.94E+01
			Co-60	<1.90E+01	0.00E+00	1.90E+01
			Zn-65	<5.81E+01	0.00E+00	5.81E+01
			Zr-95	<4.49E+01	0.00E+00	4.49E+01
			Nb-95	<2.71E+01	0.00E+00	2.71E+01
			I-131	<3.39E+01	0.00E+00	3.39E+01
			Cs-134	<3.30E+01	0.00E+00	3.30E+01
			Cs-137	6.70E+01	2.94E+01	4.11E+01
			BaLa-140	<3.47E+01	0.00E+00	3.47E+01
			Be-7	1.40E+03	3.20E+02	3.70E+02
			K-40	3.81E+03	6.30E+02	4.39E+02
575583	9/6/2022 - 9/6/2022		Mn-54	<3.61E+01	0.00E+00	3.61E+01
			Co-58	<2.77E+01	0.00E+00	2.77E+01
			Fe-59	<5.82E+01	0.00E+00	5.82E+01
			Co-60	<2.58E+01	0.00E+00	2.58E+01
			Zn-65	<6.64E+01	0.00E+00	6.64E+01
			Zr-95	<5.38E+01	0.00E+00	5.38E+01
			Nb-95	<3.70E+01	0.00E+00	3.70E+01
			I-131	<4.19E+01	0.00E+00	4.19E+01
			Cs-134	<4.02E+01	0.00E+00	4.02E+01
			Cs-137	<3.65E+01	0.00E+00	3.65E+01
			BaLa-140	<3.57E+01	0.00E+00	3.57E+01
			Be-7	1.12E+03	3.07E+02	3.83E+02
			K-40	4.68E+03	7.19E+02	3.67E+02
577326	10/3/2022 - 10/3/2022		Mn-54	<3.02E+01	0.00E+00	3.02E+01
			Co-58	<2.71E+01	0.00E+00	2.71E+01
			Fe-59	<5.53E+01	0.00E+00	5.53E+01
			Co-60	<2.76E+01	0.00E+00	2.76E+01
			Zn-65	<6.18E+01	0.00E+00	6.18E+01
			Zr-95	<4.50E+01	0.00E+00	4.50E+01
			Nb-95	<3.83E+01	0.00E+00	3.83E+01
			I-131	<3.45E+01	0.00E+00	3.45E+01
			Cs-134	<3.55E+01	0.00E+00	3.55E+01
			Cs-137	<2.91E+01	0.00E+00	2.91E+01
			BaLa-140	<3.20E+01	0.00E+00	3.20E+01
			Be-7	2.45E+03	4.08E+02	3.78E+02
			K-40	4.75E+03	7.14E+02	3.87E+02
564680	11/1/2022 - 11/1/2022		Mn-54	<2.67E+01	0.00E+00	2.67E+01
			Co-58	<3.42E+01	0.00E+00	3.42E+01
			Fe-59	<8.33E+01	0.00E+00	8.33E+01
			Co-60	<3.73E+01	0.00E+00	3.73E+01

ROBINSON Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: VEGETATION Concentration (Activity): pCi/kg wet

Sample Point 51 [INDICATOR - SSW @ 0 miles]

Sample ID:	564680	Sample Dates:	11/1/2022 - 11/1/2022	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
					Zn-65	<7.67E+01	0.00E+00	7.67E+01
					Zr-95	<6.05E+01	0.00E+00	6.05E+01
					Nb-95	<4.04E+01	0.00E+00	4.04E+01
					I-131	<3.69E+01	0.00E+00	3.69E+01
					Cs-134	<3.65E+01	0.00E+00	3.65E+01
					Cs-137	<3.56E+01	0.00E+00	3.56E+01
					BaLa-140	<3.10E+01	0.00E+00	3.10E+01
					Be-7	8.37E+02	3.27E+02	4.65E+02
					K-40	4.30E+03	7.24E+02	4.08E+02

Sample Point 52 [CONTROL - W @ 10 miles]

Sample ID:	566797	Sample Dates:	5/5/2022 - 5/5/2022	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
					Mn-54	<1.51E+01	0.00E+00	1.51E+01
					Co-58	<1.74E+01	0.00E+00	1.74E+01
					Fe-59	<3.00E+01	0.00E+00	3.00E+01
					Co-60	<1.48E+01	0.00E+00	1.48E+01
					Zn-65	<3.35E+01	0.00E+00	3.35E+01
					Zr-95	<3.09E+01	0.00E+00	3.09E+01
					Nb-95	<1.82E+01	0.00E+00	1.82E+01
					I-131	<2.33E+01	0.00E+00	2.33E+01
					Cs-134	<2.11E+01	0.00E+00	2.11E+01
					Cs-137	1.73E+02	3.08E+01	2.23E+01
					BaLa-140	<2.16E+01	0.00E+00	2.16E+01
					Be-7	2.36E+02	1.38E+02	2.09E+02
					K-40	3.21E+03	4.74E+02	2.81E+02

Sample ID:	568204	Sample Dates:	6/9/2022 - 6/9/2022	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
					Mn-54	<1.67E+01	0.00E+00	1.67E+01
					Co-58	<2.45E+01	0.00E+00	2.45E+01
					Fe-59	<4.78E+01	0.00E+00	4.78E+01
					Co-60	<2.63E+01	0.00E+00	2.63E+01
					Zn-65	<4.62E+01	0.00E+00	4.62E+01
					Zr-95	<2.84E+01	0.00E+00	2.84E+01
					Nb-95	<2.96E+01	0.00E+00	2.96E+01
					I-131	<2.93E+01	0.00E+00	2.93E+01
					Cs-134	<2.32E+01	0.00E+00	2.32E+01
					Cs-137	<3.17E+01	0.00E+00	3.17E+01
					BaLa-140	<3.20E+01	0.00E+00	3.20E+01
					Be-7	1.18E+03	2.41E+02	2.26E+02
					K-40	2.00E+03	4.34E+02	3.94E+02

Sample ID:	570607	Sample Dates:	7/5/2022 - 7/5/2022	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
					Mn-54	<1.66E+01	0.00E+00	1.66E+01
					Co-58	<1.05E+01	0.00E+00	1.05E+01
					Fe-59	<3.50E+01	0.00E+00	3.50E+01
					Co-60	<1.38E+01	0.00E+00	1.38E+01
					Zn-65	<3.74E+01	0.00E+00	3.74E+01
					Zr-95	<2.65E+01	0.00E+00	2.65E+01
					Nb-95	<1.55E+01	0.00E+00	1.55E+01
					I-131	<2.33E+01	0.00E+00	2.33E+01
					Cs-134	<2.01E+01	0.00E+00	2.01E+01
					Cs-137	2.20E+01	1.71E+01	2.69E+01
					BaLa-140	<1.73E+01	0.00E+00	1.73E+01
					Be-7	1.10E+03	2.11E+02	2.25E+02
					K-40	3.81E+03	5.06E+02	2.30E+02

Sample ID:	572162	Sample Dates:	8/4/2022 - 8/4/2022	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
					Mn-54	<2.49E+01	0.00E+00	2.49E+01
					Co-58	<1.98E+01	0.00E+00	1.98E+01
					Fe-59	<5.17E+01	0.00E+00	5.17E+01
					Co-60	<2.69E+01	0.00E+00	2.69E+01
					Zn-65	<5.33E+01	0.00E+00	5.33E+01
					Zr-95	<3.75E+01	0.00E+00	3.75E+01
					Nb-95	<2.06E+01	0.00E+00	2.06E+01
					I-131	<3.44E+01	0.00E+00	3.44E+01
					Cs-134	<2.40E+01	0.00E+00	2.40E+01

ROBINSON Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: VEGETATION Concentration (Activity): pCi/kg wet

Sample Point 52 [CONTROL - W @ 10 miles]

Sample ID: 572162	Sample Dates: 8/4/2022 - 8/4/2022	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
			Cs-137	5.08E+01	2.00E+01	2.50E+01
			BaLa-140	<3.01E+01	0.00E+00	3.01E+01
			Be-7	6.81E+02	2.09E+02	2.65E+02
			K-40	3.54E+03	5.77E+02	4.16E+02

Sample ID: 575584	Sample Dates: 9/6/2022 - 9/6/2022	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
			Mn-54	<2.71E+01	0.00E+00	2.71E+01
			Co-58	<2.87E+01	0.00E+00	2.87E+01
			Fe-59	<6.24E+01	0.00E+00	6.24E+01
			Co-60	<3.15E+01	0.00E+00	3.15E+01
			Zn-65	<6.17E+01	0.00E+00	6.17E+01
			Zr-95	<5.33E+01	0.00E+00	5.33E+01
			Nb-95	<2.85E+01	0.00E+00	2.85E+01
			I-131	<4.79E+01	0.00E+00	4.79E+01
			Cs-134	<3.16E+01	0.00E+00	3.16E+01
			Cs-137	2.73E+02	5.31E+01	4.89E+01
			BaLa-140	<4.75E+01	0.00E+00	4.75E+01
			Be-7	3.81E+03	5.36E+02	3.62E+02
K-40	3.86E+03	6.34E+02	3.47E+02			

Sample ID: 577327	Sample Dates: 10/3/2022 - 10/3/2022	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
			Mn-54	<3.78E+01	0.00E+00	3.78E+01
			Co-58	<3.24E+01	0.00E+00	3.24E+01
			Fe-59	<6.58E+01	0.00E+00	6.58E+01
			Co-60	<3.70E+01	0.00E+00	3.70E+01
			Zn-65	<7.56E+01	0.00E+00	7.56E+01
			Zr-95	<5.23E+01	0.00E+00	5.23E+01
			Nb-95	<3.41E+01	0.00E+00	3.41E+01
			I-131	<4.15E+01	0.00E+00	4.15E+01
			Cs-134	<3.34E+01	0.00E+00	3.34E+01
			Cs-137	2.28E+02	4.78E+01	4.18E+01
			BaLa-140	<3.49E+01	0.00E+00	3.49E+01
			Be-7	4.48E+03	6.09E+02	3.68E+02
			K-40	3.61E+03	6.75E+02	5.29E+02

Sample ID: 564681	Sample Dates: 11/1/2022 - 11/1/2022	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
			Mn-54	<2.39E+01	0.00E+00	2.39E+01
			Co-58	<3.26E+01	0.00E+00	3.26E+01
			Fe-59	<6.29E+01	0.00E+00	6.29E+01
			Co-60	<4.04E+01	0.00E+00	4.04E+01
			Zn-65	<7.53E+01	0.00E+00	7.53E+01
			Zr-95	<5.56E+01	0.00E+00	5.56E+01
			Nb-95	<3.44E+01	0.00E+00	3.44E+01
			I-131	<3.96E+01	0.00E+00	3.96E+01
			Cs-134	<3.97E+01	0.00E+00	3.97E+01
			Cs-137	2.72E+02	5.67E+01	6.21E+01
			BaLa-140	<4.19E+01	0.00E+00	4.19E+01
			Be-7	2.52E+03	4.26E+02	4.10E+02
			K-40	2.71E+03	6.00E+02	6.25E+02

Sample Point 62 [INDICATOR - SE @ 0 miles]

Sample ID: 566798	Sample Dates: 5/5/2022 - 5/5/2022	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
			Mn-54	<1.19E+01	0.00E+00	1.19E+01
			Co-58	<1.38E+01	0.00E+00	1.38E+01
			Fe-59	<3.46E+01	0.00E+00	3.46E+01
			Co-60	<1.89E+01	0.00E+00	1.89E+01
			Zn-65	<4.06E+01	0.00E+00	4.06E+01
			Zr-95	<3.12E+01	0.00E+00	3.12E+01
			Nb-95	<2.12E+01	0.00E+00	2.12E+01
			I-131	<2.16E+01	0.00E+00	2.16E+01
			Cs-134	<2.17E+01	0.00E+00	2.17E+01
			Cs-137	<2.34E+01	0.00E+00	2.34E+01
			BaLa-140	<1.82E+01	0.00E+00	1.82E+01
			Be-7	2.68E+02	1.25E+02	1.75E+02
			K-40	4.02E+03	5.44E+02	2.48E+02

ROBINSON Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: VEGETATION Concentration (Activity): pCi/kg wet

Sample Point 62 [INDICATOR - SE @ 0 miles]

Sample ID:	Sample Dates:	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
568205	6/9/2022 - 6/9/2022	MIXEDBLV	Mn-54	<2.07E+01	0.00E+00	2.07E+01
			Co-58	<1.98E+01	0.00E+00	1.98E+01
			Fe-59	<4.36E+01	0.00E+00	4.36E+01
			Co-60	<2.80E+01	0.00E+00	2.80E+01
			Zn-65	<3.98E+01	0.00E+00	3.98E+01
			Zr-95	<3.76E+01	0.00E+00	3.76E+01
			Nb-95	<2.37E+01	0.00E+00	2.37E+01
			I-131	<2.57E+01	0.00E+00	2.57E+01
			Cs-134	<2.84E+01	0.00E+00	2.84E+01
			Cs-137	<2.00E+01	0.00E+00	2.00E+01
			BaLa-140	<2.35E+01	0.00E+00	2.35E+01
			Be-7	4.92E+02	1.86E+02	2.58E+02
			K-40	4.31E+03	6.17E+02	3.53E+02
			570608	7/5/2022 - 7/5/2022	MIXEDBLV	Mn-54
Co-58	<2.16E+01	0.00E+00				2.16E+01
Fe-59	<4.41E+01	0.00E+00				4.41E+01
Co-60	<2.43E+01	0.00E+00				2.43E+01
Zn-65	<4.76E+01	0.00E+00				4.76E+01
Zr-95	<4.03E+01	0.00E+00				4.03E+01
Nb-95	<2.36E+01	0.00E+00				2.36E+01
I-131	<3.67E+01	0.00E+00				3.67E+01
Cs-134	<2.38E+01	0.00E+00				2.38E+01
Cs-137	2.42E+01	2.34E+01				3.75E+01
BaLa-140	<3.05E+01	0.00E+00				3.05E+01
Be-7	5.35E+02	1.98E+02				2.70E+02
K-40	2.70E+03	4.87E+02				3.77E+02
572163	8/4/2022 - 8/4/2022	MIXEDBLV				Mn-54
			Co-58	<1.25E+01	0.00E+00	1.25E+01
			Fe-59	<2.83E+01	0.00E+00	2.83E+01
			Co-60	<1.33E+01	0.00E+00	1.33E+01
			Zn-65	<3.07E+01	0.00E+00	3.07E+01
			Zr-95	<2.73E+01	0.00E+00	2.73E+01
			Nb-95	<1.61E+01	0.00E+00	1.61E+01
			I-131	<2.03E+01	0.00E+00	2.03E+01
			Cs-134	<1.97E+01	0.00E+00	1.97E+01
			Cs-137	1.87E+01	1.20E+01	1.85E+01
			BaLa-140	<1.62E+01	0.00E+00	1.62E+01
			Be-7	8.10E+02	1.68E+02	2.05E+02
			K-40	3.73E+03	4.32E+02	1.36E+02
			575585	9/6/2022 - 9/6/2022	MIXEDBLV	Mn-54
Co-58	<2.90E+01	0.00E+00				2.90E+01
Fe-59	<6.66E+01	0.00E+00				6.66E+01
Co-60	<2.61E+01	0.00E+00				2.61E+01
Zn-65	<7.12E+01	0.00E+00				7.12E+01
Zr-95	<5.54E+01	0.00E+00				5.54E+01
Nb-95	<4.29E+01	0.00E+00				4.29E+01
I-131	<4.78E+01	0.00E+00				4.78E+01
Cs-134	<3.14E+01	0.00E+00				3.14E+01
Cs-137	<3.37E+01	0.00E+00				3.37E+01
BaLa-140	<4.49E+01	0.00E+00				4.49E+01
Be-7	2.01E+03	4.17E+02				4.85E+02
K-40	4.52E+03	7.00E+02				4.42E+02
577328	10/3/2022 - 10/3/2022	MIXEDBLV				Mn-54
			Co-58	<2.76E+01	0.00E+00	2.76E+01
			Fe-59	<7.27E+01	0.00E+00	7.27E+01
			Co-60	<2.70E+01	0.00E+00	2.70E+01
			Zn-65	<7.42E+01	0.00E+00	7.42E+01
			Zr-95	<3.81E+01	0.00E+00	3.81E+01
			Nb-95	<2.58E+01	0.00E+00	2.58E+01

ROBINSON Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: VEGETATION Concentration (Activity): pCi/kg wet

Sample Point 62 [INDICATOR - SE @ 0 miles]

Sample ID:	577328	Sample Dates:	10/3/2022 - 10/3/2022	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
					I-131	<4.10E+01	0.00E+00	4.10E+01
					Cs-134	<4.22E+01	0.00E+00	4.22E+01
					Cs-137	2.06E+01	2.92E+01	4.84E+01
					BaLa-140	<3.99E+01	0.00E+00	3.99E+01
					Be-7	2.23E+03	3.92E+02	3.67E+02
					K-40	4.38E+03	7.10E+02	4.42E+02

Sample ID:	564682	Sample Dates:	11/1/2022 - 11/1/2022	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
					Mn-54	<4.36E+01	0.00E+00	4.36E+01
					Co-58	<3.39E+01	0.00E+00	3.39E+01
					Fe-59	<8.73E+01	0.00E+00	8.73E+01
					Co-60	<3.70E+01	0.00E+00	3.70E+01
					Zn-65	<1.08E+02	0.00E+00	1.08E+02
					Zr-95	<7.95E+01	0.00E+00	7.95E+01
					Nb-95	<4.18E+01	0.00E+00	4.18E+01
					I-131	<4.69E+01	0.00E+00	4.69E+01
					Cs-134	<4.88E+01	0.00E+00	4.88E+01
					Cs-137	<5.37E+01	0.00E+00	5.37E+01
					BaLa-140	<4.77E+01	0.00E+00	4.77E+01
					Be-7	1.95E+02	2.36E+02	3.86E+02
					K-40	4.32E+03	8.30E+02	5.43E+02

Sample Point 67 [INDICATOR - S @ 0 miles]

Sample ID:	566799	Sample Dates:	5/5/2022 - 5/5/2022	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
					Mn-54	<1.12E+01	0.00E+00	1.12E+01
					Co-58	<1.11E+01	0.00E+00	1.11E+01
					Fe-59	<2.72E+01	0.00E+00	2.72E+01
					Co-60	<1.11E+01	0.00E+00	1.11E+01
					Zn-65	<3.05E+01	0.00E+00	3.05E+01
					Zr-95	<2.08E+01	0.00E+00	2.08E+01
					Nb-95	<1.17E+01	0.00E+00	1.17E+01
					I-131	<1.60E+01	0.00E+00	1.60E+01
					Cs-134	<1.43E+01	0.00E+00	1.43E+01
					Cs-137	<1.10E+01	0.00E+00	1.10E+01
					BaLa-140	<1.83E+01	0.00E+00	1.83E+01
					Be-7	4.07E+02	1.11E+02	1.32E+02
					K-40	2.69E+03	3.66E+02	1.37E+02

Sample ID:	568206	Sample Dates:	6/9/2022 - 6/9/2022	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
					Mn-54	<1.93E+01	0.00E+00	1.93E+01
					Co-58	<2.40E+01	0.00E+00	2.40E+01
					Fe-59	<3.75E+01	0.00E+00	3.75E+01
					Co-60	<1.57E+01	0.00E+00	1.57E+01
					Zn-65	<4.18E+01	0.00E+00	4.18E+01
					Zr-95	<4.02E+01	0.00E+00	4.02E+01
					Nb-95	<2.32E+01	0.00E+00	2.32E+01
					I-131	<2.86E+01	0.00E+00	2.86E+01
					Cs-134	<2.49E+01	0.00E+00	2.49E+01
					Cs-137	<2.14E+01	0.00E+00	2.14E+01
					BaLa-140	<2.70E+01	0.00E+00	2.70E+01
					Be-7	8.34E+02	2.30E+02	2.91E+02
					K-40	2.94E+03	5.11E+02	3.99E+02

Sample ID:	570609	Sample Dates:	7/5/2022 - 7/5/2022	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
					Mn-54	<1.33E+01	0.00E+00	1.33E+01
					Co-58	<1.18E+01	0.00E+00	1.18E+01
					Fe-59	<2.86E+01	0.00E+00	2.86E+01
					Co-60	<1.41E+01	0.00E+00	1.41E+01
					Zn-65	<2.76E+01	0.00E+00	2.76E+01
					Zr-95	<2.86E+01	0.00E+00	2.86E+01
					Nb-95	<1.34E+01	0.00E+00	1.34E+01
					I-131	<2.03E+01	0.00E+00	2.03E+01
					Cs-134	<1.86E+01	0.00E+00	1.86E+01
					Cs-137	2.01E+01	1.19E+01	1.84E+01
					BaLa-140	<1.55E+01	0.00E+00	1.55E+01
					Be-7	9.06E+02	2.69E+02	1.33E+02

ROBINSON Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: VEGETATION Concentration (Activity): pCi/kg wet

Sample Point 67 [INDICATOR - S @ 0 miles]

Sample ID:	Sample Dates:	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
570609	7/5/2022 - 7/5/2022		K-40	4.81E+03	5.10E+02	2.27E+02
572164	8/4/2022 - 8/4/2022		Mn-54	<1.81E+01	0.00E+00	1.81E+01
			Co-58	<2.29E+01	0.00E+00	2.29E+01
			Fe-59	<3.88E+01	0.00E+00	3.88E+01
			Co-60	<2.52E+01	0.00E+00	2.52E+01
			Zn-65	<4.59E+01	0.00E+00	4.59E+01
			Zr-95	<4.15E+01	0.00E+00	4.15E+01
			Nb-95	<2.84E+01	0.00E+00	2.84E+01
			I-131	<2.96E+01	0.00E+00	2.96E+01
			Cs-134	<2.54E+01	0.00E+00	2.54E+01
			Cs-137	1.24E+02	3.20E+01	3.67E+01
			BaLa-140	<2.39E+01	0.00E+00	2.39E+01
			Be-7	2.33E+03	3.54E+02	2.80E+02
			K-40	3.41E+03	5.48E+02	3.60E+02
575586	9/6/2022 - 9/6/2022		Mn-54	<2.01E+01	0.00E+00	2.01E+01
			Co-58	<2.18E+01	0.00E+00	2.18E+01
			Fe-59	<4.18E+01	0.00E+00	4.18E+01
			Co-60	<2.65E+01	0.00E+00	2.65E+01
			Zn-65	<4.53E+01	0.00E+00	4.53E+01
			Zr-95	<3.41E+01	0.00E+00	3.41E+01
			Nb-95	<2.26E+01	0.00E+00	2.26E+01
			I-131	<3.15E+01	0.00E+00	3.15E+01
			Cs-134	<2.69E+01	0.00E+00	2.69E+01
			Cs-137	<2.72E+01	0.00E+00	2.72E+01
			BaLa-140	<2.43E+01	0.00E+00	2.43E+01
			Be-7	9.49E+02	2.26E+02	2.55E+02
			K-40	2.26E+03	4.56E+02	4.20E+02
577329	10/3/2022 - 10/3/2022		Mn-54	<2.88E+01	0.00E+00	2.88E+01
			Co-58	<2.11E+01	0.00E+00	2.11E+01
			Fe-59	<5.40E+01	0.00E+00	5.40E+01
			Co-60	<2.43E+01	0.00E+00	2.43E+01
			Zn-65	<5.45E+01	0.00E+00	5.45E+01
			Zr-95	<4.24E+01	0.00E+00	4.24E+01
			Nb-95	<2.61E+01	0.00E+00	2.61E+01
			I-131	<3.27E+01	0.00E+00	3.27E+01
			Cs-134	<2.53E+01	0.00E+00	2.53E+01
			Cs-137	<2.69E+01	0.00E+00	2.69E+01
			BaLa-140	<3.03E+01	0.00E+00	3.03E+01
			Be-7	1.98E+03	3.47E+02	3.34E+02
			K-40	3.70E+03	6.00E+02	4.29E+02
564683	11/1/2022 - 11/1/2022		Mn-54	<3.00E+01	0.00E+00	3.00E+01
			Co-58	<2.44E+01	0.00E+00	2.44E+01
			Fe-59	<6.28E+01	0.00E+00	6.28E+01
			Co-60	<3.01E+01	0.00E+00	3.01E+01
			Zn-65	<7.59E+01	0.00E+00	7.59E+01
			Zr-95	<4.75E+01	0.00E+00	4.75E+01
			Nb-95	<3.40E+01	0.00E+00	3.40E+01
			I-131	<4.05E+01	0.00E+00	4.05E+01
			Cs-134	<2.90E+01	0.00E+00	2.90E+01
			Cs-137	<3.02E+01	0.00E+00	3.02E+01
			BaLa-140	<4.20E+01	0.00E+00	4.20E+01
			Be-7	1.32E+03	3.25E+02	3.86E+02
			K-40	2.68E+03	5.66E+02	5.09E+02

Sample Point 83 [INDICATOR - NNE @ 1.6 miles]

Sample ID:	Sample Dates:	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
566800	5/5/2022 - 5/5/2022		Mn-54	<2.15E+01	0.00E+00	2.15E+01
			Co-58	<2.05E+01	0.00E+00	2.05E+01

ROBINSON Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: VEGETATION Concentration (Activity): pCi/kg wet

Sample Point 83 [INDICATOR - NNE @ 1.6 miles]

Sample ID:	566800	Sample Dates:	5/5/2022 - 5/5/2022	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
					Fe-59	<4.29E+01	0.00E+00	4.29E+01
					Co-60	<2.20E+01	0.00E+00	2.20E+01
					Zn-65	<4.18E+01	0.00E+00	4.18E+01
					Zr-95	<3.40E+01	0.00E+00	3.40E+01
					Nb-95	<1.96E+01	0.00E+00	1.96E+01
					I-131	<2.12E+01	0.00E+00	2.12E+01
					Cs-134	<2.41E+01	0.00E+00	2.41E+01
					Cs-137	3.18E+01	1.77E+01	2.53E+01
					BaLa-140	<2.58E+01	0.00E+00	2.58E+01
					Be-7	3.97E+02	1.63E+02	2.25E+02
					K-40	3.98E+03	5.60E+02	1.98E+02

Sample ID:	568207	Sample Dates:	6/9/2022 - 6/9/2022	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
					Mn-54	<2.59E+01	0.00E+00	2.59E+01
					Co-58	<2.30E+01	0.00E+00	2.30E+01
					Fe-59	<5.19E+01	0.00E+00	5.19E+01
					Co-60	<2.77E+01	0.00E+00	2.77E+01
					Zn-65	<4.87E+01	0.00E+00	4.87E+01
					Zr-95	<3.88E+01	0.00E+00	3.88E+01
					Nb-95	<2.59E+01	0.00E+00	2.59E+01
					I-131	<3.71E+01	0.00E+00	3.71E+01
					Cs-134	<2.95E+01	0.00E+00	2.95E+01
					Cs-137	<3.07E+01	0.00E+00	3.07E+01
					BaLa-140	<3.37E+01	0.00E+00	3.37E+01
					Be-7	4.14E+02	2.40E+02	3.67E+02
					K-40	4.62E+03	6.95E+02	4.23E+02

Sample ID:	570610	Sample Dates:	7/5/2022 - 7/5/2022	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
					Mn-54	<1.93E+01	0.00E+00	1.93E+01
					Co-58	<1.69E+01	0.00E+00	1.69E+01
					Fe-59	<4.31E+01	0.00E+00	4.31E+01
					Co-60	<2.43E+01	0.00E+00	2.43E+01
					Zn-65	<4.04E+01	0.00E+00	4.04E+01
					Zr-95	<3.82E+01	0.00E+00	3.82E+01
					Nb-95	<2.31E+01	0.00E+00	2.31E+01
					I-131	<3.30E+01	0.00E+00	3.30E+01
					Cs-134	<2.76E+01	0.00E+00	2.76E+01
					Cs-137	2.45E+01	1.62E+01	2.42E+01
					BaLa-140	<2.98E+01	0.00E+00	2.98E+01
					Be-7	1.82E+03	2.97E+02	2.69E+02
					K-40	4.32E+03	6.14E+02	4.22E+02

Sample ID:	572165	Sample Dates:	8/2/2022 - 8/2/2022	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
					Mn-54	<2.21E+01	0.00E+00	2.21E+01
					Co-58	<1.96E+01	0.00E+00	1.96E+01
					Fe-59	<4.64E+01	0.00E+00	4.64E+01
					Co-60	<3.01E+01	0.00E+00	3.01E+01
					Zn-65	<4.41E+01	0.00E+00	4.41E+01
					Zr-95	<4.53E+01	0.00E+00	4.53E+01
					Nb-95	<2.73E+01	0.00E+00	2.73E+01
					I-131	<3.95E+01	0.00E+00	3.95E+01
					Cs-134	<2.72E+01	0.00E+00	2.72E+01
					Cs-137	3.17E+01	2.13E+01	3.20E+01
					BaLa-140	<2.55E+01	0.00E+00	2.55E+01
					Be-7	2.24E+03	3.57E+02	2.70E+02
					K-40	3.61E+03	5.65E+02	2.71E+02

Sample ID:	575587	Sample Dates:	9/6/2022 - 9/6/2022	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
					Mn-54	<2.71E+01	0.00E+00	2.71E+01
					Co-58	<2.84E+01	0.00E+00	2.84E+01
					Fe-59	<4.76E+01	0.00E+00	4.76E+01
					Co-60	<3.52E+01	0.00E+00	3.52E+01
					Zn-65	<5.57E+01	0.00E+00	5.57E+01
					Zr-95	<5.71E+01	0.00E+00	5.71E+01
					Nb-95	<3.06E+01	0.00E+00	3.06E+01
					I-131	<4.38E+01	0.00E+00	4.38E+01
					Cs-134	<3.46E+01	0.00E+00	3.46E+01

ROBINSON Radiological Environmental Monitoring Analysis Report - 2022 (Appendix E)

Media Type: VEGETATION Concentration (Activity): pCi/kg wet

Sample Point 83 [INDICATOR - NNE @ 1.6 miles]

Sample ID:	Sample Dates:	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA			
575587	9/6/2022 - 9/6/2022		Cs-137	3.11E+01	2.19E+01	3.35E+01			
			BaLa-140	<3.41E+01	0.00E+00	3.41E+01			
			Be-7	4.11E+02	2.37E+02	3.64E+02			
			K-40	2.67E+03	5.45E+02	5.54E+02			
577330	10/3/2022 - 10/3/2022		Mn-54	<2.55E+01	0.00E+00	2.55E+01			
			Co-58	<2.53E+01	0.00E+00	2.53E+01			
			Fe-59	<4.13E+01	0.00E+00	4.13E+01			
			Co-60	<2.21E+01	0.00E+00	2.21E+01			
			Zn-65	<6.20E+01	0.00E+00	6.20E+01			
			Zr-95	<3.81E+01	0.00E+00	3.81E+01			
			Nb-95	<3.73E+01	0.00E+00	3.73E+01			
			I-131	<3.85E+01	0.00E+00	3.85E+01			
			Cs-134	<2.91E+01	0.00E+00	2.91E+01			
			Cs-137	<2.90E+01	0.00E+00	2.90E+01			
			BaLa-140	<3.06E+01	0.00E+00	3.06E+01			
			Be-7	7.33E+02	2.35E+02	3.12E+02			
			K-40	2.59E+03	5.13E+02	4.66E+02			
			564684	11/1/2022 - 11/1/2022		Mn-54	<2.32E+01	0.00E+00	2.32E+01
						Co-58	<1.88E+01	0.00E+00	1.88E+01
Fe-59	<4.39E+01	0.00E+00				4.39E+01			
Co-60	<1.96E+01	0.00E+00				1.96E+01			
Zn-65	<4.56E+01	0.00E+00				4.56E+01			
Zr-95	<3.60E+01	0.00E+00				3.60E+01			
Nb-95	<2.58E+01	0.00E+00				2.58E+01			
I-131	<2.31E+01	0.00E+00				2.31E+01			
Cs-134	<2.28E+01	0.00E+00				2.28E+01			
Cs-137	<2.46E+01	0.00E+00				2.46E+01			
BaLa-140	<3.06E+01	0.00E+00				3.06E+01			
Be-7	9.09E+02	4.01E+02				2.46E+02			
K-40	4.66E+03	6.13E+02				3.55E+02			

APPENDIX F

**ERRATA TO
PREVIOUS REPORTS**

APPENDIX F

ERRATA TO THE 2021 AREOR

TLD 56 fourth quarter 2021 results were invalid due to incorrect field placement. This TLD is considered to be unavailable for the fourth quarter. The stated number of TLDs analyzed and number of indicator locations were incorrect in paragraph 3. Due to the discovery of TLD being placed incorrectly in the field, the investigation results for TLD 56 exceeding the acceptance range should have been due to incorrect field placement of the TLD. Figure 3.9 and Table 3.9 contained incorrect Inner Ring Average, since 4th quarter location 56 TLD result was included. The information in Section 3.9.1 Environmental TLD has been correct below. The following Figure 3.9 and Table 3.9 contain the correct 2021 data points (NCR# 02426893).

Section 3.9.1 Environmental TLD

Robinson is licensed with an exclusion area boundary and low population distance defined by UFSAR Section 1.2.1 as 1400 ft and 4.5 miles respectively. The exclusion distance is the distance from the reactor to the closest point on the boundary of the exclusion area defined in 10CFR100. The low population distance is the distance from the reactor to the boundary of the low population zone defined in 10CFR100. No permanent public access is permitted within the exclusion area.

Thermoluminescent dosimeters (TLD) were collected quarterly at forty-three locations, and Environmental TLD (Alpha & Bravo) dual placement was implemented for all RNP ODCM TLD locations effective first quarter 2020. There are 25 locations, one or more in each meteorological sector, designated as "inner ring" are placed at distances within one mile from the site and in the general area of the site boundary. Due to close proximity with HBRSEP, and most being within the exclusion area boundary, inner ring TLD locations are not good indicators of radiation exposure to a member of the public but are good at determining nearby environmental effects due to plant operation. Based on their placement, inner ring TLD locations are expected to occasionally be influenced by normal plant operation. There are 17 TLD locations, one or more in each meteorological sector, designated as "outer ring" are placed at distances of 6 to 8 kilometers from the site as is reasonably accessible and practical. All outer ring TLD locations are used as indicators. The one "control" location is 24.4 miles ESE from station center. This location was chosen to reduce the probability of influence from HBRSEP operation on data. The control location is not used as background subtraction in the TLD analysis. Its purpose is to provide a comparison to indicator locations.

A gamma exposure rate was determined for each TLD. In 2021, 171 TLDs were analyzed, 167 at indicator locations and 4 at the control location. TLDs are collected and analyzed quarterly. Transit TLDs and laboratory background TLDs were used for determining transit and laboratory background dose and were subtracted from gross field readings as required by ANSI N545-1975. Figure 3.9 and Table 3.9 show TLD inner ring, outer ring, and control location annual averages in mR/Standard Quarter. Data is provided from 1999. As shown in the graph, historical inner and

outer ring averages compare similarly, while control data is somewhat higher since the resurfacing of the parking lot at this location in 2018. Other differences among these locations are attributed to variations in soils, local geology, and are not the result of plant operations.

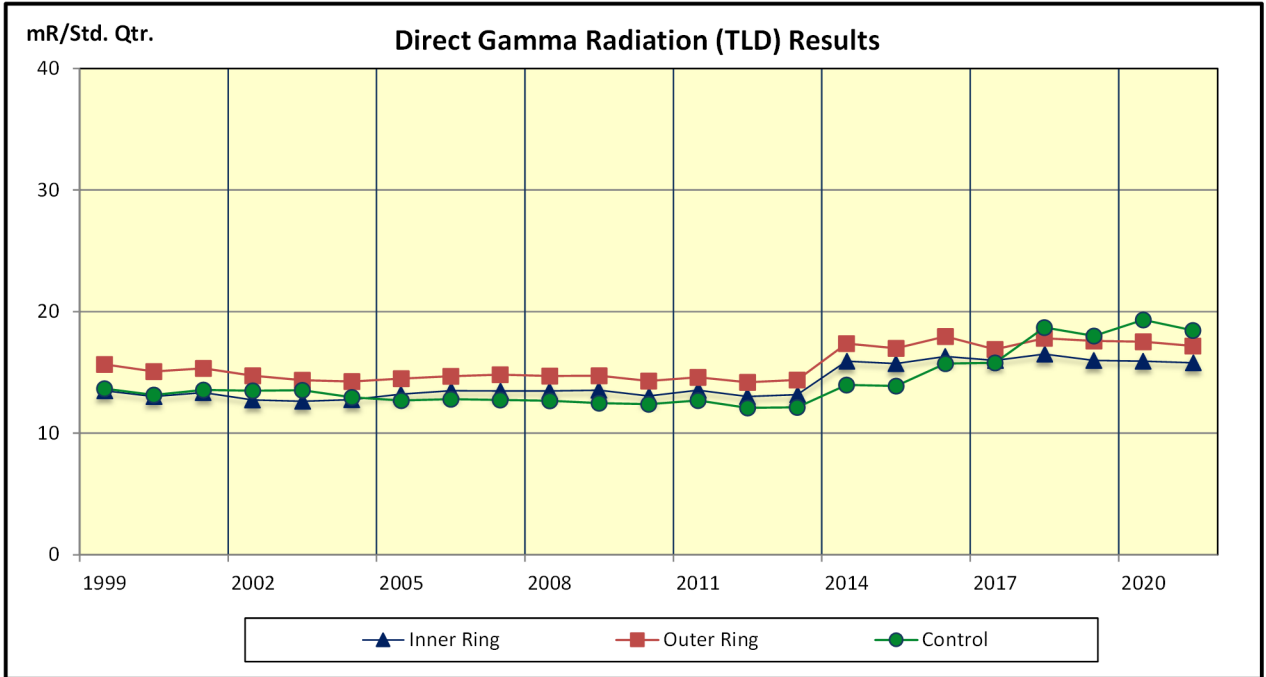
Quarterly, environmental ODCM TLD results are compared by location to its historical data to evaluate any significant changes. The comparison utilizes the location's average exposure history to determine if quarterly results fall within expected low and high ranges and provides a reliable indication of potential changes occurring at a specific TLD location. The low and high ranges are determined by the historical average + two standard deviations. The quarterly TLD evaluation implements portions of American National Standard ANSI/HPS N13.37-2014, "Environmental Dosimetry – Criteria for System Design and Implementation, for environmental Thermoluminescent Dosimeters (TLD)". The CSD-RP-ALL-0030 – Updated Radiological Environmental Monitoring Program TLD Analytical Method, describes the process implemented in late 2018 for the fleet TLD programs. TLD values identified as < Low Range or > High Range are evaluated in consideration of factors including possible TLD damage, sampling deviations, glow curve irregularities, and any known environmental location changes which may affect results. TLD results are found in Appendix E.

The environmental data on external radiation exposure for 2021 was essentially unchanged from 1999-2021, with an average exposure for all of 2021 indicator locations of 16.4 mR per standard quarter. The TLD location with the highest annual mean of 22.5 mR per standard quarter was location 37, which is located 5.00 miles WSW of the plant. Control TLD location 1 had an annual mean of 18.47 mR per std. quarter.

During 2021, TLDs from locations 56 and 85 indicated some results exceeding the location acceptance range. The investigation of location 56 found the TLD was incorrectly placed in the field. The investigation of location 85 yielded no issues with the glow curve or the TLD, but this was due to insufficient data being accrued as these are relatively new locations.

A TLD Intercomparison Program is conducted as part of the quality assurance program. Results of this program are included in Section 4.7.

Figure 3.9



There is no reporting level for Direct Radiation (TLD)

Table 3.9 Direct Gamma Radiation (TLD) Results

Year	Inner Ring Average (mR/Std. Qtr.)	Outer Ring Average (mR/Std. Qtr.)	Control Average (mR/Std. Qtr.)
1999	1.35E+1	1.57E+1	1.37E+1
2000	1.30E+1	1.51E+1	1.32E+1
2001	1.34E+1	1.53E+1	1.36E+1
2002	1.27E+1	1.47E+1	1.35E+1
2003	1.26E+1	1.44E+1	1.36E+1
2004	1.28E+1	1.43E+1	1.30E+1
2005	1.32E+1	1.45E+1	1.27E+1
2006	1.35E+1	1.47E+1	1.28E+1
2007	1.35E+1	1.48E+1	1.27E+1
2008	1.35E+1	1.47E+1	1.27E+1
2009	1.36E+1	1.47E+1	1.25E+1
2010	1.31E+1	1.43E+1	1.24E+1
2011	1.35E+1	1.46E+1	1.27E+1
2012	1.30E+1	1.42E+1	1.21E+1
2013	1.32E+1	1.44E+1	1.21E+1
2014 ⁽¹⁾	1.59E+1	1.74E+1	1.40E+1
2015	1.57E+1	1.70E+1	1.39E+1
2016	1.63E+1	1.80E+1	1.57E+1
2017	1.60E+1	1.69E+1	1.58E+1
2018	1.65E+1	1.78E+1	1.87E+1
2019	1.60E+1	1.76E+1	1.80E+1
2020	1.59E+1	1.75E+1	1.93E+1
2021	1.58E+1	1.72E+1	1.85E+1

(1) As of first quarter 2014, the environmental TLDs utilized for the HBRSEP REMP were Harshaw TLDs, replacing Panasonic TLDs which were utilized prior to 2014 (NCR # 01982479).

Appendix C.2 UNAVAILABLE ANALYSES

TLD 56 for fourth quarter 2021 was considered to be unavailable due to incorrect field placement (NCR# 02426893). The table in the Direct Gamma Radiation (TLD) section did not reflect TLD 56 being unavailable.

Direct Gamma Radiation (TLD)

Location	Scheduled Collection Dates	Code	Description & Action to Prevent Recurrence	Corrective Action
56	10/14/2021- 1/13/2022	OT	It was discovered during the 2 nd quarter 2022 that the TLDs were incorrectly placed in the field in October 2021, so the TLDs are considered to be unavailable. Collection personnel were coached not to relocate TLDs in May 2022.	NCR # 02426893

Appendix E RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM RESULTS

TLD 56 for fourth quarter 2021 was considered to be unavailable due to incorrect field placement (NCR# 02426893). Appendix E results for TLD 56 should have been the following.

ROBINSON Radiological Environmental Monitoring Analysis Report - 2021 (Appendix E)

Media Type: TLD Concentration (Activity): mR/Standard Quarter

Sample Point 56 [INDICATOR - NNW @ 0.4 miles]

TLD RING TLD_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
537199	1/12/2021 - 4/13/2021	mR/Std Qtr	17.75
542670	4/13/2021 - 7/15/2021	mR/Std Qtr	16.99
547977	7/15/2021 - 10/14/2021	mR/Std Qtr	16.46