



Charles E. Sherman
H. B. Robinson Steam
Electric Plant Unit 2
Director – Nuc Org Effectiveness

Duke Energy Progress
3581 West Entrance Road
Hartsville, SC 29550

O: 843 951 1609
F: 843 951 1319

Chuck.Sherman@duke-energy.com

Serial: RNP-RA/18-0029

TS 5.6.2

MAY 07 2018

United States Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, DC 20555-0001

H. B. ROBINSON STEAM ELECTRIC PLANT (HBRSEP), UNIT NO. 2
DOCKET NO. 50-261 / RENEWED LICENSE NO. DPR-23

2017 ANNUAL RADIOLOGICAL ENVIRONMENTAL OPERATING REPORT

Ladies and Gentlemen:

Enclosed is the Radiological Environmental Operating Report for the period January 1, 2017 through December 31, 2017. This report is made in accordance with the HBRSEP, Unit No. 2, Technical Specification, 5.6.2, "Annual Radiological Environmental Operating Report."

This document contains no new Regulatory Commitments. If you have any questions regarding this submittal, please contact Mr. Kevin Ellis, Manager – Nuclear Regulatory Affairs, at (843) 951-1329.

Sincerely,

Charles E. Sherman
Director – Nuclear Organization Effectiveness

CES/jmw

Enclosure

- c: NRC Regional Administrator, NRC Region II
D. Galvin, NRC Project Manager, NRR (w/o Attachment)
NRC Resident Inspector, HBRSEP
S. E. Jenkins, SCDHEC
Aaron Gantt, SCDHEC

IE25
NRR

United States Nuclear Regulatory Commission
Enclosure to Serial: RNP-RA/18-0029
171 Pages (including this cover sheet)

H. B. ROBINSON STEAM ELECTRIC PLANT, UNIT NO. 2
2017 ANNUAL RADIOLOGICAL ENVIRONMENTAL OPERATING REPORT



ANNUAL RADIOLOGICAL ENVIRONMENTAL OPERATING REPORT

DUKE ENERGY PROGRESS, LLC
H. B. ROBINSON STEAM ELECTRIC PLANT
Unit No. 2

2017



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	2-2
2.3 Statistical and Calculational Methodology	2-3
2.3.1 Estimation of the Mean Value	2-3
2.3.2 Lower Limit of Detection and Minimum Detectable Activity	2-3
2.3.3 Trend Identification	2-4
3.0 Interpretation of Results	3-1
3.1 Airborne Radioiodine and Particulates	3-1
3.2 Surface Water	3-4
3.3 Ground Water	3-6
3.4 Milk/Broadleaf Vegetation	3-6
3.5 Food Products	3-8
3.6 Fish	3-8
3.7 Shoreline Sediment	3-11
3.8 Asiatic Clams	3-11
3.9 Direct Gamma Radiation	3-11
3.9.1 Environmental TLD	3-11
3.10 Land Use Census	3-14
3.10.1 Purpose of Land Use Census	3-14
3.10.2 Methodology	3-15
3.10.3 Land Use Census Results	3-15
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 Duke Energy Interlaboratory Program	4-2
4.5.2 Eckert & Ziegler Analytics Cross Check Program	4-2
4.5.3 ERA Proficiency Testing	4-3
4.6 Split Comparison Program	4-3
4.7 TLD Intercomparison Program	4-3
4.7.1 Nuclear Technology Services Intercomparison Program	4-3
4.7.2 Internal Cross Check (Duke Energy)	4-4
4.8 General Engineering Laboratory, LLC (GEL)	4-4

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
IV. Sampling and Analysis Procedures	A-3
A.1 Airborne Particulate and Radioiodine	A-3
A.2 Surface Water	A-4
A.3 Ground Water	A-4
A.4 Broadleaf Vegetation	A-4
A.5 Food Products	A-5
A.6 Fish	A-5
A.7 Shoreline Sediment	A-5
A.8 Direct Gamma Radiation (TLD)	A-5
A.9 Annual Land Use Census	A-6
Appendix B: Radiological Environmental Monitoring Program - Summary of Results .	B-1
Radiological Environmental Monitoring Program Data Summary.	B-2
Footnotes to Appendix B.	B-4
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
No Analytical Deviations.	D-2
Appendix E: Radiological Environmental Monitoring Program Results	E-1
Appendix F: Errata to Previous Reports	F-1
No errata appended to the 2017 HBRSEP AREOR	F-2

LIST OF FIGURES

2.1-1	Radiological Environmental Sampling Locations (Near Plant)	2-5
2.1-2	Radiological Environmental Sampling Locations (Distant from Plant).	2-6
3.1-1	Concentration of Gross Beta in Air Particulate	3-3
3.2	Concentration of Tritium in Surface Water	3-5
3.4	Concentration of Cs-137 in Broadleaf Vegetation	3-7
3.6-1	Concentration of Cs-137 in Fish - Free Swimmers	3-9
3.6-2	Concentration of Cs-137 in Fish - Bottom Feeders	3-10
3.9.1	Direct Gamma Radiation (TLD) Results	3-13
3.10.3	Robinson Nuclear Plant 2017 Land Use Census Map	3-17

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	Lower Limits of Detection (LLD) ^(a)	2-10
3.1-1-A	Mean Concentration of Gross Beta in Air Particulate	3-3
3.1-1-B	Mean Concentration of Gross Beta in Air Radioiodine (I-131)	3-4
3.2	Mean Concentration of Tritium in Surface Water	3-5

LIST OF TABLES CONTINUED

3.4	Mean Concentration of Radionuclides in Broadleaf Vegetation (pCi/kg)	3-8
3.6-1	Mean Concentration of Radionuclides in Fish - Free Swimmers (pCi/kg)	3-10
3.6-2	Mean Concentration of Radionuclides in Fish - Bottom Feeders (pCi/kg)	3-11
3.9.1	Direct Gamma Radiation (TLD) Results	3-13
3.10.3	HBRSEP Land Use Census Comparison (2016 – 2017)	3-16
4.0-A	Eckert & Ziegler Analytics Cross Check Program	4-5
4.0-B	2017 Environmental Dosimeter Cross Check Results	4-8
4.0-C	GEL Laboratories 2017 Annual Quality Assurance Report for REMP	4-10

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

A	Annually
AR	Air Radioiodine/ Air Cartridge
AREOR	Annual Radiological Environmental Operating Report
AP	Air Particulate
BLV	Broadleaf Vegetation
C	Control
CR	Condition Report (analogous to Nuclear Condition Report (NCR))
ERA	Environmental Resource Associates
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
MDA	Minimum Detectable Activity
mrem	Millirem
mR	milliroentgen
MWe	Megawatt (electrical)
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
Q	Quarterly
REMP	Radiological Environmental Monitoring Program
SA	Semiannually
SS	Sediment – Shoreline
SI	Special Interest - TLDs
SW	Surface Water
TECH SPECS	Technical Specifications
TLD	Thermoluminescent Dosimeter
μCi/ml	microcurie per milliliter
W	Weekly

1.0 EXECUTIVE SUMMARY

The H. B. Robinson Steam Electric Plant, Unit No. 2 (HBRSEP or Robinson Nuclear Plant) is operated by Duke Energy Progress, LLC under a license granted by the Nuclear Regulatory Commission (NRC). Provisions of the Nuclear Regulatory Commission's Regulatory Guide 4.8, HBRSEP Technical Specifications, and the HBRSEP Off-Site Dose Calculation Manual (ODCM) establish the requirements of the Radiological Environmental Monitoring Program (REMP). This report describes the HBRSEP REMP and the program results for January 1, 2017, through December 31, 2017.

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 HBRSEP ODCM. Required analyses were performed and detection capabilities were met for the collected samples required by the ODCM. One thousand three hundred and seventy-six samples were analyzed comprising 1,404 test results in order to compile data for the 2017 HBRSEP Annual Radiological Environmental Operating Report (AREOR). Based on the annual HBRSEP land use census, the current number of sampling sites for Robinson Nuclear Plant is sufficient.

Concentrations observed in the environment in 2017 for plant 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 attributed to plant operations were within the HBRSEP ODCM regulatory limits. The environmental samples recommended for analysis by the American Nuclear Insurers (ANI) are not samples required to be included in the HBRSEP AREOR since the ANI samples are not part of the HBRSEP REMP stated in the HBRSEP ODCM; therefore, the 2017 HBRSEP AREOR does not contain the results or any information pertaining to the ANI samples. Prior to the 2016 HBRSEP AREOR, the ANI samples were contained in the report. The ANI samples referenced are Aquatic Vegetation and Bottom Sediment samples (locations # 41, 45, 46, and 66); Food Product samples (locations # 49 and 58); Shoreline Sediment sample (location # 57); and Surface Water samples (locations # 57, 66, and 67).

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.

2.0 INTRODUCTION

2.1 SITE DESCRIPTION AND SAMPLE LOCATIONS

Duke Energy's H. B. Robinson Steam Electric Plant, Unit No. 2 (HBRSEP) consists of a pressurized water reactor that is designed to produce 2339 Megawatts thermal (MWt). The site is shared with a pulverized coal unit (Unit No.1), which established commercial operation in 1960. Unit 1 is now offline and has been decommissioned. Commercial production was initiated by Unit No. 2 on March 7, 1971. The HBRSEP is located in Darlington County, South Carolina. The site is along state route 151 approximately five (5) miles northwest of Hartsville, South Carolina. The site is also 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.

The local economy supports primarily industrial and agricultural contributions. Fishing, boating, and swimming are popular activities on Lake Robinson and other nearby lakes. These activities contribute to the radiological pathways by consumption of fish and immersion related to swimming and boating. Consumption of milk and food products contributes to the ingestion pathway. No milk animals are located within five miles of the plant in any sector at this time, so broadleaf sampling is conducted to simulate the milk ingestion pathway.

Although the contribution to background radiation is small, Duke Energy Progress, LLC has established the Radiological Environmental Monitoring Program (REMP) to measure the exposure pathways to man. An exposure pathway describes the source of the radiological exposure. The primary forms of potential radiological emissions from the plant are airborne and liquid discharge. The following pathways are monitored: external dose, ingestion of radioactive materials, and the inhalation of radioactive material. Specific methods and different environmental media are required to assess each pathway.

Sampling locations are chosen based upon meteorological factors, pre-operational monitoring, and results of the land use surveys. A number of locations are selected as controls. Control stations are selected because they are very unlikely to be affected by the operation of the plant. Figures 2.1-1 and 2.1-2 are maps depicting the HBRSEP REMP 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.

2.2 SCOPE AND REQUIREMENTS OF THE REMP

The Radiological Environmental Monitoring Program (REMP) was established in 1973 at HBRSEP. Radiation and radioactivity in various environmental media have been monitored for 44 years. Monitoring is also provided for control locations, which would not be impacted by operations of the HBRSEP. Using these control locations and data collected prior to operation allows comparison of data collected at locations near the HBRSEP which could potentially be impacted by its operations. 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 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 3.10.3.

Participation in an interlaboratory comparison program is performed in fulfillment of HBRSEP 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 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
(Near Plant)

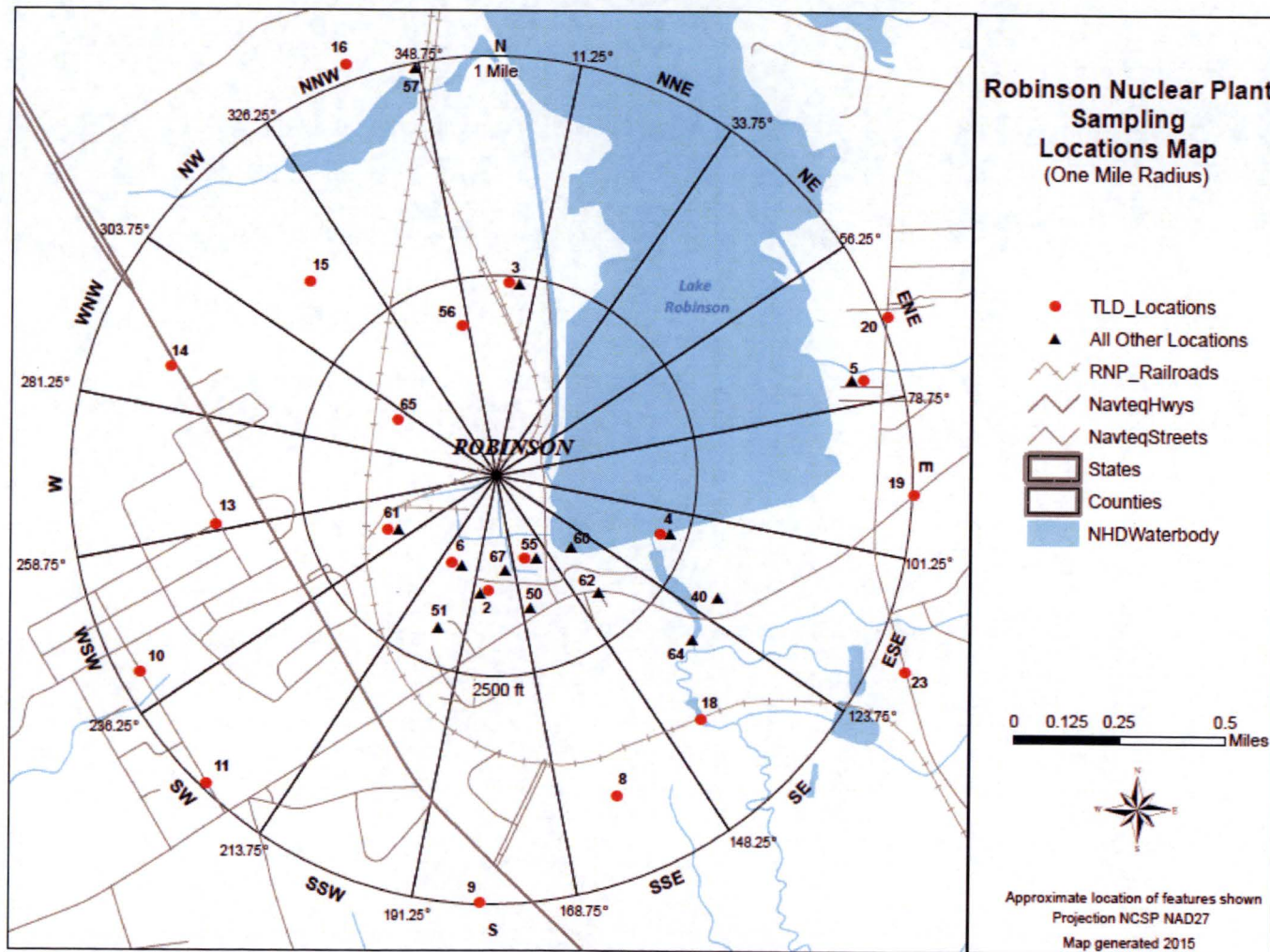


Figure 2.1-2

Radiological Environmental Sampling Locations
(Distant from Plant)

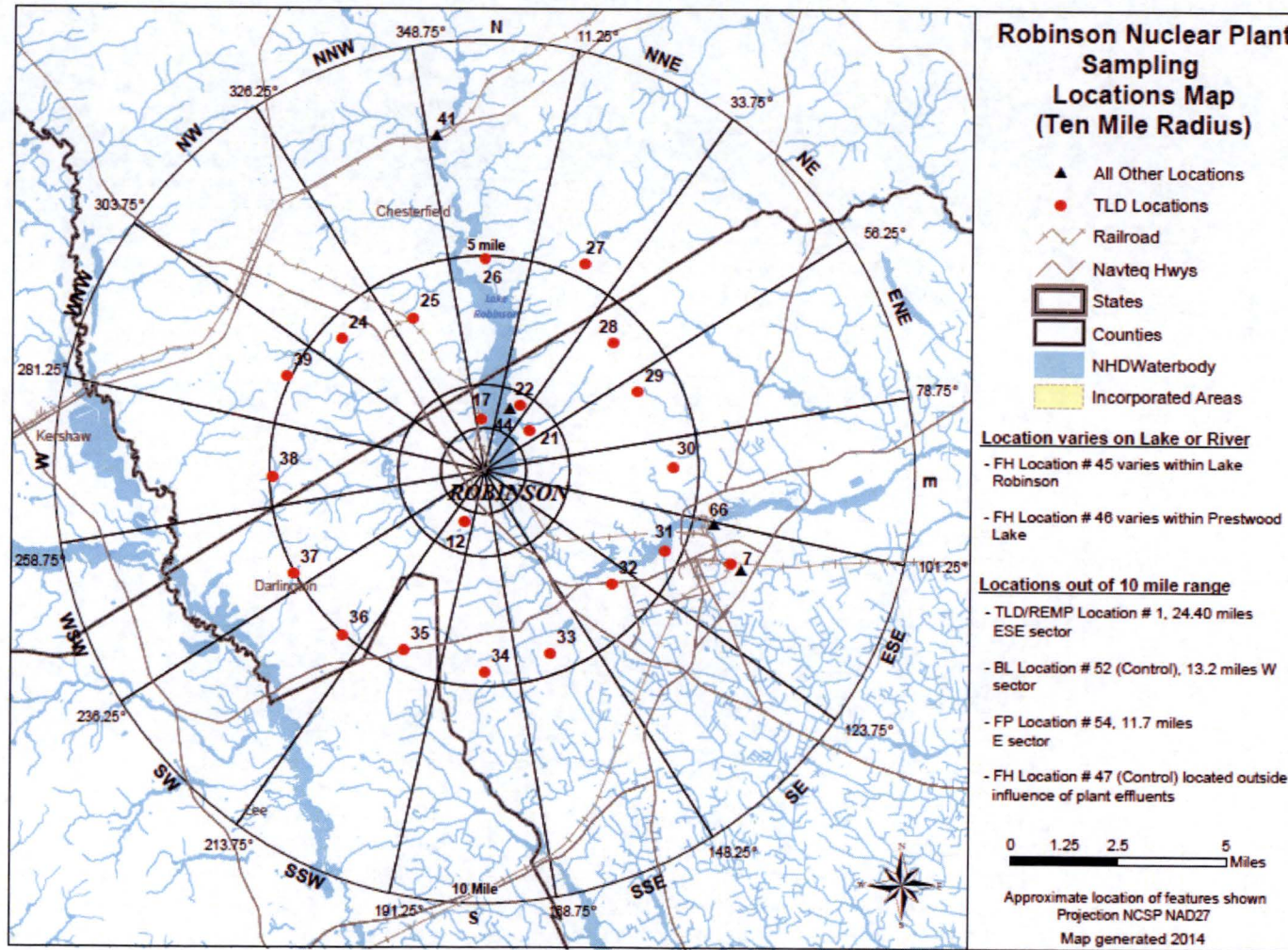


TABLE 2.1-A

**H. B. ROBINSON STEAM ELECTRIC PLANT, UNIT NO. 2 (HBRSEP)
RADIOLOGICAL MONITORING PROGRAM SAMPLING LOCATIONS**

Site#	Type*	Location Description**	AR* & AP*	SW*	SS*	FP ^(a) *	Fish (FI)	BLV ^(b) *	GW*
1	C	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						
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						
6	I	0.2 miles SSW Information Center	W/Q						
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	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	Control station, Any lake not influenced by plant discharge					SA		
50	I	SSE Close to Site Boundary						M ^(b)	
51	I	SSW Close to Site Boundary						M ^(b)	
52	C	10 miles W near Bethune						M ^(b)	
54	I	10.1 miles E Auburndale Plantation (if irrigating from Black Creek)				A ^(a)			
55	I	0.2 miles SSE South of West Settling Pond	W/Q						
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 ^(b)	
64	I	0.6 miles SE Artesian Well							Q
67	I	S Close to Site Boundary						M ^(b)	

(a) During Harvest/Growing Season

(b) When Available

* 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)**

Table 2.1-B Codes	
C	Control
IR	Inner Ring
OR	Outer Ring
SI	Special Interest

Site #	Measure Type	Location*	Distance (miles) ¹	Sector	Site #	Measure Type	Location*	Distance (miles) ¹	Sector
1	C	Florence, SC	24.4	ESE	23	IR	New Market Road (#S-16-39)	1.0	ESE
2	IR	Information Center ^{1,2}	0.2	S	24	OR	Sowell Road (#S-13-711)	4.6	NW
3	IR	Microwave Tower	0.5	N	25	OR	Lake Robinson Road (#S-13-346)	4.0	NNW
4	IR	Spillway	0.4	ESE	26	OR	Lake Robinson Road (#S-13-346)	5.0	N
5	IR	East shore of lake near Johnson's Landing	0.9	ENE	27	OR	Prospect Church Road (#S-13-763)	5.4	NNE
6	IR	Information Center ^{1,2}	0.2	SSW	28	OR	New Market Road (#S-13-39)	4.3	NE
7	OR	CP&L Facility on RR Avenue, Hartsville	6.4	ESE	29	OR	Ruby Road (#S-16-20)	4.0	ENE
8	IR	Transmission right-of-way	0.8	SSE	30	OR	Ruby Road (#S-16-20)	4.4	E
9	IR	Transmission right-of-way	1.0	S	31	OR	Lakeshore Drive	4.6	ESE
10	IR	Clyde Church of God	1.0	WSW	32	OR	Transmission right-of-way	4.0	SE
11	IR	Old Camden Road	1.0	SW	33	OR	Bay Road (#S-16-493)	4.5	SSE
12	IR	Off of Old Camden Road	1.2	SSW	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 ^{1,2}	0.4	NNW
20	IR	New Market Road (#S-16-39)	1.0	ENE	61	IR	West Parking lot near RR tracks ²	0.3	WSW
21	IR	New Market Road (#S-16-39)	1.4	NE	65	IR	Northwest of the 24P-ISFSI ²	0.3	WNW
22	IR	Shady Rest entrance off of Cloverdale Drive	1.7	NNE					

1 Required for monitoring of the 7P-ISFSI

2 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.

“----” represents no specified limits

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				X	
	Quarterly	X				
Direct Radiation	Quarterly					X
Surface Water	Monthly Composite	X	X			
Ground Water	Quarterly	X	X			
Shoreline Sediment	Semiannually	X				
Fish	Semiannually	X				
Broadleaf Vegetation	Monthly ^(a)	X				
Food Products	Annually ^(b)	X				

(a) When Available

(b) At harvest

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.

“----” represents no specified limits

3.0 INTERPRETATION OF RESULTS

The following section depicts and explains the review of the REMP results conducted during 2017 for the H. B. Robinson Steam Electric Plant, Unit No. 2 (HBRSEP) and fulfills the reporting requirements of Technical Specifications and HBRSEP ODCM. Review of the 2017 REMP analysis results was performed to identify changes in environmental levels as a result of HBRSEP operations. Sample data for 2017 was compared to preoperational and historical data.

Evaluation for significant trends was performed for radionuclides that are listed as required within 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. The HBRSEP 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 HBRSEP liquid effluents which contained the radionuclides.

The purpose of the REMP is to measure accumulation of radioactivity in the environment, to determine whether this radioactivity is the result of the operation of the HBRSEP, Unit No. 2, and to assess the potential dose to the off-site population based on the cumulative measurements of radioactivity of plant origin. One thousand three hundred and seventy-six samples were collected from indicator and control locations and 1,404 analyses and measurements were made during 2017. Detectable radioactivity resulting from plant operation was found in 12 out of 12 indicator samples of surface water (refer to Appendix B). Only the tritium activity measured in the surface water of Lake Robinson samples constituted a source of public exposure. The highest concentration of any plant related radionuclide releases to the environment was tritium in Lake Robinson at an average concentration of 1.62E+3 pCi/Liter. A statistical summary of the HBRSEP data for 2017 has been compiled and summarized in Appendix B along with any plant-derived activity detected within the scope of the REMP.

Review of the 2017 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 2017 indicates that radioactivity concentrations were as expected and all positively identified measurements attributed to plant operations in 2017 were within HBRSEP ODCM regulatory limits, thus presenting no significant impact to the environment or public health and safety.

3.1 AIRBORNE RADIOIODINE AND PARTICULATES

The 530 air cartridge/radioiodine (AR) samples from indicator and control stations had I-131 concentrations less than the ODCM LLD of 7.00E-2 pCi/m³. There are nine indicator sites for a total of 477 indicator samples and one control site for a total of 53 control samples during the 2017 collection year. The air samplers operated for a total of 100% availability for the 2017

year; however, HBRSEP had no telemetry on REMP air samplers during 2017. This decision was based on the fact that HBRSEP typically has an air sampler operability of greater than 97%, telemetry is not a regulatory requirement, and HBRSEP made a business decision not to upgrade the telemetry technology (NCR # 02139602 Assignment #10 and #11). No I-131 activity due to HBRSEP operations has been detected in air samples collected from 1999 through 2017 (see Table 3.1-1-B). However, I-131 was detected in air samples following the Fukushima Dai-ichi Nuclear Power Plant incident after the March 11, 2011, earthquake and tsunami (NCR # 0456564), and for a period following the Chernobyl incident in April 1986.

For the period of January 1, 2017, to December 31, 2017, the gross beta activity was detectable in the airborne particulate (AP) samples, with acceptable runtime, from the nine indicator locations and the control location. The 477 indicator samples had an average concentration of $1.86\text{E-}2$ pCi/m³. Similar gross beta activities were observed at the control location in Florence, which had an average concentration of $1.78\text{E-}2$ pCi/m³ in 53 control samples. Figures 3.1-1 and Table 3.1-1-A provide individual sample gross beta results for the highest annual mean indicator location and the control location concentrations since 1999 to 2017. The two sample locations' results are similar in concentration and have negligible variance.

No plant-related gamma activity was observed for any air particulate filters analyzed during 2017. The natural gamma concentrations identified are typical of the natural environment and are not attributed to plant operations. Refer to Appendix C or Appendix D for deviations and unavailable samples in the 2017 collection year.

No plant-related gamma activity was detected in quarterly composite filter samples from either the indicator or control locations during 2017. An additional gamma analysis was performed on the final 2017 air particulate sample set for calendar reconciliation purposes (NCR # 02176115). HBRSEP ODCM LLDs and reporting levels for air particulates are contained in Section 2.0 in Table 2.2-C and 2.2-A respectively.

Figure 3.1-1

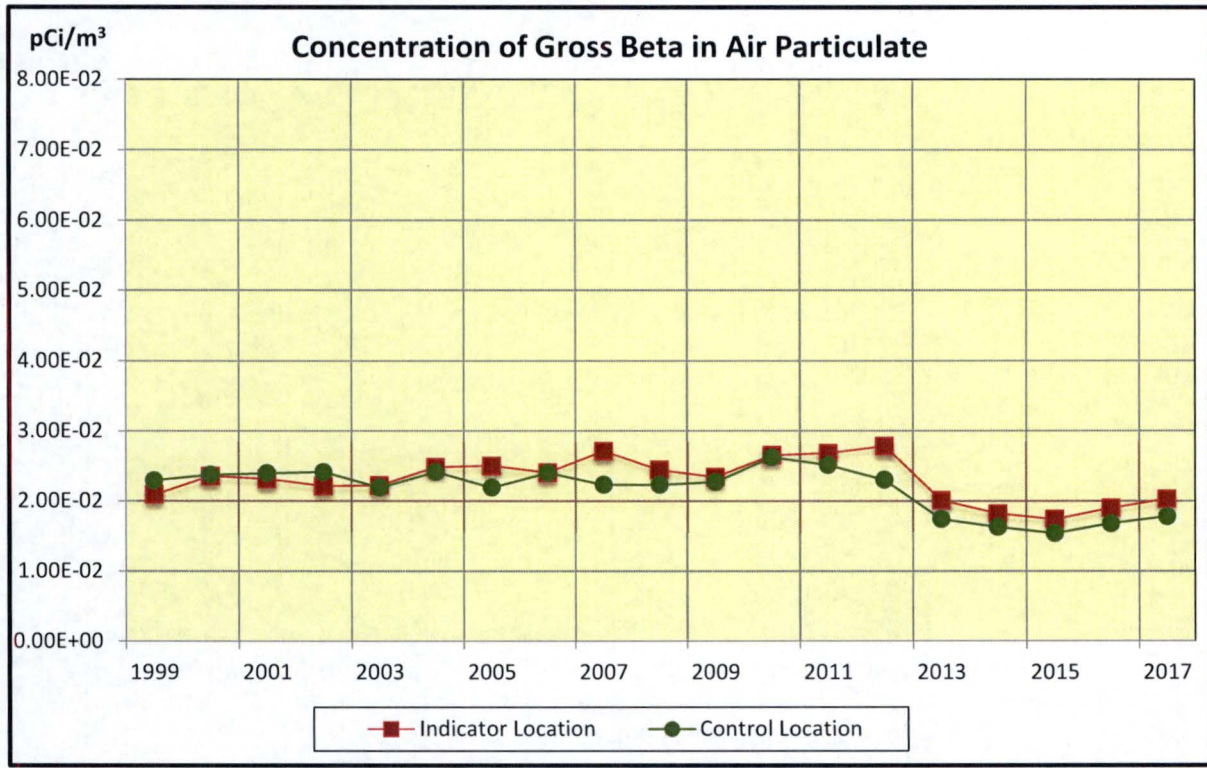


Table 3.1-1-A Mean Concentration of Gross Beta in Air Particulate

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

Table 3.1-1-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

0.00E+0 indicates no detectable measurements

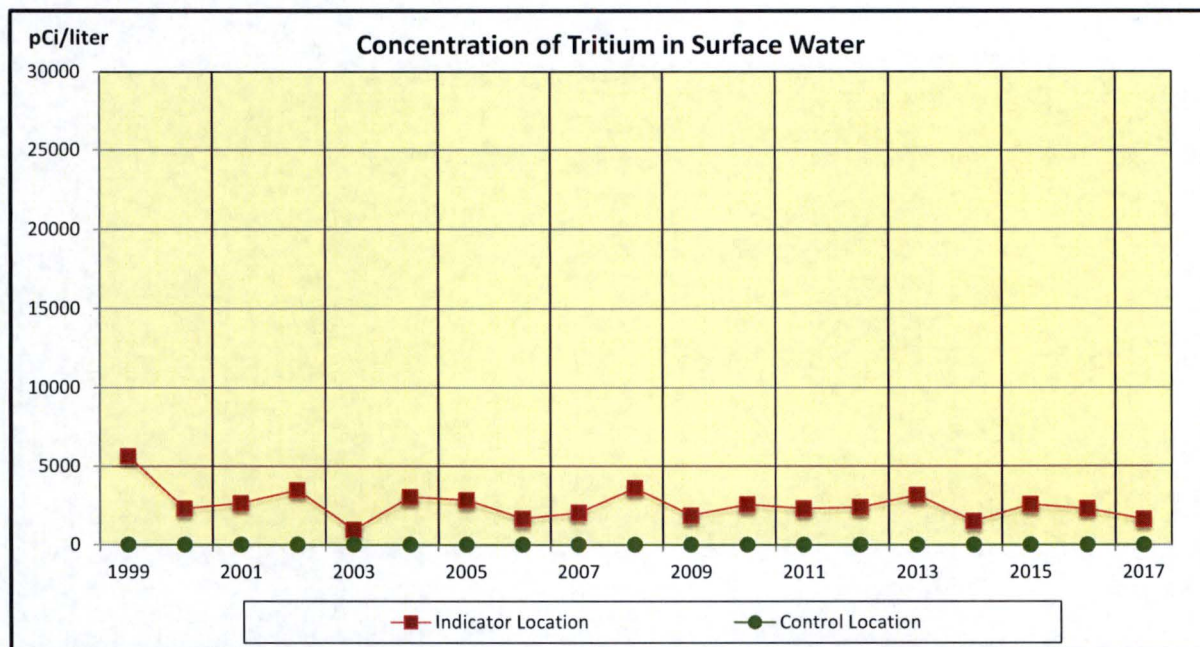
(1) 2011 concentrations affected by Fukushima Dai-ichi

(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

Surface water (SW) composite samples are composited monthly and analyzed for gamma emitting radionuclides and for tritium radioactivity. The water samplers operated for a total of 99.88% availability for 2017. Refer to Appendix C or Appendix D for deviations and unavailable samples in the 2017 collection year, if applicable. The analyses indicated that no detectable concentrations of gamma - emitting radionuclides relating to plant effluents appeared in any of the indicator and control samples. All concentrations of natural occurring gamma-emitters were less than their respective LLDs (see Table 2.2-C). None of the control samples indicated the presence of tritium; however, 12 out of 12 indicator samples did indicate the presence of tritium in 2017. The average annual tritium activity was 1.62E+3 pCi/L, with the results ranging from 3.62E+2 pCi/L to 3.89E+3 pCi/L. The surface water indicator location with the highest tritium mean in 2017 was the Lake Robinson surface water (SW-40 - Black Creek at Old Camden Rd.) with a mean of 1.62E+3 pCi/L, and results ranging from 3.62E+2 pCi/L to 3.89E+3 pCi/L; which is attributed to plant operation. Lake Robinson's tritium activity is cyclic and follows HBRSEP's fuel cycle. Figure 3.2 displays the tritium results for the highest annual mean indicator and control annual locations' concentrations since 1999 to 2017. Table 3.2 lists the highest annual mean concentrations for the indicator and control locations. These surface waters do not supply drinking water at any downstream location and are not typically used for irrigation, but can be by Auburndale Plantation (Food Product sample location # 54).

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

0.00E+0 indicates no detectable measurements

3.3 GROUND WATER

Ground water (GW) samples are collected and analyzed quarterly for gamma emitters and tritium. No by-product/plant-related gamma activity associated with plant operations was detected in the four indicator samples of ground water collected in 2017. The measured ground water gamma and tritium concentrations indicated concentrations below their required LLDs for environmental samples as specified in the HBRSEP ODCM in Table 4.1-3 titled "Lower Limit of Detection (LLD)" for the year 2017 and Table 2.2-C of this report. The tritium limits are 2000 picocuries per Liter (pCi/L) for a drinking water pathway and 3000 pCi/L if no drinking water pathway exists. HBRSEP administratively established a ground water tritium analysis LLD of approximately 200 pCi/L, which is well below the requirements specified in the HBRSEP ODCM. These tritium results are also well below the EPA reportable drinking water limit (20,000 pCi/Liter) and the non-drinking water limit (30,000 pCi/Liter). HBRSEP ODCM Revision 34 effective January 22, 2016 removed all the ground water sample locations but one (Artesian Well location #64) from the HBRSEP ODCM. The ground water sample locations are now part of the HBRSEP Ground Water Protection Initiative (GWPI) reports and will be reported in the HBRSEP Annual Radiological Effluent Release Report.

3.4 MILK / BROADLEAF VEGETATION

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. Milk sampling will resume if a new sample location is identified. Broadleaf sampling is conducted since no milk animals are located within a radius of approximately five miles of the plant in any sector and is used to calculate dose to an individual via the vegetation-milk-man pathway.

Broadleaf vegetation sampling is accomplished by collecting monthly three different species of samples, when available at five locations (one control and four indicator locations at the site boundary selected using historical meteorology with the highest calculated annual average ground level deposition). As of the 2017 broadleaf vegetation growing season, HBRSEP broadleaf vegetation samples went to one mixed broadleaf vegetation (three types of broadleaf vegetation) per site instead of three separate types of broadleaf vegetation samples per site. This change meets the HBRSEP ODCM broadleaf vegetation sampling requirements. Broadleaf sampling is conducted since no milk animals are located within a radius of approximately five miles of the plant and is used to simulate dose to an individual via the milk pathway for compliance purposes.

During 2017, 5 of 40 samples taken from the indicator sites demonstrated detectable concentrations of Cs-137 for an average value of $6.61E+1$ pCi/kg (wet). The control samples had detectable concentrations of Cs-137 in 4 of 10 samples with a mean concentration of $5.40E+1$ pCi/kg (wet). Upon comparing these results, it is concluded that the indicator values reflect fallout Cs-137 contamination; therefore, no detectable activities relating to plant effluents were detected in any indicator or control broadleaf vegetation. Past sampling experience further supports this interpretation. Figure 3.4 displays the highest annual mean indicator and control

location concentrations for Cs-137 in broadleaf vegetation since 1999 to 2017 and Table 3.4 lists these values. Refer to Appendix C and Appendix D for deviations and unavailable samples in the 2017 collection year, if applicable.

Figure 3.4

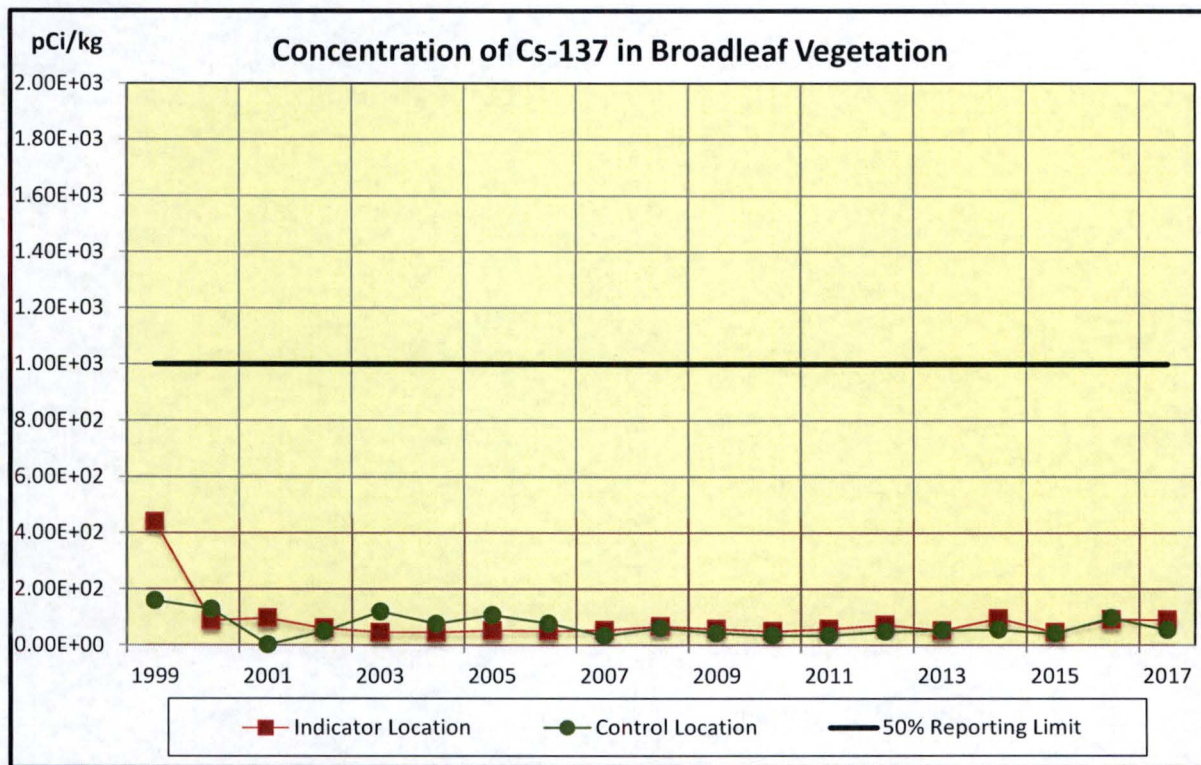


Table 3.4 Mean Concentrations of Radionuclides in Broadleaf Vegetation (pCi/kg)

Year	Cs-137 Indicator Location	Cs-137 Control Location
1999	4.39E+2	2.58E+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 ⁽²⁾	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

(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.

3.5 FOOD PRODUCTS

During 2017, two food product (FP) samples were collected from the indicator location (FP-54) at Auburndale Plantation. In 2017, Auburndale Plantation irrigated its corn crop using water in which liquid plant effluents have been discharged, so corn was collected and analyzed during harvest as per the HBRSEP ODCM. The gamma analyses indicated that no detectable concentrations of gamma-emitting radionuclides relating to plant effluents were detected in the indicator samples for the 2017 collection period (refer to Appendix B). All concentrations of natural occurring gamma-emitters were less than their respective LLDs (see Table 2.2-C).

3.6 FISH

Samples of free-swimming and bottom-feeding fish were taken from Lake Robinson and Prestwood Lake (the first downstream lake) and compared to similar fish from a control lake, which is unaffected by plant operation. During 2017, 2 out of 4 bottom-feeding fish and 1 out of 4 free-swimming fish (indicator sites) demonstrated detectable concentrations of Cs-137 for average values of 2.63E+1 pCi/kg (wet) and 3.58E+1 pCi/kg (wet), respectively. The control samples had detectable concentrations of Cs-137 for 1 out of 2 free-swimming fish for an average concentration of 4.70E+1 pCi/kg (wet). The control bottom-feeding fish did not indicate any detectable concentrations of Cs-137; therefore, Appendix B indicates less than LLD. Upon

comparing these results, it is concluded that the 2017 indicator values reflect fallout Cs-137 contamination; therefore, no detectable activities relating to plant effluents were detected in any indicator or control fish samples. Past sampling experience further supports this interpretation. Figure 3.6-1 and Table 3.6-1 display the highest annual mean indicator and control location concentrations for Cs-137 in free swimming fish since 1999 to 2017, while Figure 3.6-2 and Table 3.6-2 display the highest annual mean indicator and control location concentrations for Cs-137 in bottom feeding fish since 1999 to 2017. Refer to Appendix C and Appendix D for deviations and unavailable samples in the 2017 collection year, if applicable.

Figure 3.6-1

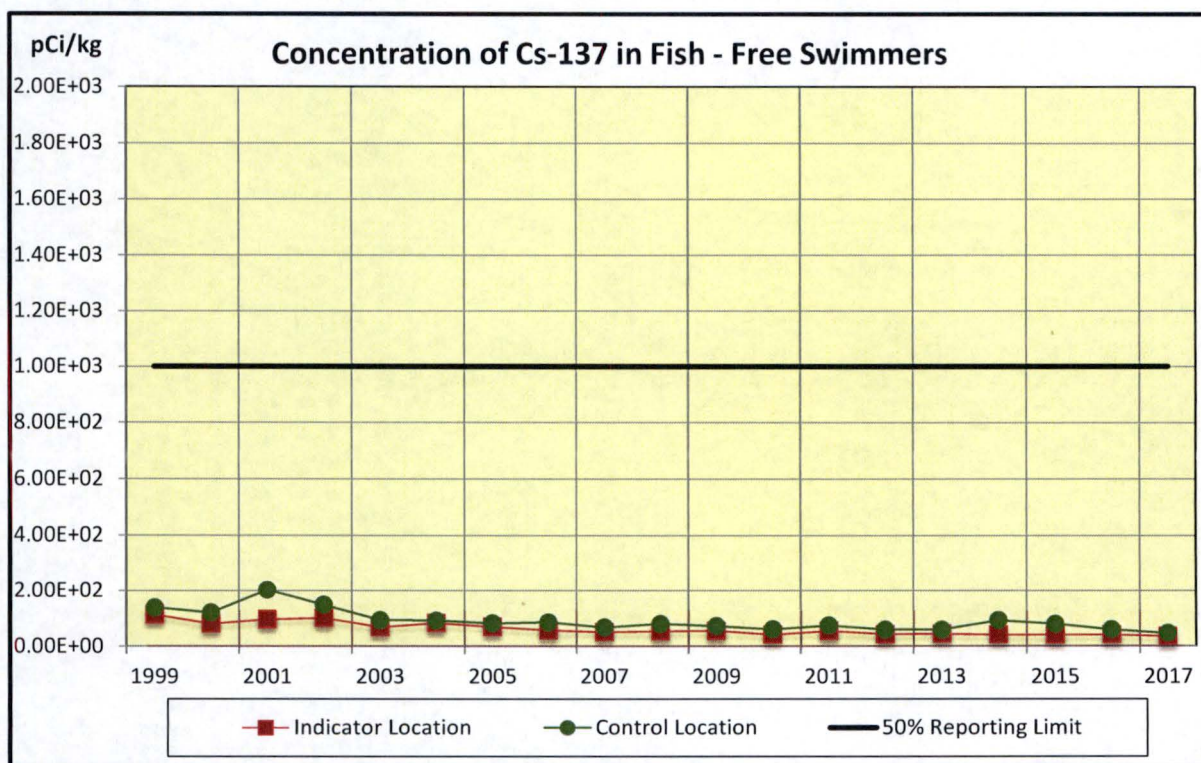


Table 3.6-1 Mean Concentrations of Radionuclides in Fish (Free Swimmers) (pCi/kg)

Year	Cs-137 Indicator Location	Cs-137 Control Location
1999	1.13E+2	1.38E+2
2000	8.14E+1	1.20E+2
2001	9.63E+1	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	4.22E+1	6.16E+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	3.58E+1	4.70E+1

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.

Figure 3.6-2

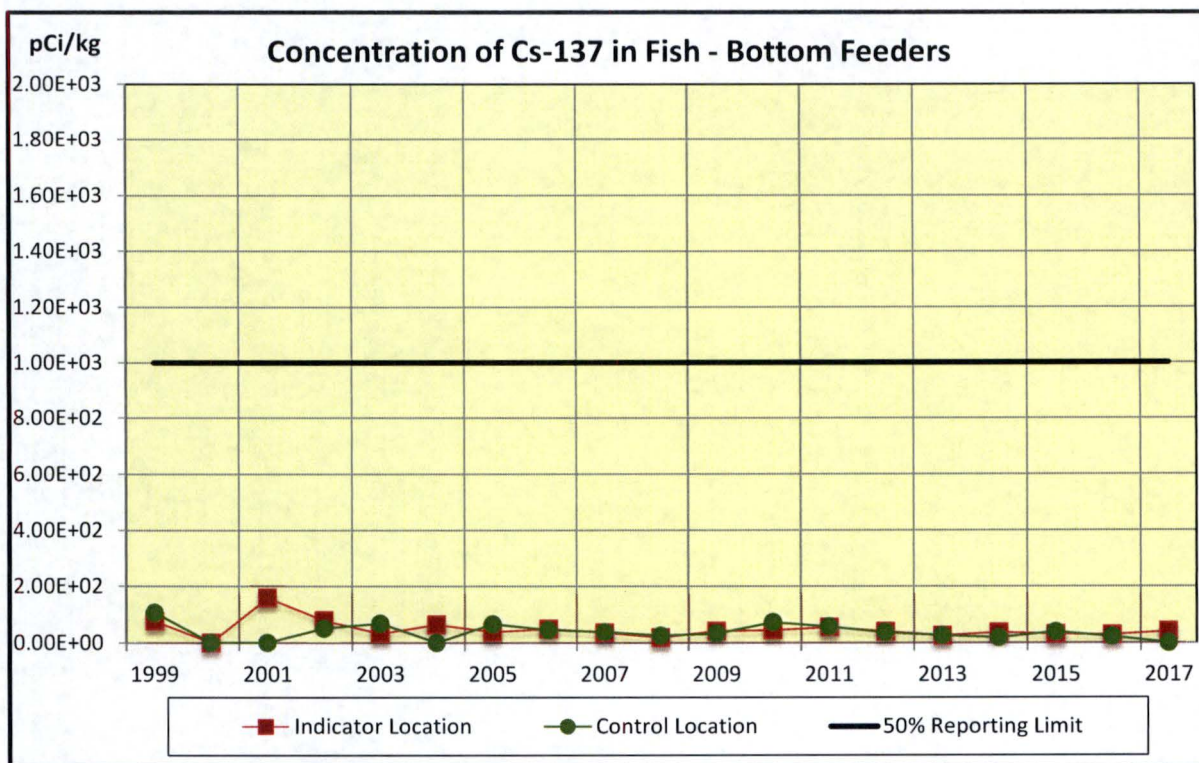


Table 3.6-2 Mean Concentrations of Radionuclides in Fish (Bottom Feeders) (pCi/kg)

Year	Cs-137 Indicator Location	Cs-137 Control Location
1999	7.71E+1	1.06E+2
2000	0.00E+0	0.00E+0
2001	1.58E+2	0.00E+0
2002	7.89E+1	5.06E+1
2003	3.27E+1	6.79E+1
2004	6.41E+1	0.00E+0
2005	3.82E+1	6.59E+1
2006	4.94E+1	4.57E+1
2007	3.63E+1	3.83E+1
2008	1.87E+1	2.59E+1
2009	4.12E+1	3.24E+1
2010	4.47E+1	7.28E+1
2011	5.51E+1	5.73E+1
2012	4.04E+1	3.66E+1
2013	2.61E+1	2.61E+1
2014 ⁽¹⁾	3.72E+1	1.89E+1
2015	3.13E+1	3.92E+1
2016	2.92E+1	2.23E+1
2017	4.09E+1	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.

3.7 SHORELINE SEDIMENT

Shoreline sediment samples were collected semiannually in 2017. Gamma analyses of the shoreline sediment samples detected natural activity in the samples collected in 2017 (refer to Appendix B).

3.8 ASIATIC CLAMS

Benthic samples from Lake Robinson during 2017 continue to confirm the absence of any substantial populations of Asiatic clams (*Corbicula fluminea*). The natural chemistry of the lake (i.e., low alkalinity and hardness) inhibits their proliferation.

3.9 DIRECT GAMMA RADIATION

3.9.1 ENVIRONMENTAL TLD

In 2017, 172 TLDs were analyzed, 168 at indicator locations and 4 at the control location. TLDs are collected and analyzed quarterly.

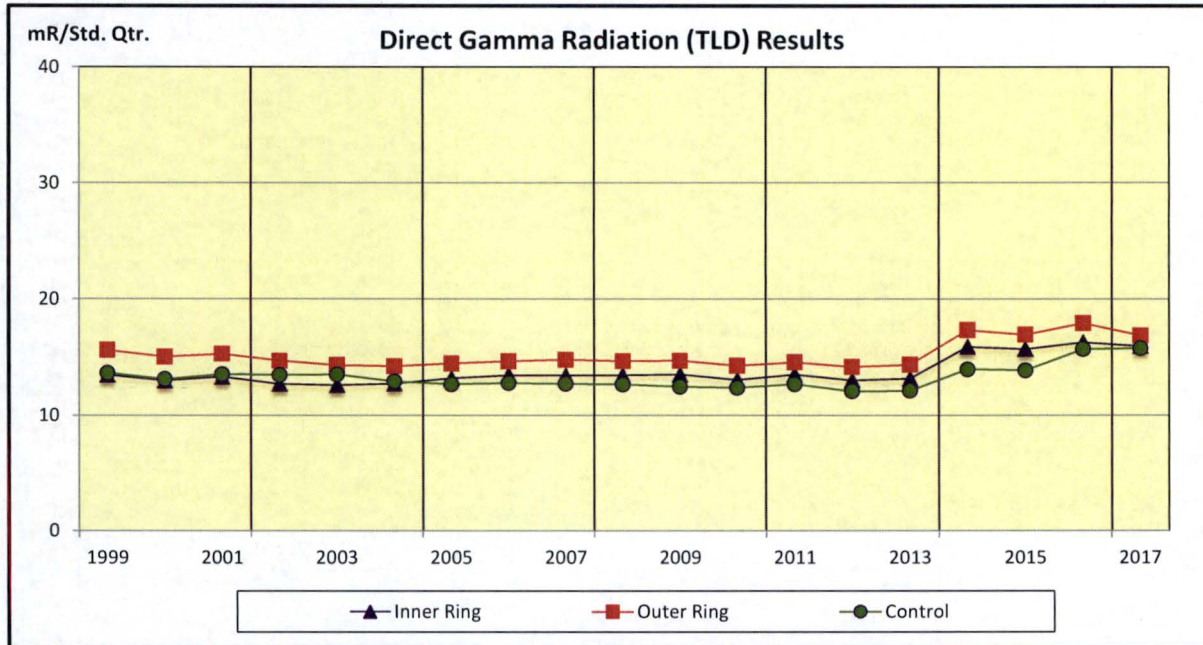
Thermoluminescent dosimeters (TLDs) were used to monitor ambient radiation exposures in the plant environs. The average quarterly exposure at the indicator and control locations was 16.4 mR/Std. Qtr. and 15.8 mR/Std. Qtr. respectively. The highest TLD indicator location for 2017 was TLD location #35 at 4.5 miles SSW at Kelly Bridge Road and its average was 23.2 mR/Std. Qtr. The differences among these locations are attributed to variations in soils, local geology, and are not the result of plant operations. There were no TLDs missing during the HBRSEP 2017 collection period.

Comparison of the average annual TLD exposure within approximately 1 mile (inner ring) of the plant with that at approximately 5 miles (outer ring) and the control for 1999 to 2017 is presented in Figure 3.9.1 and Table 3.9.1.

As of first quarter 2014, the environmental TLDs that are placed in the field for REMP are Harshaw TLDs. Panasonic TLDs were the type of environmental TLDs for HBRSEP REMP monitoring prior to 2014. This change was a merger initiative in order to achieve fleet standardization of the TLD program. This change in environmental TLDs for the REMP indicates a step change in activity as mentioned in NCR # 01982479 between the Panasonic TLD readings prior to 2014 and the Harshaw TLD readings from 2014 to present. There are three factors that can be attributed to the step increase that was observed: (1) the annealing method levels employed were lower for the Panasonic TLDs, (2) transit control subtraction differences, and (3) the calculation/method of fade correction (fixed fade control - vs - actual in field TLDs). Starting in 2016, enhanced analytical methods were evaluated for future implementation when sufficient data is available. The new methods will improve data transparency and interpretation.

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

Figure 3.9.1



There is no reporting level for Direct Radiation (TLD)

Table 3.9.1 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	1.59E+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

3.10 LAND USE CENSUS

The 2017 HBRSEP Annual Land Use Census was conducted in July 2017 to meet the requirements of the HBRSEP ODCM 4.4.1. Table 3.10.3 summarizes the HBRSEP 2017 census results. During the 2017 census no milk locations were identified within five miles (8 kilometers) of HBRSEP and meat animals were only identified at the nearest garden or closer in each sector. Based on a review of sampling requirements, existing/new sample locations, and relative deposition values; no new environmental program changes were required as a result of the 2017 Land Use Census.

3.10.1 PURPOSE OF LAND USE CENSUS

The land use census identifies the pathways (or routes) that radioactive material may reach the general populations near commercial nuclear generating stations. This is accomplished by completing studies each year that identify how the surrounding lands are used by the population. A comprehensive census of the use of the land within a five-mile (8 kilometer) distance of the plant is conducted once per 12 months during the growing season. This information is used for dose assessment and to identify changes to the stations sampled and the type of samples. These results ensure that the Radiological Environmental Monitoring Program (REMP) is based upon current data regarding human activity in the vicinity of the plant. Therefore, the purpose of the land use census is to ensure the monitoring program is current, as well as provide data for the calculation of estimated radiation exposure.

The pathways evaluated are:

- Ingestion Pathway - Results from eating food products that may have radioactive materials deposited on them, incorporated radioactive materials from the soil or atmosphere. Another pathway is through drinking milk from local cows or goats, if these are present and if not then broadleaf vegetation is collected in lieu of milk. The grass used to feed these animals may have incorporated or had deposited on it radioactive materials that can be transferred to the milk.
- Direct Radiation Exposure Pathway- Results from deposition of radioactive materials on the ground or from passage of these radioactive materials in the air.
- Inhalation Pathway- Results from breathing radioactive materials transported in the air.

3.10.2 METHODOLOGY

The following must be identified within the five-mile (8 kilometer) radius of the plant for each of the sixteen meteorological sectors (compass direction the winds may blow, for example NNE [North North East]):

- The nearest resident
- The nearest garden of greater than 500 square feet, producing broadleaf vegetables
- The nearest milk animal
- The nearest meat animal

The primary methods are visual inspection from the roadside within the five (5) mile radius and personal contact with the individuals.

3.10.3 LAND USE CENSUS RESULTS

The HBRSEP Land Use Census was performed July 2017 to meet the requirements of the HBRSEP's ODCM. The last HBRSEP land use census was performed in July 2016. The 2016 and 2017 results of the survey for the nearest resident, garden, milk and meat animal for each meteorological sector are compared in Table 3.10.3.

No milk producing animals were identified within the five-mile radius of the site in any sector. Milk sampling will resume if a new sample location is identified. Vegetables like tomatoes, squash, okra, cucumbers, etc. are examples of the vegetables of choice for this area and are what is typically grown and sampled in the past. Sampling of these vegetables (non-leafy) will continue until leafy vegetables are part of the garden crop. The results of the 2017 Land Use Census were reviewed and no changes in release pathways were identified as a result of the land use census that would require an ODCM change, additional dose calculations, or procedure changes.

Table 3.10.3 HBRSEP Land Use Census Comparison (2016 – 2017)

Nearest Pathway (Miles)**

SECTOR	RESIDENT		GARDEN		MEAT ANIMAL ⁽¹⁾		MILK ANIMAL	
	2016	2017	2016	2017	2016	2017	2016	2017
N	2.83	2.83	3.28	3.28	----	----	----	----
NNE	1.53	1.53	2.07	2.16*	2.69	----*	----	----
NE	1.03	1.03	2.48	2.86*	----	----	----	----
ENE	0.85	0.85	2.40	0.94*	3.08	----*	----	----
E	0.90	0.90	1.09	4.19*	3.00	3.00	----	----
ESE	0.62	0.62	1.28	1.28	----	----	----	----
SE	0.38	0.38	3.92	3.74*	2.32	----*	----	----
SSE	0.33	0.33	2.39	2.39	----	----	----	----
S	0.44	0.44	2.23	0.74*	2.46	----*	----	----
SSW	0.42	0.42	0.81	4.61*	4.46	4.38*	----	----
SW	0.44	0.44	2.78	2.78	4.01	----*	----	----
WSW	0.46	0.46	0.86	0.86	0.86	0.86	----	----
W	0.56	0.56	0.70	0.70	4.15	----*	----	----
WNW	0.57	0.57	0.81	0.81	4.23	----*	----	----
NW	1.56	1.56	1.62	1.62	1.62	1.62	----	----
NNW	2.00	2.00	----	----	----	----	----	----

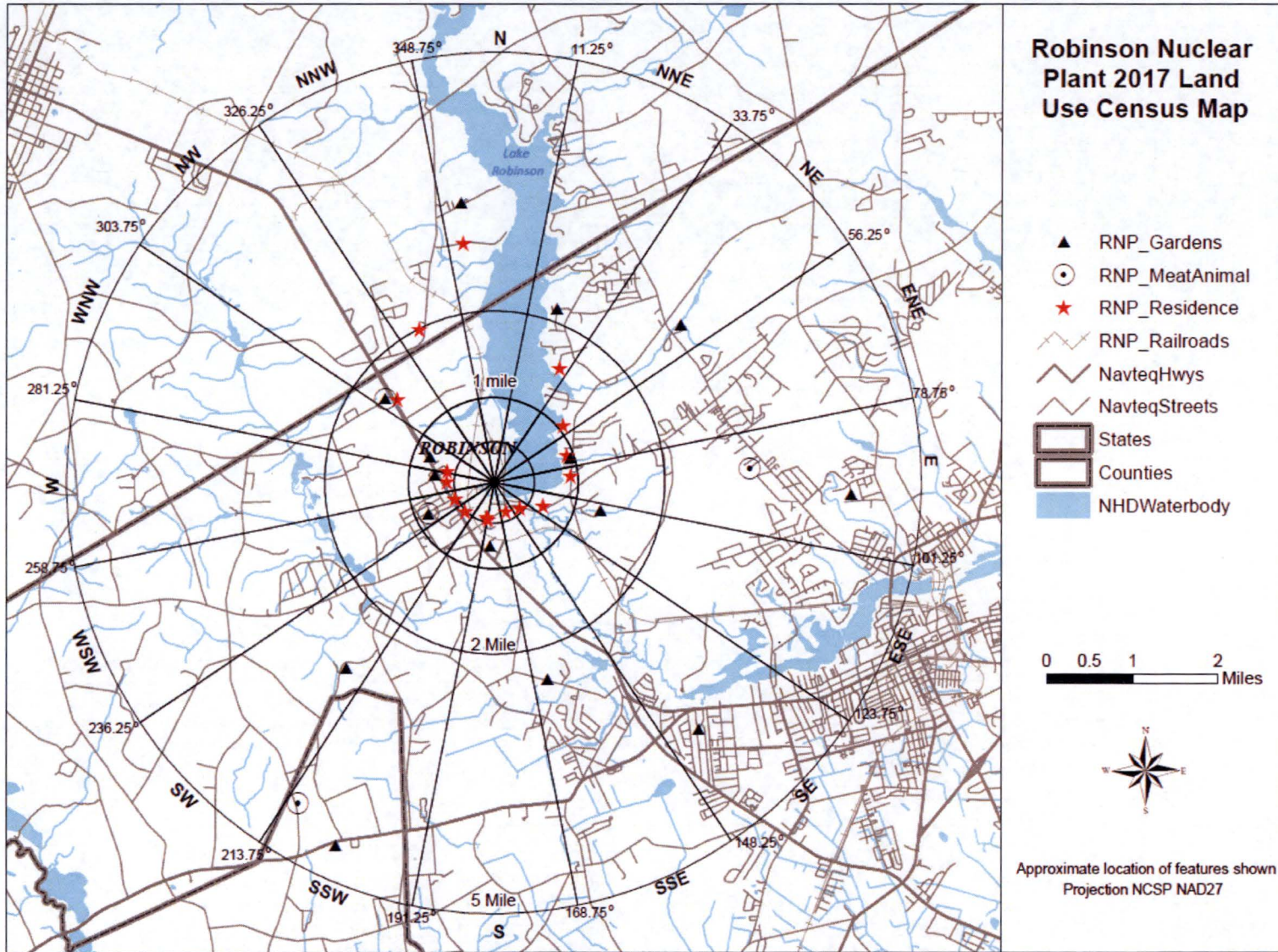
* Represents a change from the previous year.

“----” indicates no occurrences within the 5 mile radius

(1) Meat animal was only identified at the nearest garden or closer in each sector.

** Sector and distance determined by Global Positioning System.

Figure 3.10.3



4.0 QUALITY ASSURANCE

4.1 SAMPLE COLLECTION

HBRSEP Chemistry and the Environmental Water Resources 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 located in Huntersville, North Carolina, at Duke Energy's Environmental Center. During 2017, a vendor laboratory, General Engineering Laboratory, LLC (GEL), performed some environmental sample analyses as specified by approved analysis procedures.

4.3 DOSIMETRY ANALYSIS

The Radiation Dosimetry and Records group performed the environmental dosimetry measurements as specified by approved dosimetry analysis procedures.

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 2017 Duke Energy Environmental Laboratory (EnRad) participated in an interlaboratory program to satisfy Radiological Environmental Monitoring Program requirements in Duke Energy nuclear plant Offsite Dose Calculation Manuals and Selected Licensee Commitments Manuals, as applicable. The EnRad organization, in 2017, elected to voluntarily withdraw its North Carolina State Drinking Water Certification with the North Carolina Department of Health and Human Services, State Laboratory of Public Health. It was determined that there was no longer a business case for maintaining this certification (NCR # 02093311). Samples requiring this certification are sent to General Engineering Laboratories, LLC (GEL), which maintains the necessary certifications to meet regulatory commitments for drinking water.

EnRad Laboratory participated in an interlaboratory program with Eckert & Ziegler Analytics (EZA) in 2017. 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 DUKE ENERGY INTERLABORATORY PROGRAM

EnRad Laboratories made the determination in 2017 to discontinue its participation in the Duke Energy Fleet Scientific Services (FSS) Interlaboratory Program, as EnRad already maintains a sufficient cross check program through EZA. Historically, Duke Energy FSS has maintained its own Interlaboratory Program supporting the Duke Energy fleet. At EnRad, this has been a supplement to EnRad's participation in the EZA Cross Check Program. In 2017, FSS determined that shifting business needs had reduced the need for the FSS Interlaboratory Program and the majority of the Interlaboratory Program has been discontinued.

4.5.2 ECKERT & ZIEGLER ANALYTICS CROSS CHECK PROGRAM

EnRad Laboratories participated in the Eckert & Ziegler Analytics (EZA) Cross Check Program during 2017. Cross check samples including mixed gamma in liquid, mixed gamma in vegetation, low-level I-131 in liquid, mixed gamma air filters (single and composites), mixed gamma and I-131 air cartridges, strontium in water, gross alpha and beta in water, gross alpha and beta in filters, and tritium in water were analyzed at various times of the year. A summary of the EnRad Laboratory program results for 2017 is documented in Table 4.0-A.

Interlaboratory cross check samples from EZA were received and analyzed in all four quarters of 2017. Table 4.0-A lists the performance for specific samples. Eighty-seven nuclide results were reported to EZA of which eighty-six (98.9%) met the acceptance criteria based on IP 84750. One EZA cross check nuclide result did exhibit a high bias and EnRad proactively initiated an NCR to investigate this bias.

In the second quarter of 2017, a mixed gamma in filter cross check (E11890) yielded a disagreement on only the Zinc-65 nuclide value (ratio to the known of 130%). An overall high bias was noted across all other nuclides, primarily in the high energy range. NCR # 02138003 was written to investigate and document the failure. It was determined that the geometry used for gamma filter counting contained compounding biases, leading to consistently high results in the upper energy range. Following the implementation of a new filter geometry, an equivalent filter cross check (E12011) was analyzed in the fourth quarter of 2017. The cross check passed with reduced biases, and a Zinc-65 nuclide value of 111% of the known.

4.5.3 ERA PROFICIENCY TESTING

EnRad Laboratories made the determination in 2017 to discontinue its participation in the Environmental Resource Associates (ERA) Proficiency Testing program, as this program's participation was solely for the purpose of maintaining EnRad's North Carolina State Drinking Water Certification requirements (NCR # 02093311).

4.6 SPLIT COMPARISON PROGRAM

HBRSEP routinely participates in an environmental sample intercomparison program. Program elements include sampling frequency and analysis for food products, shoreline sediments, surface water, and fish collected by HBRSEP Chemistry and Environmental Water Resources Group. Samples are routinely split with a vendor laboratory for intercomparison.

4.7 TLD INTERCOMPARISON PROGRAM

4.7.1 NUCLEAR TECHNOLOGY SERVICES INTERCOMPARISON PROGRAM

Radiation Dosimetry and Records participates in a quarterly TLD intercomparison program administered by Nuclear Technology Services, Inc. of Roswell, GA. Nuclear Technology Services irradiates environmental dosimeters quarterly and sends them to the Radiation Dosimetry and Records group for analysis of the unknown estimated delivered exposure. A summary of the 2017 Nuclear Technology Services Intercomparison Report is documented in Table 4.0-B.

The individual measurements were evaluated and results falling outside the acceptable ratio criteria had an evaluation performed to identify any recommended remedial actions and to reduce anomalous errors. During first quarter of 2017 an environmental external TLD cross check failed and NCR # 02147847 was written to document the failure of the four individual TLDs; however, the overall result fell within both the Duke Energy and Nuclear Technology Services, Inc. acceptance criteria. To prevent recurrence, the four TLDs were pulled and visually inspected for abnormalities in the elements and overall integrity of the TLDs and no abnormalities were found. The four TLDs were checked per procedure and TLDs # 533830 and 103632 were both removed from service. Complete

documentation of any evaluation will be available and provided to the NRC upon request.

4.7.2 INTERNAL CROSS CHECK (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 and submits them for analysis of the unknown estimated delivered exposure. A summary of the 2017 Internal Cross Check (Duke Energy) Program is documented in Table 4.0-B.

4.8 GENERAL ENGINEERING LABORATORY, LLC (GEL)

General Engineering Laboratory, LLC (GEL) participated in various Quality Assurance Programs for Inter-laboratory, Intra-laboratory, Third Party Cross Check programs, and a number of proficiency testing programs during 2017. A summary of the GEL quality assurance program results for the sample media types sent to GEL during 2017 is documented in Table 4.0-C. GEL Quality Assurance Program results not appearing in Table 4.0-C will be supplied upon request.

TABLE 4.0-A

ECKERT & ZIEGLER ANALYTICS

CROSS CHECK PROGRAM

2017 Cross Check Results for EnRad Laboratories

Interlaboratory cross check samples from EZA were received and analyzed in all four quarters of 2017. 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. Eighty-seven nuclide results were reported to EZA of which eighty-six (98.9%) 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	E11755	Cs-137	1	pCi	247	244	1.01	Agreement
	E11925A	Cs-137	3	pCi	191	199	0.96	Agreement
Gamma in Cartridge	E11924	Ce-141	3	pCi	58.8	60.0	0.98	Agreement
		Co-58	3	pCi	81.0	80.7	1.00	Agreement
		Co-60	3	pCi	182	181	1.01	Agreement
		Cr-51	3	pCi	144	150	0.96	Agreement
		Cs-134	3	pCi	132	138	0.95	Agreement
		Cs-137	3	pCi	123	119	1.04	Agreement
		Fe-59	3	pCi	88.3	86.5	1.02	Agreement
		Mn-54	3	pCi	89.7	84.7	1.06	Agreement
		Zn-65	3	pCi	141	127	1.11	Agreement
LLI-131 in Water	E12007	I-131	4	pCi/L	58.8	57.7	1.02	Agreement
LLI-131 in Milk	E11889	I-131	2	pCi/L	95.4	96.3	0.99	Agreement
I-131 in Charcoal Cartridge	E11754	I-131	1	pCi	98.1	93.5	1.05	Agreement
	E12003	I-131	3	pCi	64.7	64.5	1.00	Agreement
Gamma in Simulated Vegetation (Coffee Grounds)	E12010	Ce-141	4	pCi/g	0.202	0.195	1.04	Agreement
		Co-58	4	pCi/g	0.181	0.178	1.02	Agreement
		Co-60	4	pCi/g	0.334	0.342	0.98	Agreement
		Cr-51	4	pCi/g	0.423	0.479	0.88	Agreement
		Cs-134	4	pCi/g	0.220	0.247	0.89	Agreement
		Cs-137	4	pCi/g	0.281	0.280	1.00	Agreement
		Fe-59	4	pCi/g	0.227	0.224	1.01	Agreement
		Mn-54	4	pCi/g	0.337	0.318	1.06	Agreement
		Zn-65	4	pCi/g	0.447	0.418	1.07	Agreement

TABLE 4.0-A (Cont.)

Sample	Sample ID	Nuclide	Quarter	Units	EnRad Value	EZA Value	EnRad/EZA Ratio	Evaluation
Gamma in Composite Filter	E11752	Ce-141	1	pCi	101	97.3	1.04	Agreement
		Cr-51	1	pCi	202	195	1.04	Agreement
		Cs-134	1	pCi	90.4	80.5	1.12	Agreement
		Cs-137	1	pCi	99.8	93.9	1.06	Agreement
		Co-58	1	pCi	106	100	1.06	Agreement
		Mn-54	1	pCi	126	110	1.14	Agreement
		Fe-59	1	pCi	101	86.4	1.17	Agreement
		Zn-65	1	pCi	164	134	1.22	Agreement
		Co-60	1	pCi	132	123	1.08	Agreement-
Gamma in Water	E11753	I-131	1	pCi/L	101	97.8	1.03	Agreement
		Ce-141	1	pCi/L	149	145	1.03	Agreement
		Cr-51	1	pCi/L	282	291	0.97	Agreement
		Cs-134	1	pCi/L	117	120	0.97	Agreement
		Cs-137	1	pCi/L	142	140	1.01	Agreement
		Co-58	1	pCi/L	154	150	1.03	Agreement
		Mn-54	1	pCi/L	174	165	1.06	Agreement
		Fe-59	1	pCi/L	139	129	1.08	Agreement
		Zn-65	1	pCi/L	226	200	1.13	Agreement
		Co-60	1	pCi/L	189	183	1.03	Agreement
Gamma in Water	E12006	I-131	3	pCi/L	71.8	79.2	0.91	Agreement
		Ce-141	3	pCi/L	105	99.5	1.06	Agreement
		Cr-51	3	pCi/L	240	248	0.97	Agreement
		Cs-134	3	pCi/L	208	229	0.91	Agreement
		Cs-137	3	pCi/L	202	196	1.03	Agreement
		Co-58	3	pCi/L	135	134	1.01	Agreement
		Mn-54	3	pCi/L	148	140	1.05	Agreement
		Fe-59	3	pCi/L	148	143	1.03	Agreement
		Zn-65	3	pCi/L	238	210	1.13	Agreement
		Co-60	3	pCi/L	294	299	0.98	Agreement

TABLE 4.0-A (Cont.)

Sample	Sample ID	Nuclide	Quarter	Units	EnRad Value	EZA Value	EnRad/EZA Ratio	Evaluation
Gamma in Filter (Falcon)	E11890	Ce-141	2	pCi	119	114	1.04	Agreement
		Co-58	2	pCi	124	117	1.06	Agreement
		Co-60	2	pCi	150	144	1.04	Agreement
		Cr-51	2	pCi	240	238	1.01	Agreement
		Cs-134	2	pCi	148	142	1.04	Agreement
		Cs-137	2	pCi	122	113	1.08	Agreement
		Fe-59	2	pCi	107	87.0	1.23	Agreement
		Mn-54	2	pCi	146	130	1.13	Agreement
		Zn-65	2	pCi	200	154	1.30	Non-Agreement ¹
Gamma in Filter (Falcon)	E12011	Ce-141	4	pCi	82.5	76.2	1.08	Agreement
		Co-58	4	pCi	70.8	69.6	1.02	Agreement
		Co-60	4	pCi	144	134	1.07	Agreement
		Cr-51	4	pCi	202	188	1.08	Agreement
		Cs-134	4	pCi	97.4	96.7	1.01	Agreement
		Cs-137	4	pCi	119	110	1.09	Agreement
		Fe-59	4	pCi	98.5	87.9	1.12	Agreement
		Mn-54	4	pCi	132	125	1.06	Agreement
		Zn-65	4	pCi	181	164	1.11	Agreement
Gamma in Milk	E11756	I-131	1	pCi/L	105	97.9	1.07	Agreement
		Ce-141	1	pCi/L	149	145	1.03	Agreement
		Cr-51	1	pCi/L	331	290	1.14	Agreement
		Cs-134	1	pCi/L	116	120	0.97	Agreement
		Cs-137	1	pCi/L	150	140	1.07	Agreement
		Co-58	1	pCi/L	152	150	1.02	Agreement
		Mn-54	1	pCi/L	177	164	1.08	Agreement
		Fe-59	1	pCi/L	148	129	1.15	Agreement
		Zn-65	1	pCi/L	224	199	1.12	Agreement
		Co-60	1	pCi/L	194	183	1.06	Agreement
Gross Beta in Water	E11892	Cs-137	2	pCi/L	255	270	0.94	Agreement
	E12009	Cs-137	4	pCi/L	250	265	0.94	Agreement
Tritium in Water	E11891	H-3	2	pCi/L	14300	14000	1.02	Agreement
	E12008	H-3	4	pCi/L	13200	13400	0.98	Agreement

1) NCR # 02138003

TABLE 4.0-B

2017 ENVIRONMENTAL DOSIMETER CROSS CHECK RESULTS

Nuclear Technology Services

Radiation Dosimetry and Records participates in a quarterly TLD intercomparison program administered by Nuclear Technology Services, Inc. of Roswell, GA. Nuclear Technology Services irradiates environmental dosimeters quarterly and sends them to Radiation Dosimetry and Records group for analysis of the unknown estimated delivered exposure. The individual measurements were evaluated and results falling outside the acceptable ratio criteria had an evaluation performed to identify any recommended remedial actions and to reduce anomalous errors. Complete documentation of any evaluation will be available and provided to the NRC upon request.

1st Quarter 2017						2nd Quarter 2017					
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
103469	79.16	72.16	9.70	<+/-15%	Pass	103126	20.33	18.90	7.57	<+/-15%	Pass
103632	83.94	72.16	16.32	<+/-15%	**Fail	103068	20.20	18.90	6.88	<+/-15%	Pass
103636	76.22	72.16	5.63	<+/-15%	Pass	103065	19.51	18.90	3.23	<+/-15%	Pass
103637	77.82	72.16	7.84	<+/-15%	Pass	102830	20.64	18.90	9.21	<+/-15%	Pass
103642	79.08	72.16	9.59	<+/-15%	Pass	103002	20.18	18.90	6.77	<+/-15%	Pass
Average Bias (B)			9.82			Average Bias (B)			6.73		
Standard Deviation (S)			4.00			Standard Deviation (S)			2.19		
Measure Performance B +S			13.81	<15%	Pass	Measure Performance B +S			8.92	<15%	Pass
3rd Quarter 2017						4th Quarter 2017					
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
102253	60.07	60.04	0.05	<+/-15%	Pass	102343	72.30	70.02	3.26	<+/-15%	Pass
101122	62.80	60.04	4.60	<+/-15%	Pass	102265	72.85	70.02	4.04	<+/-15%	Pass
103099	60.78	60.04	1.23	<+/-15%	Pass	102340	71.25	70.02	1.76	<+/-15%	Pass
102288	61.20	60.04	1.93	<+/-15%	Pass	103972	66.99	70.02	-4.33	<+/-15%	Pass
100163	59.82	60.04	-0.37	<+/-15%	Pass	103921	68.54	70.02	-2.11	<+/-15%	Pass
Average Bias (B)			1.49			Average Bias (B)			0.52		
Standard Deviation (S)			1.96			Standard Deviation (S)			3.60		
Measure Performance B +S			3.45	<15%	Pass	Measure Performance B +S			4.12	<15%	Pass

Fail** refers to NCR #02147847

TABLE 4.0-B (Cont.)

2017 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.

1st Quarter 2017						2nd Quarter 2017					
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
102207	49.22	48.0	2.54	<+/-15%	Pass	102519	46.79	43.0	8.81	<+/-15%	Pass
102208	47.57	48.0	-0.90	<+/-15%	Pass	102870	49.18	43.0	14.37	<+/-15%	Pass
103410	52.06	48.0	8.46	<+/-15%	Pass	103537	46.05	43.0	7.09	<+/-15%	Pass
102167	49.65	48.0	3.44	<+/-15%	Pass	103541	47.33	43.0	10.07	<+/-15%	Pass
102079	51.39	48.0	7.06	<+/-15%	Pass	103111	48.21	43.0	12.12	<+/-15%	Pass
103409	50.33	48.0	4.85	<+/-15%	Pass	102304	45.04	43.0	4.74	<+/-15%	Pass
102209	49.32	48.0	2.75	<+/-15%	Pass	102873	47.59	43.0	10.67	<+/-15%	Pass
102214	49.46	48.0	3.04	<+/-15%	Pass	102872	47.85	43.0	11.28	<+/-15%	Pass
102117	49.94	48.0	4.04	<+/-15%	Pass	102871	47.80	43.0	11.16	<+/-15%	Pass
102201	49.83	48.0	3.81	<+/-15%	Pass	102861	48.11	43.0	11.88	<+/-15%	Pass
Average Bias (B)			3.91			Average Bias (B)			10.22		
Standard Deviation (S)			2.56			Standard Deviation (S)			2.74		
Measure Performance B +S			6.47	<15%	Pass	Measure Performance B +S			12.96	<15%	Pass
3rd Quarter 2017						4th Quarter 2017					
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
101195	19.81	18.8	5.15	<+/-15%	Pass	103951	50.92	50.0	1.84	<+/-15%	Pass
103731	19.45	18.8	3.24	<+/-15%	Pass	103949	51.06	50.0	2.12	<+/-15%	Pass
101190	19.90	18.8	5.63	<+/-15%	Pass	103950	51.04	50.0	2.08	<+/-15%	Pass
103532	20.61	18.8	9.39	<+/-15%	Pass	104011	51.38	50.0	2.76	<+/-15%	Pass
100314	19.70	18.8	4.56	<+/-15%	Pass	103931	51.10	50.0	2.20	<+/-15%	Pass
101264	18.93	18.8	0.48	<+/-15%	Pass	104004	50.74	50.0	1.48	<+/-15%	Pass
101345	19.18	18.8	1.80	<+/-15%	Pass	103996	49.63	50.0	-0.74	<+/-15%	Pass
101397	20.06	18.8	6.48	<+/-15%	Pass	103963	52.97	50.0	5.94	<+/-15%	Pass
100868	20.45	18.8	8.55	<+/-15%	Pass	103947	49.17	50.0	-1.66	<+/-15%	Pass
103078	20.51	18.8	8.86	<+/-15%	Pass	103929	49.88	50.0	-0.24	<+/-15%	Pass
Average Bias (B)			5.41			Average Bias (B)			1.58		
Standard Deviation (S)			3.01			Standard Deviation (S)			2.12		
Measure Performance B +S			8.43	<15%	Pass	Measure Performance B +S			3.70	<15%	Pass

TABLE 4.0-C

2017 ANNUAL QUALITY ASSURANCE REPORT

for the RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM

for GEL Laboratories, LLC (GEL)

Sample	Nuclide	Quarter	Units	GEL Value	Known Value	Acceptance Range/Ratio	Evaluation
HTD in Soil							
MAPEP-17-MaS36	Fe-55	2	Bq/Kg	804	812	568 - 1056	Agreement
	Ni-63	2	Bq/Kg	-46	N/A	False Pos Test	Agreement
	Sr-90	2	Bq/Kg	548	624	437 - 811	Agreement
MAPEP-17-MaS37	Fe-55	4	Bq/kg	933	1010	707 - 1313	Agreement
	Ni-63	4	Bq/kg	1240	1220	854 - 1586	Agreement
	Sr-90	4	Bq/kg	240	289	202 - 376	Agreement
I-131 in Milk with EZA							
E11820	I-131	1	pCi/L	95.7	96.8	0.99	Agreement
E11875	I-131	2	pCi/L	99.3	93.6	1.06	Agreement
E11928	I-131	3	pCi/L	73.5	71.0	1.04	Agreement
E12069	I-131	4	pCi/L	65.9	57.8	1.14	Agreement

Other GEL 2017 Annual Environmental Quality Assurance Report results will be supplied upon request.

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) was required to ensure compliance with provisions of the Nuclear Regulatory Commission's Regulatory Guide 4.8, HBRSEP Technical Specifications, and the HBRSEP Off-Site Dose Calculation Manual (ODCM). Analytical procedures were employed to ensure that the ODCM detection capabilities were achieved.

Environmental sampling and analyses were performed by HBRSEP Chemistry, Environmental Water Resources Group, EnRad Laboratories, and Dosimetry and Records.

This appendix describes the environmental sampling frequencies and analysis procedures by media type conducted in 2017.

I. CHANGE OF SAMPLING PROCEDURES

Broadleaf vegetation sample collection went to one mixed broadleaf vegetation (three types of broadleaf vegetation) per site instead of three separate types of broadleaf vegetation samples per site May 2017. This change meets the HBRSEP ODCM broadleaf vegetation sampling requirements.

II. DESCRIPTION OF ANALYSIS PROCEDURES

Gamma spectroscopy analyses are performed using high purity germanium gamma detectors and Canberra analytical software. Designated sample volumes are transferred to appropriate counting geometries and analyzed by gamma spectroscopy. Perishable samples such as fish, food products, and broadleaf vegetation are ground to achieve a homogeneous mixture and then transferred to an appropriate counting geometry. Soil and sediment samples are dried, sifted to remove foreign objects (rocks, clams, glass, etc.), and then transferred to an appropriate counting geometry container. Once prepared for counting, EnRad's samples (fish, food products, broadleaf vegetation, soil, and sediments) are analyzed by gamma spectroscopy.

Tritium analyses are performed monthly and quarterly by EnRad using low-level environmental liquid scintillation analysis technique on a Perkin-Elmer 2900TR liquid scintillation system or a 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 is performed weekly on air particulate filter samples by Tennelec XLB Series 5 gas-flow proportional counters. Samples are batch processed with a blank to ensure sample contamination has not occurred.

III. CHANGE OF ANALYSIS PROCEDURES

The tritium preparation procedure was modified during 2017 to align with ASTM method D4107-08, Standard Test Method for Tritium in Drinking Water: Water and Environmental Technology. Volume 11.02. 2014 Edition. Tritium dark adaption times were also reduced (NCR # 02134015).

IV. SAMPLING AND ANALYSIS PROCEDURES

A.1 AIRBORNE PARTICULATE AND RADIOIODINE

Airborne particulate and radioiodine samples at each of ten locations were composited continuously 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 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 feet 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. The continuous composite samples were collected from the locations listed below.

Location 1	=	24.4 miles ESE Florence, S.C. (Control)
Location 2	=	0.2 miles S Information Center
Location 3	=	0.5 miles N Microwave Tower
Location 4	=	0.4 miles ESE Spillway
Location 5	=	0.9 miles ENE East shore of lake near Johnson's Landing
Location 6	=	0.2 miles SSW Information Center
Location 7	=	6.4 miles ESE CP&L facility on RR Ave., Hartsville
Location 55	=	0.2 miles SSE South of West Settling Pond
Location 60	=	0.2 miles SE Robinson Picnic Area
Location 61	=	0.3 miles WSW West Parking lot near RR tracks

A.2 SURFACE WATER

Weekly composite surface water (SW) samples were collected from two locations, with aliquots going to monthly composite samples. Tritium and gamma analyses were performed on the monthly composites. The composites are collected from the locations listed below.

- Location 40 = 0.6 miles ESE Black Creek at Old Camden Road (S-16-23) – Lake Robinson
- Location 41 = 8.0 miles N Black Creek at US Hwy 1 (Control)

A.3 GROUND WATER

Grab samples were collected quarterly from one ground water (GW) well location. A gamma analysis and tritium analysis were performed on the sample. ODCM Revision 34 removed all the ground water sample locations, but one (Artesian Well location #64) from the HBRSEP ODCM effective January 2016. The ground water sample locations are now part of the HBRSEP Ground Water Protection Initiative (GWPI) reports and will be reported in the HBRSEP Annual Radiological Effluent Release Report. The ground water samples were collected from the location listed below.

- Location 64 = 0.6 miles SE Artesian Well

A.4 BROADLEAF VEGETATION

Monthly, one mixed broadleaf vegetation sample (three types of broadleaf vegetation) per site is collected instead of three separate types of broadleaf vegetation samples per site. A gamma analysis was performed on each sample. The samples were collected from the locations listed below.

- Location 50 = SSE Close to Site Boundary
- Location 51 = SSW Close to Site Boundary
- Location 52 = 10 miles W near Bethune (Control)
- Location 62 = SE Close to Site Boundary
- Location 67 = S Close to Site Boundary

A.5 FOOD PRODUCTS

Annually, at harvest, samples of each different type of broadleaf vegetation (edible portions) were collected when available during harvest at the one food product location. A gamma analysis was performed on the edible portions of each sample. The samples were collected from the location listed below.

Location 54 = 10.1 miles E Auburndale Plantation (if irrigating from Black Creek)

A.6 FISH

Semiannual samples of bottom feeders and free swimmers were collected at each of three locations. A gamma analysis was performed on the edible portions of each sample. The samples were collected from the locations listed below.

Location 45 = Site varies within Lake Robinson
Location 46 = Site varies within Prestwood Lake
Location 47 = Control station, Any lake not influenced by plant discharge (Control)

A.7 SHORELINE SEDIMENT

Semiannual samples were collected at the one shoreline sediment location. A gamma analysis was performed on the sample following the drying and removal of rocks and clams. The samples were collected from the location listed below.

Location 44 = 1.6 miles NNE East shore of lake, Shady Rest Club

A.8 DIRECT GAMMA RADIATION (TLD)

Thermoluminescent dosimeters (TLD) were collected quarterly at forty-three locations. A gamma exposure rate was determined for each TLD. TLD locations are listed in Table 2.1-B. The TLDs were placed as indicated below.

- * An inner ring of 25 TLDs, one in each meteorological sector in the general area of the site boundary.
- * An outer ring of 17 TLDs, one in each meteorological sector in the 6 to 8 kilometer range.

- * The remaining TLDs were placed in special interest areas such as population centers, residential areas, schools, and at a control location.

A.9 ANNUAL LAND USE CENSUS

An Annual Land Use Census was conducted to identify within a distance of 5.0 miles (8 kilometers) from the plant, the nearest location from the site boundary in each of the sixteen meteorological sectors, the following:

- * 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.)
- * The Nearest Meat Animal (beef, hogs, etc.) was only identified at the nearest garden or closer in each sector, and poultry and egg laying animals were not classified as meat animals for the 2017 census.

The census was conducted during the growing season in July of 2017. Results are shown in Table 3.10.3. No changes were made to the sampling procedures during 2017 as a result of the 2017 census.

APPENDIX B

**RADIOLOGICAL
ENVIRONMENTAL MONITORING
PROGRAM**

SUMMARY OF RESULTS

2017

**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: 2017

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⁾		Control Locations Mean ⁽²⁾⁽³⁾ Range ⁽²⁾	No. of Non-Routine Report Meas.
				Name, Distance, and Direction	Mean ⁽²⁾⁽³⁾ Range ⁽²⁾		
Air Particulate ⁽⁴⁾ (pCi/m ³)	Gross Beta 530 ⁽⁴⁾⁽⁷⁾	See Table 2.2-C	1.86E-2 (477/477) 8.00E-3 – 3.91E-2	Loc. # 2 Information Center 0.2 miles S	2.03E-2 (53/53) 1.06E-2 – 3.91E-2	Loc. # 1 1.78E-2 (53/53) 8.07E-3 – 3.70E-2	0
	Gamma 50 ⁽⁷⁾	See Table 2.2-C	All less than LLD	-----	-----	All less than LLD	0
Air Cartridge/Radioiodine ⁽⁴⁾ (pCi/m ³)	I-131 530 ⁽⁴⁾⁽⁷⁾	See Table 2.2-C	All less than LLD	-----	-----	All less than LLD	0
Broadleaf Vegetation ⁽⁴⁾ (pCi/kg, wet)	Gamma 50 ⁽⁴⁾ Cs-137	See Table 2.2-C	6.61E+1 (5/40) 2.96E+1 – 1.22E+2	Loc. # 67 Close to Site Boundary S	9.12E+1 (2/10) 6.04E+1 – 1.22E+2	Loc. # 52 5.40E+1 (4/10) 1.38E+1 – 8.01E+1	0
Fish Free-Swimmers (pCi/kg, wet)	Gamma 6 Cs-137	See Table 2.2-C	3.58E+1 (1/4) Single Value	Loc. # 46 Site varies within Prestwood Lake	3.58E+1 (1/2) Single Value	Loc. # 47 4.70E+1 (1/2) Single Value	0
Fish Bottom-Feeders (pCi/kg, wet)	Gamma 6 Cs-137	See Table 2.2-C	2.63E+1 (2/4) 1.17E+1 – 4.09E+1	Loc. # 46 Site varies within Prestwood Lake	4.09E+1 (1/2) Single Value	All less than LLD	0
Food Products ⁽⁴⁾ (pCi/kg, wet)	Gamma 2 ⁽⁴⁾	See Table 2.2-C	All less than LLD	-----	-----	No Control	0
Shoreline Sediment (pCi/kg, dry)	Gamma 2	See Table 2.2-C	All less than LLD	-----	-----	No Control	0

**H. B. ROBINSON STEAM ELECTRIC PLANT, UNIT NO. 2 (HBRSEP)
RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM DATA SUMMARY (cont.)**

H. B. Robinson Steam Electric Plant, Unit No. 2
Darlington County, South Carolina

Docket Numbers: 50 - 261
Calendar Year: 2017

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⁾		Control Locations Mean ⁽²⁾⁽³⁾ Range ⁽²⁾	No. of Non-Routine Report Meas.
				Name, Distance, and Direction	Mean ⁽²⁾⁽³⁾ Range ⁽²⁾		
Ground Water ⁽⁴⁾ (pCi/l)	Gamma 4 ⁽⁴⁾	See Table 2.2-C	All less than LLD	-----	-----	No Control	0
	Tritium 4 ⁽⁴⁾	2,000 ⁽⁶⁾	All less than LLD	-----	-----	No Control	0
Surface Water ⁽⁴⁾ (pCi/l)	Gamma 24 ⁽⁴⁾	See Table 2.2-C	All less than LLD	-----	-----	All less than LLD	0
	Tritium 24 ⁽⁴⁾	2,000 ⁽⁶⁾	1.62E+3 (12/12) 3.62E+2 – 3.89E+3	Loc. # 40 Black Creek at Old Camden Rd. – Lake Robinson 0.6 miles ESE	1.62E+3 (12/12) 3.62E+2 – 3.89E+3	All less than LLD	0
Direct Radiation (TLD) ⁽⁴⁾ (mR per std. quarter) ⁽⁵⁾	TLD Readout 172 ⁽⁴⁾⁽⁵⁾	-----	1.64E+1 (168/168) 9.73E+0 – 2.79E+1	Loc. # 35 Kelly Bridge Road (#S-31-51) 4.5 miles SSW	2.32E+1 (4/4) 2.03E+1 – 2.67E+1	Loc. # 1 1.58E+1 (4/4) 1.24E+1 – 2.12E+1	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. Tritium Lower Limit of Detection (LLD) is approximately $2.00E+2$ pCi/L for samples that typically demonstrate activity less than the LLD.
7. Gamma filter composite calendar reconciliation period, 2017 (NCR # 02176115).

APPENDIX C

**SAMPLING DEVIATIONS
&
UNAVAILABLE ANALYSES**

APPENDIX C

H. B. ROBINSON NUCLEAR PLANT SAMPLING DEVIATIONS & UNAVAILABLE ANALYSES

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

C.1 SAMPLING DEVIATIONS

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 Harris REMP water samplers operated for a total of 99.88% availability in 2017.

Location	Scheduled Collection Dates	Code	Description & Action to Prevent Recurrence	Corrective Action
41	10/24/17 - 10/31/17	LC	The SW-41 weekly sample experienced 21 hrs. of downtime due to a blocked or clogged tubing line to the sampler. The monthly composite (10/2/17 - 10/31/17) did have sufficient sample available for the monthly composite analyses.	NCR # 02162022

C.2 UNAVAILABLE ANALYSES

Broadleaf (BL) Vegetation

Location	Scheduled Collection Dates	Code	Description & Action to Prevent Recurrence	Corrective Action
All BLVeg	January 2017	SU	BL vegetation unavailable due to seasonal unavailability	NCR # 02090966
All BLVeg	February 2017	SU	BL vegetation unavailable due to seasonal unavailability	NCR # 02097900
All BLVeg	March 2017	SU	BL vegetation unavailable due to seasonal unavailability	NCR # 02108906
All BLVeg	December 2017	SU	BL vegetation unavailable due to seasonal unavailability	NCR # 02171606

All "BLVeg" represents HBRSEP Broadleaf Vegetation locations 50, 51, 52, 62, and 67. Each location was to be collected monthly when available and to collect 3 different kinds of broadleaf vegetation. As of May 2017, the monthly broadleaf vegetation went to one mixed (3 different kinds) BLVeg per site.

APPENDIX D

ANALYTICAL DEVIATIONS

APPENDIX D

H. B. ROBINSON NUCLEAR PLANT

ANALYTICAL DEVIATIONS

No Analytical deviations were incurred for the 2017 Radiological Environmental Monitoring Program.

APPENDIX E

**RADIOLOGICAL
ENVIRONMENTAL MONITORING
PROGRAM RESULTS**

2017

This appendix includes sample analysis report summaries and supportive data generated from each sample medium for 2017

ROBINSON Radiological Environmental Monitoring Analysis Report - 2017 (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
431852	12/28/2016 - 1/3/2017	Beta	9.58E-03	2.22E-03	2.76E-03
432259	1/3/2017 - 1/10/2017	Beta	1.59E-02	2.82E-03	3.29E-03
432947	1/10/2017 - 1/16/2017	Beta	1.18E-02	2.42E-03	2.92E-03
433342	1/16/2017 - 1/23/2017	Beta	1.49E-02	2.56E-03	2.78E-03
433762	1/23/2017 - 1/30/2017	Beta	1.57E-02	2.61E-03	2.83E-03
434504	1/30/2017 - 2/6/2017	Beta	2.04E-02	2.90E-03	2.87E-03
435152	2/6/2017 - 2/13/2017	Beta	1.85E-02	2.91E-03	3.11E-03
435848	2/13/2017 - 2/20/2017	Beta	1.63E-02	2.44E-03	2.58E-03
436301	2/20/2017 - 2/28/2017	Beta	1.54E-02	2.61E-03	3.03E-03
436759	2/28/2017 - 3/6/2017	Beta	1.53E-02	3.08E-03	3.65E-03
437636	3/6/2017 - 3/14/2017	Beta	1.75E-02	2.52E-03	2.48E-03
438340	3/14/2017 - 3/20/2017	Beta	1.80E-02	2.83E-03	3.10E-03
438846	3/20/2017 - 3/27/2017	Beta	1.85E-02	2.60E-03	2.65E-03
439240	12/28/2016 - 3/27/2017	Cs-134	<5.98E-04	0.00E+00	5.98E-04
		Cs-137	<4.26E-04	0.00E+00	4.26E-04
		Be-7	1.38E-01	2.24E-02	9.74E-03
		K-40	<1.21E-02	0.00E+00	1.21E-02
439230	3/27/2017 - 4/3/2017	Beta	1.20E-02	2.69E-03	3.44E-03
440054	4/3/2017 - 4/10/2017	Beta	1.57E-02	2.44E-03	2.60E-03
440637	4/10/2017 - 4/17/2017	Beta	1.96E-02	2.92E-03	3.00E-03
441454	4/17/2017 - 4/24/2017	Beta	1.57E-02	2.74E-03	3.08E-03
441905	4/24/2017 - 5/1/2017	Beta	1.41E-02	2.37E-03	2.66E-03
442374	5/1/2017 - 5/8/2017	Beta	1.60E-02	2.78E-03	3.16E-03
442906	5/8/2017 - 5/15/2017	Beta	2.10E-02	2.67E-03	2.55E-03
443347	5/15/2017 - 5/22/2017	Beta	2.36E-02	3.23E-03	3.31E-03
443901	5/22/2017 - 5/30/2017	Beta	1.32E-02	2.10E-03	2.31E-03
444306	5/30/2017 - 6/5/2017	Beta	1.75E-02	3.11E-03	3.54E-03



ROBINSON Radiological Environmental Monitoring Analysis Report - 2017 (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
445371	6/5/2017 - 6/12/2017	Beta	1.25E-02	2.35E-03	2.81E-03
446368	6/12/2017 - 6/18/2017	Beta	1.56E-02	2.86E-03	3.41E-03
446868	6/18/2017 - 6/26/2017	Beta	1.17E-02	2.00E-03	2.24E-03
447250	3/27/2017 - 6/26/2017	Cs-134	<5.37E-04	0.00E+00	5.37E-04
		Cs-137	<5.31E-04	0.00E+00	5.31E-04
		Be-7	1.28E-01	2.02E-02	9.84E-03
		K-40	6.06E-03	4.55E-03	5.46E-03
447240	6/26/2017 - 7/3/2017	Beta	1.47E-02	2.76E-03	3.31E-03
447853	7/3/2017 - 7/10/2017	Beta	1.63E-02	2.42E-03	2.50E-03
448318	7/10/2017 - 7/18/2017	Beta	8.07E-03	1.91E-03	2.47E-03
448936	7/18/2017 - 7/24/2017	Beta	2.04E-02	3.25E-03	3.45E-03
449263	7/24/2017 - 7/31/2017	Beta	1.54E-02	2.82E-03	3.37E-03
449982	7/31/2017 - 8/8/2017	Beta	1.39E-02	2.14E-03	2.33E-03
450254	8/8/2017 - 8/15/2017	Beta	8.45E-03	1.81E-03	2.27E-03
450769	8/15/2017 - 8/22/2017	Beta	1.76E-02	2.82E-03	3.01E-03
451231	8/22/2017 - 8/29/2017	Beta	1.62E-02	2.79E-03	3.25E-03
451573	8/29/2017 - 9/5/2017	Beta	1.55E-02	2.32E-03	2.38E-03
452415	9/5/2017 - 9/12/2017	Beta	1.74E-02	2.45E-03	2.51E-03
452829	9/12/2017 - 9/18/2017	Beta	2.10E-02	2.96E-03	3.12E-03
453486	9/18/2017 - 9/26/2017	Beta	2.80E-02	3.05E-03	2.66E-03
454270	6/26/2017 - 9/26/2017	Cs-134	<1.47E-03	0.00E+00	1.47E-03
		Cs-137	<1.34E-03	0.00E+00	1.34E-03
		Be-7	1.24E-01	3.30E-02	2.58E-02
		K-40	1.47E-02	1.16E-02	1.43E-02
454260	9/26/2017 - 10/2/2017	Beta	2.12E-02	2.92E-03	2.99E-03
455122	10/2/2017 - 10/9/2017	Beta	1.32E-02	2.56E-03	2.98E-03
455456	10/9/2017 - 10/17/2017	Beta	9.39E-03	2.10E-03	2.57E-03
456084	10/17/2017 - 10/24/2017	Beta	1.94E-02	2.94E-03	3.21E-03
461449	10/24/2017 - 10/31/2017	Beta	1.44E-02	2.44E-03	2.78E-03



ROBINSON Radiological Environmental Monitoring Analysis Report - 2017 (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
462006	10/31/2017 - 11/7/2017	Beta	2.42E-02	2.80E-03	2.74E-03
462651	11/7/2017 - 11/14/2017	Beta	1.85E-02	2.88E-03	3.04E-03
463134	11/14/2017 - 11/21/2017	Beta	2.48E-02	3.23E-03	3.26E-03
463543	11/21/2017 - 11/28/2017	Beta	2.82E-02	3.28E-03	3.04E-03
464185	11/28/2017 - 12/5/2017	Beta	3.70E-02	3.76E-03	3.33E-03
464748	12/5/2017 - 12/12/2017	Beta	2.49E-02	3.14E-03	3.04E-03
465008	12/12/2017 - 12/19/2017	Beta	2.47E-02	3.27E-03	3.27E-03
465243	12/19/2017 - 12/26/2017	Beta	2.66E-02	3.16E-03	2.97E-03
465675	9/26/2017 - 12/26/2017	Cs-134	<1.63E-03	0.00E+00	1.63E-03
		Cs-137	<1.86E-03	0.00E+00	1.86E-03
		Be-7	1.34E-01	3.18E-02	2.32E-02
		K-40	<3.28E-02	0.00E+00	3.28E-02
465665	12/26/2017 - 1/2/2018	Beta	3.18E-02	3.43E-03	2.88E-03
		Cs-134	<1.05E-02	0.00E+00	1.05E-02
		Cs-137	<9.50E-03	0.00E+00	9.50E-03
		Be-7	1.64E-01	8.06E-02	1.07E-01
		K-40	1.56E-01	1.10E-01	1.54E-01

Sample Point 2 [INDICATOR - S @ 0.2 miles]

Sample ID	Sample Dates	Nuclide	Activity	2 Sigma Error	MDA
431853	12/28/2016 - 1/3/2017	Beta	1.32E-02	2.82E-03	3.40E-03
432260	1/3/2017 - 1/10/2017	Beta	1.70E-02	3.02E-03	3.52E-03
432948	1/10/2017 - 1/16/2017	Beta	1.29E-02	2.96E-03	3.73E-03
433343	1/16/2017 - 1/23/2017	Beta	1.52E-02	2.75E-03	3.05E-03
433763	1/23/2017 - 1/30/2017	Beta	2.23E-02	3.26E-03	3.32E-03
434505	1/30/2017 - 2/6/2017	Beta	2.49E-02	3.31E-03	3.14E-03
435153	2/6/2017 - 2/13/2017	Beta	2.09E-02	3.23E-03	3.42E-03
435849	2/13/2017 - 2/20/2017	Beta	1.60E-02	2.54E-03	2.77E-03
436302	2/20/2017 - 2/28/2017	Beta	1.57E-02	2.64E-03	3.06E-03
436760	2/28/2017 - 3/6/2017	Beta	2.00E-02	3.37E-03	3.71E-03
437637	3/6/2017 - 3/14/2017	Beta	1.82E-02	2.58E-03	2.52E-03
438341	3/14/2017 - 3/20/2017	Beta	2.05E-02	2.97E-03	3.13E-03



ROBINSON Radiological Environmental Monitoring Analysis Report - 2017 (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
438847	3/20/2017 - 3/27/2017	Beta	2.31E-02	2.86E-03	2.74E-03
439241	12/28/2016 - 3/27/2017	Cs-134	<5.95E-04	0.00E+00	5.95E-04
		Cs-137	<4.72E-04	0.00E+00	4.72E-04
		Be-7	1.60E-01	2.37E-02	1.04E-02
		K-40	6.99E-03	5.89E-03	8.22E-03
439231	3/27/2017 - 4/3/2017	Beta	1.13E-02	2.73E-03	3.57E-03
440055	4/3/2017 - 4/10/2017	Beta	1.53E-02	2.46E-03	2.66E-03
440638	4/10/2017 - 4/17/2017	Beta	2.31E-02	3.19E-03	3.14E-03
441455	4/17/2017 - 4/24/2017	Beta	1.73E-02	2.93E-03	3.24E-03
441906	4/24/2017 - 5/1/2017	Beta	1.29E-02	2.36E-03	2.74E-03
442375	5/1/2017 - 5/8/2017	Beta	1.64E-02	2.86E-03	3.24E-03
442907	5/8/2017 - 5/15/2017	Beta	2.46E-02	2.84E-03	2.57E-03
443348	5/15/2017 - 5/22/2017	Beta	2.88E-02	3.56E-03	3.48E-03
443902	5/22/2017 - 5/30/2017	Beta	1.48E-02	2.30E-03	2.50E-03
444307	5/30/2017 - 6/5/2017	Beta	2.15E-02	3.50E-03	3.85E-03
445372	6/5/2017 - 6/12/2017	Beta	1.42E-02	2.51E-03	2.93E-03
446369	6/12/2017 - 6/18/2017	Beta	1.80E-02	3.05E-03	3.56E-03
446869	6/18/2017 - 6/26/2017	Beta	1.34E-02	2.44E-03	2.80E-03
447251	3/27/2017 - 6/26/2017	Cs-134	<3.56E-04	0.00E+00	3.56E-04
		Cs-137	<3.55E-04	0.00E+00	3.55E-04
		Be-7	1.60E-01	2.41E-02	1.28E-02
		K-40	<1.29E-02	0.00E+00	1.29E-02
447241	6/26/2017 - 7/3/2017	Beta	2.13E-02	3.23E-03	3.54E-03
447854	7/3/2017 - 7/10/2017	Beta	1.69E-02	2.54E-03	2.63E-03
448319	7/10/2017 - 7/18/2017	Beta	1.06E-02	2.12E-03	2.60E-03
448937	7/18/2017 - 7/24/2017	Beta	2.28E-02	3.57E-03	3.77E-03
449264	7/24/2017 - 7/31/2017	Beta	2.59E-02	7.06E-03	9.58E-03
449983	7/31/2017 - 8/8/2017	Beta	2.02E-02	3.79E-03	4.49E-03
450255	8/8/2017 - 8/15/2017	Beta	1.30E-02	2.96E-03	3.81E-03



ROBINSON Radiological Environmental Monitoring Analysis Report - 2017 (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
450770	8/15/2017 - 8/22/2017	Beta	2.07E-02	2.90E-03	2.89E-03
451232	8/22/2017 - 8/29/2017	Beta	2.13E-02	2.92E-03	3.06E-03
451574	8/29/2017 - 9/5/2017	Beta	1.52E-02	2.20E-03	2.23E-03
452416	9/5/2017 - 9/12/2017	Beta	1.84E-02	2.36E-03	2.30E-03
452830	9/12/2017 - 9/18/2017	Beta	1.85E-02	2.66E-03	2.82E-03
453487	9/18/2017 - 9/26/2017	Beta	2.85E-02	2.86E-03	2.37E-03
454271	6/26/2017 - 9/26/2017	Cs-134	<1.13E-03	0.00E+00	1.13E-03
		Cs-137	<1.99E-03	0.00E+00	1.99E-03
		Be-7	1.48E-01	3.98E-02	3.50E-02
		K-40	1.13E-02	9.26E-03	5.10E-03
454261	9/26/2017 - 10/2/2017	Beta	2.05E-02	2.67E-03	2.67E-03
455123	10/2/2017 - 10/9/2017	Beta	1.67E-02	2.51E-03	2.61E-03
455457	10/9/2017 - 10/17/2017	Beta	1.40E-02	2.37E-03	2.58E-03
456085	10/17/2017 - 10/24/2017	Beta	1.91E-02	3.02E-03	3.37E-03
461450	10/24/2017 - 10/31/2017	Beta	1.82E-02	2.59E-03	2.75E-03
462007	10/31/2017 - 11/7/2017	Beta	3.07E-02	3.25E-03	3.02E-03
462652	11/7/2017 - 11/14/2017	Beta	2.05E-02	3.03E-03	3.10E-03
463135	11/14/2017 - 11/21/2017	Beta	2.88E-02	3.43E-03	3.30E-03
463544	11/21/2017 - 11/28/2017	Beta	2.75E-02	3.34E-03	3.17E-03
464186	11/28/2017 - 12/5/2017	Beta	3.91E-02	3.89E-03	3.40E-03
464749	12/5/2017 - 12/12/2017	Beta	2.34E-02	3.15E-03	3.15E-03
465009	12/12/2017 - 12/19/2017	Beta	3.08E-02	3.53E-03	3.25E-03
465244	12/19/2017 - 12/26/2017	Beta	2.74E-02	3.36E-03	3.21E-03
465676	9/26/2017 - 12/26/2017	Cs-134	<1.59E-03	0.00E+00	1.59E-03
		Cs-137	<1.42E-03	0.00E+00	1.42E-03
		Be-7	1.66E-01	3.63E-02	2.36E-02
		K-40	<3.42E-02	0.00E+00	3.42E-02
465666	12/26/2017 - 1/2/2018	Beta	3.46E-02	3.58E-03	2.93E-03
		Cs-134	<1.39E-02	0.00E+00	1.39E-02
		Cs-137	<1.02E-02	0.00E+00	1.02E-02
		Be-7	1.74E-01	1.04E-01	1.54E-01



ROBINSON Radiological Environmental Monitoring Analysis Report - 2017 (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
465666	12/26/2017 - 1/2/2018	K-40	2.76E-01	1.29E-01	1.40E-01

Sample Point 3 [INDICATOR - N @ 0.5 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
431854	12/28/2016 - 1/3/2017	Beta	1.56E-02	3.35E-03	4.05E-03
432261	1/3/2017 - 1/10/2017	Beta	1.60E-02	2.94E-03	3.47E-03
432949	1/10/2017 - 1/16/2017	Beta	1.33E-02	3.43E-03	4.49E-03
433344	1/16/2017 - 1/23/2017	Beta	1.38E-02	2.54E-03	2.85E-03
433764	1/23/2017 - 1/30/2017	Beta	1.51E-02	2.67E-03	2.98E-03
434506	1/30/2017 - 2/6/2017	Beta	2.08E-02	3.05E-03	3.05E-03
435154	2/6/2017 - 2/13/2017	Beta	2.13E-02	3.14E-03	3.24E-03
435850	2/13/2017 - 2/20/2017	Beta	1.61E-02	2.54E-03	2.77E-03
436303	2/20/2017 - 2/28/2017	Beta	1.40E-02	2.58E-03	3.10E-03
436761	2/28/2017 - 3/6/2017	Beta	1.55E-02	3.14E-03	3.75E-03
437638	3/6/2017 - 3/14/2017	Beta	1.67E-02	2.52E-03	2.54E-03
438342	3/14/2017 - 3/20/2017	Beta	1.71E-02	2.77E-03	3.08E-03
438848	3/20/2017 - 3/27/2017	Beta	2.08E-02	2.74E-03	2.71E-03
439242	12/28/2016 - 3/27/2017	Cs-134	<6.85E-04	0.00E+00	6.85E-04
		Cs-137	<5.83E-04	0.00E+00	5.83E-04
		Be-7	1.64E-01	2.56E-02	1.51E-02
		K-40	<1.72E-02	0.00E+00	1.72E-02
439232	3/27/2017 - 4/3/2017	Beta	1.13E-02	2.76E-03	3.62E-03
440056	4/3/2017 - 4/10/2017	Beta	1.51E-02	2.43E-03	2.64E-03
440639	4/10/2017 - 4/17/2017	Beta	2.35E-02	3.17E-03	3.09E-03
441456	4/17/2017 - 4/24/2017	Beta	1.37E-02	2.72E-03	3.23E-03
441907	4/24/2017 - 5/1/2017	Beta	1.26E-02	2.33E-03	2.71E-03
442376	5/1/2017 - 5/8/2017	Beta	1.60E-02	2.84E-03	3.25E-03
442908	5/8/2017 - 5/15/2017	Beta	2.01E-02	2.64E-03	2.56E-03
443349	5/15/2017 - 5/22/2017	Beta	2.34E-02	3.34E-03	3.51E-03



ROBINSON Radiological Environmental Monitoring Analysis Report - 2017 (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
443903	5/22/2017 - 5/30/2017	Beta	1.39E-02	2.18E-03	2.38E-03
444308	5/30/2017 - 6/5/2017	Beta	2.21E-02	3.54E-03	3.88E-03
445373	6/5/2017 - 6/12/2017	Beta	1.49E-02	2.53E-03	2.90E-03
446370	6/12/2017 - 6/18/2017	Beta	1.55E-02	2.88E-03	3.46E-03
446870	6/18/2017 - 6/26/2017	Beta	1.57E-02	2.88E-03	3.32E-03
447252	3/27/2017 - 6/26/2017	Cs-134	<7.22E-04	0.00E+00	7.22E-04
		Cs-137	<6.07E-04	0.00E+00	6.07E-04
		Be-7	1.48E-01	2.38E-02	1.41E-02
		K-40	<1.53E-02	0.00E+00	1.53E-02
447242	6/26/2017 - 7/3/2017	Beta	1.92E-02	3.10E-03	3.49E-03
447855	7/3/2017 - 7/10/2017	Beta	1.63E-02	2.48E-03	2.58E-03
448320	7/10/2017 - 7/18/2017	Beta	1.08E-02	2.10E-03	2.55E-03
448938	7/18/2017 - 7/24/2017	Beta	2.19E-02	3.51E-03	3.75E-03
449265	7/24/2017 - 7/31/2017	Beta	1.94E-02	3.09E-03	3.49E-03
449984	7/31/2017 - 8/8/2017	Beta	1.46E-02	2.20E-03	2.38E-03
450256	8/8/2017 - 8/15/2017	Beta	1.56E-02	2.72E-03	3.18E-03
450771	8/15/2017 - 8/22/2017	Beta	2.10E-02	2.97E-03	2.98E-03
451233	8/22/2017 - 8/29/2017	Beta	1.61E-02	2.76E-03	3.20E-03
451575	8/29/2017 - 9/5/2017	Beta	1.40E-02	2.29E-03	2.46E-03
452417	9/5/2017 - 9/12/2017	Beta	1.67E-02	2.41E-03	2.50E-03
452831	9/12/2017 - 9/18/2017	Beta	2.10E-02	2.96E-03	3.12E-03
453488	9/18/2017 - 9/26/2017	Beta	2.48E-02	2.90E-03	2.65E-03
454272	6/26/2017 - 9/26/2017	Cs-134	<1.57E-03	0.00E+00	1.57E-03
		Cs-137	<1.40E-03	0.00E+00	1.40E-03
		Be-7	1.26E-01	3.70E-02	3.96E-02
		K-40	<2.57E-02	0.00E+00	2.57E-02
454262	9/26/2017 - 10/2/2017	Beta	1.90E-02	2.81E-03	2.99E-03
455124	10/2/2017 - 10/9/2017	Beta	1.50E-02	2.66E-03	2.99E-03
455458	10/9/2017 - 10/17/2017	Beta	1.20E-02	2.25E-03	2.57E-03



ROBINSON Radiological Environmental Monitoring Analysis Report - 2017 (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
456086	10/17/2017 - 10/24/2017	Beta	1.98E-02	2.91E-03	3.13E-03
461451	10/24/2017 - 10/31/2017	Beta	1.62E-02	2.49E-03	2.73E-03
462008	10/31/2017 - 11/7/2017	Beta	2.46E-02	2.88E-03	2.83E-03
462653	11/7/2017 - 11/14/2017	Beta	1.91E-02	2.85E-03	2.95E-03
463136	11/14/2017 - 11/21/2017	Beta	2.82E-02	3.30E-03	3.15E-03
463545	11/21/2017 - 11/28/2017	Beta	2.60E-02	3.26E-03	3.14E-03
464187	11/28/2017 - 12/5/2017	Beta	3.62E-02	3.67E-03	3.26E-03
464750	12/5/2017 - 12/12/2017	Beta	2.47E-02	3.15E-03	3.06E-03
465010	12/12/2017 - 12/19/2017	Beta	2.76E-02	3.31E-03	3.14E-03
465245	12/19/2017 - 12/26/2017	Beta	2.43E-02	3.12E-03	3.06E-03
465677	9/26/2017 - 12/26/2017	Cs-134	<1.60E-03	0.00E+00	1.60E-03
		Cs-137	<1.31E-03	0.00E+00	1.31E-03
		Be-7	1.28E-01	3.42E-02	3.46E-02
		K-40	2.07E-02	1.45E-02	1.91E-02
465667	12/26/2017 - 1/2/2018	Beta	3.20E-02	3.38E-03	2.79E-03
		Cs-134	<1.24E-02	0.00E+00	1.24E-02
		Cs-137	<1.14E-02	0.00E+00	1.14E-02
		Be-7	1.43E-01	9.74E-02	1.48E-01
		K-40	2.05E-01	8.88E-02	2.52E-02

Sample Point 4 [INDICATOR - ESE @ 0.4 miles]

Sample ID	Sample Dates	Nuclide	Activity	2 Sigma Error	MDA
431855	12/28/2016 - 1/3/2017	Beta	1.41E-02	2.73E-03	3.16E-03
432262	1/3/2017 - 1/10/2017	Beta	1.60E-02	2.93E-03	3.46E-03
432950	1/10/2017 - 1/16/2017	Beta	1.39E-02	2.82E-03	3.40E-03
433345	1/16/2017 - 1/23/2017	Beta	1.55E-02	2.65E-03	2.88E-03
433765	1/23/2017 - 1/30/2017	Beta	1.72E-02	2.90E-03	3.17E-03
434507	1/30/2017 - 2/6/2017	Beta	2.57E-02	3.25E-03	3.00E-03
435155	2/6/2017 - 2/13/2017	Beta	2.07E-02	3.11E-03	3.25E-03
435851	2/13/2017 - 2/20/2017	Beta	1.51E-02	2.50E-03	2.76E-03
436304	2/20/2017 - 2/28/2017	Beta	1.90E-02	2.78E-03	3.04E-03
436762	2/28/2017 - 3/6/2017	Beta	1.70E-02	3.20E-03	3.71E-03



ROBINSON Radiological Environmental Monitoring Analysis Report - 2017 (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
437639	3/6/2017 - 3/14/2017	Beta	1.75E-02	2.55E-03	2.52E-03
438343	3/14/2017 - 3/20/2017	Beta	2.00E-02	2.96E-03	3.15E-03
438849	3/20/2017 - 3/27/2017	Beta	2.54E-02	2.92E-03	2.69E-03
439243	12/28/2016 - 3/27/2017	Cs-134	<5.06E-04	0.00E+00	5.06E-04
		Cs-137	<4.47E-04	0.00E+00	4.47E-04
		Be-7	1.42E-01	2.19E-02	1.21E-02
		K-40	1.25E-02	7.14E-03	8.44E-03
439233	3/27/2017 - 4/3/2017	Beta	1.12E-02	2.68E-03	3.50E-03
440057	4/3/2017 - 4/10/2017	Beta	1.56E-02	2.44E-03	2.62E-03
440640	4/10/2017 - 4/17/2017	Beta	2.07E-02	3.00E-03	3.04E-03
441457	4/17/2017 - 4/24/2017	Beta	1.79E-02	2.92E-03	3.18E-03
441908	4/24/2017 - 5/1/2017	Beta	1.25E-02	2.28E-03	2.64E-03
442377	5/1/2017 - 5/8/2017	Beta	1.51E-02	2.74E-03	3.16E-03
442909	5/8/2017 - 5/15/2017	Beta	2.25E-02	2.71E-03	2.51E-03
443350	5/15/2017 - 5/22/2017	Beta	2.39E-02	3.21E-03	3.28E-03
443904	5/22/2017 - 5/30/2017	Beta	1.53E-02	2.29E-03	2.43E-03
444309	5/30/2017 - 6/5/2017	Beta	2.01E-02	3.32E-03	3.68E-03
445374	6/5/2017 - 6/12/2017	Beta	1.46E-02	2.46E-03	2.81E-03
446371	6/12/2017 - 6/18/2017	Beta	1.51E-02	2.81E-03	3.38E-03
446871	6/18/2017 - 6/26/2017	Beta	1.15E-02	2.09E-03	2.40E-03
447253	3/27/2017 - 6/26/2017	Cs-134	<5.43E-04	0.00E+00	5.43E-04
		Cs-137	<3.32E-04	0.00E+00	3.32E-04
		Be-7	1.53E-01	2.25E-02	9.80E-03
		K-40	6.00E-03	5.10E-03	7.03E-03
447243	6/26/2017 - 7/3/2017	Beta	2.40E-02	3.25E-03	3.37E-03
447856	7/3/2017 - 7/10/2017	Beta	1.51E-02	2.36E-03	2.49E-03
448321	7/10/2017 - 7/18/2017	Beta	1.06E-02	2.04E-03	2.47E-03
448939	7/18/2017 - 7/24/2017	Beta	2.23E-02	3.43E-03	3.58E-03
449266	7/24/2017 - 7/31/2017	Beta	2.09E-02	3.01E-03	3.27E-03



ROBINSON Radiological Environmental Monitoring Analysis Report - 2017 (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
449985	7/31/2017 - 8/8/2017	Beta	1.59E-02	2.28E-03	2.41E-03
450257	8/8/2017 - 8/15/2017	Beta	1.23E-02	2.02E-03	2.29E-03
450772	8/15/2017 - 8/22/2017	Beta	1.87E-02	2.92E-03	3.10E-03
451234	8/22/2017 - 8/29/2017	Beta	2.08E-02	3.04E-03	3.29E-03
451576	8/29/2017 - 9/5/2017	Beta	1.62E-02	2.37E-03	2.40E-03
452418	9/5/2017 - 9/12/2017	Beta	1.72E-02	2.48E-03	2.55E-03
452832	9/12/2017 - 9/18/2017	Beta	2.33E-02	3.10E-03	3.17E-03
453489	9/18/2017 - 9/26/2017	Beta	2.77E-02	3.06E-03	2.69E-03
454273	6/26/2017 - 9/26/2017	Cs-134	<2.11E-03	0.00E+00	2.11E-03
		Cs-137	<1.81E-03	0.00E+00	1.81E-03
		Be-7	1.44E-01	3.63E-02	3.02E-02
		K-40	<2.95E-02	0.00E+00	2.95E-02
454263	9/26/2017 - 10/2/2017	Beta	2.41E-02	3.10E-03	3.07E-03
455125	10/2/2017 - 10/9/2017	Beta	1.35E-02	2.59E-03	3.01E-03
455459	10/9/2017 - 10/17/2017	Beta	1.24E-02	2.31E-03	2.62E-03
456087	10/17/2017 - 10/24/2017	Beta	2.16E-02	3.09E-03	3.28E-03
461452	10/24/2017 - 10/31/2017	Beta	1.69E-02	2.52E-03	2.71E-03
462009	10/31/2017 - 11/7/2017	Beta	2.59E-02	3.02E-03	2.95E-03
462654	11/7/2017 - 11/14/2017	Beta	2.04E-02	3.02E-03	3.10E-03
463137	11/14/2017 - 11/21/2017	Beta	2.67E-02	3.36E-03	3.34E-03
463546	11/21/2017 - 11/28/2017	Beta	2.73E-02	3.35E-03	3.20E-03
464188	11/28/2017 - 12/5/2017	Beta	3.26E-02	3.63E-03	3.40E-03
464751	12/5/2017 - 12/12/2017	Beta	2.04E-02	3.04E-03	3.20E-03
465011	12/12/2017 - 12/19/2017	Beta	2.95E-02	3.47E-03	3.25E-03
465246	12/19/2017 - 12/26/2017	Beta	2.15E-02	3.10E-03	3.23E-03
465678	9/26/2017 - 12/26/2017	Cs-134	<1.40E-03	0.00E+00	1.40E-03
		Cs-137	<1.14E-03	0.00E+00	1.14E-03
		Be-7	1.28E-01	3.23E-02	2.66E-02
		K-40	<2.57E-02	0.00E+00	2.57E-02



ROBINSON Radiological Environmental Monitoring Analysis Report - 2017 (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
465668	12/26/2017 - 1/2/2018	Beta	3.48E-02	3.63E-03	2.99E-03
		Cs-134	<1.34E-02	0.00E+00	1.34E-02
		Cs-137	<1.04E-02	0.00E+00	1.04E-02
		Be-7	1.59E-01	9.35E-02	1.36E-01
		K-40	<1.85E-01	0.00E+00	1.85E-01

Sample Point 5 [INDICATOR - ENE @ 0.9 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
431856	12/28/2016 - 1/3/2017	Beta	1.04E-02	2.36E-03	2.92E-03
432263	1/3/2017 - 1/10/2017	Beta	1.41E-02	2.79E-03	3.39E-03
432951	1/10/2017 - 1/16/2017	Beta	1.32E-02	2.73E-03	3.32E-03
433346	1/16/2017 - 1/23/2017	Beta	1.38E-02	2.54E-03	2.85E-03
433766	1/23/2017 - 1/30/2017	Beta	1.57E-02	2.69E-03	2.95E-03
434508	1/30/2017 - 2/6/2017	Beta	1.97E-02	2.94E-03	2.98E-03
435156	2/6/2017 - 2/13/2017	Beta	2.15E-02	3.08E-03	3.15E-03
435852	2/13/2017 - 2/20/2017	Beta	1.46E-02	2.43E-03	2.71E-03
436305	2/20/2017 - 2/28/2017	Beta	1.28E-02	2.49E-03	3.06E-03
436763	2/28/2017 - 3/6/2017	Beta	1.51E-02	3.07E-03	3.67E-03
437640	3/6/2017 - 3/14/2017	Beta	1.67E-02	2.47E-03	2.47E-03
438344	3/14/2017 - 3/20/2017	Beta	1.46E-02	2.60E-03	3.00E-03
438850	3/20/2017 - 3/27/2017	Beta	1.82E-02	2.64E-03	2.75E-03
439244	12/28/2016 - 3/27/2017	Cs-134	<4.96E-04	0.00E+00	4.96E-04
		Cs-137	<4.79E-04	0.00E+00	4.79E-04
		Be-7	1.30E-01	2.04E-02	8.99E-03
		K-40	8.42E-03	4.73E-03	1.75E-03
439234	3/27/2017 - 4/3/2017	Beta	9.00E-03	2.56E-03	3.50E-03
440058	4/3/2017 - 4/10/2017	Beta	1.31E-02	2.33E-03	2.63E-03
440641	4/10/2017 - 4/17/2017	Beta	2.11E-02	3.05E-03	3.08E-03
441458	4/17/2017 - 4/24/2017	Beta	1.59E-02	2.83E-03	3.21E-03
441909	4/24/2017 - 5/1/2017	Beta	1.07E-02	2.21E-03	2.69E-03
442378	5/1/2017 - 5/8/2017	Beta	1.45E-02	2.75E-03	3.22E-03
442910	5/8/2017 - 5/15/2017	Beta	1.75E-02	2.51E-03	2.57E-03



ROBINSON Radiological Environmental Monitoring Analysis Report - 2017 (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
443351	5/15/2017 - 5/22/2017	Beta	2.61E-02	3.40E-03	3.42E-03
443905	5/22/2017 - 5/30/2017	Beta	1.44E-02	2.19E-03	2.36E-03
444310	5/30/2017 - 6/5/2017	Beta	2.29E-02	3.53E-03	3.80E-03
445375	6/5/2017 - 6/12/2017	Beta	1.27E-02	2.42E-03	2.91E-03
446372	6/12/2017 - 6/18/2017	Beta	1.21E-02	2.71E-03	3.48E-03
446872	6/18/2017 - 6/26/2017	Beta	9.57E-03	2.09E-03	2.58E-03
447254	3/27/2017 - 6/26/2017	Cs-134	<5.57E-04	0.00E+00	5.57E-04
		Cs-137	<4.81E-04	0.00E+00	4.81E-04
		Be-7	1.36E-01	2.12E-02	9.10E-03
		K-40	<1.27E-02	0.00E+00	1.27E-02
447244	6/26/2017 - 7/3/2017	Beta	2.03E-02	3.11E-03	3.44E-03
447857	7/3/2017 - 7/10/2017	Beta	1.96E-02	2.65E-03	2.60E-03
448322	7/10/2017 - 7/18/2017	Beta	1.01E-02	2.05E-03	2.52E-03
448940	7/18/2017 - 7/24/2017	Beta	2.23E-02	3.52E-03	3.72E-03
449267	7/24/2017 - 7/31/2017	Beta	1.41E-02	2.81E-03	3.46E-03
449986	7/31/2017 - 8/8/2017	Beta	1.57E-02	2.24E-03	2.36E-03
450258	8/8/2017 - 8/15/2017	Beta	1.04E-02	2.05E-03	2.50E-03
450773	8/15/2017 - 8/22/2017	Beta	1.96E-02	2.95E-03	3.07E-03
451235	8/22/2017 - 8/29/2017	Beta	1.85E-02	2.89E-03	3.23E-03
451577	8/29/2017 - 9/5/2017	Beta	1.68E-02	2.43E-03	2.44E-03
452419	9/5/2017 - 9/12/2017	Beta	1.56E-02	2.39E-03	2.54E-03
452833	9/12/2017 - 9/18/2017	Beta	1.96E-02	2.89E-03	3.10E-03
453490	9/18/2017 - 9/26/2017	Beta	2.69E-02	3.21E-03	2.95E-03
454274	6/26/2017 - 9/26/2017	Cs-134	<2.13E-03	0.00E+00	2.13E-03
		Cs-137	<1.36E-03	0.00E+00	1.36E-03
		Be-7	1.39E-01	3.23E-02	1.58E-02
		K-40	<3.47E-02	0.00E+00	3.47E-02
454264	9/26/2017 - 10/2/2017	Beta	2.21E-02	3.12E-03	3.24E-03
455126	10/2/2017 - 10/9/2017	Beta	1.25E-02	2.67E-03	3.24E-03



ROBINSON Radiological Environmental Monitoring Analysis Report - 2017 (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
455460	10/9/2017 - 10/17/2017	Beta	1.12E-02	2.34E-03	2.80E-03
456088	10/17/2017 - 10/24/2017	Beta	1.99E-02	3.07E-03	3.38E-03
461453	10/24/2017 - 10/31/2017	Beta	1.80E-02	2.69E-03	2.92E-03
462010	10/31/2017 - 11/7/2017	Beta	2.01E-02	2.86E-03	3.08E-03
462655	11/7/2017 - 11/14/2017	Beta	1.97E-02	3.02E-03	3.16E-03
463138	11/14/2017 - 11/21/2017	Beta	2.23E-02	3.17E-03	3.36E-03
463547	11/21/2017 - 11/28/2017	Beta	2.56E-02	3.38E-03	3.36E-03
464189	11/28/2017 - 12/5/2017	Beta	2.91E-02	3.59E-03	3.55E-03
464752	12/5/2017 - 12/12/2017	Beta	2.00E-02	3.03E-03	3.22E-03
465012	12/12/2017 - 12/19/2017	Beta	2.39E-02	3.25E-03	3.29E-03
465247	12/19/2017 - 12/26/2017	Beta	2.19E-02	3.17E-03	3.31E-03
465679	9/26/2017 - 12/26/2017	Cs-134	<1.41E-03	0.00E+00	1.41E-03
		Cs-137	<1.15E-03	0.00E+00	1.15E-03
		Be-7	1.20E-01	3.33E-02	3.23E-02
		K-40	<3.17E-02	0.00E+00	3.17E-02
465669	12/26/2017 - 1/2/2018	Beta	2.78E-02	3.30E-03	2.94E-03
		Cs-134	<1.23E-02	0.00E+00	1.23E-02
		Cs-137	<1.31E-02	0.00E+00	1.31E-02
		Be-7	1.94E-01	9.19E-02	1.21E-01
		K-40	<2.56E-01	0.00E+00	2.56E-01

Sample Point 6 [INDICATOR - SSW @ 0.2 miles]

Sample ID	Sample Dates	Nuclide	Activity	2 Sigma Error	MDA
431858	12/28/2016 - 1/3/2017	Beta	1.09E-02	2.43E-03	2.99E-03
432265	1/3/2017 - 1/10/2017	Beta	1.76E-02	2.96E-03	3.37E-03
432953	1/10/2017 - 1/16/2017	Beta	1.21E-02	2.70E-03	3.38E-03
433348	1/16/2017 - 1/23/2017	Beta	1.38E-02	2.60E-03	2.94E-03
433768	1/23/2017 - 1/30/2017	Beta	1.82E-02	2.96E-03	3.17E-03
434510	1/30/2017 - 2/6/2017	Beta	1.95E-02	2.93E-03	2.99E-03
435158	2/6/2017 - 2/13/2017	Beta	2.27E-02	3.23E-03	3.29E-03
435854	2/13/2017 - 2/20/2017	Beta	1.71E-02	2.61E-03	2.79E-03
436307	2/20/2017 - 2/28/2017	Beta	1.44E-02	2.60E-03	3.10E-03



ROBINSON Radiological Environmental Monitoring Analysis Report - 2017 (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
436765	2/28/2017 - 3/6/2017	Beta	1.96E-02	3.36E-03	3.73E-03
437642	3/6/2017 - 3/14/2017	Beta	1.89E-02	2.61E-03	2.52E-03
438346	3/14/2017 - 3/20/2017	Beta	1.83E-02	2.86E-03	3.11E-03
438852	3/20/2017 - 3/27/2017	Beta	2.23E-02	2.84E-03	2.76E-03
439246	12/28/2016 - 3/27/2017	Cs-134	<6.83E-04	0.00E+00	6.83E-04
		Cs-137	<6.21E-04	0.00E+00	6.21E-04
		Be-7	1.50E-01	2.38E-02	1.28E-02
		K-40	<1.36E-02	0.00E+00	1.36E-02
439236	3/27/2017 - 4/3/2017	Beta	1.09E-02	2.72E-03	3.59E-03
440060	4/3/2017 - 4/10/2017	Beta	1.36E-02	2.37E-03	2.66E-03
440643	4/10/2017 - 4/17/2017	Beta	2.15E-02	3.13E-03	3.17E-03
441460	4/17/2017 - 4/24/2017	Beta	1.87E-02	3.01E-03	3.28E-03
441911	4/24/2017 - 5/1/2017	Beta	1.35E-02	2.41E-03	2.76E-03
442380	5/1/2017 - 5/8/2017	Beta	1.52E-02	2.81E-03	3.26E-03
442912	5/8/2017 - 5/15/2017	Beta	2.40E-02	2.84E-03	2.61E-03
443353	5/15/2017 - 5/22/2017	Beta	2.90E-02	3.60E-03	3.52E-03
443907	5/22/2017 - 5/30/2017	Beta	1.49E-02	2.30E-03	2.50E-03
444312	5/30/2017 - 6/5/2017	Beta	2.38E-02	3.62E-03	3.88E-03
445377	6/5/2017 - 6/12/2017	Beta	1.68E-02	2.64E-03	2.93E-03
446374	6/12/2017 - 6/18/2017	Beta	1.68E-02	3.01E-03	3.56E-03
446874	6/18/2017 - 6/26/2017	Beta	1.34E-02	2.19E-03	2.41E-03
447256	3/27/2017 - 6/26/2017	Cs-134	<6.25E-04	0.00E+00	6.25E-04
		Cs-137	<6.18E-04	0.00E+00	6.18E-04
		Be-7	1.41E-01	2.31E-02	1.35E-02
		K-40	<1.30E-02	0.00E+00	1.30E-02
447246	6/26/2017 - 7/3/2017	Beta	1.85E-02	3.10E-03	3.55E-03
447859	7/3/2017 - 7/10/2017	Beta	1.77E-02	2.58E-03	2.64E-03
448324	7/10/2017 - 7/18/2017	Beta	1.12E-02	2.16E-03	2.62E-03
448942	7/18/2017 - 7/24/2017	Beta	2.27E-02	3.57E-03	3.79E-03



ROBINSON Radiological Environmental Monitoring Analysis Report - 2017 (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
449269	7/24/2017 - 7/31/2017	Beta	1.95E-02	3.33E-03	3.90E-03
449988	7/31/2017 - 8/8/2017	Beta	1.69E-02	2.32E-03	2.39E-03
450260	8/8/2017 - 8/15/2017	Beta	9.69E-03	1.87E-03	2.26E-03
450775	8/15/2017 - 8/22/2017	Beta	2.32E-02	3.02E-03	2.90E-03
451237	8/22/2017 - 8/29/2017	Beta	1.97E-02	2.88E-03	3.11E-03
451579	8/29/2017 - 9/5/2017	Beta	1.60E-02	2.28E-03	2.28E-03
452421	9/5/2017 - 9/12/2017	Beta	1.80E-02	2.38E-03	2.35E-03
452835	9/12/2017 - 9/18/2017	Beta	2.15E-02	2.89E-03	2.96E-03
453492	9/18/2017 - 9/26/2017	Beta	2.80E-02	2.95E-03	2.51E-03
454276	6/26/2017 - 9/26/2017	Cs-134	<9.53E-04	0.00E+00	9.53E-04
		Cs-137	<1.76E-03	0.00E+00	1.76E-03
		Be-7	1.08E-01	3.50E-02	3.98E-02
		K-40	<2.81E-02	0.00E+00	2.81E-02
454266	9/26/2017 - 10/2/2017	Beta	2.55E-02	3.02E-03	2.85E-03
455128	10/2/2017 - 10/9/2017	Beta	1.63E-02	2.59E-03	2.77E-03
455462	10/9/2017 - 10/17/2017	Beta	1.28E-02	2.21E-03	2.43E-03
456090	10/17/2017 - 10/24/2017	Beta	2.21E-02	2.91E-03	2.96E-03
461455	10/24/2017 - 10/31/2017	Beta	1.59E-02	2.28E-03	2.41E-03
462012	10/31/2017 - 11/7/2017	Beta	2.50E-02	2.81E-03	2.69E-03
462657	11/7/2017 - 11/14/2017	Beta	1.93E-02	2.70E-03	2.70E-03
463140	11/14/2017 - 11/21/2017	Beta	2.37E-02	2.94E-03	2.89E-03
463549	11/21/2017 - 11/28/2017	Beta	2.88E-02	3.13E-03	2.78E-03
464191	11/28/2017 - 12/5/2017	Beta	3.42E-02	3.42E-03	3.01E-03
464754	12/5/2017 - 12/12/2017	Beta	2.29E-02	2.86E-03	2.75E-03
465014	12/12/2017 - 12/19/2017	Beta	2.94E-02	3.15E-03	2.80E-03
465249	12/19/2017 - 12/26/2017	Beta	2.71E-02	3.07E-03	2.81E-03
465681	9/26/2017 - 12/26/2017	Cs-134	<1.68E-03	0.00E+00	1.68E-03



ROBINSON Radiological Environmental Monitoring Analysis Report - 2017 (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
465681	9/26/2017 - 12/26/2017	Cs-137	<7.72E-04	0.00E+00	7.72E-04
		Be-7	1.22E-01	3.41E-02	3.53E-02
		K-40	<1.90E-02	0.00E+00	1.90E-02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
465671	12/26/2017 - 1/2/2018	Beta	2.78E-02	2.97E-03	2.48E-03
		Cs-134	<1.24E-02	0.00E+00	1.24E-02
		Cs-137	<1.18E-02	0.00E+00	1.18E-02
		Be-7	1.08E-01	7.23E-02	1.06E-01
		K-40	2.13E-01	9.06E-02	2.52E-02

Sample Point 7 [INDICATOR - ESE @ 6.4 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
431861	12/28/2016 - 1/3/2017	Beta	1.19E-02	2.58E-03	3.15E-03

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
432268	1/3/2017 - 1/10/2017	Beta	1.36E-02	2.92E-03	3.66E-03

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
432956	1/10/2017 - 1/16/2017	Beta	1.12E-02	2.65E-03	3.39E-03

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
433351	1/16/2017 - 1/23/2017	Beta	1.41E-02	2.77E-03	3.21E-03

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
433771	1/23/2017 - 1/30/2017	Beta	1.52E-02	2.85E-03	3.25E-03

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
434513	1/30/2017 - 2/6/2017	Beta	2.36E-02	3.35E-03	3.30E-03

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
435161	2/6/2017 - 2/13/2017	Beta	1.96E-02	3.10E-03	3.30E-03

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
435857	2/13/2017 - 2/20/2017	Beta	1.56E-02	2.55E-03	2.81E-03

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
436310	2/20/2017 - 2/28/2017	Beta	1.43E-02	2.70E-03	3.27E-03

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
436768	2/28/2017 - 3/6/2017	Beta	1.35E-02	3.14E-03	3.92E-03

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
437645	3/6/2017 - 3/14/2017	Beta	1.64E-02	2.57E-03	2.64E-03

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
438349	3/14/2017 - 3/20/2017	Beta	1.83E-02	2.96E-03	3.28E-03

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
438855	3/20/2017 - 3/27/2017	Beta	2.38E-02	2.99E-03	2.88E-03

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
439249	12/28/2016 - 3/27/2017	Cs-134	<4.81E-04	0.00E+00	4.81E-04
		Cs-137	<4.93E-04	0.00E+00	4.93E-04
		Be-7	1.42E-01	2.27E-02	9.48E-03
		K-40	5.84E-03	5.40E-03	7.67E-03

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
439239	3/27/2017 - 4/3/2017	Beta	1.38E-02	2.99E-03	3.78E-03

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
440063	4/3/2017 - 4/10/2017	Beta	1.36E-02	2.47E-03	2.82E-03

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
440646	4/10/2017 - 4/17/2017	Beta	1.82E-02	3.05E-03	3.32E-03

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
441463	4/17/2017 - 4/24/2017	Beta	1.50E-02	2.88E-03	3.38E-03

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
441914	4/24/2017 - 5/1/2017	Beta	1.15E-02	2.40E-03	2.91E-03



ROBINSON Radiological Environmental Monitoring Analysis Report - 2017 (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
442383	5/1/2017 - 5/8/2017	Beta	1.55E-02	2.96E-03	3.49E-03
442915	5/8/2017 - 5/15/2017	Beta	2.07E-02	2.82E-03	2.79E-03
443356	5/15/2017 - 5/22/2017	Beta	2.89E-02	3.70E-03	3.69E-03
443910	5/22/2017 - 5/30/2017	Beta	1.42E-02	2.31E-03	2.56E-03
444315	5/30/2017 - 6/5/2017	Beta	2.07E-02	3.52E-03	3.96E-03
445380	6/5/2017 - 6/12/2017	Beta	1.47E-02	2.64E-03	3.11E-03
446377	6/12/2017 - 6/18/2017	Beta	1.82E-02	3.16E-03	3.70E-03
446877	6/18/2017 - 6/26/2017	Beta	1.10E-02	2.18E-03	2.59E-03
447259	3/27/2017 - 6/26/2017	Cs-134	<5.31E-04	0.00E+00	5.31E-04
		Cs-137	<4.68E-04	0.00E+00	4.68E-04
		Be-7	1.60E-01	2.37E-02	9.81E-03
		K-40	<1.17E-02	0.00E+00	1.17E-02
447249	6/26/2017 - 7/3/2017	Beta	1.84E-02	3.16E-03	3.66E-03
447862	7/3/2017 - 7/10/2017	Beta	1.56E-02	2.59E-03	2.81E-03
448327	7/10/2017 - 7/18/2017	Beta	9.48E-03	2.13E-03	2.73E-03
448945	7/18/2017 - 7/24/2017	Beta	2.08E-02	3.54E-03	3.89E-03
449272	7/24/2017 - 7/31/2017	Beta	1.93E-02	3.89E-03	4.83E-03
449991	7/31/2017 - 8/8/2017	Beta	1.22E-02	1.95E-03	2.16E-03
450263	8/8/2017 - 8/15/2017	Beta	1.11E-02	1.94E-03	2.26E-03
450778	8/15/2017 - 8/22/2017	Beta	1.80E-02	2.48E-03	2.45E-03
451240	8/22/2017 - 8/29/2017	Beta	1.47E-02	2.25E-03	2.48E-03
451582	8/29/2017 - 9/5/2017	Beta	1.50E-02	1.89E-03	1.78E-03
452424	9/5/2017 - 9/12/2017	Beta	1.23E-02	1.76E-03	1.82E-03
452838	9/12/2017 - 9/18/2017	Beta	1.64E-02	2.20E-03	2.26E-03
453495	9/18/2017 - 9/26/2017	Beta	2.57E-02	2.92E-03	2.60E-03
454279	6/26/2017 - 9/26/2017	Cs-134	<1.25E-03	0.00E+00	1.25E-03
		Cs-137	<8.79E-04	0.00E+00	8.79E-04
		Be-7	9.69E-02	2.81E-02	2.60E-02
		K-40	<2.28E-02	0.00E+00	2.28E-02



ROBINSON Radiological Environmental Monitoring Analysis Report - 2017 (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
454269	9/26/2017 - 10/2/2017	Beta	2.21E-02	2.89E-03	2.89E-03
455131	10/2/2017 - 10/9/2017	Beta	1.29E-02	2.49E-03	2.89E-03
455465	10/9/2017 - 10/17/2017	Beta	8.91E-03	2.02E-03	2.48E-03
456093	10/17/2017 - 10/24/2017	Beta	1.83E-02	2.80E-03	3.07E-03
461458	10/24/2017 - 10/31/2017	Beta	1.55E-02	2.38E-03	2.60E-03
462015	10/31/2017 - 11/7/2017	Beta	2.08E-02	2.63E-03	2.68E-03
462660	11/7/2017 - 11/14/2017	Beta	1.70E-02	2.64E-03	2.78E-03
463143	11/14/2017 - 11/21/2017	Beta	2.16E-02	2.93E-03	3.02E-03
463552	11/21/2017 - 11/28/2017	Beta	2.30E-02	2.93E-03	2.85E-03
464194	11/28/2017 - 12/5/2017	Beta	2.95E-02	3.34E-03	3.15E-03
464757	12/5/2017 - 12/12/2017	Beta	1.78E-02	2.70E-03	2.86E-03
465017	12/12/2017 - 12/19/2017	Beta	2.67E-02	3.12E-03	2.92E-03
465252	12/19/2017 - 12/26/2017	Beta	1.99E-02	2.79E-03	2.86E-03
465684	9/26/2017 - 12/26/2017	Cs-134	<8.77E-04	0.00E+00	8.77E-04
		Cs-137	<1.05E-03	0.00E+00	1.05E-03
		Be-7	8.63E-02	2.87E-02	3.30E-02
		K-40	1.62E-02	1.09E-02	1.16E-02
465674	12/26/2017 - 1/2/2018	Beta	2.62E-02	2.98E-03	2.59E-03
		Cs-134	<1.41E-02	0.00E+00	1.41E-02
		Cs-137	<9.80E-03	0.00E+00	9.80E-03
		Be-7	1.60E-01	7.52E-02	9.91E-02
		K-40	9.36E-02	9.07E-02	1.39E-01

Sample Point 55 [INDICATOR - SSE @ 0.2 miles]

Sample ID	Sample Dates	Nuclide	Activity	2 Sigma Error	MDA
431857	12/28/2016 - 1/3/2017	Beta	9.74E-03	2.36E-03	2.98E-03
432264	1/3/2017 - 1/10/2017	Beta	1.52E-02	2.57E-03	2.93E-03
432952	1/10/2017 - 1/16/2017	Beta	1.21E-02	2.63E-03	3.26E-03
433347	1/16/2017 - 1/23/2017	Beta	1.38E-02	2.38E-03	2.59E-03
433767	1/23/2017 - 1/30/2017	Beta	1.50E-02	2.53E-03	2.76E-03
434509	1/30/2017 - 2/6/2017	Beta	2.19E-02	2.81E-03	2.62E-03
435157	2/6/2017 - 2/13/2017	Beta	2.08E-02	3.03E-03	3.11E-03



ROBINSON Radiological Environmental Monitoring Analysis Report - 2017 (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
435853	2/13/2017 - 2/20/2017	Beta	1.49E-02	2.46E-03	2.72E-03
436306	2/20/2017 - 2/28/2017	Beta	1.71E-02	2.70E-03	3.04E-03
436764	2/28/2017 - 3/6/2017	Beta	1.92E-02	3.29E-03	3.64E-03
437641	3/6/2017 - 3/14/2017	Beta	1.95E-02	2.60E-03	2.45E-03
438345	3/14/2017 - 3/20/2017	Beta	1.59E-02	2.68E-03	3.02E-03
438851	3/20/2017 - 3/27/2017	Beta	2.20E-02	2.79E-03	2.70E-03
439245	12/28/2016 - 3/27/2017	Cs-134	<4.76E-04	0.00E+00	4.76E-04
		Cs-137	<4.20E-04	0.00E+00	4.20E-04
		Be-7	1.49E-01	2.17E-02	9.11E-03
		K-40	<1.23E-02	0.00E+00	1.23E-02
439235	3/27/2017 - 4/3/2017	Beta	1.37E-02	2.78E-03	3.44E-03
440059	4/3/2017 - 4/10/2017	Beta	1.54E-02	2.46E-03	2.67E-03
440642	4/10/2017 - 4/17/2017	Beta	2.35E-02	3.19E-03	3.11E-03
441459	4/17/2017 - 4/24/2017	Beta	1.72E-02	2.90E-03	3.22E-03
441910	4/24/2017 - 5/1/2017	Beta	1.26E-02	2.32E-03	2.70E-03
442379	5/1/2017 - 5/8/2017	Beta	1.42E-02	2.70E-03	3.17E-03
442911	5/8/2017 - 5/15/2017	Beta	2.31E-02	2.76E-03	2.55E-03
443352	5/15/2017 - 5/22/2017	Beta	2.75E-02	3.45E-03	3.40E-03
443906	5/22/2017 - 5/30/2017	Beta	1.60E-02	2.34E-03	2.47E-03
444311	5/30/2017 - 6/5/2017	Beta	2.35E-02	3.57E-03	3.81E-03
445376	6/5/2017 - 6/12/2017	Beta	1.71E-02	2.60E-03	2.85E-03
446373	6/12/2017 - 6/18/2017	Beta	1.78E-02	3.00E-03	3.49E-03
446873	6/18/2017 - 6/26/2017	Beta	1.17E-02	2.10E-03	2.39E-03
447255	3/27/2017 - 6/26/2017	Cs-134	<6.34E-04	0.00E+00	6.34E-04
		Cs-137	<4.59E-04	0.00E+00	4.59E-04
		Be-7	1.59E-01	2.48E-02	1.33E-02
		K-40	<1.06E-02	0.00E+00	1.06E-02
447245	6/26/2017 - 7/3/2017	Beta	2.03E-02	3.14E-03	3.48E-03
447858	7/3/2017 - 7/10/2017	Beta	1.59E-02	2.46E-03	2.59E-03



ROBINSON Radiological Environmental Monitoring Analysis Report - 2017 (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
448323	7/10/2017 - 7/18/2017	Beta	1.12E-02	2.13E-03	2.57E-03
448941	7/18/2017 - 7/24/2017	Beta	1.94E-02	3.34E-03	3.71E-03
449268	7/24/2017 - 7/31/2017	Beta	2.58E-02	4.24E-03	4.87E-03
449987	7/31/2017 - 8/8/2017	Beta	1.69E-02	2.54E-03	2.74E-03
450259	8/8/2017 - 8/15/2017	Beta	9.60E-03	1.93E-03	2.37E-03
450774	8/15/2017 - 8/22/2017	Beta	1.80E-02	2.83E-03	3.00E-03
451236	8/22/2017 - 8/29/2017	Beta	1.75E-02	2.73E-03	3.04E-03
451578	8/29/2017 - 9/5/2017	Beta	1.63E-02	2.20E-03	2.14E-03
452420	9/5/2017 - 9/12/2017	Beta	1.55E-02	2.11E-03	2.12E-03
452834	9/12/2017 - 9/18/2017	Beta	1.99E-02	2.58E-03	2.61E-03
453491	9/18/2017 - 9/26/2017	Beta	2.72E-02	2.96E-03	2.58E-03
454275	6/26/2017 - 9/26/2017	Cs-134	<1.59E-03	0.00E+00	1.59E-03
		Cs-137	<7.27E-04	0.00E+00	7.27E-04
		Be-7	1.38E-01	3.35E-02	2.51E-02
		K-40	<2.37E-02	0.00E+00	2.37E-02
454265	9/26/2017 - 10/2/2017	Beta	2.12E-02	2.79E-03	2.80E-03
455127	10/2/2017 - 10/9/2017	Beta	1.51E-02	2.51E-03	2.73E-03
455461	10/9/2017 - 10/17/2017	Beta	1.17E-02	2.09E-03	2.34E-03
456089	10/17/2017 - 10/24/2017	Beta	2.00E-02	2.73E-03	2.83E-03
461454	10/24/2017 - 10/31/2017	Beta	1.52E-02	2.16E-03	2.28E-03
462011	10/31/2017 - 11/7/2017	Beta	2.29E-02	2.61E-03	2.52E-03
462656	11/7/2017 - 11/14/2017	Beta	1.73E-02	2.48E-03	2.51E-03
463139	11/14/2017 - 11/21/2017	Beta	2.42E-02	2.83E-03	2.70E-03
463548	11/21/2017 - 11/28/2017	Beta	2.54E-02	3.19E-03	3.09E-03
464190	11/28/2017 - 12/5/2017	Beta	3.80E-02	3.82E-03	3.36E-03
464753	12/5/2017 - 12/12/2017	Beta	2.16E-02	3.00E-03	3.05E-03
465013	12/12/2017 - 12/19/2017	Beta	3.01E-02	3.38E-03	3.09E-03



ROBINSON Radiological Environmental Monitoring Analysis Report - 2017 (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
465248	12/19/2017 - 12/26/2017	Beta	2.66E-02	3.26E-03	3.12E-03
465680	9/26/2017 - 12/26/2017	Cs-134	<1.62E-03	0.00E+00	1.62E-03
		Cs-137	<1.77E-03	0.00E+00	1.77E-03
		Be-7	1.27E-01	3.22E-02	2.83E-02
		K-40	2.26E-02	1.28E-02	1.20E-02
465670	12/26/2017 - 1/2/2018	Beta	3.13E-02	3.32E-03	2.75E-03
		Cs-134	<1.05E-02	0.00E+00	1.05E-02
		Cs-137	<7.61E-03	0.00E+00	7.61E-03
		Be-7	1.36E-01	6.98E-02	9.07E-02
		K-40	<1.86E-01	0.00E+00	1.86E-01

Sample Point 60 [INDICATOR - SE @ 0.2 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
431859	12/28/2016 - 1/3/2017	Beta	9.58E-03	2.32E-03	2.94E-03
432266	1/3/2017 - 1/10/2017	Beta	1.88E-02	2.86E-03	3.13E-03
432954	1/10/2017 - 1/16/2017	Beta	9.81E-03	2.45E-03	3.18E-03
433349	1/16/2017 - 1/23/2017	Beta	1.32E-02	2.38E-03	2.64E-03
433769	1/23/2017 - 1/30/2017	Beta	1.61E-02	2.67E-03	2.89E-03
434511	1/30/2017 - 2/6/2017	Beta	2.25E-02	2.91E-03	2.73E-03
435159	2/6/2017 - 2/13/2017	Beta	2.01E-02	2.90E-03	2.97E-03
435855	2/13/2017 - 2/20/2017	Beta	1.49E-02	2.50E-03	2.79E-03
436308	2/20/2017 - 2/28/2017	Beta	1.64E-02	2.69E-03	3.08E-03
436766	2/28/2017 - 3/6/2017	Beta	1.82E-02	3.30E-03	3.74E-03
437643	3/6/2017 - 3/14/2017	Beta	1.79E-02	2.57E-03	2.52E-03
438347	3/14/2017 - 3/20/2017	Beta	1.63E-02	2.81E-03	3.20E-03
438853	3/20/2017 - 3/27/2017	Beta	2.18E-02	2.81E-03	2.74E-03
439247	12/28/2016 - 3/27/2017	Cs-134	<6.79E-04	0.00E+00	6.79E-04
		Cs-137	<5.05E-04	0.00E+00	5.05E-04
		Be-7	1.45E-01	2.22E-02	1.18E-02
		K-40	<1.28E-02	0.00E+00	1.28E-02
439237	3/27/2017 - 4/3/2017	Beta	1.21E-02	2.77E-03	3.57E-03
440061	4/3/2017 - 4/10/2017	Beta	1.44E-02	2.39E-03	2.64E-03
440644	4/10/2017 - 4/17/2017	Beta	2.21E-02	3.11E-03	3.10E-03



ROBINSON Radiological Environmental Monitoring Analysis Report - 2017 (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
441461	4/17/2017 - 4/24/2017	Beta	1.66E-02	2.88E-03	3.23E-03
441912	4/24/2017 - 5/1/2017	Beta	1.23E-02	2.31E-03	2.71E-03
442381	5/1/2017 - 5/8/2017	Beta	1.53E-02	2.80E-03	3.25E-03
442913	5/8/2017 - 5/15/2017	Beta	2.11E-02	2.69E-03	2.58E-03
443354	5/15/2017 - 5/22/2017	Beta	2.17E-02	3.18E-03	3.38E-03
443908	5/22/2017 - 5/30/2017	Beta	1.43E-02	2.28E-03	2.50E-03
444313	5/30/2017 - 6/5/2017	Beta	2.20E-02	3.48E-03	3.79E-03
445378	6/5/2017 - 6/12/2017	Beta	1.43E-02	2.49E-03	2.89E-03
446375	6/12/2017 - 6/18/2017	Beta	1.75E-02	2.97E-03	3.46E-03
446875	6/18/2017 - 6/26/2017	Beta	1.14E-02	2.06E-03	2.36E-03
447257	3/27/2017 - 6/26/2017	Cs-134	<5.08E-04	0.00E+00	5.08E-04
		Cs-137	<4.48E-04	0.00E+00	4.48E-04
		Be-7	1.51E-01	2.27E-02	1.11E-02
		K-40	<1.11E-02	0.00E+00	1.11E-02
447247	6/26/2017 - 7/3/2017	Beta	2.17E-02	3.22E-03	3.49E-03
447860	7/3/2017 - 7/10/2017	Beta	1.64E-02	2.48E-03	2.58E-03
448325	7/10/2017 - 7/18/2017	Beta	1.03E-02	2.08E-03	2.58E-03
448943	7/18/2017 - 7/24/2017	Beta	2.18E-02	3.51E-03	3.76E-03
449270	7/24/2017 - 7/31/2017	Beta	1.67E-02	4.91E-03	7.13E-03
449989	7/31/2017 - 8/8/2017	Beta	1.41E-02	4.80E-03	6.79E-03
450261	8/8/2017 - 8/15/2017	Beta	1.07E-02	3.83E-03	5.52E-03
450776	8/15/2017 - 8/22/2017	Beta	1.97E-02	2.88E-03	2.94E-03
451238	8/22/2017 - 8/29/2017	Beta	1.74E-02	2.83E-03	3.21E-03
451580	8/29/2017 - 9/5/2017	Beta	1.60E-02	2.31E-03	2.34E-03
452422	9/5/2017 - 9/12/2017	Beta	1.65E-02	2.39E-03	2.47E-03
452836	9/12/2017 - 9/18/2017	Beta	2.11E-02	2.94E-03	3.08E-03
453493	9/18/2017 - 9/26/2017	Beta	2.67E-02	2.95E-03	2.60E-03



ROBINSON Radiological Environmental Monitoring Analysis Report - 2017 (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
454277	6/26/2017 - 9/26/2017	Cs-134	<1.77E-03	0.00E+00	1.77E-03
		Cs-137	<1.12E-03	0.00E+00	1.12E-03
		Be-7	1.27E-01	4.04E-02	4.57E-02
		K-40	<3.51E-02	0.00E+00	3.51E-02
454267	9/26/2017 - 10/2/2017	Beta	2.63E-02	3.13E-03	2.98E-03
455129	10/2/2017 - 10/9/2017	Beta	1.36E-02	2.53E-03	2.91E-03
455463	10/9/2017 - 10/17/2017	Beta	1.14E-02	2.20E-03	2.54E-03
456091	10/17/2017 - 10/24/2017	Beta	2.09E-02	2.98E-03	3.17E-03
461456	10/24/2017 - 10/31/2017	Beta	1.59E-02	2.39E-03	2.59E-03
462013	10/31/2017 - 11/7/2017	Beta	2.52E-02	2.93E-03	2.85E-03
462658	11/7/2017 - 11/14/2017	Beta	2.01E-02	2.92E-03	2.97E-03
463141	11/14/2017 - 11/21/2017	Beta	2.64E-02	3.25E-03	3.18E-03
463550	11/21/2017 - 11/28/2017	Beta	2.80E-02	3.29E-03	3.06E-03
464192	11/28/2017 - 12/5/2017	Beta	3.61E-02	3.69E-03	3.27E-03
464755	12/5/2017 - 12/12/2017	Beta	2.36E-02	3.08E-03	3.04E-03
465015	12/12/2017 - 12/19/2017	Beta	3.02E-02	3.39E-03	3.09E-03
465250	12/19/2017 - 12/26/2017	Beta	2.61E-02	3.21E-03	3.08E-03
465682	9/26/2017 - 12/26/2017	Cs-134	<2.10E-03	0.00E+00	2.10E-03
		Cs-137	<1.24E-03	0.00E+00	1.24E-03
		Be-7	1.15E-01	3.38E-02	3.67E-02
		K-40	<2.06E-02	0.00E+00	2.06E-02
465672	12/26/2017 - 1/2/2018	Beta	3.39E-02	3.46E-03	2.80E-03
		Cs-134	<1.08E-02	0.00E+00	1.08E-02
		Cs-137	<9.23E-03	0.00E+00	9.23E-03
		Be-7	2.11E-01	1.01E-01	1.41E-01
K-40	<1.50E-01	0.00E+00	1.50E-01		

Sample Point 61 [INDICATOR - WSW @ 0.3 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
431860	12/28/2016 - 1/3/2017	Beta	1.08E-02	2.30E-03	2.77E-03
432267	1/3/2017 - 1/10/2017	Beta	1.49E-02	2.66E-03	3.11E-03
432955	1/10/2017 - 1/16/2017	Beta	1.22E-02	2.53E-03	3.08E-03
433350	1/16/2017 - 1/23/2017	Beta	1.59E-02	2.51E-03	2.62E-03



ROBINSON Radiological Environmental Monitoring Analysis Report - 2017 (Appendix E)

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

Sample Point 61 [INDICATOR - WSW @ 0.3 miles]

Sample ID	Sample Dates	Nuclide	Activity	2 Sigma Error	MDA
433770	1/23/2017 - 1/30/2017	Beta	1.59E-02	2.65E-03	2.86E-03
434512	1/30/2017 - 2/6/2017	Beta	2.08E-02	2.82E-03	2.70E-03
435160	2/6/2017 - 2/13/2017	Beta	2.05E-02	2.90E-03	2.93E-03
435856	2/13/2017 - 2/20/2017	Beta	1.57E-02	2.41E-03	2.58E-03
436309	2/20/2017 - 2/28/2017	Beta	1.55E-02	2.48E-03	2.81E-03
436767	2/28/2017 - 3/6/2017	Beta	1.81E-02	3.09E-03	3.42E-03
437644	3/6/2017 - 3/14/2017	Beta	1.69E-02	2.39E-03	2.32E-03
438348	3/14/2017 - 3/20/2017	Beta	1.61E-02	2.66E-03	2.97E-03
438854	3/20/2017 - 3/27/2017	Beta	1.93E-02	2.49E-03	2.44E-03
439248	12/28/2016 - 3/27/2017	Cs-134	<7.54E-04	0.00E+00	7.54E-04
		Cs-137	<2.77E-04	0.00E+00	2.77E-04
		Be-7	1.60E-01	2.39E-02	1.09E-02
		K-40	<1.61E-02	0.00E+00	1.61E-02
439238	3/27/2017 - 4/3/2017	Beta	1.10E-02	2.50E-03	3.22E-03
440062	4/3/2017 - 4/10/2017	Beta	1.36E-02	2.21E-03	2.41E-03
440645	4/10/2017 - 4/17/2017	Beta	1.92E-02	2.78E-03	2.81E-03
441462	4/17/2017 - 4/24/2017	Beta	1.73E-02	2.72E-03	2.92E-03
441913	4/24/2017 - 5/1/2017	Beta	1.18E-02	2.13E-03	2.45E-03
442382	5/1/2017 - 5/8/2017	Beta	1.42E-02	2.54E-03	2.91E-03
442914	5/8/2017 - 5/15/2017	Beta	1.84E-02	2.39E-03	2.31E-03
443355	5/15/2017 - 5/22/2017	Beta	2.16E-02	2.97E-03	3.07E-03
443909	5/22/2017 - 5/30/2017	Beta	1.36E-02	2.05E-03	2.20E-03
444314	5/30/2017 - 6/5/2017	Beta	2.25E-02	3.24E-03	3.37E-03
445379	6/5/2017 - 6/12/2017	Beta	1.44E-02	2.30E-03	2.58E-03
446376	6/12/2017 - 6/18/2017	Beta	1.72E-02	2.74E-03	3.09E-03
446876	6/18/2017 - 6/26/2017	Beta	1.07E-02	1.95E-03	2.23E-03
447258	3/27/2017 - 6/26/2017	Cs-134	<7.47E-04	0.00E+00	7.47E-04



ROBINSON Radiological Environmental Monitoring Analysis Report - 2017 (Appendix E)

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

Sample Point 61 [INDICATOR - WSW @ 0.3 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
447258	3/27/2017 - 6/26/2017	Cs-137	<5.62E-04	0.00E+00	5.62E-04
		Be-7	1.33E-01	2.12E-02	1.25E-02
		K-40	4.59E-03	4.63E-03	6.85E-03
447248	6/26/2017 - 7/3/2017	Beta	1.74E-02	2.76E-03	3.09E-03
447861	7/3/2017 - 7/10/2017	Beta	1.31E-02	2.12E-03	2.28E-03
448326	7/10/2017 - 7/18/2017	Beta	8.00E-03	1.78E-03	2.27E-03
448944	7/18/2017 - 7/24/2017	Beta	1.98E-02	3.10E-03	3.27E-03
449271	7/24/2017 - 7/31/2017	Beta	1.64E-02	3.13E-03	3.80E-03
449990	7/31/2017 - 8/8/2017	Beta	1.36E-02	2.34E-03	2.68E-03
450262	8/8/2017 - 8/15/2017	Beta	1.16E-02	1.98E-03	2.29E-03
450777	8/15/2017 - 8/22/2017	Beta	1.83E-02	2.80E-03	2.93E-03
451239	8/22/2017 - 8/29/2017	Beta	1.75E-02	2.74E-03	3.06E-03
451581	8/29/2017 - 9/5/2017	Beta	1.51E-02	2.21E-03	2.23E-03
452423	9/5/2017 - 9/12/2017	Beta	1.41E-02	2.19E-03	2.35E-03
452837	9/12/2017 - 9/18/2017	Beta	2.07E-02	2.81E-03	2.90E-03
453494	9/18/2017 - 9/26/2017	Beta	2.60E-02	2.82E-03	2.46E-03
454278	6/26/2017 - 9/26/2017	Cs-134	<1.59E-03	0.00E+00	1.59E-03
		Cs-137	<1.42E-03	0.00E+00	1.42E-03
		Be-7	1.28E-01	3.38E-02	2.80E-02
		K-40	<2.14E-02	0.00E+00	2.14E-02
454268	9/26/2017 - 10/2/2017	Beta	2.05E-02	2.78E-03	2.82E-03
455130	10/2/2017 - 10/9/2017	Beta	1.26E-02	2.33E-03	2.66E-03
455464	10/9/2017 - 10/17/2017	Beta	9.01E-03	2.03E-03	2.49E-03
456092	10/17/2017 - 10/24/2017	Beta	1.95E-02	2.82E-03	3.00E-03
461457	10/24/2017 - 10/31/2017	Beta	1.72E-02	2.36E-03	2.46E-03
462014	10/31/2017 - 11/7/2017	Beta	2.38E-02	2.76E-03	2.70E-03
462659	11/7/2017 - 11/14/2017	Beta	1.66E-02	2.64E-03	2.81E-03
463142	11/14/2017 - 11/21/2017	Beta	2.61E-02	3.12E-03	3.01E-03



ROBINSON Radiological Environmental Monitoring Analysis Report - 2017 (Appendix E)

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

Sample Point 61 [INDICATOR - WSW @ 0.3 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
463551	11/21/2017 - 11/28/2017	Beta	2.31E-02	2.97E-03	2.90E-03
464193	11/28/2017 - 12/5/2017	Beta	3.23E-02	3.41E-03	3.09E-03
464756	12/5/2017 - 12/12/2017	Beta	2.26E-02	2.94E-03	2.89E-03
465016	12/12/2017 - 12/19/2017	Beta	2.78E-02	3.18E-03	2.93E-03
465251	12/19/2017 - 12/26/2017	Beta	2.18E-02	2.91E-03	2.91E-03
465683	9/26/2017 - 12/26/2017	Cs-134	<1.35E-03	0.00E+00	1.35E-03
		Cs-137	<1.55E-03	0.00E+00	1.55E-03
		Be-7	1.37E-01	3.59E-02	3.63E-02
		K-40	<3.20E-02	0.00E+00	3.20E-02
465673	12/26/2017 - 1/2/2018	Beta	2.62E-02	2.98E-03	2.59E-03
		Cs-134	<1.06E-02	0.00E+00	1.06E-02
		Cs-137	<7.20E-03	0.00E+00	7.20E-03
		Be-7	1.82E-01	8.03E-02	1.03E-01
		K-40	<2.80E-01	0.00E+00	2.80E-01

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
431872	12/28/2016 - 1/3/2017	I-131	<1.10E-02	0.00E+00	1.10E-02
		Cs-134	<5.22E-03	0.00E+00	5.22E-03
		Cs-137	<8.07E-03	0.00E+00	8.07E-03
		Be-7	<4.84E-02	0.00E+00	4.84E-02
		K-40	2.80E-01	1.37E-01	1.69E-01
432269	1/3/2017 - 1/10/2017	I-131	<7.54E-03	0.00E+00	7.54E-03
		Cs-134	<8.58E-03	0.00E+00	8.58E-03
		Cs-137	<1.11E-02	0.00E+00	1.11E-02
		Be-7	<5.86E-02	0.00E+00	5.86E-02
		K-40	4.33E-01	1.50E-01	1.07E-01
432957	1/10/2017 - 1/16/2017	I-131	<9.54E-03	0.00E+00	9.54E-03
		Cs-134	<7.29E-03	0.00E+00	7.29E-03
		Cs-137	<8.07E-03	0.00E+00	8.07E-03
		Be-7	<6.08E-02	0.00E+00	6.08E-02
		K-40	3.73E-01	1.49E-01	1.61E-01
433352	1/16/2017 - 1/23/2017	I-131	<9.40E-03	0.00E+00	9.40E-03
		Cs-134	<7.52E-03	0.00E+00	7.52E-03
		Cs-137	<8.77E-03	0.00E+00	8.77E-03
		Be-7	<4.87E-02	0.00E+00	4.87E-02
		K-40	3.46E-01	1.24E-01	2.84E-02
433772	1/23/2017 - 1/30/2017	I-131	<7.30E-03	0.00E+00	7.30E-03
		Cs-134	<5.48E-03	0.00E+00	5.48E-03
		Cs-137	<8.27E-03	0.00E+00	8.27E-03
		Be-7	<5.46E-02	0.00E+00	5.46E-02
		K-40	4.11E-01	1.50E-01	1.30E-01
434514	1/30/2017 - 2/6/2017	I-131	<9.70E-03	0.00E+00	9.70E-03
		Cs-134	<8.15E-03	0.00E+00	8.15E-03
		Cs-137	<1.01E-02	0.00E+00	1.01E-02



ROBINSON Radiological Environmental Monitoring Analysis Report - 2017 (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
434514	1/30/2017 - 2/6/2017	Be-7	<4.49E-02	0.00E+00	4.49E-02
		K-40	3.11E-01	1.44E-01	1.65E-01
435162	2/6/2017 - 2/13/2017	I-131	<8.35E-03	0.00E+00	8.35E-03
		Cs-134	<6.97E-03	0.00E+00	6.97E-03
		Cs-137	<6.19E-03	0.00E+00	6.19E-03
		Be-7	<5.40E-02	0.00E+00	5.40E-02
		K-40	3.25E-01	1.17E-01	2.67E-02
435858	2/13/2017 - 2/20/2017	I-131	<7.61E-03	0.00E+00	7.61E-03
		Cs-134	<7.61E-03	0.00E+00	7.61E-03
		Cs-137	<9.88E-03	0.00E+00	9.88E-03
		Be-7	<5.54E-02	0.00E+00	5.54E-02
		K-40	<1.76E-01	0.00E+00	1.76E-01
436311	2/20/2017 - 2/28/2017	I-131	<5.86E-03	0.00E+00	5.86E-03
		Cs-134	<6.48E-03	0.00E+00	6.48E-03
		Cs-137	<6.64E-03	0.00E+00	6.64E-03
		Be-7	<4.40E-02	0.00E+00	4.40E-02
		K-40	<1.64E-01	0.00E+00	1.64E-01
436769	2/28/2017 - 3/6/2017	I-131	<1.88E-02	0.00E+00	1.88E-02
		Cs-134	<9.90E-03	0.00E+00	9.90E-03
		Cs-137	<1.22E-02	0.00E+00	1.22E-02
		Be-7	<6.50E-02	0.00E+00	6.50E-02
		K-40	<2.36E-01	0.00E+00	2.36E-01
437646	3/6/2017 - 3/14/2017	I-131	<8.87E-03	0.00E+00	8.87E-03
		Cs-134	<6.97E-03	0.00E+00	6.97E-03
		Cs-137	<1.06E-02	0.00E+00	1.06E-02
		Be-7	<4.67E-02	0.00E+00	4.67E-02
		K-40	1.89E-01	9.49E-02	9.30E-02
438350	3/14/2017 - 3/20/2017	I-131	<1.25E-02	0.00E+00	1.25E-02
		Cs-134	<8.87E-03	0.00E+00	8.87E-03
		Cs-137	<1.10E-02	0.00E+00	1.10E-02
		Be-7	<5.88E-02	0.00E+00	5.88E-02
		K-40	<2.13E-01	0.00E+00	2.13E-01
438856	3/20/2017 - 3/27/2017	I-131	<7.19E-03	0.00E+00	7.19E-03
		Cs-134	<7.55E-03	0.00E+00	7.55E-03
		Cs-137	<1.16E-02	0.00E+00	1.16E-02
		Be-7	<6.89E-02	0.00E+00	6.89E-02
		K-40	<2.03E-01	0.00E+00	2.03E-01
439250	3/27/2017 - 4/3/2017	I-131	<7.58E-03	0.00E+00	7.58E-03
		Cs-134	<7.22E-03	0.00E+00	7.22E-03
		Cs-137	<1.04E-02	0.00E+00	1.04E-02
		Be-7	<7.53E-02	0.00E+00	7.53E-02
		K-40	<2.03E-01	0.00E+00	2.03E-01
440064	4/3/2017 - 4/10/2017	I-131	<8.54E-03	0.00E+00	8.54E-03
		Cs-134	<8.52E-03	0.00E+00	8.52E-03
		Cs-137	<8.73E-03	0.00E+00	8.73E-03
		Be-7	<4.03E-02	0.00E+00	4.03E-02
		K-40	<2.40E-01	0.00E+00	2.40E-01
440647	4/10/2017 - 4/17/2017	I-131	<8.34E-03	0.00E+00	8.34E-03



ROBINSON Radiological Environmental Monitoring Analysis Report - 2017 (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
440647	4/10/2017 - 4/17/2017	Cs-134	<6.92E-03	0.00E+00	6.92E-03
		Cs-137	<5.31E-03	0.00E+00	5.31E-03
		Be-7	<6.27E-02	0.00E+00	6.27E-02
		K-40	4.60E-01	1.41E-01	2.65E-02
441464	4/17/2017 - 4/24/2017	I-131	<1.00E-02	0.00E+00	1.00E-02
		Cs-134	<7.26E-03	0.00E+00	7.26E-03
		Cs-137	<6.47E-03	0.00E+00	6.47E-03
		Be-7	<7.08E-02	0.00E+00	7.08E-02
		K-40	5.80E-01	1.67E-01	9.33E-02
441915	4/24/2017 - 5/1/2017	I-131	<7.28E-03	0.00E+00	7.28E-03
		Cs-134	<5.76E-03	0.00E+00	5.76E-03
		Cs-137	<7.80E-03	0.00E+00	7.80E-03
		Be-7	<5.12E-02	0.00E+00	5.12E-02
		K-40	3.58E-01	1.25E-01	2.77E-02
442384	5/1/2017 - 5/8/2017	I-131	<1.29E-02	0.00E+00	1.29E-02
		Cs-134	<7.93E-03	0.00E+00	7.93E-03
		Cs-137	<8.14E-03	0.00E+00	8.14E-03
		Be-7	<4.85E-02	0.00E+00	4.85E-02
		K-40	4.88E-01	1.50E-01	2.87E-02
442916	5/8/2017 - 5/15/2017	I-131	<9.53E-03	0.00E+00	9.53E-03
		Cs-134	<4.36E-03	0.00E+00	4.36E-03
		Cs-137	<9.25E-03	0.00E+00	9.25E-03
		Be-7	<4.12E-02	0.00E+00	4.12E-02
		K-40	4.60E-01	1.42E-01	2.71E-02
443357	5/15/2017 - 5/22/2017	I-131	<7.23E-03	0.00E+00	7.23E-03
		Cs-134	<7.21E-03	0.00E+00	7.21E-03
		Cs-137	<7.82E-03	0.00E+00	7.82E-03
		Be-7	<7.30E-02	0.00E+00	7.30E-02
		K-40	3.63E-01	1.33E-01	1.05E-01
443911	5/22/2017 - 5/30/2017	I-131	<8.52E-03	0.00E+00	8.52E-03
		Cs-134	<6.47E-03	0.00E+00	6.47E-03
		Cs-137	<6.84E-03	0.00E+00	6.84E-03
		Be-7	<3.48E-02	0.00E+00	3.48E-02
		K-40	3.27E-01	1.24E-01	1.01E-01
444316	5/30/2017 - 6/5/2017	I-131	<1.16E-02	0.00E+00	1.16E-02
		Cs-134	<9.22E-03	0.00E+00	9.22E-03
		Cs-137	<1.30E-02	0.00E+00	1.30E-02
		Be-7	<6.13E-02	0.00E+00	6.13E-02
		K-40	<2.66E-01	0.00E+00	2.66E-01
445381	6/5/2017 - 6/12/2017	I-131	<8.17E-03	0.00E+00	8.17E-03
		Cs-134	<7.06E-03	0.00E+00	7.06E-03
		Cs-137	<1.06E-02	0.00E+00	1.06E-02
		Be-7	<4.95E-02	0.00E+00	4.95E-02
		K-40	<1.82E-01	0.00E+00	1.82E-01
446378	6/12/2017 - 6/18/2017	I-131	<6.69E-03	0.00E+00	6.69E-03
		Cs-134	<8.31E-03	0.00E+00	8.31E-03
		Cs-137	<1.03E-02	0.00E+00	1.03E-02
		Be-7	<6.78E-02	0.00E+00	6.78E-02
		K-40	<2.58E-01	0.00E+00	2.58E-01



ROBINSON Radiological Environmental Monitoring Analysis Report - 2017 (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
446878	6/18/2017 - 6/26/2017	I-131	<6.06E-03	0.00E+00	6.06E-03
		Cs-134	<5.02E-03	0.00E+00	5.02E-03
		Cs-137	<6.23E-03	0.00E+00	6.23E-03
		Be-7	<5.15E-02	0.00E+00	5.15E-02
		K-40	<1.56E-01	0.00E+00	1.56E-01
447260	6/26/2017 - 7/3/2017	I-131	<1.11E-02	0.00E+00	1.11E-02
		Cs-134	<5.90E-03	0.00E+00	5.90E-03
		Cs-137	<8.60E-03	0.00E+00	8.60E-03
		Be-7	<4.32E-02	0.00E+00	4.32E-02
		K-40	2.84E-01	1.20E-01	1.03E-01
447863	7/3/2017 - 7/10/2017	I-131	<8.62E-03	0.00E+00	8.62E-03
		Cs-134	<6.12E-03	0.00E+00	6.12E-03
		Cs-137	<6.97E-03	0.00E+00	6.97E-03
		Be-7	<4.92E-02	0.00E+00	4.92E-02
		K-40	<2.13E-01	0.00E+00	2.13E-01
448328	7/10/2017 - 7/18/2017	I-131	<6.96E-03	0.00E+00	6.96E-03
		Cs-134	<5.79E-03	0.00E+00	5.79E-03
		Cs-137	<7.19E-03	0.00E+00	7.19E-03
		Be-7	<5.03E-02	0.00E+00	5.03E-02
		K-40	<1.59E-01	0.00E+00	1.59E-01
448946	7/18/2017 - 7/24/2017	I-131	<1.06E-02	0.00E+00	1.06E-02
		Cs-134	<8.82E-03	0.00E+00	8.82E-03
		Cs-137	<1.09E-02	0.00E+00	1.09E-02
		Be-7	<5.14E-02	0.00E+00	5.14E-02
		K-40	<1.95E-01	0.00E+00	1.95E-01
449273	7/24/2017 - 7/31/2017	I-131	<1.13E-02	0.00E+00	1.13E-02
		Cs-134	<6.86E-03	0.00E+00	6.86E-03
		Cs-137	<7.96E-03	0.00E+00	7.96E-03
		Be-7	<6.00E-02	0.00E+00	6.00E-02
		K-40	1.84E-01	8.58E-02	2.62E-02
449992	7/31/2017 - 8/8/2017	I-131	<4.38E-03	0.00E+00	4.38E-03
		Cs-134	<4.97E-03	0.00E+00	4.97E-03
		Cs-137	<5.26E-03	0.00E+00	5.26E-03
		Be-7	<3.61E-02	0.00E+00	3.61E-02
		K-40	1.38E-01	5.65E-02	5.49E-02
450264	8/8/2017 - 8/15/2017	I-131	<9.00E-03	0.00E+00	9.00E-03
		Cs-134	<6.27E-03	0.00E+00	6.27E-03
		Cs-137	<9.40E-03	0.00E+00	9.40E-03
		Be-7	<5.36E-02	0.00E+00	5.36E-02
		K-40	<2.01E-01	0.00E+00	2.01E-01
450779	8/15/2017 - 8/22/2017	I-131	<8.08E-03	0.00E+00	8.08E-03
		Cs-134	<6.67E-03	0.00E+00	6.67E-03
		Cs-137	<6.80E-03	0.00E+00	6.80E-03
		Be-7	<6.51E-02	0.00E+00	6.51E-02
		K-40	<1.93E-01	0.00E+00	1.93E-01
451241	8/22/2017 - 8/29/2017	I-131	<8.24E-03	0.00E+00	8.24E-03
		Cs-134	<6.09E-03	0.00E+00	6.09E-03
		Cs-137	<8.88E-03	0.00E+00	8.88E-03
		Be-7	<4.94E-02	0.00E+00	4.94E-02
		K-40	<2.39E-01	0.00E+00	2.39E-01



ROBINSON Radiological Environmental Monitoring Analysis Report - 2017 (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
451583	8/29/2017 - 9/5/2017	I-131	<1.75E-02	0.00E+00	1.75E-02
		Cs-134	<5.54E-03	0.00E+00	5.54E-03
		Cs-137	<8.97E-03	0.00E+00	8.97E-03
		Be-7	<1.20E-02	0.00E+00	1.20E-02
		K-40	2.14E-01	9.75E-02	2.90E-02
452425	9/5/2017 - 9/12/2017	I-131	<1.09E-02	0.00E+00	1.09E-02
		Cs-134	<8.15E-03	0.00E+00	8.15E-03
		Cs-137	<9.57E-03	0.00E+00	9.57E-03
		Be-7	<4.99E-02	0.00E+00	4.99E-02
		K-40	1.89E-01	1.01E-01	9.81E-02
452839	9/12/2017 - 9/18/2017	I-131	<1.08E-02	0.00E+00	1.08E-02
		Cs-134	<9.76E-03	0.00E+00	9.76E-03
		Cs-137	<1.16E-02	0.00E+00	1.16E-02
		Be-7	<6.14E-02	0.00E+00	6.14E-02
		K-40	2.44E-01	1.20E-01	1.15E-01
453496	9/18/2017 - 9/26/2017	I-131	<5.02E-03	0.00E+00	5.02E-03
		Cs-134	<6.22E-03	0.00E+00	6.22E-03
		Cs-137	<9.36E-03	0.00E+00	9.36E-03
		Be-7	<4.38E-02	0.00E+00	4.38E-02
		K-40	<2.08E-01	0.00E+00	2.08E-01
454280	9/26/2017 - 10/2/2017	I-131	<1.98E-02	0.00E+00	1.98E-02
		Cs-134	<1.10E-02	0.00E+00	1.10E-02
		Cs-137	<1.53E-02	0.00E+00	1.53E-02
		Be-7	<1.02E-01	0.00E+00	1.02E-01
		K-40	4.20E-01	1.78E-01	1.87E-01
455132	10/2/2017 - 10/9/2017	I-131	<3.00E-02	0.00E+00	3.00E-02
		Cs-134	<1.66E-02	0.00E+00	1.66E-02
		Cs-137	<1.63E-02	0.00E+00	1.63E-02
		Be-7	<8.50E-02	0.00E+00	8.50E-02
		K-40	<2.90E-01	0.00E+00	2.90E-01
455466	10/9/2017 - 10/17/2017	I-131	<1.60E-02	0.00E+00	1.60E-02
		Cs-134	<1.19E-02	0.00E+00	1.19E-02
		Cs-137	<1.32E-02	0.00E+00	1.32E-02
		Be-7	<6.98E-02	0.00E+00	6.98E-02
		K-40	3.62E-01	1.29E-01	2.97E-02
456094	10/17/2017 - 10/24/2017	I-131	<2.41E-02	0.00E+00	2.41E-02
		Cs-134	<1.81E-02	0.00E+00	1.81E-02
		Cs-137	<1.34E-02	0.00E+00	1.34E-02
		Be-7	<1.20E-01	0.00E+00	1.20E-01
		K-40	4.58E-01	1.92E-01	2.24E-01
461459	10/24/2017 - 10/31/2017	I-131	<2.26E-02	0.00E+00	2.26E-02
		Cs-134	<1.76E-02	0.00E+00	1.76E-02
		Cs-137	<1.55E-02	0.00E+00	1.55E-02
		Be-7	<1.19E-01	0.00E+00	1.19E-01
		K-40	4.77E-01	1.82E-01	1.77E-01
462016	10/31/2017 - 11/7/2017	I-131	<2.17E-02	0.00E+00	2.17E-02
		Cs-134	<1.76E-02	0.00E+00	1.76E-02
		Cs-137	<1.55E-02	0.00E+00	1.55E-02
		Be-7	<1.03E-01	0.00E+00	1.03E-01
		K-40	5.09E-01	1.77E-01	1.56E-01



ROBINSON Radiological Environmental Monitoring Analysis Report - 2017 (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
462661	11/7/2017 - 11/14/2017	I-131	<1.93E-02	0.00E+00	1.93E-02
		Cs-134	<2.02E-02	0.00E+00	2.02E-02
		Cs-137	<1.48E-02	0.00E+00	1.48E-02
		Be-7	<1.27E-01	0.00E+00	1.27E-01
		K-40	5.32E-01	1.89E-01	1.76E-01
463144	11/14/2017 - 11/21/2017	I-131	<3.68E-02	0.00E+00	3.68E-02
		Cs-134	<1.74E-02	0.00E+00	1.74E-02
		Cs-137	<1.53E-02	0.00E+00	1.53E-02
		Be-7	<1.20E-01	0.00E+00	1.20E-01
		K-40	4.55E-01	2.14E-01	2.80E-01
463553	11/21/2017 - 11/28/2017	I-131	<1.94E-02	0.00E+00	1.94E-02
		Cs-134	<1.57E-02	0.00E+00	1.57E-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	4.11E-01	1.55E-01	1.27E-01
464195	11/28/2017 - 12/5/2017	I-131	<2.37E-02	0.00E+00	2.37E-02
		Cs-134	<1.60E-02	0.00E+00	1.60E-02
		Cs-137	<1.48E-02	0.00E+00	1.48E-02
		Be-7	<1.18E-01	0.00E+00	1.18E-01
		K-40	6.04E-01	1.79E-01	3.34E-02
464758	12/5/2017 - 12/12/2017	I-131	<2.91E-02	0.00E+00	2.91E-02
		Cs-134	<1.77E-02	0.00E+00	1.77E-02
		Cs-137	<1.69E-02	0.00E+00	1.69E-02
		Be-7	<1.27E-01	0.00E+00	1.27E-01
		K-40	5.33E-01	1.66E-01	3.28E-02
465018	12/12/2017 - 12/19/2017	I-131	<4.29E-02	0.00E+00	4.29E-02
		Cs-134	<1.99E-02	0.00E+00	1.99E-02
		Cs-137	<1.83E-02	0.00E+00	1.83E-02
		Be-7	<1.18E-01	0.00E+00	1.18E-01
		K-40	4.09E-01	1.48E-01	3.47E-02
465253	12/19/2017 - 12/26/2017	I-131	<3.34E-02	0.00E+00	3.34E-02
		Cs-134	<1.71E-02	0.00E+00	1.71E-02
		Cs-137	<1.45E-02	0.00E+00	1.45E-02
		Be-7	<1.16E-01	0.00E+00	1.16E-01
		K-40	4.01E-01	1.49E-01	1.14E-01
465685	12/26/2017 - 1/2/2018	I-131	<3.80E-02	0.00E+00	3.80E-02
		Cs-134	<1.99E-02	0.00E+00	1.99E-02
		Cs-137	<1.69E-02	0.00E+00	1.69E-02
		Be-7	<1.24E-01	0.00E+00	1.24E-01
		K-40	5.26E-01	1.87E-01	1.72E-01

Sample Point 2 [INDICATOR - S @ 0.2 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
431873	12/28/2016 - 1/3/2017	I-131	<9.68E-03	0.00E+00	9.68E-03
		Cs-134	<7.05E-03	0.00E+00	7.05E-03
		Cs-137	<9.39E-03	0.00E+00	9.39E-03
		Be-7	<6.41E-02	0.00E+00	6.41E-02
		K-40	4.13E-01	1.52E-01	1.18E-01
432270	1/3/2017 - 1/10/2017	I-131	<9.66E-03	0.00E+00	9.66E-03
		Cs-134	<8.43E-03	0.00E+00	8.43E-03
		Cs-137	<9.14E-03	0.00E+00	9.14E-03



ROBINSON Radiological Environmental Monitoring Analysis Report - 2017 (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
432270	1/3/2017 - 1/10/2017	Be-7	<6.40E-02	0.00E+00	6.40E-02
		K-40	2.67E-01	1.38E-01	1.58E-01
432958	1/10/2017 - 1/16/2017	I-131	<8.08E-03	0.00E+00	8.08E-03
		Cs-134	<8.74E-03	0.00E+00	8.74E-03
		Cs-137	<9.66E-03	0.00E+00	9.66E-03
		Be-7	<6.99E-02	0.00E+00	6.99E-02
		K-40	4.80E-01	1.69E-01	1.35E-01
433353	1/16/2017 - 1/23/2017	I-131	<1.19E-02	0.00E+00	1.19E-02
		Cs-134	<5.67E-03	0.00E+00	5.67E-03
		Cs-137	<9.83E-03	0.00E+00	9.83E-03
		Be-7	<5.58E-02	0.00E+00	5.58E-02
		K-40	4.47E-01	1.47E-01	3.03E-02
433773	1/23/2017 - 1/30/2017	I-131	<9.28E-03	0.00E+00	9.28E-03
		Cs-134	<7.42E-03	0.00E+00	7.42E-03
		Cs-137	<9.81E-03	0.00E+00	9.81E-03
		Be-7	<8.12E-02	0.00E+00	8.12E-02
		K-40	4.37E-01	1.46E-01	3.04E-02
434515	1/30/2017 - 2/6/2017	I-131	<6.75E-03	0.00E+00	6.75E-03
		Cs-134	<7.87E-03	0.00E+00	7.87E-03
		Cs-137	<8.08E-03	0.00E+00	8.08E-03
		Be-7	<3.75E-02	0.00E+00	3.75E-02
		K-40	5.58E-01	1.74E-01	1.33E-01
435163	2/6/2017 - 2/13/2017	I-131	<1.02E-02	0.00E+00	1.02E-02
		Cs-134	<6.15E-03	0.00E+00	6.15E-03
		Cs-137	<5.90E-03	0.00E+00	5.90E-03
		Be-7	<6.99E-02	0.00E+00	6.99E-02
		K-40	5.00E-01	1.75E-01	1.66E-01
435859	2/13/2017 - 2/20/2017	I-131	<7.55E-03	0.00E+00	7.55E-03
		Cs-134	<6.46E-03	0.00E+00	6.46E-03
		Cs-137	<8.03E-03	0.00E+00	8.03E-03
		Be-7	<5.95E-02	0.00E+00	5.95E-02
		K-40	<2.48E-01	0.00E+00	2.48E-01
436312	2/20/2017 - 2/28/2017	I-131	<8.78E-03	0.00E+00	8.78E-03
		Cs-134	<5.43E-03	0.00E+00	5.43E-03
		Cs-137	<8.15E-03	0.00E+00	8.15E-03
		Be-7	<4.07E-02	0.00E+00	4.07E-02
		K-40	2.39E-01	1.07E-01	1.06E-01
436770	2/28/2017 - 3/6/2017	I-131	<1.61E-02	0.00E+00	1.61E-02
		Cs-134	<8.39E-03	0.00E+00	8.39E-03
		Cs-137	<9.74E-03	0.00E+00	9.74E-03
		Be-7	<4.52E-02	0.00E+00	4.52E-02
		K-40	<2.53E-01	0.00E+00	2.53E-01
437647	3/6/2017 - 3/14/2017	I-131	<9.04E-03	0.00E+00	9.04E-03
		Cs-134	<6.69E-03	0.00E+00	6.69E-03
		Cs-137	<6.66E-03	0.00E+00	6.66E-03
		Be-7	<6.30E-02	0.00E+00	6.30E-02
		K-40	2.17E-01	9.27E-02	2.56E-02
438351	3/14/2017 - 3/20/2017	I-131	<1.05E-02	0.00E+00	1.05E-02



ROBINSON Radiological Environmental Monitoring Analysis Report - 2017 (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
438351	3/14/2017 - 3/20/2017	Cs-134	<9.42E-03	0.00E+00	9.42E-03
		Cs-137	<1.06E-02	0.00E+00	1.06E-02
		Be-7	<7.31E-02	0.00E+00	7.31E-02
		K-40	1.75E-01	1.14E-01	1.44E-01
438857	3/20/2017 - 3/27/2017	I-131	<7.50E-03	0.00E+00	7.50E-03
		Cs-134	<5.23E-03	0.00E+00	5.23E-03
		Cs-137	<9.56E-03	0.00E+00	9.56E-03
		Be-7	<4.27E-02	0.00E+00	4.27E-02
		K-40	<2.38E-01	0.00E+00	2.38E-01
439251	3/27/2017 - 4/3/2017	I-131	<7.98E-03	0.00E+00	7.98E-03
		Cs-134	<6.41E-03	0.00E+00	6.41E-03
		Cs-137	<1.01E-02	0.00E+00	1.01E-02
		Be-7	<5.21E-02	0.00E+00	5.21E-02
		K-40	1.15E-01	9.05E-02	1.23E-01
440065	4/3/2017 - 4/10/2017	I-131	<9.04E-03	0.00E+00	9.04E-03
		Cs-134	<6.83E-03	0.00E+00	6.83E-03
		Cs-137	<9.03E-03	0.00E+00	9.03E-03
		Be-7	<4.72E-02	0.00E+00	4.72E-02
		K-40	1.76E-01	8.67E-02	2.80E-02
440648	4/10/2017 - 4/17/2017	I-131	<8.15E-03	0.00E+00	8.15E-03
		Cs-134	<8.06E-03	0.00E+00	8.06E-03
		Cs-137	<9.02E-03	0.00E+00	9.02E-03
		Be-7	<5.92E-02	0.00E+00	5.92E-02
		K-40	5.07E-01	1.59E-01	1.06E-01
441465	4/17/2017 - 4/24/2017	I-131	<9.25E-03	0.00E+00	9.25E-03
		Cs-134	<7.95E-03	0.00E+00	7.95E-03
		Cs-137	<8.89E-03	0.00E+00	8.89E-03
		Be-7	<6.50E-02	0.00E+00	6.50E-02
		K-40	4.69E-01	1.51E-01	1.02E-01
441916	4/24/2017 - 5/1/2017	I-131	<1.13E-02	0.00E+00	1.13E-02
		Cs-134	<6.35E-03	0.00E+00	6.35E-03
		Cs-137	<7.23E-03	0.00E+00	7.23E-03
		Be-7	<6.88E-02	0.00E+00	6.88E-02
		K-40	3.61E-01	1.27E-01	2.80E-02
442385	5/1/2017 - 5/8/2017	I-131	<1.30E-02	0.00E+00	1.30E-02
		Cs-134	<9.13E-03	0.00E+00	9.13E-03
		Cs-137	<5.00E-03	0.00E+00	5.00E-03
		Be-7	<4.79E-02	0.00E+00	4.79E-02
		K-40	3.57E-01	1.42E-01	1.20E-01
442917	5/8/2017 - 5/15/2017	I-131	<1.01E-02	0.00E+00	1.01E-02
		Cs-134	<7.53E-03	0.00E+00	7.53E-03
		Cs-137	<7.72E-03	0.00E+00	7.72E-03
		Be-7	<7.01E-02	0.00E+00	7.01E-02
		K-40	3.84E-01	1.29E-01	2.74E-02
443358	5/15/2017 - 5/22/2017	I-131	<7.38E-03	0.00E+00	7.38E-03
		Cs-134	<8.78E-03	0.00E+00	8.78E-03
		Cs-137	<9.03E-03	0.00E+00	9.03E-03
		Be-7	<6.56E-02	0.00E+00	6.56E-02
		K-40	3.72E-01	1.47E-01	1.46E-01



ROBINSON Radiological Environmental Monitoring Analysis Report - 2017 (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
443912	5/22/2017 - 5/30/2017	I-131	<1.06E-02	0.00E+00	1.06E-02
		Cs-134	<7.27E-03	0.00E+00	7.27E-03
		Cs-137	<6.51E-03	0.00E+00	6.51E-03
		Be-7	<4.69E-02	0.00E+00	4.69E-02
		K-40	3.72E-01	1.22E-01	2.52E-02
444317	5/30/2017 - 6/5/2017	I-131	<1.13E-02	0.00E+00	1.13E-02
		Cs-134	<1.01E-02	0.00E+00	1.01E-02
		Cs-137	<9.44E-03	0.00E+00	9.44E-03
		Be-7	<4.37E-02	0.00E+00	4.37E-02
		K-40	2.51E-01	1.27E-01	1.25E-01
445382	6/5/2017 - 6/12/2017	I-131	<1.13E-02	0.00E+00	1.13E-02
		Cs-134	<8.51E-03	0.00E+00	8.51E-03
		Cs-137	<1.14E-02	0.00E+00	1.14E-02
		Be-7	<4.74E-02	0.00E+00	4.74E-02
		K-40	2.14E-01	1.04E-01	9.35E-02
446379	6/12/2017 - 6/18/2017	I-131	<1.20E-02	0.00E+00	1.20E-02
		Cs-134	<7.04E-03	0.00E+00	7.04E-03
		Cs-137	<1.41E-02	0.00E+00	1.41E-02
		Be-7	<7.52E-02	0.00E+00	7.52E-02
		K-40	<2.49E-01	0.00E+00	2.49E-01
446879	6/18/2017 - 6/26/2017	I-131	<7.77E-03	0.00E+00	7.77E-03
		Cs-134	<5.54E-03	0.00E+00	5.54E-03
		Cs-137	<7.40E-03	0.00E+00	7.40E-03
		Be-7	<6.50E-02	0.00E+00	6.50E-02
		K-40	1.21E-01	8.17E-02	1.02E-01
447261	6/26/2017 - 7/3/2017	I-131	<9.08E-03	0.00E+00	9.08E-03
		Cs-134	<7.38E-03	0.00E+00	7.38E-03
		Cs-137	<9.66E-03	0.00E+00	9.66E-03
		Be-7	<5.74E-02	0.00E+00	5.74E-02
		K-40	2.09E-01	9.52E-02	2.83E-02
447864	7/3/2017 - 7/10/2017	I-131	<1.02E-02	0.00E+00	1.02E-02
		Cs-134	<6.71E-03	0.00E+00	6.71E-03
		Cs-137	<8.97E-03	0.00E+00	8.97E-03
		Be-7	<6.48E-02	0.00E+00	6.48E-02
		K-40	2.14E-01	9.75E-02	2.90E-02
448329	7/10/2017 - 7/18/2017	I-131	<7.38E-03	0.00E+00	7.38E-03
		Cs-134	<7.22E-03	0.00E+00	7.22E-03
		Cs-137	<8.08E-03	0.00E+00	8.08E-03
		Be-7	<4.25E-02	0.00E+00	4.25E-02
		K-40	1.78E-01	1.02E-01	1.23E-01
448947	7/18/2017 - 7/24/2017	I-131	<1.07E-02	0.00E+00	1.07E-02
		Cs-134	<8.14E-03	0.00E+00	8.14E-03
		Cs-137	<1.08E-02	0.00E+00	1.08E-02
		Be-7	<5.67E-02	0.00E+00	5.67E-02
		K-40	<2.40E-01	0.00E+00	2.40E-01
449274	7/24/2017 - 7/31/2017	I-131	<4.02E-02	0.00E+00	4.02E-02
		Cs-134	<1.71E-02	0.00E+00	1.71E-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	<5.39E-01	0.00E+00	5.39E-01



ROBINSON Radiological Environmental Monitoring Analysis Report - 2017 (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
449993	7/31/2017 - 8/8/2017	I-131	<1.55E-02	0.00E+00	1.55E-02
		Cs-134	<9.36E-03	0.00E+00	9.36E-03
		Cs-137	<1.30E-02	0.00E+00	1.30E-02
		Be-7	<7.54E-02	0.00E+00	7.54E-02
		K-40	<3.89E-01	0.00E+00	3.89E-01
450265	8/8/2017 - 8/15/2017	I-131	<1.43E-02	0.00E+00	1.43E-02
		Cs-134	<8.59E-03	0.00E+00	8.59E-03
		Cs-137	<1.33E-02	0.00E+00	1.33E-02
		Be-7	<8.19E-02	0.00E+00	8.19E-02
		K-40	2.18E-01	1.29E-01	1.36E-01
450780	8/15/2017 - 8/22/2017	I-131	<9.70E-03	0.00E+00	9.70E-03
		Cs-134	<4.63E-03	0.00E+00	4.63E-03
		Cs-137	<9.81E-03	0.00E+00	9.81E-03
		Be-7	<5.69E-02	0.00E+00	5.69E-02
		K-40	1.56E-01	8.18E-02	2.83E-02
451242	8/22/2017 - 8/29/2017	I-131	<8.47E-03	0.00E+00	8.47E-03
		Cs-134	<7.01E-03	0.00E+00	7.01E-03
		Cs-137	<9.10E-03	0.00E+00	9.10E-03
		Be-7	<4.11E-02	0.00E+00	4.11E-02
		K-40	2.23E-01	1.03E-01	1.01E-01
451584	8/29/2017 - 9/5/2017	I-131	<8.52E-03	0.00E+00	8.52E-03
		Cs-134	<4.73E-03	0.00E+00	4.73E-03
		Cs-137	<5.20E-03	0.00E+00	5.20E-03
		Be-7	<3.40E-02	0.00E+00	3.40E-02
		K-40	1.46E-01	5.85E-02	5.14E-02
452426	9/5/2017 - 9/12/2017	I-131	<6.22E-03	0.00E+00	6.22E-03
		Cs-134	<6.58E-03	0.00E+00	6.58E-03
		Cs-137	<7.26E-03	0.00E+00	7.26E-03
		Be-7	<2.48E-02	0.00E+00	2.48E-02
		K-40	<2.08E-01	0.00E+00	2.08E-01
452840	9/12/2017 - 9/18/2017	I-131	<9.27E-03	0.00E+00	9.27E-03
		Cs-134	<7.17E-03	0.00E+00	7.17E-03
		Cs-137	<7.77E-03	0.00E+00	7.77E-03
		Be-7	<5.06E-02	0.00E+00	5.06E-02
		K-40	1.63E-01	8.28E-02	2.76E-02
453497	9/18/2017 - 9/26/2017	I-131	<6.15E-03	0.00E+00	6.15E-03
		Cs-134	<3.89E-03	0.00E+00	3.89E-03
		Cs-137	<5.30E-03	0.00E+00	5.30E-03
		Be-7	<4.32E-02	0.00E+00	4.32E-02
		K-40	8.59E-02	6.40E-02	8.28E-02
454281	9/26/2017 - 10/2/2017	I-131	<1.87E-02	0.00E+00	1.87E-02
		Cs-134	<1.51E-02	0.00E+00	1.51E-02
		Cs-137	<1.41E-02	0.00E+00	1.41E-02
		Be-7	<9.84E-02	0.00E+00	9.84E-02
		K-40	<2.63E-01	0.00E+00	2.63E-01
455133	10/2/2017 - 10/9/2017	I-131	<1.34E-02	0.00E+00	1.34E-02
		Cs-134	<1.34E-02	0.00E+00	1.34E-02
		Cs-137	<1.05E-02	0.00E+00	1.05E-02
		Be-7	<7.88E-02	0.00E+00	7.88E-02
		K-40	2.48E-01	1.22E-01	1.40E-01



ROBINSON Radiological Environmental Monitoring Analysis Report - 2017 (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
455467	10/9/2017 - 10/17/2017	I-131	<1.42E-02	0.00E+00	1.42E-02
		Cs-134	<1.28E-02	0.00E+00	1.28E-02
		Cs-137	<1.45E-02	0.00E+00	1.45E-02
		Be-7	<9.06E-02	0.00E+00	9.06E-02
		K-40	2.53E-01	1.24E-01	1.42E-01
456095	10/17/2017 - 10/24/2017	I-131	<2.40E-02	0.00E+00	2.40E-02
		Cs-134	<1.84E-02	0.00E+00	1.84E-02
		Cs-137	<1.76E-02	0.00E+00	1.76E-02
		Be-7	<1.23E-01	0.00E+00	1.23E-01
		K-40	5.15E-01	2.10E-01	2.44E-01
461460	10/24/2017 - 10/31/2017	I-131	<2.02E-02	0.00E+00	2.02E-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	<1.12E-01	0.00E+00	1.12E-01
		K-40	<3.99E-01	0.00E+00	3.99E-01
462017	10/31/2017 - 11/7/2017	I-131	<2.44E-02	0.00E+00	2.44E-02
		Cs-134	<1.27E-02	0.00E+00	1.27E-02
		Cs-137	<2.18E-02	0.00E+00	2.18E-02
		Be-7	<1.32E-01	0.00E+00	1.32E-01
		K-40	4.43E-01	1.66E-01	1.30E-01
462662	11/7/2017 - 11/14/2017	I-131	<2.05E-02	0.00E+00	2.05E-02
		Cs-134	<1.89E-02	0.00E+00	1.89E-02
		Cs-137	<1.85E-02	0.00E+00	1.85E-02
		Be-7	<1.16E-01	0.00E+00	1.16E-01
		K-40	4.95E-01	2.06E-01	2.42E-01
463145	11/14/2017 - 11/21/2017	I-131	<3.17E-02	0.00E+00	3.17E-02
		Cs-134	<1.33E-02	0.00E+00	1.33E-02
		Cs-137	<1.32E-02	0.00E+00	1.32E-02
		Be-7	<1.11E-01	0.00E+00	1.11E-01
		K-40	4.81E-01	1.77E-01	1.59E-01
463554	11/21/2017 - 11/28/2017	I-131	<2.42E-02	0.00E+00	2.42E-02
		Cs-134	<1.88E-02	0.00E+00	1.88E-02
		Cs-137	<1.75E-02	0.00E+00	1.75E-02
		Be-7	<1.36E-01	0.00E+00	1.36E-01
		K-40	4.29E-01	1.92E-01	2.30E-01
464196	11/28/2017 - 12/5/2017	I-131	<2.46E-02	0.00E+00	2.46E-02
		Cs-134	<1.83E-02	0.00E+00	1.83E-02
		Cs-137	<1.45E-02	0.00E+00	1.45E-02
		Be-7	<8.95E-02	0.00E+00	8.95E-02
		K-40	5.24E-01	2.02E-01	2.21E-01
464759	12/5/2017 - 12/12/2017	I-131	<3.37E-02	0.00E+00	3.37E-02
		Cs-134	<1.42E-02	0.00E+00	1.42E-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	6.13E-01	2.14E-01	2.19E-01
465019	12/12/2017 - 12/19/2017	I-131	<4.46E-02	0.00E+00	4.46E-02
		Cs-134	<1.43E-02	0.00E+00	1.43E-02
		Cs-137	<1.63E-02	0.00E+00	1.63E-02
		Be-7	<1.46E-01	0.00E+00	1.46E-01
		K-40	5.07E-01	1.98E-01	2.13E-01



ROBINSON Radiological Environmental Monitoring Analysis Report - 2017 (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
465254	12/19/2017 - 12/26/2017	I-131	<3.53E-02	0.00E+00	3.53E-02
		Cs-134	<1.85E-02	0.00E+00	1.85E-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	4.42E-01	2.00E-01	2.44E-01
465686	12/26/2017 - 1/2/2018	I-131	<4.00E-02	0.00E+00	4.00E-02
		Cs-134	<1.79E-02	0.00E+00	1.79E-02
		Cs-137	<1.85E-02	0.00E+00	1.85E-02
		Be-7	<1.36E-01	0.00E+00	1.36E-01
		K-40	5.94E-01	1.91E-01	1.41E-01

Sample Point 3 [INDICATOR - N @ 0.5 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
431874	12/28/2016 - 1/3/2017	I-131	<1.68E-02	0.00E+00	1.68E-02
		Cs-134	<8.18E-03	0.00E+00	8.18E-03
		Cs-137	<1.19E-02	0.00E+00	1.19E-02
		Be-7	<6.87E-02	0.00E+00	6.87E-02
		K-40	4.18E-01	2.10E-01	2.63E-01
432271	1/3/2017 - 1/10/2017	I-131	<1.05E-02	0.00E+00	1.05E-02
		Cs-134	<8.66E-03	0.00E+00	8.66E-03
		Cs-137	<1.34E-02	0.00E+00	1.34E-02
		Be-7	<6.64E-02	0.00E+00	6.64E-02
		K-40	3.75E-01	1.33E-01	2.99E-02
432959	1/10/2017 - 1/16/2017	I-131	<1.46E-02	0.00E+00	1.46E-02
		Cs-134	<1.18E-02	0.00E+00	1.18E-02
		Cs-137	<8.15E-03	0.00E+00	8.15E-03
		Be-7	<8.88E-02	0.00E+00	8.88E-02
		K-40	4.79E-01	1.93E-01	1.76E-01
433354	1/16/2017 - 1/23/2017	I-131	<8.82E-03	0.00E+00	8.82E-03
		Cs-134	<6.91E-03	0.00E+00	6.91E-03
		Cs-137	<8.57E-03	0.00E+00	8.57E-03
		Be-7	<4.93E-02	0.00E+00	4.93E-02
		K-40	2.41E-01	1.15E-01	1.23E-01
433774	1/23/2017 - 1/30/2017	I-131	<1.10E-02	0.00E+00	1.10E-02
		Cs-134	<8.37E-03	0.00E+00	8.37E-03
		Cs-137	<8.19E-03	0.00E+00	8.19E-03
		Be-7	<3.80E-02	0.00E+00	3.80E-02
		K-40	3.49E-01	1.39E-01	1.26E-01
434516	1/30/2017 - 2/6/2017	I-131	<1.24E-02	0.00E+00	1.24E-02
		Cs-134	<7.69E-03	0.00E+00	7.69E-03
		Cs-137	<1.01E-02	0.00E+00	1.01E-02
		Be-7	<6.89E-02	0.00E+00	6.89E-02
		K-40	5.41E-01	1.87E-01	1.88E-01
435164	2/6/2017 - 2/13/2017	I-131	<1.08E-02	0.00E+00	1.08E-02
		Cs-134	<8.19E-03	0.00E+00	8.19E-03
		Cs-137	<6.90E-03	0.00E+00	6.90E-03
		Be-7	<6.31E-02	0.00E+00	6.31E-02
		K-40	4.35E-01	1.55E-01	1.27E-01
435860	2/13/2017 - 2/20/2017	I-131	<6.19E-03	0.00E+00	6.19E-03
		Cs-134	<4.78E-03	0.00E+00	4.78E-03
		Cs-137	<5.07E-03	0.00E+00	5.07E-03



ROBINSON Radiological Environmental Monitoring Analysis Report - 2017 (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
435860	2/13/2017 - 2/20/2017	Be-7	<3.62E-02	0.00E+00	3.62E-02
		K-40	1.70E-01	7.31E-02	7.90E-02
436313	2/20/2017 - 2/28/2017	I-131	<8.23E-03	0.00E+00	8.23E-03
		Cs-134	<8.10E-03	0.00E+00	8.10E-03
		Cs-137	<9.25E-03	0.00E+00	9.25E-03
		Be-7	<2.67E-02	0.00E+00	2.67E-02
		K-40	2.19E-01	1.04E-01	1.01E-01
436771	2/28/2017 - 3/6/2017	I-131	<1.81E-02	0.00E+00	1.81E-02
		Cs-134	<1.05E-02	0.00E+00	1.05E-02
		Cs-137	<1.05E-02	0.00E+00	1.05E-02
		Be-7	<6.24E-02	0.00E+00	6.24E-02
		K-40	2.91E-01	1.55E-01	1.88E-01
437648	3/6/2017 - 3/14/2017	I-131	<6.60E-03	0.00E+00	6.60E-03
		Cs-134	<8.20E-03	0.00E+00	8.20E-03
		Cs-137	<8.28E-03	0.00E+00	8.28E-03
		Be-7	<4.14E-02	0.00E+00	4.14E-02
		K-40	2.25E-01	1.01E-01	9.33E-02
438352	3/14/2017 - 3/20/2017	I-131	<7.92E-03	0.00E+00	7.92E-03
		Cs-134	<5.06E-03	0.00E+00	5.06E-03
		Cs-137	<8.86E-03	0.00E+00	8.86E-03
		Be-7	<5.77E-02	0.00E+00	5.77E-02
		K-40	<2.11E-01	0.00E+00	2.11E-01
438858	3/20/2017 - 3/27/2017	I-131	<7.13E-03	0.00E+00	7.13E-03
		Cs-134	<6.44E-03	0.00E+00	6.44E-03
		Cs-137	<1.06E-02	0.00E+00	1.06E-02
		Be-7	<6.51E-02	0.00E+00	6.51E-02
		K-40	<2.04E-01	0.00E+00	2.04E-01
439252	3/27/2017 - 4/3/2017	I-131	<9.25E-03	0.00E+00	9.25E-03
		Cs-134	<5.83E-03	0.00E+00	5.83E-03
		Cs-137	<1.01E-02	0.00E+00	1.01E-02
		Be-7	<5.72E-02	0.00E+00	5.72E-02
		K-40	1.22E-01	1.19E-01	1.82E-01
440066	4/3/2017 - 4/10/2017	I-131	<9.88E-03	0.00E+00	9.88E-03
		Cs-134	<9.96E-03	0.00E+00	9.96E-03
		Cs-137	<1.11E-02	0.00E+00	1.11E-02
		Be-7	<4.43E-02	0.00E+00	4.43E-02
		K-40	1.34E-01	9.44E-02	1.19E-01
440649	4/10/2017 - 4/17/2017	I-131	<9.01E-03	0.00E+00	9.01E-03
		Cs-134	<7.16E-03	0.00E+00	7.16E-03
		Cs-137	<8.90E-03	0.00E+00	8.90E-03
		Be-7	<6.52E-02	0.00E+00	6.52E-02
		K-40	3.65E-01	1.41E-01	1.21E-01
441466	4/17/2017 - 4/24/2017	I-131	<1.08E-02	0.00E+00	1.08E-02
		Cs-134	<5.84E-03	0.00E+00	5.84E-03
		Cs-137	<8.51E-03	0.00E+00	8.51E-03
		Be-7	<4.76E-02	0.00E+00	4.76E-02
		K-40	5.10E-01	1.60E-01	1.06E-01
441917	4/24/2017 - 5/1/2017	I-131	<1.02E-02	0.00E+00	1.02E-02



ROBINSON Radiological Environmental Monitoring Analysis Report - 2017 (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
441917	4/24/2017 - 5/1/2017	Cs-134	<8.11E-03	0.00E+00	8.11E-03
		Cs-137	<6.84E-03	0.00E+00	6.84E-03
		Be-7	<4.97E-02	0.00E+00	4.97E-02
		K-40	4.33E-01	1.52E-01	1.19E-01
442386	5/1/2017 - 5/8/2017	I-131	<1.21E-02	0.00E+00	1.21E-02
		Cs-134	<6.79E-03	0.00E+00	6.79E-03
		Cs-137	<6.43E-03	0.00E+00	6.43E-03
		Be-7	<6.24E-02	0.00E+00	6.24E-02
		K-40	4.40E-01	1.40E-01	2.77E-02
442918	5/8/2017 - 5/15/2017	I-131	<6.23E-03	0.00E+00	6.23E-03
		Cs-134	<7.02E-03	0.00E+00	7.02E-03
		Cs-137	<7.98E-03	0.00E+00	7.98E-03
		Be-7	<4.04E-02	0.00E+00	4.04E-02
		K-40	3.83E-01	1.45E-01	1.17E-01
443359	5/15/2017 - 5/22/2017	I-131	<1.17E-02	0.00E+00	1.17E-02
		Cs-134	<8.25E-03	0.00E+00	8.25E-03
		Cs-137	<1.03E-02	0.00E+00	1.03E-02
		Be-7	<6.66E-02	0.00E+00	6.66E-02
		K-40	4.19E-01	1.60E-01	1.56E-01
443913	5/22/2017 - 5/30/2017	I-131	<1.08E-02	0.00E+00	1.08E-02
		Cs-134	<1.20E-03	0.00E+00	1.20E-03
		Cs-137	<9.57E-03	0.00E+00	9.57E-03
		Be-7	<5.40E-02	0.00E+00	5.40E-02
		K-40	4.44E-01	1.47E-01	1.21E-01
444318	5/30/2017 - 6/5/2017	I-131	<1.43E-02	0.00E+00	1.43E-02
		Cs-134	<1.01E-02	0.00E+00	1.01E-02
		Cs-137	<1.32E-02	0.00E+00	1.32E-02
		Be-7	<8.54E-02	0.00E+00	8.54E-02
		K-40	<2.76E-01	0.00E+00	2.76E-01
445383	6/5/2017 - 6/12/2017	I-131	<1.05E-02	0.00E+00	1.05E-02
		Cs-134	<5.94E-03	0.00E+00	5.94E-03
		Cs-137	<9.22E-03	0.00E+00	9.22E-03
		Be-7	<4.78E-02	0.00E+00	4.78E-02
		K-40	<2.49E-01	0.00E+00	2.49E-01
446380	6/12/2017 - 6/18/2017	I-131	<8.00E-03	0.00E+00	8.00E-03
		Cs-134	<7.00E-03	0.00E+00	7.00E-03
		Cs-137	<8.69E-03	0.00E+00	8.69E-03
		Be-7	<5.67E-02	0.00E+00	5.67E-02
		K-40	<2.13E-01	0.00E+00	2.13E-01
446880	6/18/2017 - 6/26/2017	I-131	<9.53E-03	0.00E+00	9.53E-03
		Cs-134	<1.00E-02	0.00E+00	1.00E-02
		Cs-137	<1.20E-02	0.00E+00	1.20E-02
		Be-7	<6.85E-02	0.00E+00	6.85E-02
		K-40	2.09E-01	1.14E-01	1.25E-01
447262	6/26/2017 - 7/3/2017	I-131	<9.96E-03	0.00E+00	9.96E-03
		Cs-134	<8.63E-03	0.00E+00	8.63E-03
		Cs-137	<1.07E-02	0.00E+00	1.07E-02
		Be-7	<5.56E-02	0.00E+00	5.56E-02
		K-40	<2.41E-01	0.00E+00	2.41E-01



ROBINSON Radiological Environmental Monitoring Analysis Report - 2017 (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
447865	7/3/2017 - 7/10/2017	I-131	<8.28E-03	0.00E+00	8.28E-03
		Cs-134	<7.72E-03	0.00E+00	7.72E-03
		Cs-137	<9.59E-03	0.00E+00	9.59E-03
		Be-7	<5.76E-02	0.00E+00	5.76E-02
		K-40	<2.31E-01	0.00E+00	2.31E-01
448330	7/10/2017 - 7/18/2017	I-131	<1.04E-02	0.00E+00	1.04E-02
		Cs-134	<6.37E-03	0.00E+00	6.37E-03
		Cs-137	<9.79E-03	0.00E+00	9.79E-03
		Be-7	<3.94E-02	0.00E+00	3.94E-02
		K-40	<2.16E-01	0.00E+00	2.16E-01
448948	7/18/2017 - 7/24/2017	I-131	<1.18E-02	0.00E+00	1.18E-02
		Cs-134	<8.61E-03	0.00E+00	8.61E-03
		Cs-137	<9.12E-03	0.00E+00	9.12E-03
		Be-7	<6.99E-02	0.00E+00	6.99E-02
		K-40	<2.35E-01	0.00E+00	2.35E-01
449275	7/24/2017 - 7/31/2017	I-131	<1.63E-02	0.00E+00	1.63E-02
		Cs-134	<9.50E-03	0.00E+00	9.50E-03
		Cs-137	<6.72E-03	0.00E+00	6.72E-03
		Be-7	<5.74E-02	0.00E+00	5.74E-02
		K-40	<2.72E-01	0.00E+00	2.72E-01
449994	7/31/2017 - 8/8/2017	I-131	<1.04E-02	0.00E+00	1.04E-02
		Cs-134	<6.04E-03	0.00E+00	6.04E-03
		Cs-137	<7.50E-03	0.00E+00	7.50E-03
		Be-7	<5.24E-02	0.00E+00	5.24E-02
		K-40	<1.88E-01	0.00E+00	1.88E-01
450266	8/8/2017 - 8/15/2017	I-131	<1.11E-02	0.00E+00	1.11E-02
		Cs-134	<7.34E-03	0.00E+00	7.34E-03
		Cs-137	<1.16E-02	0.00E+00	1.16E-02
		Be-7	<7.19E-02	0.00E+00	7.19E-02
		K-40	3.44E-01	1.55E-01	1.68E-01
450781	8/15/2017 - 8/22/2017	I-131	<1.10E-02	0.00E+00	1.10E-02
		Cs-134	<7.24E-03	0.00E+00	7.24E-03
		Cs-137	<9.01E-03	0.00E+00	9.01E-03
		Be-7	<6.47E-02	0.00E+00	6.47E-02
		K-40	<2.51E-01	0.00E+00	2.51E-01
451243	8/22/2017 - 8/29/2017	I-131	<9.15E-03	0.00E+00	9.15E-03
		Cs-134	<7.03E-03	0.00E+00	7.03E-03
		Cs-137	<7.63E-03	0.00E+00	7.63E-03
		Be-7	<4.95E-02	0.00E+00	4.95E-02
		K-40	<2.06E-01	0.00E+00	2.06E-01
451585	8/29/2017 - 9/5/2017	I-131	<1.21E-02	0.00E+00	1.21E-02
		Cs-134	<6.53E-03	0.00E+00	6.53E-03
		Cs-137	<1.12E-02	0.00E+00	1.12E-02
		Be-7	<6.76E-02	0.00E+00	6.76E-02
		K-40	<2.31E-01	0.00E+00	2.31E-01
452427	9/5/2017 - 9/12/2017	I-131	<1.18E-02	0.00E+00	1.18E-02
		Cs-134	<4.46E-03	0.00E+00	4.46E-03
		Cs-137	<7.83E-03	0.00E+00	7.83E-03
		Be-7	<4.17E-02	0.00E+00	4.17E-02
		K-40	2.79E-01	1.28E-01	1.36E-01



ROBINSON Radiological Environmental Monitoring Analysis Report - 2017 (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
452841	9/12/2017 - 9/18/2017	I-131	<9.47E-03	0.00E+00	9.47E-03
		Cs-134	<1.02E-02	0.00E+00	1.02E-02
		Cs-137	<1.16E-02	0.00E+00	1.16E-02
		Be-7	<6.36E-02	0.00E+00	6.36E-02
		K-40	3.14E-01	1.48E-01	1.62E-01
453498	9/18/2017 - 9/26/2017	I-131	<6.62E-03	0.00E+00	6.62E-03
		Cs-134	<9.42E-03	0.00E+00	9.42E-03
		Cs-137	<9.13E-03	0.00E+00	9.13E-03
		Be-7	<4.78E-02	0.00E+00	4.78E-02
		K-40	<2.24E-01	0.00E+00	2.24E-01
454282	9/26/2017 - 10/2/2017	I-131	<2.26E-02	0.00E+00	2.26E-02
		Cs-134	<1.48E-02	0.00E+00	1.48E-02
		Cs-137	<1.93E-02	0.00E+00	1.93E-02
		Be-7	<1.15E-01	0.00E+00	1.15E-01
		K-40	4.47E-01	1.74E-01	1.51E-01
455134	10/2/2017 - 10/9/2017	I-131	<1.90E-02	0.00E+00	1.90E-02
		Cs-134	<1.66E-02	0.00E+00	1.66E-02
		Cs-137	<1.49E-02	0.00E+00	1.49E-02
		Be-7	<1.18E-01	0.00E+00	1.18E-01
		K-40	4.21E-01	1.79E-01	2.06E-01
455468	10/9/2017 - 10/17/2017	I-131	<1.48E-02	0.00E+00	1.48E-02
		Cs-134	<1.27E-02	0.00E+00	1.27E-02
		Cs-137	<1.69E-02	0.00E+00	1.69E-02
		Be-7	<8.49E-02	0.00E+00	8.49E-02
		K-40	2.67E-01	1.22E-01	1.25E-01
456096	10/17/2017 - 10/24/2017	I-131	<2.08E-02	0.00E+00	2.08E-02
		Cs-134	<1.65E-02	0.00E+00	1.65E-02
		Cs-137	<1.90E-02	0.00E+00	1.90E-02
		Be-7	<9.37E-02	0.00E+00	9.37E-02
		K-40	<3.41E-01	0.00E+00	3.41E-01
461461	10/24/2017 - 10/31/2017	I-131	<2.98E-02	0.00E+00	2.98E-02
		Cs-134	<1.60E-02	0.00E+00	1.60E-02
		Cs-137	<1.71E-02	0.00E+00	1.71E-02
		Be-7	<1.32E-01	0.00E+00	1.32E-01
		K-40	3.88E-01	2.01E-01	2.67E-01
462018	10/31/2017 - 11/7/2017	I-131	<1.93E-02	0.00E+00	1.93E-02
		Cs-134	<1.76E-02	0.00E+00	1.76E-02
		Cs-137	<1.60E-02	0.00E+00	1.60E-02
		Be-7	<1.18E-01	0.00E+00	1.18E-01
		K-40	5.53E-01	1.92E-01	1.82E-01
462663	11/7/2017 - 11/14/2017	I-131	<1.98E-02	0.00E+00	1.98E-02
		Cs-134	<1.26E-02	0.00E+00	1.26E-02
		Cs-137	<1.44E-02	0.00E+00	1.44E-02
		Be-7	<1.23E-01	0.00E+00	1.23E-01
		K-40	5.08E-01	2.05E-01	2.40E-01
463146	11/14/2017 - 11/21/2017	I-131	<3.51E-02	0.00E+00	3.51E-02
		Cs-134	<1.41E-02	0.00E+00	1.41E-02
		Cs-137	<1.20E-02	0.00E+00	1.20E-02
		Be-7	<1.31E-01	0.00E+00	1.31E-01
		K-40	3.61E-01	1.42E-01	1.11E-01



ROBINSON Radiological Environmental Monitoring Analysis Report - 2017 (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
463555	11/21/2017 - 11/28/2017	I-131	<2.25E-02	0.00E+00	2.25E-02
		Cs-134	<1.48E-02	0.00E+00	1.48E-02
		Cs-137	<1.44E-02	0.00E+00	1.44E-02
		Be-7	<9.95E-02	0.00E+00	9.95E-02
		K-40	4.36E-01	1.51E-01	3.38E-02
464197	11/28/2017 - 12/5/2017	I-131	<2.25E-02	0.00E+00	2.25E-02
		Cs-134	<1.87E-02	0.00E+00	1.87E-02
		Cs-137	<1.68E-02	0.00E+00	1.68E-02
		Be-7	<1.23E-01	0.00E+00	1.23E-01
		K-40	5.03E-01	1.76E-01	1.51E-01
464760	12/5/2017 - 12/12/2017	I-131	<2.82E-02	0.00E+00	2.82E-02
		Cs-134	<1.72E-02	0.00E+00	1.72E-02
		Cs-137	<1.79E-02	0.00E+00	1.79E-02
		Be-7	<1.33E-01	0.00E+00	1.33E-01
		K-40	<3.92E-01	0.00E+00	3.92E-01
465020	12/12/2017 - 12/19/2017	I-131	<3.74E-02	0.00E+00	3.74E-02
		Cs-134	<1.46E-02	0.00E+00	1.46E-02
		Cs-137	<1.88E-02	0.00E+00	1.88E-02
		Be-7	<1.14E-01	0.00E+00	1.14E-01
		K-40	4.54E-01	1.96E-01	2.33E-01
465255	12/19/2017 - 12/26/2017	I-131	<3.19E-02	0.00E+00	3.19E-02
		Cs-134	<1.28E-02	0.00E+00	1.28E-02
		Cs-137	<1.54E-02	0.00E+00	1.54E-02
		Be-7	<1.03E-01	0.00E+00	1.03E-01
		K-40	5.10E-01	1.91E-01	2.00E-01
465687	12/26/2017 - 1/2/2018	I-131	<3.50E-02	0.00E+00	3.50E-02
		Cs-134	<1.64E-02	0.00E+00	1.64E-02
		Cs-137	<1.72E-02	0.00E+00	1.72E-02
		Be-7	<1.21E-01	0.00E+00	1.21E-01
		K-40	3.39E-01	1.82E-01	2.42E-01

Sample Point 4 [INDICATOR - ESE @ 0.4 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
431875	12/28/2016 - 1/3/2017	I-131	<1.39E-02	0.00E+00	1.39E-02
		Cs-134	<7.89E-03	0.00E+00	7.89E-03
		Cs-137	<7.38E-03	0.00E+00	7.38E-03
		Be-7	<5.53E-02	0.00E+00	5.53E-02
		K-40	4.28E-01	1.52E-01	1.28E-01
432272	1/3/2017 - 1/10/2017	I-131	<4.43E-03	0.00E+00	4.43E-03
		Cs-134	<6.83E-03	0.00E+00	6.83E-03
		Cs-137	<9.03E-03	0.00E+00	9.03E-03
		Be-7	<6.86E-02	0.00E+00	6.86E-02
		K-40	3.71E-01	1.28E-01	2.79E-02
432960	1/10/2017 - 1/16/2017	I-131	<6.77E-03	0.00E+00	6.77E-03
		Cs-134	<6.01E-03	0.00E+00	6.01E-03
		Cs-137	<9.86E-03	0.00E+00	9.86E-03
		Be-7	<6.37E-02	0.00E+00	6.37E-02
		K-40	3.10E-01	1.39E-01	1.51E-01
433355	1/16/2017 - 1/23/2017	I-131	<1.05E-02	0.00E+00	1.05E-02
		Cs-134	<5.72E-03	0.00E+00	5.72E-03
		Cs-137	<7.75E-03	0.00E+00	7.75E-03



ROBINSON Radiological Environmental Monitoring Analysis Report - 2017 (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
433355	1/16/2017 - 1/23/2017	Be-7	<5.09E-02	0.00E+00	5.09E-02
		K-40	4.27E-01	1.37E-01	2.75E-02
433775	1/23/2017 - 1/30/2017	I-131	<1.07E-02	0.00E+00	1.07E-02
		Cs-134	<7.52E-03	0.00E+00	7.52E-03
		Cs-137	<5.76E-03	0.00E+00	5.76E-03
		Be-7	<5.40E-02	0.00E+00	5.40E-02
		K-40	4.28E-01	1.48E-01	1.07E-01
434517	1/30/2017 - 2/6/2017	I-131	<1.09E-02	0.00E+00	1.09E-02
		Cs-134	<8.56E-03	0.00E+00	8.56E-03
		Cs-137	<8.79E-03	0.00E+00	8.79E-03
		Be-7	<5.43E-02	0.00E+00	5.43E-02
		K-40	3.93E-01	1.38E-01	1.03E-01
435165	2/6/2017 - 2/13/2017	I-131	<9.77E-03	0.00E+00	9.77E-03
		Cs-134	<5.82E-03	0.00E+00	5.82E-03
		Cs-137	<7.21E-03	0.00E+00	7.21E-03
		Be-7	<3.70E-02	0.00E+00	3.70E-02
		K-40	4.04E-01	1.50E-01	1.37E-01
435861	2/13/2017 - 2/20/2017	I-131	<6.93E-03	0.00E+00	6.93E-03
		Cs-134	<8.16E-03	0.00E+00	8.16E-03
		Cs-137	<1.01E-02	0.00E+00	1.01E-02
		Be-7	<2.91E-02	0.00E+00	2.91E-02
		K-40	<1.96E-01	0.00E+00	1.96E-01
436314	2/20/2017 - 2/28/2017	I-131	<9.61E-03	0.00E+00	9.61E-03
		Cs-134	<5.38E-03	0.00E+00	5.38E-03
		Cs-137	<8.47E-03	0.00E+00	8.47E-03
		Be-7	<4.42E-02	0.00E+00	4.42E-02
		K-40	1.62E-01	8.32E-02	7.74E-02
436772	2/28/2017 - 3/6/2017	I-131	<1.38E-02	0.00E+00	1.38E-02
		Cs-134	<6.67E-03	0.00E+00	6.67E-03
		Cs-137	<1.03E-02	0.00E+00	1.03E-02
		Be-7	<7.29E-02	0.00E+00	7.29E-02
		K-40	2.29E-01	1.16E-01	1.10E-01
437649	3/6/2017 - 3/14/2017	I-131	<1.04E-02	0.00E+00	1.04E-02
		Cs-134	<5.60E-03	0.00E+00	5.60E-03
		Cs-137	<9.18E-03	0.00E+00	9.18E-03
		Be-7	<2.79E-02	0.00E+00	2.79E-02
		K-40	<2.02E-01	0.00E+00	2.02E-01
438353	3/14/2017 - 3/20/2017	I-131	<1.03E-02	0.00E+00	1.03E-02
		Cs-134	<7.31E-03	0.00E+00	7.31E-03
		Cs-137	<1.13E-02	0.00E+00	1.13E-02
		Be-7	<5.27E-02	0.00E+00	5.27E-02
		K-40	2.03E-01	1.03E-01	3.45E-02
438859	3/20/2017 - 3/27/2017	I-131	<9.84E-03	0.00E+00	9.84E-03
		Cs-134	<6.53E-03	0.00E+00	6.53E-03
		Cs-137	<7.43E-03	0.00E+00	7.43E-03
		Be-7	<7.29E-02	0.00E+00	7.29E-02
		K-40	<2.10E-01	0.00E+00	2.10E-01
439253	3/27/2017 - 4/3/2017	I-131	<7.14E-03	0.00E+00	7.14E-03



ROBINSON Radiological Environmental Monitoring Analysis Report - 2017 (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
439253	3/27/2017 - 4/3/2017	Cs-134	<5.27E-03	0.00E+00	5.27E-03
		Cs-137	<1.01E-02	0.00E+00	1.01E-02
		Be-7	<5.55E-02	0.00E+00	5.55E-02
		K-40	<2.00E-01	0.00E+00	2.00E-01
440067	4/3/2017 - 4/10/2017	I-131	<9.41E-03	0.00E+00	9.41E-03
		Cs-134	<6.68E-03	0.00E+00	6.68E-03
		Cs-137	<9.79E-03	0.00E+00	9.79E-03
		Be-7	<5.79E-02	0.00E+00	5.79E-02
		K-40	2.01E-01	9.18E-02	2.73E-02
440650	4/10/2017 - 4/17/2017	I-131	<7.90E-03	0.00E+00	7.90E-03
		Cs-134	<5.60E-03	0.00E+00	5.60E-03
		Cs-137	<8.68E-03	0.00E+00	8.68E-03
		Be-7	<5.00E-02	0.00E+00	5.00E-02
		K-40	4.65E-01	1.51E-01	1.10E-01
441467	4/17/2017 - 4/24/2017	I-131	<7.88E-03	0.00E+00	7.88E-03
		Cs-134	<7.41E-03	0.00E+00	7.41E-03
		Cs-137	<6.96E-03	0.00E+00	6.96E-03
		Be-7	<6.36E-02	0.00E+00	6.36E-02
		K-40	4.55E-01	1.50E-01	1.13E-01
441918	4/24/2017 - 5/1/2017	I-131	<9.25E-03	0.00E+00	9.25E-03
		Cs-134	<6.81E-03	0.00E+00	6.81E-03
		Cs-137	<1.12E-02	0.00E+00	1.12E-02
		Be-7	<5.94E-02	0.00E+00	5.94E-02
		K-40	3.42E-01	1.43E-01	1.44E-01
442387	5/1/2017 - 5/8/2017	I-131	<8.64E-03	0.00E+00	8.64E-03
		Cs-134	<6.86E-03	0.00E+00	6.86E-03
		Cs-137	<8.52E-03	0.00E+00	8.52E-03
		Be-7	<4.57E-02	0.00E+00	4.57E-02
		K-40	3.73E-01	1.41E-01	1.13E-01
442919	5/8/2017 - 5/15/2017	I-131	<7.79E-03	0.00E+00	7.79E-03
		Cs-134	<7.68E-03	0.00E+00	7.68E-03
		Cs-137	<9.95E-03	0.00E+00	9.95E-03
		Be-7	<7.58E-02	0.00E+00	7.58E-02
		K-40	2.50E-01	1.28E-01	1.54E-01
443360	5/15/2017 - 5/22/2017	I-131	<8.69E-03	0.00E+00	8.69E-03
		Cs-134	<7.59E-03	0.00E+00	7.59E-03
		Cs-137	<6.79E-03	0.00E+00	6.79E-03
		Be-7	<5.24E-02	0.00E+00	5.24E-02
		K-40	3.98E-01	1.37E-01	1.02E-01
443914	5/22/2017 - 5/30/2017	I-131	<6.08E-03	0.00E+00	6.08E-03
		Cs-134	<7.05E-03	0.00E+00	7.05E-03
		Cs-137	<6.30E-03	0.00E+00	6.30E-03
		Be-7	<3.74E-02	0.00E+00	3.74E-02
		K-40	3.71E-01	1.27E-01	8.92E-02
444319	5/30/2017 - 6/5/2017	I-131	<1.02E-02	0.00E+00	1.02E-02
		Cs-134	<6.79E-03	0.00E+00	6.79E-03
		Cs-137	<9.91E-03	0.00E+00	9.91E-03
		Be-7	<5.45E-02	0.00E+00	5.45E-02
		K-40	1.66E-01	8.96E-02	3.21E-02



ROBINSON Radiological Environmental Monitoring Analysis Report - 2017 (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
445384	6/5/2017 - 6/12/2017	I-131	<8.36E-03	0.00E+00	8.36E-03
		Cs-134	<6.62E-03	0.00E+00	6.62E-03
		Cs-137	<9.24E-03	0.00E+00	9.24E-03
		Be-7	<4.08E-02	0.00E+00	4.08E-02
		K-40	1.74E-01	9.44E-02	9.55E-02
446381	6/12/2017 - 6/18/2017	I-131	<1.99E-03	0.00E+00	1.99E-03
		Cs-134	<5.17E-03	0.00E+00	5.17E-03
		Cs-137	<1.20E-02	0.00E+00	1.20E-02
		Be-7	<8.28E-02	0.00E+00	8.28E-02
		K-40	<2.67E-01	0.00E+00	2.67E-01
446881	6/18/2017 - 6/26/2017	I-131	<6.74E-03	0.00E+00	6.74E-03
		Cs-134	<6.04E-03	0.00E+00	6.04E-03
		Cs-137	<7.04E-03	0.00E+00	7.04E-03
		Be-7	<5.93E-02	0.00E+00	5.93E-02
		K-40	<1.64E-01	0.00E+00	1.64E-01
447263	6/26/2017 - 7/3/2017	I-131	<7.91E-03	0.00E+00	7.91E-03
		Cs-134	<6.14E-03	0.00E+00	6.14E-03
		Cs-137	<9.20E-03	0.00E+00	9.20E-03
		Be-7	<3.60E-02	0.00E+00	3.60E-02
		K-40	<2.00E-01	0.00E+00	2.00E-01
447866	7/3/2017 - 7/10/2017	I-131	<7.74E-03	0.00E+00	7.74E-03
		Cs-134	<4.99E-03	0.00E+00	4.99E-03
		Cs-137	<7.54E-03	0.00E+00	7.54E-03
		Be-7	<5.62E-02	0.00E+00	5.62E-02
		K-40	1.79E-01	9.71E-02	1.02E-01
448331	7/10/2017 - 7/18/2017	I-131	<8.05E-03	0.00E+00	8.05E-03
		Cs-134	<6.83E-03	0.00E+00	6.83E-03
		Cs-137	<8.07E-03	0.00E+00	8.07E-03
		Be-7	<4.40E-02	0.00E+00	4.40E-02
		K-40	1.56E-01	8.72E-02	9.62E-02
448949	7/18/2017 - 7/24/2017	I-131	<1.26E-02	0.00E+00	1.26E-02
		Cs-134	<5.88E-03	0.00E+00	5.88E-03
		Cs-137	<7.29E-03	0.00E+00	7.29E-03
		Be-7	<5.87E-02	0.00E+00	5.87E-02
		K-40	<2.02E-01	0.00E+00	2.02E-01
449276	7/24/2017 - 7/31/2017	I-131	<1.20E-02	0.00E+00	1.20E-02
		Cs-134	<7.71E-03	0.00E+00	7.71E-03
		Cs-137	<9.51E-03	0.00E+00	9.51E-03
		Be-7	<4.16E-02	0.00E+00	4.16E-02
		K-40	<2.15E-01	0.00E+00	2.15E-01
449995	7/31/2017 - 8/8/2017	I-131	<9.38E-03	0.00E+00	9.38E-03
		Cs-134	<6.14E-03	0.00E+00	6.14E-03
		Cs-137	<9.21E-03	0.00E+00	9.21E-03
		Be-7	<4.35E-02	0.00E+00	4.35E-02
		K-40	1.96E-01	9.11E-02	7.99E-02
450267	8/8/2017 - 8/15/2017	I-131	<7.21E-03	0.00E+00	7.21E-03
		Cs-134	<5.99E-03	0.00E+00	5.99E-03
		Cs-137	<7.44E-03	0.00E+00	7.44E-03
		Be-7	<3.70E-02	0.00E+00	3.70E-02
		K-40	<1.71E-01	0.00E+00	1.71E-01



ROBINSON Radiological Environmental Monitoring Analysis Report - 2017 (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
450782	8/15/2017 - 8/22/2017	I-131	<8.71E-03	0.00E+00	8.71E-03
		Cs-134	<7.04E-03	0.00E+00	7.04E-03
		Cs-137	<8.21E-03	0.00E+00	8.21E-03
		Be-7	<5.37E-02	0.00E+00	5.37E-02
		K-40	<2.45E-01	0.00E+00	2.45E-01
451244	8/22/2017 - 8/29/2017	I-131	<8.64E-03	0.00E+00	8.64E-03
		Cs-134	<5.90E-03	0.00E+00	5.90E-03
		Cs-137	<9.31E-03	0.00E+00	9.31E-03
		Be-7	<5.52E-02	0.00E+00	5.52E-02
		K-40	1.61E-01	8.62E-02	7.98E-02
451586	8/29/2017 - 9/5/2017	I-131	<1.76E-02	0.00E+00	1.76E-02
		Cs-134	<7.59E-03	0.00E+00	7.59E-03
		Cs-137	<7.38E-03	0.00E+00	7.38E-03
		Be-7	<4.24E-02	0.00E+00	4.24E-02
		K-40	<2.17E-01	0.00E+00	2.17E-01
452428	9/5/2017 - 9/12/2017	I-131	<7.53E-03	0.00E+00	7.53E-03
		Cs-134	<6.89E-03	0.00E+00	6.89E-03
		Cs-137	<9.92E-03	0.00E+00	9.92E-03
		Be-7	<4.02E-02	0.00E+00	4.02E-02
		K-40	<2.02E-01	0.00E+00	2.02E-01
452842	9/12/2017 - 9/18/2017	I-131	<7.88E-03	0.00E+00	7.88E-03
		Cs-134	<7.53E-03	0.00E+00	7.53E-03
		Cs-137	<1.20E-02	0.00E+00	1.20E-02
		Be-7	<6.12E-02	0.00E+00	6.12E-02
		K-40	8.82E-02	1.03E-01	1.64E-01
453499	9/18/2017 - 9/26/2017	I-131	<7.42E-03	0.00E+00	7.42E-03
		Cs-134	<6.40E-03	0.00E+00	6.40E-03
		Cs-137	<7.89E-03	0.00E+00	7.89E-03
		Be-7	<4.27E-02	0.00E+00	4.27E-02
		K-40	1.81E-01	8.88E-02	8.58E-02
454283	9/26/2017 - 10/2/2017	I-131	<2.02E-02	0.00E+00	2.02E-02
		Cs-134	<1.09E-02	0.00E+00	1.09E-02
		Cs-137	<1.96E-02	0.00E+00	1.96E-02
		Be-7	<1.03E-01	0.00E+00	1.03E-01
		K-40	3.31E-01	1.73E-01	2.15E-01
455135	10/2/2017 - 10/9/2017	I-131	<1.97E-02	0.00E+00	1.97E-02
		Cs-134	<1.02E-02	0.00E+00	1.02E-02
		Cs-137	<1.23E-02	0.00E+00	1.23E-02
		Be-7	<1.02E-01	0.00E+00	1.02E-01
		K-40	<3.24E-01	0.00E+00	3.24E-01
455469	10/9/2017 - 10/17/2017	I-131	<1.51E-02	0.00E+00	1.51E-02
		Cs-134	<1.33E-02	0.00E+00	1.33E-02
		Cs-137	<1.33E-02	0.00E+00	1.33E-02
		Be-7	<6.75E-02	0.00E+00	6.75E-02
		K-40	<2.96E-01	0.00E+00	2.96E-01
456097	10/17/2017 - 10/24/2017	I-131	<2.25E-02	0.00E+00	2.25E-02
		Cs-134	<1.67E-02	0.00E+00	1.67E-02
		Cs-137	<1.84E-02	0.00E+00	1.84E-02
		Be-7	<1.02E-01	0.00E+00	1.02E-01
		K-40	4.02E-01	1.62E-01	1.56E-01



ROBINSON Radiological Environmental Monitoring Analysis Report - 2017 (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
461462	10/24/2017 - 10/31/2017	I-131	<3.29E-02	0.00E+00	3.29E-02
		Cs-134	<1.46E-02	0.00E+00	1.46E-02
		Cs-137	<1.41E-02	0.00E+00	1.41E-02
		Be-7	<1.23E-01	0.00E+00	1.23E-01
		K-40	4.16E-01	1.69E-01	1.73E-01
462019	10/31/2017 - 11/7/2017	I-131	<2.43E-02	0.00E+00	2.43E-02
		Cs-134	<1.33E-02	0.00E+00	1.33E-02
		Cs-137	<1.89E-02	0.00E+00	1.89E-02
		Be-7	<1.20E-01	0.00E+00	1.20E-01
		K-40	4.24E-01	2.00E-01	2.51E-01
462664	11/7/2017 - 11/14/2017	I-131	<2.23E-02	0.00E+00	2.23E-02
		Cs-134	<1.23E-02	0.00E+00	1.23E-02
		Cs-137	<1.62E-02	0.00E+00	1.62E-02
		Be-7	<1.30E-01	0.00E+00	1.30E-01
		K-40	4.19E-01	1.60E-01	1.29E-01
463147	11/14/2017 - 11/21/2017	I-131	<3.70E-02	0.00E+00	3.70E-02
		Cs-134	<1.71E-02	0.00E+00	1.71E-02
		Cs-137	<1.88E-02	0.00E+00	1.88E-02
		Be-7	<1.12E-01	0.00E+00	1.12E-01
		K-40	5.42E-01	2.18E-01	2.57E-01
463556	11/21/2017 - 11/28/2017	I-131	<2.42E-02	0.00E+00	2.42E-02
		Cs-134	<1.58E-02	0.00E+00	1.58E-02
		Cs-137	<1.57E-02	0.00E+00	1.57E-02
		Be-7	<1.24E-01	0.00E+00	1.24E-01
		K-40	4.42E-01	1.81E-01	1.93E-01
464198	11/28/2017 - 12/5/2017	I-131	<2.25E-02	0.00E+00	2.25E-02
		Cs-134	<2.01E-02	0.00E+00	2.01E-02
		Cs-137	<1.80E-02	0.00E+00	1.80E-02
		Be-7	<1.08E-01	0.00E+00	1.08E-01
		K-40	3.53E-01	2.13E-01	3.04E-01
464761	12/5/2017 - 12/12/2017	I-131	<3.25E-02	0.00E+00	3.25E-02
		Cs-134	<1.67E-02	0.00E+00	1.67E-02
		Cs-137	<1.58E-02	0.00E+00	1.58E-02
		Be-7	<1.28E-01	0.00E+00	1.28E-01
		K-40	6.86E-01	2.07E-01	1.50E-01
465021	12/12/2017 - 12/19/2017	I-131	<4.39E-02	0.00E+00	4.39E-02
		Cs-134	<2.04E-02	0.00E+00	2.04E-02
		Cs-137	<1.47E-02	0.00E+00	1.47E-02
		Be-7	<1.35E-01	0.00E+00	1.35E-01
		K-40	4.99E-01	1.95E-01	2.07E-01
465256	12/19/2017 - 12/26/2017	I-131	<3.39E-02	0.00E+00	3.39E-02
		Cs-134	<1.59E-02	0.00E+00	1.59E-02
		Cs-137	<1.82E-02	0.00E+00	1.82E-02
		Be-7	<1.33E-01	0.00E+00	1.33E-01
		K-40	6.27E-01	1.93E-01	1.24E-01
465688	12/26/2017 - 1/2/2018	I-131	<4.38E-02	0.00E+00	4.38E-02
		Cs-134	<1.37E-02	0.00E+00	1.37E-02
		Cs-137	<1.80E-02	0.00E+00	1.80E-02
		Be-7	<1.26E-01	0.00E+00	1.26E-01
		K-40	3.05E-01	1.78E-01	2.39E-01



ROBINSON Radiological Environmental Monitoring Analysis Report - 2017 (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
431876	12/28/2016 - 1/3/2017	I-131	<1.48E-02	0.00E+00	1.48E-02
		Cs-134	<7.06E-03	0.00E+00	7.06E-03
		Cs-137	<5.40E-03	0.00E+00	5.40E-03
		Be-7	<5.97E-02	0.00E+00	5.97E-02
		K-40	3.03E-01	1.39E-01	1.59E-01
432273	1/3/2017 - 1/10/2017	I-131	<8.99E-03	0.00E+00	8.99E-03
		Cs-134	<6.85E-03	0.00E+00	6.85E-03
		Cs-137	<4.44E-03	0.00E+00	4.44E-03
		Be-7	<5.56E-02	0.00E+00	5.56E-02
		K-40	4.51E-01	1.66E-01	1.68E-01
432961	1/10/2017 - 1/16/2017	I-131	<7.92E-03	0.00E+00	7.92E-03
		Cs-134	<8.33E-03	0.00E+00	8.33E-03
		Cs-137	<5.76E-03	0.00E+00	5.76E-03
		Be-7	<5.64E-02	0.00E+00	5.64E-02
		K-40	4.80E-01	1.50E-01	2.89E-02
433356	1/16/2017 - 1/23/2017	I-131	<8.39E-03	0.00E+00	8.39E-03
		Cs-134	<7.24E-03	0.00E+00	7.24E-03
		Cs-137	<8.36E-03	0.00E+00	8.36E-03
		Be-7	<6.60E-02	0.00E+00	6.60E-02
		K-40	4.88E-01	1.57E-01	9.95E-02
433776	1/23/2017 - 1/30/2017	I-131	<7.64E-03	0.00E+00	7.64E-03
		Cs-134	<8.31E-03	0.00E+00	8.31E-03
		Cs-137	<6.37E-03	0.00E+00	6.37E-03
		Be-7	<5.52E-02	0.00E+00	5.52E-02
		K-40	2.91E-01	1.32E-01	1.43E-01
434518	1/30/2017 - 2/6/2017	I-131	<7.22E-03	0.00E+00	7.22E-03
		Cs-134	<8.68E-03	0.00E+00	8.68E-03
		Cs-137	<9.42E-03	0.00E+00	9.42E-03
		Be-7	<3.61E-02	0.00E+00	3.61E-02
		K-40	4.19E-01	1.36E-01	2.77E-02
435166	2/6/2017 - 2/13/2017	I-131	<9.06E-03	0.00E+00	9.06E-03
		Cs-134	<7.21E-03	0.00E+00	7.21E-03
		Cs-137	<9.93E-03	0.00E+00	9.93E-03
		Be-7	<4.24E-02	0.00E+00	4.24E-02
		K-40	3.92E-01	1.39E-01	1.02E-01
435862	2/13/2017 - 2/20/2017	I-131	<1.04E-02	0.00E+00	1.04E-02
		Cs-134	<7.37E-03	0.00E+00	7.37E-03
		Cs-137	<8.60E-03	0.00E+00	8.60E-03
		Be-7	<5.18E-02	0.00E+00	5.18E-02
		K-40	<2.36E-01	0.00E+00	2.36E-01
436315	2/20/2017 - 2/28/2017	I-131	<7.39E-03	0.00E+00	7.39E-03
		Cs-134	<6.70E-03	0.00E+00	6.70E-03
		Cs-137	<9.13E-03	0.00E+00	9.13E-03
		Be-7	<2.55E-02	0.00E+00	2.55E-02
		K-40	<2.12E-01	0.00E+00	2.12E-01
436773	2/28/2017 - 3/6/2017	I-131	<1.73E-02	0.00E+00	1.73E-02
		Cs-134	<8.45E-03	0.00E+00	8.45E-03
		Cs-137	<1.35E-02	0.00E+00	1.35E-02
		Be-7	<6.43E-02	0.00E+00	6.43E-02
		K-40	1.25E-01	9.22E-02	1.13E-01



ROBINSON Radiological Environmental Monitoring Analysis Report - 2017 (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
437650	3/6/2017 - 3/14/2017	I-131	<7.83E-03	0.00E+00	7.83E-03
		Cs-134	<4.33E-03	0.00E+00	4.33E-03
		Cs-137	<9.18E-03	0.00E+00	9.18E-03
		Be-7	<3.52E-02	0.00E+00	3.52E-02
		K-40	<1.97E-01	0.00E+00	1.97E-01
438354	3/14/2017 - 3/20/2017	I-131	<1.07E-02	0.00E+00	1.07E-02
		Cs-134	<6.51E-03	0.00E+00	6.51E-03
		Cs-137	<1.01E-02	0.00E+00	1.01E-02
		Be-7	<5.22E-02	0.00E+00	5.22E-02
		K-40	<1.89E-01	0.00E+00	1.89E-01
438860	3/20/2017 - 3/27/2017	I-131	<6.45E-03	0.00E+00	6.45E-03
		Cs-134	<8.34E-03	0.00E+00	8.34E-03
		Cs-137	<1.03E-02	0.00E+00	1.03E-02
		Be-7	<5.90E-02	0.00E+00	5.90E-02
		K-40	1.70E-01	1.14E-01	1.47E-01
439254	3/27/2017 - 4/3/2017	I-131	<7.04E-03	0.00E+00	7.04E-03
		Cs-134	<7.54E-03	0.00E+00	7.54E-03
		Cs-137	<1.16E-02	0.00E+00	1.16E-02
		Be-7	<6.10E-02	0.00E+00	6.10E-02
		K-40	1.31E-01	1.16E-01	1.73E-01
440068	4/3/2017 - 4/10/2017	I-131	<7.92E-03	0.00E+00	7.92E-03
		Cs-134	<5.25E-03	0.00E+00	5.25E-03
		Cs-137	<6.51E-03	0.00E+00	6.51E-03
		Be-7	<6.28E-02	0.00E+00	6.28E-02
		K-40	2.21E-01	1.08E-01	1.04E-01
440651	4/10/2017 - 4/17/2017	I-131	<8.75E-03	0.00E+00	8.75E-03
		Cs-134	<7.27E-03	0.00E+00	7.27E-03
		Cs-137	<7.21E-03	0.00E+00	7.21E-03
		Be-7	<4.74E-02	0.00E+00	4.74E-02
		K-40	2.96E-01	1.29E-01	1.30E-01
441468	4/17/2017 - 4/24/2017	I-131	<1.10E-02	0.00E+00	1.10E-02
		Cs-134	<7.90E-03	0.00E+00	7.90E-03
		Cs-137	<6.34E-03	0.00E+00	6.34E-03
		Be-7	<5.06E-02	0.00E+00	5.06E-02
		K-40	4.01E-01	1.44E-01	1.20E-01
441919	4/24/2017 - 5/1/2017	I-131	<8.68E-03	0.00E+00	8.68E-03
		Cs-134	<6.94E-03	0.00E+00	6.94E-03
		Cs-137	<1.09E-02	0.00E+00	1.09E-02
		Be-7	<5.15E-02	0.00E+00	5.15E-02
		K-40	4.69E-01	1.57E-01	1.06E-01
442388	5/1/2017 - 5/8/2017	I-131	<7.50E-03	0.00E+00	7.50E-03
		Cs-134	<7.76E-03	0.00E+00	7.76E-03
		Cs-137	<1.01E-02	0.00E+00	1.01E-02
		Be-7	<5.62E-02	0.00E+00	5.62E-02
		K-40	4.28E-01	1.39E-01	2.83E-02
442920	5/8/2017 - 5/15/2017	I-131	<1.01E-02	0.00E+00	1.01E-02
		Cs-134	<7.56E-03	0.00E+00	7.56E-03
		Cs-137	<8.21E-03	0.00E+00	8.21E-03
		Be-7	<6.79E-02	0.00E+00	6.79E-02
		K-40	5.85E-01	1.76E-01	1.25E-01



ROBINSON Radiological Environmental Monitoring Analysis Report - 2017 (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
443361	5/15/2017 - 5/22/2017	I-131	<8.10E-03	0.00E+00	8.10E-03
		Cs-134	<5.84E-03	0.00E+00	5.84E-03
		Cs-137	<8.51E-03	0.00E+00	8.51E-03
		Be-7	<5.95E-02	0.00E+00	5.95E-02
		K-40	4.25E-01	1.38E-01	2.81E-02
443915	5/22/2017 - 5/30/2017	I-131	<7.81E-03	0.00E+00	7.81E-03
		Cs-134	<5.50E-03	0.00E+00	5.50E-03
		Cs-137	<7.34E-03	0.00E+00	7.34E-03
		Be-7	<3.70E-02	0.00E+00	3.70E-02
		K-40	3.94E-01	1.24E-01	2.43E-02
444320	5/30/2017 - 6/5/2017	I-131	<9.97E-03	0.00E+00	9.97E-03
		Cs-134	<8.97E-03	0.00E+00	8.97E-03
		Cs-137	<1.50E-02	0.00E+00	1.50E-02
		Be-7	<7.61E-02	0.00E+00	7.61E-02
		K-40	<3.36E-01	0.00E+00	3.36E-01
445385	6/5/2017 - 6/12/2017	I-131	<7.54E-03	0.00E+00	7.54E-03
		Cs-134	<6.64E-03	0.00E+00	6.64E-03
		Cs-137	<1.05E-02	0.00E+00	1.05E-02
		Be-7	<5.69E-02	0.00E+00	5.69E-02
		K-40	<2.33E-01	0.00E+00	2.33E-01
446382	6/12/2017 - 6/18/2017	I-131	<1.46E-02	0.00E+00	1.46E-02
		Cs-134	<6.74E-03	0.00E+00	6.74E-03
		Cs-137	<1.02E-02	0.00E+00	1.02E-02
		Be-7	<6.11E-02	0.00E+00	6.11E-02
		K-40	<2.79E-01	0.00E+00	2.79E-01
446882	6/18/2017 - 6/26/2017	I-131	<8.75E-03	0.00E+00	8.75E-03
		Cs-134	<6.78E-03	0.00E+00	6.78E-03
		Cs-137	<8.05E-03	0.00E+00	8.05E-03
		Be-7	<2.95E-02	0.00E+00	2.95E-02
		K-40	<1.72E-01	0.00E+00	1.72E-01
447264	6/26/2017 - 7/3/2017	I-131	<7.29E-03	0.00E+00	7.29E-03
		Cs-134	<7.32E-03	0.00E+00	7.32E-03
		Cs-137	<8.53E-03	0.00E+00	8.53E-03
		Be-7	<4.83E-02	0.00E+00	4.83E-02
		K-40	<1.65E-01	0.00E+00	1.65E-01
447867	7/3/2017 - 7/10/2017	I-131	<8.03E-03	0.00E+00	8.03E-03
		Cs-134	<8.11E-03	0.00E+00	8.11E-03
		Cs-137	<1.18E-02	0.00E+00	1.18E-02
		Be-7	<6.21E-02	0.00E+00	6.21E-02
		K-40	<1.81E-01	0.00E+00	1.81E-01
448332	7/10/2017 - 7/18/2017	I-131	<7.23E-03	0.00E+00	7.23E-03
		Cs-134	<7.44E-03	0.00E+00	7.44E-03
		Cs-137	<7.48E-03	0.00E+00	7.48E-03
		Be-7	<3.76E-02	0.00E+00	3.76E-02
		K-40	1.32E-01	7.96E-02	8.62E-02
448950	7/18/2017 - 7/24/2017	I-131	<1.20E-02	0.00E+00	1.20E-02
		Cs-134	<6.97E-03	0.00E+00	6.97E-03
		Cs-137	<1.40E-02	0.00E+00	1.40E-02
		Be-7	<5.70E-02	0.00E+00	5.70E-02
		K-40	<2.57E-01	0.00E+00	2.57E-01



ROBINSON Radiological Environmental Monitoring Analysis Report - 2017 (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
449277	7/24/2017 - 7/31/2017	I-131	<1.57E-02	0.00E+00	1.57E-02
		Cs-134	<5.15E-03	0.00E+00	5.15E-03
		Cs-137	<9.38E-03	0.00E+00	9.38E-03
		Be-7	<5.02E-02	0.00E+00	5.02E-02
		K-40	1.03E-01	8.95E-02	1.28E-01
449996	7/31/2017 - 8/8/2017	I-131	<5.09E-03	0.00E+00	5.09E-03
		Cs-134	<9.18E-03	0.00E+00	9.18E-03
		Cs-137	<7.99E-03	0.00E+00	7.99E-03
		Be-7	<3.96E-02	0.00E+00	3.96E-02
		K-40	<1.98E-01	0.00E+00	1.98E-01
450268	8/8/2017 - 8/15/2017	I-131	<4.97E-03	0.00E+00	4.97E-03
		Cs-134	<5.53E-03	0.00E+00	5.53E-03
		Cs-137	<7.85E-03	0.00E+00	7.85E-03
		Be-7	<4.84E-02	0.00E+00	4.84E-02
		K-40	9.00E-02	9.08E-02	1.40E-01
450783	8/15/2017 - 8/22/2017	I-131	<7.70E-03	0.00E+00	7.70E-03
		Cs-134	<8.62E-03	0.00E+00	8.62E-03
		Cs-137	<9.36E-03	0.00E+00	9.36E-03
		Be-7	<5.79E-02	0.00E+00	5.79E-02
		K-40	<2.22E-01	0.00E+00	2.22E-01
451245	8/22/2017 - 8/29/2017	I-131	<6.13E-03	0.00E+00	6.13E-03
		Cs-134	<5.43E-03	0.00E+00	5.43E-03
		Cs-137	<6.74E-03	0.00E+00	6.74E-03
		Be-7	<6.13E-02	0.00E+00	6.13E-02
		K-40	<2.27E-01	0.00E+00	2.27E-01
451587	8/29/2017 - 9/5/2017	I-131	<1.08E-02	0.00E+00	1.08E-02
		Cs-134	<7.13E-03	0.00E+00	7.13E-03
		Cs-137	<9.31E-03	0.00E+00	9.31E-03
		Be-7	<4.40E-02	0.00E+00	4.40E-02
		K-40	2.49E-01	1.09E-01	8.68E-02
452429	9/5/2017 - 9/12/2017	I-131	<4.76E-03	0.00E+00	4.76E-03
		Cs-134	<4.76E-03	0.00E+00	4.76E-03
		Cs-137	<6.56E-03	0.00E+00	6.56E-03
		Be-7	<4.57E-02	0.00E+00	4.57E-02
		K-40	2.25E-01	9.10E-02	1.10E-01
452843	9/12/2017 - 9/18/2017	I-131	<8.45E-03	0.00E+00	8.45E-03
		Cs-134	<6.42E-03	0.00E+00	6.42E-03
		Cs-137	<8.70E-03	0.00E+00	8.70E-03
		Be-7	<6.86E-02	0.00E+00	6.86E-02
		K-40	<2.44E-01	0.00E+00	2.44E-01
453500	9/18/2017 - 9/26/2017	I-131	<8.19E-03	0.00E+00	8.19E-03
		Cs-134	<8.75E-03	0.00E+00	8.75E-03
		Cs-137	<8.86E-03	0.00E+00	8.86E-03
		Be-7	<3.38E-02	0.00E+00	3.38E-02
		K-40	<2.21E-01	0.00E+00	2.21E-01
454284	9/26/2017 - 10/2/2017	I-131	<2.10E-02	0.00E+00	2.10E-02
		Cs-134	<1.92E-02	0.00E+00	1.92E-02
		Cs-137	<2.03E-02	0.00E+00	2.03E-02
		Be-7	<1.11E-01	0.00E+00	1.11E-01
		K-40	4.00E-01	1.68E-01	1.48E-01



ROBINSON Radiological Environmental Monitoring Analysis Report - 2017 (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
455136	10/2/2017 - 10/9/2017	I-131	<1.75E-02	0.00E+00	1.75E-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	<1.08E-01	0.00E+00	1.08E-01
		K-40	3.40E-01	1.55E-01	1.50E-01
455470	10/9/2017 - 10/17/2017	I-131	<1.69E-02	0.00E+00	1.69E-02
		Cs-134	<1.33E-02	0.00E+00	1.33E-02
		Cs-137	<1.41E-02	0.00E+00	1.41E-02
		Be-7	<7.78E-02	0.00E+00	7.78E-02
		K-40	<3.23E-01	0.00E+00	3.23E-01
456098	10/17/2017 - 10/24/2017	I-131	<2.47E-02	0.00E+00	2.47E-02
		Cs-134	<1.84E-02	0.00E+00	1.84E-02
		Cs-137	<2.01E-02	0.00E+00	2.01E-02
		Be-7	<1.17E-01	0.00E+00	1.17E-01
		K-40	3.74E-01	1.49E-01	1.13E-01
461463	10/24/2017 - 10/31/2017	I-131	<2.97E-02	0.00E+00	2.97E-02
		Cs-134	<2.04E-02	0.00E+00	2.04E-02
		Cs-137	<1.74E-02	0.00E+00	1.74E-02
		Be-7	<1.50E-01	0.00E+00	1.50E-01
		K-40	<4.19E-01	0.00E+00	4.19E-01
462020	10/31/2017 - 11/7/2017	I-131	<2.07E-02	0.00E+00	2.07E-02
		Cs-134	<1.79E-02	0.00E+00	1.79E-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	6.27E-01	2.25E-01	2.39E-01
462665	11/7/2017 - 11/14/2017	I-131	<1.98E-02	0.00E+00	1.98E-02
		Cs-134	<1.35E-02	0.00E+00	1.35E-02
		Cs-137	<1.43E-02	0.00E+00	1.43E-02
		Be-7	<1.32E-01	0.00E+00	1.32E-01
		K-40	4.76E-01	1.85E-01	1.84E-01
463148	11/14/2017 - 11/21/2017	I-131	<3.82E-02	0.00E+00	3.82E-02
		Cs-134	<1.58E-02	0.00E+00	1.58E-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	5.55E-01	1.96E-01	1.83E-01
463557	11/21/2017 - 11/28/2017	I-131	<2.45E-02	0.00E+00	2.45E-02
		Cs-134	<1.65E-02	0.00E+00	1.65E-02
		Cs-137	<1.59E-02	0.00E+00	1.59E-02
		Be-7	<1.38E-01	0.00E+00	1.38E-01
		K-40	3.90E-01	1.71E-01	1.78E-01
464199	11/28/2017 - 12/5/2017	I-131	<2.73E-02	0.00E+00	2.73E-02
		Cs-134	<1.91E-02	0.00E+00	1.91E-02
		Cs-137	<1.46E-02	0.00E+00	1.46E-02
		Be-7	<1.40E-01	0.00E+00	1.40E-01
		K-40	5.92E-01	2.24E-01	2.49E-01
464762	12/5/2017 - 12/12/2017	I-131	<3.27E-02	0.00E+00	3.27E-02
		Cs-134	<1.81E-02	0.00E+00	1.81E-02
		Cs-137	<1.70E-02	0.00E+00	1.70E-02
		Be-7	<1.19E-01	0.00E+00	1.19E-01
		K-40	5.25E-01	2.14E-01	2.49E-01



ROBINSON Radiological Environmental Monitoring Analysis Report - 2017 (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
465022	12/12/2017 - 12/19/2017	I-131	<4.07E-02	0.00E+00	4.07E-02
		Cs-134	<1.16E-02	0.00E+00	1.16E-02
		Cs-137	<1.75E-02	0.00E+00	1.75E-02
		Be-7	<1.26E-01	0.00E+00	1.26E-01
		K-40	5.58E-01	2.01E-01	1.99E-01
465257	12/19/2017 - 12/26/2017	I-131	<3.71E-02	0.00E+00	3.71E-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	<1.19E-01	0.00E+00	1.19E-01
		K-40	5.04E-01	2.05E-01	2.31E-01
465689	12/26/2017 - 1/2/2018	I-131	<3.60E-02	0.00E+00	3.60E-02
		Cs-134	<1.59E-02	0.00E+00	1.59E-02
		Cs-137	<1.63E-02	0.00E+00	1.63E-02
		Be-7	<1.31E-01	0.00E+00	1.31E-01
		K-40	6.82E-01	2.09E-01	1.61E-01

Sample Point 6 [INDICATOR - SSW @ 0.2 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
431878	12/28/2016 - 1/3/2017	I-131	<1.31E-02	0.00E+00	1.31E-02
		Cs-134	<6.88E-03	0.00E+00	6.88E-03
		Cs-137	<9.76E-03	0.00E+00	9.76E-03
		Be-7	<4.76E-02	0.00E+00	4.76E-02
		K-40	2.81E-01	1.31E-01	1.38E-01
432275	1/3/2017 - 1/10/2017	I-131	<9.02E-03	0.00E+00	9.02E-03
		Cs-134	<4.89E-03	0.00E+00	4.89E-03
		Cs-137	<6.07E-03	0.00E+00	6.07E-03
		Be-7	<5.10E-02	0.00E+00	5.10E-02
		K-40	4.29E-01	1.43E-01	2.98E-02
432963	1/10/2017 - 1/16/2017	I-131	<9.16E-03	0.00E+00	9.16E-03
		Cs-134	<6.66E-03	0.00E+00	6.66E-03
		Cs-137	<1.03E-02	0.00E+00	1.03E-02
		Be-7	<4.75E-02	0.00E+00	4.75E-02
		K-40	4.12E-01	1.69E-01	1.81E-01
433358	1/16/2017 - 1/23/2017	I-131	<1.14E-02	0.00E+00	1.14E-02
		Cs-134	<9.30E-03	0.00E+00	9.30E-03
		Cs-137	<4.36E-03	0.00E+00	4.36E-03
		Be-7	<4.67E-02	0.00E+00	4.67E-02
		K-40	2.86E-01	1.21E-01	1.08E-01
433778	1/23/2017 - 1/30/2017	I-131	<9.70E-03	0.00E+00	9.70E-03
		Cs-134	<9.75E-03	0.00E+00	9.75E-03
		Cs-137	<7.47E-03	0.00E+00	7.47E-03
		Be-7	<6.86E-02	0.00E+00	6.86E-02
		K-40	4.44E-01	1.49E-01	3.17E-02
434520	1/30/2017 - 2/6/2017	I-131	<7.01E-03	0.00E+00	7.01E-03
		Cs-134	<6.87E-03	0.00E+00	6.87E-03
		Cs-137	<9.18E-03	0.00E+00	9.18E-03
		Be-7	<5.09E-02	0.00E+00	5.09E-02
		K-40	5.15E-01	1.57E-01	2.97E-02
435168	2/6/2017 - 2/13/2017	I-131	<9.39E-03	0.00E+00	9.39E-03
		Cs-134	<6.58E-03	0.00E+00	6.58E-03
		Cs-137	<8.91E-03	0.00E+00	8.91E-03



ROBINSON Radiological Environmental Monitoring Analysis Report - 2017 (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
435168	2/6/2017 - 2/13/2017	Be-7	<6.30E-02	0.00E+00	6.30E-02
		K-40	4.12E-01	1.42E-01	3.10E-02
435864	2/13/2017 - 2/20/2017	I-131	<1.05E-02	0.00E+00	1.05E-02
		Cs-134	<7.77E-03	0.00E+00	7.77E-03
		Cs-137	<8.22E-03	0.00E+00	8.22E-03
		Be-7	<5.78E-02	0.00E+00	5.78E-02
		K-40	<2.46E-01	0.00E+00	2.46E-01
436317	2/20/2017 - 2/28/2017	I-131	<9.22E-03	0.00E+00	9.22E-03
		Cs-134	<7.41E-03	0.00E+00	7.41E-03
		Cs-137	<1.13E-02	0.00E+00	1.13E-02
		Be-7	<5.00E-02	0.00E+00	5.00E-02
		K-40	1.92E-01	9.48E-02	8.36E-02
436775	2/28/2017 - 3/6/2017	I-131	<1.65E-02	0.00E+00	1.65E-02
		Cs-134	<9.90E-03	0.00E+00	9.90E-03
		Cs-137	<1.28E-02	0.00E+00	1.28E-02
		Be-7	<6.49E-02	0.00E+00	6.49E-02
		K-40	2.37E-01	1.27E-01	1.31E-01
437652	3/6/2017 - 3/14/2017	I-131	<7.71E-03	0.00E+00	7.71E-03
		Cs-134	<5.00E-03	0.00E+00	5.00E-03
		Cs-137	<7.28E-03	0.00E+00	7.28E-03
		Be-7	<5.95E-02	0.00E+00	5.95E-02
		K-40	1.81E-01	8.94E-02	8.42E-02
438356	3/14/2017 - 3/20/2017	I-131	<1.20E-02	0.00E+00	1.20E-02
		Cs-134	<8.63E-03	0.00E+00	8.63E-03
		Cs-137	<1.07E-02	0.00E+00	1.07E-02
		Be-7	<5.55E-02	0.00E+00	5.55E-02
		K-40	3.66E-01	1.37E-01	3.30E-02
438862	3/20/2017 - 3/27/2017	I-131	<1.10E-02	0.00E+00	1.10E-02
		Cs-134	<7.87E-03	0.00E+00	7.87E-03
		Cs-137	<1.03E-02	0.00E+00	1.03E-02
		Be-7	<5.98E-02	0.00E+00	5.98E-02
		K-40	2.80E-01	1.25E-01	1.15E-01
439256	3/27/2017 - 4/3/2017	I-131	<9.45E-03	0.00E+00	9.45E-03
		Cs-134	<8.56E-03	0.00E+00	8.56E-03
		Cs-137	<8.37E-03	0.00E+00	8.37E-03
		Be-7	<5.84E-02	0.00E+00	5.84E-02
		K-40	3.27E-01	1.23E-01	2.95E-02
440070	4/3/2017 - 4/10/2017	I-131	<1.10E-02	0.00E+00	1.10E-02
		Cs-134	<6.46E-03	0.00E+00	6.46E-03
		Cs-137	<1.00E-02	0.00E+00	1.00E-02
		Be-7	<5.70E-02	0.00E+00	5.70E-02
		K-40	<2.53E-01	0.00E+00	2.53E-01
440653	4/10/2017 - 4/17/2017	I-131	<9.67E-03	0.00E+00	9.67E-03
		Cs-134	<7.11E-03	0.00E+00	7.11E-03
		Cs-137	<1.01E-02	0.00E+00	1.01E-02
		Be-7	<5.29E-02	0.00E+00	5.29E-02
		K-40	3.10E-01	1.42E-01	1.51E-01
441470	4/17/2017 - 4/24/2017	I-131	<9.83E-03	0.00E+00	9.83E-03



ROBINSON Radiological Environmental Monitoring Analysis Report - 2017 (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
441470	4/17/2017 - 4/24/2017	Cs-134	<5.82E-03	0.00E+00	5.82E-03
		Cs-137	<7.22E-03	0.00E+00	7.22E-03
		Be-7	<6.26E-02	0.00E+00	6.26E-02
		K-40	4.44E-01	1.41E-01	2.80E-02
441921	4/24/2017 - 5/1/2017	I-131	<9.57E-03	0.00E+00	9.57E-03
		Cs-134	<3.74E-03	0.00E+00	3.74E-03
		Cs-137	<7.59E-03	0.00E+00	7.59E-03
		Be-7	<6.17E-02	0.00E+00	6.17E-02
		K-40	<3.14E-01	0.00E+00	3.14E-01
442390	5/1/2017 - 5/8/2017	I-131	<1.08E-02	0.00E+00	1.08E-02
		Cs-134	<1.01E-02	0.00E+00	1.01E-02
		Cs-137	<1.02E-02	0.00E+00	1.02E-02
		Be-7	<5.48E-02	0.00E+00	5.48E-02
		K-40	5.40E-01	1.68E-01	1.08E-01
442922	5/8/2017 - 5/15/2017	I-131	<9.38E-03	0.00E+00	9.38E-03
		Cs-134	<6.00E-03	0.00E+00	6.00E-03
		Cs-137	<4.57E-03	0.00E+00	4.57E-03
		Be-7	<4.35E-02	0.00E+00	4.35E-02
		K-40	4.22E-01	1.53E-01	1.41E-01
443363	5/15/2017 - 5/22/2017	I-131	<1.14E-02	0.00E+00	1.14E-02
		Cs-134	<8.70E-03	0.00E+00	8.70E-03
		Cs-137	<6.99E-03	0.00E+00	6.99E-03
		Be-7	<5.95E-02	0.00E+00	5.95E-02
		K-40	6.54E-01	1.80E-01	3.00E-02
443917	5/22/2017 - 5/30/2017	I-131	<7.64E-03	0.00E+00	7.64E-03
		Cs-134	<5.83E-03	0.00E+00	5.83E-03
		Cs-137	<7.89E-03	0.00E+00	7.89E-03
		Be-7	<5.18E-02	0.00E+00	5.18E-02
		K-40	4.80E-01	1.60E-01	1.35E-01
444322	5/30/2017 - 6/5/2017	I-131	<9.95E-03	0.00E+00	9.95E-03
		Cs-134	<1.12E-02	0.00E+00	1.12E-02
		Cs-137	<1.19E-02	0.00E+00	1.19E-02
		Be-7	<6.08E-02	0.00E+00	6.08E-02
		K-40	2.72E-01	1.44E-01	1.70E-01
445387	6/5/2017 - 6/12/2017	I-131	<1.10E-02	0.00E+00	1.10E-02
		Cs-134	<5.87E-03	0.00E+00	5.87E-03
		Cs-137	<1.52E-02	0.00E+00	1.52E-02
		Be-7	<5.73E-02	0.00E+00	5.73E-02
		K-40	1.23E-01	8.49E-02	9.46E-02
446384	6/12/2017 - 6/18/2017	I-131	<1.11E-02	0.00E+00	1.11E-02
		Cs-134	<8.59E-03	0.00E+00	8.59E-03
		Cs-137	<1.35E-02	0.00E+00	1.35E-02
		Be-7	<8.03E-02	0.00E+00	8.03E-02
		K-40	<2.49E-01	0.00E+00	2.49E-01
446884	6/18/2017 - 6/26/2017	I-131	<8.02E-03	0.00E+00	8.02E-03
		Cs-134	<5.21E-03	0.00E+00	5.21E-03
		Cs-137	<6.89E-03	0.00E+00	6.89E-03
		Be-7	<2.81E-02	0.00E+00	2.81E-02
		K-40	8.00E-02	6.31E-02	8.33E-02



ROBINSON Radiological Environmental Monitoring Analysis Report - 2017 (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
447266	6/26/2017 - 7/3/2017	I-131	<1.26E-02	0.00E+00	1.26E-02
		Cs-134	<9.15E-03	0.00E+00	9.15E-03
		Cs-137	<1.24E-02	0.00E+00	1.24E-02
		Be-7	<5.42E-02	0.00E+00	5.42E-02
		K-40	<2.45E-01	0.00E+00	2.45E-01
447869	7/3/2017 - 7/10/2017	I-131	<7.76E-03	0.00E+00	7.76E-03
		Cs-134	<8.76E-03	0.00E+00	8.76E-03
		Cs-137	<8.81E-03	0.00E+00	8.81E-03
		Be-7	<6.08E-02	0.00E+00	6.08E-02
		K-40	8.26E-02	9.32E-02	1.47E-01
448334	7/10/2017 - 7/18/2017	I-131	<1.12E-02	0.00E+00	1.12E-02
		Cs-134	<3.57E-03	0.00E+00	3.57E-03
		Cs-137	<1.17E-02	0.00E+00	1.17E-02
		Be-7	<4.24E-02	0.00E+00	4.24E-02
		K-40	1.32E-01	1.09E-01	1.59E-01
448952	7/18/2017 - 7/24/2017	I-131	<1.28E-02	0.00E+00	1.28E-02
		Cs-134	<7.57E-03	0.00E+00	7.57E-03
		Cs-137	<1.30E-02	0.00E+00	1.30E-02
		Be-7	<5.69E-02	0.00E+00	5.69E-02
		K-40	2.05E-01	1.11E-01	1.04E-01
449279	7/24/2017 - 7/31/2017	I-131	<1.56E-02	0.00E+00	1.56E-02
		Cs-134	<1.07E-02	0.00E+00	1.07E-02
		Cs-137	<9.54E-03	0.00E+00	9.54E-03
		Be-7	<4.74E-02	0.00E+00	4.74E-02
		K-40	<2.22E-01	0.00E+00	2.22E-01
449998	7/31/2017 - 8/8/2017	I-131	<7.40E-03	0.00E+00	7.40E-03
		Cs-134	<6.46E-03	0.00E+00	6.46E-03
		Cs-137	<7.13E-03	0.00E+00	7.13E-03
		Be-7	<3.54E-02	0.00E+00	3.54E-02
		K-40	<1.80E-01	0.00E+00	1.80E-01
450270	8/8/2017 - 8/15/2017	I-131	<6.84E-03	0.00E+00	6.84E-03
		Cs-134	<5.45E-03	0.00E+00	5.45E-03
		Cs-137	<8.99E-03	0.00E+00	8.99E-03
		Be-7	<4.04E-02	0.00E+00	4.04E-02
		K-40	<1.58E-01	0.00E+00	1.58E-01
450785	8/15/2017 - 8/22/2017	I-131	<7.85E-03	0.00E+00	7.85E-03
		Cs-134	<6.42E-03	0.00E+00	6.42E-03
		Cs-137	<7.97E-03	0.00E+00	7.97E-03
		Be-7	<5.18E-02	0.00E+00	5.18E-02
		K-40	2.42E-01	1.19E-01	1.28E-01
451247	8/22/2017 - 8/29/2017	I-131	<1.16E-02	0.00E+00	1.16E-02
		Cs-134	<7.15E-03	0.00E+00	7.15E-03
		Cs-137	<1.22E-02	0.00E+00	1.22E-02
		Be-7	<5.05E-02	0.00E+00	5.05E-02
		K-40	1.88E-01	1.02E-01	1.11E-01
451589	8/29/2017 - 9/5/2017	I-131	<1.09E-02	0.00E+00	1.09E-02
		Cs-134	<7.25E-03	0.00E+00	7.25E-03
		Cs-137	<4.39E-03	0.00E+00	4.39E-03
		Be-7	<5.84E-02	0.00E+00	5.84E-02
		K-40	1.71E-01	1.19E-01	1.66E-01



ROBINSON Radiological Environmental Monitoring Analysis Report - 2017 (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
452431	9/5/2017 - 9/12/2017	I-131	<6.95E-03	0.00E+00	6.95E-03
		Cs-134	<6.17E-03	0.00E+00	6.17E-03
		Cs-137	<9.75E-03	0.00E+00	9.75E-03
		Be-7	<4.10E-02	0.00E+00	4.10E-02
		K-40	1.05E-01	7.98E-02	1.03E-01
452845	9/12/2017 - 9/18/2017	I-131	<1.31E-02	0.00E+00	1.31E-02
		Cs-134	<8.85E-03	0.00E+00	8.85E-03
		Cs-137	<9.77E-03	0.00E+00	9.77E-03
		Be-7	<5.89E-02	0.00E+00	5.89E-02
		K-40	3.03E-01	1.35E-01	1.27E-01
453502	9/18/2017 - 9/26/2017	I-131	<8.01E-03	0.00E+00	8.01E-03
		Cs-134	<8.13E-03	0.00E+00	8.13E-03
		Cs-137	<9.05E-03	0.00E+00	9.05E-03
		Be-7	<5.06E-02	0.00E+00	5.06E-02
		K-40	1.36E-01	7.73E-02	7.74E-02
454286	9/26/2017 - 10/2/2017	I-131	<2.00E-02	0.00E+00	2.00E-02
		Cs-134	<1.11E-02	0.00E+00	1.11E-02
		Cs-137	<1.62E-02	0.00E+00	1.62E-02
		Be-7	<9.99E-02	0.00E+00	9.99E-02
		K-40	2.61E-01	1.75E-01	2.46E-01
455138	10/2/2017 - 10/9/2017	I-131	<1.57E-02	0.00E+00	1.57E-02
		Cs-134	<1.04E-02	0.00E+00	1.04E-02
		Cs-137	<1.34E-02	0.00E+00	1.34E-02
		Be-7	<7.48E-02	0.00E+00	7.48E-02
		K-40	3.03E-01	1.23E-01	1.02E-01
455472	10/9/2017 - 10/17/2017	I-131	<1.48E-02	0.00E+00	1.48E-02
		Cs-134	<1.47E-02	0.00E+00	1.47E-02
		Cs-137	<1.31E-02	0.00E+00	1.31E-02
		Be-7	<6.85E-02	0.00E+00	6.85E-02
		K-40	2.65E-01	1.24E-01	1.34E-01
456100	10/17/2017 - 10/24/2017	I-131	<2.18E-02	0.00E+00	2.18E-02
		Cs-134	<1.09E-02	0.00E+00	1.09E-02
		Cs-137	<1.33E-02	0.00E+00	1.33E-02
		Be-7	<1.06E-01	0.00E+00	1.06E-01
		K-40	4.60E-01	1.64E-01	1.48E-01
461465	10/24/2017 - 10/31/2017	I-131	<3.23E-02	0.00E+00	3.23E-02
		Cs-134	<1.42E-02	0.00E+00	1.42E-02
		Cs-137	<1.39E-02	0.00E+00	1.39E-02
		Be-7	<1.14E-01	0.00E+00	1.14E-01
		K-40	4.60E-01	1.70E-01	1.72E-01
462022	10/31/2017 - 11/7/2017	I-131	<2.40E-02	0.00E+00	2.40E-02
		Cs-134	<1.13E-02	0.00E+00	1.13E-02
		Cs-137	<1.38E-02	0.00E+00	1.38E-02
		Be-7	<1.20E-01	0.00E+00	1.20E-01
		K-40	3.27E-01	1.46E-01	1.54E-01
462667	11/7/2017 - 11/14/2017	I-131	<1.75E-02	0.00E+00	1.75E-02
		Cs-134	<1.43E-02	0.00E+00	1.43E-02
		Cs-137	<1.75E-02	0.00E+00	1.75E-02
		Be-7	<9.29E-02	0.00E+00	9.29E-02
		K-40	3.35E-01	1.43E-01	1.46E-01



ROBINSON Radiological Environmental Monitoring Analysis Report - 2017 (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
463150	11/14/2017 - 11/21/2017	I-131	<3.63E-02	0.00E+00	3.63E-02
		Cs-134	<1.23E-02	0.00E+00	1.23E-02
		Cs-137	<1.44E-02	0.00E+00	1.44E-02
		Be-7	<1.13E-01	0.00E+00	1.13E-01
		K-40	4.02E-01	1.48E-01	1.23E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
463559	11/21/2017 - 11/28/2017	I-131	<2.19E-02	0.00E+00	2.19E-02
		Cs-134	<1.61E-02	0.00E+00	1.61E-02
		Cs-137	<1.37E-02	0.00E+00	1.37E-02
		Be-7	<1.22E-01	0.00E+00	1.22E-01
		K-40	4.76E-01	1.93E-01	2.31E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
464201	11/28/2017 - 12/5/2017	I-131	<2.31E-02	0.00E+00	2.31E-02
		Cs-134	<1.62E-02	0.00E+00	1.62E-02
		Cs-137	<1.51E-02	0.00E+00	1.51E-02
		Be-7	<1.01E-01	0.00E+00	1.01E-01
		K-40	5.01E-01	1.55E-01	3.02E-02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
464764	12/5/2017 - 12/12/2017	I-131	<2.82E-02	0.00E+00	2.82E-02
		Cs-134	<1.55E-02	0.00E+00	1.55E-02
		Cs-137	<1.68E-02	0.00E+00	1.68E-02
		Be-7	<1.13E-01	0.00E+00	1.13E-01
		K-40	4.60E-01	1.74E-01	1.85E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
465024	12/12/2017 - 12/19/2017	I-131	<3.45E-02	0.00E+00	3.45E-02
		Cs-134	<1.24E-02	0.00E+00	1.24E-02
		Cs-137	<1.27E-02	0.00E+00	1.27E-02
		Be-7	<1.13E-01	0.00E+00	1.13E-01
		K-40	5.24E-01	1.86E-01	1.95E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
465259	12/19/2017 - 12/26/2017	I-131	<3.24E-02	0.00E+00	3.24E-02
		Cs-134	<1.46E-02	0.00E+00	1.46E-02
		Cs-137	<1.41E-02	0.00E+00	1.41E-02
		Be-7	3.52E-03	6.46E-02	1.19E-01
		K-40	4.83E-01	1.62E-01	1.28E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
465691	12/26/2017 - 1/2/2018	I-131	<2.85E-02	0.00E+00	2.85E-02
		Cs-134	<1.76E-02	0.00E+00	1.76E-02
		Cs-137	<1.28E-02	0.00E+00	1.28E-02
		Be-7	<1.25E-01	0.00E+00	1.25E-01
		K-40	4.50E-01	1.53E-01	1.15E-01

Sample Point 7 [INDICATOR - ESE @ 6.4 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
431881	12/28/2016 - 1/3/2017	I-131	<2.29E-03	0.00E+00	2.29E-03
		Cs-134	<4.79E-03	0.00E+00	4.79E-03
		Cs-137	<1.73E-03	0.00E+00	1.73E-03
		Be-7	<7.22E-02	0.00E+00	7.22E-02
		K-40	5.39E-01	1.59E-01	2.92E-02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
432278	1/3/2017 - 1/10/2017	I-131	<1.03E-02	0.00E+00	1.03E-02
		Cs-134	<4.97E-03	0.00E+00	4.97E-03
		Cs-137	<7.16E-03	0.00E+00	7.16E-03
		Be-7	<5.17E-02	0.00E+00	5.17E-02
		K-40	3.10E-01	1.38E-01	1.41E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
432966	1/10/2017 - 1/16/2017	I-131	<8.56E-03	0.00E+00	8.56E-03
		Cs-134	<6.25E-03	0.00E+00	6.25E-03
		Cs-137	<6.01E-03	0.00E+00	6.01E-03



ROBINSON Radiological Environmental Monitoring Analysis Report - 2017 (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
432966	1/10/2017 - 1/16/2017	Be-7	<6.55E-02	0.00E+00	6.55E-02
		K-40	3.69E-01	1.35E-01	8.89E-02
433361	1/16/2017 - 1/23/2017	I-131	<1.18E-02	0.00E+00	1.18E-02
		Cs-134	<9.25E-03	0.00E+00	9.25E-03
		Cs-137	<4.85E-03	0.00E+00	4.85E-03
		Be-7	<4.66E-02	0.00E+00	4.66E-02
		K-40	3.24E-01	1.41E-01	1.38E-01
433781	1/23/2017 - 1/30/2017	I-131	<1.28E-02	0.00E+00	1.28E-02
		Cs-134	<7.55E-03	0.00E+00	7.55E-03
		Cs-137	<7.16E-03	0.00E+00	7.16E-03
		Be-7	<6.15E-02	0.00E+00	6.15E-02
		K-40	3.89E-01	1.59E-01	1.67E-01
434523	1/30/2017 - 2/6/2017	I-131	<6.98E-03	0.00E+00	6.98E-03
		Cs-134	<5.14E-03	0.00E+00	5.14E-03
		Cs-137	<6.10E-03	0.00E+00	6.10E-03
		Be-7	<3.80E-02	0.00E+00	3.80E-02
		K-40	3.89E-01	1.12E-01	8.73E-02
435171	2/6/2017 - 2/13/2017	I-131	<1.08E-02	0.00E+00	1.08E-02
		Cs-134	<6.18E-03	0.00E+00	6.18E-03
		Cs-137	<6.88E-03	0.00E+00	6.88E-03
		Be-7	<6.65E-02	0.00E+00	6.65E-02
		K-40	3.48E-01	1.44E-01	1.44E-01
435867	2/13/2017 - 2/20/2017	I-131	<9.93E-03	0.00E+00	9.93E-03
		Cs-134	<7.32E-03	0.00E+00	7.32E-03
		Cs-137	<8.46E-03	0.00E+00	8.46E-03
		Be-7	<4.98E-02	0.00E+00	4.98E-02
		K-40	<2.39E-01	0.00E+00	2.39E-01
436320	2/20/2017 - 2/28/2017	I-131	<6.43E-03	0.00E+00	6.43E-03
		Cs-134	<8.35E-03	0.00E+00	8.35E-03
		Cs-137	<8.59E-03	0.00E+00	8.59E-03
		Be-7	<5.93E-02	0.00E+00	5.93E-02
		K-40	1.45E-01	9.23E-02	1.13E-01
436778	2/28/2017 - 3/6/2017	I-131	<1.31E-02	0.00E+00	1.31E-02
		Cs-134	<9.74E-03	0.00E+00	9.74E-03
		Cs-137	<1.07E-02	0.00E+00	1.07E-02
		Be-7	<6.94E-02	0.00E+00	6.94E-02
		K-40	2.34E-01	1.24E-01	1.27E-01
437655	3/6/2017 - 3/14/2017	I-131	<8.04E-03	0.00E+00	8.04E-03
		Cs-134	<4.73E-03	0.00E+00	4.73E-03
		Cs-137	<1.13E-02	0.00E+00	1.13E-02
		Be-7	<6.25E-02	0.00E+00	6.25E-02
		K-40	<1.95E-01	0.00E+00	1.95E-01
438359	3/14/2017 - 3/20/2017	I-131	<9.92E-03	0.00E+00	9.92E-03
		Cs-134	<9.51E-03	0.00E+00	9.51E-03
		Cs-137	<1.03E-02	0.00E+00	1.03E-02
		Be-7	<4.73E-02	0.00E+00	4.73E-02
		K-40	<2.90E-01	0.00E+00	2.90E-01
438865	3/20/2017 - 3/27/2017	I-131	<7.15E-03	0.00E+00	7.15E-03



ROBINSON Radiological Environmental Monitoring Analysis Report - 2017 (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
438865	3/20/2017 - 3/27/2017	Cs-134	<4.96E-03	0.00E+00	4.96E-03
		Cs-137	<9.97E-03	0.00E+00	9.97E-03
		Be-7	<5.18E-02	0.00E+00	5.18E-02
		K-40	<1.78E-01	0.00E+00	1.78E-01
439259	3/27/2017 - 4/3/2017	I-131	<1.09E-02	0.00E+00	1.09E-02
		Cs-134	<8.48E-03	0.00E+00	8.48E-03
		Cs-137	<8.42E-03	0.00E+00	8.42E-03
		Be-7	<4.23E-02	0.00E+00	4.23E-02
		K-40	<2.72E-01	0.00E+00	2.72E-01
440073	4/3/2017 - 4/10/2017	I-131	<6.91E-03	0.00E+00	6.91E-03
		Cs-134	<6.39E-03	0.00E+00	6.39E-03
		Cs-137	<1.05E-02	0.00E+00	1.05E-02
		Be-7	<7.13E-02	0.00E+00	7.13E-02
		K-40	<2.10E-01	0.00E+00	2.10E-01
440656	4/10/2017 - 4/17/2017	I-131	<9.97E-03	0.00E+00	9.97E-03
		Cs-134	<8.87E-03	0.00E+00	8.87E-03
		Cs-137	<8.67E-03	0.00E+00	8.67E-03
		Be-7	<4.63E-02	0.00E+00	4.63E-02
		K-40	<3.10E-01	0.00E+00	3.10E-01
441473	4/17/2017 - 4/24/2017	I-131	<9.01E-03	0.00E+00	9.01E-03
		Cs-134	<6.22E-03	0.00E+00	6.22E-03
		Cs-137	<5.98E-03	0.00E+00	5.98E-03
		Be-7	<6.27E-02	0.00E+00	6.27E-02
		K-40	4.84E-01	1.63E-01	1.33E-01
441924	4/24/2017 - 5/1/2017	I-131	<9.18E-03	0.00E+00	9.18E-03
		Cs-134	<8.15E-03	0.00E+00	8.15E-03
		Cs-137	<6.86E-03	0.00E+00	6.86E-03
		Be-7	<6.29E-02	0.00E+00	6.29E-02
		K-40	3.82E-01	1.34E-01	2.96E-02
442393	5/1/2017 - 5/8/2017	I-131	<6.21E-03	0.00E+00	6.21E-03
		Cs-134	<6.48E-03	0.00E+00	6.48E-03
		Cs-137	<7.22E-03	0.00E+00	7.22E-03
		Be-7	<6.14E-02	0.00E+00	6.14E-02
		K-40	4.75E-01	1.52E-01	3.06E-02
442925	5/8/2017 - 5/15/2017	I-131	<7.93E-03	0.00E+00	7.93E-03
		Cs-134	<8.14E-03	0.00E+00	8.14E-03
		Cs-137	<8.34E-03	0.00E+00	8.34E-03
		Be-7	<3.89E-02	0.00E+00	3.89E-02
		K-40	2.88E-01	1.32E-01	1.38E-01
443366	5/15/2017 - 5/22/2017	I-131	<1.00E-02	0.00E+00	1.00E-02
		Cs-134	<8.03E-03	0.00E+00	8.03E-03
		Cs-137	<6.17E-03	0.00E+00	6.17E-03
		Be-7	<6.86E-02	0.00E+00	6.86E-02
		K-40	4.11E-01	1.56E-01	1.43E-01
443920	5/22/2017 - 5/30/2017	I-131	<9.62E-03	0.00E+00	9.62E-03
		Cs-134	<4.32E-03	0.00E+00	4.32E-03
		Cs-137	<8.16E-03	0.00E+00	8.16E-03
		Be-7	<5.68E-02	0.00E+00	5.68E-02
		K-40	3.11E-01	1.42E-01	1.69E-01



ROBINSON Radiological Environmental Monitoring Analysis Report - 2017 (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
444325	5/30/2017 - 6/5/2017	I-131	<1.24E-02	0.00E+00	1.24E-02
		Cs-134	<1.17E-02	0.00E+00	1.17E-02
		Cs-137	<9.30E-03	0.00E+00	9.30E-03
		Be-7	<6.01E-02	0.00E+00	6.01E-02
		K-40	<2.58E-01	0.00E+00	2.58E-01
445390	6/5/2017 - 6/12/2017	I-131	<1.23E-02	0.00E+00	1.23E-02
		Cs-134	<9.37E-03	0.00E+00	9.37E-03
		Cs-137	<1.22E-02	0.00E+00	1.22E-02
		Be-7	<7.51E-02	0.00E+00	7.51E-02
		K-40	<2.71E-01	0.00E+00	2.71E-01
446387	6/12/2017 - 6/18/2017	I-131	<1.42E-02	0.00E+00	1.42E-02
		Cs-134	<8.01E-03	0.00E+00	8.01E-03
		Cs-137	<1.38E-02	0.00E+00	1.38E-02
		Be-7	<7.64E-02	0.00E+00	7.64E-02
		K-40	<3.13E-01	0.00E+00	3.13E-01
446887	6/18/2017 - 6/26/2017	I-131	<8.10E-03	0.00E+00	8.10E-03
		Cs-134	<6.10E-03	0.00E+00	6.10E-03
		Cs-137	<8.42E-03	0.00E+00	8.42E-03
		Be-7	<4.63E-02	0.00E+00	4.63E-02
		K-40	<1.96E-01	0.00E+00	1.96E-01
447269	6/26/2017 - 7/3/2017	I-131	<7.66E-03	0.00E+00	7.66E-03
		Cs-134	<5.70E-03	0.00E+00	5.70E-03
		Cs-137	<7.89E-03	0.00E+00	7.89E-03
		Be-7	<6.49E-02	0.00E+00	6.49E-02
		K-40	1.88E-01	9.26E-02	3.00E-02
447872	7/3/2017 - 7/10/2017	I-131	<7.36E-03	0.00E+00	7.36E-03
		Cs-134	<6.42E-03	0.00E+00	6.42E-03
		Cs-137	<1.11E-02	0.00E+00	1.11E-02
		Be-7	<6.26E-02	0.00E+00	6.26E-02
		K-40	1.25E-01	1.26E-01	1.95E-01
448337	7/10/2017 - 7/18/2017	I-131	<1.08E-02	0.00E+00	1.08E-02
		Cs-134	<7.89E-03	0.00E+00	7.89E-03
		Cs-137	<7.06E-03	0.00E+00	7.06E-03
		Be-7	<5.75E-02	0.00E+00	5.75E-02
		K-40	<1.93E-01	0.00E+00	1.93E-01
448955	7/18/2017 - 7/24/2017	I-131	<1.31E-02	0.00E+00	1.31E-02
		Cs-134	<8.87E-03	0.00E+00	8.87E-03
		Cs-137	<1.10E-02	0.00E+00	1.10E-02
		Be-7	<7.77E-02	0.00E+00	7.77E-02
		K-40	1.73E-01	1.19E-01	1.44E-01
449282	7/24/2017 - 7/31/2017	I-131	<1.93E-02	0.00E+00	1.93E-02
		Cs-134	<8.96E-03	0.00E+00	8.96E-03
		Cs-137	<1.02E-02	0.00E+00	1.02E-02
		Be-7	<7.74E-02	0.00E+00	7.74E-02
		K-40	2.99E-01	1.33E-01	3.86E-02
450001	7/31/2017 - 8/8/2017	I-131	<7.73E-03	0.00E+00	7.73E-03
		Cs-134	<6.13E-03	0.00E+00	6.13E-03
		Cs-137	<7.15E-03	0.00E+00	7.15E-03
		Be-7	<3.95E-02	0.00E+00	3.95E-02
		K-40	<1.67E-01	0.00E+00	1.67E-01



ROBINSON Radiological Environmental Monitoring Analysis Report - 2017 (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
450273	8/8/2017 - 8/15/2017	I-131	<8.98E-03	0.00E+00	8.98E-03
		Cs-134	<4.67E-03	0.00E+00	4.67E-03
		Cs-137	<8.76E-03	0.00E+00	8.76E-03
		Be-7	<4.70E-02	0.00E+00	4.70E-02
		K-40	1.30E-01	6.60E-02	2.21E-02
450788	8/15/2017 - 8/22/2017	I-131	<4.30E-03	0.00E+00	4.30E-03
		Cs-134	<5.45E-03	0.00E+00	5.45E-03
		Cs-137	<5.77E-03	0.00E+00	5.77E-03
		Be-7	<4.38E-02	0.00E+00	4.38E-02
		K-40	1.37E-01	7.92E-02	9.00E-02
451250	8/22/2017 - 8/29/2017	I-131	<6.56E-03	0.00E+00	6.56E-03
		Cs-134	<3.82E-03	0.00E+00	3.82E-03
		Cs-137	<7.69E-03	0.00E+00	7.69E-03
		Be-7	<3.75E-02	0.00E+00	3.75E-02
		K-40	<1.86E-01	0.00E+00	1.86E-01
451592	8/29/2017 - 9/5/2017	I-131	<1.09E-02	0.00E+00	1.09E-02
		Cs-134	<4.61E-03	0.00E+00	4.61E-03
		Cs-137	<7.59E-03	0.00E+00	7.59E-03
		Be-7	<3.94E-02	0.00E+00	3.94E-02
		K-40	7.38E-02	5.73E-02	7.39E-02
452434	9/5/2017 - 9/12/2017	I-131	<6.85E-03	0.00E+00	6.85E-03
		Cs-134	<4.80E-03	0.00E+00	4.80E-03
		Cs-137	<7.06E-03	0.00E+00	7.06E-03
		Be-7	<2.95E-02	0.00E+00	2.95E-02
		K-40	1.64E-01	6.98E-02	1.93E-02
452848	9/12/2017 - 9/18/2017	I-131	<6.99E-03	0.00E+00	6.99E-03
		Cs-134	<5.38E-03	0.00E+00	5.38E-03
		Cs-137	<7.10E-03	0.00E+00	7.10E-03
		Be-7	<5.15E-02	0.00E+00	5.15E-02
		K-40	1.75E-01	9.10E-02	1.02E-01
453505	9/18/2017 - 9/26/2017	I-131	<6.23E-03	0.00E+00	6.23E-03
		Cs-134	<4.23E-03	0.00E+00	4.23E-03
		Cs-137	<8.73E-03	0.00E+00	8.73E-03
		Be-7	<4.44E-02	0.00E+00	4.44E-02
		K-40	<1.76E-01	0.00E+00	1.76E-01
454289	9/26/2017 - 10/2/2017	I-131	<1.71E-02	0.00E+00	1.71E-02
		Cs-134	<1.42E-02	0.00E+00	1.42E-02
		Cs-137	<1.51E-02	0.00E+00	1.51E-02
		Be-7	<1.14E-01	0.00E+00	1.14E-01
		K-40	<2.82E-01	0.00E+00	2.82E-01
455141	10/2/2017 - 10/9/2017	I-131	<2.41E-02	0.00E+00	2.41E-02
		Cs-134	<1.35E-02	0.00E+00	1.35E-02
		Cs-137	<1.38E-02	0.00E+00	1.38E-02
		Be-7	<1.09E-01	0.00E+00	1.09E-01
		K-40	3.03E-01	1.57E-01	2.00E-01
455475	10/9/2017 - 10/17/2017	I-131	<1.45E-02	0.00E+00	1.45E-02
		Cs-134	<8.95E-03	0.00E+00	8.95E-03
		Cs-137	<1.02E-02	0.00E+00	1.02E-02
		Be-7	<7.88E-02	0.00E+00	7.88E-02
		K-40	1.91E-01	1.12E-01	1.41E-01



ROBINSON Radiological Environmental Monitoring Analysis Report - 2017 (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
Sample ID: 456103	Sample Dates: 10/17/2017 - 10/24/2017	I-131	<2.23E-02	0.00E+00	2.23E-02
		Cs-134	<1.62E-02	0.00E+00	1.62E-02
		Cs-137	<1.38E-02	0.00E+00	1.38E-02
		Be-7	<1.15E-01	0.00E+00	1.15E-01
		K-40	5.27E-01	1.75E-01	1.42E-01
Sample ID: 461468	Sample Dates: 10/24/2017 - 10/31/2017	I-131	<3.08E-02	0.00E+00	3.08E-02
		Cs-134	<1.59E-02	0.00E+00	1.59E-02
		Cs-137	<1.59E-02	0.00E+00	1.59E-02
		Be-7	<1.02E-01	0.00E+00	1.02E-01
		K-40	4.43E-01	1.62E-01	1.38E-01
Sample ID: 462025	Sample Dates: 10/31/2017 - 11/7/2017	I-131	<2.06E-02	0.00E+00	2.06E-02
		Cs-134	<1.72E-02	0.00E+00	1.72E-02
		Cs-137	<1.42E-02	0.00E+00	1.42E-02
		Be-7	<1.20E-01	0.00E+00	1.20E-01
		K-40	3.99E-01	1.81E-01	2.23E-01
Sample ID: 462670	Sample Dates: 11/7/2017 - 11/14/2017	I-131	<1.59E-02	0.00E+00	1.59E-02
		Cs-134	<1.53E-02	0.00E+00	1.53E-02
		Cs-137	<1.02E-02	0.00E+00	1.02E-02
		Be-7	<1.17E-01	0.00E+00	1.17E-01
		K-40	3.89E-01	1.55E-01	1.51E-01
Sample ID: 463153	Sample Dates: 11/14/2017 - 11/21/2017	I-131	<3.35E-02	0.00E+00	3.35E-02
		Cs-134	<1.66E-02	0.00E+00	1.66E-02
		Cs-137	<1.21E-02	0.00E+00	1.21E-02
		Be-7	<1.33E-01	0.00E+00	1.33E-01
		K-40	4.45E-01	1.75E-01	1.87E-01
Sample ID: 463562	Sample Dates: 11/21/2017 - 11/28/2017	I-131	<1.91E-02	0.00E+00	1.91E-02
		Cs-134	<1.19E-02	0.00E+00	1.19E-02
		Cs-137	<1.49E-02	0.00E+00	1.49E-02
		Be-7	<1.08E-01	0.00E+00	1.08E-01
		K-40	3.44E-01	1.35E-01	1.05E-01
Sample ID: 464204	Sample Dates: 11/28/2017 - 12/5/2017	I-131	<1.98E-02	0.00E+00	1.98E-02
		Cs-134	<1.96E-02	0.00E+00	1.96E-02
		Cs-137	<1.30E-02	0.00E+00	1.30E-02
		Be-7	<1.06E-01	0.00E+00	1.06E-01
		K-40	4.07E-01	1.54E-01	1.33E-01
Sample ID: 464767	Sample Dates: 12/5/2017 - 12/12/2017	I-131	<3.65E-02	0.00E+00	3.65E-02
		Cs-134	<1.55E-02	0.00E+00	1.55E-02
		Cs-137	<1.42E-02	0.00E+00	1.42E-02
		Be-7	<1.12E-01	0.00E+00	1.12E-01
		K-40	5.29E-01	1.77E-01	1.52E-01
Sample ID: 465027	Sample Dates: 12/12/2017 - 12/19/2017	I-131	<2.89E-02	0.00E+00	2.89E-02
		Cs-134	<1.55E-02	0.00E+00	1.55E-02
		Cs-137	<1.63E-02	0.00E+00	1.63E-02
		Be-7	<1.12E-01	0.00E+00	1.12E-01
		K-40	3.84E-01	1.52E-01	1.43E-01
Sample ID: 465262	Sample Dates: 12/19/2017 - 12/26/2017	I-131	<2.60E-02	0.00E+00	2.60E-02
		Cs-134	<1.80E-02	0.00E+00	1.80E-02
		Cs-137	<1.57E-02	0.00E+00	1.57E-02
		Be-7	<1.21E-01	0.00E+00	1.21E-01
		K-40	4.43E-01	1.73E-01	1.84E-01



ROBINSON Radiological Environmental Monitoring Analysis Report - 2017 (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
465694	12/26/2017 - 1/2/2018	I-131	<2.83E-02	0.00E+00	2.83E-02
		Cs-134	<1.79E-02	0.00E+00	1.79E-02
		Cs-137	<1.48E-02	0.00E+00	1.48E-02
		Be-7	<1.09E-01	0.00E+00	1.09E-01
		K-40	4.66E-01	1.55E-01	9.98E-02

Sample Point 55 [INDICATOR - SSE @ 0.2 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
431877	12/28/2016 - 1/3/2017	I-131	<1.15E-02	0.00E+00	1.15E-02
		Cs-134	<9.30E-03	0.00E+00	9.30E-03
		Cs-137	<7.11E-03	0.00E+00	7.11E-03
		Be-7	<3.32E-02	0.00E+00	3.32E-02
		K-40	3.40E-01	1.34E-01	1.03E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
432274	1/3/2017 - 1/10/2017	I-131	<6.41E-03	0.00E+00	6.41E-03
		Cs-134	<5.27E-03	0.00E+00	5.27E-03
		Cs-137	<7.69E-03	0.00E+00	7.69E-03
		Be-7	<4.98E-02	0.00E+00	4.98E-02
		K-40	4.03E-01	1.47E-01	1.46E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
432962	1/10/2017 - 1/16/2017	I-131	<5.59E-03	0.00E+00	5.59E-03
		Cs-134	<7.16E-03	0.00E+00	7.16E-03
		Cs-137	<4.99E-03	0.00E+00	4.99E-03
		Be-7	<5.71E-02	0.00E+00	5.71E-02
		K-40	4.45E-01	1.62E-01	1.40E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
433357	1/16/2017 - 1/23/2017	I-131	<1.04E-02	0.00E+00	1.04E-02
		Cs-134	<7.15E-03	0.00E+00	7.15E-03
		Cs-137	<5.49E-03	0.00E+00	5.49E-03
		Be-7	<4.64E-02	0.00E+00	4.64E-02
		K-40	2.49E-01	1.02E-01	2.70E-02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
433777	1/23/2017 - 1/30/2017	I-131	<8.34E-03	0.00E+00	8.34E-03
		Cs-134	<5.75E-03	0.00E+00	5.75E-03
		Cs-137	<7.67E-03	0.00E+00	7.67E-03
		Be-7	<4.32E-02	0.00E+00	4.32E-02
		K-40	3.36E-01	1.25E-01	1.02E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
434519	1/30/2017 - 2/6/2017	I-131	<6.86E-03	0.00E+00	6.86E-03
		Cs-134	<5.83E-03	0.00E+00	5.83E-03
		Cs-137	<5.52E-03	0.00E+00	5.52E-03
		Be-7	<5.05E-02	0.00E+00	5.05E-02
		K-40	3.08E-01	1.24E-01	1.24E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
435167	2/6/2017 - 2/13/2017	I-131	<1.21E-02	0.00E+00	1.21E-02
		Cs-134	<9.23E-03	0.00E+00	9.23E-03
		Cs-137	<6.10E-03	0.00E+00	6.10E-03
		Be-7	<5.20E-02	0.00E+00	5.20E-02
		K-40	4.27E-01	1.59E-01	1.47E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
435863	2/13/2017 - 2/20/2017	I-131	<1.10E-02	0.00E+00	1.10E-02
		Cs-134	<9.15E-03	0.00E+00	9.15E-03
		Cs-137	<1.19E-02	0.00E+00	1.19E-02
		Be-7	<5.77E-02	0.00E+00	5.77E-02
		K-40	<2.24E-01	0.00E+00	2.24E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
436316	2/20/2017 - 2/28/2017	I-131	<9.78E-03	0.00E+00	9.78E-03
		Cs-134	<5.04E-03	0.00E+00	5.04E-03
		Cs-137	<8.18E-03	0.00E+00	8.18E-03



ROBINSON Radiological Environmental Monitoring Analysis Report - 2017 (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
436316	2/20/2017 - 2/28/2017	Be-7	<5.01E-02	0.00E+00	5.01E-02
		K-40	1.72E-01	9.12E-02	8.77E-02
436774	2/28/2017 - 3/6/2017	I-131	<1.47E-02	0.00E+00	1.47E-02
		Cs-134	<9.12E-03	0.00E+00	9.12E-03
		Cs-137	<8.87E-03	0.00E+00	8.87E-03
		Be-7	<8.97E-02	0.00E+00	8.97E-02
		K-40	1.65E-01	1.12E-01	1.45E-01
437651	3/6/2017 - 3/14/2017	I-131	<9.66E-03	0.00E+00	9.66E-03
		Cs-134	<7.55E-03	0.00E+00	7.55E-03
		Cs-137	<7.59E-03	0.00E+00	7.59E-03
		Be-7	<3.78E-02	0.00E+00	3.78E-02
		K-40	1.93E-01	8.59E-02	2.49E-02
438355	3/14/2017 - 3/20/2017	I-131	<1.19E-02	0.00E+00	1.19E-02
		Cs-134	<7.15E-03	0.00E+00	7.15E-03
		Cs-137	<1.11E-02	0.00E+00	1.11E-02
		Be-7	<6.30E-02	0.00E+00	6.30E-02
		K-40	<2.73E-01	0.00E+00	2.73E-01
438861	3/20/2017 - 3/27/2017	I-131	<9.76E-03	0.00E+00	9.76E-03
		Cs-134	<4.47E-03	0.00E+00	4.47E-03
		Cs-137	<9.96E-03	0.00E+00	9.96E-03
		Be-7	<5.53E-02	0.00E+00	5.53E-02
		K-40	9.57E-02	8.15E-02	1.13E-01
439255	3/27/2017 - 4/3/2017	I-131	<8.59E-03	0.00E+00	8.59E-03
		Cs-134	<7.34E-03	0.00E+00	7.34E-03
		Cs-137	<9.57E-03	0.00E+00	9.57E-03
		Be-7	<4.91E-02	0.00E+00	4.91E-02
		K-40	<1.92E-01	0.00E+00	1.92E-01
440069	4/3/2017 - 4/10/2017	I-131	<9.53E-03	0.00E+00	9.53E-03
		Cs-134	<7.25E-03	0.00E+00	7.25E-03
		Cs-137	<8.45E-03	0.00E+00	8.45E-03
		Be-7	<6.23E-02	0.00E+00	6.23E-02
		K-40	1.54E-01	8.07E-02	2.78E-02
440652	4/10/2017 - 4/17/2017	I-131	<9.73E-03	0.00E+00	9.73E-03
		Cs-134	<9.48E-03	0.00E+00	9.48E-03
		Cs-137	<7.27E-03	0.00E+00	7.27E-03
		Be-7	<1.20E-02	0.00E+00	1.20E-02
		K-40	<3.45E-01	0.00E+00	3.45E-01
441469	4/17/2017 - 4/24/2017	I-131	<1.33E-02	0.00E+00	1.33E-02
		Cs-134	<6.92E-03	0.00E+00	6.92E-03
		Cs-137	<9.24E-03	0.00E+00	9.24E-03
		Be-7	<5.61E-02	0.00E+00	5.61E-02
		K-40	3.94E-01	1.52E-01	1.39E-01
441920	4/24/2017 - 5/1/2017	I-131	<9.71E-03	0.00E+00	9.71E-03
		Cs-134	<9.32E-03	0.00E+00	9.32E-03
		Cs-137	<7.78E-03	0.00E+00	7.78E-03
		Be-7	<6.78E-02	0.00E+00	6.78E-02
		K-40	3.36E-01	1.21E-01	2.76E-02
442389	5/1/2017 - 5/8/2017	I-131	<8.53E-03	0.00E+00	8.53E-03



ROBINSON Radiological Environmental Monitoring Analysis Report - 2017 (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
442389	5/1/2017 - 5/8/2017	Cs-134	<6.66E-03	0.00E+00	6.66E-03
		Cs-137	<1.59E-03	0.00E+00	1.59E-03
		Be-7	<5.04E-02	0.00E+00	5.04E-02
		K-40	5.17E-01	1.57E-01	9.51E-02
442921	5/8/2017 - 5/15/2017	I-131	<1.34E-02	0.00E+00	1.34E-02
		Cs-134	<6.55E-03	0.00E+00	6.55E-03
		Cs-137	<7.46E-03	0.00E+00	7.46E-03
		Be-7	<5.30E-02	0.00E+00	5.30E-02
		K-40	5.40E-01	1.59E-01	2.87E-02
443362	5/15/2017 - 5/22/2017	I-131	<8.03E-03	0.00E+00	8.03E-03
		Cs-134	<8.07E-03	0.00E+00	8.07E-03
		Cs-137	<8.74E-03	0.00E+00	8.74E-03
		Be-7	<6.14E-02	0.00E+00	6.14E-02
		K-40	3.71E-01	1.33E-01	3.05E-02
443916	5/22/2017 - 5/30/2017	I-131	<9.27E-03	0.00E+00	9.27E-03
		Cs-134	<6.60E-03	0.00E+00	6.60E-03
		Cs-137	<6.55E-03	0.00E+00	6.55E-03
		Be-7	<4.73E-02	0.00E+00	4.73E-02
		K-40	3.85E-01	1.33E-01	1.01E-01
444321	5/30/2017 - 6/5/2017	I-131	<8.47E-03	0.00E+00	8.47E-03
		Cs-134	<7.53E-03	0.00E+00	7.53E-03
		Cs-137	<1.13E-02	0.00E+00	1.13E-02
		Be-7	<5.59E-02	0.00E+00	5.59E-02
		K-40	1.96E-01	1.28E-01	1.66E-01
445386	6/5/2017 - 6/12/2017	I-131	<6.17E-03	0.00E+00	6.17E-03
		Cs-134	<5.85E-03	0.00E+00	5.85E-03
		Cs-137	<7.92E-03	0.00E+00	7.92E-03
		Be-7	<5.53E-02	0.00E+00	5.53E-02
		K-40	<2.28E-01	0.00E+00	2.28E-01
446383	6/12/2017 - 6/18/2017	I-131	<1.37E-02	0.00E+00	1.37E-02
		Cs-134	<1.02E-02	0.00E+00	1.02E-02
		Cs-137	<1.22E-02	0.00E+00	1.22E-02
		Be-7	<7.16E-02	0.00E+00	7.16E-02
		K-40	2.64E-01	1.41E-01	1.65E-01
446883	6/18/2017 - 6/26/2017	I-131	<7.77E-03	0.00E+00	7.77E-03
		Cs-134	<5.77E-03	0.00E+00	5.77E-03
		Cs-137	<6.73E-03	0.00E+00	6.73E-03
		Be-7	<3.74E-02	0.00E+00	3.74E-02
		K-40	<2.00E-01	0.00E+00	2.00E-01
447265	6/26/2017 - 7/3/2017	I-131	<9.05E-03	0.00E+00	9.05E-03
		Cs-134	<7.82E-03	0.00E+00	7.82E-03
		Cs-137	<9.70E-03	0.00E+00	9.70E-03
		Be-7	<4.89E-02	0.00E+00	4.89E-02
		K-40	1.47E-01	7.98E-02	2.85E-02
447868	7/3/2017 - 7/10/2017	I-131	<9.43E-03	0.00E+00	9.43E-03
		Cs-134	<9.68E-03	0.00E+00	9.68E-03
		Cs-137	<1.07E-02	0.00E+00	1.07E-02
		Be-7	<4.94E-02	0.00E+00	4.94E-02
		K-40	2.99E-01	1.26E-01	1.06E-01



ROBINSON Radiological Environmental Monitoring Analysis Report - 2017 (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
448333	7/10/2017 - 7/18/2017	I-131	<1.05E-02	0.00E+00	1.05E-02
		Cs-134	<7.92E-03	0.00E+00	7.92E-03
		Cs-137	<9.42E-03	0.00E+00	9.42E-03
		Be-7	<4.43E-02	0.00E+00	4.43E-02
		K-40	1.84E-01	1.29E-01	1.84E-01
448951	7/18/2017 - 7/24/2017	I-131	<1.30E-02	0.00E+00	1.30E-02
		Cs-134	<8.51E-03	0.00E+00	8.51E-03
		Cs-137	<1.41E-02	0.00E+00	1.41E-02
		Be-7	1.92E-01	8.79E-02	1.13E-01
		K-40	3.84E-01	1.44E-01	3.47E-02
449278	7/24/2017 - 7/31/2017	I-131	<2.00E-02	0.00E+00	2.00E-02
		Cs-134	<9.86E-03	0.00E+00	9.86E-03
		Cs-137	<1.39E-02	0.00E+00	1.39E-02
		Be-7	<8.56E-02	0.00E+00	8.56E-02
		K-40	2.51E-01	1.27E-01	4.24E-02
449997	7/31/2017 - 8/8/2017	I-131	<5.33E-03	0.00E+00	5.33E-03
		Cs-134	<8.45E-03	0.00E+00	8.45E-03
		Cs-137	<1.05E-02	0.00E+00	1.05E-02
		Be-7	<6.17E-02	0.00E+00	6.17E-02
		K-40	<2.39E-01	0.00E+00	2.39E-01
450269	8/8/2017 - 8/15/2017	I-131	<8.75E-03	0.00E+00	8.75E-03
		Cs-134	<3.88E-03	0.00E+00	3.88E-03
		Cs-137	<8.66E-03	0.00E+00	8.66E-03
		Be-7	<5.08E-02	0.00E+00	5.08E-02
		K-40	1.60E-01	9.09E-02	1.05E-01
450784	8/15/2017 - 8/22/2017	I-131	<9.91E-03	0.00E+00	9.91E-03
		Cs-134	<7.28E-03	0.00E+00	7.28E-03
		Cs-137	<1.09E-02	0.00E+00	1.09E-02
		Be-7	<5.12E-02	0.00E+00	5.12E-02
		K-40	2.30E-01	1.09E-01	1.01E-01
451246	8/22/2017 - 8/29/2017	I-131	<7.99E-03	0.00E+00	7.99E-03
		Cs-134	<5.90E-03	0.00E+00	5.90E-03
		Cs-137	<7.80E-03	0.00E+00	7.80E-03
		Be-7	<5.67E-02	0.00E+00	5.67E-02
		K-40	1.57E-01	8.32E-02	7.94E-02
451588	8/29/2017 - 9/5/2017	I-131	<1.47E-02	0.00E+00	1.47E-02
		Cs-134	<3.78E-03	0.00E+00	3.78E-03
		Cs-137	<6.61E-03	0.00E+00	6.61E-03
		Be-7	<4.96E-02	0.00E+00	4.96E-02
		K-40	<1.74E-01	0.00E+00	1.74E-01
452430	9/5/2017 - 9/12/2017	I-131	<6.86E-03	0.00E+00	6.86E-03
		Cs-134	<5.61E-03	0.00E+00	5.61E-03
		Cs-137	<6.48E-03	0.00E+00	6.48E-03
		Be-7	<5.08E-02	0.00E+00	5.09E-02
		K-40	<1.78E-01	0.00E+00	1.78E-01
452844	9/12/2017 - 9/18/2017	I-131	<6.50E-03	0.00E+00	6.50E-03
		Cs-134	<6.57E-03	0.00E+00	6.57E-03
		Cs-137	<1.04E-02	0.00E+00	1.04E-02
		Be-7	<4.35E-02	0.00E+00	4.35E-02
		K-40	1.96E-01	1.18E-01	1.51E-01



ROBINSON Radiological Environmental Monitoring Analysis Report - 2017 (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
453501	9/18/2017 - 9/26/2017	I-131	<7.20E-03	0.00E+00	7.20E-03
		Cs-134	<7.82E-03	0.00E+00	7.82E-03
		Cs-137	<3.67E-03	0.00E+00	3.67E-03
		Be-7	<3.87E-02	0.00E+00	3.87E-02
		K-40	1.63E-01	8.30E-02	8.05E-02
454285	9/26/2017 - 10/2/2017	I-131	<1.79E-02	0.00E+00	1.79E-02
		Cs-134	<1.74E-02	0.00E+00	1.74E-02
		Cs-137	<1.81E-02	0.00E+00	1.81E-02
		Be-7	<1.05E-01	0.00E+00	1.05E-01
		K-40	3.25E-01	1.35E-01	3.67E-02
455137	10/2/2017 - 10/9/2017	I-131	<1.51E-02	0.00E+00	1.51E-02
		Cs-134	<1.24E-02	0.00E+00	1.24E-02
		Cs-137	<1.29E-02	0.00E+00	1.29E-02
		Be-7	<8.89E-02	0.00E+00	8.89E-02
		K-40	3.04E-01	1.49E-01	1.83E-01
455471	10/9/2017 - 10/17/2017	I-131	<1.20E-02	0.00E+00	1.20E-02
		Cs-134	<1.16E-02	0.00E+00	1.16E-02
		Cs-137	<1.21E-02	0.00E+00	1.21E-02
		Be-7	<7.10E-02	0.00E+00	7.10E-02
		K-40	<2.03E-01	0.00E+00	2.03E-01
456099	10/17/2017 - 10/24/2017	I-131	<1.68E-02	0.00E+00	1.68E-02
		Cs-134	<1.19E-02	0.00E+00	1.19E-02
		Cs-137	<1.13E-02	0.00E+00	1.13E-02
		Be-7	<9.88E-02	0.00E+00	9.88E-02
		K-40	4.65E-01	1.64E-01	1.53E-01
461464	10/24/2017 - 10/31/2017	I-131	<2.49E-02	0.00E+00	2.49E-02
		Cs-134	<1.34E-02	0.00E+00	1.34E-02
		Cs-137	<1.28E-02	0.00E+00	1.28E-02
		Be-7	<1.01E-01	0.00E+00	1.01E-01
		K-40	4.67E-01	1.89E-01	2.30E-01
462021	10/31/2017 - 11/7/2017	I-131	<1.94E-02	0.00E+00	1.94E-02
		Cs-134	<1.35E-02	0.00E+00	1.35E-02
		Cs-137	<1.38E-02	0.00E+00	1.38E-02
		Be-7	<1.01E-01	0.00E+00	1.01E-01
		K-40	4.22E-01	1.58E-01	1.53E-01
462666	11/7/2017 - 11/14/2017	I-131	<1.74E-02	0.00E+00	1.74E-02
		Cs-134	<1.33E-02	0.00E+00	1.33E-02
		Cs-137	<1.27E-02	0.00E+00	1.27E-02
		Be-7	<9.65E-02	0.00E+00	9.65E-02
		K-40	3.89E-01	1.64E-01	1.93E-01
463149	11/14/2017 - 11/21/2017	I-131	<3.27E-02	0.00E+00	3.27E-02
		Cs-134	<1.38E-02	0.00E+00	1.38E-02
		Cs-137	<1.26E-02	0.00E+00	1.26E-02
		Be-7	<6.59E-02	0.00E+00	6.59E-02
		K-40	3.49E-01	1.62E-01	2.03E-01
463558	11/21/2017 - 11/28/2017	I-131	<2.06E-02	0.00E+00	2.06E-02
		Cs-134	<1.29E-02	0.00E+00	1.29E-02
		Cs-137	<1.57E-02	0.00E+00	1.57E-02
		Be-7	<1.05E-01	0.00E+00	1.05E-01
		K-40	5.02E-01	1.62E-01	3.32E-02



ROBINSON Radiological Environmental Monitoring Analysis Report - 2017 (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
464200	11/28/2017 - 12/5/2017	I-131	<1.98E-02	0.00E+00	1.98E-02
		Cs-134	<1.81E-02	0.00E+00	1.81E-02
		Cs-137	<1.78E-02	0.00E+00	1.78E-02
		Be-7	<1.00E-01	0.00E+00	1.00E-01
		K-40	4.72E-01	1.70E-01	1.36E-01
464763	12/5/2017 - 12/12/2017	I-131	<3.35E-02	0.00E+00	3.35E-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	<1.19E-01	0.00E+00	1.19E-01
		K-40	5.29E-01	1.81E-01	1.52E-01
465023	12/12/2017 - 12/19/2017	I-131	<4.25E-02	0.00E+00	4.25E-02
		Cs-134	<1.99E-02	0.00E+00	1.99E-02
		Cs-137	<1.50E-02	0.00E+00	1.50E-02
		Be-7	<1.12E-01	0.00E+00	1.12E-01
		K-40	4.13E-01	2.10E-01	2.83E-01
465258	12/19/2017 - 12/26/2017	I-131	<3.47E-02	0.00E+00	3.47E-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	<1.40E-01	0.00E+00	1.40E-01
		K-40	3.71E-01	1.49E-01	1.26E-01
465690	12/26/2017 - 1/2/2018	I-131	<3.40E-02	0.00E+00	3.40E-02
		Cs-134	<2.01E-02	0.00E+00	2.01E-02
		Cs-137	<1.57E-02	0.00E+00	1.57E-02
		Be-7	<9.89E-02	0.00E+00	9.89E-02
		K-40	5.12E-01	1.61E-01	3.22E-02
Sample Point 60 [INDICATOR - SE @ 0.2 miles]					
431879	12/28/2016 - 1/3/2017	I-131	<8.35E-03	0.00E+00	8.35E-03
		Cs-134	<8.73E-03	0.00E+00	8.73E-03
		Cs-137	<5.33E-03	0.00E+00	5.33E-03
		Be-7	<5.14E-02	0.00E+00	5.14E-02
		K-40	3.65E-01	1.42E-01	1.39E-01
432276	1/3/2017 - 1/10/2017	I-131	<1.10E-02	0.00E+00	1.10E-02
		Cs-134	<7.63E-03	0.00E+00	7.63E-03
		Cs-137	<5.05E-03	0.00E+00	5.05E-03
		Be-7	<5.02E-02	0.00E+00	5.02E-02
		K-40	4.44E-01	1.44E-01	1.10E-01
432964	1/10/2017 - 1/16/2017	I-131	<7.71E-03	0.00E+00	7.71E-03
		Cs-134	<5.73E-03	0.00E+00	5.73E-03
		Cs-137	<7.12E-03	0.00E+00	7.12E-03
		Be-7	<4.57E-02	0.00E+00	4.57E-02
		K-40	4.88E-01	1.64E-01	1.30E-01
433359	1/16/2017 - 1/23/2017	I-131	<7.47E-03	0.00E+00	7.47E-03
		Cs-134	<5.99E-03	0.00E+00	5.99E-03
		Cs-137	<8.00E-03	0.00E+00	8.00E-03
		Be-7	<5.86E-02	0.00E+00	5.86E-02
		K-40	3.76E-01	1.45E-01	1.46E-01
433779	1/23/2017 - 1/30/2017	I-131	<1.13E-02	0.00E+00	1.13E-02
		Cs-134	<6.89E-03	0.00E+00	6.89E-03
		Cs-137	<8.56E-03	0.00E+00	8.56E-03



ROBINSON Radiological Environmental Monitoring Analysis Report - 2017 (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
433779	1/23/2017 - 1/30/2017	Be-7	<5.98E-02	0.00E+00	5.98E-02
		K-40	5.49E-01	1.58E-01	2.81E-02
434521	1/30/2017 - 2/6/2017	I-131	<8.05E-03	0.00E+00	8.05E-03
		Cs-134	<7.99E-03	0.00E+00	7.99E-03
		Cs-137	<6.85E-03	0.00E+00	6.85E-03
		Be-7	<5.88E-02	0.00E+00	5.88E-02
		K-40	3.89E-01	1.40E-01	1.20E-01
435169	2/6/2017 - 2/13/2017	I-131	<7.15E-03	0.00E+00	7.15E-03
		Cs-134	<6.28E-03	0.00E+00	6.28E-03
		Cs-137	<6.63E-03	0.00E+00	6.63E-03
		Be-7	<5.14E-02	0.00E+00	5.14E-02
		K-40	3.68E-01	1.33E-01	1.11E-01
435865	2/13/2017 - 2/20/2017	I-131	<8.20E-03	0.00E+00	8.20E-03
		Cs-134	<7.46E-03	0.00E+00	7.46E-03
		Cs-137	<9.27E-03	0.00E+00	9.27E-03
		Be-7	<6.34E-02	0.00E+00	6.34E-02
		K-40	2.08E-01	1.16E-01	1.37E-01
436318	2/20/2017 - 2/28/2017	I-131	<9.31E-03	0.00E+00	9.31E-03
		Cs-134	<6.96E-03	0.00E+00	6.96E-03
		Cs-137	<7.31E-03	0.00E+00	7.31E-03
		Be-7	<5.14E-02	0.00E+00	5.14E-02
		K-40	9.65E-02	8.26E-02	1.19E-01
436776	2/28/2017 - 3/6/2017	I-131	<2.52E-02	0.00E+00	2.52E-02
		Cs-134	<9.99E-03	0.00E+00	9.99E-03
		Cs-137	<1.24E-02	0.00E+00	1.24E-02
		Be-7	<5.58E-02	0.00E+00	5.58E-02
		K-40	3.80E-01	1.67E-01	1.79E-01
437653	3/6/2017 - 3/14/2017	I-131	<8.40E-03	0.00E+00	8.40E-03
		Cs-134	<3.42E-03	0.00E+00	3.42E-03
		Cs-137	<6.94E-03	0.00E+00	6.94E-03
		Be-7	<4.07E-02	0.00E+00	4.07E-02
		K-40	<2.29E-01	0.00E+00	2.29E-01
438357	3/14/2017 - 3/20/2017	I-131	<8.91E-03	0.00E+00	8.91E-03
		Cs-134	<8.30E-03	0.00E+00	8.30E-03
		Cs-137	<8.24E-03	0.00E+00	8.24E-03
		Be-7	<5.39E-02	0.00E+00	5.39E-02
		K-40	<2.13E-01	0.00E+00	2.13E-01
438863	3/20/2017 - 3/27/2017	I-131	<6.73E-03	0.00E+00	6.73E-03
		Cs-134	<6.85E-03	0.00E+00	6.85E-03
		Cs-137	<1.21E-02	0.00E+00	1.21E-02
		Be-7	<3.69E-02	0.00E+00	3.69E-02
		K-40	1.59E-01	9.26E-02	9.77E-02
439257	3/27/2017 - 4/3/2017	I-131	<1.04E-02	0.00E+00	1.04E-02
		Cs-134	<7.17E-03	0.00E+00	7.17E-03
		Cs-137	<8.90E-03	0.00E+00	8.90E-03
		Be-7	<4.67E-02	0.00E+00	4.67E-02
		K-40	<1.98E-01	0.00E+00	1.98E-01
440071	4/3/2017 - 4/10/2017	I-131	<9.48E-03	0.00E+00	9.48E-03



ROBINSON Radiological Environmental Monitoring Analysis Report - 2017 (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
440071	4/3/2017 - 4/10/2017	Cs-134	<8.35E-03	0.00E+00	8.35E-03
		Cs-137	<7.80E-03	0.00E+00	7.80E-03
		Be-7	<5.84E-02	0.00E+00	5.84E-02
		K-40	<2.12E-01	0.00E+00	2.12E-01
440654	4/10/2017 - 4/17/2017	I-131	<9.75E-03	0.00E+00	9.75E-03
		Cs-134	<7.17E-03	0.00E+00	7.17E-03
		Cs-137	<7.12E-03	0.00E+00	7.12E-03
		Be-7	<5.10E-02	0.00E+00	5.10E-02
		K-40	4.17E-01	1.45E-01	1.10E-01
441471	4/17/2017 - 4/24/2017	I-131	<1.01E-02	0.00E+00	1.01E-02
		Cs-134	<7.63E-03	0.00E+00	7.63E-03
		Cs-137	<1.10E-02	0.00E+00	1.10E-02
		Be-7	<6.52E-02	0.00E+00	6.52E-02
		K-40	4.65E-01	1.94E-01	2.37E-01
441922	4/24/2017 - 5/1/2017	I-131	<8.09E-03	0.00E+00	8.09E-03
		Cs-134	<6.73E-03	0.00E+00	6.73E-03
		Cs-137	<7.76E-03	0.00E+00	7.76E-03
		Be-7	<5.12E-02	0.00E+00	5.12E-02
		K-40	5.52E-01	1.83E-01	1.82E-01
442391	5/1/2017 - 5/8/2017	I-131	<7.45E-03	0.00E+00	7.45E-03
		Cs-134	<7.63E-03	0.00E+00	7.63E-03
		Cs-137	<9.94E-03	0.00E+00	9.94E-03
		Be-7	<5.55E-02	0.00E+00	5.55E-02
		K-40	3.46E-01	1.27E-01	8.22E-02
442923	5/8/2017 - 5/15/2017	I-131	<6.66E-03	0.00E+00	6.66E-03
		Cs-134	<5.82E-03	0.00E+00	5.82E-03
		Cs-137	<6.47E-03	0.00E+00	6.47E-03
		Be-7	<6.26E-02	0.00E+00	6.26E-02
		K-40	2.60E-01	1.17E-01	1.07E-01
443364	5/15/2017 - 5/22/2017	I-131	<1.01E-02	0.00E+00	1.01E-02
		Cs-134	<6.77E-03	0.00E+00	6.77E-03
		Cs-137	<7.16E-03	0.00E+00	7.16E-03
		Be-7	<2.88E-02	0.00E+00	2.88E-02
		K-40	4.51E-01	1.42E-01	2.78E-02
443918	5/22/2017 - 5/30/2017	I-131	<5.88E-03	0.00E+00	5.88E-03
		Cs-134	<5.82E-03	0.00E+00	5.82E-03
		Cs-137	<7.23E-03	0.00E+00	7.23E-03
		Be-7	<5.18E-02	0.00E+00	5.18E-02
		K-40	3.56E-01	1.44E-01	1.48E-01
444323	5/30/2017 - 6/5/2017	I-131	<9.70E-03	0.00E+00	9.70E-03
		Cs-134	<8.89E-03	0.00E+00	8.89E-03
		Cs-137	<1.16E-02	0.00E+00	1.16E-02
		Be-7	<5.95E-02	0.00E+00	5.95E-02
		K-40	2.51E-01	1.12E-01	3.24E-02
445388	6/5/2017 - 6/12/2017	I-131	<9.89E-03	0.00E+00	9.89E-03
		Cs-134	<7.58E-03	0.00E+00	7.58E-03
		Cs-137	<8.76E-03	0.00E+00	8.76E-03
		Be-7	<5.17E-02	0.00E+00	5.17E-02
		K-40	2.19E-01	1.11E-01	1.06E-01



ROBINSON Radiological Environmental Monitoring Analysis Report - 2017 (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
446385	6/12/2017 - 6/18/2017	I-131	<1.05E-02	0.00E+00	1.05E-02
		Cs-134	<5.78E-03	0.00E+00	5.78E-03
		Cs-137	<1.01E-02	0.00E+00	1.01E-02
		Be-7	<5.45E-02	0.00E+00	5.45E-02
		K-40	2.21E-01	1.27E-01	1.42E-01
446885	6/18/2017 - 6/26/2017	I-131	<6.95E-03	0.00E+00	6.95E-03
		Cs-134	<5.62E-03	0.00E+00	5.62E-03
		Cs-137	<6.97E-03	0.00E+00	6.97E-03
		Be-7	<4.36E-02	0.00E+00	4.36E-02
		K-40	<1.77E-01	0.00E+00	1.77E-01
447267	6/26/2017 - 7/3/2017	I-131	<1.05E-02	0.00E+00	1.05E-02
		Cs-134	<7.09E-03	0.00E+00	7.09E-03
		Cs-137	<1.26E-02	0.00E+00	1.26E-02
		Be-7	<5.33E-02	0.00E+00	5.33E-02
		K-40	2.64E-01	1.21E-01	1.07E-01
447870	7/3/2017 - 7/10/2017	I-131	<1.08E-02	0.00E+00	1.08E-02
		Cs-134	<8.06E-03	0.00E+00	8.06E-03
		Cs-137	<9.40E-03	0.00E+00	9.40E-03
		Be-7	<3.99E-02	0.00E+00	3.99E-02
		K-40	1.30E-01	9.48E-02	1.21E-01
448335	7/10/2017 - 7/18/2017	I-131	<8.41E-03	0.00E+00	8.41E-03
		Cs-134	<7.13E-03	0.00E+00	7.13E-03
		Cs-137	<1.16E-02	0.00E+00	1.16E-02
		Be-7	<3.77E-02	0.00E+00	3.77E-02
		K-40	1.73E-01	8.07E-02	2.46E-02
448953	7/18/2017 - 7/24/2017	I-131	<1.01E-02	0.00E+00	1.01E-02
		Cs-134	<9.77E-03	0.00E+00	9.77E-03
		Cs-137	<1.21E-02	0.00E+00	1.21E-02
		Be-7	<7.62E-02	0.00E+00	7.62E-02
		K-40	2.34E-01	1.19E-01	1.07E-01
449280	7/24/2017 - 7/31/2017	I-131	<5.14E-02	0.00E+00	5.14E-02
		Cs-134	<1.96E-02	0.00E+00	1.96E-02
		Cs-137	<3.09E-02	0.00E+00	3.09E-02
		Be-7	<1.41E-01	0.00E+00	1.41E-01
		K-40	<7.81E-01	0.00E+00	7.81E-01
449999	7/31/2017 - 8/8/2017	I-131	<2.74E-02	0.00E+00	2.74E-02
		Cs-134	<2.47E-02	0.00E+00	2.47E-02
		Cs-137	<2.96E-02	0.00E+00	2.96E-02
		Be-7	<9.83E-02	0.00E+00	9.83E-02
		K-40	4.58E-01	2.49E-01	2.41E-01
450271	8/8/2017 - 8/15/2017	I-131	<1.41E-02	0.00E+00	1.41E-02
		Cs-134	<1.65E-02	0.00E+00	1.65E-02
		Cs-137	<1.48E-02	0.00E+00	1.48E-02
		Be-7	<9.74E-02	0.00E+00	9.74E-02
		K-40	4.83E-01	1.98E-01	5.24E-02
450786	8/15/2017 - 8/22/2017	I-131	<8.41E-03	0.00E+00	8.41E-03
		Cs-134	<7.76E-03	0.00E+00	7.76E-03
		Cs-137	<8.30E-03	0.00E+00	8.30E-03
		Be-7	<5.75E-02	0.00E+00	5.75E-02
		K-40	3.22E-01	1.14E-01	2.56E-02



ROBINSON Radiological Environmental Monitoring Analysis Report - 2017 (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
451248	8/22/2017 - 8/29/2017	I-131	<8.31E-03	0.00E+00	8.31E-03
		Cs-134	<7.84E-03	0.00E+00	7.84E-03
		Cs-137	<1.06E-02	0.00E+00	1.06E-02
		Be-7	<6.63E-02	0.00E+00	6.63E-02
		K-40	<2.77E-01	0.00E+00	2.77E-01
451590	8/29/2017 - 9/5/2017	I-131	<1.74E-02	0.00E+00	1.74E-02
		Cs-134	<5.10E-03	0.00E+00	5.10E-03
		Cs-137	<7.04E-03	0.00E+00	7.04E-03
		Be-7	<6.10E-02	0.00E+00	6.10E-02
		K-40	2.50E-01	1.02E-01	2.71E-02
452432	9/5/2017 - 9/12/2017	I-131	<9.89E-03	0.00E+00	9.89E-03
		Cs-134	<7.60E-03	0.00E+00	7.60E-03
		Cs-137	<9.97E-03	0.00E+00	9.97E-03
		Be-7	<4.92E-02	0.00E+00	4.92E-02
		K-40	1.84E-01	1.13E-01	1.41E-01
452846	9/12/2017 - 9/18/2017	I-131	<7.66E-03	0.00E+00	7.66E-03
		Cs-134	<8.27E-03	0.00E+00	8.27E-03
		Cs-137	<9.13E-03	0.00E+00	9.13E-03
		Be-7	<6.33E-02	0.00E+00	6.33E-02
		K-40	1.89E-01	9.32E-02	3.01E-02
453503	9/18/2017 - 9/26/2017	I-131	<8.34E-03	0.00E+00	8.34E-03
		Cs-134	<5.39E-03	0.00E+00	5.39E-03
		Cs-137	<7.68E-03	0.00E+00	7.68E-03
		Be-7	<3.79E-02	0.00E+00	3.79E-02
		K-40	<1.51E-01	0.00E+00	1.51E-01
454287	9/26/2017 - 10/2/2017	I-131	<1.60E-02	0.00E+00	1.60E-02
		Cs-134	<1.55E-02	0.00E+00	1.55E-02
		Cs-137	<1.36E-02	0.00E+00	1.36E-02
		Be-7	<8.50E-02	0.00E+00	8.50E-02
		K-40	2.53E-01	1.66E-01	2.29E-01
455139	10/2/2017 - 10/9/2017	I-131	<1.56E-02	0.00E+00	1.56E-02
		Cs-134	<1.62E-02	0.00E+00	1.62E-02
		Cs-137	<1.18E-02	0.00E+00	1.18E-02
		Be-7	<9.55E-02	0.00E+00	9.55E-02
		K-40	1.62E-01	1.02E-01	1.21E-01
455473	10/9/2017 - 10/17/2017	I-131	<1.89E-02	0.00E+00	1.89E-02
		Cs-134	<1.19E-02	0.00E+00	1.19E-02
		Cs-137	<1.53E-02	0.00E+00	1.53E-02
		Be-7	<8.07E-02	0.00E+00	8.07E-02
		K-40	3.34E-01	1.42E-01	1.52E-01
456101	10/17/2017 - 10/24/2017	I-131	<2.01E-02	0.00E+00	2.01E-02
		Cs-134	<1.73E-02	0.00E+00	1.73E-02
		Cs-137	<1.57E-02	0.00E+00	1.57E-02
		Be-7	<1.13E-01	0.00E+00	1.13E-01
		K-40	4.36E-01	1.74E-01	1.83E-01
461466	10/24/2017 - 10/31/2017	I-131	<2.40E-02	0.00E+00	2.40E-02
		Cs-134	<2.11E-02	0.00E+00	2.11E-02
		Cs-137	<1.54E-02	0.00E+00	1.54E-02
		Be-7	<1.33E-01	0.00E+00	1.33E-01
		K-40	3.96E-01	1.63E-01	1.71E-01



ROBINSON Radiological Environmental Monitoring Analysis Report - 2017 (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
462023	10/31/2017 - 11/7/2017	I-131	<2.32E-02	0.00E+00	2.32E-02
		Cs-134	<1.59E-02	0.00E+00	1.59E-02
		Cs-137	<1.47E-02	0.00E+00	1.47E-02
		Be-7	<1.08E-01	0.00E+00	1.08E-01
		K-40	4.44E-01	1.60E-01	1.19E-01
462668	11/7/2017 - 11/14/2017	I-131	<2.07E-02	0.00E+00	2.07E-02
		Cs-134	<1.43E-02	0.00E+00	1.43E-02
		Cs-137	<1.16E-02	0.00E+00	1.16E-02
		Be-7	<1.11E-01	0.00E+00	1.11E-01
		K-40	4.56E-01	2.08E-01	2.66E-01
463151	11/14/2017 - 11/21/2017	I-131	<3.59E-02	0.00E+00	3.59E-02
		Cs-134	<1.70E-02	0.00E+00	1.70E-02
		Cs-137	<1.63E-02	0.00E+00	1.63E-02
		Be-7	<1.21E-01	0.00E+00	1.21E-01
		K-40	4.20E-01	1.87E-01	2.26E-01
463560	11/21/2017 - 11/28/2017	I-131	<2.01E-02	0.00E+00	2.01E-02
		Cs-134	<1.36E-02	0.00E+00	1.36E-02
		Cs-137	<1.89E-02	0.00E+00	1.89E-02
		Be-7	<1.13E-01	0.00E+00	1.13E-01
		K-40	4.22E-01	2.03E-01	2.64E-01
464202	11/28/2017 - 12/5/2017	I-131	<2.27E-02	0.00E+00	2.27E-02
		Cs-134	<1.64E-02	0.00E+00	1.64E-02
		Cs-137	<1.55E-02	0.00E+00	1.55E-02
		Be-7	<1.19E-01	0.00E+00	1.19E-01
		K-40	4.51E-01	1.62E-01	1.25E-01
464765	12/5/2017 - 12/12/2017	I-131	<3.02E-02	0.00E+00	3.02E-02
		Cs-134	<1.58E-02	0.00E+00	1.58E-02
		Cs-137	<1.69E-02	0.00E+00	1.69E-02
		Be-7	<1.19E-01	0.00E+00	1.19E-01
		K-40	4.59E-01	1.78E-01	1.83E-01
465025	12/12/2017 - 12/19/2017	I-131	<4.28E-02	0.00E+00	4.28E-02
		Cs-134	<1.65E-02	0.00E+00	1.65E-02
		Cs-137	<1.69E-02	0.00E+00	1.69E-02
		Be-7	<1.12E-01	0.00E+00	1.12E-01
		K-40	6.10E-01	2.04E-01	1.97E-01
465260	12/19/2017 - 12/26/2017	I-131	<3.27E-02	0.00E+00	3.27E-02
		Cs-134	<1.28E-02	0.00E+00	1.28E-02
		Cs-137	<1.69E-02	0.00E+00	1.69E-02
		Be-7	<1.30E-01	0.00E+00	1.30E-01
		K-40	5.26E-01	1.73E-01	1.16E-01
465692	12/26/2017 - 1/2/2018	I-131	<3.96E-02	0.00E+00	3.96E-02
		Cs-134	<1.36E-02	0.00E+00	1.36E-02
		Cs-137	<1.50E-02	0.00E+00	1.50E-02
		Be-7	<1.25E-01	0.00E+00	1.25E-01
		K-40	4.92E-01	1.83E-01	1.81E-01

Sample Point 61 [INDICATOR - WSW @ 0.3 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
431880	12/28/2016 - 1/3/2017	I-131	<1.16E-02	0.00E+00	1.16E-02
		Cs-134	<6.10E-03	0.00E+00	6.10E-03
		Cs-137	<9.62E-03	0.00E+00	9.62E-03



ROBINSON Radiological Environmental Monitoring Analysis Report - 2017 (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
431880	12/28/2016 - 1/3/2017	Be-7	<5.53E-02	0.00E+00	5.53E-02
		K-40	3.80E-01	1.47E-01	1.51E-01
432277	1/3/2017 - 1/10/2017	I-131	<8.28E-03	0.00E+00	8.28E-03
		Cs-134	<7.76E-03	0.00E+00	7.76E-03
		Cs-137	<7.79E-03	0.00E+00	7.79E-03
		Be-7	<5.10E-02	0.00E+00	5.10E-02
		K-40	2.81E-01	1.13E-01	8.80E-02
432965	1/10/2017 - 1/16/2017	I-131	<5.49E-03	0.00E+00	5.49E-03
		Cs-134	<3.35E-03	0.00E+00	3.35E-03
		Cs-137	<5.25E-03	0.00E+00	5.25E-03
		Be-7	<3.38E-02	0.00E+00	3.38E-02
		K-40	3.79E-01	1.26E-01	2.63E-02
433360	1/16/2017 - 1/23/2017	I-131	<5.03E-03	0.00E+00	5.03E-03
		Cs-134	<5.09E-03	0.00E+00	5.09E-03
		Cs-137	<6.89E-03	0.00E+00	6.89E-03
		Be-7	<5.19E-02	0.00E+00	5.19E-02
		K-40	3.24E-01	1.12E-01	2.44E-02
433780	1/23/2017 - 1/30/2017	I-131	<9.77E-03	0.00E+00	9.77E-03
		Cs-134	<7.54E-03	0.00E+00	7.54E-03
		Cs-137	<6.74E-03	0.00E+00	6.74E-03
		Be-7	<4.48E-02	0.00E+00	4.48E-02
		K-40	3.07E-01	1.12E-01	2.60E-02
434522	1/30/2017 - 2/6/2017	I-131	<8.12E-03	0.00E+00	8.12E-03
		Cs-134	<3.94E-03	0.00E+00	3.94E-03
		Cs-137	<7.42E-03	0.00E+00	7.42E-03
		Be-7	<4.54E-02	0.00E+00	4.54E-02
		K-40	2.97E-01	1.16E-01	9.98E-02
435170	2/6/2017 - 2/13/2017	I-131	<9.20E-03	0.00E+00	9.20E-03
		Cs-134	<7.79E-03	0.00E+00	7.79E-03
		Cs-137	<7.61E-03	0.00E+00	7.61E-03
		Be-7	<4.99E-02	0.00E+00	4.99E-02
		K-40	4.20E-01	1.40E-01	9.41E-02
435866	2/13/2017 - 2/20/2017	I-131	<1.13E-02	0.00E+00	1.13E-02
		Cs-134	<8.51E-03	0.00E+00	8.51E-03
		Cs-137	<1.01E-02	0.00E+00	1.01E-02
		Be-7	<4.20E-02	0.00E+00	4.20E-02
		K-40	<2.09E-01	0.00E+00	2.09E-01
436319	2/20/2017 - 2/28/2017	I-131	<9.29E-03	0.00E+00	9.29E-03
		Cs-134	<6.42E-03	0.00E+00	6.42E-03
		Cs-137	<7.55E-03	0.00E+00	7.55E-03
		Be-7	<5.50E-02	0.00E+00	5.50E-02
		K-40	<1.98E-01	0.00E+00	1.98E-01
436777	2/28/2017 - 3/6/2017	I-131	<1.49E-02	0.00E+00	1.49E-02
		Cs-134	<7.23E-03	0.00E+00	7.23E-03
		Cs-137	<8.29E-03	0.00E+00	8.29E-03
		Be-7	<6.32E-02	0.00E+00	6.32E-02
		K-40	1.95E-01	9.36E-02	2.94E-02
437654	3/6/2017 - 3/14/2017	I-131	<9.40E-03	0.00E+00	9.40E-03



ROBINSON Radiological Environmental Monitoring Analysis Report - 2017 (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
437654	3/6/2017 - 3/14/2017	Cs-134	<5.26E-03	0.00E+00	5.26E-03
		Cs-137	<6.53E-03	0.00E+00	6.53E-03
		Be-7	<4.29E-02	0.00E+00	4.29E-02
		K-40	<1.29E-01	0.00E+00	1.29E-01
438358	3/14/2017 - 3/20/2017	I-131	<4.76E-03	0.00E+00	4.76E-03
		Cs-134	<5.65E-03	0.00E+00	5.65E-03
		Cs-137	<9.79E-03	0.00E+00	9.79E-03
		Be-7	<5.58E-02	0.00E+00	5.58E-02
		K-40	<2.04E-01	0.00E+00	2.04E-01
438864	3/20/2017 - 3/27/2017	I-131	<1.02E-02	0.00E+00	1.02E-02
		Cs-134	<5.21E-03	0.00E+00	5.21E-03
		Cs-137	<1.13E-02	0.00E+00	1.13E-02
		Be-7	<5.53E-02	0.00E+00	5.53E-02
		K-40	<2.27E-01	0.00E+00	2.27E-01
439258	3/27/2017 - 4/3/2017	I-131	<9.57E-03	0.00E+00	9.57E-03
		Cs-134	<5.78E-03	0.00E+00	5.78E-03
		Cs-137	<8.21E-03	0.00E+00	8.21E-03
		Be-7	<5.68E-02	0.00E+00	5.68E-02
		K-40	1.41E-01	7.39E-02	2.55E-02
440072	4/3/2017 - 4/10/2017	I-131	<8.06E-03	0.00E+00	8.06E-03
		Cs-134	<8.13E-03	0.00E+00	8.13E-03
		Cs-137	<9.21E-03	0.00E+00	9.21E-03
		Be-7	<4.93E-02	0.00E+00	4.93E-02
		K-40	2.45E-01	1.17E-01	1.24E-01
440655	4/10/2017 - 4/17/2017	I-131	<7.66E-03	0.00E+00	7.66E-03
		Cs-134	<8.03E-03	0.00E+00	8.03E-03
		Cs-137	<9.55E-03	0.00E+00	9.55E-03
		Be-7	<5.61E-02	0.00E+00	5.61E-02
		K-40	3.82E-01	1.35E-01	1.03E-01
441472	4/17/2017 - 4/24/2017	I-131	<9.29E-03	0.00E+00	9.29E-03
		Cs-134	<6.42E-03	0.00E+00	6.42E-03
		Cs-137	<5.64E-03	0.00E+00	5.64E-03
		Be-7	<5.21E-02	0.00E+00	5.21E-02
		K-40	3.80E-01	1.38E-01	1.09E-01
441923	4/24/2017 - 5/1/2017	I-131	<1.01E-02	0.00E+00	1.01E-02
		Cs-134	<8.35E-03	0.00E+00	8.35E-03
		Cs-137	<9.97E-03	0.00E+00	9.97E-03
		Be-7	<4.89E-02	0.00E+00	4.89E-02
		K-40	3.00E-01	1.43E-01	1.73E-01
442392	5/1/2017 - 5/8/2017	I-131	<7.31E-03	0.00E+00	7.31E-03
		Cs-134	<6.52E-03	0.00E+00	6.52E-03
		Cs-137	<6.47E-03	0.00E+00	6.47E-03
		Be-7	<5.61E-02	0.00E+00	5.61E-02
		K-40	4.44E-01	1.34E-01	2.50E-02
442924	5/8/2017 - 5/15/2017	I-131	<1.08E-02	0.00E+00	1.08E-02
		Cs-134	<7.11E-03	0.00E+00	7.11E-03
		Cs-137	<1.07E-02	0.00E+00	1.07E-02
		Be-7	<3.56E-02	0.00E+00	3.56E-02
		K-40	3.89E-01	1.44E-01	1.33E-01



ROBINSON Radiological Environmental Monitoring Analysis Report - 2017 (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
443365	5/15/2017 - 5/22/2017	I-131	<5.85E-03	0.00E+00	5.85E-03
		Cs-134	<7.13E-03	0.00E+00	7.13E-03
		Cs-137	<7.49E-03	0.00E+00	7.49E-03
		Be-7	<6.55E-02	0.00E+00	6.55E-02
		K-40	4.31E-01	1.38E-01	9.20E-02
443919	5/22/2017 - 5/30/2017	I-131	<6.27E-03	0.00E+00	6.27E-03
		Cs-134	<4.30E-03	0.00E+00	4.30E-03
		Cs-137	<5.35E-03	0.00E+00	5.35E-03
		Be-7	<4.58E-02	0.00E+00	4.58E-02
		K-40	<2.18E-01	0.00E+00	2.18E-01
444324	5/30/2017 - 6/5/2017	I-131	<9.69E-03	0.00E+00	9.69E-03
		Cs-134	<8.50E-03	0.00E+00	8.50E-03
		Cs-137	<1.17E-02	0.00E+00	1.17E-02
		Be-7	<3.37E-02	0.00E+00	3.37E-02
		K-40	9.88E-02	9.09E-02	1.30E-01
445389	6/5/2017 - 6/12/2017	I-131	<6.78E-03	0.00E+00	6.78E-03
		Cs-134	<5.88E-03	0.00E+00	5.88E-03
		Cs-137	<9.29E-03	0.00E+00	9.29E-03
		Be-7	<5.05E-02	0.00E+00	5.05E-02
		K-40	<1.95E-01	0.00E+00	1.95E-01
446386	6/12/2017 - 6/18/2017	I-131	<8.64E-03	0.00E+00	8.64E-03
		Cs-134	<7.07E-03	0.00E+00	7.07E-03
		Cs-137	<8.15E-03	0.00E+00	8.15E-03
		Be-7	<5.78E-02	0.00E+00	5.78E-02
		K-40	<2.40E-01	0.00E+00	2.40E-01
446886	6/18/2017 - 6/26/2017	I-131	<5.28E-03	0.00E+00	5.28E-03
		Cs-134	<5.39E-03	0.00E+00	5.39E-03
		Cs-137	<7.52E-03	0.00E+00	7.52E-03
		Be-7	<5.18E-02	0.00E+00	5.18E-02
		K-40	<1.84E-01	0.00E+00	1.84E-01
447268	6/26/2017 - 7/3/2017	I-131	<1.07E-02	0.00E+00	1.07E-02
		Cs-134	<4.15E-03	0.00E+00	4.15E-03
		Cs-137	<8.81E-03	0.00E+00	8.81E-03
		Be-7	<3.94E-02	0.00E+00	3.94E-02
		K-40	1.84E-01	1.01E-01	1.18E-01
447871	7/3/2017 - 7/10/2017	I-131	<7.17E-03	0.00E+00	7.17E-03
		Cs-134	<6.23E-03	0.00E+00	6.23E-03
		Cs-137	<6.60E-03	0.00E+00	6.60E-03
		Be-7	<4.98E-02	0.00E+00	4.98E-02
		K-40	<1.68E-01	0.00E+00	1.68E-01
448336	7/10/2017 - 7/18/2017	I-131	<6.02E-03	0.00E+00	6.02E-03
		Cs-134	<5.27E-03	0.00E+00	5.27E-03
		Cs-137	<7.16E-03	0.00E+00	7.16E-03
		Be-7	<4.12E-02	0.00E+00	4.12E-02
		K-40	1.56E-01	7.29E-02	2.22E-02
448954	7/18/2017 - 7/24/2017	I-131	<1.17E-02	0.00E+00	1.17E-02
		Cs-134	<8.26E-03	0.00E+00	8.26E-03
		Cs-137	<9.12E-03	0.00E+00	9.12E-03
		Be-7	<5.07E-02	0.00E+00	5.07E-02
		K-40	<2.33E-01	0.00E+00	2.33E-01



ROBINSON Radiological Environmental Monitoring Analysis Report - 2017 (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
449281	7/24/2017 - 7/31/2017	I-131	<1.77E-02	0.00E+00	1.77E-02
		Cs-134	<9.17E-03	0.00E+00	9.17E-03
		Cs-137	<1.28E-02	0.00E+00	1.28E-02
		Be-7	<6.72E-02	0.00E+00	6.72E-02
		K-40	2.53E-01	1.31E-01	1.47E-01
450000	7/31/2017 - 8/8/2017	I-131	<1.04E-02	0.00E+00	1.04E-02
		Cs-134	<7.57E-03	0.00E+00	7.57E-03
		Cs-137	<8.94E-03	0.00E+00	8.94E-03
		Be-7	<6.68E-02	0.00E+00	6.68E-02
		K-40	1.49E-01	8.65E-02	9.08E-02
450272	8/8/2017 - 8/15/2017	I-131	<5.88E-03	0.00E+00	5.88E-03
		Cs-134	<6.74E-03	0.00E+00	6.74E-03
		Cs-137	<8.70E-03	0.00E+00	8.70E-03
		Be-7	<4.13E-02	0.00E+00	4.13E-02
		K-40	<1.71E-01	0.00E+00	1.71E-01
450787	8/15/2017 - 8/22/2017	I-131	<9.34E-03	0.00E+00	9.34E-03
		Cs-134	<7.55E-03	0.00E+00	7.55E-03
		Cs-137	<6.76E-03	0.00E+00	6.76E-03
		Be-7	<5.19E-02	0.00E+00	5.19E-02
		K-40	<2.07E-01	0.00E+00	2.07E-01
451249	8/22/2017 - 8/29/2017	I-131	<7.60E-03	0.00E+00	7.60E-03
		Cs-134	<5.92E-03	0.00E+00	5.92E-03
		Cs-137	<7.81E-03	0.00E+00	7.81E-03
		Be-7	<5.97E-02	0.00E+00	5.97E-02
		K-40	<2.36E-01	0.00E+00	2.36E-01
451591	8/29/2017 - 9/5/2017	I-131	<1.16E-02	0.00E+00	1.16E-02
		Cs-134	<7.07E-03	0.00E+00	7.07E-03
		Cs-137	<1.02E-02	0.00E+00	1.02E-02
		Be-7	<4.81E-02	0.00E+00	4.81E-02
		K-40	1.68E-01	8.49E-02	7.45E-02
452433	9/5/2017 - 9/12/2017	I-131	<8.42E-03	0.00E+00	8.42E-03
		Cs-134	<5.98E-03	0.00E+00	5.98E-03
		Cs-137	<8.77E-03	0.00E+00	8.77E-03
		Be-7	<3.20E-02	0.00E+00	3.20E-02
		K-40	1.86E-01	9.05E-02	8.13E-02
452847	9/12/2017 - 9/18/2017	I-131	<6.75E-03	0.00E+00	6.75E-03
		Cs-134	<5.19E-03	0.00E+00	5.19E-03
		Cs-137	<6.05E-03	0.00E+00	6.05E-03
		Be-7	<3.68E-02	0.00E+00	3.68E-02
		K-40	1.95E-01	8.72E-02	1.07E-01
453504	9/18/2017 - 9/26/2017	I-131	<7.11E-03	0.00E+00	7.11E-03
		Cs-134	<8.77E-03	0.00E+00	8.77E-03
		Cs-137	<1.04E-02	0.00E+00	1.04E-02
		Be-7	<4.74E-02	0.00E+00	4.74E-02
		K-40	2.41E-01	9.20E-02	2.25E-02
454288	9/26/2017 - 10/2/2017	I-131	<2.28E-02	0.00E+00	2.28E-02
		Cs-134	<1.75E-02	0.00E+00	1.75E-02
		Cs-137	<1.36E-02	0.00E+00	1.36E-02
		Be-7	<1.06E-01	0.00E+00	1.06E-01
		K-40	3.82E-01	2.01E-01	2.63E-01



ROBINSON Radiological Environmental Monitoring Analysis Report - 2017 (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
455140	10/2/2017 - 10/9/2017	I-131	<2.05E-02	0.00E+00	2.05E-02
		Cs-134	<1.21E-02	0.00E+00	1.21E-02
		Cs-137	<1.24E-02	0.00E+00	1.24E-02
		Be-7	<8.91E-02	0.00E+00	8.91E-02
		K-40	1.54E-01	1.43E-01	2.24E-01
455474	10/9/2017 - 10/17/2017	I-131	<1.20E-02	0.00E+00	1.20E-02
		Cs-134	<1.26E-02	0.00E+00	1.26E-02
		Cs-137	<1.13E-02	0.00E+00	1.13E-02
		Be-7	<7.72E-02	0.00E+00	7.72E-02
		K-40	1.26E-01	1.24E-01	1.95E-01
456102	10/17/2017 - 10/24/2017	I-131	<2.02E-02	0.00E+00	2.02E-02
		Cs-134	<1.58E-02	0.00E+00	1.58E-02
		Cs-137	<1.65E-02	0.00E+00	1.65E-02
		Be-7	<1.08E-01	0.00E+00	1.08E-01
		K-40	<3.08E-01	0.00E+00	3.08E-01
461467	10/24/2017 - 10/31/2017	I-131	<2.91E-02	0.00E+00	2.91E-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	<1.03E-01	0.00E+00	1.03E-01
		K-40	4.50E-01	1.60E-01	1.38E-01
462024	10/31/2017 - 11/7/2017	I-131	<2.10E-02	0.00E+00	2.10E-02
		Cs-134	<1.84E-02	0.00E+00	1.84E-02
		Cs-137	<1.61E-02	0.00E+00	1.61E-02
		Be-7	<1.18E-01	0.00E+00	1.18E-01
		K-40	4.24E-01	1.77E-01	2.02E-01
462669	11/7/2017 - 11/14/2017	I-131	<1.62E-02	0.00E+00	1.62E-02
		Cs-134	<1.28E-02	0.00E+00	1.28E-02
		Cs-137	<1.68E-02	0.00E+00	1.68E-02
		Be-7	<9.40E-02	0.00E+00	9.40E-02
		K-40	3.36E-01	1.47E-01	1.53E-01
463152	11/14/2017 - 11/21/2017	I-131	<3.59E-02	0.00E+00	3.59E-02
		Cs-134	<1.77E-02	0.00E+00	1.77E-02
		Cs-137	<1.81E-02	0.00E+00	1.81E-02
		Be-7	<1.26E-01	0.00E+00	1.26E-01
		K-40	2.38E-01	1.58E-01	2.24E-01
463561	11/21/2017 - 11/28/2017	I-131	<2.03E-02	0.00E+00	2.03E-02
		Cs-134	<1.56E-02	0.00E+00	1.56E-02
		Cs-137	<1.68E-02	0.00E+00	1.68E-02
		Be-7	<1.18E-01	0.00E+00	1.18E-01
		K-40	5.18E-01	1.69E-01	1.21E-01
464203	11/28/2017 - 12/5/2017	I-131	<2.12E-02	0.00E+00	2.12E-02
		Cs-134	<1.43E-02	0.00E+00	1.43E-02
		Cs-137	<1.56E-02	0.00E+00	1.56E-02
		Be-7	<9.23E-02	0.00E+00	9.23E-02
		K-40	3.76E-01	1.72E-01	2.06E-01
464766	12/5/2017 - 12/12/2017	I-131	<2.33E-02	0.00E+00	2.33E-02
		Cs-134	<1.69E-02	0.00E+00	1.69E-02
		Cs-137	<1.28E-02	0.00E+00	1.28E-02
		Be-7	<1.13E-01	0.00E+00	1.13E-01
		K-40	4.73E-01	1.93E-01	2.26E-01



ROBINSON Radiological Environmental Monitoring Analysis Report - 2017 (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
465026	12/12/2017 - 12/19/2017		I-131	<3.81E-02	0.00E+00	3.81E-02
			Cs-134	<1.21E-02	0.00E+00	1.21E-02
			Cs-137	<1.47E-02	0.00E+00	1.47E-02
			Be-7	<1.06E-01	0.00E+00	1.07E-01
			K-40	3.55E-01	1.94E-01	2.67E-01
465261	12/19/2017 - 12/26/2017		I-131	<3.11E-02	0.00E+00	3.11E-02
			Cs-134	<1.62E-02	0.00E+00	1.62E-02
			Cs-137	<1.37E-02	0.00E+00	1.37E-02
			Be-7	<1.05E-01	0.00E+00	1.05E-01
			K-40	4.58E-01	1.69E-01	1.62E-01
465693	12/26/2017 - 1/2/2018		I-131	<3.16E-02	0.00E+00	3.16E-02
			Cs-134	<1.69E-02	0.00E+00	1.69E-02
			Cs-137	<1.39E-02	0.00E+00	1.39E-02
			Be-7	<8.95E-02	0.00E+00	8.95E-02
			K-40	4.16E-01	1.50E-01	1.17E-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
453956	9/13/2017 - 9/13/2017	CORN	I-131	<1.82E+01	0.00E+00	1.82E+01
			Cs-134	<1.91E+01	0.00E+00	1.91E+01
			Cs-137	<1.64E+01	0.00E+00	1.64E+01
			Be-7	<1.26E+02	0.00E+00	1.26E+02
			K-40	3.24E+03	5.02E+02	2.91E+02
463431	11/8/2017 - 11/8/2017	CORN	I-131	<1.36E+01	0.00E+00	1.36E+01
			Cs-134	<1.45E+01	0.00E+00	1.45E+01
			Cs-137	<2.12E+01	0.00E+00	2.12E+01
			Be-7	<9.28E+01	0.00E+00	9.28E+01
			K-40	3.17E+03	5.00E+02	3.07E+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
442232	5/15/2017 - 5/15/2017	BOTMFEEDER	Mn-54	<1.62E+01	0.00E+00	1.62E+01
			Co-58	<2.07E+01	0.00E+00	2.07E+01
			Fe-59	<4.49E+01	0.00E+00	4.49E+01
			Co-60	<1.29E+01	0.00E+00	1.29E+01
			Zn-65	<4.15E+01	0.00E+00	4.15E+01
			Nb-95	<2.46E+01	0.00E+00	2.46E+01
			I-131	<5.69E+01	0.00E+00	5.69E+01
			Cs-134	<1.79E+01	0.00E+00	1.79E+01
			Cs-137	1.17E+01	1.39E+01	2.24E+01
			Be-7	<1.29E+02	0.00E+00	1.29E+02
			K-40	2.99E+03	5.58E+02	3.89E+02
			Ag-110M	<1.29E+01	0.00E+00	1.29E+01
			Sb-122	<1.28E+03	0.00E+00	1.28E+03
			Sb-125	<4.56E+01	0.00E+00	4.56E+01
		442233	5/15/2017 - 5/17/2017	FREESWIM	Mn-54	<1.96E+01
	Co-58			<1.79E+01	0.00E+00	1.79E+01
	Fe-59			<6.12E+01	0.00E+00	6.12E+01
	Co-60			<2.10E+01	0.00E+00	2.10E+01
	Zn-65			<3.79E+01	0.00E+00	3.79E+01
	Nb-95			<2.41E+01	0.00E+00	2.41E+01
	I-131			<4.74E+01	0.00E+00	4.74E+01
	Cs-134			<2.04E+01	0.00E+00	2.04E+01
	Cs-137			<3.12E+01	0.00E+00	3.12E+01



ROBINSON Radiological Environmental Monitoring Analysis Report - 2017 (Appendix E)

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

Sample Point 45 [INDICATOR - @ 0 miles]

Sample ID:	Sample Dates:	Location:	Nuclide	Activity	2 Sigma Error	MDA
442233	5/15/2017 - 5/17/2017	FREESWIM	Be-7	<1.42E+02	0.00E+00	1.42E+02
			K-40	3.15E+03	5.40E+02	1.85E+02
			Ag-110M	<1.70E+01	0.00E+00	1.70E+01
			Sb-122	<1.02E+03	0.00E+00	1.02E+03
			Sb-125	<4.34E+01	0.00E+00	4.34E+01

Sample ID:	Sample Dates:	Location:	Nuclide	Activity	2 Sigma Error	MDA
462347	11/15/2017 - 11/15/2017	BOTMFEEDER	Mn-54	<2.78E+01	0.00E+00	2.78E+01
			Co-58	<2.04E+01	0.00E+00	2.04E+01
			Fe-59	<6.29E+01	0.00E+00	6.29E+01
			Co-60	<4.02E+01	0.00E+00	4.02E+01
			Zn-65	<7.16E+01	0.00E+00	7.16E+01
			Nb-95	<3.21E+01	0.00E+00	3.21E+01
			I-131	<8.05E+01	0.00E+00	8.05E+01
			Cs-134	<3.75E+01	0.00E+00	3.75E+01
			Cs-137	<4.60E+01	0.00E+00	4.60E+01
			Be-7	<2.55E+02	0.00E+00	2.55E+02
			K-40	3.18E+03	7.38E+02	1.01E+02
			Ag-110M	<2.41E+01	0.00E+00	2.41E+01
			Sb-122	<8.29E+02	0.00E+00	8.29E+02
Sb-125	<7.64E+01	0.00E+00	7.64E+01			

Sample ID:	Sample Dates:	Location:	Nuclide	Activity	2 Sigma Error	MDA
462348	11/15/2017 - 11/15/2017	FREESWIM	Mn-54	<4.51E+01	0.00E+00	4.51E+01
			Co-58	<4.44E+01	0.00E+00	4.44E+01
			Fe-59	<6.61E+01	0.00E+00	6.61E+01
			Co-60	<5.92E+01	0.00E+00	5.92E+01
			Zn-65	<9.48E+01	0.00E+00	9.48E+01
			Nb-95	<3.46E+01	0.00E+00	3.46E+01
			I-131	<1.15E+02	0.00E+00	1.15E+02
			Cs-134	<5.36E+01	0.00E+00	5.36E+01
			Cs-137	<6.73E+01	0.00E+00	6.73E+01
			Be-7	<3.37E+02	0.00E+00	3.37E+02
			K-40	3.98E+03	1.02E+03	7.37E+02
			Ag-110M	<2.19E+01	0.00E+00	2.19E+01
			Sb-122	<1.25E+03	0.00E+00	1.25E+03
Sb-125	<1.11E+02	0.00E+00	1.11E+02			

Sample Point 46 [INDICATOR - @ 0 miles]

Sample ID:	Sample Dates:	Location:	Nuclide	Activity	2 Sigma Error	MDA
442234	5/17/2017 - 5/17/2017	BOTMFEEDER	Mn-54	<1.97E+01	0.00E+00	1.97E+01
			Co-58	<2.48E+01	0.00E+00	2.48E+01
			Fe-59	<5.34E+01	0.00E+00	5.34E+01
			Co-60	<1.99E+01	0.00E+00	1.99E+01
			Zn-65	<4.15E+01	0.00E+00	4.15E+01
			Nb-95	<2.73E+01	0.00E+00	2.73E+01
			I-131	<4.06E+01	0.00E+00	4.06E+01
			Cs-134	<2.34E+01	0.00E+00	2.34E+01
			Cs-137	<3.18E+01	0.00E+00	3.18E+01
			Be-7	<1.63E+02	0.00E+00	1.63E+02
			K-40	3.04E+03	5.80E+02	2.51E+02
			Ag-110M	<2.28E+01	0.00E+00	2.28E+01
			Sb-122	<9.00E+02	0.00E+00	9.00E+02
Sb-125	<4.43E+01	0.00E+00	4.43E+01			

Sample ID:	Sample Dates:	Location:	Nuclide	Activity	2 Sigma Error	MDA
442235	5/17/2017 - 5/17/2017	FREESWIM	Mn-54	<1.64E+01	0.00E+00	1.64E+01
			Co-58	<2.19E+01	0.00E+00	2.19E+01
			Fe-59	<4.42E+01	0.00E+00	4.42E+01
			Co-60	<2.60E+01	0.00E+00	2.60E+01
			Zn-65	<4.68E+01	0.00E+00	4.68E+01
			Nb-95	<2.42E+01	0.00E+00	2.42E+01
			I-131	<5.12E+01	0.00E+00	5.12E+01
			Cs-134	<2.52E+01	0.00E+00	2.52E+01
			Cs-137	3.58E+01	2.11E+01	2.87E+01



ROBINSON Radiological Environmental Monitoring Analysis Report - 2017 (Appendix E)

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

Sample Point 46 [INDICATOR - @ 0 miles]

Sample ID:	Sample Dates:	FREESWIM	Nuclide	Activity	2 Sigma Error	MDA
442235	5/17/2017 - 5/17/2017		Be-7	<1.44E+02	0.00E+00	1.44E+02
			K-40	3.93E+03	6.61E+02	5.85E+01
			Ag-110M	<2.10E+01	0.00E+00	2.10E+01
			Sb-122	<9.71E+02	0.00E+00	9.71E+02
			Sb-125	<3.91E+01	0.00E+00	3.91E+01

Sample ID:	Sample Dates:	BOTMFEEDER	Nuclide	Activity	2 Sigma Error	MDA
462349	11/16/2017 - 11/16/2017		Mn-54	<3.57E+01	0.00E+00	3.57E+01
			Co-58	<3.28E+01	0.00E+00	3.28E+01
			Fe-59	<6.28E+01	0.00E+00	6.28E+01
			Co-60	<3.51E+01	0.00E+00	3.51E+01
			Zn-65	<9.13E+01	0.00E+00	9.13E+01
			Nb-95	<5.29E+01	0.00E+00	5.29E+01
			I-131	<7.56E+01	0.00E+00	7.56E+01
			Cs-134	<5.18E+01	0.00E+00	5.18E+01
			Cs-137	4.09E+01	2.67E+01	3.10E+01
			Be-7	<3.61E+02	0.00E+00	3.61E+02
			K-40	3.76E+03	9.36E+02	5.23E+02
			Ag-110M	<4.30E+01	0.00E+00	4.30E+01
			Sb-122	<8.25E+02	0.00E+00	8.25E+02
			Sb-125	<9.10E+01	0.00E+00	9.10E+01

Sample ID:	Sample Dates:	FREESWIM	Nuclide	Activity	2 Sigma Error	MDA
462350	11/16/2017 - 11/16/2017		Mn-54	<3.87E+01	0.00E+00	3.87E+01
			Co-58	<4.50E+01	0.00E+00	4.50E+01
			Fe-59	<1.25E+02	0.00E+00	1.25E+02
			Co-60	<1.26E+01	0.00E+00	1.26E+01
			Zn-65	<1.17E+02	0.00E+00	1.17E+02
			Nb-95	<4.38E+01	0.00E+00	4.38E+01
			I-131	<7.99E+01	0.00E+00	7.99E+01
			Cs-134	<4.28E+01	0.00E+00	4.28E+01
			Cs-137	<7.01E+01	0.00E+00	7.01E+01
			Be-7	<3.35E+02	0.00E+00	3.35E+02
			K-40	1.98E+03	7.30E+02	7.36E+02
			Ag-110M	<4.42E+01	0.00E+00	4.42E+01
			Sb-122	<5.05E+02	0.00E+00	5.05E+02
			Sb-125	<7.62E+01	0.00E+00	7.62E+01

Sample Point 47 [CONTROL - @ 0 miles]

Sample ID:	Sample Dates:	BOTMFEEDER	Nuclide	Activity	2 Sigma Error	MDA
442236	5/16/2017 - 5/16/2017		Mn-54	<2.14E+01	0.00E+00	2.14E+01
			Co-58	<2.64E+01	0.00E+00	2.64E+01
			Fe-59	<7.68E+01	0.00E+00	7.68E+01
			Co-60	<2.61E+01	0.00E+00	2.61E+01
			Zn-65	<6.67E+01	0.00E+00	6.67E+01
			Nb-95	<4.09E+01	0.00E+00	4.09E+01
			I-131	<9.63E+01	0.00E+00	9.63E+01
			Cs-134	<3.29E+01	0.00E+00	3.29E+01
			Cs-137	<4.59E+01	0.00E+00	4.59E+01
			Be-7	<2.04E+02	0.00E+00	2.04E+02
			K-40	4.15E+03	7.74E+02	3.23E+02
			Ag-110M	<3.26E+01	0.00E+00	3.26E+01
			Sb-122	<1.56E+03	0.00E+00	1.56E+03
			Sb-125	<6.14E+01	0.00E+00	6.14E+01

Sample ID:	Sample Dates:	FREESWIM	Nuclide	Activity	2 Sigma Error	MDA
442237	5/16/2017 - 5/16/2017		Mn-54	<1.34E+01	0.00E+00	1.34E+01
			Co-58	<1.94E+01	0.00E+00	1.94E+01
			Fe-59	<4.46E+01	0.00E+00	4.46E+01
			Co-60	<2.31E+01	0.00E+00	2.31E+01
			Zn-65	<5.30E+01	0.00E+00	5.30E+01
			Nb-95	<2.01E+01	0.00E+00	2.01E+01
			I-131	<5.49E+01	0.00E+00	5.49E+01
			Cs-134	<2.06E+01	0.00E+00	2.06E+01
			Cs-137	4.70E+01	1.76E+01	1.66E+01



ROBINSON Radiological Environmental Monitoring Analysis Report - 2017 (Appendix E)

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

Sample Point 47 [CONTROL - @ 0 miles]

Sample ID:	Sample Dates:	Location:	Nuclide	Activity	2 Sigma Error	MDA
442237	5/16/2017 - 5/16/2017	FREESWIM	Be-7	<1.76E+02	0.00E+00	1.76E+02
			K-40	3.23E+03	5.55E+02	2.06E+02
			Ag-110M	<1.16E+01	0.00E+00	1.16E+01
			Sb-122	<7.44E+02	0.00E+00	7.44E+02
			Sb-125	<3.63E+01	0.00E+00	3.63E+01

Sample ID:	Sample Dates:	Location:	Nuclide	Activity	2 Sigma Error	MDA
462351	11/14/2017 - 11/14/2017	BOTMFEEDEE	Mn-54	<5.84E+01	0.00E+00	5.84E+01
			Co-58	<6.68E+01	0.00E+00	6.68E+01
			Fe-59	<1.11E+02	0.00E+00	1.11E+02
			Co-60	<4.10E+01	0.00E+00	4.10E+01
			Zn-65	<9.25E+01	0.00E+00	9.25E+01
			Nb-95	<4.30E+01	0.00E+00	4.30E+01
			I-131	<1.18E+02	0.00E+00	1.18E+02
			Cs-134	<7.49E+01	0.00E+00	7.49E+01
			Cs-137	<5.82E+01	0.00E+00	5.82E+01
			Be-7	<3.85E+02	0.00E+00	3.85E+02
			K-40	3.69E+03	1.07E+03	9.27E+02
			Ag-110M	<3.62E+01	0.00E+00	3.62E+01
			Sb-122	<1.39E+03	0.00E+00	1.39E+03
			Sb-125	<1.47E+02	0.00E+00	1.47E+02

Sample ID:	Sample Dates:	Location:	Nuclide	Activity	2 Sigma Error	MDA
462352	11/14/2017 - 11/14/2017	FREESWIM	Mn-54	<5.64E+01	0.00E+00	5.64E+01
			Co-58	<4.14E+01	0.00E+00	4.14E+01
			Fe-59	<8.77E+01	0.00E+00	8.77E+01
			Co-60	<4.76E+01	0.00E+00	4.76E+01
			Zn-65	<1.10E+02	0.00E+00	1.10E+02
			Nb-95	<3.87E+01	0.00E+00	3.87E+01
			I-131	<1.15E+02	0.00E+00	1.15E+02
			Cs-134	<4.23E+01	0.00E+00	4.23E+01
			Cs-137	<6.95E+01	0.00E+00	6.95E+01
			Be-7	<3.30E+02	0.00E+00	3.30E+02
			K-40	3.62E+03	9.60E+02	6.28E+02
			Ag-110M	<4.62E+01	0.00E+00	4.62E+01
			Sb-122	<1.28E+03	0.00E+00	1.28E+03
			Sb-125	<1.11E+02	0.00E+00	1.11E+02

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

Sample Point 64 [INDICATOR - SE @ 0.6 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
431731	1/17/2017 - 1/17/2017	Mn-54	<5.91E+00	0.00E+00	5.91E+00
		Co-58	<5.67E+00	0.00E+00	5.67E+00
		Fe-59	<9.80E+00	0.00E+00	9.80E+00
		Co-60	<6.32E+00	0.00E+00	6.32E+00
		Zn-65	<1.23E+01	0.00E+00	1.23E+01
		Zr-95	<8.79E+00	0.00E+00	8.79E+00
		Nb-95	<6.29E+00	0.00E+00	6.29E+00
		I-131	<5.90E+00	0.00E+00	5.90E+00
		Cs-134	<5.76E+00	0.00E+00	5.76E+00
		Cs-137	<5.97E+00	0.00E+00	5.97E+00
		BaLa-140	<9.25E+00	0.00E+00	9.25E+00
		Be-7	<4.66E+01	0.00E+00	4.66E+01
		K-40	<1.33E+02	0.00E+00	1.33E+02
		H3GW	<-3.1E+01	0.00E+00	1.96E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
439085	4/18/2017 - 4/18/2017	Mn-54	<5.73E+00	0.00E+00	5.73E+00
		Co-58	<4.89E+00	0.00E+00	4.89E+00
		Fe-59	<9.95E+00	0.00E+00	9.95E+00
		Co-60	<6.68E+00	0.00E+00	6.68E+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	<6.25E+00	0.00E+00	6.25E+00
I-131	<5.78E+00	0.00E+00	5.78E+00		



ROBINSON Radiological Environmental Monitoring Analysis Report - 2017 (Appendix E)

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

Sample Point 64 [INDICATOR - SE @ 0.6 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
439085	4/18/2017 - 4/18/2017	Cs-134	<6.66E+00	0.00E+00	6.66E+00
		Cs-137	<7.06E+00	0.00E+00	7.06E+00
		BaLa-140	<7.90E+00	0.00E+00	7.90E+00
		Be-7	<4.63E+01	0.00E+00	4.63E+01
		K-40	9.69E+01	6.38E+01	9.16E+01
		H3GW	<-1.4E+02	0.00E+00	1.97E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
447089	7/10/2017 - 7/10/2017	Mn-54	<6.42E+00	0.00E+00	6.42E+00
		Co-58	<5.49E+00	0.00E+00	5.49E+00
		Fe-59	<1.24E+01	0.00E+00	1.24E+01
		Co-60	<6.05E+00	0.00E+00	6.05E+00
		Zn-65	<1.42E+01	0.00E+00	1.42E+01
		Zr-95	<1.15E+01	0.00E+00	1.15E+01
		Nb-95	<6.16E+00	0.00E+00	6.16E+00
		I-131	<6.78E+00	0.00E+00	6.78E+00
		Cs-134	<6.80E+00	0.00E+00	6.80E+00
		Cs-137	<6.09E+00	0.00E+00	6.09E+00
		BaLa-140	<1.00E+01	0.00E+00	1.00E+01
		Be-7	<4.69E+01	0.00E+00	4.69E+01
		K-40	1.96E+02	7.70E+01	9.07E+01
		H3GW	<-8.8E+01	0.00E+00	1.91E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
454141	10/16/2017 - 10/16/2017	Mn-54	<4.27E+00	0.00E+00	4.27E+00
		Co-58	<5.17E+00	0.00E+00	5.17E+00
		Fe-59	<7.46E+00	0.00E+00	7.46E+00
		Co-60	<6.05E+00	0.00E+00	6.05E+00
		Zn-65	<1.44E+01	0.00E+00	1.44E+01
		Zr-95	<1.04E+01	0.00E+00	1.04E+01
		Nb-95	<5.96E+00	0.00E+00	5.96E+00
		I-131	<8.26E+00	0.00E+00	8.26E+00
		Cs-134	<5.76E+00	0.00E+00	5.76E+00
		Cs-137	<6.32E+00	0.00E+00	6.32E+00
		BaLa-140	<1.03E+01	0.00E+00	1.03E+01
		Be-7	<4.89E+01	0.00E+00	4.89E+01
		K-40	<1.01E+02	0.00E+00	1.01E+02
		H3GW	<-1.4E+02	0.00E+00	2.08E+02

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
428295	2/14/2017 - 2/14/2017	Mn-54	<1.05E+01	0.00E+00	1.05E+01
		Co-58	<1.34E+01	0.00E+00	1.34E+01
		Fe-59	<2.14E+01	0.00E+00	2.14E+01
		Co-60	<1.16E+01	0.00E+00	1.16E+01
		Zn-65	<2.93E+01	0.00E+00	2.93E+01
		Zr-95	<2.50E+01	0.00E+00	2.50E+01
		Nb-95	<1.71E+01	0.00E+00	1.71E+01
		I-131	<1.83E+01	0.00E+00	1.83E+01
		Cs-134	<1.16E+01	0.00E+00	1.16E+01
		Cs-137	<1.56E+01	0.00E+00	1.56E+01
		Be-7	<1.47E+02	0.00E+00	1.47E+02
		K-40	<2.44E+02	0.00E+00	2.44E+02
		Co-57	<1.00E+01	0.00E+00	1.00E+01
		Mo-99	<1.21E+03	0.00E+00	1.21E+03
		Ag-110M	<1.21E+01	0.00E+00	1.21E+01
		Sb-122	<3.13E+02	0.00E+00	3.13E+02
Sb-125	<2.27E+01	0.00E+00	2.27E+01		

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
442926	8/15/2017 - 8/15/2017	Mn-54	<5.52E+00	0.00E+00	5.52E+00
		Co-58	<5.55E+00	0.00E+00	5.55E+00
		Fe-59	<1.23E+01	0.00E+00	1.23E+01
		Co-60	<5.31E+00	0.00E+00	5.31E+00



ROBINSON Radiological Environmental Monitoring Analysis Report - 2017 (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
442926	8/15/2017 - 8/15/2017	Zn-65	<1.63E+01	0.00E+00	1.63E+01
		Zr-95	<1.14E+01	0.00E+00	1.14E+01
		Nb-95	<8.65E+00	0.00E+00	8.65E+00
		I-131	<9.20E+00	0.00E+00	9.20E+00
		Cs-134	<8.33E+00	0.00E+00	8.33E+00
		Cs-137	<8.04E+00	0.00E+00	8.04E+00
		Be-7	1.46E+02	6.21E+01	8.67E+01
		K-40	1.24E+02	5.55E+01	5.10E+01
		Co-57	<5.62E+00	0.00E+00	5.62E+00
		Mo-99	<1.70E+02	0.00E+00	1.70E+02
		Ag-110M	<6.62E+00	0.00E+00	6.62E+00
		Sb-122	<3.58E+01	0.00E+00	3.58E+01
		Sb-125	<1.73E+01	0.00E+00	1.73E+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
436561	1/23/2017 - 2/28/2017	Mn-54	<1.76E+00	0.00E+00	1.76E+00
		Co-58	<2.04E+00	0.00E+00	2.04E+00
		Fe-59	<4.64E+00	0.00E+00	4.64E+00
		Co-60	<1.92E+00	0.00E+00	1.92E+00
		Zn-65	<3.21E+00	0.00E+00	3.21E+00
		Zr-95	<2.86E+00	0.00E+00	2.86E+00
		Nb-95	<2.00E+00	0.00E+00	2.00E+00
		I-131	<9.69E+00	0.00E+00	9.69E+00
		Cs-134	<2.11E+00	0.00E+00	2.11E+00
		Cs-137	<1.69E+00	0.00E+00	1.69E+00
		BaLa-140	<4.88E+00	0.00E+00	4.88E+00
		Be-7	<1.68E+01	0.00E+00	1.68E+01
		K-40	2.99E+01	1.79E+01	2.67E+01
		H3SW	2.74E+03	1.86E+02	2.00E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
439074	2/28/2017 - 3/27/2017	Mn-54	<3.00E+00	0.00E+00	3.00E+00
		Co-58	<3.72E+00	0.00E+00	3.72E+00
		Fe-59	<7.94E+00	0.00E+00	7.94E+00
		Co-60	<3.47E+00	0.00E+00	3.47E+00
		Zn-65	<6.00E+00	0.00E+00	6.00E+00
		Zr-95	<5.90E+00	0.00E+00	5.90E+00
		Nb-95	<4.18E+00	0.00E+00	4.18E+00
		I-131	<1.14E+01	0.00E+00	1.14E+01
		Cs-134	<3.46E+00	0.00E+00	3.46E+00
		Cs-137	<3.65E+00	0.00E+00	3.65E+00
		BaLa-140	<5.94E+00	0.00E+00	5.94E+00
		Be-7	<3.02E+01	0.00E+00	3.02E+01
		K-40	<4.88E+01	0.00E+00	4.88E+01
		H3SW	3.43E+03	1.87E+02	1.98E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
441765	3/27/2017 - 5/1/2017	Mn-54	<2.04E+00	0.00E+00	2.04E+00
		Co-58	<2.03E+00	0.00E+00	2.03E+00
		Fe-59	<4.34E+00	0.00E+00	4.34E+00
		Co-60	<2.04E+00	0.00E+00	2.04E+00
		Zn-65	<3.80E+00	0.00E+00	3.80E+00
		Zr-95	<3.61E+00	0.00E+00	3.61E+00
		Nb-95	<2.61E+00	0.00E+00	2.61E+00
		I-131	<1.14E+01	0.00E+00	1.14E+01
		Cs-134	<2.25E+00	0.00E+00	2.25E+00
		Cs-137	<2.09E+00	0.00E+00	2.09E+00
		BaLa-140	<5.84E+00	0.00E+00	5.84E+00
		Be-7	<1.74E+01	0.00E+00	1.74E+01
		K-40	1.85E+01	1.98E+01	3.21E+01
		H3SW	2.60E+03	1.82E+02	1.97E+02



ROBINSON Radiological Environmental Monitoring Analysis Report - 2017 (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
443932	5/1/2017 - 5/30/2017	Mn-54	<2.49E+00	0.00E+00	2.49E+00
		Co-58	<2.89E+00	0.00E+00	2.89E+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	<4.81E+00	0.00E+00	4.81E+00
		Zr-95	<4.93E+00	0.00E+00	4.93E+00
		Nb-95	<3.96E+00	0.00E+00	3.96E+00
		I-131	<1.08E+01	0.00E+00	1.08E+01
		Cs-134	<2.76E+00	0.00E+00	2.76E+00
		Cs-137	<2.55E+00	0.00E+00	2.55E+00
		BaLa-140	<6.71E+00	0.00E+00	6.71E+00
		Be-7	<2.56E+01	0.00E+00	2.56E+01
		K-40	4.04E+01	1.89E+01	2.20E+01
		H3SW	1.78E+03	1.64E+02	1.96E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
447071	5/30/2017 - 7/3/2017	Mn-54	<1.44E+00	0.00E+00	1.44E+00
		Co-58	<1.89E+00	0.00E+00	1.89E+00
		Fe-59	<4.49E+00	0.00E+00	4.49E+00
		Co-60	<1.66E+00	0.00E+00	1.66E+00
		Zn-65	<3.37E+00	0.00E+00	3.37E+00
		Zr-95	<3.81E+00	0.00E+00	3.81E+00
		Nb-95	<2.61E+00	0.00E+00	2.61E+00
		I-131	<9.82E+00	0.00E+00	9.82E+00
		Cs-134	<1.97E+00	0.00E+00	1.97E+00
		Cs-137	<1.86E+00	0.00E+00	1.86E+00
		BaLa-140	<5.95E+00	0.00E+00	5.95E+00
		Be-7	<1.48E+01	0.00E+00	1.48E+01
		K-40	9.15E+01	2.26E+01	2.51E+01
		H3SW	1.23E+03	1.44E+02	1.86E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
449148	7/3/2017 - 7/31/2017	Mn-54	<1.78E+00	0.00E+00	1.78E+00
		Co-58	<2.42E+00	0.00E+00	2.42E+00
		Fe-59	<6.62E+00	0.00E+00	6.62E+00
		Co-60	<2.83E+00	0.00E+00	2.83E+00
		Zn-65	<5.03E+00	0.00E+00	5.03E+00
		Zr-95	<5.48E+00	0.00E+00	5.48E+00
		Nb-95	<3.05E+00	0.00E+00	3.05E+00
		I-131	<1.07E+01	0.00E+00	1.07E+01
		Cs-134	<2.99E+00	0.00E+00	2.99E+00
		Cs-137	<2.82E+00	0.00E+00	2.82E+00
		BaLa-140	<5.86E+00	0.00E+00	5.86E+00
		Be-7	<2.54E+01	0.00E+00	2.54E+01
		K-40	3.54E+01	2.54E+01	3.80E+01
		H3SW	9.34E+02	1.45E+02	2.03E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
451251	7/31/2017 - 8/29/2017	Mn-54	<1.32E+00	0.00E+00	1.32E+00
		Co-58	<1.71E+00	0.00E+00	1.71E+00
		Fe-59	<4.17E+00	0.00E+00	4.17E+00
		Co-60	<1.40E+00	0.00E+00	1.40E+00
		Zn-65	<3.62E+00	0.00E+00	3.62E+00
		Zr-95	<3.12E+00	0.00E+00	3.12E+00
		Nb-95	<2.18E+00	0.00E+00	2.18E+00
		I-131	<9.91E+00	0.00E+00	9.91E+00
		Cs-134	<1.60E+00	0.00E+00	1.60E+00
		Cs-137	<1.59E+00	0.00E+00	1.59E+00
		BaLa-140	<5.29E+00	0.00E+00	5.29E+00
		Be-7	<1.77E+01	0.00E+00	1.77E+01
		K-40	2.88E+01	1.41E+01	1.98E+01
		H3SW	7.04E+02	1.25E+02	1.77E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
453787	8/29/2017 - 10/2/2017	Mn-54	<2.48E+00	0.00E+00	2.48E+00
		Co-58	<2.33E+00	0.00E+00	2.33E+00



ROBINSON Radiological Environmental Monitoring Analysis Report - 2017 (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
453787	8/29/2017 - 10/2/2017	Fe-59	<4.67E+00	0.00E+00	4.67E+00
		Co-60	<2.38E+00	0.00E+00	2.38E+00
		Zn-65	<5.02E+00	0.00E+00	5.02E+00
		Zr-95	<4.43E+00	0.00E+00	4.43E+00
		Nb-95	<4.02E+00	0.00E+00	4.02E+00
		I-131	<1.18E+01	0.00E+00	1.18E+01
		Cs-134	<2.67E+00	0.00E+00	2.67E+00
		Cs-137	<2.83E+00	0.00E+00	2.83E+00
		BaLa-140	<4.62E+00	0.00E+00	4.62E+00
		Be-7	<2.16E+01	0.00E+00	2.16E+01
		K-40	3.19E+01	2.66E+01	4.14E+01
		H3SW	7.26E+02	1.29E+02	1.83E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
461359	10/2/2017 - 10/31/2017	Mn-54	<2.09E+00	0.00E+00	2.09E+00
		Co-58	<2.34E+00	0.00E+00	2.34E+00
		Fe-59	<4.64E+00	0.00E+00	4.64E+00
		Co-60	<1.73E+00	0.00E+00	1.73E+00
		Zn-65	<4.26E+00	0.00E+00	4.26E+00
		Zr-95	<5.13E+00	0.00E+00	5.13E+00
		Nb-95	<2.84E+00	0.00E+00	2.84E+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	<2.13E+00	0.00E+00	2.13E+00
		BaLa-140	<6.49E+00	0.00E+00	6.49E+00
		Be-7	<1.92E+01	0.00E+00	1.92E+01
		K-40	8.09E+01	2.30E+01	2.62E+01
		H3SW	6.10E+02	1.30E+02	1.92E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
463462	10/31/2017 - 11/28/2017	Mn-54	<2.01E+00	0.00E+00	2.01E+00
		Co-58	<2.30E+00	0.00E+00	2.30E+00
		Fe-59	<4.79E+00	0.00E+00	4.79E+00
		Co-60	<2.01E+00	0.00E+00	2.01E+00
		Zn-65	<4.01E+00	0.00E+00	4.01E+00
		Zr-95	<3.46E+00	0.00E+00	3.46E+00
		Nb-95	<2.90E+00	0.00E+00	2.90E+00
		I-131	<1.07E+01	0.00E+00	1.07E+01
		Cs-134	<1.67E+00	0.00E+00	1.67E+00
		Cs-137	<1.81E+00	0.00E+00	1.81E+00
		BaLa-140	<8.76E+00	0.00E+00	8.76E+00
		Be-7	<1.98E+01	0.00E+00	1.98E+01
		K-40	3.54E+01	1.89E+01	2.62E+01
		H3SW	4.11E+02	1.27E+02	1.96E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
465331	11/28/2017 - 1/2/2018	Mn-54	<7.71E-01	0.00E+00	7.71E-01
		Co-58	<8.94E-01	0.00E+00	8.94E-01
		Fe-59	<2.14E+00	0.00E+00	2.14E+00
		Co-60	<7.12E-01	0.00E+00	7.12E-01
		Zn-65	<1.49E+00	0.00E+00	1.49E+00
		Zr-95	<1.72E+00	0.00E+00	1.72E+00
		Nb-95	<1.40E+00	0.00E+00	1.40E+00
		I-131	<1.01E+01	0.00E+00	1.01E+01
		Cs-134	<8.72E-01	0.00E+00	8.72E-01
		Cs-137	<7.85E-01	0.00E+00	7.85E-01
		BaLa-140	<4.58E+00	0.00E+00	4.58E+00
		Be-7	<9.93E+00	0.00E+00	9.93E+00
		K-40	3.57E+01	9.56E+00	1.29E+01
		H3SW	3.62E+02	1.16E+02	1.79E+02

Sample Point 41 [CONTROL - N @ 8 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
436562	1/23/2017 - 2/28/2017	Mn-54	<1.98E+00	0.00E+00	1.98E+00
		Co-58	<2.59E+00	0.00E+00	2.59E+00



ROBINSON Radiological Environmental Monitoring Analysis Report - 2017 (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		
436562	1/23/2017 - 2/28/2017	Fe-59	<4.51E+00	0.00E+00	4.51E+00		
		Co-60	<2.63E+00	0.00E+00	2.63E+00		
		Zn-65	<3.98E+00	0.00E+00	3.98E+00		
		Zr-95	<4.65E+00	0.00E+00	4.65E+00		
		Nb-95	<3.73E+00	0.00E+00	3.73E+00		
		I-131	<1.18E+01	0.00E+00	1.18E+01		
		Cs-134	<2.45E+00	0.00E+00	2.45E+00		
		Cs-137	<2.38E+00	0.00E+00	2.38E+00		
		BaLa-140	<5.11E+00	0.00E+00	5.11E+00		
		Be-7	<2.29E+01	0.00E+00	2.29E+01		
		K-40	4.34E+01	2.36E+01	3.28E+01		
		H3SW	<-2.0E+01	0.00E+00	2.00E+02		
		439075	2/28/2017 - 3/27/2017	Mn-54	<2.17E+00	0.00E+00	2.17E+00
				Co-58	<2.41E+00	0.00E+00	2.41E+00
Fe-59	<6.57E+00			0.00E+00	6.57E+00		
Co-60	<2.91E+00			0.00E+00	2.91E+00		
Zn-65	<6.13E+00			0.00E+00	6.13E+00		
Zr-95	<5.42E+00			0.00E+00	5.42E+00		
Nb-95	<4.51E+00			0.00E+00	4.51E+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	<2.90E+00			0.00E+00	2.90E+00		
BaLa-140	<8.06E+00			0.00E+00	8.06E+00		
Be-7	<2.67E+01			0.00E+00	2.67E+01		
K-40	5.30E+01			2.43E+01	2.29E+01		
H3SW	<-9.5E+01			0.00E+00	1.98E+02		
441766	3/27/2017 - 5/1/2017	Mn-54	<1.94E+00	0.00E+00	1.94E+00		
		Co-58	<2.38E+00	0.00E+00	2.38E+00		
		Fe-59	<4.32E+00	0.00E+00	4.32E+00		
		Co-60	<2.18E+00	0.00E+00	2.18E+00		
		Zn-65	<3.31E+00	0.00E+00	3.31E+00		
		Zr-95	<4.24E+00	0.00E+00	4.24E+00		
		Nb-95	<2.86E+00	0.00E+00	2.86E+00		
		I-131	<1.20E+01	0.00E+00	1.20E+01		
		Cs-134	<2.23E+00	0.00E+00	2.23E+00		
		Cs-137	<2.65E+00	0.00E+00	2.65E+00		
		BaLa-140	<7.63E+00	0.00E+00	7.63E+00		
		Be-7	<2.17E+01	0.00E+00	2.17E+01		
		K-40	5.97E+01	2.35E+01	2.98E+01		
		H3SW	<-2.7E+01	0.00E+00	1.99E+02		
443933	5/1/2017 - 5/30/2017	Mn-54	<3.50E+00	0.00E+00	3.50E+00		
		Co-58	<2.68E+00	0.00E+00	2.68E+00		
		Fe-59	<6.95E+00	0.00E+00	6.95E+00		
		Co-60	<2.69E+00	0.00E+00	2.69E+00		
		Zn-65	<4.97E+00	0.00E+00	4.97E+00		
		Zr-95	<5.39E+00	0.00E+00	5.39E+00		
		Nb-95	<3.59E+00	0.00E+00	3.59E+00		
		I-131	<1.04E+01	0.00E+00	1.04E+01		
		Cs-134	<3.14E+00	0.00E+00	3.14E+00		
		Cs-137	<2.85E+00	0.00E+00	2.85E+00		
		BaLa-140	<6.30E+00	0.00E+00	6.30E+00		
		Be-7	<2.75E+01	0.00E+00	2.75E+01		
		K-40	8.29E+01	3.39E+01	4.46E+01		
		H3SW	<9.83E+00	0.00E+00	1.98E+02		
447072	5/30/2017 - 7/3/2017	Mn-54	<1.84E+00	0.00E+00	1.84E+00		
		Co-58	<2.35E+00	0.00E+00	2.35E+00		
		Fe-59	<5.64E+00	0.00E+00	5.64E+00		
		Co-60	<2.26E+00	0.00E+00	2.26E+00		



ROBINSON Radiological Environmental Monitoring Analysis Report - 2017 (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
447072	5/30/2017 - 7/3/2017	Zn-65	<4.44E+00	0.00E+00	4.44E+00
		Zr-95	<4.64E+00	0.00E+00	4.64E+00
		Nb-95	<3.01E+00	0.00E+00	3.01E+00
		I-131	<1.04E+01	0.00E+00	1.04E+01
		Cs-134	<2.62E+00	0.00E+00	2.62E+00
		Cs-137	<2.11E+00	0.00E+00	2.11E+00
		BaLa-140	<7.19E+00	0.00E+00	7.19E+00
		Be-7	4.45E+00	1.40E+01	2.42E+01
		K-40	3.31E+01	2.44E+01	3.78E+01
		H3SW	<-7.7E+01	0.00E+00	1.85E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
449149	7/3/2017 - 7/31/2017	Mn-54	<2.85E+00	0.00E+00	2.85E+00
		Co-58	<2.67E+00	0.00E+00	2.67E+00
		Fe-59	<6.06E+00	0.00E+00	6.06E+00
		Co-60	<3.01E+00	0.00E+00	3.01E+00
		Zn-65	<5.56E+00	0.00E+00	5.56E+00
		Zr-95	<4.62E+00	0.00E+00	4.62E+00
		Nb-95	<3.20E+00	0.00E+00	3.20E+00
		I-131	<1.19E+01	0.00E+00	1.19E+01
		Cs-134	<3.04E+00	0.00E+00	3.04E+00
		Cs-137	<2.95E+00	0.00E+00	2.95E+00
		BaLa-140	<7.70E+00	0.00E+00	7.70E+00
		Be-7	<2.71E+01	0.00E+00	2.71E+01
		K-40	8.36E+01	3.19E+01	4.01E+01
		H3SW	<-4.7E+01	0.00E+00	2.07E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
451252	7/31/2017 - 8/29/2017	Mn-54	<1.81E+00	0.00E+00	1.81E+00
		Co-58	<2.01E+00	0.00E+00	2.01E+00
		Fe-59	<4.03E+00	0.00E+00	4.03E+00
		Co-60	<1.65E+00	0.00E+00	1.65E+00
		Zn-65	<2.95E+00	0.00E+00	2.95E+00
		Zr-95	<3.59E+00	0.00E+00	3.59E+00
		Nb-95	<2.63E+00	0.00E+00	2.63E+00
		I-131	<1.19E+01	0.00E+00	1.19E+01
		Cs-134	<1.91E+00	0.00E+00	1.91E+00
		Cs-137	<1.79E+00	0.00E+00	1.79E+00
		BaLa-140	<5.45E+00	0.00E+00	5.45E+00
		Be-7	<1.76E+01	0.00E+00	1.76E+01
		K-40	9.29E+01	2.12E+01	2.15E+01
		H3SW	<-3.8E+01	0.00E+00	1.77E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
453788	8/29/2017 - 10/2/2017	Mn-54	<2.12E+00	0.00E+00	2.12E+00
		Co-58	<2.50E+00	0.00E+00	2.50E+00
		Fe-59	<5.78E+00	0.00E+00	5.78E+00
		Co-60	<2.58E+00	0.00E+00	2.58E+00
		Zn-65	<4.80E+00	0.00E+00	4.80E+00
		Zr-95	<4.89E+00	0.00E+00	4.89E+00
		Nb-95	<3.00E+00	0.00E+00	3.00E+00
		I-131	<1.14E+01	0.00E+00	1.14E+01
		Cs-134	<2.46E+00	0.00E+00	2.46E+00
		Cs-137	<2.29E+00	0.00E+00	2.29E+00
		BaLa-140	<6.95E+00	0.00E+00	6.95E+00
		Be-7	<2.29E+01	0.00E+00	2.29E+01
		K-40	<4.17E+01	0.00E+00	4.17E+01
		H3SW	<-4.7E+00	0.00E+00	1.82E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
461360	10/2/2017 - 10/31/2017	Mn-54	<1.72E+00	0.00E+00	1.72E+00
		Co-58	<2.13E+00	0.00E+00	2.13E+00
		Fe-59	<4.14E+00	0.00E+00	4.14E+00
		Co-60	<2.09E+00	0.00E+00	2.09E+00
		Zn-65	<3.09E+00	0.00E+00	3.09E+00
		Zr-95	<3.74E+00	0.00E+00	3.74E+00



ROBINSON Radiological Environmental Monitoring Analysis Report - 2017 (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
461360	10/2/2017 - 10/31/2017	Nb-95	<2.57E+00	0.00E+00	2.57E+00
		I-131	<1.02E+01	0.00E+00	1.02E+01
		Cs-134	<2.15E+00	0.00E+00	2.15E+00
		Cs-137	<1.86E+00	0.00E+00	1.86E+00
		BaLa-140	<6.67E+00	0.00E+00	6.67E+00
		Be-7	<2.05E+01	0.00E+00	2.05E+01
		K-40	2.96E+01	1.89E+01	2.84E+01
		H3SW	<-1.1E+02	0.00E+00	1.92E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
463463	10/31/2017 - 11/28/2017	Mn-54	<2.02E+00	0.00E+00	2.02E+00
		Co-58	<2.25E+00	0.00E+00	2.25E+00
		Fe-59	<3.82E+00	0.00E+00	3.82E+00
		Co-60	<1.59E+00	0.00E+00	1.59E+00
		Zn-65	<4.31E+00	0.00E+00	4.31E+00
		Zr-95	<3.24E+00	0.00E+00	3.24E+00
		Nb-95	<2.25E+00	0.00E+00	2.25E+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	<1.74E+00	0.00E+00	1.74E+00
		BaLa-140	<8.03E+00	0.00E+00	8.03E+00
		Be-7	<2.10E+01	0.00E+00	2.10E+01
		K-40	3.62E+01	2.04E+01	2.97E+01
		H3SW	<-1.1E+02	0.00E+00	1.96E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
465332	11/28/2017 - 1/2/2018	Mn-54	<8.23E-01	0.00E+00	8.23E-01
		Co-58	<9.39E-01	0.00E+00	9.39E-01
		Fe-59	<2.22E+00	0.00E+00	2.22E+00
		Co-60	<7.59E-01	0.00E+00	7.59E-01
		Zn-65	<1.64E+00	0.00E+00	1.64E+00
		Zr-95	<1.84E+00	0.00E+00	1.84E+00
		Nb-95	<1.49E+00	0.00E+00	1.49E+00
		I-131	<9.98E+00	0.00E+00	9.98E+00
		Cs-134	<7.98E-01	0.00E+00	7.98E-01
		Cs-137	<8.18E-01	0.00E+00	8.18E-01
		BaLa-140	<3.85E+00	0.00E+00	3.85E+00
		Be-7	<8.92E+00	0.00E+00	8.92E+00
		K-40	4.82E+01	1.05E+01	1.33E+01
		H3SW	<-7.3E+01	0.00E+00	1.79E+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
432089	1/13/2017 - 4/11/2017	mR/Std Qtr	15.52
439877	4/11/2017 - 7/13/2017	mR/Std Qtr	12.44
447697	7/13/2017 - 10/17/2017	mR/Std Qtr	14.17
454956	10/17/2017 - 1/18/2018	mR/Std Qtr	21.16

Sample Point 2 [INDICATOR - S @ 0.2 miles]

TLD RING TLD_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
432100	1/13/2017 - 4/11/2017	mR/Std Qtr	17.21
439888	4/11/2017 - 7/13/2017	mR/Std Qtr	12.55
447708	7/13/2017 - 10/17/2017	mR/Std Qtr	13.59



ROBINSON Radiological Environmental Monitoring Analysis Report - 2017 (Appendix E)

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

Sample Point 2 [INDICATOR - S @ 0.2 miles]

TLD RING TLD_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
454967	10/17/2017 - 1/18/2018	mR/Std Qtr	17.83

Sample Point 3 [INDICATOR - N @ 0.5 miles]

TLD RING TLD_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
432111	1/13/2017 - 4/11/2017	mR/Std Qtr	16.88
439899	4/11/2017 - 7/13/2017	mR/Std Qtr	13.43
447719	7/13/2017 - 10/17/2017	mR/Std Qtr	14.23
454978	10/17/2017 - 1/18/2018	mR/Std Qtr	17.36

Sample Point 4 [INDICATOR - ESE @ 0.4 miles]

TLD RING TLD_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
432122	1/13/2017 - 4/11/2017	mR/Std Qtr	13.62
439910	4/11/2017 - 7/13/2017	mR/Std Qtr	10.28
447730	7/13/2017 - 10/17/2017	mR/Std Qtr	10.98
454989	10/17/2017 - 1/18/2018	mR/Std Qtr	13.49

Sample Point 5 [INDICATOR - ENE @ 0.9 miles]

TLD RING TLD_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
432123	1/13/2017 - 4/11/2017	mR/Std Qtr	17.30
439911	4/11/2017 - 7/13/2017	mR/Std Qtr	12.27
447731	7/13/2017 - 10/17/2017	mR/Std Qtr	13.40
454990	10/17/2017 - 1/18/2018	mR/Std Qtr	16.53

Sample Point 6 [INDICATOR - SSW @ 0.2 miles]

TLD RING TLD_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
432126	1/13/2017 - 4/11/2017	mR/Std Qtr	17.57
439914	4/11/2017 - 7/13/2017	mR/Std Qtr	13.80
447734	7/13/2017 - 10/17/2017	mR/Std Qtr	13.81
454993	10/17/2017 - 1/18/2018	mR/Std Qtr	18.86

Sample Point 7 [INDICATOR - ESE @ 6.4 miles]

TLD RING TLD_OUTER

Sample ID:	Sample Dates:	Nuclide	Activity
432129	1/13/2017 - 4/11/2017	mR/Std Qtr	16.42
439917	4/11/2017 - 7/13/2017	mR/Std Qtr	13.37
447737	7/13/2017 - 10/17/2017	mR/Std Qtr	13.66
454996	10/17/2017 - 1/18/2018	mR/Std Qtr	17.19



ROBINSON Radiological Environmental Monitoring Analysis Report - 2017 (Appendix E)

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

Sample Point 8 [INDICATOR - SSE @ 0.8 miles]

TLD RING TLD_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
432130	1/13/2017 - 4/11/2017	mR/Std Qtr	13.03
439918	4/11/2017 - 7/13/2017	mR/Std Qtr	10.95
447738	7/13/2017 - 10/17/2017	mR/Std Qtr	11.24
454997	10/17/2017 - 1/18/2018	mR/Std Qtr	14.15

Sample Point 9 [INDICATOR - S @ 1 miles]

TLD RING TLD_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
432131	1/13/2017 - 4/11/2017	mR/Std Qtr	14.53
439919	4/11/2017 - 7/13/2017	mR/Std Qtr	12.05
447739	7/13/2017 - 10/17/2017	mR/Std Qtr	10.30
454998	10/17/2017 - 1/18/2018	mR/Std Qtr	13.85

Sample Point 10 [INDICATOR - WSW @ 1 miles]

TLD RING TLD_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
432090	1/13/2017 - 4/11/2017	mR/Std Qtr	16.42
439878	4/11/2017 - 7/13/2017	mR/Std Qtr	12.54
447698	7/13/2017 - 10/17/2017	mR/Std Qtr	14.65
454957	10/17/2017 - 1/18/2018	mR/Std Qtr	16.35

Sample Point 11 [INDICATOR - SW @ 1 miles]

TLD RING TLD_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
432091	1/13/2017 - 4/11/2017	mR/Std Qtr	18.55
439879	4/11/2017 - 7/13/2017	mR/Std Qtr	12.00
447699	7/13/2017 - 10/17/2017	mR/Std Qtr	11.79
454958	10/17/2017 - 1/18/2018	mR/Std Qtr	15.67

Sample Point 12 [INDICATOR - SSW @ 1.2 miles]

TLD RING TLD_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
432092	1/13/2017 - 4/11/2017	mR/Std Qtr	19.59
439880	4/11/2017 - 7/13/2017	mR/Std Qtr	15.60
447700	7/13/2017 - 10/17/2017	mR/Std Qtr	16.51
454959	10/17/2017 - 1/18/2018	mR/Std Qtr	21.81

Sample Point 13 [INDICATOR - W @ 0.7 miles]

TLD RING TLD_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
432093	1/13/2017 - 4/11/2017	mR/Std Qtr	17.69



ROBINSON Radiological Environmental Monitoring Analysis Report - 2017 (Appendix E)

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

Sample Point 13 [INDICATOR - W @ 0.7 miles]

TLD RING TLD_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
439881	4/11/2017 - 7/13/2017	mR/Std Qtr	13.93
447701	7/13/2017 - 10/17/2017	mR/Std Qtr	14.31
454960	10/17/2017 - 1/18/2018	mR/Std Qtr	18.91

Sample Point 14 [INDICATOR - WNW @ 0.8 miles]

TLD RING TLD_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
432094	1/13/2017 - 4/11/2017	mR/Std Qtr	20.16
439882	4/11/2017 - 7/13/2017	mR/Std Qtr	15.66
447702	7/13/2017 - 10/17/2017	mR/Std Qtr	18.28
454961	10/17/2017 - 1/18/2018	mR/Std Qtr	20.61

Sample Point 15 [INDICATOR - NW @ 0.7 miles]

TLD RING TLD_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
432095	1/13/2017 - 4/11/2017	mR/Std Qtr	13.41
439883	4/11/2017 - 7/13/2017	mR/Std Qtr	11.60
447703	7/13/2017 - 10/17/2017	mR/Std Qtr	12.86
454962	10/17/2017 - 1/18/2018	mR/Std Qtr	15.16

Sample Point 16 [INDICATOR - NNW @ 1 miles]

TLD RING TLD_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
432096	1/13/2017 - 4/11/2017	mR/Std Qtr	17.98
439884	4/11/2017 - 7/13/2017	mR/Std Qtr	13.19
447704	7/13/2017 - 10/17/2017	mR/Std Qtr	14.02
454963	10/17/2017 - 1/18/2018	mR/Std Qtr	18.65

Sample Point 17 [INDICATOR - N @ 1.2 miles]

TLD RING TLD_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
432097	1/13/2017 - 4/11/2017	mR/Std Qtr	21.24
439885	4/11/2017 - 7/13/2017	mR/Std Qtr	15.75
447705	7/13/2017 - 10/17/2017	mR/Std Qtr	15.46
454964	10/17/2017 - 1/18/2018	mR/Std Qtr	21.01

Sample Point 18 [INDICATOR - SE @ 0.7 miles]

TLD RING TLD_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
432098	1/13/2017 - 4/11/2017	mR/Std Qtr	18.33
439886	4/11/2017 - 7/13/2017	mR/Std Qtr	14.53



ROBINSON Radiological Environmental Monitoring Analysis Report - 2017 (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
447706	7/13/2017 - 10/17/2017	mR/Std Qtr	16.33
454965	10/17/2017 - 1/18/2018	mR/Std Qtr	21.14

Sample Point 19 [INDICATOR - E @ 1 miles]

TLD RING TLD_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
432099	1/13/2017 - 4/11/2017	mR/Std Qtr	16.04
439887	4/11/2017 - 7/13/2017	mR/Std Qtr	13.34
447707	7/13/2017 - 10/17/2017	mR/Std Qtr	13.81
454966	10/17/2017 - 1/18/2018	mR/Std Qtr	17.26

Sample Point 20 [INDICATOR - ENE @ 1 miles]

TLD RING TLD_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
432101	1/13/2017 - 4/11/2017	mR/Std Qtr	15.52
439889	4/11/2017 - 7/13/2017	mR/Std Qtr	14.87
447709	7/13/2017 - 10/17/2017	mR/Std Qtr	13.55
454968	10/17/2017 - 1/18/2018	mR/Std Qtr	17.76

Sample Point 21 [INDICATOR - NE @ 1.4 miles]

TLD RING TLD_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
432102	1/13/2017 - 4/11/2017	mR/Std Qtr	14.94
439890	4/11/2017 - 7/13/2017	mR/Std Qtr	15.56
447710	7/13/2017 - 10/17/2017	mR/Std Qtr	13.75
454969	10/17/2017 - 1/18/2018	mR/Std Qtr	19.46

Sample Point 22 [INDICATOR - NNE @ 1.7 miles]

TLD RING TLD_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
432103	1/13/2017 - 4/11/2017	mR/Std Qtr	16.07
439891	4/11/2017 - 7/13/2017	mR/Std Qtr	14.15
447711	7/13/2017 - 10/17/2017	mR/Std Qtr	14.79
454970	10/17/2017 - 1/18/2018	mR/Std Qtr	18.47

Sample Point 23 [INDICATOR - ESE @ 1 miles]

TLD RING TLD_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
432104	1/13/2017 - 4/11/2017	mR/Std Qtr	17.43
439892	4/11/2017 - 7/13/2017	mR/Std Qtr	14.45
447712	7/13/2017 - 10/17/2017	mR/Std Qtr	16.18



ROBINSON Radiological Environmental Monitoring Analysis Report - 2017 (Appendix E)

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

Sample Point 23 [INDICATOR - ESE @ 1 miles]

TLD RING TLD_INNER

Sample ID: 454971	Sample Dates: 10/17/2017 - 1/18/2018	Nuclide mR/Std Qtr	Activity 18.81
-------------------	--------------------------------------	-----------------------	-------------------

Sample Point 24 [INDICATOR - NW @ 4.6 miles]

TLD RING TLD_OUTER

Sample ID: 432105	Sample Dates: 1/13/2017 - 4/11/2017	Nuclide mR/Std Qtr	Activity 20.22
-------------------	-------------------------------------	-----------------------	-------------------

Sample ID: 439893	Sample Dates: 4/11/2017 - 7/13/2017	Nuclide mR/Std Qtr	Activity 16.71
-------------------	-------------------------------------	-----------------------	-------------------

Sample ID: 447713	Sample Dates: 7/13/2017 - 10/17/2017	Nuclide mR/Std Qtr	Activity 15.70
-------------------	--------------------------------------	-----------------------	-------------------

Sample ID: 454972	Sample Dates: 10/17/2017 - 1/18/2018	Nuclide mR/Std Qtr	Activity 22.04
-------------------	--------------------------------------	-----------------------	-------------------

Sample Point 25 [INDICATOR - NNW @ 4 miles]

TLD RING TLD_OUTER

Sample ID: 432106	Sample Dates: 1/13/2017 - 4/11/2017	Nuclide mR/Std Qtr	Activity 19.66
-------------------	-------------------------------------	-----------------------	-------------------

Sample ID: 439894	Sample Dates: 4/11/2017 - 7/13/2017	Nuclide mR/Std Qtr	Activity 13.98
-------------------	-------------------------------------	-----------------------	-------------------

Sample ID: 447714	Sample Dates: 7/13/2017 - 10/17/2017	Nuclide mR/Std Qtr	Activity 13.99
-------------------	--------------------------------------	-----------------------	-------------------

Sample ID: 454973	Sample Dates: 10/17/2017 - 1/18/2018	Nuclide mR/Std Qtr	Activity 18.30
-------------------	--------------------------------------	-----------------------	-------------------

Sample Point 26 [INDICATOR - N @ 5 miles]

TLD RING TLD_OUTER

Sample ID: 432107	Sample Dates: 1/13/2017 - 4/11/2017	Nuclide mR/Std Qtr	Activity 16.66
-------------------	-------------------------------------	-----------------------	-------------------

Sample ID: 439895	Sample Dates: 4/11/2017 - 7/13/2017	Nuclide mR/Std Qtr	Activity 12.75
-------------------	-------------------------------------	-----------------------	-------------------

Sample ID: 447715	Sample Dates: 7/13/2017 - 10/17/2017	Nuclide mR/Std Qtr	Activity 13.60
-------------------	--------------------------------------	-----------------------	-------------------

Sample ID: 454974	Sample Dates: 10/17/2017 - 1/18/2018	Nuclide mR/Std Qtr	Activity 17.46
-------------------	--------------------------------------	-----------------------	-------------------

Sample Point 27 [INDICATOR - NNE @ 5.4 miles]

TLD RING TLD_OUTER

Sample ID: 432108	Sample Dates: 1/13/2017 - 4/11/2017	Nuclide mR/Std Qtr	Activity 14.60
-------------------	-------------------------------------	-----------------------	-------------------

Sample ID: 439896	Sample Dates: 4/11/2017 - 7/13/2017	Nuclide mR/Std Qtr	Activity 11.47
-------------------	-------------------------------------	-----------------------	-------------------

Sample ID: 447716	Sample Dates: 7/13/2017 - 10/17/2017	Nuclide mR/Std Qtr	Activity 12.01
-------------------	--------------------------------------	-----------------------	-------------------

Sample ID: 454975	Sample Dates: 10/17/2017 - 1/18/2018	Nuclide mR/Std Qtr	Activity 17.33
-------------------	--------------------------------------	-----------------------	-------------------

Sample Point 28 [INDICATOR - NE @ 4.3 miles]

TLD RING TLD_OUTER

Sample ID: 432109	Sample Dates: 1/13/2017 - 4/11/2017	Nuclide mR/Std Qtr	Activity 21.71
-------------------	-------------------------------------	-----------------------	-------------------

Sample ID: 439897	Sample Dates: 4/11/2017 - 7/13/2017	Nuclide mR/Std Qtr	Activity 17.07
-------------------	-------------------------------------	-----------------------	-------------------

Sample ID: 447717	Sample Dates: 7/13/2017 - 10/17/2017	Nuclide mR/Std Qtr	Activity 13.48
-------------------	--------------------------------------	-----------------------	-------------------

Sample ID: 454976	Sample Dates: 10/17/2017 - 1/18/2018	Nuclide mR/Std Qtr	Activity 22.38
-------------------	--------------------------------------	-----------------------	-------------------



ROBINSON Radiological Environmental Monitoring Analysis Report - 2017 (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
432110	1/13/2017 - 4/11/2017	mR/Std Qtr	13.52
439898	4/11/2017 - 7/13/2017	mR/Std Qtr	10.29
447718	7/13/2017 - 10/17/2017	mR/Std Qtr	10.84
454977	10/17/2017 - 1/18/2018	mR/Std Qtr	13.23

Sample Point 30 [INDICATOR - E @ 4.4 miles]

TLD RING TLD_OUTER

Sample ID:	Sample Dates:	Nuclide	Activity
432112	1/13/2017 - 4/11/2017	mR/Std Qtr	17.52
439900	4/11/2017 - 7/13/2017	mR/Std Qtr	12.96
447720	7/13/2017 - 10/17/2017	mR/Std Qtr	14.85
454979	10/17/2017 - 1/18/2018	mR/Std Qtr	19.98

Sample Point 31 [INDICATOR - ESE @ 4.6 miles]

TLD RING TLD_OUTER

Sample ID:	Sample Dates:	Nuclide	Activity
432113	1/13/2017 - 4/11/2017	mR/Std Qtr	19.20
439901	4/11/2017 - 7/13/2017	mR/Std Qtr	15.53
447721	7/13/2017 - 10/17/2017	mR/Std Qtr	15.22
454980	10/17/2017 - 1/18/2018	mR/Std Qtr	17.17

Sample Point 32 [INDICATOR - SE @ 4 miles]

TLD RING TLD_OUTER

Sample ID:	Sample Dates:	Nuclide	Activity
432114	1/13/2017 - 4/11/2017	mR/Std Qtr	13.75
439902	4/11/2017 - 7/13/2017	mR/Std Qtr	9.89
447722	7/13/2017 - 10/17/2017	mR/Std Qtr	12.57
454981	10/17/2017 - 1/18/2018	mR/Std Qtr	18.98

Sample Point 33 [INDICATOR - SSE @ 4.5 miles]

TLD RING TLD_OUTER

Sample ID:	Sample Dates:	Nuclide	Activity
432115	1/13/2017 - 4/11/2017	mR/Std Qtr	17.69
439903	4/11/2017 - 7/13/2017	mR/Std Qtr	13.76
447723	7/13/2017 - 10/17/2017	mR/Std Qtr	13.63
454982	10/17/2017 - 1/18/2018	mR/Std Qtr	19.11

Sample Point 34 [INDICATOR - S @ 4.7 miles]

TLD RING TLD_OUTER

Sample ID:	Sample Dates:	Nuclide	Activity
432116	1/13/2017 - 4/11/2017	mR/Std Qtr	11.70



ROBINSON Radiological Environmental Monitoring Analysis Report - 2017 (Appendix E)

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

Sample Point 34 [INDICATOR - S @ 4.7 miles]

TLD RING TLD_OUTER

Sample ID:	Sample Dates:	Nuclide	Activity
439904	4/11/2017 - 7/13/2017	mR/Std Qtr	9.73
447724	7/13/2017 - 10/17/2017	mR/Std Qtr	12.43
454983	10/17/2017 - 1/18/2018	mR/Std Qtr	15.97

Sample Point 35 [INDICATOR - SSW @ 4.5 miles]

TLD RING TLD_OUTER

Sample ID:	Sample Dates:	Nuclide	Activity
432117	1/13/2017 - 4/11/2017	mR/Std Qtr	24.89
439905	4/11/2017 - 7/13/2017	mR/Std Qtr	20.92
447725	7/13/2017 - 10/17/2017	mR/Std Qtr	20.28
454984	10/17/2017 - 1/18/2018	mR/Std Qtr	26.66

Sample Point 36 [INDICATOR - SW @ 5 miles]

TLD RING TLD_OUTER

Sample ID:	Sample Dates:	Nuclide	Activity
432118	1/13/2017 - 4/11/2017	mR/Std Qtr	20.31
439906	4/11/2017 - 7/13/2017	mR/Std Qtr	19.02
447726	7/13/2017 - 10/17/2017	mR/Std Qtr	19.54
454985	10/17/2017 - 1/18/2018	mR/Std Qtr	25.24

Sample Point 37 [INDICATOR - WSW @ 5 miles]

TLD RING TLD_OUTER

Sample ID:	Sample Dates:	Nuclide	Activity
432119	1/13/2017 - 4/11/2017	mR/Std Qtr	25.45
439907	4/11/2017 - 7/13/2017	mR/Std Qtr	19.78
447727	7/13/2017 - 10/17/2017	mR/Std Qtr	21.84
454986	10/17/2017 - 1/18/2018	mR/Std Qtr	25.08

Sample Point 38 [INDICATOR - W @ 4.9 miles]

TLD RING TLD_OUTER

Sample ID:	Sample Dates:	Nuclide	Activity
432120	1/13/2017 - 4/11/2017	mR/Std Qtr	17.74
439908	4/11/2017 - 7/13/2017	mR/Std Qtr	16.55
447728	7/13/2017 - 10/17/2017	mR/Std Qtr	16.09
454987	10/17/2017 - 1/18/2018	mR/Std Qtr	19.38

Sample Point 39 [INDICATOR - WNW @ 5.1 miles]

TLD RING TLD_OUTER

Sample ID:	Sample Dates:	Nuclide	Activity
432121	1/13/2017 - 4/11/2017	mR/Std Qtr	17.85
439909	4/11/2017 - 7/13/2017	mR/Std Qtr	15.25



ROBINSON Radiological Environmental Monitoring Analysis Report - 2017 (Appendix E)

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

Sample Point 39 [INDICATOR - WNW @ 5.1 miles]

TLD RING TLD_OUTER

Sample ID:	Sample Dates:	Nuclide	Activity
447729	7/13/2017 - 10/17/2017	mR/Std Qtr	14.76
454988	10/17/2017 - 1/18/2018	mR/Std Qtr	17.57

Sample Point 55 [INDICATOR - SSE @ 0.2 miles]

TLD RING TLD_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
432124	1/13/2017 - 4/11/2017	mR/Std Qtr	16.82
439912	4/11/2017 - 7/13/2017	mR/Std Qtr	13.37
447732	7/13/2017 - 10/17/2017	mR/Std Qtr	14.44
454991	10/17/2017 - 1/18/2018	mR/Std Qtr	17.64

Sample Point 56 [INDICATOR - NNW @ 0.4 miles]

TLD RING TLD_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
432125	1/13/2017 - 4/11/2017	mR/Std Qtr	19.12
439913	4/11/2017 - 7/13/2017	mR/Std Qtr	13.96
447733	7/13/2017 - 10/17/2017	mR/Std Qtr	14.21
454992	10/17/2017 - 1/18/2018	mR/Std Qtr	18.77

Sample Point 61 [INDICATOR - WSW @ 0.3 miles]

TLD RING TLD_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
432127	1/13/2017 - 4/11/2017	mR/Std Qtr	23.09
439915	4/11/2017 - 7/13/2017	mR/Std Qtr	18.02
447735	7/13/2017 - 10/17/2017	mR/Std Qtr	19.39
454994	10/17/2017 - 1/18/2018	mR/Std Qtr	27.88

Sample Point 65 [INDICATOR - WNW @ 0.3 miles]

TLD RING TLD_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
432128	1/13/2017 - 4/11/2017	mR/Std Qtr	21.82
439916	4/11/2017 - 7/13/2017	mR/Std Qtr	19.61
447736	7/13/2017 - 10/17/2017	mR/Std Qtr	17.23
454995	10/17/2017 - 1/18/2018	mR/Std Qtr	23.45

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

Sample Point 50 [INDICATOR - SSE @ 0 miles]

Sample ID:	Sample Dates:	PEARLEAF	Nuclide	Activity	2 Sigma Error	MDA
440074	4/12/2017 - 4/12/2017		Mn-54	<2.20E+01	0.00E+00	2.20E+01
			Co-58	<2.09E+01	0.00E+00	2.09E+01
			Fe-59	<5.29E+01	0.00E+00	5.29E+01
			Co-60	<1.82E+01	0.00E+00	1.82E+01
			Zn-65	<4.71E+01	0.00E+00	4.71E+01
			Zr-95	<2.56E+01	0.00E+00	2.56E+01
			Nb-95	<2.20E+01	0.00E+00	2.20E+01



ROBINSON Radiological Environmental Monitoring Analysis Report - 2017 (Appendix E)

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

Sample Point 50 [INDICATOR - SSE @ 0 miles]

Sample ID:	Sample Dates:	PEARLEAF	Nuclide	Activity	2 Sigma Error	MDA
440074	4/12/2017 - 4/12/2017	PEARLEAF	I-131	<2.71E+01	0.00E+00	2.71E+01
			Cs-134	<2.27E+01	0.00E+00	2.27E+01
			Cs-137	<2.96E+01	0.00E+00	2.96E+01
			BaLa-140	<3.97E+01	0.00E+00	3.97E+01
			Be-7	2.04E+02	1.46E+02	2.21E+02
			K-40	5.80E+03	7.84E+02	4.58E+01
440075	4/12/2017 - 4/12/2017	MAGNOLIA	Mn-54	<2.80E+01	0.00E+00	2.80E+01
			Co-58	<2.56E+01	0.00E+00	2.56E+01
			Fe-59	<7.40E+01	0.00E+00	7.40E+01
			Co-60	<2.37E+01	0.00E+00	2.37E+01
			Zn-65	<5.89E+01	0.00E+00	5.89E+01
			Zr-95	<6.15E+01	0.00E+00	6.15E+01
			Nb-95	<2.59E+01	0.00E+00	2.59E+01
			I-131	<4.35E+01	0.00E+00	4.35E+01
			Cs-134	<3.13E+01	0.00E+00	3.13E+01
			Cs-137	<3.30E+01	0.00E+00	3.30E+01
			BaLa-140	<3.11E+01	0.00E+00	3.11E+01
			Be-7	6.23E+02	2.58E+02	3.38E+02
			K-40	3.80E+03	7.12E+02	2.94E+02
440076	4/12/2017 - 4/12/2017	BLKCHERRY	Mn-54	<2.67E+01	0.00E+00	2.67E+01
			Co-58	<2.40E+01	0.00E+00	2.40E+01
			Fe-59	<6.03E+01	0.00E+00	6.03E+01
			Co-60	<3.08E+01	0.00E+00	3.08E+01
			Zn-65	<7.17E+01	0.00E+00	7.17E+01
			Zr-95	<4.17E+01	0.00E+00	4.17E+01
			Nb-95	<2.22E+01	0.00E+00	2.22E+01
			I-131	<3.22E+01	0.00E+00	3.22E+01
			Cs-134	<4.12E+01	0.00E+00	4.12E+01
			Cs-137	<3.34E+01	0.00E+00	3.34E+01
			BaLa-140	<1.16E+01	0.00E+00	1.16E+01
			Be-7	<3.26E+02	0.00E+00	3.26E+02
			K-40	4.16E+03	7.61E+02	3.99E+02
442394	5/9/2017 - 5/9/2017	MIXEDBLV	Mn-54	<2.84E+01	0.00E+00	2.84E+01
			Co-58	<2.97E+01	0.00E+00	2.97E+01
			Fe-59	<3.95E+01	0.00E+00	3.95E+01
			Co-60	<3.30E+01	0.00E+00	3.30E+01
			Zn-65	<6.75E+01	0.00E+00	6.75E+01
			Zr-95	<4.57E+01	0.00E+00	4.57E+01
			Nb-95	<3.14E+01	0.00E+00	3.14E+01
			I-131	<3.32E+01	0.00E+00	3.32E+01
			Cs-134	<4.14E+01	0.00E+00	4.14E+01
			Cs-137	<4.68E+01	0.00E+00	4.68E+01
			BaLa-140	<2.58E+01	0.00E+00	2.58E+01
			Be-7	1.19E+03	3.15E+02	3.29E+02
			K-40	3.79E+03	7.45E+02	4.29E+02
445391	6/13/2017 - 6/13/2017	MIXEDBLV	Mn-54	<2.81E+01	0.00E+00	2.81E+01
			Co-58	<2.02E+01	0.00E+00	2.02E+01
			Fe-59	<6.65E+01	0.00E+00	6.65E+01
			Co-60	<2.71E+01	0.00E+00	2.71E+01
			Zn-65	<5.15E+01	0.00E+00	5.15E+01
			Zr-95	<4.66E+01	0.00E+00	4.66E+01
			Nb-95	<2.25E+01	0.00E+00	2.25E+01
			I-131	<1.92E+01	0.00E+00	1.92E+01
			Cs-134	<3.15E+01	0.00E+00	3.15E+01
			Cs-137	<3.75E+01	0.00E+00	3.75E+01
			BaLa-140	<3.65E+01	0.00E+00	3.65E+01
			Be-7	9.29E+02	2.58E+02	2.79E+02
			K-40	3.34E+03	6.54E+02	4.38E+02



ROBINSON Radiological Environmental Monitoring Analysis Report - 2017 (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
447873	7/12/2017 - 7/12/2017	MIXEDBLV	Mn-54	<3.26E+01	0.00E+00	3.26E+01
			Co-58	<3.05E+01	0.00E+00	3.05E+01
			Fe-59	<5.88E+01	0.00E+00	5.88E+01
			Co-60	<3.23E+01	0.00E+00	3.23E+01
			Zn-65	<5.11E+01	0.00E+00	5.11E+01
			Zr-95	<6.06E+01	0.00E+00	6.06E+01
			Nb-95	<2.33E+01	0.00E+00	2.33E+01
			I-131	<4.01E+01	0.00E+00	4.01E+01
			Cs-134	<3.63E+01	0.00E+00	3.63E+01
			Cs-137	<4.66E+01	0.00E+00	4.66E+01
			BaLa-140	<4.13E+01	0.00E+00	4.13E+01
			Be-7	9.12E+02	2.83E+02	3.15E+02
			K-40	4.21E+03	7.83E+02	4.23E+02
			450274	8/9/2017 - 8/9/2017	MIXEDBLV	Mn-54
Co-58	<2.32E+01	0.00E+00				2.32E+01
Fe-59	<4.50E+01	0.00E+00				4.50E+01
Co-60	<2.71E+01	0.00E+00				2.71E+01
Zn-65	<5.13E+01	0.00E+00				5.13E+01
Zr-95	<4.44E+01	0.00E+00				4.44E+01
Nb-95	<2.34E+01	0.00E+00				2.34E+01
I-131	<3.50E+01	0.00E+00				3.50E+01
Cs-134	<2.65E+01	0.00E+00				2.65E+01
Cs-137	<3.00E+01	0.00E+00				3.00E+01
BaLa-140	<4.10E+01	0.00E+00				4.10E+01
Be-7	7.32E+02	2.41E+02				2.95E+02
K-40	2.83E+03	5.62E+02				3.28E+02
452435	9/13/2017 - 9/13/2017	MIXEDBLV				Mn-54
			Co-58	<2.12E+01	0.00E+00	2.12E+01
			Fe-59	<4.03E+01	0.00E+00	4.03E+01
			Co-60	<2.46E+01	0.00E+00	2.46E+01
			Zn-65	<7.00E+01	0.00E+00	7.00E+01
			Zr-95	<4.45E+01	0.00E+00	4.45E+01
			Nb-95	<2.28E+01	0.00E+00	2.28E+01
			I-131	<3.39E+01	0.00E+00	3.39E+01
			Cs-134	<3.56E+01	0.00E+00	3.56E+01
			Cs-137	<3.07E+01	0.00E+00	3.07E+01
			BaLa-140	<3.32E+01	0.00E+00	3.32E+01
			Be-7	3.79E+03	5.57E+02	3.78E+02
			K-40	3.29E+03	6.50E+02	4.37E+02
			461352	10/11/2017 - 10/11/2017	MIXEDBLV	Mn-54
Co-58	<3.41E+01	0.00E+00				3.41E+01
Fe-59	<6.93E+01	0.00E+00				6.93E+01
Co-60	<4.54E+01	0.00E+00				4.54E+01
Zn-65	<8.49E+01	0.00E+00				8.49E+01
Zr-95	<4.25E+01	0.00E+00				4.25E+01
Nb-95	<2.73E+01	0.00E+00				2.73E+01
I-131	<3.68E+01	0.00E+00				3.68E+01
Cs-134	<4.33E+01	0.00E+00				4.33E+01
Cs-137	<4.30E+01	0.00E+00				4.30E+01
BaLa-140	<6.66E+01	0.00E+00				6.66E+01
Be-7	<4.19E+02	0.00E+00				4.19E+02
K-40	2.72E+03	6.82E+02				5.07E+02
455142	11/6/2017 - 11/6/2017	MIXEDBLV				Mn-54
			Co-58	<3.74E+01	0.00E+00	3.74E+01
			Fe-59	<7.06E+01	0.00E+00	7.06E+01
			Co-60	<4.64E+01	0.00E+00	4.64E+01
			Zn-65	<7.66E+01	0.00E+00	7.66E+01
			Zr-95	<7.24E+01	0.00E+00	7.24E+01



ROBINSON Radiological Environmental Monitoring Analysis Report - 2017 (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
455142	11/6/2017 - 11/6/2017		Nb-95	<3.96E+01	0.00E+00	3.96E+01
			I-131	<4.32E+01	0.00E+00	4.32E+01
			Cs-134	<4.52E+01	0.00E+00	4.52E+01
			Cs-137	<4.16E+01	0.00E+00	4.16E+01
			BaLa-140	<4.27E+01	0.00E+00	4.27E+01
			Be-7	7.68E+02	3.41E+02	5.17E+02
			K-40	6.72E+03	9.06E+02	5.07E+02

Sample Point 51 [INDICATOR - SSW @ 0 miles]

Sample ID:	Sample Dates:	SASSAFRAS	Nuclide	Activity	2 Sigma Error	MDA
440077	4/12/2017 - 4/12/2017		Mn-54	<2.35E+01	0.00E+00	2.35E+01
			Co-58	<3.74E+01	0.00E+00	3.74E+01
			Fe-59	<5.62E+01	0.00E+00	5.62E+01
			Co-60	<3.38E+01	0.00E+00	3.38E+01
			Zn-65	<6.34E+01	0.00E+00	6.34E+01
			Zr-95	<4.95E+01	0.00E+00	4.95E+01
			Nb-95	<3.00E+01	0.00E+00	3.00E+01
			I-131	<3.44E+01	0.00E+00	3.44E+01
			Cs-134	<2.43E+01	0.00E+00	2.43E+01
			Cs-137	5.44E+01	2.83E+01	3.83E+01
			BaLa-140	<3.67E+01	0.00E+00	3.67E+01
			Be-7	<3.02E+02	0.00E+00	3.02E+02
			K-40	4.06E+03	7.66E+02	5.67E+02

Sample ID:	Sample Dates:	PEARLEAF	Nuclide	Activity	2 Sigma Error	MDA
440078	4/12/2017 - 4/12/2017		Mn-54	<2.22E+01	0.00E+00	2.22E+01
			Co-58	<1.99E+01	0.00E+00	1.99E+01
			Fe-59	<3.52E+01	0.00E+00	3.52E+01
			Co-60	<2.49E+01	0.00E+00	2.49E+01
			Zn-65	<5.18E+01	0.00E+00	5.18E+01
			Zr-95	<4.11E+01	0.00E+00	4.11E+01
			Nb-95	<2.55E+01	0.00E+00	2.55E+01
			I-131	<2.97E+01	0.00E+00	2.97E+01
			Cs-134	<2.75E+01	0.00E+00	2.75E+01
			Cs-137	2.96E+01	1.95E+01	2.83E+01
			BaLa-140	<3.12E+01	0.00E+00	3.12E+01
			Be-7	2.46E+02	1.49E+02	2.16E+02
			K-40	4.46E+03	6.89E+02	3.29E+02

Sample ID:	Sample Dates:	BLKCHERRY	Nuclide	Activity	2 Sigma Error	MDA
440079	4/12/2017 - 4/12/2017		Mn-54	<1.99E+01	0.00E+00	1.99E+01
			Co-58	<2.16E+01	0.00E+00	2.16E+01
			Fe-59	<5.29E+01	0.00E+00	5.29E+01
			Co-60	<2.29E+01	0.00E+00	2.29E+01
			Zn-65	<6.10E+01	0.00E+00	6.10E+01
			Zr-95	<4.12E+01	0.00E+00	4.12E+01
			Nb-95	<3.01E+01	0.00E+00	3.01E+01
			I-131	<2.73E+01	0.00E+00	2.73E+01
			Cs-134	<2.35E+01	0.00E+00	2.35E+01
			Cs-137	<2.48E+01	0.00E+00	2.48E+01
			BaLa-140	<2.32E+01	0.00E+00	2.32E+01
			Be-7	<2.36E+02	0.00E+00	2.36E+02
			K-40	3.82E+03	6.38E+02	2.83E+02

Sample ID:	Sample Dates:	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
442397	5/9/2017 - 5/9/2017		Mn-54	<2.39E+01	0.00E+00	2.39E+01
			Co-58	<2.21E+01	0.00E+00	2.21E+01
			Fe-59	<5.69E+01	0.00E+00	5.69E+01
			Co-60	<2.44E+01	0.00E+00	2.44E+01
			Zn-65	<4.25E+01	0.00E+00	4.25E+01
			Zr-95	<3.39E+01	0.00E+00	3.39E+01
			Nb-95	<2.27E+01	0.00E+00	2.27E+01
			I-131	<1.39E+01	0.00E+00	1.39E+01
			Cs-134	<3.27E+01	0.00E+00	3.27E+01
			Cs-137	<3.25E+01	0.00E+00	3.25E+01



ROBINSON Radiological Environmental Monitoring Analysis Report - 2017 (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
442397	5/9/2017 - 5/9/2017	MIXEDBLV	BaLa-140	<2.63E+01	0.00E+00	2.63E+01
			Be-7	6.25E+02	1.77E+02	1.83E+02
			K-40	6.77E+03	8.86E+02	4.71E+01
445392	6/13/2017 - 6/13/2017	MIXEDBLV	Mn-54	<2.72E+01	0.00E+00	2.72E+01
			Co-58	<3.06E+01	0.00E+00	3.06E+01
			Fe-59	<6.48E+01	0.00E+00	6.48E+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	<4.24E+01	0.00E+00	4.24E+01
			Nb-95	<2.64E+01	0.00E+00	2.64E+01
			I-131	<2.89E+01	0.00E+00	2.89E+01
			Cs-134	<3.68E+01	0.00E+00	3.68E+01
			Cs-137	<3.46E+01	0.00E+00	3.46E+01
			BaLa-140	<2.34E+01	0.00E+00	2.34E+01
			Be-7	<3.32E+02	0.00E+00	3.32E+02
			K-40	3.65E+03	7.08E+02	4.92E+02
447874	7/12/2017 - 7/12/2017	MIXEDBLV	Mn-54	<2.32E+01	0.00E+00	2.32E+01
			Co-58	<3.17E+01	0.00E+00	3.17E+01
			Fe-59	<7.40E+01	0.00E+00	7.40E+01
			Co-60	<3.07E+01	0.00E+00	3.07E+01
			Zn-65	<7.13E+01	0.00E+00	7.13E+01
			Zr-95	<5.95E+01	0.00E+00	5.95E+01
			Nb-95	<3.46E+01	0.00E+00	3.46E+01
			I-131	<3.17E+01	0.00E+00	3.17E+01
			Cs-134	<3.85E+01	0.00E+00	3.85E+01
			Cs-137	<3.52E+01	0.00E+00	3.52E+01
			BaLa-140	<5.07E+01	0.00E+00	5.07E+01
			Be-7	1.06E+03	2.94E+02	3.11E+02
			K-40	3.42E+03	6.51E+02	6.92E+01
450275	8/9/2017 - 8/9/2017	MIXEDBLV	Mn-54	<2.65E+01	0.00E+00	2.65E+01
			Co-58	<2.87E+01	0.00E+00	2.87E+01
			Fe-59	<7.05E+01	0.00E+00	7.05E+01
			Co-60	<3.83E+01	0.00E+00	3.83E+01
			Zn-65	<6.32E+01	0.00E+00	6.32E+01
			Zr-95	<3.78E+01	0.00E+00	3.78E+01
			Nb-95	<2.90E+01	0.00E+00	2.90E+01
			I-131	<3.55E+01	0.00E+00	3.55E+01
			Cs-134	<3.83E+01	0.00E+00	3.83E+01
			Cs-137	<3.80E+01	0.00E+00	3.80E+01
			BaLa-140	<4.53E+01	0.00E+00	4.53E+01
			Be-7	1.76E+03	3.70E+02	3.23E+02
			K-40	2.66E+03	6.16E+02	4.75E+02
452436	9/13/2017 - 9/13/2017	MIXEDBLV	Mn-54	<3.04E+01	0.00E+00	3.04E+01
			Co-58	<1.65E+01	0.00E+00	1.65E+01
			Fe-59	<7.50E+01	0.00E+00	7.50E+01
			Co-60	<2.34E+01	0.00E+00	2.34E+01
			Zn-65	<6.26E+01	0.00E+00	6.26E+01
			Zr-95	<4.91E+01	0.00E+00	4.91E+01
			Nb-95	<2.33E+01	0.00E+00	2.33E+01
			I-131	<2.73E+01	0.00E+00	2.73E+01
			Cs-134	<3.93E+01	0.00E+00	3.93E+01
			Cs-137	<3.05E+01	0.00E+00	3.05E+01
			BaLa-140	<4.74E+01	0.00E+00	4.74E+01
			Be-7	4.10E+03	6.03E+02	4.16E+02
			K-40	2.85E+03	6.11E+02	3.66E+02
461353	10/11/2017 - 10/11/2017	MIXEDBLV	Mn-54	<3.05E+01	0.00E+00	3.05E+01
			Co-58	<2.96E+01	0.00E+00	2.96E+01



ROBINSON Radiological Environmental Monitoring Analysis Report - 2017 (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
461353	10/11/2017 - 10/11/2017	MIXEDBLV	Fe-59	<6.13E+01	0.00E+00	6.13E+01
			Co-60	<3.17E+01	0.00E+00	3.17E+01
			Zn-65	<6.09E+01	0.00E+00	6.09E+01
			Zr-95	<4.58E+01	0.00E+00	4.58E+01
			Nb-95	<3.77E+01	0.00E+00	3.77E+01
			I-131	<4.77E+01	0.00E+00	4.77E+01
			Cs-134	<4.36E+01	0.00E+00	4.36E+01
			Cs-137	<3.19E+01	0.00E+00	3.19E+01
			BaLa-140	<5.03E+01	0.00E+00	5.03E+01
			Be-7	9.05E+02	2.88E+02	3.36E+02
			K-40	4.03E+03	7.79E+02	5.29E+02

Sample ID:	Sample Dates:	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
455143	11/6/2017 - 11/6/2017	MIXEDBLV	Mn-54	<3.70E+01	0.00E+00	3.70E+01
			Co-58	<3.66E+01	0.00E+00	3.66E+01
			Fe-59	<7.03E+01	0.00E+00	7.03E+01
			Co-60	<3.15E+01	0.00E+00	3.15E+01
			Zn-65	<9.00E+01	0.00E+00	9.00E+01
			Zr-95	<7.05E+01	0.00E+00	7.05E+01
			Nb-95	<4.12E+01	0.00E+00	4.12E+01
			I-131	<4.47E+01	0.00E+00	4.47E+01
			Cs-134	<4.76E+01	0.00E+00	4.76E+01
			Cs-137	6.40E+01	2.24E+01	4.52E+01
			BaLa-140	<3.97E+01	0.00E+00	3.97E+01
			Be-7	1.50E+03	4.04E+02	5.37E+02
			K-40	4.21E+03	7.45E+02	6.00E+02

Sample Point 52 [CONTROL - W @ 10 miles]

Sample ID:	Sample Dates:	WAXMYRTLE	Nuclide	Activity	2 Sigma Error	MDA
440080	4/12/2017 - 4/12/2017	WAXMYRTLE	Mn-54	<2.98E+01	0.00E+00	2.98E+01
			Co-58	<3.06E+01	0.00E+00	3.06E+01
			Fe-59	<5.92E+01	0.00E+00	5.92E+01
			Co-60	<4.07E+01	0.00E+00	4.07E+01
			Zn-65	<5.14E+01	0.00E+00	5.14E+01
			Zr-95	<5.05E+01	0.00E+00	5.05E+01
			Nb-95	<3.25E+01	0.00E+00	3.25E+01
			I-131	<4.79E+01	0.00E+00	4.79E+01
			Cs-134	<3.80E+01	0.00E+00	3.80E+01
			Cs-137	<3.85E+01	0.00E+00	3.85E+01
			BaLa-140	<3.32E+01	0.00E+00	3.32E+01
			Be-7	1.63E+03	3.59E+02	3.12E+02
			K-40	2.27E+03	5.96E+02	5.27E+02

Sample ID:	Sample Dates:	BLKCHERRY	Nuclide	Activity	2 Sigma Error	MDA
440081	4/12/2017 - 4/12/2017	BLKCHERRY	Mn-54	<8.93E+00	0.00E+00	8.93E+00
			Co-58	<1.40E+01	0.00E+00	1.40E+01
			Fe-59	<2.46E+01	0.00E+00	2.46E+01
			Co-60	<7.15E+00	0.00E+00	7.15E+00
			Zn-65	<1.97E+01	0.00E+00	1.97E+01
			Zr-95	<1.92E+01	0.00E+00	1.92E+01
			Nb-95	<1.42E+01	0.00E+00	1.42E+01
			I-131	<4.74E+01	0.00E+00	4.74E+01
			Cs-134	<1.03E+01	0.00E+00	1.03E+01
			Cs-137	1.38E+01	9.96E+00	1.57E+01
			BaLa-140	<3.25E+01	0.00E+00	3.25E+01
			Be-7	2.99E+02	9.62E+01	1.33E+02
			K-40	3.47E+03	3.71E+02	1.43E+02

Sample ID:	Sample Dates:	HOLLY	Nuclide	Activity	2 Sigma Error	MDA
440082	4/12/2017 - 4/12/2017	HOLLY	Mn-54	<2.82E+01	0.00E+00	2.82E+01
			Co-58	<3.05E+01	0.00E+00	3.05E+01
			Fe-59	<6.04E+01	0.00E+00	6.04E+01
			Co-60	<3.08E+01	0.00E+00	3.08E+01
			Zn-65	<7.54E+01	0.00E+00	7.54E+01
			Zr-95	<4.78E+01	0.00E+00	4.78E+01



ROBINSON Radiological Environmental Monitoring Analysis Report - 2017 (Appendix E)

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

Sample Point 52 [CONTROL - W @ 10 miles]

Sample ID:	Sample Dates:	Location:	Nuclide	Activity	2 Sigma Error	MDA
440082	4/12/2017 - 4/12/2017	HOLLY	Nb-95	<2.43E+01	0.00E+00	2.43E+01
			I-131	<4.53E+01	0.00E+00	4.53E+01
			Cs-134	<2.60E+01	0.00E+00	2.60E+01
			Cs-137	6.14E+01	2.74E+01	3.29E+01
			BaLa-140	<5.62E+01	0.00E+00	5.62E+01
			Be-7	6.56E+02	2.71E+02	3.60E+02
			K-40	2.06E+03	5.06E+02	2.68E+02
442400	5/9/2017 - 5/9/2017	MIXEDBLV	Mn-54	<1.49E+01	0.00E+00	1.49E+01
			Co-58	<2.20E+01	0.00E+00	2.20E+01
			Fe-59	<4.08E+01	0.00E+00	4.08E+01
			Co-60	<2.35E+01	0.00E+00	2.35E+01
			Zn-65	<5.04E+01	0.00E+00	5.04E+01
			Zr-95	<2.75E+01	0.00E+00	2.75E+01
			Nb-95	<2.18E+01	0.00E+00	2.18E+01
			I-131	<1.89E+01	0.00E+00	1.89E+01
			Cs-134	<1.92E+01	0.00E+00	1.92E+01
			Cs-137	8.01E+01	2.56E+01	2.85E+01
			BaLa-140	<1.57E+01	0.00E+00	1.57E+01
			Be-7	7.05E+02	1.82E+02	1.79E+02
			K-40	2.93E+03	5.13E+02	2.07E+02
445393	6/13/2017 - 6/13/2017	MIXEDBLV	Mn-54	<2.00E+01	0.00E+00	2.00E+01
			Co-58	<2.50E+01	0.00E+00	2.50E+01
			Fe-59	<5.38E+01	0.00E+00	5.38E+01
			Co-60	<2.92E+01	0.00E+00	2.92E+01
			Zn-65	<6.36E+01	0.00E+00	6.36E+01
			Zr-95	<5.22E+01	0.00E+00	5.22E+01
			Nb-95	<3.25E+01	0.00E+00	3.25E+01
			I-131	<2.38E+01	0.00E+00	2.38E+01
			Cs-134	<3.11E+01	0.00E+00	3.11E+01
			Cs-137	6.08E+01	2.72E+01	3.34E+01
			BaLa-140	<2.42E+01	0.00E+00	2.42E+01
			Be-7	7.22E+02	2.71E+02	3.54E+02
			K-40	2.04E+03	5.10E+02	3.64E+02
447875	7/12/2017 - 7/12/2017	MIXEDBLV	Mn-54	<2.96E+01	0.00E+00	2.96E+01
			Co-58	<3.17E+01	0.00E+00	3.17E+01
			Fe-59	<6.76E+01	0.00E+00	6.76E+01
			Co-60	<3.36E+01	0.00E+00	3.36E+01
			Zn-65	<7.16E+01	0.00E+00	7.16E+01
			Zr-95	<5.03E+01	0.00E+00	5.03E+01
			Nb-95	<2.91E+01	0.00E+00	2.91E+01
			I-131	<3.40E+01	0.00E+00	3.40E+01
			Cs-134	<2.98E+01	0.00E+00	2.98E+01
			Cs-137	<3.92E+01	0.00E+00	3.92E+01
			BaLa-140	<3.91E+01	0.00E+00	3.91E+01
			Be-7	1.62E+03	3.70E+02	3.70E+02
			K-40	2.94E+03	6.45E+02	4.56E+02
450276	8/9/2017 - 8/9/2017	MIXEDBLV	Mn-54	<2.72E+01	0.00E+00	2.72E+01
			Co-58	<3.24E+01	0.00E+00	3.24E+01
			Fe-59	<7.23E+01	0.00E+00	7.23E+01
			Co-60	<3.68E+01	0.00E+00	3.68E+01
			Zn-65	<6.04E+01	0.00E+00	6.04E+01
			Zr-95	<5.87E+01	0.00E+00	5.87E+01
			Nb-95	<3.65E+01	0.00E+00	3.65E+01
			I-131	<4.45E+01	0.00E+00	4.45E+01
			Cs-134	<3.37E+01	0.00E+00	3.37E+01
			Cs-137	<3.81E+01	0.00E+00	3.81E+01
			BaLa-140	<3.97E+01	0.00E+00	3.97E+01
			Be-7	1.30E+03	3.51E+02	3.97E+02



ROBINSON Radiological Environmental Monitoring Analysis Report - 2017 (Appendix E)

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

Sample Point 52 [CONTROL - W @ 10 miles]

Sample ID:	Sample Dates:	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
450276	8/9/2017 - 8/9/2017		K-40	2.41E+03	6.23E+02	5.90E+02
452437	9/13/2017 - 9/13/2017		Mn-54	<3.48E+01	0.00E+00	3.48E+01
			Co-58	<2.79E+01	0.00E+00	2.79E+01
			Fe-59	<5.32E+01	0.00E+00	5.32E+01
			Co-60	<2.23E+01	0.00E+00	2.23E+01
			Zn-65	<6.96E+01	0.00E+00	6.96E+01
			Zr-95	<4.86E+01	0.00E+00	4.86E+01
			Nb-95	<3.20E+01	0.00E+00	3.20E+01
			I-131	<4.39E+01	0.00E+00	4.39E+01
			Cs-134	<2.17E+01	0.00E+00	2.17E+01
			Cs-137	<3.66E+01	0.00E+00	3.66E+01
			BaLa-140	<5.09E+01	0.00E+00	5.09E+01
			Be-7	2.62E+03	5.04E+02	4.32E+02
			K-40	2.40E+03	6.25E+02	4.93E+02
461354	10/11/2017 - 10/11/2017		Mn-54	<2.38E+01	0.00E+00	2.38E+01
			Co-58	<2.43E+01	0.00E+00	2.43E+01
			Fe-59	<3.84E+01	0.00E+00	3.84E+01
			Co-60	<2.61E+01	0.00E+00	2.61E+01
			Zn-65	<6.91E+01	0.00E+00	6.91E+01
			Zr-95	<4.00E+01	0.00E+00	4.00E+01
			Nb-95	<2.01E+01	0.00E+00	2.01E+01
			I-131	<2.94E+01	0.00E+00	2.94E+01
			Cs-134	<2.52E+01	0.00E+00	2.52E+01
			Cs-137	<2.90E+01	0.00E+00	2.90E+01
			BaLa-140	<3.71E+01	0.00E+00	3.71E+01
			Be-7	1.44E+03	3.13E+02	2.91E+02
			K-40	2.58E+03	5.34E+02	2.69E+02
455144	11/6/2017 - 11/6/2017		Mn-54	<3.32E+01	0.00E+00	3.32E+01
			Co-58	<3.04E+01	0.00E+00	3.04E+01
			Fe-59	<5.33E+01	0.00E+00	5.33E+01
			Co-60	<2.52E+01	0.00E+00	2.52E+01
			Zn-65	<6.53E+01	0.00E+00	6.53E+01
			Zr-95	<4.54E+01	0.00E+00	4.54E+01
			Nb-95	<2.94E+01	0.00E+00	2.94E+01
			I-131	<2.83E+01	0.00E+00	2.83E+01
			Cs-134	<3.43E+01	0.00E+00	3.43E+01
			Cs-137	<3.96E+01	0.00E+00	3.96E+01
			BaLa-140	<2.85E+01	0.00E+00	2.85E+01
			Be-7	1.72E+03	3.04E+02	3.36E+02
			K-40	2.45E+03	4.61E+02	4.44E+02
Sample Point 62 [INDICATOR - SE @ 0 miles]						
440083	4/12/2017 - 4/12/2017	BLKCHERRY	Mn-54	<1.80E+01	0.00E+00	1.80E+01
			Co-58	<1.44E+01	0.00E+00	1.44E+01
			Fe-59	<3.59E+01	0.00E+00	3.59E+01
			Co-60	<1.88E+01	0.00E+00	1.88E+01
			Zn-65	<4.21E+01	0.00E+00	4.21E+01
			Zr-95	<3.35E+01	0.00E+00	3.35E+01
			Nb-95	<1.88E+01	0.00E+00	1.88E+01
			I-131	<2.17E+01	0.00E+00	2.17E+01
			Cs-134	<2.16E+01	0.00E+00	2.16E+01
			Cs-137	<1.92E+01	0.00E+00	1.92E+01
			BaLa-140	<2.87E+01	0.00E+00	2.87E+01
			Be-7	<1.54E+02	0.00E+00	1.54E+02
			K-40	4.54E+03	6.32E+02	1.83E+02
440084	4/12/2017 - 4/12/2017	WAXMYRTLE	Mn-54	<2.80E+01	0.00E+00	2.80E+01
			Co-58	<2.38E+01	0.00E+00	2.38E+01



ROBINSON Radiological Environmental Monitoring Analysis Report - 2017 (Appendix E)

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

Sample Point 62 [INDICATOR - SE @ 0 miles]

Sample ID:	Sample Dates:	Location:	Nuclide	Activity	2 Sigma Error	MDA			
440084	4/12/2017 - 4/12/2017	WAXMYRTLE	Fe-59	<4.56E+01	0.00E+00	4.56E+01			
			Co-60	<3.33E+01	0.00E+00	3.33E+01			
			Zn-65	<6.32E+01	0.00E+00	6.32E+01			
			Zr-95	<4.14E+01	0.00E+00	4.14E+01			
			Nb-95	<2.91E+01	0.00E+00	2.91E+01			
			I-131	<3.30E+01	0.00E+00	3.30E+01			
			Cs-134	<3.28E+01	0.00E+00	3.28E+01			
			Cs-137	<2.95E+01	0.00E+00	2.95E+01			
			BaLa-140	<4.54E+01	0.00E+00	4.54E+01			
			Be-7	1.57E+03	3.65E+02	3.70E+02			
			K-40	3.27E+03	7.62E+02	7.67E+02			
			440085	4/12/2017 - 4/12/2017	SWEETGUM	Mn-54	<1.61E+01	0.00E+00	1.61E+01
						Co-58	<2.07E+01	0.00E+00	2.07E+01
Fe-59	<4.29E+01	0.00E+00				4.29E+01			
Co-60	<2.18E+01	0.00E+00				2.18E+01			
Zn-65	<3.27E+01	0.00E+00				3.27E+01			
Zr-95	<3.47E+01	0.00E+00				3.47E+01			
Nb-95	<1.85E+01	0.00E+00				1.85E+01			
I-131	<2.54E+01	0.00E+00				2.54E+01			
Cs-134	<2.08E+01	0.00E+00				2.08E+01			
Cs-137	<1.87E+01	0.00E+00				1.87E+01			
BaLa-140	<3.10E+01	0.00E+00				3.10E+01			
Be-7	6.50E+01	8.85E+01				1.46E+02			
K-40	2.73E+03	4.87E+02				2.66E+02			
442403	5/9/2017 - 5/9/2017	MIXEDBLV	Mn-54	<1.92E+01	0.00E+00	1.92E+01			
			Co-58	<2.02E+01	0.00E+00	2.02E+01			
			Fe-59	<3.29E+01	0.00E+00	3.29E+01			
			Co-60	<2.59E+01	0.00E+00	2.59E+01			
			Zn-65	<2.53E+01	0.00E+00	2.53E+01			
			Zr-95	<4.23E+01	0.00E+00	4.23E+01			
			Nb-95	<1.95E+01	0.00E+00	1.95E+01			
			I-131	<2.12E+01	0.00E+00	2.12E+01			
			Cs-134	<3.07E+01	0.00E+00	3.07E+01			
			Cs-137	<2.89E+01	0.00E+00	2.89E+01			
			BaLa-140	<2.34E+01	0.00E+00	2.34E+01			
			Be-7	7.17E+02	2.25E+02	2.71E+02			
			K-40	3.58E+03	6.37E+02	3.82E+02			
445394	6/13/2017 - 6/13/2017	MIXEDBLV	Mn-54	<2.47E+01	0.00E+00	2.47E+01			
			Co-58	<2.93E+01	0.00E+00	2.93E+01			
			Fe-59	<3.01E+01	0.00E+00	3.01E+01			
			Co-60	<2.22E+01	0.00E+00	2.22E+01			
			Zn-65	<5.40E+01	0.00E+00	5.40E+01			
			Zr-95	<3.68E+01	0.00E+00	3.68E+01			
			Nb-95	<2.29E+01	0.00E+00	2.29E+01			
			I-131	<2.22E+01	0.00E+00	2.22E+01			
			Cs-134	<3.30E+01	0.00E+00	3.30E+01			
			Cs-137	<3.01E+01	0.00E+00	3.01E+01			
			BaLa-140	<2.99E+01	0.00E+00	2.99E+01			
			Be-7	1.23E+03	2.83E+02	2.84E+02			
			K-40	3.65E+03	6.40E+02	3.11E+02			
447876	7/12/2017 - 7/12/2017	MIXEDBLV	Mn-54	<3.69E+01	0.00E+00	3.69E+01			
			Co-58	<3.10E+01	0.00E+00	3.10E+01			
			Fe-59	<5.02E+01	0.00E+00	5.02E+01			
			Co-60	<2.50E+01	0.00E+00	2.50E+01			
			Zn-65	<4.40E+01	0.00E+00	4.40E+01			
			Zr-95	<4.99E+01	0.00E+00	4.99E+01			
			Nb-95	<3.45E+01	0.00E+00	3.45E+01			
			I-131	<3.59E+01	0.00E+00	3.59E+01			



ROBINSON Radiological Environmental Monitoring Analysis Report - 2017 (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
447876	7/12/2017 - 7/12/2017	MIXEDBLV	Cs-134	<3.71E+01	0.00E+00	3.71E+01
			Cs-137	<3.28E+01	0.00E+00	3.28E+01
			BaLa-140	<4.16E+01	0.00E+00	4.16E+01
			Be-7	1.04E+03	2.74E+02	2.78E+02
			K-40	3.81E+03	7.24E+02	5.03E+02
450277	8/9/2017 - 8/9/2017	MIXEDBLV	Mn-54	<2.10E+01	0.00E+00	2.10E+01
			Co-58	<2.62E+01	0.00E+00	2.62E+01
			Fe-59	<3.08E+01	0.00E+00	3.08E+01
			Co-60	<1.96E+01	0.00E+00	1.96E+01
			Zn-65	<4.76E+01	0.00E+00	4.76E+01
			Zr-95	<4.04E+01	0.00E+00	4.04E+01
			Nb-95	<1.55E+01	0.00E+00	1.55E+01
			I-131	<2.52E+01	0.00E+00	2.52E+01
			Cs-134	<3.07E+01	0.00E+00	3.07E+01
			Cs-137	<2.43E+01	0.00E+00	2.43E+01
			BaLa-140	<2.46E+01	0.00E+00	2.46E+01
			Be-7	1.10E+03	2.42E+02	2.73E+02
			K-40	4.61E+03	6.24E+02	2.89E+02
452438	9/13/2017 - 9/13/2017	MIXEDBLV	Mn-54	<2.53E+01	0.00E+00	2.53E+01
			Co-58	<2.58E+01	0.00E+00	2.58E+01
			Fe-59	<3.88E+01	0.00E+00	3.88E+01
			Co-60	<2.04E+01	0.00E+00	2.04E+01
			Zn-65	<5.80E+01	0.00E+00	5.80E+01
			Zr-95	<4.04E+01	0.00E+00	4.04E+01
			Nb-95	<2.91E+01	0.00E+00	2.91E+01
			I-131	<3.19E+01	0.00E+00	3.19E+01
			Cs-134	<3.08E+01	0.00E+00	3.08E+01
			Cs-137	<3.73E+01	0.00E+00	3.73E+01
			BaLa-140	<9.33E+00	0.00E+00	9.33E+00
			Be-7	3.81E+03	5.38E+02	2.97E+02
			K-40	1.99E+03	4.82E+02	3.47E+02
461355	10/11/2017 - 10/11/2017	MIXEDBLV	Mn-54	<3.66E+01	0.00E+00	3.66E+01
			Co-58	<2.49E+01	0.00E+00	2.49E+01
			Fe-59	<4.90E+01	0.00E+00	4.90E+01
			Co-60	<3.51E+01	0.00E+00	3.51E+01
			Zn-65	<6.18E+01	0.00E+00	6.18E+01
			Zr-95	<5.68E+01	0.00E+00	5.68E+01
			Nb-95	<2.50E+01	0.00E+00	2.50E+01
			I-131	<4.64E+01	0.00E+00	4.64E+01
			Cs-134	<4.24E+01	0.00E+00	4.24E+01
			Cs-137	<3.89E+01	0.00E+00	3.89E+01
			BaLa-140	<3.11E+01	0.00E+00	3.11E+01
			Be-7	1.89E+03	3.72E+02	3.56E+02
			K-40	2.26E+03	5.55E+02	5.37E+02
455145	11/6/2017 - 11/6/2017	MIXEDBLV	Mn-54	<4.11E+01	0.00E+00	4.11E+01
			Co-58	<3.43E+01	0.00E+00	3.43E+01
			Fe-59	<5.87E+01	0.00E+00	5.87E+01
			Co-60	<4.12E+01	0.00E+00	4.12E+01
			Zn-65	<8.57E+01	0.00E+00	8.57E+01
			Zr-95	<5.82E+01	0.00E+00	5.82E+01
			Nb-95	<3.62E+01	0.00E+00	3.62E+01
			I-131	<4.55E+01	0.00E+00	4.55E+01
			Cs-134	<3.83E+01	0.00E+00	3.83E+01
			Cs-137	<4.92E+01	0.00E+00	4.92E+01
			BaLa-140	<5.94E+01	0.00E+00	5.94E+01
			Be-7	5.82E+02	9.81E+01	3.27E+02
			K-40	3.62E+03	9.40E+02	1.21E+03



ROBINSON Radiological Environmental Monitoring Analysis Report - 2017 (Appendix E)

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

Sample Point 67 [INDICATOR - S @ 0 miles]

Sample ID:	Sample Dates:	WAXMYRTLE	Nuclide	Activity	2 Sigma Error	MDA
440086	4/12/2017 - 4/12/2017		Mn-54	<2.50E+01	0.00E+00	2.50E+01
			Co-58	<2.96E+01	0.00E+00	2.96E+01
			Fe-59	<2.54E+01	0.00E+00	2.54E+01
			Co-60	<2.73E+01	0.00E+00	2.73E+01
			Zn-65	<5.16E+01	0.00E+00	5.16E+01
			Zr-95	<4.64E+01	0.00E+00	4.64E+01
			Nb-95	<2.48E+01	0.00E+00	2.48E+01
			I-131	<3.38E+01	0.00E+00	3.38E+01
			Cs-134	<2.90E+01	0.00E+00	2.90E+01
			Cs-137	<2.40E+01	0.00E+00	2.40E+01
			BaLa-140	<4.51E+01	0.00E+00	4.51E+01
			Be-7	2.55E+03	4.05E+02	2.53E+02
			K-40	2.97E+03	5.69E+02	2.74E+02

Sample ID:	Sample Dates:	BLKCHERRY	Nuclide	Activity	2 Sigma Error	MDA
440087	4/12/2017 - 4/12/2017		Mn-54	<2.56E+01	0.00E+00	2.56E+01
			Co-58	<2.63E+01	0.00E+00	2.63E+01
			Fe-59	<4.78E+01	0.00E+00	4.78E+01
			Co-60	<3.24E+01	0.00E+00	3.24E+01
			Zn-65	<4.31E+01	0.00E+00	4.31E+01
			Zr-95	<5.39E+01	0.00E+00	5.39E+01
			Nb-95	<2.07E+01	0.00E+00	2.07E+01
			I-131	<2.65E+01	0.00E+00	2.65E+01
			Cs-134	<3.07E+01	0.00E+00	3.07E+01
			Cs-137	<3.05E+01	0.00E+00	3.05E+01
			BaLa-140	<4.06E+01	0.00E+00	4.06E+01
			Be-7	4.18E+02	2.10E+02	2.96E+02
			K-40	3.97E+03	6.83E+02	3.86E+02

Sample ID:	Sample Dates:	PEARLEAF	Nuclide	Activity	2 Sigma Error	MDA
440088	4/12/2017 - 4/12/2017		Mn-54	<2.54E+01	0.00E+00	2.54E+01
			Co-58	<2.45E+01	0.00E+00	2.45E+01
			Fe-59	<3.17E+01	0.00E+00	3.17E+01
			Co-60	<1.64E+01	0.00E+00	1.64E+01
			Zn-65	<5.43E+01	0.00E+00	5.43E+01
			Zr-95	<4.79E+01	0.00E+00	4.79E+01
			Nb-95	<2.92E+01	0.00E+00	2.92E+01
			I-131	<3.31E+01	0.00E+00	3.31E+01
			Cs-134	<3.07E+01	0.00E+00	3.07E+01
			Cs-137	<2.71E+01	0.00E+00	2.71E+01
			BaLa-140	<2.16E+01	0.00E+00	2.16E+01
			Be-7	3.79E+02	1.65E+02	2.17E+02
			K-40	5.62E+03	8.04E+02	3.81E+02

Sample ID:	Sample Dates:	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
442406	5/9/2017 - 5/9/2017		Mn-54	<2.48E+01	0.00E+00	2.48E+01
			Co-58	<2.17E+01	0.00E+00	2.17E+01
			Fe-59	<3.88E+01	0.00E+00	3.88E+01
			Co-60	<2.51E+01	0.00E+00	2.51E+01
			Zn-65	<5.29E+01	0.00E+00	5.29E+01
			Zr-95	<3.39E+01	0.00E+00	3.39E+01
			Nb-95	<2.36E+01	0.00E+00	2.36E+01
			I-131	<2.11E+01	0.00E+00	2.11E+01
			Cs-134	<3.07E+01	0.00E+00	3.07E+01
			Cs-137	<2.02E+01	0.00E+00	2.02E+01
			BaLa-140	<2.27E+01	0.00E+00	2.27E+01
			Be-7	1.10E+03	2.51E+02	2.38E+02
			K-40	3.83E+03	6.31E+02	2.04E+02

Sample ID:	Sample Dates:	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
445395	6/13/2017 - 6/13/2017		Mn-54	<1.72E+01	0.00E+00	1.72E+01
			Co-58	<2.80E+01	0.00E+00	2.80E+01
			Fe-59	<4.18E+01	0.00E+00	4.18E+01
			Co-60	<2.32E+01	0.00E+00	2.32E+01
			Zn-65	<3.72E+01	0.00E+00	3.72E+01
			Zr-95	<3.68E+01	0.00E+00	3.68E+01



ROBINSON Radiological Environmental Monitoring Analysis Report - 2017 (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
445395	6/13/2017 - 6/13/2017	MIXEDBLV	Nb-95	<2.46E+01	0.00E+00	2.46E+01
			I-131	<2.16E+01	0.00E+00	2.16E+01
			Cs-134	<2.76E+01	0.00E+00	2.76E+01
			Cs-137	<2.45E+01	0.00E+00	2.45E+01
			BaLa-140	<6.43E+00	0.00E+00	6.43E+00
			Be-7	1.40E+03	2.78E+02	2.50E+02
			K-40	3.52E+03	5.80E+02	1.77E+02
447877	7/12/2017 - 7/12/2017	MIXEDBLV	Mn-54	<3.84E+01	0.00E+00	3.84E+01
			Co-58	<3.04E+01	0.00E+00	3.04E+01
			Fe-59	<6.19E+01	0.00E+00	6.19E+01
			Co-60	<3.06E+01	0.00E+00	3.06E+01
			Zn-65	<7.51E+01	0.00E+00	7.51E+01
			Zr-95	<6.13E+01	0.00E+00	6.13E+01
			Nb-95	<3.40E+01	0.00E+00	3.40E+01
			I-131	<4.61E+01	0.00E+00	4.61E+01
			Cs-134	<4.14E+01	0.00E+00	4.14E+01
			Cs-137	6.04E+01	2.83E+01	3.40E+01
			BaLa-140	<5.05E+01	0.00E+00	5.05E+01
			Be-7	6.63E+02	3.02E+02	4.16E+02
			K-40	2.59E+03	6.34E+02	4.92E+02
			450278	8/9/2017 - 8/9/2017	MIXEDBLV	Mn-54
Co-58	<2.24E+01	0.00E+00				2.24E+01
Fe-59	<5.99E+01	0.00E+00				5.99E+01
Co-60	<3.38E+01	0.00E+00				3.38E+01
Zn-65	<6.71E+01	0.00E+00				6.71E+01
Zr-95	<4.95E+01	0.00E+00				4.95E+01
Nb-95	<3.13E+01	0.00E+00				3.13E+01
I-131	<3.99E+01	0.00E+00				3.99E+01
Cs-134	<3.10E+01	0.00E+00				3.10E+01
Cs-137	<3.84E+01	0.00E+00				3.84E+01
BaLa-140	<3.67E+01	0.00E+00				3.67E+01
Be-7	3.56E+03	5.35E+02				3.50E+02
K-40	3.03E+03	6.27E+02				4.09E+02
452439	9/13/2017 - 9/13/2017	MIXEDBLV				Mn-54
			Co-58	<2.54E+01	0.00E+00	2.54E+01
			Fe-59	<4.72E+01	0.00E+00	4.72E+01
			Co-60	<4.18E+01	0.00E+00	4.18E+01
			Zn-65	<5.07E+01	0.00E+00	5.07E+01
			Zr-95	<4.14E+01	0.00E+00	4.14E+01
			Nb-95	<2.90E+01	0.00E+00	2.90E+01
			I-131	<3.26E+01	0.00E+00	3.26E+01
			Cs-134	<3.73E+01	0.00E+00	3.73E+01
			Cs-137	<3.11E+01	0.00E+00	3.11E+01
			BaLa-140	<3.49E+01	0.00E+00	3.49E+01
			Be-7	9.34E+02	2.75E+02	3.08E+02
			K-40	4.06E+03	7.10E+02	6.52E+01
			461356	10/11/2017 - 10/11/2017	MIXEDBLV	Mn-54
Co-58	<2.42E+01	0.00E+00				2.42E+01
Fe-59	<4.99E+01	0.00E+00				4.99E+01
Co-60	<2.83E+01	0.00E+00				2.83E+01
Zn-65	<5.70E+01	0.00E+00				5.70E+01
Zr-95	<5.33E+01	0.00E+00				5.33E+01
Nb-95	<2.87E+01	0.00E+00				2.87E+01
I-131	<2.77E+01	0.00E+00				2.77E+01
Cs-134	<2.91E+01	0.00E+00				2.91E+01
Cs-137	<3.07E+01	0.00E+00				3.07E+01
BaLa-140	<3.14E+01	0.00E+00				3.14E+01
Be-7	1.86E+03	3.70E+02				3.50E+02



ROBINSON Radiological Environmental Monitoring Analysis Report - 2017 (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
461356	10/11/2017 - 10/11/2017		K-40	3.07E+03	5.70E+02	5.85E+01
455146	11/6/2017 - 11/6/2017		Mn-54	<2.95E+01	0.00E+00	2.95E+01
			Co-58	<3.28E+01	0.00E+00	3.28E+01
			Fe-59	<5.70E+01	0.00E+00	5.70E+01
			Co-60	<3.60E+01	0.00E+00	3.60E+01
			Zn-65	<6.39E+01	0.00E+00	6.39E+01
			Zr-95	<5.31E+01	0.00E+00	5.31E+01
			Nb-95	<3.43E+01	0.00E+00	3.43E+01
			I-131	<3.68E+01	0.00E+00	3.68E+01
			Cs-134	<4.01E+01	0.00E+00	4.01E+01
			Cs-137	1.22E+02	4.06E+01	5.62E+01
			BaLa-140	<4.12E+01	0.00E+00	4.12E+01
			Be-7	2.50E+03	3.38E+02	3.04E+02
			K-40	3.12E+03	5.63E+02	4.89E+02



APPENDIX F

ERRATA TO
PREVIOUS REPORTS

APPENDIX F

ERRATA TO THE 2017 HBRSEP AREOR

There are no errata to be appended to the 2017 HBRSEP AREOR.