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Serial: RNP-RA/17-0038

TS 5.6.2

MAY 09 2017

United States Nuclear Regulatory Commission
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Washington, DC 20555-0001

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

2016 ANNUAL RADIOLOGICAL ENVIRONMENTAL OPERATING REPORT

Ladies and Gentlemen:

Enclosed is the Radiological Environmental Operating Report for the period January 1, 2016 through December 31, 2016. This report is made in accordance with the HBRSEP, Unit No. 2 Technical Specifications, Section 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. Tony Pilo, Manager – Nuclear Regulatory Affairs, at (843) 857-1409.

Sincerely,

 *Charles E. Sherman* For Charles E. Sherman

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CES/am

Enclosure

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United States Nuclear Regulatory Commission
Enclosure to Serial: RNP-RA/17-0038
197 pages (including this cover sheet)

H. B. ROBINSON STEAM ELECTRIC PLANT, UNIT NO. 2

2016 ANNUAL RADIOLOGICAL ENVIRONMENTAL OPERATING REPORT



ANNUAL RADIOLOGICAL ENVIRONMENTAL OPERATING REPORT

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

2016



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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
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, 2016, through December 31, 2016.

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 four hundred and seventeen samples were analyzed comprising 1,445 test results in order to compile data for the 2016 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 2016 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 2016 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 with a design rating of 800 MWe (Megawatts electric). The site is shared with a pulverized coal unit (Unit No.1), which established commercial operation in 1960. Unit 1 is now offline and is in the decommissioning process. 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 this program 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 Thermoluminescent Dosimeter (TLD) monitoring locations and the sampling locations. The location numbers shown on these maps correspond to those listed in Tables 2.1-A and 2.1-B.

2.2 SCOPE AND REQUIREMENTS OF THE REMP

The Radiological Environmental Monitoring Program (REMP) was established in 1973 at HBRSEP. Radiation and radioactivity in various environmental media have been monitored for 42 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 (reference 6.8):

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

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)

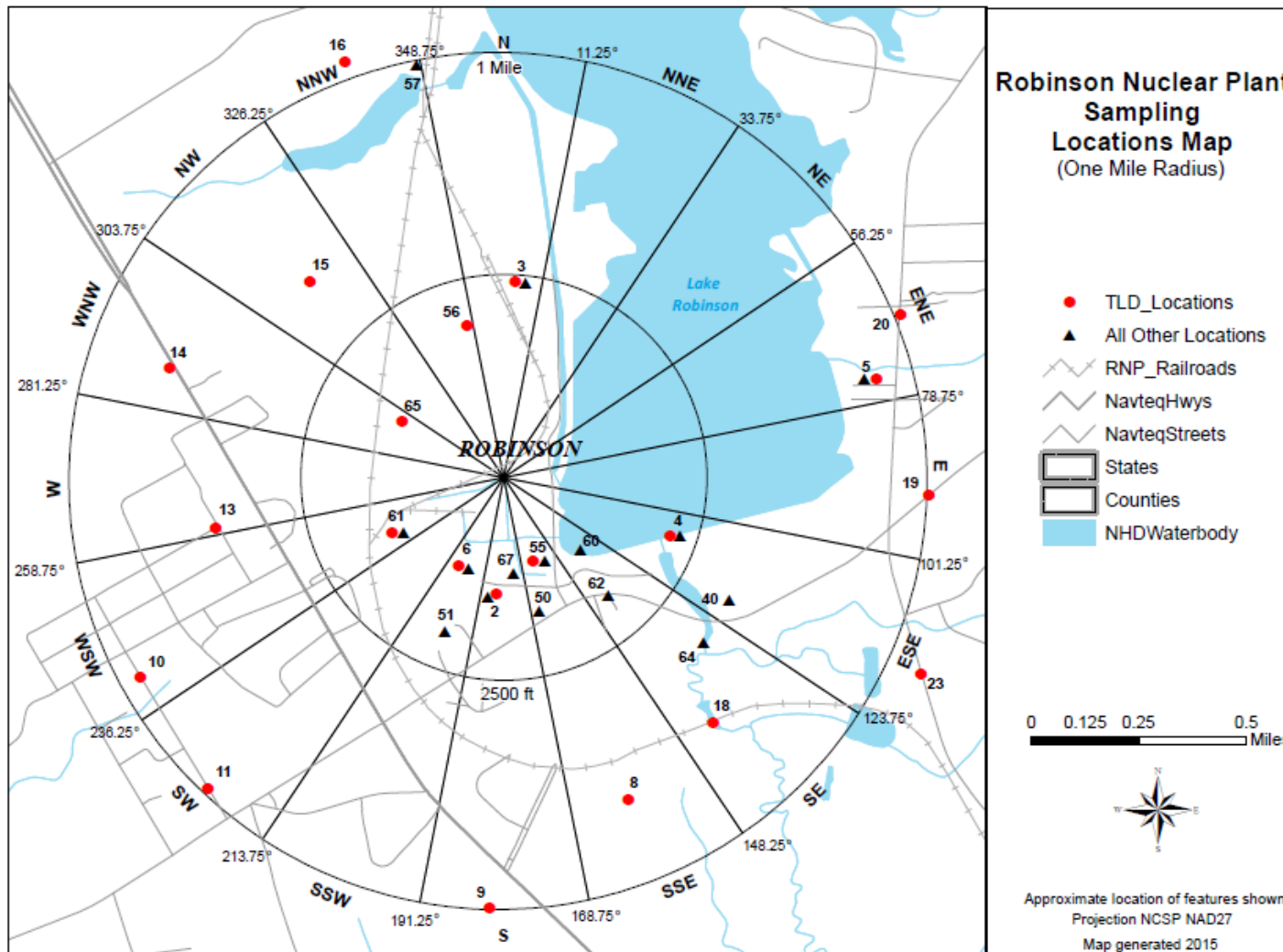


Figure 2.1-2

**Radiological Environmental Sampling Locations
(Distant from Plant)**

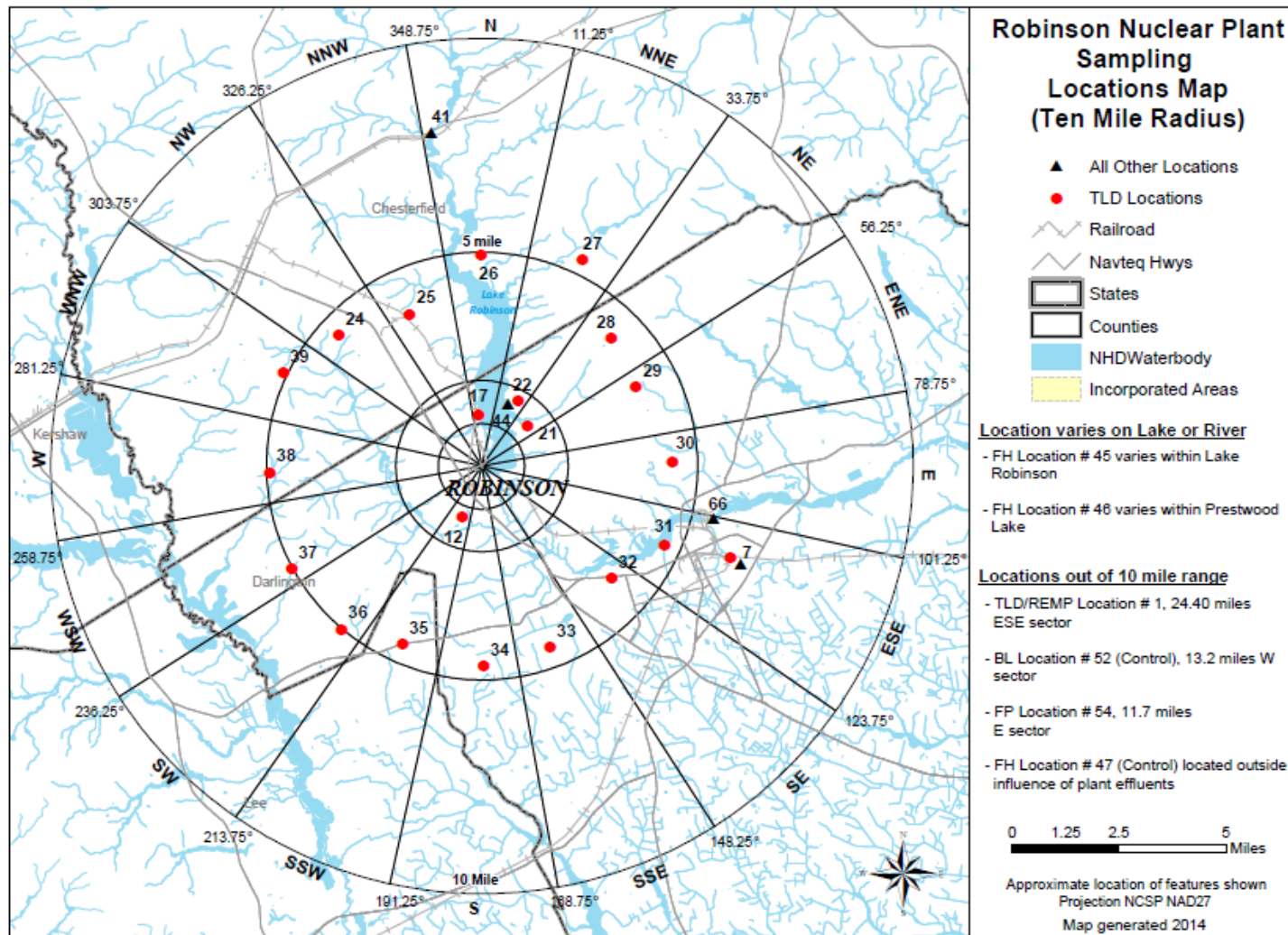


TABLE 2.1-A

**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)*	Sector	Site #	Measure Type	Location*	Distance (miles)*	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	Near 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 2016 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 2016 REMP analysis results was performed to identify changes in environmental levels as a result of HBRSEP operations. Sample data for 2016 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 four hundred and seventeen samples were collected from indicator and control locations and 1,445 analyses and measurements were made during 2016. Detectable radioactivity resulting from plant operation was found in 12 out of 12 indicator samples of surface water (Appendix B). Only the tritium activity measured in the surface water of Lake Robinson and in fish 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 2.28E+3 pCi/Liter. Using the methodology of Regulatory Guide 1.109 "Calculation of Annual Doses to Man from Routine Releases of Reactor Effluents for the Purpose of Evaluating Compliance with 10 CFR Part 50, Appendix I, Revision 1, dated October 1977," via fish consumption, is listed below. The maximum possible exposure to an individual from the evaporation of tritium in Lake Robinson using 2016 meteorology is 0.212 mrem/yr. to a child. Radioactivity in environmental samples attributed to plant operations in 2016 for which there is a potential dose pathway to the public is seen in Table 3.0-A.

<u>Age Group</u>	<u>2016 Dose (mrem)</u>
Adult	0.0050
Teenager	0.0039
Child	0.0032

Review of the 2016 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 2016 indicates that radioactivity concentrations were as expected and all positively identified measurements attributed to plant operations in 2016 were within HBRSEP ODCM regulatory limits, thus presenting no significant impact to the

environment or public health and safety. A statistical summary of the HBRSEP data for 2016 has been compiled and summarized in Appendix B along with any plant-derived activity detected within the scope of the REMP.

Table 3.0-A HBRSEP Potential Dose Pathway

Environmental Media	Radionuclide	Location w/Highest Annual Mean	Activity and Occurrence	Maximum Individual Dose (mrem/yr)
Surface Water	H-3 (tritium)	Lake Robinson (SW-40)	2,281 pCi/L (12/12)	0.0050 millirem/yr – Adult (from fish)
Surface Water	H-3 (tritium)	Lake Robinson (SW-40)	2,281 pCi/L (12/12)	0.212 millirem/yr – child (Evaporation from Lake Robinson using HBRSEP 2016 Meteorology Data)*

*This is information supplied by Murray and Trettel, Inc. in their report “Impact of Tritium Release from Lake Robinson at the Robinson Nuclear Plant for 2016.”

3.1 AIRBORNE RADIOIODINE AND PARTICULATES

The 520 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 468 indicator samples and one control site for a total of 52 control samples during the 2016 collection year. The air samplers operated for a total of 99.56% availability for the 2016 year. No I-131 activity due to HBRSEP operations has been detected in air samples collected from 1999 through 2016 (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, 2016, to December 31, 2016, 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 468 indicator samples had an average concentration of $1.77E-2$ pCi/m³. Similar gross beta activities were observed at the control location in Florence, which had an average concentration of $1.68E-2$ pCi/m³ in 52 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 2016. 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 2016. 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 2016 collection year.

No plant-related gamma activity was detected in quarterly composite filter samples from either the indicator or control locations during 2016. 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

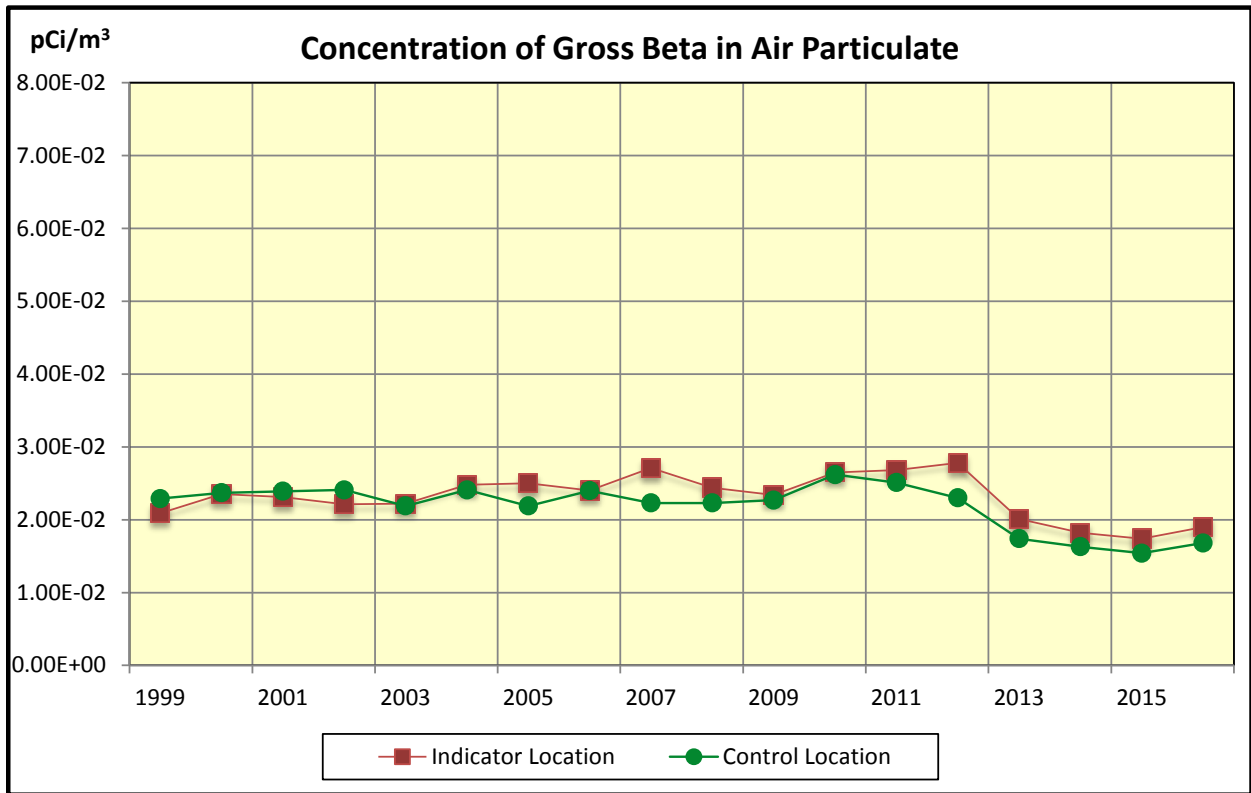


Table 3.1-1-A Mean Concentration of Gross Beta in Air Particulate

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

Table 3.1-1-B Mean Concentration of Air Radioiodine (I-131)

Year	Indicator Location (pCi/m ³)	Control Location (pCi/m ³)
1999	0.00E+0	0.00E+0
2000	0.00E+0	0.00E+0
2001	0.00E+0	0.00E+0
2002	0.00E+0	0.00E+0
2003	0.00E+0	0.00E+0
2004	0.00E+0	0.00E+0
2005	0.00E+0	0.00E+0
2006	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

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).

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 100.0% availability for 2016. Refer to Appendix C or Appendix D for deviations and unavailable samples in the 2016 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 2016. The average annual tritium activity was 2.28E+3 pCi/L, with the results ranging from 3.53E+2 pCi/L to 7.77E+3 pCi/L. The surface water indicator location with the highest tritium mean in 2016 was the Lake Robinson surface water (SW-40 - Black Creek at Old Camden Rd.) with a mean of 2.28E+3 pCi/L, and results ranging from 3.53E+2 pCi/L to 7.77E+3 pCi/L; which is attributed to plant operation. Lake Robinson's tritium activity is cyclic and follows HBRSEP's fuel cycle. Figure 3.2-1 displays the tritium activity throughout 2016 for the surface water samples. Figure 3.2-2 displays the tritium results for the highest annual mean indicator and control annual locations' concentrations since 1999 to 2016. 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). Therefore, radiological dose via this pathway (surface water) is limited to the consumption of fish (0.0050

mrem/yr.) and evaporation of tritium (0.212 mrem/yr. using HBRSEP 2016 Meteorology Data) from Lake Robinson and its subsequent inhalation and ingestion from vegetable gardens and meat producing animals. Using the methodology of Regulatory Guide 1.109, a dose of 0.217 millirem/year to the maximum exposed individual could be assigned to this pathway.

Figure 3.2-1

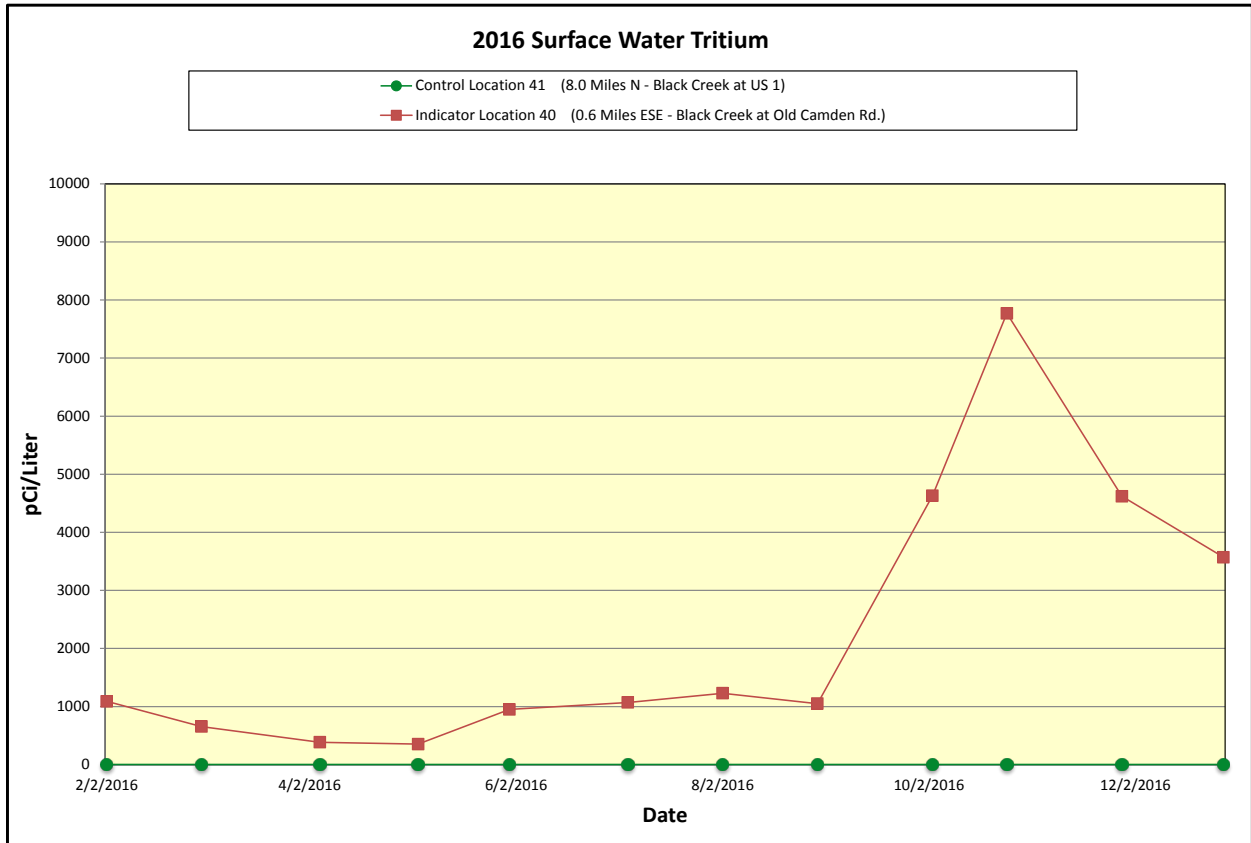
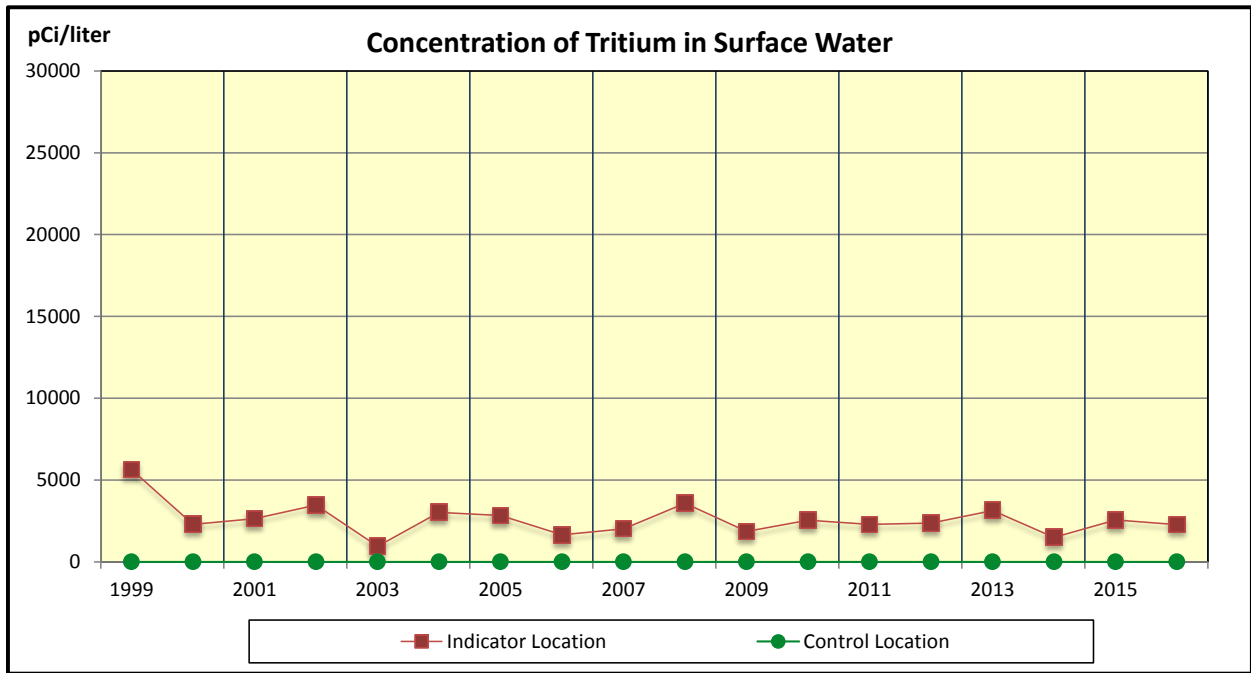


Figure 3.2-2



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

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 (4) indicator samples of ground water collected in 2016. 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 2016 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 250 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 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.

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 cherry, sassafras, persimmon, pear, and wax myrtle leaves in 2016. Three species of samples, when available, are collected monthly 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). 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 2016, 26 of 96 samples taken from the indicator sites demonstrated detectable concentrations of Cs-137 for an average value of $4.91E+1$ pCi/kg (wet). The control samples had detectable concentrations of Cs-137 in 9 of 24 samples with a mean concentration of $9.72E+1$ 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 2016 and Table 3.4 lists these values. Refer to Appendix C and Appendix D for deviations and unavailable samples in the 2016 collection year.

Figure 3.4

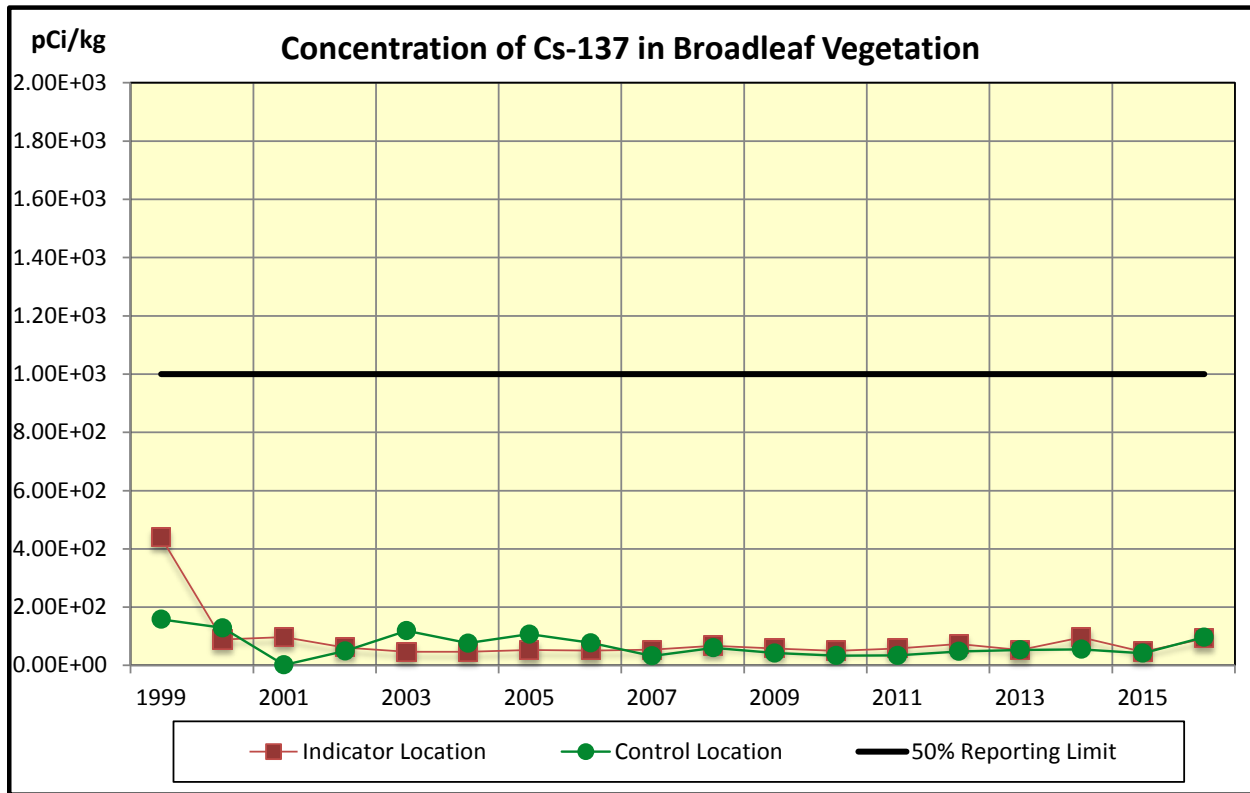


Table 3.4 Mean Concentrations of Radionuclides in Broadleaf Vegetation (pCi/kg)

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

(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).

3.5 FOOD PRODUCTS

During 2016, one food product (FP) sample was collected from the indicator location (FP-54) at Auburndale Plantation. In 2016, 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. No gamma activity associated with plant operation was detected in the indicator sample for the 2016 collection period (refer to Appendix B).

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 2016, 1 out of 4 bottom-feeding fish and 2 out of 4 free-swimming fish (indicator sites) demonstrated detectable concentrations of Cs-137 for average values of $2.92E+1$ pCi/kg (wet) and $3.55E+1$ pCi/kg (wet), respectively. The control samples had detectable concentrations of Cs-137 for 1 out of 2 bottom-feeding fish and 2 out of 2 free-swimming fish for average concentrations of $2.23E+1$ pCi/kg (wet) and $6.06E+1$ pCi/kg (wet), respectively. Upon comparing these results, it is concluded that the 2016 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 3.6-1 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 2016, 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 2016. Refer to Appendix C and Appendix D for deviations and unavailable samples in the 2016 collection year.

Figure 3.6-1

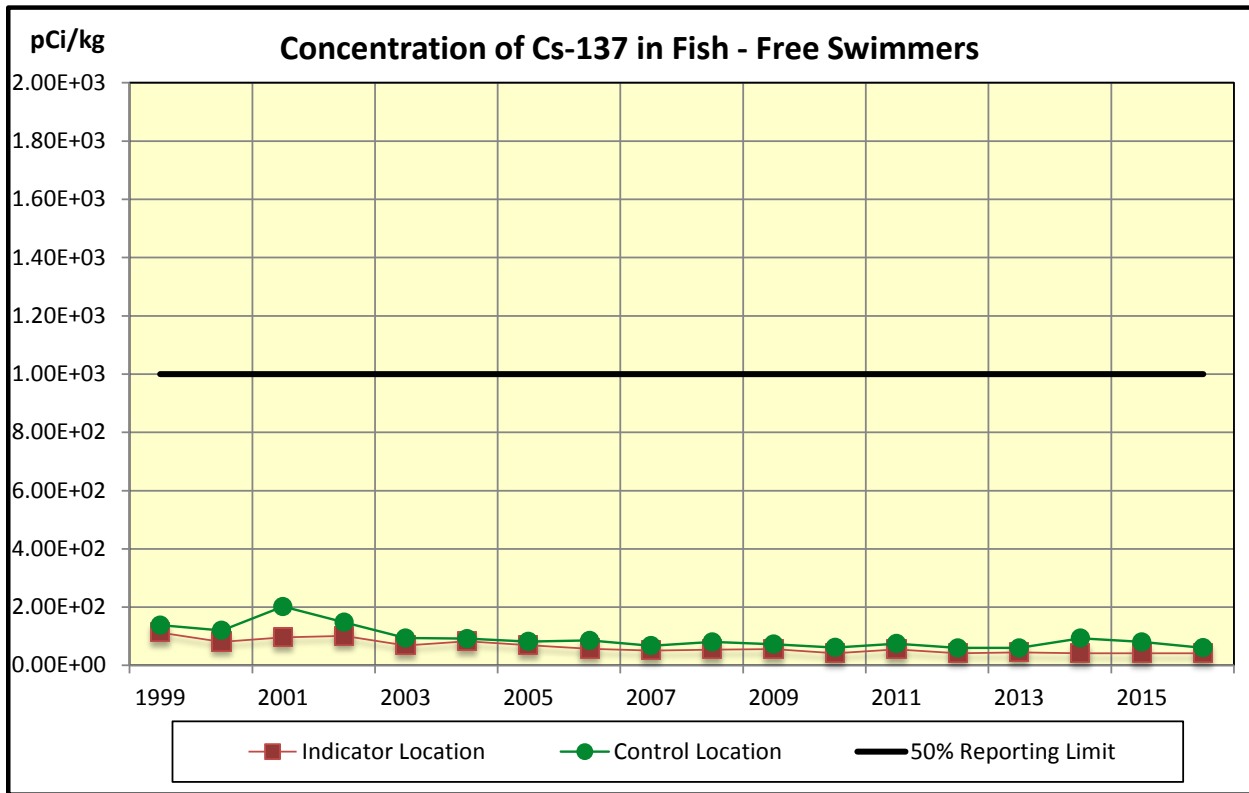


Table 3.6-1 Mean Concentrations of Radionuclides in Fish (Free Swimmers) (pCi/kg)

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

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).

Figure 3.6-2

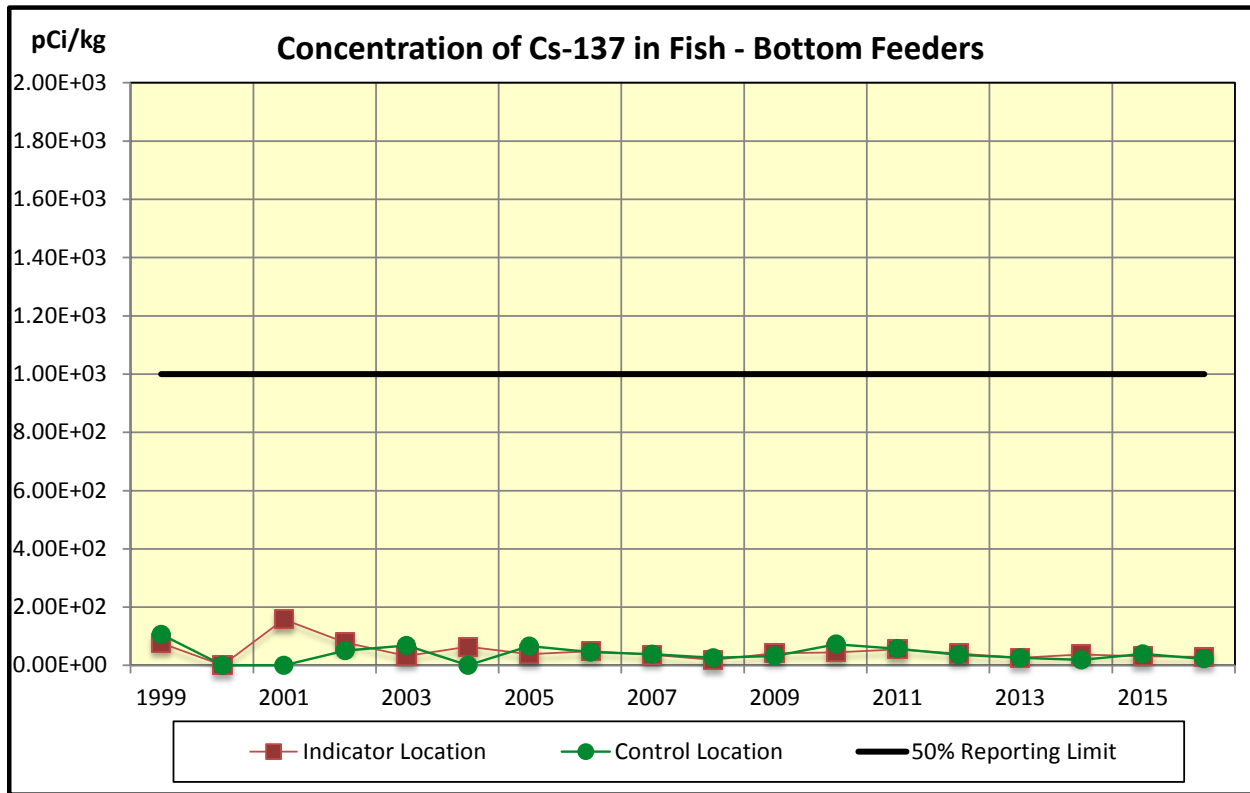


Table 3.6-2 Mean Concentrations of Radionuclides in Fish (Bottom Feeders) (pCi/kg)

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

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).

3.7 SHORELINE SEDIMENT

Shoreline sediment samples were collected semiannually in 2016. Gamma analyses of the shoreline sediment samples detected natural activity in the samples collected in 2016 (refer to Appendix B).

3.8 ASIATIC CLAMS

Benthic samples from Lake Robinson during 2016 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 2016, 171 TLDs were analyzed, 167 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 17.0 mR/Std. Qtr. and 15.7 mR/Std. Qtr. respectively. The highest TLD indicator location for 2016 was TLD location #37 at 5.0 miles WSW at Pine Cone Road and its average was 24.4 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 was one (1) missing TLD during the HBRSEP 2016 collection period (see Appendix C).

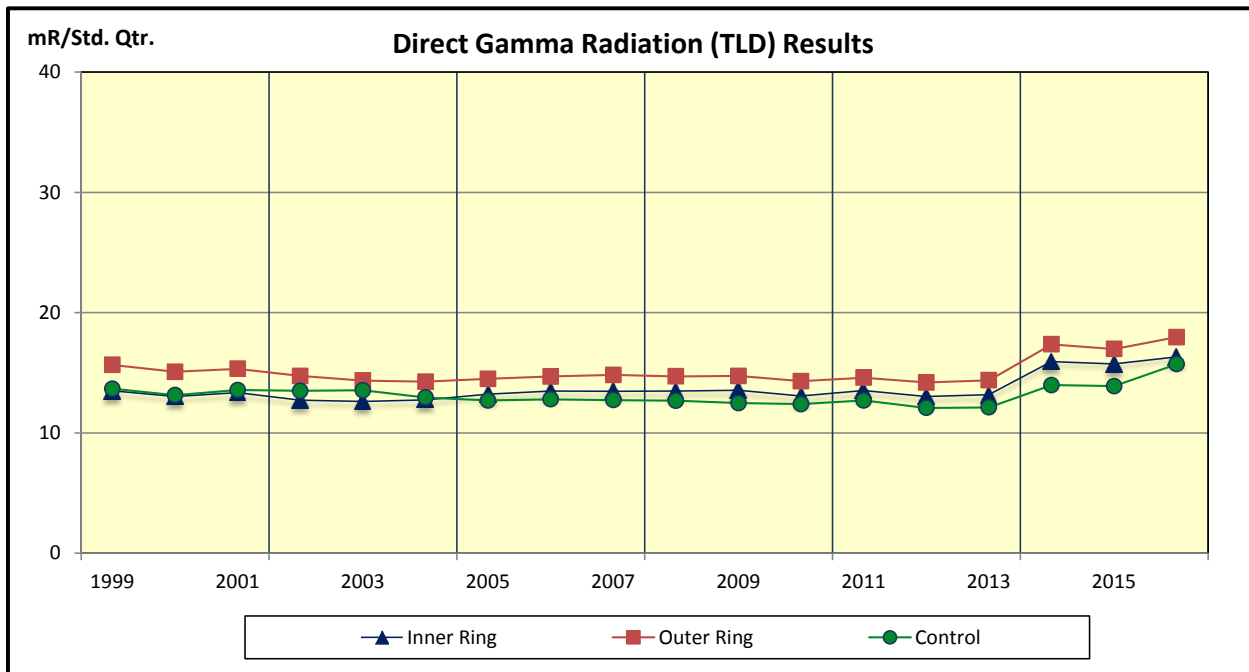
Comparison of the average annual TLD exposure within approximately 1 mile (inner ring) of the plant with that at approximately 5 miles (outer ring) and the control for 1999 to 2016 is presented in Figure 3.9.1 and Table 3.9.1.

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 will be 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

3.10 LAND USE CENSUS

The 2016 HBRSEP Annual Land Use Census was conducted in July, 2016 to meet the requirements of the HBRSEP ODCM 4.4.1. Table 3.10.3 summarizes the HBRSEP 2016 census results. During the 2016 census no milk locations were identified within five miles (8 kilometers) of HBRSEP. Based on a review of sampling requirements, existing/new sample locations, and relative depositions values; no new environmental program changes were required as a result of the 2016 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/egg producing 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 2016 to meet the requirements of the HBRSEP's ODCM. The last HBRSEP land use census was performed in July 2015. The 2015 and 2016 results of the survey for the nearest resident, garden, milk and meat/egg producing 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 2016 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 (2015 – 2016)

Nearest Pathway (Miles)**

SECTOR	RESIDENT		GARDEN		MEAT/EGG ANIMAL		MILK ANIMAL	
	2015	2016	2015	2016	2015	2016	2014	2015
N	2.83	2.83	2.83	3.28*	2.83	----*	----	----
NNE	1.53	1.53	2.07	2.07	2.69	2.69	----	----
NE	1.03	1.03	2.74	2.48*	----	----	----	----
ENE	0.85	0.85	----	2.40*	----	3.08*	----	----
E	0.90	0.90	1.09	1.09	3.00	3.00	----	----
ESE	0.62	0.62	1.28	1.28	----	----	----	----
SE	0.38	0.38	----	3.92*	----	2.32*	----	----
SSE	0.33	0.33	2.39	2.39	2.39	----*	----	----
S	0.44	0.44	2.23	2.23	2.62	2.46*	----	----
SSW	0.37	0.42*	0.83	0.81*	0.84	4.46*	----	----
SW	0.46	0.44*	----	2.78*	----	4.01*	----	----
WSW	0.46	0.46	----	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	4.23	----	----
NW	1.56 ⁽¹⁾	1.56 ⁽¹⁾	1.62	1.62	1.62	1.62	----	----
NNW	2.00	2.00	3.82	----*	3.82	----*	----	----

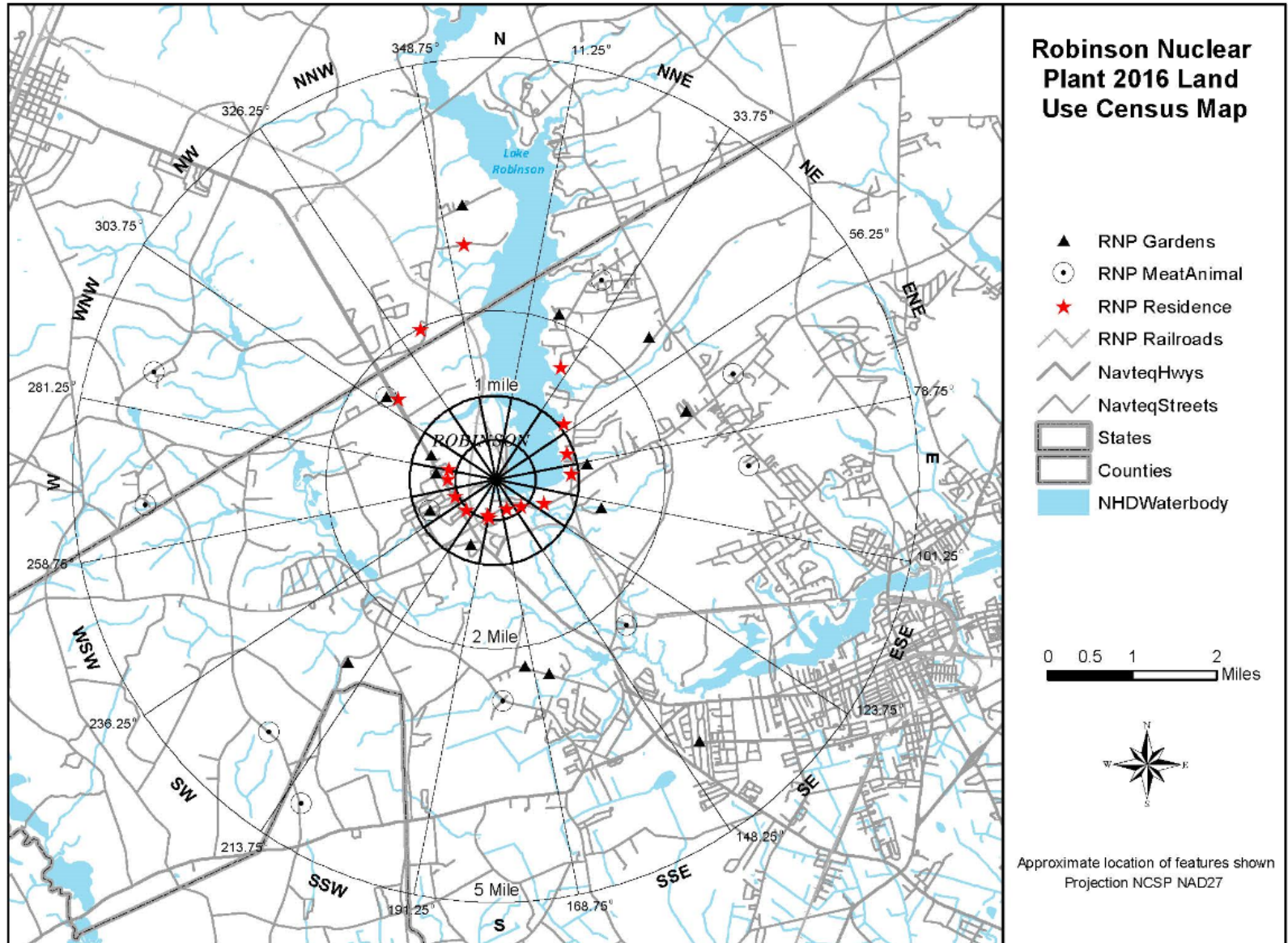
* Represents a change from the previous year.

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

(1) Refer to Appendix F Errata to 2015 HBRSEP AREOR Land Use Census Comparison table.

** 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 in 2016.

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 2016, 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 drinking water, surface water, and ground water samples.

4.5 DUKE ENERGY INTERLABORATORY COMPARISON PROGRAM

In 2016 Duke Energy Environmental Laboratory (EnRad) participated in interlaboratory programs to satisfy Radiological Environmental Monitoring Program requirements in Duke Energy nuclear plant Offsite Dose Calculation Manuals and Selected Licensee Commitments Manuals, as applicable. In addition, EnRad Laboratory participated in the ERA RadCheMTM Proficiency Testing program to satisfy North Carolina state drinking water radiochemistry certification requirements.

EnRad Laboratory participated in three interlaboratory programs: Eckert & Ziegler Analytics (EZA), ERA, and Fleet Scientific Services (FSS). EZA results were evaluated against IP 84750 acceptance criteria stated in EnRad Procedure 515, Cross Check Program Administration. ERA evaluated reported results based on National Environmental Laboratory Accreditation Conference (NELAC) Field of Proficiency Testing criteria. FSS results were evaluated as prescribed in Duke Energy Nuclear Generation Procedure SRPMP 9-2.

4.5.1 DUKE ENERGY INTERLABORATORY PROGRAM

EnRad Laboratories participated in the Duke Energy Fleet Scientific Services (FSS) Interlaboratory Program during 2016. Interlaboratory cross check samples including mixed gamma in water (Marinelli beakers), low-level I-131 in water, gross beta in water, and tritium in water samples were analyzed during 2016. A summary of the EnRad Laboratory program results for 2016 is documented in Table 4.0-A.

Interlaboratory cross checks were distributed by Fleet Scientific Services (FSS) staff in accordance with SRPMP 9-2. One media type, water, was analyzed for mixed gamma, tritium, beta, and LLI-131. Table 4.0-A lists results for specific analyses. One-hundred and seventy-four results were reported of which 164 (94.3%) were in agreement.

NCR #02072622 was written by FSS staff due to five out of nine third quarter alpha nuclide results from the FSS cross check samples Alpha/Beta in Water (Q163ABW1, Q163ABW2 and Q163ABW3) showed non-agreement, three other results showed warning limit evaluations.

In the third quarter of 2016, one data set of the three analyzed for FSS Tritium in Water Sample Q163TWR3 showed a low bias when compared to the known value. NCR #02074856 was initiated to investigate why this sample set was lower than expected.

4.5.2 ECKERT & ZIEGLER ANALYTICS CROSS CHECK PROGRAM

EnRad Laboratories participated in the Eckert & Ziegler Analytics Cross Check Program during 2016. Cross check samples including air filters (single and composites), air cartridges, gross alpha and beta in water, various mixed gamma

samples in Marinelli beakers (soil, vegetation, milk, and water), tritium in water, and Iodine in milk and water samples were analyzed at various times of the year. A summary of the EnRad Laboratory program results for 2016 is documented in Table 4.0-B.

Interlaboratory cross check samples from EZA were received and analyzed in all four quarters of 2016. Table 4.0-B lists the performance for specific samples. Seventy-nine results were reported of which 79 (100%) met the acceptance criteria based on IP 84750. Five EZA cross check samples did exhibit either a high or low bias in at least one nuclide of interest and EnRad proactively initiated NCRs to investigate these biases. The first bias was found in the second quarter gross alpha/beta in water sample (E11527), where a high alpha activity bias was evident in the sample set. NCR # 02052857 was written to investigate the high alpha activity bias in the water samples.

In the third quarter of 2016, the Gamma in Composite Filter cross check (E11590) showed a low activity bias for the Cr-51 nuclide, the other eight reported nuclides were all found to be in trend. NCR #02080821 was initiated to track the actions for investigating the Cr-51 activity bias. The Gamma in Water cross check (E11588), which was also analyzed in the third quarter of 2016 showed a high activity bias for the Fe-59 isotope. The remaining nine isotopes of sample E11588 were all found to be within trend, NCR #02074444 was written to investigate the high Fe-59 activity bias.

NCR #02027474 was written to document and track the associated actions of an overall high activity bias in the LLI-131 in Milk cross check samples (E11472) analyzed in the first quarter of 2016. In the second quarter of 2016, LLI-131 in Water cross check samples (E11526) also showed an overall high bias within the sample set. NCR #02045683 was initiated to investigate this continued LLI-131 bias since the samples are analyzed the same and the simulated milk matrix is similar to that of the water. In the third quarter of 2016, cross check E11592, LLI-131 in Milk was analyzed and no activity bias was evident.

4.5.3 ERA PROFICIENCY TESTING

EnRad Laboratories performed method proficiency testing through a program administered by Environmental Resource Associates (ERA) of Arvada, CO. ERA supplied requested method proficiency samples for analysis and nuclide concentration determination. ERA reported proficiency test results to the North Carolina Department of Health and Human Services, North Carolina Public Health Drinking Water Laboratory Certification Program. A summary of these proficiency test data for 2016 is documented in Table 4.0-C.

Proficiency samples were distributed in the second and fourth quarters of 2016. Table 4.0-C summarizes the results and evaluation. Fourteen results were reported of which 14 (100%) were in agreement.

Two NCRs were proactively written to investigate nuclide activity biases seen in ERA Proficiency Samples. NCR #02032824 was written to investigate a high

activity bias in the Zn-65 nuclide of Proficiency Sample RAD-105, Gamma Emitters in Water, which was analyzed in the second quarter of 2016. The remaining four identified nuclides in sample RAD-105 were within trend. In the fourth quarter of 2016, NCR #02081918 was written to document and track the actions of an overall high bias in the sample set for Proficiency Sample RAD-107, I-131 in Water. However, during review of data for AREOR preparations, it was found that the closure for NCR #02081918 was insufficient to explain the event, so NCR #02103716 was generated to better document the possible cause of the I-131 bias.

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, fish, aquatic vegetation (ANI samples), and bottom sediment (ANI samples) 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 2016 Nuclear Technology Services Intercomparison Report is documented in Table 4.0-D.

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 third and fourth quarters of 2016 an environmental external TLD cross check failed and NCR # 02106779 was written to document the failures. To prevent recurrence, the two TLDs were pulled and visually inspected for abnormalities in the elements and overall integrity of the TLDs and no abnormalities were found. The two TLDs were then annealed and irradiated to 100 GU, then read 7 days later. Both TLDs over responded on E3 or E4 and were outside of the 10% acceptance criteria per procedure RD/0/B/4000/13, Environmental Monitoring. TLD # 103523 and 103511 were both removed from Environmental TLD inventory and removed from service. Complete documentation of any evaluation will be available and provided to the NRC upon request.

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 2016. A summary of the GEL quality assurance program results for the sample media types sent to GEL during 2016 is documented in Table 4.0-E. GEL Quality Assurance Program results not appearing in Table 4.0-E will be supplied upon request.

TABLE 4.0-A

DUKE ENERGY

INTERLABORATORY COMPARISON PROGRAM

2016 EnRad Fleet Scientific Services Cross Check Performance Summary

Interlaboratory cross checks were distributed by Fleet Scientific Services (FSS) staff in accordance with SRPMP 9-2. One media type, water, was analyzed for mixed gamma, tritium, beta, and LLI-131. Table 4.0-A lists results for specific analyses. One-hundred and seventy-four results were reported of which 164 (94.3%) were in agreement.

Sample	Sample ID	Nuclide	Quarter	Units	EnRad Value	GO Value	EnRad/GO Ratio	Evaluation
Gamma in Water	Q161GWR 1.0 L	Mn-54	1	pCi/L	7540	6890	1.09	Agreement
			1	pCi/L	7500	6890	1.09	Agreement
			1	pCi/L	7540	6890	1.09	Agreement
		Co-57	1	pCi/L	4960	4880	1.02	Agreement
			1	pCi/L	5060	4880	1.04	Agreement
			1	pCi/L	5070	4880	1.04	Agreement
		Co-60	1	pCi/L	4400	4370	1.01	Agreement
			1	pCi/L	4760	4370	1.09	Agreement
			1	pCi/L	4530	4370	1.04	Agreement
		Zn-65	1	pCi/L	11900	10600	1.12	Agreement
			1	pCi/L	12200	10600	1.15	Agreement
			1	pCi/L	11800	10600	1.11	Agreement
		Y-88	1	pCi/L	3170	3310	0.96	Agreement
			1	pCi/L	3460	3310	1.04	Agreement
			1	pCi/L	3270	3310	0.99	Agreement
		Sn-113	1	pCi/L	9800	9190	1.07	Agreement
			1	pCi/L	9720	9190	1.06	Agreement
			1	pCi/L	9700	9190	1.06	Agreement
		Cs-134	1	pCi/L	6970	7750	0.90	Agreement
			1	pCi/L	7020	7750	0.91	Agreement
			1	pCi/L	6980	7750	0.90	Agreement
		Cs-137	1	pCi/L	5240	4930	1.06	Agreement
			1	pCi/L	5340	4930	1.08	Agreement
			1	pCi/L	5230	4930	1.06	Agreement

TABLE 4.0-A (Cont.)

Sample	Sample ID	Nuclide	Quarter	Units	EnRad Value	GO Value	EnRad/GO Ratio	Evaluation
Gamma in Water	Q161GWR 3.5 L	Mn-54	1	pCi/L	7640	6890	1.11	Agreement
			1	pCi/L	7680	6890	1.12	Agreement
			1	pCi/L	7690	6890	1.12	Agreement
		Co-57	1	pCi/L	5110	4880	1.05	Agreement
			1	pCi/L	5240	4880	1.07	Agreement
			1	pCi/L	5210	4880	1.07	Agreement
		Co-60	1	pCi/L	4750	4370	1.09	Agreement
			1	pCi/L	4710	4370	1.08	Agreement
			1	pCi/L	4630	4370	1.06	Agreement
		Zn-65	1	pCi/L	11900	10600	1.12	Agreement
			1	pCi/L	12000	10600	1.13	Agreement
			1	pCi/L	11800	10600	1.11	Agreement
		Y-88	1	pCi/L	3360	3310	1.01	Agreement
			1	pCi/L	3490	3310	1.05	Agreement
			1	pCi/L	3380	3310	1.02	Agreement
		Sn-113	1	pCi/L	9970	9190	1.08	Agreement
			1	pCi/L	9970	9190	1.08	Agreement
			1	pCi/L	9860	9190	1.07	Agreement
		Cs-134	1	pCi/L	7410	7750	0.96	Agreement
			1	pCi/L	7390	7750	0.95	Agreement
			1	pCi/L	7350	7750	0.95	Agreement
		Cs-137	1	pCi/L	5340	4930	1.08	Agreement
			1	pCi/L	5420	4930	1.10	Agreement
			1	pCi/L	5250	4930	1.06	Agreement

TABLE 4.0-A (Cont.)

Sample	Sample ID	Nuclide	Quarter	Units	EnRad Value	GO Value	EnRad/GO Ratio	Evaluation
Gamma in Water	Q163GWR 0.25 L	Cr-51	3	pCi/L	30400	26400	1.15	Agreement
			3	pCi/L	28800	26400	1.09	Agreement
			3	pCi/L	28600	26400	1.08	Agreement
		Mn-54	3	pCi/L	26700	21800	1.23	Agreement
			3	pCi/L	25300	21800	1.16	Agreement
			3	pCi/L	24900	21800	1.14	Agreement
		Co-58	3	pCi/L	23100	20200	1.14	Agreement
			3	pCi/L	21700	20200	1.07	Agreement
			3	pCi/L	21500	20200	1.06	Agreement
		Fe-59	3	pCi/L	19100	14900	1.28	Warning ¹
			3	pCi/L	18100	14900	1.21	Agreement
			3	pCi/L	18000	14900	1.20	Agreement
		Co-60	3	pCi/L	38100	31400	1.21	Agreement
			3	pCi/L	35600	31400	1.13	Agreement
			3	pCi/L	35600	31400	1.13	Agreement
		Zn-65	3	pCi/L	52500	40000	1.31	Warning ¹
			3	pCi/L	49200	40000	1.23	Agreement
			3	pCi/L	49100	40000	1.23	Agreement
		Cs-134	3	pCi/L	32100	31300	1.03	Agreement
			3	pCi/L	30200	31300	0.97	Agreement
			3	pCi/L	29700	31300	0.95	Agreement
		Cs-137	3	pCi/L	25900	22100	1.17	Agreement
			3	pCi/L	24500	22100	1.11	Agreement
			3	pCi/L	24100	22100	1.09	Agreement
		Ce-141	3	pCi/L	16900	14700	1.15	Agreement
			3	pCi/L	15800	14700	1.08	Agreement
			3	pCi/L	16100	14700	1.10	Agreement

1) Warnings were caused by expected double humped coincidence summing and the FSS cross check provider did not request an investigation and does not constitute a non-agreement.

TABLE 4.0-A (Cont.)

Sample	Sample ID	Nuclide	Quarter	Units	EnRad Value	GO Value	EnRad/GO Ratio	Evaluation
Gamma in Water	Q163GWR 0.5 L	Cr-51	3	pCi/L	27200	26400	1.03	Agreement
			3	pCi/L	27200	26400	1.03	Agreement
			3	pCi/L	26900	26400	1.02	Agreement
		Mn-54	3	pCi/L	23700	21800	1.09	Agreement
			3	pCi/L	23900	21800	1.10	Agreement
			3	pCi/L	24000	21800	1.10	Agreement
		Co-58	3	pCi/L	20400	20200	1.01	Agreement
			3	pCi/L	20700	20200	1.02	Agreement
			3	pCi/L	20700	20200	1.02	Agreement
		Fe-59	3	pCi/L	16800	14900	1.12	Agreement
			3	pCi/L	17100	14900	1.14	Agreement
			3	pCi/L	17200	14900	1.15	Agreement
		Co-60	3	pCi/L	33500	31400	1.07	Agreement
			3	pCi/L	34200	31400	1.09	Agreement
			3	pCi/L	34000	31400	1.08	Agreement
		Zn-65	3	pCi/L	46100	40000	1.15	Agreement
			3	pCi/L	47000	40000	1.17	Agreement
			3	pCi/L	46900	40000	1.17	Agreement
		Cs-134	3	pCi/L	30900	31300	0.99	Agreement
			3	pCi/L	28800	31300	0.92	Agreement
			3	pCi/L	28800	31300	0.92	Agreement
		Cs-137	3	pCi/L	22900	22100	1.04	Agreement
			3	pCi/L	23300	22100	1.05	Agreement
			3	pCi/L	23200	22100	1.05	Agreement
		Ce-141	3	pCi/L	15000	14700	1.02	Agreement
			3	pCi/L	15300	14700	1.04	Agreement
			3	pCi/L	15300	14700	1.04	Agreement

TABLE 4.0-A (Cont.)

Sample	Sample ID	Nuclide	Quarter	Units	EnRad Value	GO Value	EnRad/GO Ratio	Evaluation
Gamma in Water	Q163GWR 3.5 L	Cr-51	3	pCi/L	27700	26400	1.05	Agreement
			3	pCi/L	27600	26400	1.04	Agreement
			3	pCi/L	27400	26400	1.04	Agreement
		Mn-54	3	pCi/L	23600	21800	1.08	Agreement
			3	pCi/L	23800	21800	1.09	Agreement
			3	pCi/L	23700	21800	1.09	Agreement
		Co-58	3	pCi/L	20600	20200	1.02	Agreement
			3	pCi/L	20800	20200	1.03	Agreement
			3	pCi/L	20700	20200	1.02	Agreement
		Fe-59	3	pCi/L	16500	14900	1.10	Agreement
			3	pCi/L	16700	14900	1.12	Agreement
			3	pCi/L	16500	14900	1.10	Agreement
		Co-60	3	pCi/L	34100	31400	1.09	Agreement
			3	pCi/L	34100	31400	1.09	Agreement
			3	pCi/L	34000	31400	1.08	Agreement
		Zn-65	3	pCi/L	45600	40000	1.14	Agreement
			3	pCi/L	45900	40000	1.15	Agreement
			3	pCi/L	45500	40000	1.14	Agreement
		Cs-134	3	pCi/L	32700	31300	1.05	Agreement
			3	pCi/L	30100	31300	0.96	Agreement
			3	pCi/L	29900	31300	0.96	Agreement
		Cs-137	3	pCi/L	23100	22100	1.05	Agreement
			3	pCi/L	23400	22100	1.06	Agreement
			3	pCi/L	23200	22100	1.05	Agreement
		Ce-141	3	pCi/L	15400	14700	1.05	Agreement
			3	pCi/L	15700	14700	1.07	Agreement
			3	pCi/L	15500	14700	1.06	Agreement

TABLE 4.0-A (Cont.)

Sample	Sample ID	Nuclide	Quarter	Units	EnRad Value	GO Value	EnRad/GO Ratio	Evaluation
Tritium in Water	Q161TWR1	H-3	1	pCi/L	4880	4730	1.03	Agreement
			1	pCi/L	4810	4730	1.02	Agreement
			1	pCi/L	4770	4730	1.01	Agreement
	Q161TWR2	H-3	1	pCi/L	80200	81200	0.99	Agreement
			1	pCi/L	80100	81200	0.99	Agreement
			1	pCi/L	79700	81200	0.98	Agreement
	Q161TWR3	H-3	1	pCi/L	488	471	1.04	Agreement
			1	pCi/L	478	471	1.02	Agreement
			1	pCi/L	479	471	1.02	Agreement
Tritium in Water	Q163TWR1	H-3	3	pCi/L	1230	1250	0.98	Agreement
			3	pCi/L	1170	1250	0.93	Agreement
			3	pCi/L	1220	1250	0.97	Agreement
	Q163TWR2	H-3	3	pCi/L	134000	134000	1.00	Agreement
			3	pCi/L	134000	134000	1.00	Agreement
			3	pCi/L	132000	134000	0.99	Agreement
	Q163TWR3	H-3	3	pCi/L	380	387	0.98	Agreement ²
			3	pCi/L	388	387	1.00	Agreement ²
			3	pCi/L	413	387	1.07	Agreement ²

2) NCR # 02074856

TABLE 4.0-A (Cont.)

Sample	Sample ID	Nuclide	Quarter	Units	EnRad Value	GO Value	EnRad/GO Ratio	Evaluation
LLI-131 in Water	Q162LIW4	I-131	2	pCi/L	84.7	79.6	1.06	Agreement
			2	pCi/L	85.6	79.6	1.07	Agreement
			2	pCi/L	84.4	79.6	1.06	Agreement
	Q162LIW5	I-131	2	pCi/L	2030	1850	1.10	Agreement
			2	pCi/L	1950	1850	1.05	Agreement
			2	pCi/L	2000	1850	1.08	Agreement
	Q162LIW6	I-131	2	pCi/L	403	380	1.06	Agreement
			2	pCi/L	396	380	1.04	Agreement
			2	pCi/L	391	380	1.03	Agreement
Alpha Beta in Water	Q163ABW1	Am-241	3	pCi/L	603	470	1.28	Warning ³
			3	pCi/L	591	470	1.26	Warning ³
			3	pCi/L	588	470	1.25	Agreement
		Cs-137	3	pCi/L	293	289	1.01	Agreement
			3	pCi/L	293	289	1.01	Agreement
			3	pCi/L	288	289	1.00	Agreement
	Q163ABW2	Am-241	3	pCi/L	381	271	1.41	Non-Agreement ³
			3	pCi/L	380	271	1.40	Non-Agreement ³
			3	pCi/L	377	271	1.39	Non-Agreement ³
		Cs-137	3	pCi/L	262	258	1.02	Agreement
			3	pCi/L	260	258	1.01	Agreement
			3	pCi/L	270	258	1.05	Agreement
	Q163ABW3	Am-241	3	pCi/L	321	238	1.35	Non-Agreement ³
			3	pCi/L	326	238	1.37	Non-Agreement ³
			3	pCi/L	308	238	1.29	Warning ³
		Cs-137	3	pCi/L	489	493	0.99	Agreement
			3	pCi/L	486	493	0.99	Agreement
			3	pCi/L	483	493	0.98	Agreement

3) NCR # 02072622

TABLE 4.0-B

ECKERT & ZIEGLER ANALYTICS

CROSS CHECK PROGRAM

2016 Cross Check Results for EnRad Laboratories

Interlaboratory cross check samples from EZA were received and analyzed in all four quarters of 2016. 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-B lists the performance for specific samples. Seventy-nine results were reported of which 79 (100%) met the acceptance criteria based on IP 84750.

Sample	Sample ID	Nuclide	Quarter	Units	EnRad Value	EZA Value	EnRad/EZA Ratio	Evaluation
Beta Filter in Planchet	E11474A	Cs-137	1	pCi	139	134	1.05	Agreement
	E11591	Cs-137	3	pCi	55.5	56.7	0.98	Agreement
	E11665A	Cs-137	4	pCi	225	228	0.99	Agreement
Gamma in Soil	E11529	Ce-141	2	pCi/g	0.19	0.21	0.92	Agreement
		Cr-51	2	pCi/g	0.41	0.42	0.98	Agreement
		Cs-134	2	pCi/g	0.26	0.27	0.97	Agreement
		Cs-137	2	pCi/g	0.25	0.26	0.94	Agreement
		Co-58	2	pCi/g	0.20	0.22	0.91	Agreement
		Mn-54	2	pCi/g	0.20	0.19	1.02	Agreement
		Fe-59	2	pCi/g	0.19	0.19	1.04	Agreement
		Zn-65	2	pCi/g	0.37	0.36	1.04	Agreement
		Co-60	2	pCi/g	0.25	0.26	0.96	Agreement
LLI-131 in Water	E11526	I-131	2	pCi/L	109	99.8	1.09	Agreement ¹
Gross Alpha/Beta in Water	E11527	Am-241	2	pCi/L	83.6	74.9	1.12	Agreement ²
		Cs-137	2	pCi/L	251	250	1.00	Agreement ²
Gamma in Vegetation (Coffee Grounds)	E11528	Ce-141	2	pCi/g	0.23	0.23	1.01	Agreement
		Cr-51	2	pCi/g	0.44	0.45	0.98	Agreement
		Cs-134	2	pCi/g	0.27	0.29	0.94	Agreement
		Cs-137	2	pCi/g	0.20	0.20	1.00	Agreement
		Co-58	2	pCi/g	0.22	0.23	0.96	Agreement
		Mn-54	2	pCi/g	0.21	0.21	1.00	Agreement
		Fe-59	2	pCi/g	0.20	0.20	1.00	Agreement
		Zn-65	2	pCi/g	0.45	0.39	1.17	Agreement
		Co-60	2	pCi/g	0.28	0.28	0.98	Agreement

1) NCR #02045683

2) NCR #02052857

TABLE 4.0-B (Cont.)

Sample	Sample ID	Nuclide	Quarter	Units	EnRad Value	EZA Value	EnRad/EZA Ratio	Evaluation
Gamma in Composite Filter	E11471	Ce-141	1	pCi	80.1	75.6	1.06	Agreement
		Cr-51	1	pCi	213	187	1.14	Agreement
		Cs-134	1	pCi	102	99.9	1.02	Agreement
		Cs-137	1	pCi	119	124	0.96	Agreement
		Co-58	1	pCi	86.9	90.2	0.96	Agreement
		Mn-54	1	pCi	92.9	89.6	1.04	Agreement
		Fe-59	1	pCi	110	101	1.09	Agreement
		Zn-65	1	pCi	139	137	1.01	Agreement
		Co-60	1	pCi	195	187	1.04	Agreement
Gamma in Composite Filter	E11590	Ce-141	3	pCi	76.0	70.3	1.08	Agreement
		Cr-51	3	pCi	183	178	1.03	Agreement ³
		Cs-134	3	pCi	102	102	1.00	Agreement
		Cs-137	3	pCi	88.3	89.4	0.99	Agreement
		Co-58	3	pCi	72.1	73.4	0.98	Agreement
		Mn-54	3	pCi	115	115	1.00	Agreement
		Fe-59	3	pCi	63.5	68.4	0.93	Agreement
		Zn-65	3	pCi	143	135	1.06	Agreement
		Co-60	3	pCi	104	102	1.02	Agreement
Gamma in Water	E11588	I-131	3	pCi/L	50.3	49.0	1.03	Agreement
		Ce-141	3	pCi/L	89.5	85.2	1.05	Agreement
		Cr-51	3	pCi/L	230	215	1.07	Agreement
		Cs-134	3	pCi/L	112	124	0.90	Agreement
		Cs-137	3	pCi/L	112	108	1.03	Agreement
		Co-58	3	pCi/L	88.9	89.0	1.00	Agreement
		Mn-54	3	pCi/L	149	139	1.07	Agreement
		Fe-59	3	pCi/L	97.4	82.8	1.18	Agreement ⁴
		Zn-65	3	pCi/L	180	163	1.10	Agreement
		Co-60	3	pCi/L	131	123	1.06	Agreement

3) NCR # 02080821

4) NCR # 02074444

TABLE 4.0-B (Cont.)

Sample	Sample ID	Nuclide	Quarter	Units	EnRad Value	EZA Value	EnRad/EZA Ratio	Evaluation
Gamma in Filter (Falcon)	E11589	Ce-141	3	pCi	84.6	72.9	1.16	Agreement
		Cr-51	3	pCi	209	184	1.13	Agreement
		Cs-134	3	pCi	123	106	1.16	Agreement
		Cs-137	3	pCi	99.8	92.7	1.08	Agreement
		Co-58	3	pCi	75.8	76.1	1.00	Agreement
		Mn-54	3	pCi	123	119	1.03	Agreement
		Fe-59	3	pCi	79.7	70.9	1.12	Agreement
		Zn-65	3	pCi	171	140	1.22	Agreement
		Co-60	3	pCi	116	105	1.10	Agreement
Gamma in Milk	E11475	I-131	1	pCi/L	86.5	82.2	1.05	Agreement
		Ce-141	1	pCi/L	101	98.4	1.03	Agreement
		Cr-51	1	pCi/L	243	243	1.00	Agreement
		Cs-134	1	pCi/L	121	130	0.93	Agreement
		Cs-137	1	pCi/L	175	161	1.09	Agreement
		Co-58	1	pCi/L	117	117	1.00	Agreement
		Mn-54	1	pCi/L	127	117	1.09	Agreement
		Fe-59	1	pCi/L	143	131	1.09	Agreement
		Zn-65	1	pCi/L	186	179	1.04	Agreement
		Co-60	1	pCi/L	266	244	1.09	Agreement
Gross Alpha/Beta in Water	E11668	Am-241	4	pCi/L	135	146	0.92	Agreement
		Cs-137	4	pCi/L	270	293	0.92	Agreement
LLI-131 in Milk	E11472	I-131	1	pCi/L	102	92	1.11	Agreement ⁵
	E11592	I-131	3	pCi/L	82.6	81.5	1.01	Agreement
Tritium in Water	E11530	H-3	2	pCi/L	12200	12000	1.01	Agreement
	E11666	H-3	4	pCi/L	11900	11900	1.00	Agreement
I-131 in Charcoal Cartridge	E11473	I-131	1	pCi	90	89	1.01	Agreement
	E11587	I-131	3	pCi	61.9	58.6	1.06	Agreement

5) NCR # 02027474

TABLE 4.0-C

ENVIRONMENTAL RESOURCE ASSOCIATES (ERA)

PROFICIENCY TESTING

2016 Proficiency Test Results for EnRad Laboratories

North Carolina Department of Health and Human Services Laboratory Certification

EnRad Laboratories

Proficiency test samples are received, prepared, and analyzed in second and fourth quarters of 2016. Results are reported directly to Environmental Resource Associates as described in the instruction package within the study period. Proficiency test data are reported to ERA for evaluation. The acceptance criteria for the program was based on the National Environmental Laboratory Accreditation Conference (NELAC) Field of Proficiency Testing criteria. Fourteen results were reported of which 14 (100 %) met the acceptance criteria. ERA reports proficiency test results to the North Carolina Department of Health and Human Services, North Carolina Public Drinking Water Laboratory Certification Program. This testing is to satisfy the North Carolina state drinking water radiochemistry certification requirements.

Sample	Sample ID	Nuclide	Quarter	Units	EnRad Value	ERA Value	Acceptance Limits	Evaluation
Gamma Emitters in Water	RAD-105	Ba-133	2	pCi/L	56.6	58.8	48.7-64.9	Agreement
		Cs-134	2	pCi/L	42.8	43.3	34.6-47.6	Agreement
		Cs-137	2	pCi/L	86.3	78.4	70.6-88.9	Agreement
		Co-60	2	pCi/L	101	102	91.8-114	Agreement
		Zn-65	2	pCi/L	244	214	193-251	Agreement ¹
	RAD-107	Ba-133	4	pCi/L	54	54.9	45.4-60.7	Agreement
		Cs-134	4	pCi/L	77.4	81.8	67.0-90.0	Agreement
		Cs-137	4	pCi/L	210	210	189-233	Agreement
		Co-60	4	pCi/L	68.9	64.5	58.0-73.4	Agreement
		Zn-65	4	pCi/L	280	245	220-287	Agreement
Tritium in Water	RAD-105	H-3	2	pCi/L	7940	7840	6790-8620	Agreement
	RAD-107	H-3	4	pCi/L	9670	9820	8540-10800	Agreement
Iodine-131 in Water	RAD-105	I-131	2	pCi/L	28.1	26.6	22.1-31.3	Agreement
	RAD-107	I-131	4	pCi/L	30.7	26.3	21.9-31.0	Agreement ²

1) NCR # 02032824

2) NCR #02081918

TABLE 4.0-D

2016 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 2016						2nd Quarter 2016						
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	
102234	90.33	88.74	1.79	<+/-15%	Pass	103685	16.86	15.90	6.04	<+/-15%	Pass	
102082	87.38	88.74	-1.53	<+/-15%	Pass	103686	17.24	15.90	8.43	<+/-15%	Pass	
103299	90.78	88.74	2.30	<+/-15%	Pass	103704	15.76	15.90	-0.88	<+/-15%	Pass	
103287	95.55	88.74	7.67	<+/-15%	Pass	103705	16.21	15.90	1.95	<+/-15%	Pass	
103752	92.49	88.74	4.23	<+/-15%	Pass	103714	17.45	15.90	9.75	<+/-15%	Pass	
Average Bias (B)			2.89				Average Bias (B)			5.06		
Standard Deviation (S)			3.38				Standard Deviation (S)			4.45		
Measure Performance B +S			6.27	<15%	Pass	Measure Performance B +S			9.51	<15%	Pass	
3rd Quarter 2016						4th Quarter 2016						
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	
102058	73.65	69.8	5.58	<+/-15%	Pass	100527	81.50	75.3	8.23	<+/-15%	Pass	
103540	76.65	69.8	9.88	<+/-15%	Pass	100345	80.56	75.3	6.99	<+/-15%	Pass	
103523	82.05	69.8	17.62	<+/-15%	Fail ¹	101386	82.55	75.3	9.63	<+/-15%	Pass	
100795	74.03	69.8	6.12	<+/-15%	Pass	100123	81.17	75.3	7.80	<+/-15%	Pass	
100355	71.79	69.8	2.91	<+/-15%	Pass	103511	87.26	75.3	15.88	<+/-15%	Fail ¹	
Average Bias (B)			8.42				Average Bias (B)			9.71		
Standard Deviation (S)			5.71				Standard Deviation (S)			3.58		
Measure Performance B +S			14.13	<15%	Pass	Measure Performance B +S			13.29	<15%	Pass	

1) NCR # 02106779 generated for 3rd and 4th Quarter 2016 failures

TABLE 4.0-E

2016 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-16-MaS34	Fe-55	2 nd	Bq/Kg	197	428	300 - 556	Non-agreement
(2Q 2016)	Ni-63	2 nd	Bq/Kg	1240	1250	875 - 1625	Agreement
	Sr-90	2 nd	Bq/Kg	-3.40		False Pos Test	Agreement
MAPEP-16-MaS35	Fe-55	4 th	Bq/kg	-337	0	False Pos Test	Agreement
(4Q 2016)	Ni-63	4 th	Bq/kg	1090	990	693 - 1287	Agreement
	Sr-90	4 th	Bq/kg	770	894	626 - 1162	Agreement
I-131 in Milk with EZA							
4Q 2015 E11414	I-131	4 th	pCi/L	101	91.2	1.11	Agreement
1Q 2016 E11447	I-131	1 st	pCi/L	94.1	82.2	1.15	Agreement
2Q 2016 E11575	I-131	2 nd	pCi/L	97.7	94.5	1.03	Agreement
3Q 2016 E11607	I-131	3 rd	pCi/L	75.3	71.9	1.05	Agreement
4Q 2016 E11676	I-131	4 th	pCi/L	108	97.4	1.11	Agreement
Transuranics in Water							
MAPEP-16-MaW34	Plutonium - 238	2 nd	Bq/L	1.14	1.244	0.871 - 1.617	Agreement
(2Q 2016)	Plutonium - 239/240	2 nd	Bq/L	0.586	0.641	0.449 - 0.833	Agreement
	Uranium - 234/233	2 nd	Bq/L	1.37	1.48	1.04 - 1.92	Agreement
	Uranium - 238	2 nd	Bq/L	1.43	1.53	1.07 - 1.99	Agreement
MAPEP-16-MaW35	Plutonium - 238	4 th	Bq/L	1.09	1.13	0.79 - 1.47	Agreement
(4Q 2016)	Plutonium - 239/240	4 th	Bq/L	0.024	0.013	Sens. Eval.	Agreement
	Uranium - 234/233	4 th	Bq/L	1.85	1.86	1.30 - 2.42	Agreement
	Uranium - 238	4 th	Bq/L	1.89	1.92	1.34 - 2.50	Agreement

Note: * HTD refers to Hard-to-detect radionuclides

TABLE 4.0-E (Cont.)

Sample	Nuclide	Quarter	Units	GEL Value	Known Value	Acceptance Range/Ratio	Evaluation
Transuranics in Water	Plutonium - 238	2 nd	pCi/L	126	138	102 - 172	Agreement
	Plutonium - 239	2 nd	pCi/L	88.2	98.7	76.6 - 124	Agreement
	Uranium - 234	2 nd	pCi/L	59.3	52.7	39.6 - 68.0	Agreement
MRAD - 24 (2Q 2016)	Uranium - 234	2 nd	pCi/L	49.9	52.7	39.6 - 68.0	Agreement
	Uranium - 234	2 nd	pCi/L	49.8	52.7	39.6 - 68.0	Agreement
	Uranium - 238	2 nd	pCi/L	54.1	52.3	39.9 - 64.2	Agreement
	Uranium - 238	2 nd	pCi/L	53.7	52.3	39.9 - 64.2	Agreement
	Uranium - 238	2 nd	pCi/L	49.1	52.3	39.9 - 64.2	Agreement
	Uranium - Total	2 nd	pCi/L	110.7	107	78.6 - 138	Agreement
	Uranium - Total	2 nd	pCi/L	158	107	78.6 - 138	Non-agreement
	Uranium - Total	2 nd	pCi/L	106.4	107	78.6 - 138	Agreement
	Uranium - Total	2 nd	pCi/L	103.9	107	78.6 - 138	Agreement
MRAD - 25 (4Q 2016)	Plutonium - 238	4 th	pCi/L	85.6	112	82.9 - 139	Agreement
	Plutonium - 239	4 th	pCi/L	125	157	122 - 198	Agreement
	Uranium - 234	4 th	pCi/L	106	105	78.9 - 135	Agreement
	Uranium - 234	4 th	pCi/L	108	105	78.9 - 135	Agreement
	Uranium - 234	4 th	pCi/L	103	105	78.9 - 135	Agreement
	Uranium - 238	4 th	pCi/L	98.4	104	79.3 - 128	Agreement
	Uranium - Total	4 th	pCi/L	209	213	157 - 275	Agreement
	Uranium - Total	4 th	pCi/L	225	213	157 - 275	Agreement
	Uranium - Total	4 th	pCi/L	214	213	157 - 275	Agreement
	Uranium - Total	4 th	pCi/L	211	213	157 - 275	Agreement

Other GEL 2016 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 2016.

I. CHANGE OF SAMPLING PROCEDURES

REMP air filter orientation was changed during 2016 by inward facing the scrim side (shiny side or fuzzy side) and outward facing the crosshatch side (dull side or paper side) as indicated by manufacturer recommendation (NCR # 02026783, 02088366).

The ANI environmental samples continue to be collected and analyzed, but the results or any information pertaining to the ANI samples will not appear in the HBRESP AREOR as of the 2016 HBRSEP AREOR. These samples are not part of the HBRSEP REMF as required by the HBRSEP ODCM.

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

REMP air filter orientation was changed during 2016 by inward facing the scrim side (shiny side or fuzzy side) and outward facing the crosshatch side (dull side or paper side) as indicated by manufacturer recommendation (NCR # 02026783, 02088366). Calibration standards using the new configuration were implemented during 2016.

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 (1) 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 samples were collected from the location listed below.

Location 64 = 0.6 miles SE Artesian Well

A.4 BROADLEAF VEGETATION

Monthly samples, three different species, were collected at each of five locations when available. 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 = 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 samples, of three different types of broadleaf vegetation (edible portions), were collected when available during harvest at one 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 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/Egg producing Animal (beef, hogs, chickens, etc.)

The census was conducted during the growing season in July of 2016. Results are shown in Table 3.10.3. No changes were made to the sampling procedures during 2016 as a result of the 2016 census.

APPENDIX B

**RADIOLOGICAL
ENVIRONMENTAL MONITORING
PROGRAM**

SUMMARY OF RESULTS

2016

**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: 2016

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 520 ⁽⁴⁾	See Table 2.2-C	1.77E-2 (468/468) 7.91E-3 – 4.55E-2	Loc. # 6 Information Center 0.2 miles SSW	1.90E-2 (52/52) 8.99E-3 – 4.29E-2	Loc. # 1 1.68E-2 (52/52) 8.60E-3 – 3.77E-2	0
	Gamma 40	See Table 2.2-C	All less than LLD	----	----	All less than LLD	0
Air Cartridge/Radioiodine ⁽⁴⁾ (pCi/m ³)	I-131 520 ⁽⁴⁾	See Table 2.2-C	All less than LLD	----	----	All less than LLD	0
Broadleaf Vegetation ⁽⁴⁾⁽⁵⁾ (pCi/kg, wet)	Gamma 120 ⁽⁴⁾⁽⁵⁾ Cs-137	See Table 2.2-C	4.91E+1 (26/96) 9.59E+0 – 3.58E+2	Loc. # 51 Close to Site Boundary (BL-51) SSW	9.23E+1 (5/24) 1.02E+1 – 3.58E+2	Loc. # 52 9.72E+1 (9/24) 1.63E+1 – 3.41E+2	0
Fish Free-Swimmers (pCi/kg, wet)	Gamma 6 Cs-137	See Table 2.2-C	3.55E+1 (2/4) 2.85E+1 – 4.24E+1	Loc. # 46 Site varies within Prestwood Lake	4.24E+1 (1/2) Single Value	Loc. # 47 6.06E+1 (2/2) 6.00E+1 – 6.12E+1	0
Fish Bottom-Feeders (pCi/kg, wet)	Gamma 6 Cs-137	See Table 2.2-C	2.92E+1 (1/4) Single Value	Loc. # 46 Site varies within Prestwood Lake	2.92E+1 (1/2) Single Value	Loc. # 47 2.23E+1 (1/2) Single Value	0
Food Products ⁽⁴⁾ (pCi/kg, wet)	Gamma 4 ⁽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: 2016

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 ⁽⁷⁾	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 ⁽⁷⁾	2.28E+3 (12/12) 3.53E+2 – 7.77E+3	Loc. # 40 Black Creek at Old Camden Rd. – Lake Robinson 0.6 miles ESE	2.28E+3 (12/12) 3.53E+2 – 7.77E+3	All less than LLD	0
Direct Radiation (TLD) ⁽⁴⁾ (mR per std. quarter) ⁽⁷⁾	TLD Readout 171 ⁽⁴⁾⁽⁶⁾	-----	1.70E+1 (167/167) 9.84E+0 – 2.83E+1	Loc. # 37 Pine Cone Road 5.0 miles WSW	2.44E+1 (4/4) 2.02E+1 – 2.83E+1	Loc. # 1 1.57E+1 (4/4) 1.29E+1 – 1.78E+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. Three types of broadleaf vegetation samples are collected monthly when available from four locations for a possible total of 144 samples.
6. TLD exposure is reported in milliroentgen (mR) per standard quarter (91 days).
7. Tritium Lower Limit of Detection (LLD) is approximately $2.50E+2$ pCi/L for samples that typically demonstrate activity less than the LLD. The LLD was lowered in order to maintain comparable LLD and result values with the NC Department of Health and Human Services (NCDHHS), Division of Public Health / State Lab of Public Health.

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

Air Particulates and Air Radioiodines

Any REMP weekly air samples (Air Cartridge or Air Radioiodine) that experience any downtime during a surveillance period will be reported as a Deviation and will be classified as a “Sampling Deviation”. The sample will be counted and the data reported; whereas, a Deviation with no available sample will be classified as an “Unavailable Analyses” and will not have any data reported. The air samplers operated for a total of 99.56% availability in 2016.

Location	Scheduled Collection Dates	Code	Description & Action to Prevent Recurrence	Corrective Action
2	12/28/15 – 1/5/16	PI, OT	45.5 hours downtime - broken toggle switch	NCR # 01988511
2	1/5/16 – 1/12/16	PI, OT	110.2 hours downtime - transmission work taking power pole out	NCR # 01990459
2	1/12/16 – 1/19/16	PI	8 hours downtime - work being performed on power lines	NCR # 01992722
4	8/2/16 – 8/9/16	PI, IW	6.9 hours downtime - power interrupted due to thunderstorms in the area	NCR # 02050776
60	9/6/16 – 9/13/16	PI	4 hours downtime - demolition/ construction in the area	NCR # 02061591
1	10/3/16 – 10/12/16	PI, IW	23 hours downtime - power interruption due to Hurricane Matthew (inclement weather)	NCR # 02070622
5	10/3/16 – 10/12/16	PI, IW	94 hours downtime - power interruption due to Hurricane Matthew (inclement weather)	NCR # 02070622
7	10/3/16 – 10/12/16	PI, IW	93 hours downtime - power interruption due to Hurricane Matthew (inclement weather)	NCR # 02070622
60	10/3/16 – 10/12/16	PI, IW	12 hours downtime - power interruption due to Hurricane Matthew (inclement weather)	NCR # 02070622

C.2 UNAVAILABLE ANALYSES

Broadleaf (BL) Vegetation

Location	Scheduled Collection Dates	Code	Description & Action to Prevent Recurrence	Corrective Action
All BLVeg	January 2016	SU	BL vegetation unavailable due to seasonal unavailability	NCR # 01990476
All BLVeg	February 2016	SU	BL vegetation unavailable due to seasonal unavailability	NCR # 01999312
All BLVeg	March 2016	SU	BL vegetation unavailable due to seasonal unavailability	NCR # 02011642
All BLVeg	December 2016	SU	BL vegetation unavailable due to seasonal unavailability	NCR # 02085748

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.

TLD

Location	Scheduled Collection Dates	Code	Description & Action to Prevent Recurrence	Corrective Action
26	1/12/16 – 4/7/16 (1 st Qtr. 2016)	OT	TLD missing in the field, not in designated location. The area was searched but the TLD could not be located.	NCR # 02022191

APPENDIX D

ANALYTICAL DEVIATIONS

APPENDIX D

H. B. ROBINSON NUCLEAR PLANT

ANALYTICAL DEVIATIONS

No Analytical deviations were incurred for the 2016 Radiological Environmental Monitoring Program.

APPENDIX E

**RADIOLOGICAL
ENVIRONMENTAL MONITORING
PROGRAM RESULTS**

2016

This appendix includes sample analysis report summaries and supportive data generated from each sample medium for 2016

ROBINSON Radiological Environmental Monitoring Analysis Report - 2016 (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
398735	12/28/2015 - 1/5/2016	Beta	1.05E-02	1.80E-03	2.08E-03
398999	1/5/2016 - 1/12/2016	Beta	1.13E-02	1.99E-03	2.29E-03
399300	1/12/2016 - 1/19/2016	Beta	1.90E-02	2.32E-03	2.19E-03
400040	1/19/2016 - 1/26/2016	Beta	1.51E-02	2.14E-03	2.17E-03
400403	1/26/2016 - 2/2/2016	Beta	1.86E-02	2.35E-03	2.34E-03
401047	2/2/2016 - 2/9/2016	Beta	1.29E-02	2.01E-03	2.13E-03
401395	2/9/2016 - 2/15/2016	Beta	1.81E-02	2.59E-03	2.70E-03
401839	2/15/2016 - 2/23/2016	Beta	1.37E-02	1.92E-03	1.98E-03
402361	2/23/2016 - 3/1/2016	Beta	1.51E-02	2.13E-03	2.02E-03
403087	3/1/2016 - 3/8/2016	Beta	1.09E-02	2.07E-03	2.34E-03
404580	3/8/2016 - 3/15/2016	Beta	1.55E-02	2.32E-03	2.39E-03
405442	3/15/2016 - 3/22/2016	Beta	1.64E-02	2.52E-03	2.79E-03
406074	3/22/2016 - 3/29/2016	Beta	1.31E-02	2.27E-03	2.56E-03
406445	12/28/2015 - 3/29/2016	Cs-134	<4.19E-04	0.00E+00	4.19E-04
		Cs-137	<4.02E-04	0.00E+00	4.02E-04
		Be-7	1.32E-01	1.97E-02	9.78E-03
		K-40	6.93E-03	4.86E-03	6.11E-03
406435	3/29/2016 - 4/5/2016	Beta	1.44E-02	2.33E-03	2.53E-03
407611	4/5/2016 - 4/12/2016	Beta	1.40E-02	2.26E-03	2.47E-03
408167	4/12/2016 - 4/19/2016	Beta	1.77E-02	2.45E-03	2.37E-03
409490	4/19/2016 - 4/26/2016	Beta	1.98E-02	2.59E-03	2.57E-03
409824	4/26/2016 - 5/4/2016	Beta	1.53E-02	2.24E-03	2.38E-03
411000	5/4/2016 - 5/10/2016	Beta	1.38E-02	2.56E-03	2.98E-03
411467	5/10/2016 - 5/17/2016	Beta	1.62E-02	2.25E-03	2.07E-03
411801	5/17/2016 - 5/25/2016	Beta	1.44E-02	2.10E-03	2.11E-03
412263	5/25/2016 - 5/31/2016	Beta	1.44E-02	2.54E-03	2.87E-03
412779	5/31/2016 - 6/7/2016	Beta	1.06E-02	2.15E-03	2.59E-03



ROBINSON Radiological Environmental Monitoring Analysis Report - 2016 (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
413397	6/7/2016 - 6/13/2016	Beta	2.11E-02	2.99E-03	3.16E-03
413930	6/13/2016 - 6/21/2016	Beta	1.45E-02	2.16E-03	2.32E-03
415070	6/21/2016 - 6/28/2016	Beta	1.86E-02	2.57E-03	2.63E-03
415479	3/29/2016 - 6/28/2016	Cs-134	<6.07E-04	0.00E+00	6.07E-04
		Cs-137	<4.46E-04	0.00E+00	4.46E-04
		Be-7	1.47E-01	2.28E-02	1.45E-02
		K-40	<1.29E-02	0.00E+00	1.29E-02
415469	6/28/2016 - 7/5/2016	Beta	1.35E-02	2.24E-03	2.50E-03
416449	7/5/2016 - 7/13/2016	Beta	1.25E-02	2.02E-03	2.18E-03
417059	7/13/2016 - 7/19/2016	Beta	1.17E-02	2.42E-03	2.92E-03
417452	7/19/2016 - 7/27/2016	Beta	1.93E-02	2.39E-03	2.38E-03
417843	7/27/2016 - 8/2/2016	Beta	1.55E-02	2.60E-03	2.87E-03
418322	8/2/2016 - 8/9/2016	Beta	1.28E-02	2.19E-03	2.41E-03
419037	8/9/2016 - 8/16/2016	Beta	1.05E-02	2.11E-03	2.53E-03
419537	8/16/2016 - 8/23/2016	Beta	1.27E-02	2.14E-03	2.29E-03
420064	8/23/2016 - 8/30/2016	Beta	2.01E-02	2.70E-03	2.87E-03
420609	8/30/2016 - 9/6/2016	Beta	1.24E-02	2.14E-03	2.32E-03
421480	9/6/2016 - 9/13/2016	Beta	2.91E-02	2.94E-03	2.44E-03
422614	9/13/2016 - 9/19/2016	Beta	1.02E-02	2.33E-03	2.86E-03
423355	9/19/2016 - 9/26/2016	Beta	8.60E-03	2.06E-03	2.65E-03
424504	6/28/2016 - 9/26/2016	Cs-134	<6.45E-04	0.00E+00	6.45E-04
		Cs-137	<5.11E-04	0.00E+00	5.11E-04
		Be-7	1.24E-01	2.01E-02	8.54E-03
		K-40	<8.27E-03	0.00E+00	8.27E-03
424494	9/26/2016 - 10/3/2016	Beta	2.58E-02	2.86E-03	2.56E-03
425495	10/3/2016 - 10/12/2016	Beta	1.34E-02	2.18E-03	2.48E-03
426035	10/12/2016 - 10/18/2016	Beta	2.23E-02	3.01E-03	3.03E-03
426402	10/18/2016 - 10/25/2016	Beta	1.76E-02	2.50E-03	2.56E-03
427085	10/25/2016 - 11/1/2016	Beta	2.67E-02	2.83E-03	2.43E-03



ROBINSON Radiological Environmental Monitoring Analysis Report - 2016 (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
427754	11/1/2016 - 11/8/2016	Beta	2.18E-02	2.76E-03	2.65E-03
428260	11/8/2016 - 11/15/2016	Beta	1.58E-02	2.43E-03	2.59E-03
428930	11/15/2016 - 11/21/2016	Beta	3.77E-02	3.74E-03	3.31E-03
429431	11/21/2016 - 11/28/2016	Beta	2.37E-02	2.76E-03	2.49E-03
429992	11/28/2016 - 12/7/2016	Beta	1.81E-02	2.24E-03	2.19E-03
430624	12/7/2016 - 12/14/2016	Beta	1.83E-02	2.62E-03	2.78E-03
431100	12/14/2016 - 12/21/2016	Beta	2.40E-02	3.06E-03	2.84E-03
431499	12/21/2016 - 12/28/2016	Beta	2.77E-02	2.93E-03	2.72E-03
431862	9/26/2016 - 12/28/2016	Cs-134	<4.04E-04	0.00E+00	4.04E-04
		Cs-137	<4.12E-04	0.00E+00	4.12E-04
		Be-7	1.20E-01	1.96E-02	9.22E-03
		K-40	5.82E-03	4.46E-03	5.49E-03

Sample Point 2 [INDICATOR - S @ 0.2 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
398736	12/28/2015 - 1/5/2016	Beta	1.52E-02	2.42E-03	2.71E-03
399000	1/5/2016 - 1/12/2016	Beta	1.33E-02	4.31E-03	6.03E-03
399301	1/12/2016 - 1/19/2016	Beta	1.90E-02	2.27E-03	2.12E-03
400041	1/19/2016 - 1/26/2016	Beta	1.43E-02	2.01E-03	2.02E-03
400404	1/26/2016 - 2/2/2016	Beta	1.70E-02	2.22E-03	2.26E-03
401048	2/2/2016 - 2/9/2016	Beta	1.29E-02	1.87E-03	1.91E-03
401396	2/9/2016 - 2/15/2016	Beta	1.63E-02	2.36E-03	2.49E-03
401840	2/15/2016 - 2/23/2016	Beta	1.22E-02	1.82E-03	1.93E-03
402362	2/23/2016 - 3/1/2016	Beta	1.76E-02	2.04E-03	1.72E-03
403088	3/1/2016 - 3/8/2016	Beta	1.07E-02	1.97E-03	2.19E-03
404581	3/8/2016 - 3/15/2016	Beta	1.58E-02	2.44E-03	2.57E-03
405443	3/15/2016 - 3/22/2016	Beta	1.77E-02	2.73E-03	3.02E-03
406075	3/22/2016 - 3/29/2016	Beta	1.41E-02	2.44E-03	2.76E-03
406446	12/28/2015 - 3/29/2016	Cs-134	<4.46E-04	0.00E+00	4.46E-04
		Cs-137	<4.61E-04	0.00E+00	4.61E-04



ROBINSON Radiological Environmental Monitoring Analysis Report - 2016 (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
406446	12/28/2015 - 3/29/2016	Be-7	1.28E-01	1.95E-02	9.12E-03
		K-40	<8.76E-03	0.00E+00	8.76E-03
406436	3/29/2016 - 4/5/2016	Beta	1.30E-02	2.38E-03	2.72E-03
407612	4/5/2016 - 4/12/2016	Beta	1.45E-02	2.43E-03	2.70E-03
408168	4/12/2016 - 4/19/2016	Beta	2.11E-02	2.72E-03	2.53E-03
409491	4/19/2016 - 4/26/2016	Beta	2.05E-02	2.81E-03	2.85E-03
409825	4/26/2016 - 5/4/2016	Beta	1.96E-02	2.56E-03	2.58E-03
411001	5/4/2016 - 5/10/2016	Beta	1.57E-02	2.87E-03	3.30E-03
411468	5/10/2016 - 5/17/2016	Beta	1.99E-02	2.61E-03	2.32E-03
411802	5/17/2016 - 5/25/2016	Beta	1.54E-02	2.29E-03	2.34E-03
412264	5/25/2016 - 5/31/2016	Beta	2.05E-02	3.07E-03	3.20E-03
412780	5/31/2016 - 6/7/2016	Beta	1.04E-02	2.31E-03	2.88E-03
413398	6/7/2016 - 6/13/2016	Beta	1.90E-02	3.09E-03	3.48E-03
413931	6/13/2016 - 6/21/2016	Beta	1.83E-02	2.55E-03	2.63E-03
415071	6/21/2016 - 6/28/2016	Beta	2.37E-02	2.94E-03	2.84E-03
415480	3/29/2016 - 6/28/2016	Cs-134	<6.92E-04	0.00E+00	6.92E-04
		Cs-137	<3.88E-04	0.00E+00	3.88E-04
		Be-7	1.85E-01	2.81E-02	1.18E-02
		K-40	<1.03E-02	0.00E+00	1.03E-02
415470	6/28/2016 - 7/5/2016	Beta	1.43E-02	2.57E-03	2.97E-03
416450	7/5/2016 - 7/13/2016	Beta	1.64E-02	2.37E-03	2.43E-03
417060	7/13/2016 - 7/19/2016	Beta	1.41E-02	2.81E-03	3.32E-03
417453	7/19/2016 - 7/27/2016	Beta	1.94E-02	2.60E-03	2.69E-03
417844	7/27/2016 - 8/2/2016	Beta	1.60E-02	2.87E-03	3.27E-03
418323	8/2/2016 - 8/9/2016	Beta	1.39E-02	2.42E-03	2.68E-03
419038	8/9/2016 - 8/16/2016	Beta	1.10E-02	2.37E-03	2.91E-03
419538	8/16/2016 - 8/23/2016	Beta	1.51E-02	2.46E-03	2.59E-03



ROBINSON Radiological Environmental Monitoring Analysis Report - 2016 (Appendix E)

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

Sample Point 2 [INDICATOR - S @ 0.2 miles]

Sample ID:	420065	Sample Dates:	8/23/2016 - 8/30/2016	Nuclide	Activity	2 Sigma Error	MDA
				Beta	2.20E-02	2.96E-03	3.14E-03
Sample ID:	420610	Sample Dates:	8/30/2016 - 9/6/2016	Nuclide	Activity	2 Sigma Error	MDA
				Beta	1.83E-02	2.72E-03	2.73E-03
Sample ID:	421481	Sample Dates:	9/6/2016 - 9/13/2016	Nuclide	Activity	2 Sigma Error	MDA
				Beta	3.34E-02	3.37E-03	2.78E-03
Sample ID:	422615	Sample Dates:	9/13/2016 - 9/19/2016	Nuclide	Activity	2 Sigma Error	MDA
				Beta	1.82E-02	3.01E-03	3.24E-03
Sample ID:	423356	Sample Dates:	9/19/2016 - 9/26/2016	Nuclide	Activity	2 Sigma Error	MDA
				Beta	1.01E-02	2.36E-03	3.03E-03
Sample ID:	424505	Sample Dates:	6/28/2016 - 9/26/2016	Nuclide	Activity	2 Sigma Error	MDA
				Cs-134	<5.60E-04	0.00E+00	5.60E-04
				Cs-137	<3.83E-04	0.00E+00	3.83E-04
				Be-7	1.34E-01	2.27E-02	1.33E-02
				K-40	<8.61E-03	0.00E+00	8.61E-03
Sample ID:	424495	Sample Dates:	9/26/2016 - 10/3/2016	Nuclide	Activity	2 Sigma Error	MDA
				Beta	2.32E-02	2.97E-03	2.89E-03
Sample ID:	425496	Sample Dates:	10/3/2016 - 10/12/2016	Nuclide	Activity	2 Sigma Error	MDA
				Beta	1.67E-02	2.29E-03	2.42E-03
Sample ID:	426036	Sample Dates:	10/12/2016 - 10/18/2016	Nuclide	Activity	2 Sigma Error	MDA
				Beta	2.85E-02	3.65E-03	3.56E-03
Sample ID:	426403	Sample Dates:	10/18/2016 - 10/25/2016	Nuclide	Activity	2 Sigma Error	MDA
				Beta	1.92E-02	2.73E-03	2.80E-03
Sample ID:	427086	Sample Dates:	10/25/2016 - 11/1/2016	Nuclide	Activity	2 Sigma Error	MDA
				Beta	3.00E-02	3.27E-03	2.87E-03
Sample ID:	427755	Sample Dates:	11/1/2016 - 11/8/2016	Nuclide	Activity	2 Sigma Error	MDA
				Beta	2.62E-02	3.19E-03	2.99E-03
Sample ID:	428261	Sample Dates:	11/8/2016 - 11/15/2016	Nuclide	Activity	2 Sigma Error	MDA
				Beta	1.77E-02	2.76E-03	2.98E-03
Sample ID:	428931	Sample Dates:	11/15/2016 - 11/21/2016	Nuclide	Activity	2 Sigma Error	MDA
				Beta	4.24E-02	4.24E-03	3.76E-03
Sample ID:	429432	Sample Dates:	11/21/2016 - 11/28/2016	Nuclide	Activity	2 Sigma Error	MDA
				Beta	2.77E-02	3.17E-03	2.82E-03
Sample ID:	429993	Sample Dates:	11/28/2016 - 12/7/2016	Nuclide	Activity	2 Sigma Error	MDA
				Beta	1.95E-02	2.44E-03	2.42E-03
Sample ID:	430625	Sample Dates:	12/7/2016 - 12/14/2016	Nuclide	Activity	2 Sigma Error	MDA
				Beta	1.95E-02	2.89E-03	3.12E-03
Sample ID:	431101	Sample Dates:	12/14/2016 - 12/21/2016	Nuclide	Activity	2 Sigma Error	MDA
				Beta	2.55E-02	3.36E-03	3.17E-03
Sample ID:	431500	Sample Dates:	12/21/2016 - 12/28/2016	Nuclide	Activity	2 Sigma Error	MDA
				Beta	3.02E-02	3.27E-03	3.08E-03
Sample ID:	431863	Sample Dates:	9/26/2016 - 12/28/2016	Nuclide	Activity	2 Sigma Error	MDA
				Cs-134	<5.23E-04	0.00E+00	5.23E-04
				Cs-137	<6.07E-04	0.00E+00	6.07E-04
				Be-7	1.39E-01	2.26E-02	1.18E-02
				K-40	<1.13E-02	0.00E+00	1.13E-02

Sample Point 3 [INDICATOR - N @ 0.5 miles]

Sample ID:	398737	Sample Dates:	12/28/2015 - 1/5/2016	Nuclide	Activity	2 Sigma Error	MDA
				Beta	1.28E-02	2.12E-03	2.41E-03
Sample ID:	399001	Sample Dates:	1/5/2016 - 1/12/2016	Nuclide	Activity	2 Sigma Error	MDA
				Beta	8.67E-03	2.04E-03	2.60E-03

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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
399302	1/12/2016 - 1/19/2016	Beta	2.24E-02	2.66E-03	2.47E-03
400042	1/19/2016 - 1/26/2016	Beta	1.44E-02	2.30E-03	2.47E-03
400405	1/26/2016 - 2/2/2016	Beta	1.93E-02	2.54E-03	2.59E-03
401049	2/2/2016 - 2/9/2016	Beta	1.73E-02	2.44E-03	2.47E-03
401397	2/9/2016 - 2/15/2016	Beta	1.84E-02	2.84E-03	3.08E-03
401841	2/15/2016 - 2/23/2016	Beta	1.38E-02	2.09E-03	2.23E-03
402363	2/23/2016 - 3/1/2016	Beta	1.59E-02	2.33E-03	2.26E-03
403089	3/1/2016 - 3/8/2016	Beta	1.54E-02	2.50E-03	2.62E-03
404582	3/8/2016 - 3/15/2016	Beta	1.70E-02	2.56E-03	2.66E-03
405444	3/15/2016 - 3/22/2016	Beta	1.70E-02	2.54E-03	2.78E-03
406076	3/22/2016 - 3/29/2016	Beta	1.25E-02	2.27E-03	2.61E-03
406447	12/28/2015 - 3/29/2016	Cs-134	<6.35E-04	0.00E+00	6.35E-04
		Cs-137	<5.02E-04	0.00E+00	5.02E-04
		Be-7	1.35E-01	2.17E-02	5.74E-03
		K-40	<1.35E-02	0.00E+00	1.35E-02
406437	3/29/2016 - 4/5/2016	Beta	1.36E-02	2.28E-03	2.51E-03
407613	4/5/2016 - 4/12/2016	Beta	1.25E-02	2.20E-03	2.50E-03
408169	4/12/2016 - 4/19/2016	Beta	1.91E-02	2.45E-03	2.28E-03
409492	4/19/2016 - 4/26/2016	Beta	2.11E-02	2.70E-03	2.65E-03
409826	4/26/2016 - 5/4/2016	Beta	1.58E-02	2.25E-03	2.36E-03
411002	5/4/2016 - 5/10/2016	Beta	1.33E-02	2.54E-03	2.99E-03
411469	5/10/2016 - 5/17/2016	Beta	1.64E-02	2.30E-03	2.13E-03
411803	5/17/2016 - 5/25/2016	Beta	1.42E-02	2.12E-03	2.17E-03
412265	5/25/2016 - 5/31/2016	Beta	1.90E-02	2.77E-03	2.85E-03
412781	5/31/2016 - 6/7/2016	Beta	1.29E-02	2.34E-03	2.71E-03
413399	6/7/2016 - 6/13/2016	Beta	1.92E-02	2.89E-03	3.14E-03
413932	6/13/2016 - 6/21/2016	Beta	1.73E-02	2.37E-03	2.44E-03



ROBINSON Radiological Environmental Monitoring Analysis Report - 2016 (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
415072	6/21/2016 - 6/28/2016	Beta	2.06E-02	2.66E-03	2.63E-03
415481	3/29/2016 - 6/28/2016	Nuclide	Activity	2 Sigma Error	MDA
		Cs-134	<6.24E-04	0.00E+00	6.24E-04
		Cs-137	<4.59E-04	0.00E+00	4.59E-04
		Be-7	1.61E-01	2.29E-02	7.70E-03
		K-40	7.17E-03	4.96E-03	5.81E-03
415471	6/28/2016 - 7/5/2016	Nuclide	Activity	2 Sigma Error	MDA
		Beta	1.72E-02	2.53E-03	2.67E-03
416451	7/5/2016 - 7/13/2016	Nuclide	Activity	2 Sigma Error	MDA
		Beta	1.25E-02	2.05E-03	2.23E-03
417061	7/13/2016 - 7/19/2016	Nuclide	Activity	2 Sigma Error	MDA
		Beta	1.26E-02	2.54E-03	3.02E-03
417454	7/19/2016 - 7/27/2016	Nuclide	Activity	2 Sigma Error	MDA
		Beta	1.95E-02	2.43E-03	2.42E-03
417845	7/27/2016 - 8/2/2016	Nuclide	Activity	2 Sigma Error	MDA
		Beta	1.40E-02	2.62E-03	3.04E-03
418324	8/2/2016 - 8/9/2016	Nuclide	Activity	2 Sigma Error	MDA
		Beta	1.18E-02	2.15E-03	2.44E-03
419039	8/9/2016 - 8/16/2016	Nuclide	Activity	2 Sigma Error	MDA
		Beta	8.76E-03	2.07E-03	2.63E-03
419539	8/16/2016 - 8/23/2016	Nuclide	Activity	2 Sigma Error	MDA
		Beta	1.21E-02	2.18E-03	2.41E-03
420066	8/23/2016 - 8/30/2016	Nuclide	Activity	2 Sigma Error	MDA
		Beta	1.94E-02	2.67E-03	2.86E-03
420611	8/30/2016 - 9/6/2016	Nuclide	Activity	2 Sigma Error	MDA
		Beta	1.38E-02	2.34E-03	2.50E-03
421482	9/6/2016 - 9/13/2016	Nuclide	Activity	2 Sigma Error	MDA
		Beta	3.06E-02	3.05E-03	2.50E-03
422616	9/13/2016 - 9/19/2016	Nuclide	Activity	2 Sigma Error	MDA
		Beta	1.77E-02	2.85E-03	3.03E-03
423357	9/19/2016 - 9/26/2016	Nuclide	Activity	2 Sigma Error	MDA
		Beta	1.05E-02	2.24E-03	2.79E-03
424506	6/28/2016 - 9/26/2016	Nuclide	Activity	2 Sigma Error	MDA
		Cs-134	<7.46E-04	0.00E+00	7.46E-04
		Cs-137	<5.55E-04	0.00E+00	5.55E-04
		Be-7	1.33E-01	2.14E-02	9.74E-03
		K-40	<1.34E-02	0.00E+00	1.34E-02
424496	9/26/2016 - 10/3/2016	Nuclide	Activity	2 Sigma Error	MDA
		Beta	2.04E-02	2.69E-03	2.65E-03
425497	10/3/2016 - 10/12/2016	Nuclide	Activity	2 Sigma Error	MDA
		Beta	1.51E-02	2.13E-03	2.27E-03
426037	10/12/2016 - 10/18/2016	Nuclide	Activity	2 Sigma Error	MDA
		Beta	2.19E-02	3.07E-03	3.13E-03
426404	10/18/2016 - 10/25/2016	Nuclide	Activity	2 Sigma Error	MDA
		Beta	1.86E-02	2.61E-03	2.67E-03
427087	10/25/2016 - 11/1/2016	Nuclide	Activity	2 Sigma Error	MDA
		Beta	2.61E-02	2.93E-03	2.61E-03
427756	11/1/2016 - 11/8/2016	Nuclide	Activity	2 Sigma Error	MDA
		Beta	2.32E-02	2.81E-03	2.63E-03
428262	11/8/2016 - 11/15/2016	Nuclide	Activity	2 Sigma Error	MDA
		Beta	1.89E-02	2.70E-03	2.79E-03



ROBINSON Radiological Environmental Monitoring Analysis Report - 2016 (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
428932	11/15/2016 - 11/21/2016	Beta	3.65E-02	3.96E-03	3.69E-03
429433	11/21/2016 - 11/28/2016	Beta	2.13E-02	2.69E-03	2.55E-03
429994	11/28/2016 - 12/7/2016	Beta	1.80E-02	2.26E-03	2.25E-03
430626	12/7/2016 - 12/14/2016	Beta	2.18E-02	2.87E-03	2.93E-03
431102	12/14/2016 - 12/21/2016	Beta	2.38E-02	3.15E-03	2.98E-03
431501	12/21/2016 - 12/28/2016	Beta	2.98E-02	3.17E-03	2.96E-03
431864	9/26/2016 - 12/28/2016	Cs-134	<7.03E-04	0.00E+00	7.03E-04
		Cs-137	<5.54E-04	0.00E+00	5.54E-04
		Be-7	1.35E-01	2.25E-02	1.26E-02
		K-40	9.57E-03	6.41E-03	8.05E-03

Sample Point 4 [INDICATOR - ESE @ 0.4 miles]

Sample ID	Sample Dates	Nuclide	Activity	2 Sigma Error	MDA
398738	12/28/2015 - 1/5/2016	Beta	1.26E-02	2.24E-03	2.62E-03
399002	1/5/2016 - 1/12/2016	Beta	8.76E-03	2.14E-03	2.78E-03
399303	1/12/2016 - 1/19/2016	Beta	2.17E-02	2.77E-03	2.68E-03
400043	1/19/2016 - 1/26/2016	Beta	1.81E-02	2.59E-03	2.62E-03
400406	1/26/2016 - 2/2/2016	Beta	1.64E-02	2.59E-03	2.88E-03
401050	2/2/2016 - 2/9/2016	Beta	1.88E-02	2.59E-03	2.59E-03
401398	2/9/2016 - 2/15/2016	Beta	1.76E-02	2.88E-03	3.21E-03
401842	2/15/2016 - 2/23/2016	Beta	1.50E-02	2.32E-03	2.51E-03
402364	2/23/2016 - 3/1/2016	Beta	1.57E-02	2.32E-03	2.25E-03
403090	3/1/2016 - 3/8/2016	Beta	1.26E-02	2.33E-03	2.60E-03
404583	3/8/2016 - 3/15/2016	Beta	1.31E-02	2.25E-03	2.50E-03
405445	3/15/2016 - 3/22/2016	Beta	1.70E-02	2.61E-03	2.89E-03
406077	3/22/2016 - 3/29/2016	Beta	1.32E-02	2.34E-03	2.67E-03
406448	12/28/2015 - 3/29/2016	Cs-134	<7.17E-04	0.00E+00	7.17E-04
		Cs-137	<4.83E-04	0.00E+00	4.83E-04
		Be-7	1.48E-01	2.36E-02	6.92E-03
		K-40	<1.17E-02	0.00E+00	1.17E-02
406438	3/29/2016 - 4/5/2016	Beta	1.35E-02	2.35E-03	2.62E-03



ROBINSON Radiological Environmental Monitoring Analysis Report - 2016 (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
407614	4/5/2016 - 4/12/2016	Beta	1.33E-02	2.32E-03	2.62E-03
408170	4/12/2016 - 4/19/2016	Beta	2.03E-02	2.62E-03	2.44E-03
409493	4/19/2016 - 4/26/2016	Beta	1.86E-02	2.64E-03	2.74E-03
409827	4/26/2016 - 5/4/2016	Beta	1.58E-02	2.30E-03	2.44E-03
411003	5/4/2016 - 5/10/2016	Beta	1.62E-02	2.79E-03	3.12E-03
411470	5/10/2016 - 5/17/2016	Beta	1.90E-02	2.48E-03	2.21E-03
411804	5/17/2016 - 5/25/2016	Beta	1.24E-02	2.08E-03	2.25E-03
412266	5/25/2016 - 5/31/2016	Beta	1.98E-02	2.91E-03	3.01E-03
412782	5/31/2016 - 6/7/2016	Beta	1.15E-02	2.27E-03	2.71E-03
413400	6/7/2016 - 6/13/2016	Beta	2.01E-02	3.02E-03	3.28E-03
413933	6/13/2016 - 6/21/2016	Beta	1.62E-02	2.35E-03	2.48E-03
415073	6/21/2016 - 6/28/2016	Beta	2.11E-02	2.69E-03	2.65E-03
415482	3/29/2016 - 6/28/2016	Cs-134	<5.39E-04	0.00E+00	5.39E-04
		Cs-137	<5.32E-04	0.00E+00	5.32E-04
		Be-7	1.87E-01	2.57E-02	9.86E-03
		K-40	6.10E-03	4.68E-03	5.76E-03
415472	6/28/2016 - 7/5/2016	Beta	1.81E-02	2.63E-03	2.76E-03
416452	7/5/2016 - 7/13/2016	Beta	1.28E-02	2.09E-03	2.27E-03
417062	7/13/2016 - 7/19/2016	Beta	1.39E-02	2.66E-03	3.10E-03
417455	7/19/2016 - 7/27/2016	Beta	1.93E-02	2.47E-03	2.50E-03
417846	7/27/2016 - 8/2/2016	Beta	1.32E-02	2.57E-03	3.02E-03
418325	8/2/2016 - 8/9/2016	Beta	1.44E-02	2.42E-03	2.65E-03
419040	8/9/2016 - 8/16/2016	Beta	8.15E-03	2.09E-03	2.72E-03
419540	8/16/2016 - 8/23/2016	Beta	1.27E-02	2.23E-03	2.42E-03
420067	8/23/2016 - 8/30/2016	Beta	2.00E-02	2.75E-03	2.94E-03
420612	8/30/2016 - 9/6/2016	Beta	1.68E-02	2.52E-03	2.55E-03
421483	9/6/2016 - 9/13/2016	Beta	2.81E-02	3.01E-03	2.58E-03

ROBINSON Radiological Environmental Monitoring Analysis Report - 2016 (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
422617	9/13/2016 - 9/19/2016	Beta	1.58E-02	2.75E-03	3.03E-03
423358	9/19/2016 - 9/26/2016	Beta	1.32E-02	2.43E-03	2.85E-03
424507	6/28/2016 - 9/26/2016	Cs-134	<3.46E-04	0.00E+00	3.46E-04
		Cs-137	<4.00E-04	0.00E+00	4.00E-04
		Be-7	1.21E-01	2.00E-02	1.18E-02
		K-40	<1.45E-02	0.00E+00	1.45E-02
424497	9/26/2016 - 10/3/2016	Beta	2.43E-02	2.90E-03	2.71E-03
425498	10/3/2016 - 10/12/2016	Beta	1.59E-02	2.19E-03	2.30E-03
426038	10/12/2016 - 10/18/2016	Beta	2.23E-02	3.24E-03	3.38E-03
426405	10/18/2016 - 10/25/2016	Beta	2.18E-02	2.75E-03	2.65E-03
427088	10/25/2016 - 11/1/2016	Beta	2.86E-02	3.09E-03	2.69E-03
427757	11/1/2016 - 11/8/2016	Beta	2.54E-02	3.05E-03	2.85E-03
428263	11/8/2016 - 11/15/2016	Beta	1.74E-02	2.66E-03	2.84E-03
428933	11/15/2016 - 11/21/2016	Beta	4.55E-02	4.22E-03	3.57E-03
429434	11/21/2016 - 11/28/2016	Beta	2.30E-02	2.86E-03	2.68E-03
429995	11/28/2016 - 12/7/2016	Beta	1.93E-02	2.37E-03	2.32E-03
430627	12/7/2016 - 12/14/2016	Beta	2.22E-02	2.94E-03	3.02E-03
431103	12/14/2016 - 12/21/2016	Beta	2.31E-02	3.18E-03	3.08E-03
431502	12/21/2016 - 12/28/2016	Beta	2.93E-02	3.17E-03	2.98E-03
431865	9/26/2016 - 12/28/2016	Cs-134	<7.71E-04	0.00E+00	7.71E-04
		Cs-137	<4.12E-04	0.00E+00	4.12E-04
		Be-7	1.34E-01	2.20E-02	8.80E-03
		K-40	<1.17E-02	0.00E+00	1.17E-02

Sample Point 5 [INDICATOR - ENE @ 0.9 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
398739	12/28/2015 - 1/5/2016	Beta	1.20E-02	2.18E-03	2.58E-03
399003	1/5/2016 - 1/12/2016	Beta	8.37E-03	2.05E-03	2.66E-03
399304	1/12/2016 - 1/19/2016	Beta	1.93E-02	2.60E-03	2.58E-03
400044	1/19/2016 - 1/26/2016	Beta	1.19E-02	2.25E-03	2.60E-03
400407	1/26/2016 - 2/2/2016	Beta	1.69E-02	2.56E-03	2.79E-03



ROBINSON Radiological Environmental Monitoring Analysis Report - 2016 (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
401051	2/2/2016 - 2/9/2016	Beta	1.25E-02	2.22E-03	2.51E-03
401399	2/9/2016 - 2/15/2016	Beta	1.73E-02	2.83E-03	3.15E-03
401843	2/15/2016 - 2/23/2016	Beta	9.19E-03	1.89E-03	2.30E-03
402365	2/23/2016 - 3/1/2016	Beta	1.51E-02	2.33E-03	2.32E-03
403091	3/1/2016 - 3/8/2016	Beta	1.23E-02	2.20E-03	2.41E-03
404584	3/8/2016 - 3/15/2016	Beta	1.46E-02	2.35E-03	2.52E-03
405446	3/15/2016 - 3/22/2016	Beta	1.48E-02	2.47E-03	2.83E-03
406078	3/22/2016 - 3/29/2016	Beta	1.40E-02	2.42E-03	2.73E-03
406449	12/28/2015 - 3/29/2016	Cs-134	<5.06E-04	0.00E+00	5.06E-04
		Cs-137	<4.00E-04	0.00E+00	4.00E-04
		Be-7	1.32E-01	2.11E-02	6.89E-03
		K-40	<1.38E-02	0.00E+00	1.38E-02
406439	3/29/2016 - 4/5/2016	Beta	1.39E-02	2.40E-03	2.68E-03
407615	4/5/2016 - 4/12/2016	Beta	1.00E-02	2.11E-03	2.57E-03
408171	4/12/2016 - 4/19/2016	Beta	1.80E-02	2.53E-03	2.47E-03
409494	4/19/2016 - 4/26/2016	Beta	1.75E-02	2.63E-03	2.79E-03
409828	4/26/2016 - 5/4/2016	Beta	1.70E-02	2.37E-03	2.45E-03
411004	5/4/2016 - 5/10/2016	Beta	1.65E-02	2.85E-03	3.21E-03
411471	5/10/2016 - 5/17/2016	Beta	1.73E-02	2.46E-03	2.30E-03
411805	5/17/2016 - 5/25/2016	Beta	1.30E-02	2.12E-03	2.27E-03
412267	5/25/2016 - 5/31/2016	Beta	1.72E-02	2.78E-03	3.02E-03
412783	5/31/2016 - 6/7/2016	Beta	9.97E-03	2.26E-03	2.85E-03
413401	6/7/2016 - 6/13/2016	Beta	2.13E-02	3.12E-03	3.35E-03
413934	6/13/2016 - 6/21/2016	Beta	1.59E-02	2.44E-03	2.66E-03
415074	6/21/2016 - 6/28/2016	Beta	2.14E-02	2.84E-03	2.85E-03
415483	3/29/2016 - 6/28/2016	Cs-134	<6.06E-04	0.00E+00	6.06E-04
		Cs-137	<5.16E-04	0.00E+00	5.16E-04
		Be-7	1.73E-01	2.47E-02	8.45E-03
		K-40	<1.13E-02	0.00E+00	1.13E-02



ROBINSON Radiological Environmental Monitoring Analysis Report - 2016 (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
415473	6/28/2016 - 7/5/2016	Beta	2.14E-02	2.74E-03	2.71E-03
416453	7/5/2016 - 7/13/2016	Beta	1.47E-02	2.27E-03	2.39E-03
417063	7/13/2016 - 7/19/2016	Beta	1.29E-02	2.75E-03	3.34E-03
417456	7/19/2016 - 7/27/2016	Beta	1.93E-02	2.60E-03	2.70E-03
417847	7/27/2016 - 8/2/2016	Beta	1.35E-02	2.76E-03	3.32E-03
418326	8/2/2016 - 8/9/2016	Beta	1.41E-02	2.37E-03	2.59E-03
419041	8/9/2016 - 8/16/2016	Beta	9.05E-03	2.23E-03	2.86E-03
419541	8/16/2016 - 8/23/2016	Beta	1.39E-02	2.34E-03	2.50E-03
420068	8/23/2016 - 8/30/2016	Beta	2.18E-02	2.91E-03	3.08E-03
420613	8/30/2016 - 9/6/2016	Beta	1.53E-02	2.48E-03	2.60E-03
421484	9/6/2016 - 9/13/2016	Beta	3.18E-02	3.23E-03	2.68E-03
422618	9/13/2016 - 9/19/2016	Beta	1.84E-02	2.95E-03	3.12E-03
423359	9/19/2016 - 9/26/2016	Beta	1.12E-02	2.34E-03	2.88E-03
424508	6/28/2016 - 9/26/2016	Cs-134	<3.59E-04	0.00E+00	3.59E-04
		Cs-137	<5.06E-04	0.00E+00	5.06E-04
		Be-7	1.44E-01	2.27E-02	1.30E-02
		K-40	<1.03E-02	0.00E+00	1.03E-02
424498	9/26/2016 - 10/3/2016	Beta	2.51E-02	2.99E-03	2.79E-03
425499	10/3/2016 - 10/12/2016	Beta	1.55E-02	2.44E-03	2.75E-03
426039	10/12/2016 - 10/18/2016	Beta	1.88E-02	3.05E-03	3.34E-03
426406	10/18/2016 - 10/25/2016	Beta	1.67E-02	2.60E-03	2.78E-03
427089	10/25/2016 - 11/1/2016	Beta	2.51E-02	2.97E-03	2.73E-03
427758	11/1/2016 - 11/8/2016	Beta	2.07E-02	2.73E-03	2.69E-03
428264	11/8/2016 - 11/15/2016	Beta	1.22E-02	2.41E-03	2.86E-03
428934	11/15/2016 - 11/21/2016	Beta	3.58E-02	3.83E-03	3.53E-03
429435	11/21/2016 - 11/28/2016	Beta	1.98E-02	2.69E-03	2.65E-03
429996	11/28/2016 - 12/7/2016	Beta	1.61E-02	2.18E-03	2.25E-03



ROBINSON Radiological Environmental Monitoring Analysis Report - 2016 (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
430628	12/7/2016 - 12/14/2016	Beta	1.73E-02	2.63E-03	2.88E-03
431104	12/14/2016 - 12/21/2016	Beta	2.21E-02	3.02E-03	2.92E-03
431503	12/21/2016 - 12/28/2016	Beta	2.34E-02	2.97E-03	3.05E-03
431866	9/26/2016 - 12/28/2016	Cs-134	<3.83E-04	0.00E+00	3.83E-04
		Cs-137	<3.81E-04	0.00E+00	3.81E-04
		Be-7	1.22E-01	2.12E-02	7.79E-03
		K-40	<1.45E-02	0.00E+00	1.45E-02

Sample Point 6 [INDICATOR - SSW @ 0.2 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
398741	12/28/2015 - 1/5/2016	Beta	1.44E-02	2.29E-03	2.58E-03
399005	1/5/2016 - 1/12/2016	Beta	8.99E-03	2.08E-03	2.63E-03
399306	1/12/2016 - 1/19/2016	Beta	2.19E-02	2.70E-03	2.56E-03
400046	1/19/2016 - 1/26/2016	Beta	1.44E-02	2.34E-03	2.53E-03
400409	1/26/2016 - 2/2/2016	Beta	1.29E-02	2.36E-03	2.78E-03
401053	2/2/2016 - 2/9/2016	Beta	1.50E-02	2.30E-03	2.42E-03
401401	2/9/2016 - 2/15/2016	Beta	1.86E-02	2.87E-03	3.11E-03
401845	2/15/2016 - 2/23/2016	Beta	1.24E-02	2.15E-03	2.44E-03
402367	2/23/2016 - 3/1/2016	Beta	1.44E-02	2.19E-03	2.16E-03
403093	3/1/2016 - 3/8/2016	Beta	1.38E-02	2.40E-03	2.59E-03
404586	3/8/2016 - 3/15/2016	Beta	1.66E-02	2.57E-03	2.71E-03
405448	3/15/2016 - 3/22/2016	Beta	1.49E-02	2.64E-03	3.11E-03
406080	3/22/2016 - 3/29/2016	Beta	1.63E-02	2.61E-03	2.84E-03
406451	12/28/2015 - 3/29/2016	Cs-134	<6.52E-04	0.00E+00	6.52E-04
		Cs-137	<5.16E-04	0.00E+00	5.16E-04
		Be-7	1.41E-01	2.25E-02	1.05E-02
		K-40	<1.24E-02	0.00E+00	1.24E-02
406441	3/29/2016 - 4/5/2016	Beta	1.69E-02	2.63E-03	2.80E-03
407617	4/5/2016 - 4/12/2016	Beta	1.57E-02	2.52E-03	2.76E-03
408173	4/12/2016 - 4/19/2016	Beta	1.80E-02	2.61E-03	2.60E-03
409496	4/19/2016 - 4/26/2016	Beta	2.04E-02	2.85E-03	2.93E-03



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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
409830	4/26/2016 - 5/4/2016	Beta	1.64E-02	2.46E-03	2.65E-03
411006	5/4/2016 - 5/10/2016	Beta	1.98E-02	3.12E-03	3.37E-03
411473	5/10/2016 - 5/17/2016	Beta	1.81E-02	2.56E-03	2.37E-03
411807	5/17/2016 - 5/25/2016	Beta	1.52E-02	2.30E-03	2.38E-03
412269	5/25/2016 - 5/31/2016	Beta	2.06E-02	3.11E-03	3.25E-03
412785	5/31/2016 - 6/7/2016	Beta	1.42E-02	2.56E-03	2.96E-03
413403	6/7/2016 - 6/13/2016	Beta	2.16E-02	3.29E-03	3.59E-03
413936	6/13/2016 - 6/21/2016	Beta	1.77E-02	2.56E-03	2.70E-03
415076	6/21/2016 - 6/28/2016	Beta	2.31E-02	2.96E-03	2.91E-03
415485	3/29/2016 - 6/28/2016	Cs-134	<7.23E-04	0.00E+00	7.23E-04
		Cs-137	<1.10E-04	0.00E+00	1.10E-04
		Be-7	1.85E-01	2.83E-02	1.57E-02
		K-40	<1.12E-02	0.00E+00	1.12E-02
415475	6/28/2016 - 7/5/2016	Beta	1.81E-02	2.80E-03	3.04E-03
416455	7/5/2016 - 7/13/2016	Beta	1.43E-02	2.30E-03	2.48E-03
417065	7/13/2016 - 7/19/2016	Beta	1.23E-02	2.75E-03	3.40E-03
417458	7/19/2016 - 7/27/2016	Beta	2.06E-02	2.68E-03	2.73E-03
417849	7/27/2016 - 8/2/2016	Beta	1.63E-02	2.97E-03	3.39E-03
418328	8/2/2016 - 8/9/2016	Beta	1.69E-02	2.60E-03	2.71E-03
419043	8/9/2016 - 8/16/2016	Beta	1.07E-02	2.40E-03	2.98E-03
419543	8/16/2016 - 8/23/2016	Beta	1.42E-02	2.44E-03	2.62E-03
420070	8/23/2016 - 8/30/2016	Beta	2.44E-02	3.09E-03	3.18E-03
420615	8/30/2016 - 9/6/2016	Beta	2.00E-02	2.82E-03	2.75E-03
421486	9/6/2016 - 9/13/2016	Beta	3.27E-02	3.36E-03	2.81E-03
422620	9/13/2016 - 9/19/2016	Beta	1.64E-02	2.92E-03	3.25E-03
423361	9/19/2016 - 9/26/2016	Beta	1.13E-02	2.43E-03	3.03E-03
424510	6/28/2016 - 9/26/2016	Cs-134	<5.69E-04	0.00E+00	5.69E-04



ROBINSON Radiological Environmental Monitoring Analysis Report - 2016 (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
424510	6/28/2016 - 9/26/2016	Cs-137	<5.49E-04	0.00E+00	5.49E-04
		Be-7	1.29E-01	2.27E-02	1.49E-02
		K-40	<1.32E-02	0.00E+00	1.32E-02
424500	9/26/2016 - 10/3/2016	Beta	2.33E-02	2.99E-03	2.91E-03
425501	10/3/2016 - 10/12/2016	Beta	1.60E-02	2.24E-03	2.38E-03
426041	10/12/2016 - 10/18/2016	Beta	2.61E-02	3.52E-03	3.53E-03
426408	10/18/2016 - 10/25/2016	Beta	1.98E-02	2.74E-03	2.76E-03
427091	10/25/2016 - 11/1/2016	Beta	3.14E-02	3.31E-03	2.84E-03
427760	11/1/2016 - 11/8/2016	Beta	2.68E-02	3.14E-03	2.90E-03
428266	11/8/2016 - 11/15/2016	Beta	1.89E-02	2.76E-03	2.88E-03
428936	11/15/2016 - 11/21/2016	Beta	4.29E-02	4.16E-03	3.63E-03
429437	11/21/2016 - 11/28/2016	Beta	2.55E-02	3.01E-03	2.72E-03
429998	11/28/2016 - 12/7/2016	Beta	2.00E-02	2.42E-03	2.34E-03
430630	12/7/2016 - 12/14/2016	Beta	2.46E-02	3.05E-03	3.02E-03
431106	12/14/2016 - 12/21/2016	Beta	2.66E-02	3.33E-03	3.06E-03
431505	12/21/2016 - 12/28/2016	Beta	2.70E-02	3.14E-03	3.08E-03
431868	9/26/2016 - 12/28/2016	Cs-134	<5.71E-04	0.00E+00	5.71E-04
		Cs-137	<4.50E-04	0.00E+00	4.50E-04
		Be-7	1.24E-01	2.25E-02	1.34E-02
		K-40	8.05E-03	6.35E-03	8.62E-03

Sample Point 7 [INDICATOR - ESE @ 6.4 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
398744	12/28/2015 - 1/5/2016	Beta	1.42E-02	2.31E-03	2.61E-03
399008	1/5/2016 - 1/12/2016	Beta	9.84E-03	2.15E-03	2.68E-03
399309	1/12/2016 - 1/19/2016	Beta	2.09E-02	2.71E-03	2.65E-03
400049	1/19/2016 - 1/26/2016	Beta	1.49E-02	2.62E-03	2.95E-03
400412	1/26/2016 - 2/2/2016	Beta	1.80E-02	2.88E-03	3.22E-03
401056	2/2/2016 - 2/9/2016	Beta	1.57E-02	2.66E-03	2.94E-03
401404	2/9/2016 - 2/15/2016	Beta	1.82E-02	3.28E-03	3.81E-03



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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
401848	2/15/2016 - 2/23/2016	Beta	1.31E-02	2.46E-03	2.89E-03
402370	2/23/2016 - 3/1/2016	Beta	1.26E-02	2.45E-03	2.73E-03
403096	3/1/2016 - 3/8/2016	Beta	1.20E-02	2.30E-03	2.61E-03
404589	3/8/2016 - 3/15/2016	Beta	1.47E-02	2.48E-03	2.72E-03
405451	3/15/2016 - 3/22/2016	Beta	2.07E-02	2.88E-03	3.04E-03
406083	3/22/2016 - 3/29/2016	Beta	1.26E-02	2.47E-03	2.93E-03
406454	12/28/2015 - 3/29/2016	Cs-134	<7.34E-04	0.00E+00	7.34E-04
		Cs-137	<4.43E-04	0.00E+00	4.43E-04
		Be-7	1.24E-01	2.15E-02	1.18E-02
		K-40	<1.19E-02	0.00E+00	1.19E-02
406444	3/29/2016 - 4/5/2016	Beta	1.55E-02	2.60E-03	2.87E-03
407620	4/5/2016 - 4/12/2016	Beta	1.48E-02	2.49E-03	2.77E-03
408176	4/12/2016 - 4/19/2016	Beta	2.09E-02	2.80E-03	2.65E-03
409499	4/19/2016 - 4/26/2016	Beta	2.13E-02	2.94E-03	2.99E-03
409833	4/26/2016 - 5/4/2016	Beta	1.77E-02	2.58E-03	2.74E-03
411009	5/4/2016 - 5/10/2016	Beta	1.94E-02	3.13E-03	3.42E-03
411476	5/10/2016 - 5/17/2016	Beta	2.02E-02	2.69E-03	2.42E-03
411810	5/17/2016 - 5/25/2016	Beta	1.53E-02	2.37E-03	2.48E-03
412272	5/25/2016 - 5/31/2016	Beta	1.74E-02	2.97E-03	3.30E-03
412788	5/31/2016 - 6/7/2016	Beta	1.28E-02	2.59E-03	3.13E-03
413406	6/7/2016 - 6/13/2016	Beta	2.07E-02	3.32E-03	3.70E-03
413939	6/13/2016 - 6/21/2016	Beta	1.85E-02	2.64E-03	2.78E-03
415079	6/21/2016 - 6/28/2016	Beta	2.20E-02	3.04E-03	3.11E-03
415488	3/29/2016 - 6/28/2016	Cs-134	<7.46E-04	0.00E+00	7.46E-04
		Cs-137	<5.90E-04	0.00E+00	5.90E-04
		Be-7	1.81E-01	2.64E-02	1.38E-02
		K-40	<1.38E-02	0.00E+00	1.38E-02
415478	6/28/2016 - 7/5/2016	Beta	1.63E-02	2.69E-03	3.00E-03
416458	7/5/2016 - 7/13/2016	Beta	1.49E-02	2.40E-03	2.59E-03



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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
417068	7/13/2016 - 7/19/2016	Beta	1.08E-02	2.71E-03	3.49E-03
417461	7/19/2016 - 7/27/2016	Beta	1.79E-02	2.62E-03	2.83E-03
417852	7/27/2016 - 8/2/2016	Beta	1.55E-02	2.92E-03	3.39E-03
418331	8/2/2016 - 8/9/2016	Beta	1.51E-02	2.59E-03	2.86E-03
419046	8/9/2016 - 8/16/2016	Beta	9.29E-03	2.34E-03	3.03E-03
419546	8/16/2016 - 8/23/2016	Beta	1.50E-02	2.55E-03	2.72E-03
420073	8/23/2016 - 8/30/2016	Beta	1.95E-02	3.03E-03	3.43E-03
420618	8/30/2016 - 9/6/2016	Beta	1.75E-02	2.75E-03	2.83E-03
421489	9/6/2016 - 9/13/2016	Beta	2.72E-02	3.24E-03	2.96E-03
422623	9/13/2016 - 9/19/2016	Beta	1.82E-02	3.13E-03	3.43E-03
423364	9/19/2016 - 9/26/2016	Beta	1.13E-02	2.52E-03	3.19E-03
424513	6/28/2016 - 9/26/2016	Cs-134	<4.03E-04	0.00E+00	4.03E-04
		Cs-137	<5.21E-04	0.00E+00	5.21E-04
		Be-7	1.14E-01	2.02E-02	9.02E-03
		K-40	1.28E-02	6.31E-03	2.04E-03
424503	9/26/2016 - 10/3/2016	Beta	2.56E-02	3.20E-03	3.06E-03
425504	10/3/2016 - 10/12/2016	Beta	1.60E-02	3.58E-03	4.58E-03
426044	10/12/2016 - 10/18/2016	Beta	2.37E-02	3.54E-03	3.73E-03
426411	10/18/2016 - 10/25/2016	Beta	1.75E-02	2.75E-03	2.97E-03
427094	10/25/2016 - 11/1/2016	Beta	3.10E-02	3.33E-03	2.87E-03
427763	11/1/2016 - 11/8/2016	Beta	2.47E-02	3.16E-03	3.05E-03
428269	11/8/2016 - 11/15/2016	Beta	1.78E-02	2.78E-03	3.01E-03
428939	11/15/2016 - 11/21/2016	Beta	4.02E-02	4.17E-03	3.78E-03
429440	11/21/2016 - 11/28/2016	Beta	2.88E-02	3.28E-03	2.89E-03
430001	11/28/2016 - 12/7/2016	Beta	2.03E-02	2.50E-03	2.46E-03
430633	12/7/2016 - 12/14/2016	Beta	2.06E-02	2.97E-03	3.17E-03
431109	12/14/2016 - 12/21/2016	Beta	2.71E-02	3.46E-03	3.20E-03



ROBINSON Radiological Environmental Monitoring Analysis Report - 2016 (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
431508	12/21/2016 - 12/28/2016	Beta	3.20E-02	3.48E-03	3.29E-03
431871	9/26/2016 - 12/28/2016	Cs-134	<6.83E-04	0.00E+00	6.83E-04
		Cs-137	<4.92E-04	0.00E+00	4.92E-04
		Be-7	1.34E-01	2.23E-02	1.17E-02
		K-40	5.38E-03	5.87E-03	9.06E-03

Sample Point 55 [INDICATOR - SSE @ 0.2 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
398740	12/28/2015 - 1/5/2016	Beta	1.10E-02	2.08E-03	2.50E-03
399004	1/5/2016 - 1/12/2016	Beta	1.08E-02	2.18E-03	2.64E-03
399305	1/12/2016 - 1/19/2016	Beta	2.00E-02	2.62E-03	2.56E-03
400045	1/19/2016 - 1/26/2016	Beta	1.02E-02	2.10E-03	2.52E-03
400408	1/26/2016 - 2/2/2016	Beta	1.72E-02	2.53E-03	2.73E-03
401052	2/2/2016 - 2/9/2016	Beta	1.51E-02	2.29E-03	2.40E-03
401400	2/9/2016 - 2/15/2016	Beta	1.77E-02	2.86E-03	3.17E-03
401844	2/15/2016 - 2/23/2016	Beta	1.32E-02	2.16E-03	2.39E-03
402366	2/23/2016 - 3/1/2016	Beta	1.39E-02	2.15E-03	2.13E-03
403092	3/1/2016 - 3/8/2016	Beta	1.24E-02	2.25E-03	2.48E-03
404585	3/8/2016 - 3/15/2016	Beta	1.32E-02	2.20E-03	2.40E-03
405447	3/15/2016 - 3/22/2016	Beta	1.48E-02	2.47E-03	2.82E-03
406079	3/22/2016 - 3/29/2016	Beta	1.31E-02	2.35E-03	2.69E-03
406450	12/28/2015 - 3/29/2016	Cs-134	<5.20E-04	0.00E+00	5.20E-04
		Cs-137	<4.59E-04	0.00E+00	4.59E-04
		Be-7	1.16E-01	2.03E-02	1.32E-02
		K-40	8.38E-03	6.39E-03	8.78E-03
406440	3/29/2016 - 4/5/2016	Beta	1.68E-02	2.54E-03	2.66E-03
407616	4/5/2016 - 4/12/2016	Beta	1.47E-02	2.42E-03	2.66E-03
408172	4/12/2016 - 4/19/2016	Beta	1.73E-02	2.50E-03	2.48E-03
409495	4/19/2016 - 4/26/2016	Beta	1.97E-02	2.70E-03	2.75E-03
409829	4/26/2016 - 5/4/2016	Beta	1.61E-02	2.34E-03	2.48E-03
411005	5/4/2016 - 5/10/2016	Beta	1.50E-02	2.75E-03	3.18E-03



ROBINSON Radiological Environmental Monitoring Analysis Report - 2016 (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
411472	5/10/2016 - 5/17/2016	Beta	1.63E-02	2.36E-03	2.22E-03
411806	5/17/2016 - 5/25/2016	Beta	1.43E-02	2.14E-03	2.20E-03
412268	5/25/2016 - 5/31/2016	Beta	1.81E-02	2.92E-03	3.17E-03
412784	5/31/2016 - 6/7/2016	Beta	1.01E-02	2.22E-03	2.76E-03
413402	6/7/2016 - 6/13/2016	Beta	1.91E-02	3.01E-03	3.34E-03
413935	6/13/2016 - 6/21/2016	Beta	1.57E-02	2.34E-03	2.52E-03
415075	6/21/2016 - 6/28/2016	Beta	2.05E-02	2.70E-03	2.70E-03
415484	3/29/2016 - 6/28/2016	Cs-134	<6.06E-04	0.00E+00	6.06E-04
		Cs-137	<2.94E-04	0.00E+00	2.94E-04
		Be-7	1.80E-01	2.60E-02	7.33E-03
		K-40	1.18E-02	5.84E-03	1.89E-03
415474	6/28/2016 - 7/5/2016	Beta	1.39E-02	2.36E-03	2.67E-03
416454	7/5/2016 - 7/13/2016	Beta	1.19E-02	2.09E-03	2.35E-03
417064	7/13/2016 - 7/19/2016	Beta	1.11E-02	2.54E-03	3.17E-03
417457	7/19/2016 - 7/27/2016	Beta	1.69E-02	2.40E-03	2.55E-03
417848	7/27/2016 - 8/2/2016	Beta	1.28E-02	2.62E-03	3.15E-03
418327	8/2/2016 - 8/9/2016	Beta	1.52E-02	2.41E-03	2.56E-03
419042	8/9/2016 - 8/16/2016	Beta	9.44E-03	2.09E-03	2.60E-03
419542	8/16/2016 - 8/23/2016	Beta	1.45E-02	2.25E-03	2.30E-03
420069	8/23/2016 - 8/30/2016	Beta	1.92E-02	2.63E-03	2.81E-03
420614	8/30/2016 - 9/6/2016	Beta	1.47E-02	2.31E-03	2.39E-03
421485	9/6/2016 - 9/13/2016	Beta	2.81E-02	2.93E-03	2.47E-03
422619	9/13/2016 - 9/19/2016	Beta	1.39E-02	2.54E-03	2.86E-03
423360	9/19/2016 - 9/26/2016	Beta	1.09E-02	2.19E-03	2.66E-03
424509	6/28/2016 - 9/26/2016	Cs-134	<6.46E-04	0.00E+00	6.46E-04
		Cs-137	<4.36E-04	0.00E+00	4.36E-04
		Be-7	1.16E-01	1.91E-02	1.09E-02
		K-40	<1.17E-02	0.00E+00	1.17E-02
424499	9/26/2016 - 10/3/2016	Beta	2.34E-02	2.75E-03	2.55E-03



ROBINSON Radiological Environmental Monitoring Analysis Report - 2016 (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
425500	10/3/2016 - 10/12/2016	Beta	1.41E-02	1.97E-03	2.08E-03
426040	10/12/2016 - 10/18/2016	Beta	2.07E-02	2.99E-03	3.11E-03
426407	10/18/2016 - 10/25/2016	Beta	1.88E-02	2.46E-03	2.42E-03
427090	10/25/2016 - 11/1/2016	Beta	2.54E-02	2.81E-03	2.48E-03
427759	11/1/2016 - 11/8/2016	Beta	2.24E-02	2.72E-03	2.55E-03
428265	11/8/2016 - 11/15/2016	Beta	1.75E-02	2.45E-03	2.51E-03
428935	11/15/2016 - 11/21/2016	Beta	3.67E-02	3.60E-03	3.15E-03
429436	11/21/2016 - 11/28/2016	Beta	2.14E-02	2.58E-03	2.37E-03
429997	11/28/2016 - 12/7/2016	Beta	1.74E-02	2.10E-03	2.04E-03
430629	12/7/2016 - 12/14/2016	Beta	1.82E-02	2.51E-03	2.62E-03
431105	12/14/2016 - 12/21/2016	Beta	2.01E-02	2.75E-03	2.65E-03
431504	12/21/2016 - 12/28/2016	Beta	2.92E-02	2.92E-03	2.62E-03
431867	9/26/2016 - 12/28/2016	Cs-134	<4.66E-04	0.00E+00	4.66E-04
		Cs-137	<4.80E-04	0.00E+00	4.80E-04
		Be-7	1.15E-01	1.94E-02	1.16E-02
		K-40	7.41E-03	5.24E-03	6.62E-03

Sample Point 60 [INDICATOR - SE @ 0.2 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
398742	12/28/2015 - 1/5/2016	Beta	1.27E-02	2.23E-03	2.61E-03
399006	1/5/2016 - 1/12/2016	Beta	9.11E-03	2.16E-03	2.76E-03
399307	1/12/2016 - 1/19/2016	Beta	2.01E-02	2.68E-03	2.65E-03
400047	1/19/2016 - 1/26/2016	Beta	1.50E-02	2.44E-03	2.64E-03
400410	1/26/2016 - 2/2/2016	Beta	1.52E-02	2.51E-03	2.85E-03
401054	2/2/2016 - 2/9/2016	Beta	1.71E-02	2.46E-03	2.51E-03
401402	2/9/2016 - 2/15/2016	Beta	1.60E-02	2.85E-03	3.29E-03
401846	2/15/2016 - 2/23/2016	Beta	1.30E-02	2.25E-03	2.55E-03
402368	2/23/2016 - 3/1/2016	Beta	1.35E-02	2.15E-03	2.17E-03
403094	3/1/2016 - 3/8/2016	Beta	1.44E-02	2.42E-03	2.58E-03



ROBINSON Radiological Environmental Monitoring Analysis Report - 2016 (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
404587	3/8/2016 - 3/15/2016	Beta	1.32E-02	2.26E-03	2.49E-03
405449	3/15/2016 - 3/22/2016	Beta	1.52E-02	2.53E-03	2.90E-03
406081	3/22/2016 - 3/29/2016	Beta	1.29E-02	2.35E-03	2.71E-03
406452	12/28/2015 - 3/29/2016	Cs-134	<4.20E-04	0.00E+00	4.20E-04
		Cs-137	<4.68E-04	0.00E+00	4.68E-04
		Be-7	1.27E-01	2.03E-02	1.12E-02
		K-40	<1.29E-02	0.00E+00	1.29E-02
406442	3/29/2016 - 4/5/2016	Beta	1.58E-02	2.48E-03	2.64E-03
407618	4/5/2016 - 4/12/2016	Beta	1.08E-02	2.19E-03	2.64E-03
408174	4/12/2016 - 4/19/2016	Beta	1.53E-02	2.37E-03	2.44E-03
409497	4/19/2016 - 4/26/2016	Beta	1.96E-02	2.64E-03	2.66E-03
409831	4/26/2016 - 5/4/2016	Beta	1.50E-02	2.21E-03	2.36E-03
411007	5/4/2016 - 5/10/2016	Beta	1.24E-02	2.51E-03	3.00E-03
411474	5/10/2016 - 5/17/2016	Beta	1.47E-02	2.20E-03	2.11E-03
411808	5/17/2016 - 5/25/2016	Beta	1.29E-02	2.05E-03	2.16E-03
412270	5/25/2016 - 5/31/2016	Beta	1.81E-02	2.76E-03	2.91E-03
412786	5/31/2016 - 6/7/2016	Beta	1.10E-02	2.18E-03	2.61E-03
413404	6/7/2016 - 6/13/2016	Beta	1.82E-02	2.86E-03	3.17E-03
413937	6/13/2016 - 6/21/2016	Beta	1.49E-02	2.23E-03	2.39E-03
415077	6/21/2016 - 6/28/2016	Beta	1.63E-02	2.41E-03	2.56E-03
415486	3/29/2016 - 6/28/2016	Cs-134	<4.53E-04	0.00E+00	4.53E-04
		Cs-137	<5.81E-04	0.00E+00	5.81E-04
		Be-7	1.66E-01	2.51E-02	7.31E-03
		K-40	<1.08E-02	0.00E+00	1.08E-02
415476	6/28/2016 - 7/5/2016	Beta	1.40E-02	2.37E-03	2.67E-03
416456	7/5/2016 - 7/13/2016	Beta	1.17E-02	1.98E-03	2.19E-03
417066	7/13/2016 - 7/19/2016	Beta	1.00E-02	2.37E-03	2.98E-03
417459	7/19/2016 - 7/27/2016	Beta	1.60E-02	2.27E-03	2.41E-03
417850	7/27/2016 - 8/2/2016	Beta	1.12E-02	2.40E-03	2.92E-03



ROBINSON Radiological Environmental Monitoring Analysis Report - 2016 (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
418329	8/2/2016 - 8/9/2016	Beta	1.31E-02	2.21E-03	2.42E-03
419044	8/9/2016 - 8/16/2016	Beta	8.50E-03	2.04E-03	2.59E-03
419544	8/16/2016 - 8/23/2016	Beta	1.09E-02	2.06E-03	2.32E-03
420071	8/23/2016 - 8/30/2016	Beta	1.97E-02	2.68E-03	2.86E-03
420616	8/30/2016 - 9/6/2016	Beta	1.38E-02	2.31E-03	2.47E-03
421487	9/6/2016 - 9/13/2016	Beta	2.65E-02	2.94E-03	2.58E-03
422621	9/13/2016 - 9/19/2016	Beta	1.54E-02	2.68E-03	2.96E-03
423362	9/19/2016 - 9/26/2016	Beta	1.11E-02	2.26E-03	2.76E-03
424511	6/28/2016 - 9/26/2016	Cs-134	<4.57E-04	0.00E+00	4.57E-04
		Cs-137	<5.49E-04	0.00E+00	5.49E-04
		Be-7	1.30E-01	2.12E-02	1.08E-02
		K-40	<1.32E-02	0.00E+00	1.32E-02
424501	9/26/2016 - 10/3/2016	Beta	2.02E-02	2.66E-03	2.63E-03
425502	10/3/2016 - 10/12/2016	Beta	1.87E-02	2.38E-03	2.42E-03
426042	10/12/2016 - 10/18/2016	Beta	2.05E-02	3.01E-03	3.15E-03
426409	10/18/2016 - 10/25/2016	Beta	1.83E-02	2.47E-03	2.46E-03
427092	10/25/2016 - 11/1/2016	Beta	2.93E-02	2.98E-03	2.50E-03
427761	11/1/2016 - 11/8/2016	Beta	2.39E-02	2.84E-03	2.64E-03
428267	11/8/2016 - 11/15/2016	Beta	1.85E-02	2.56E-03	2.61E-03
428937	11/15/2016 - 11/21/2016	Beta	3.94E-02	3.79E-03	3.27E-03
429438	11/21/2016 - 11/28/2016	Beta	2.44E-02	2.78E-03	2.47E-03
429999	11/28/2016 - 12/7/2016	Beta	1.89E-02	2.22E-03	2.13E-03
430631	12/7/2016 - 12/14/2016	Beta	2.01E-02	2.68E-03	2.76E-03
431107	12/14/2016 - 12/21/2016	Beta	2.52E-02	3.10E-03	2.80E-03
431506	12/21/2016 - 12/28/2016	Beta	2.75E-02	2.93E-03	2.73E-03
431869	9/26/2016 - 12/28/2016	Cs-134	<4.21E-04	0.00E+00	4.21E-04
		Cs-137	<5.03E-04	0.00E+00	5.03E-04
		Be-7	1.34E-01	2.12E-02	8.99E-03
		K-40	8.86E-03	5.93E-03	7.46E-03



ROBINSON Radiological Environmental Monitoring Analysis Report - 2016 (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
398743	12/28/2015 - 1/5/2016	Beta	1.09E-02	1.95E-03	2.30E-03
399007	1/5/2016 - 1/12/2016	Beta	1.15E-02	2.46E-03	3.04E-03
399308	1/12/2016 - 1/19/2016	Beta	2.08E-02	2.65E-03	2.55E-03
400048	1/19/2016 - 1/26/2016	Beta	1.41E-02	2.35E-03	2.56E-03
400411	1/26/2016 - 2/2/2016	Beta	1.23E-02	2.29E-03	2.72E-03
401055	2/2/2016 - 2/9/2016	Beta	1.77E-02	2.69E-03	2.82E-03
401403	2/9/2016 - 2/15/2016	Beta	1.61E-02	2.87E-03	3.32E-03
401847	2/15/2016 - 2/23/2016	Beta	1.05E-02	1.97E-03	2.31E-03
402369	2/23/2016 - 3/1/2016	Beta	1.56E-02	2.24E-03	2.15E-03
403095	3/1/2016 - 3/8/2016	Beta	1.38E-02	2.28E-03	2.40E-03
404588	3/8/2016 - 3/15/2016	Beta	1.42E-02	2.18E-03	2.27E-03
405450	3/15/2016 - 3/22/2016	Beta	1.56E-02	2.51E-03	2.84E-03
406082	3/22/2016 - 3/29/2016	Beta	1.23E-02	2.18E-03	2.49E-03
406453	12/28/2015 - 3/29/2016	Cs-134	<3.29E-04	0.00E+00	3.29E-04
		Cs-137	<3.80E-04	0.00E+00	3.80E-04
		Be-7	1.37E-01	2.12E-02	1.11E-02
		K-40	9.92E-03	5.52E-03	5.28E-03
406443	3/29/2016 - 4/5/2016	Beta	1.55E-02	2.35E-03	2.47E-03
407619	4/5/2016 - 4/12/2016	Beta	1.27E-02	2.20E-03	2.47E-03
408175	4/12/2016 - 4/19/2016	Beta	1.76E-02	2.40E-03	2.31E-03
409498	4/19/2016 - 4/26/2016	Beta	2.07E-02	2.62E-03	2.55E-03
409832	4/26/2016 - 5/4/2016	Beta	1.57E-02	2.20E-03	2.30E-03
411008	5/4/2016 - 5/10/2016	Beta	1.60E-02	2.66E-03	2.94E-03
411475	5/10/2016 - 5/17/2016	Beta	1.37E-02	2.11E-03	2.06E-03
411809	5/17/2016 - 5/25/2016	Beta	1.33E-02	2.02E-03	2.09E-03
412271	5/25/2016 - 5/31/2016	Beta	1.59E-02	2.59E-03	2.82E-03
412787	5/31/2016 - 6/7/2016	Beta	1.19E-02	2.19E-03	2.54E-03



ROBINSON Radiological Environmental Monitoring Analysis Report - 2016 (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
413405	6/7/2016 - 6/13/2016	Beta	1.85E-02	2.81E-03	3.06E-03
413938	6/13/2016 - 6/21/2016	Beta	1.55E-02	2.21E-03	2.32E-03
415078	6/21/2016 - 6/28/2016	Beta	1.72E-02	2.40E-03	2.48E-03
415487	3/29/2016 - 6/28/2016	Cs-134	<3.99E-04	0.00E+00	3.99E-04
		Cs-137	<4.46E-04	0.00E+00	4.46E-04
		Be-7	1.63E-01	2.29E-02	8.92E-03
		K-40	<7.96E-03	0.00E+00	7.96E-03
415477	6/28/2016 - 7/5/2016	Beta	1.27E-02	2.25E-03	2.60E-03
416457	7/5/2016 - 7/13/2016	Beta	1.13E-02	1.91E-03	2.12E-03
417067	7/13/2016 - 7/19/2016	Beta	1.08E-02	2.37E-03	2.91E-03
417460	7/19/2016 - 7/27/2016	Beta	1.65E-02	2.23E-03	2.31E-03
417851	7/27/2016 - 8/2/2016	Beta	1.02E-02	2.31E-03	2.88E-03
418330	8/2/2016 - 8/9/2016	Beta	1.32E-02	2.12E-03	2.27E-03
419045	8/9/2016 - 8/16/2016	Beta	7.91E-03	2.00E-03	2.59E-03
419545	8/16/2016 - 8/23/2016	Beta	1.21E-02	2.07E-03	2.22E-03
420072	8/23/2016 - 8/30/2016	Beta	2.07E-02	2.61E-03	2.68E-03
420617	8/30/2016 - 9/6/2016	Beta	1.49E-02	2.32E-03	2.37E-03
421488	9/6/2016 - 9/13/2016	Beta	2.88E-02	2.91E-03	2.40E-03
422622	9/13/2016 - 9/19/2016	Beta	1.51E-02	2.57E-03	2.80E-03
423363	9/19/2016 - 9/26/2016	Beta	1.11E-02	2.18E-03	2.63E-03
424512	6/28/2016 - 9/26/2016	Cs-134	<5.08E-04	0.00E+00	5.08E-04
		Cs-137	<6.22E-04	0.00E+00	6.22E-04
		Be-7	1.33E-01	2.16E-02	1.26E-02
		K-40	<1.09E-02	0.00E+00	1.09E-02
424502	9/26/2016 - 10/3/2016	Beta	2.29E-02	2.70E-03	2.50E-03
425503	10/3/2016 - 10/12/2016	Beta	1.45E-02	2.00E-03	2.10E-03
426043	10/12/2016 - 10/18/2016	Beta	2.17E-02	3.02E-03	3.07E-03
426410	10/18/2016 - 10/25/2016	Beta	1.75E-02	2.40E-03	2.41E-03
427093	10/25/2016 - 11/1/2016	Beta	2.53E-02	2.83E-03	2.52E-03

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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
427762	11/1/2016 - 11/8/2016	Beta	2.46E-02	2.79E-03	2.52E-03
428268	11/8/2016 - 11/15/2016	Beta	1.80E-02	2.54E-03	2.60E-03
428938	11/15/2016 - 11/21/2016	Beta	3.86E-02	3.73E-03	3.24E-03
429439	11/21/2016 - 11/28/2016	Beta	2.20E-02	2.66E-03	2.45E-03
430000	11/28/2016 - 12/7/2016	Beta	1.74E-02	2.15E-03	2.11E-03
430632	12/7/2016 - 12/14/2016	Beta	1.96E-02	2.65E-03	2.75E-03
431108	12/14/2016 - 12/21/2016	Beta	2.40E-02	3.04E-03	2.80E-03
431507	12/21/2016 - 12/28/2016	Beta	2.73E-02	2.94E-03	2.76E-03
431870	9/26/2016 - 12/28/2016	Cs-134	<5.44E-04	0.00E+00	5.44E-04
		Cs-137	<5.35E-04	0.00E+00	5.35E-04
		Be-7	1.27E-01	2.15E-02	1.43E-02
		K-40	7.20E-03	5.03E-03	5.98E-03

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

Sample Point 1 [CONTROL - ESE @ 24.4 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
398755	12/28/2015 - 1/5/2016	I-131	<7.55E-03	0.00E+00	7.55E-03
		Cs-134	<5.14E-03	0.00E+00	5.14E-03
		Cs-137	<5.09E-03	0.00E+00	5.09E-03
		Be-7	<5.11E-02	0.00E+00	5.11E-02
		K-40	1.84E-01	8.20E-02	7.42E-02
399009	1/5/2016 - 1/12/2016	I-131	<8.61E-03	0.00E+00	8.61E-03
		Cs-134	<2.89E-03	0.00E+00	2.89E-03
		Cs-137	<6.39E-03	0.00E+00	6.39E-03
		Be-7	<3.43E-02	0.00E+00	3.43E-02
		K-40	3.10E-01	1.06E-01	2.27E-02
399310	1/12/2016 - 1/19/2016	I-131	<1.26E-02	0.00E+00	1.26E-02
		Cs-134	<1.13E-02	0.00E+00	1.13E-02
		Cs-137	<1.24E-02	0.00E+00	1.24E-02
		Be-7	<6.27E-02	0.00E+00	6.27E-02
		K-40	2.99E-01	1.67E-01	2.05E-01
400050	1/19/2016 - 1/26/2016	I-131	<6.94E-03	0.00E+00	6.94E-03
		Cs-134	<5.90E-03	0.00E+00	5.90E-03
		Cs-137	<3.59E-03	0.00E+00	3.59E-03
		Be-7	<4.79E-02	0.00E+00	4.79E-02
		K-40	2.77E-01	9.96E-02	2.28E-02
400413	1/26/2016 - 2/2/2016	I-131	<1.56E-02	0.00E+00	1.56E-02
		Cs-134	<1.23E-02	0.00E+00	1.23E-02
		Cs-137	<1.14E-02	0.00E+00	1.14E-02
		Be-7	<8.57E-02	0.00E+00	8.57E-02
		K-40	4.82E-01	1.81E-01	1.42E-01
401057	2/2/2016 - 2/9/2016	I-131	<7.77E-03	0.00E+00	7.77E-03
		Cs-134	<2.86E-03	0.00E+00	2.86E-03



ROBINSON Radiological Environmental Monitoring Analysis Report - 2016 (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
401057	2/2/2016 - 2/9/2016	Cs-137	<4.47E-03	0.00E+00	4.47E-03
		Be-7	<3.79E-02	0.00E+00	3.79E-02
		K-40	2.95E-01	1.07E-01	7.41E-02
401405	2/9/2016 - 2/15/2016	I-131	<7.07E-03	0.00E+00	7.07E-03
		Cs-134	<7.70E-03	0.00E+00	7.70E-03
		Cs-137	<5.91E-03	0.00E+00	5.91E-03
		Be-7	<5.89E-02	0.00E+00	5.89E-02
		K-40	4.33E-01	1.57E-01	1.44E-01
401849	2/15/2016 - 2/23/2016	I-131	<7.64E-03	0.00E+00	7.64E-03
		Cs-134	<5.55E-03	0.00E+00	5.55E-03
		Cs-137	<5.22E-03	0.00E+00	5.22E-03
		Be-7	<3.98E-02	0.00E+00	3.98E-02
		K-40	2.51E-01	9.96E-02	9.64E-02
402371	2/23/2016 - 3/1/2016	I-131	<1.15E-02	0.00E+00	1.15E-02
		Cs-134	<4.94E-03	0.00E+00	4.94E-03
		Cs-137	<6.11E-03	0.00E+00	6.11E-03
		Be-7	<4.21E-02	0.00E+00	4.21E-02
		K-40	2.89E-01	1.04E-01	2.37E-02
403097	3/1/2016 - 3/8/2016	I-131	<8.41E-03	0.00E+00	8.41E-03
		Cs-134	<7.51E-03	0.00E+00	7.51E-03
		Cs-137	<7.89E-03	0.00E+00	7.89E-03
		Be-7	<4.79E-02	0.00E+00	4.79E-02
		K-40	3.47E-01	1.20E-01	2.61E-02
404590	3/8/2016 - 3/15/2016	I-131	<8.71E-03	0.00E+00	8.71E-03
		Cs-134	<5.20E-03	0.00E+00	5.20E-03
		Cs-137	<7.04E-03	0.00E+00	7.04E-03
		Be-7	<5.30E-02	0.00E+00	5.30E-02
		K-40	3.04E-01	1.09E-01	2.49E-02
405452	3/15/2016 - 3/22/2016	I-131	<1.15E-02	0.00E+00	1.15E-02
		Cs-134	<5.42E-03	0.00E+00	5.42E-03
		Cs-137	<7.31E-03	0.00E+00	7.31E-03
		Be-7	<4.75E-02	0.00E+00	4.75E-02
		K-40	3.54E-01	1.29E-01	1.01E-01
406084	3/22/2016 - 3/29/2016	I-131	<9.35E-03	0.00E+00	9.35E-03
		Cs-134	<4.18E-03	0.00E+00	4.18E-03
		Cs-137	<1.01E-02	0.00E+00	1.01E-02
		Be-7	<5.49E-02	0.00E+00	5.49E-02
		K-40	2.89E-01	1.19E-01	1.05E-01
406455	3/29/2016 - 4/5/2016	I-131	<1.13E-02	0.00E+00	1.13E-02
		Cs-134	<8.10E-03	0.00E+00	8.10E-03
		Cs-137	<6.63E-03	0.00E+00	6.63E-03
		Be-7	<5.39E-02	0.00E+00	5.39E-02
		K-40	2.91E-01	1.30E-01	1.44E-01
407621	4/5/2016 - 4/12/2016	I-131	<1.41E-02	0.00E+00	1.41E-02
		Cs-134	<5.93E-03	0.00E+00	5.93E-03
		Cs-137	<7.33E-03	0.00E+00	7.33E-03
		Be-7	<5.49E-02	0.00E+00	5.49E-02
		K-40	4.02E-01	1.33E-01	2.79E-02



ROBINSON Radiological Environmental Monitoring Analysis Report - 2016 (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
408177	4/12/2016 - 4/19/2016	I-131	<1.33E-02	0.00E+00	1.33E-02
		Cs-134	<7.19E-03	0.00E+00	7.19E-03
		Cs-137	<1.00E-02	0.00E+00	1.00E-02
		Be-7	<4.02E-02	0.00E+00	4.02E-02
		K-40	3.90E-01	1.45E-01	1.26E-01
409500	4/19/2016 - 4/26/2016	I-131	<1.06E-02	0.00E+00	1.06E-02
		Cs-134	<7.27E-03	0.00E+00	7.27E-03
		Cs-137	<8.11E-03	0.00E+00	8.11E-03
		Be-7	<5.23E-02	0.00E+00	5.23E-02
		K-40	3.25E-01	1.14E-01	2.51E-02
409834	4/26/2016 - 5/4/2016	I-131	<4.49E-03	0.00E+00	4.49E-03
		Cs-134	<5.39E-03	0.00E+00	5.39E-03
		Cs-137	<4.75E-03	0.00E+00	4.75E-03
		Be-7	<4.32E-02	0.00E+00	4.32E-02
		K-40	3.40E-01	1.23E-01	1.09E-01
411010	5/4/2016 - 5/10/2016	I-131	<8.38E-03	0.00E+00	8.38E-03
		Cs-134	<1.05E-02	0.00E+00	1.05E-02
		Cs-137	<7.76E-03	0.00E+00	7.76E-03
		Be-7	<4.35E-02	0.00E+00	4.35E-02
		K-40	3.55E-01	1.45E-01	1.23E-01
411481	5/10/2016 - 5/17/2016	I-131	<6.55E-03	0.00E+00	6.55E-03
		Cs-134	<6.44E-03	0.00E+00	6.44E-03
		Cs-137	<7.99E-03	0.00E+00	7.99E-03
		Be-7	<5.25E-02	0.00E+00	5.25E-02
		K-40	3.58E-01	1.25E-01	9.07E-02
411811	5/17/2016 - 5/25/2016	I-131	<7.84E-03	0.00E+00	7.84E-03
		Cs-134	<6.75E-03	0.00E+00	6.75E-03
		Cs-137	<5.77E-03	0.00E+00	5.77E-03
		Be-7	<4.71E-02	0.00E+00	4.71E-02
		K-40	2.20E-01	9.81E-02	9.54E-02
412273	5/25/2016 - 5/31/2016	I-131	<1.14E-02	0.00E+00	1.14E-02
		Cs-134	<7.59E-03	0.00E+00	7.59E-03
		Cs-137	<1.14E-02	0.00E+00	1.14E-02
		Be-7	<5.25E-02	0.00E+00	5.25E-02
		K-40	5.31E-01	2.04E-01	2.29E-01
412789	5/31/2016 - 6/7/2016	I-131	<9.41E-03	0.00E+00	9.41E-03
		Cs-134	<5.70E-03	0.00E+00	5.70E-03
		Cs-137	<5.81E-03	0.00E+00	5.81E-03
		Be-7	<4.25E-02	0.00E+00	4.25E-02
		K-40	3.55E-01	1.40E-01	1.47E-01
413407	6/7/2016 - 6/13/2016	I-131	<9.69E-03	0.00E+00	9.69E-03
		Cs-134	<6.23E-03	0.00E+00	6.23E-03
		Cs-137	<9.41E-03	0.00E+00	9.41E-03
		Be-7	<5.07E-02	0.00E+00	5.07E-02
		K-40	<3.09E-01	0.00E+00	3.09E-01
413940	6/13/2016 - 6/21/2016	I-131	<8.39E-03	0.00E+00	8.39E-03
		Cs-134	<5.25E-03	0.00E+00	5.25E-03
		Cs-137	<5.98E-03	0.00E+00	5.98E-03
		Be-7	<5.39E-02	0.00E+00	5.39E-02
		K-40	2.92E-01	1.02E-01	2.26E-02



ROBINSON Radiological Environmental Monitoring Analysis Report - 2016 (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
415080	6/21/2016 - 6/28/2016	I-131	<9.12E-03	0.00E+00	9.12E-03
		Cs-134	<5.27E-03	0.00E+00	5.27E-03
		Cs-137	<8.58E-03	0.00E+00	8.58E-03
		Be-7	<5.59E-02	0.00E+00	5.59E-02
		K-40	4.64E-01	1.51E-01	1.02E-01
415489	6/28/2016 - 7/5/2016	I-131	<9.78E-03	0.00E+00	9.78E-03
		Cs-134	<3.12E-03	0.00E+00	3.12E-03
		Cs-137	<8.30E-03	0.00E+00	8.30E-03
		Be-7	<5.50E-02	0.00E+00	5.50E-02
		K-40	3.13E-01	1.10E-01	2.43E-02
416459	7/5/2016 - 7/13/2016	I-131	<8.99E-03	0.00E+00	8.99E-03
		Cs-134	<7.01E-03	0.00E+00	7.01E-03
		Cs-137	<7.19E-03	0.00E+00	7.19E-03
		Be-7	<4.60E-02	0.00E+00	4.60E-02
		K-40	2.71E-01	9.76E-02	2.23E-02
417069	7/13/2016 - 7/19/2016	I-131	<1.04E-02	0.00E+00	1.04E-02
		Cs-134	<7.45E-03	0.00E+00	7.45E-03
		Cs-137	<1.12E-02	0.00E+00	1.12E-02
		Be-7	<5.47E-02	0.00E+00	5.47E-02
		K-40	4.52E-01	1.52E-01	3.22E-02
417462	7/19/2016 - 7/27/2016	I-131	<6.07E-03	0.00E+00	6.07E-03
		Cs-134	<6.50E-03	0.00E+00	6.50E-03
		Cs-137	<7.05E-03	0.00E+00	7.05E-03
		Be-7	<4.18E-02	0.00E+00	4.18E-02
		K-40	2.99E-01	1.07E-01	2.46E-02
417853	7/27/2016 - 8/2/2016	I-131	<1.02E-02	0.00E+00	1.02E-02
		Cs-134	<7.52E-03	0.00E+00	7.52E-03
		Cs-137	<8.56E-03	0.00E+00	8.56E-03
		Be-7	<6.94E-02	0.00E+00	6.94E-02
		K-40	4.41E-01	1.74E-01	1.79E-01
418332	8/2/2016 - 8/9/2016	I-131	<1.27E-02	0.00E+00	1.27E-02
		Cs-134	<8.67E-03	0.00E+00	8.67E-03
		Cs-137	<9.77E-03	0.00E+00	9.77E-03
		Be-7	<4.54E-02	0.00E+00	4.54E-02
		K-40	2.99E-01	1.27E-01	1.19E-01
419047	8/9/2016 - 8/16/2016	I-131	<8.87E-03	0.00E+00	8.87E-03
		Cs-134	<4.57E-03	0.00E+00	4.57E-03
		Cs-137	<8.62E-03	0.00E+00	8.62E-03
		Be-7	<5.90E-02	0.00E+00	5.90E-02
		K-40	2.96E-01	1.45E-01	1.77E-01
419547	8/16/2016 - 8/23/2016	I-131	<7.33E-03	0.00E+00	7.33E-03
		Cs-134	<4.96E-03	0.00E+00	4.96E-03
		Cs-137	<6.88E-03	0.00E+00	6.88E-03
		Be-7	<6.10E-02	0.00E+00	6.10E-02
		K-40	4.32E-01	1.34E-01	2.60E-02
420074	8/23/2016 - 8/30/2016	I-131	<1.67E-02	0.00E+00	1.67E-02
		Cs-134	<4.77E-03	0.00E+00	4.77E-03
		Cs-137	<5.88E-03	0.00E+00	5.88E-03
		Be-7	<5.51E-02	0.00E+00	5.51E-02
		K-40	3.66E-01	1.22E-01	2.54E-02



ROBINSON Radiological Environmental Monitoring Analysis Report - 2016 (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
420619	8/30/2016 - 9/6/2016	I-131	<8.15E-03	0.00E+00	8.15E-03
		Cs-134	<6.54E-03	0.00E+00	6.54E-03
		Cs-137	<9.30E-03	0.00E+00	9.30E-03
		Be-7	<3.76E-02	0.00E+00	3.76E-02
		K-40	3.38E-01	1.30E-01	1.03E-01
421490	9/6/2016 - 9/13/2016	I-131	<1.61E-02	0.00E+00	1.61E-02
		Cs-134	<3.34E-03	0.00E+00	3.34E-03
		Cs-137	<7.93E-03	0.00E+00	7.93E-03
		Be-7	<5.02E-02	0.00E+00	5.02E-02
		K-40	4.43E-01	1.35E-01	2.56E-02
422624	9/13/2016 - 9/19/2016	I-131	<9.95E-03	0.00E+00	9.95E-03
		Cs-134	<8.68E-03	0.00E+00	8.68E-03
		Cs-137	<7.78E-03	0.00E+00	7.78E-03
		Be-7	<3.91E-02	0.00E+00	3.91E-02
		K-40	4.78E-01	1.52E-01	3.01E-02
423365	9/19/2016 - 9/26/2016	I-131	<7.79E-03	0.00E+00	7.79E-03
		Cs-134	<5.71E-03	0.00E+00	5.71E-03
		Cs-137	<5.02E-03	0.00E+00	5.02E-03
		Be-7	<5.62E-02	0.00E+00	5.62E-02
		K-40	3.80E-01	1.24E-01	2.51E-02
424514	9/26/2016 - 10/3/2016	I-131	<8.55E-03	0.00E+00	8.55E-03
		Cs-134	<7.83E-03	0.00E+00	7.83E-03
		Cs-137	<8.64E-03	0.00E+00	8.64E-03
		Be-7	<6.72E-02	0.00E+00	6.72E-02
		K-40	3.20E-01	1.29E-01	1.12E-01
425505	10/3/2016 - 10/12/2016	I-131	<7.45E-03	0.00E+00	7.45E-03
		Cs-134	<5.18E-03	0.00E+00	5.18E-03
		Cs-137	<3.60E-03	0.00E+00	3.60E-03
		Be-7	<5.05E-02	0.00E+00	5.05E-02
		K-40	3.44E-01	1.26E-01	1.19E-01
426045	10/12/2016 - 10/18/2016	I-131	<1.27E-02	0.00E+00	1.27E-02
		Cs-134	<1.07E-02	0.00E+00	1.07E-02
		Cs-137	<9.55E-03	0.00E+00	9.55E-03
		Be-7	<5.35E-02	0.00E+00	5.35E-02
		K-40	4.42E-01	1.64E-01	1.36E-01
426412	10/18/2016 - 10/25/2016	I-131	<8.09E-03	0.00E+00	8.09E-03
		Cs-134	<7.46E-03	0.00E+00	7.46E-03
		Cs-137	<8.10E-03	0.00E+00	8.10E-03
		Be-7	<5.98E-02	0.00E+00	5.98E-02
		K-40	3.02E-01	1.41E-01	1.61E-01
427095	10/25/2016 - 11/1/2016	I-131	<6.39E-03	0.00E+00	6.39E-03
		Cs-134	<6.42E-03	0.00E+00	6.42E-03
		Cs-137	<9.13E-03	0.00E+00	9.13E-03
		Be-7	<2.91E-02	0.00E+00	2.91E-02
		K-40	3.69E-01	1.27E-01	2.78E-02
427764	11/1/2016 - 11/8/2016	I-131	<9.50E-03	0.00E+00	9.50E-03
		Cs-134	<7.35E-03	0.00E+00	7.35E-03
		Cs-137	<1.03E-02	0.00E+00	1.03E-02
		Be-7	<5.94E-02	0.00E+00	5.94E-02
		K-40	2.99E-01	1.25E-01	1.04E-01



ROBINSON Radiological Environmental Monitoring Analysis Report - 2016 (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
428270	11/8/2016 - 11/15/2016	I-131	<9.74E-03	0.00E+00	9.74E-03
		Cs-134	<7.98E-03	0.00E+00	7.98E-03
		Cs-137	<8.80E-03	0.00E+00	8.80E-03
		Be-7	<4.88E-02	0.00E+00	4.88E-02
		K-40	3.05E-01	1.27E-01	1.15E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
428940	11/15/2016 - 11/21/2016	I-131	<1.81E-02	0.00E+00	1.81E-02
		Cs-134	<6.43E-03	0.00E+00	6.43E-03
		Cs-137	<2.00E-03	0.00E+00	2.00E-03
		Be-7	<7.20E-02	0.00E+00	7.20E-02
		K-40	4.41E-01	1.61E-01	1.18E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
429441	11/21/2016 - 11/28/2016	I-131	<8.22E-03	0.00E+00	8.22E-03
		Cs-134	<7.06E-03	0.00E+00	7.06E-03
		Cs-137	<5.78E-03	0.00E+00	5.78E-03
		Be-7	<6.76E-02	0.00E+00	6.76E-02
		K-40	3.91E-01	1.40E-01	1.03E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
430002	11/28/2016 - 12/7/2016	I-131	<6.42E-03	0.00E+00	6.42E-03
		Cs-134	<5.33E-03	0.00E+00	5.33E-03
		Cs-137	<6.98E-03	0.00E+00	6.98E-03
		Be-7	<2.69E-02	0.00E+00	2.69E-02
		K-40	2.58E-01	9.72E-02	7.55E-02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
430634	12/7/2016 - 12/14/2016	I-131	<7.99E-03	0.00E+00	7.99E-03
		Cs-134	<6.79E-03	0.00E+00	6.79E-03
		Cs-137	<4.12E-03	0.00E+00	4.12E-03
		Be-7	<6.65E-02	0.00E+00	6.65E-02
		K-40	3.83E-01	1.36E-01	1.10E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
431110	12/14/2016 - 12/21/2016	I-131	<1.61E-02	0.00E+00	1.61E-02
		Cs-134	<8.05E-03	0.00E+00	8.05E-03
		Cs-137	<9.96E-03	0.00E+00	9.96E-03
		Be-7	<4.53E-02	0.00E+00	4.53E-02
		K-40	4.55E-01	1.55E-01	1.28E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
431509	12/21/2016 - 12/28/2016	I-131	<6.90E-03	0.00E+00	6.90E-03
		Cs-134	<7.85E-03	0.00E+00	7.85E-03
		Cs-137	<7.38E-03	0.00E+00	7.38E-03
		Be-7	<5.60E-02	0.00E+00	5.60E-02
		K-40	4.04E-01	1.34E-01	2.81E-02

Sample Point 2 [INDICATOR - S @ 0.2 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
398756	12/28/2015 - 1/5/2016	I-131	<1.44E-02	0.00E+00	1.44E-02
		Cs-134	<4.91E-03	0.00E+00	4.91E-03
		Cs-137	<7.40E-03	0.00E+00	7.40E-03
		Be-7	<3.61E-02	0.00E+00	3.61E-02
		K-40	4.20E-01	1.32E-01	2.58E-02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
399010	1/5/2016 - 1/12/2016	I-131	<1.76E-02	0.00E+00	1.76E-02
		Cs-134	<1.52E-02	0.00E+00	1.52E-02
		Cs-137	<1.55E-02	0.00E+00	1.55E-02
		Be-7	<8.76E-02	0.00E+00	8.76E-02
		K-40	8.65E-01	3.12E-01	2.16E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
399311	1/12/2016 - 1/19/2016	I-131	<1.23E-02	0.00E+00	1.23E-02
		Cs-134	<1.04E-02	0.00E+00	1.04E-02
		Cs-137	<7.91E-03	0.00E+00	7.91E-03



ROBINSON Radiological Environmental Monitoring Analysis Report - 2016 (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
399311	1/12/2016 - 1/19/2016	Be-7	<9.39E-02	0.00E+00	9.39E-02
		K-40	4.93E-01	1.84E-01	1.55E-01
400051	1/19/2016 - 1/26/2016	I-131	<1.25E-02	0.00E+00	1.25E-02
		Cs-134	<9.39E-03	0.00E+00	9.39E-03
		Cs-137	<7.64E-03	0.00E+00	7.64E-03
		Be-7	<8.55E-02	0.00E+00	8.55E-02
		K-40	<3.52E-01	0.00E+00	3.52E-01
400414	1/26/2016 - 2/2/2016	I-131	<1.35E-02	0.00E+00	1.35E-02
		Cs-134	<1.19E-02	0.00E+00	1.19E-02
		Cs-137	<1.34E-02	0.00E+00	1.34E-02
		Be-7	<7.78E-02	0.00E+00	7.78E-02
		K-40	2.85E-01	1.27E-01	3.68E-02
401058	2/2/2016 - 2/9/2016	I-131	<5.27E-03	0.00E+00	5.27E-03
		Cs-134	<5.87E-03	0.00E+00	5.87E-03
		Cs-137	<7.28E-03	0.00E+00	7.28E-03
		Be-7	<4.16E-02	0.00E+00	4.16E-02
		K-40	2.94E-01	1.09E-01	8.98E-02
401406	2/9/2016 - 2/15/2016	I-131	<7.09E-03	0.00E+00	7.09E-03
		Cs-134	<7.23E-03	0.00E+00	7.23E-03
		Cs-137	<6.75E-03	0.00E+00	6.75E-03
		Be-7	<5.92E-02	0.00E+00	5.92E-02
		K-40	3.21E-01	1.16E-01	8.47E-02
401850	2/15/2016 - 2/23/2016	I-131	<4.62E-03	0.00E+00	4.62E-03
		Cs-134	<4.34E-03	0.00E+00	4.34E-03
		Cs-137	<6.17E-03	0.00E+00	6.17E-03
		Be-7	<3.24E-02	0.00E+00	3.24E-02
		K-40	2.12E-01	9.36E-02	1.00E-01
402372	2/23/2016 - 3/1/2016	I-131	<9.64E-03	0.00E+00	9.64E-03
		Cs-134	<4.72E-03	0.00E+00	4.72E-03
		Cs-137	<5.23E-03	0.00E+00	5.23E-03
		Be-7	<5.02E-02	0.00E+00	5.02E-02
		K-40	1.89E-01	9.21E-02	9.64E-02
403098	3/1/2016 - 3/8/2016	I-131	<5.60E-03	0.00E+00	5.60E-03
		Cs-134	<6.24E-03	0.00E+00	6.24E-03
		Cs-137	<5.55E-03	0.00E+00	5.55E-03
		Be-7	<4.77E-02	0.00E+00	4.77E-02
		K-40	3.02E-01	1.17E-01	1.03E-01
404591	3/8/2016 - 3/15/2016	I-131	<9.15E-03	0.00E+00	9.15E-03
		Cs-134	<6.70E-03	0.00E+00	6.70E-03
		Cs-137	<7.73E-03	0.00E+00	7.73E-03
		Be-7	<5.82E-02	0.00E+00	5.82E-02
		K-40	3.89E-01	1.38E-01	1.00E-01
405453	3/15/2016 - 3/22/2016	I-131	<1.50E-02	0.00E+00	1.50E-02
		Cs-134	<7.93E-03	0.00E+00	7.93E-03
		Cs-137	<8.71E-03	0.00E+00	8.71E-03
		Be-7	<6.18E-02	0.00E+00	6.18E-02
		K-40	3.82E-01	1.32E-01	2.88E-02
406085	3/22/2016 - 3/29/2016	I-131	<1.02E-02	0.00E+00	1.02E-02



ROBINSON Radiological Environmental Monitoring Analysis Report - 2016 (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
406085	3/22/2016 - 3/29/2016	Cs-134	<5.86E-03	0.00E+00	5.86E-03
		Cs-137	<7.27E-03	0.00E+00	7.27E-03
		Be-7	<5.30E-02	0.00E+00	5.30E-02
		K-40	3.08E-01	1.34E-01	1.24E-01
406456	3/29/2016 - 4/5/2016	I-131	<1.04E-02	0.00E+00	1.04E-02
		Cs-134	<6.79E-03	0.00E+00	6.79E-03
		Cs-137	<9.93E-03	0.00E+00	9.93E-03
		Be-7	<7.17E-02	0.00E+00	7.17E-02
		K-40	4.39E-01	1.49E-01	1.15E-01
407622	4/5/2016 - 4/12/2016	I-131	<1.33E-02	0.00E+00	1.33E-02
		Cs-134	<7.91E-03	0.00E+00	7.91E-03
		Cs-137	<8.82E-03	0.00E+00	8.82E-03
		Be-7	<5.70E-02	0.00E+00	5.70E-02
		K-40	3.17E-01	1.24E-01	9.52E-02
408178	4/12/2016 - 4/19/2016	I-131	<1.26E-02	0.00E+00	1.26E-02
		Cs-134	<8.63E-03	0.00E+00	8.63E-03
		Cs-137	<8.82E-03	0.00E+00	8.82E-03
		Be-7	<6.07E-02	0.00E+00	6.07E-02
		K-40	3.64E-01	1.43E-01	1.20E-01
409501	4/19/2016 - 4/26/2016	I-131	<1.22E-02	0.00E+00	1.22E-02
		Cs-134	<6.95E-03	0.00E+00	6.95E-03
		Cs-137	<6.56E-03	0.00E+00	6.56E-03
		Be-7	<5.93E-02	0.00E+00	5.93E-02
		K-40	4.61E-01	1.45E-01	2.84E-02
409835	4/26/2016 - 5/4/2016	I-131	<8.27E-03	0.00E+00	8.27E-03
		Cs-134	<3.97E-03	0.00E+00	3.97E-03
		Cs-137	<8.44E-03	0.00E+00	8.44E-03
		Be-7	<5.20E-02	0.00E+00	5.20E-02
		K-40	3.84E-01	1.31E-01	9.65E-02
411011	5/4/2016 - 5/10/2016	I-131	<1.10E-02	0.00E+00	1.10E-02
		Cs-134	<7.43E-03	0.00E+00	7.43E-03
		Cs-137	<9.23E-03	0.00E+00	9.23E-03
		Be-7	<6.89E-02	0.00E+00	6.89E-02
		K-40	5.09E-01	1.76E-01	1.42E-01
411482	5/10/2016 - 5/17/2016	I-131	<9.26E-03	0.00E+00	9.26E-03
		Cs-134	<7.98E-03	0.00E+00	7.98E-03
		Cs-137	<9.89E-03	0.00E+00	9.89E-03
		Be-7	<5.52E-02	0.00E+00	5.52E-02
		K-40	4.50E-01	1.48E-01	1.01E-01
411812	5/17/2016 - 5/25/2016	I-131	<7.57E-03	0.00E+00	7.57E-03
		Cs-134	<5.40E-03	0.00E+00	5.40E-03
		Cs-137	<5.19E-03	0.00E+00	5.19E-03
		Be-7	<5.72E-02	0.00E+00	5.72E-02
		K-40	3.75E-01	1.23E-01	2.54E-02
412274	5/25/2016 - 5/31/2016	I-131	<1.11E-02	0.00E+00	1.11E-02
		Cs-134	<5.24E-03	0.00E+00	5.24E-03
		Cs-137	<1.11E-02	0.00E+00	1.11E-02
		Be-7	<6.47E-02	0.00E+00	6.47E-02
		K-40	4.34E-01	1.59E-01	1.23E-01



ROBINSON Radiological Environmental Monitoring Analysis Report - 2016 (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
412790	5/31/2016 - 6/7/2016	I-131	<6.74E-03	0.00E+00	6.74E-03
		Cs-134	<8.56E-03	0.00E+00	8.56E-03
		Cs-137	<8.06E-03	0.00E+00	8.06E-03
		Be-7	<4.66E-02	0.00E+00	4.66E-02
		K-40	4.37E-01	1.68E-01	1.69E-01
413408	6/7/2016 - 6/13/2016	I-131	<1.29E-02	0.00E+00	1.29E-02
		Cs-134	<7.67E-03	0.00E+00	7.67E-03
		Cs-137	<7.35E-03	0.00E+00	7.35E-03
		Be-7	<8.24E-02	0.00E+00	8.24E-02
		K-40	5.34E-01	1.98E-01	1.90E-01
413941	6/13/2016 - 6/21/2016	I-131	<8.66E-03	0.00E+00	8.66E-03
		Cs-134	<7.91E-03	0.00E+00	7.91E-03
		Cs-137	<7.40E-03	0.00E+00	7.40E-03
		Be-7	<5.52E-02	0.00E+00	5.52E-02
		K-40	3.22E-01	1.14E-01	2.56E-02
415081	6/21/2016 - 6/28/2016	I-131	<4.40E-03	0.00E+00	4.40E-03
		Cs-134	<6.72E-03	0.00E+00	6.72E-03
		Cs-137	<6.37E-03	0.00E+00	6.37E-03
		Be-7	<5.46E-02	0.00E+00	5.46E-02
		K-40	4.41E-01	1.53E-01	1.30E-01
415490	6/28/2016 - 7/5/2016	I-131	<1.04E-02	0.00E+00	1.04E-02
		Cs-134	<8.41E-03	0.00E+00	8.41E-03
		Cs-137	<9.37E-03	0.00E+00	9.37E-03
		Be-7	2.22E-02	2.88E-02	4.64E-02
		K-40	6.10E-01	1.71E-01	2.90E-02
416460	7/5/2016 - 7/13/2016	I-131	<6.89E-03	0.00E+00	6.89E-03
		Cs-134	<7.47E-03	0.00E+00	7.47E-03
		Cs-137	<8.87E-03	0.00E+00	8.87E-03
		Be-7	<6.76E-02	0.00E+00	6.76E-02
		K-40	2.89E-01	1.35E-01	1.62E-01
417070	7/13/2016 - 7/19/2016	I-131	<7.46E-03	0.00E+00	7.46E-03
		Cs-134	<8.74E-03	0.00E+00	8.74E-03
		Cs-137	<8.69E-03	0.00E+00	8.69E-03
		Be-7	<5.64E-02	0.00E+00	5.64E-02
		K-40	6.80E-01	2.05E-01	1.44E-01
417463	7/19/2016 - 7/27/2016	I-131	<6.77E-03	0.00E+00	6.77E-03
		Cs-134	<7.18E-03	0.00E+00	7.18E-03
		Cs-137	<4.97E-03	0.00E+00	4.97E-03
		Be-7	<5.52E-02	0.00E+00	5.52E-02
		K-40	3.77E-01	1.31E-01	1.01E-01
417854	7/27/2016 - 8/2/2016	I-131	<8.63E-03	0.00E+00	8.63E-03
		Cs-134	<8.48E-03	0.00E+00	8.48E-03
		Cs-137	<8.04E-03	0.00E+00	8.04E-03
		Be-7	<7.24E-02	0.00E+00	7.24E-02
		K-40	5.92E-01	1.87E-01	1.24E-01
418333	8/2/2016 - 8/9/2016	I-131	<1.20E-02	0.00E+00	1.20E-02
		Cs-134	<6.39E-03	0.00E+00	6.39E-03
		Cs-137	<9.06E-03	0.00E+00	9.06E-03
		Be-7	<7.81E-02	0.00E+00	7.81E-02
		K-40	4.66E-01	1.45E-01	2.80E-02



ROBINSON Radiological Environmental Monitoring Analysis Report - 2016 (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
419048	8/9/2016 - 8/16/2016	I-131	<8.94E-03	0.00E+00	8.94E-03
		Cs-134	<9.58E-03	0.00E+00	9.58E-03
		Cs-137	<1.00E-02	0.00E+00	1.00E-02
		Be-7	<5.77E-02	0.00E+00	5.77E-02
		K-40	4.45E-01	1.45E-01	2.94E-02
419548	8/16/2016 - 8/23/2016	I-131	<7.06E-03	0.00E+00	7.06E-03
		Cs-134	<8.99E-03	0.00E+00	8.99E-03
		Cs-137	<6.53E-03	0.00E+00	6.53E-03
		Be-7	<5.46E-02	0.00E+00	5.46E-02
		K-40	4.74E-01	1.55E-01	3.21E-02
420075	8/23/2016 - 8/30/2016	I-131	<1.44E-02	0.00E+00	1.44E-02
		Cs-134	<7.27E-03	0.00E+00	7.27E-03
		Cs-137	<7.84E-03	0.00E+00	7.84E-03
		Be-7	<7.75E-02	0.00E+00	7.75E-02
		K-40	3.90E-01	1.31E-01	2.78E-02
420620	8/30/2016 - 9/6/2016	I-131	<7.83E-03	0.00E+00	7.83E-03
		Cs-134	<9.39E-03	0.00E+00	9.39E-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	3.11E-01	1.54E-01	1.87E-01
421491	9/6/2016 - 9/13/2016	I-131	<1.06E-02	0.00E+00	1.06E-02
		Cs-134	<5.97E-03	0.00E+00	5.97E-03
		Cs-137	<6.63E-03	0.00E+00	6.63E-03
		Be-7	<6.73E-02	0.00E+00	6.73E-02
		K-40	4.42E-01	1.53E-01	1.21E-01
422625	9/13/2016 - 9/19/2016	I-131	<1.19E-02	0.00E+00	1.19E-02
		Cs-134	<8.87E-03	0.00E+00	8.87E-03
		Cs-137	<8.81E-03	0.00E+00	8.81E-03
		Be-7	<6.26E-02	0.00E+00	6.26E-02
		K-40	4.91E-01	1.64E-01	3.41E-02
423366	9/19/2016 - 9/26/2016	I-131	<9.14E-03	0.00E+00	9.14E-03
		Cs-134	<6.80E-03	0.00E+00	6.80E-03
		Cs-137	<6.94E-03	0.00E+00	6.94E-03
		Be-7	<6.64E-02	0.00E+00	6.64E-02
		K-40	2.59E-01	1.39E-01	1.72E-01
424515	9/26/2016 - 10/3/2016	I-131	<8.42E-03	0.00E+00	8.42E-03
		Cs-134	<6.72E-03	0.00E+00	6.72E-03
		Cs-137	<7.63E-03	0.00E+00	7.63E-03
		Be-7	<4.54E-02	0.00E+00	4.54E-02
		K-40	4.49E-01	1.54E-01	1.14E-01
425506	10/3/2016 - 10/12/2016	I-131	<9.50E-03	0.00E+00	9.50E-03
		Cs-134	<5.77E-03	0.00E+00	5.77E-03
		Cs-137	<1.29E-03	0.00E+00	1.29E-03
		Be-7	<4.61E-02	0.00E+00	4.61E-02
		K-40	2.90E-01	1.13E-01	1.06E-01
426046	10/12/2016 - 10/18/2016	I-131	<1.61E-02	0.00E+00	1.61E-02
		Cs-134	<9.68E-03	0.00E+00	9.68E-03
		Cs-137	<1.37E-02	0.00E+00	1.37E-02
		Be-7	<5.55E-02	0.00E+00	5.55E-02
		K-40	5.69E-01	1.91E-01	1.44E-01



ROBINSON Radiological Environmental Monitoring Analysis Report - 2016 (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
426413	10/18/2016 - 10/25/2016	I-131	<5.31E-03	0.00E+00	5.31E-03
		Cs-134	<6.90E-03	0.00E+00	6.90E-03
		Cs-137	<7.30E-03	0.00E+00	7.30E-03
		Be-7	<6.85E-02	0.00E+00	6.85E-02
		K-40	3.38E-01	1.30E-01	1.00E-01
427096	10/25/2016 - 11/1/2016	I-131	<6.69E-03	0.00E+00	6.69E-03
		Cs-134	<8.06E-03	0.00E+00	8.06E-03
		Cs-137	<1.05E-02	0.00E+00	1.05E-02
		Be-7	<5.80E-02	0.00E+00	5.80E-02
		K-40	3.61E-01	1.47E-01	1.45E-01
427765	11/1/2016 - 11/8/2016	I-131	<1.14E-02	0.00E+00	1.14E-02
		Cs-134	<5.45E-03	0.00E+00	5.45E-03
		Cs-137	<8.75E-03	0.00E+00	8.75E-03
		Be-7	<5.70E-02	0.00E+00	5.70E-02
		K-40	3.97E-01	1.53E-01	1.22E-01
428271	11/8/2016 - 11/15/2016	I-131	<1.24E-02	0.00E+00	1.24E-02
		Cs-134	<5.49E-03	0.00E+00	5.49E-03
		Cs-137	<6.81E-03	0.00E+00	6.81E-03
		Be-7	<4.45E-02	0.00E+00	4.45E-02
		K-40	4.10E-01	1.51E-01	1.26E-01
428941	11/15/2016 - 11/21/2016	I-131	<1.94E-02	0.00E+00	1.94E-02
		Cs-134	<1.08E-02	0.00E+00	1.08E-02
		Cs-137	<9.65E-03	0.00E+00	9.65E-03
		Be-7	<5.53E-02	0.00E+00	5.53E-02
		K-40	3.81E-01	1.69E-01	1.83E-01
429442	11/21/2016 - 11/28/2016	I-131	<1.12E-02	0.00E+00	1.12E-02
		Cs-134	<1.01E-02	0.00E+00	1.01E-02
		Cs-137	<9.12E-03	0.00E+00	9.12E-03
		Be-7	<6.00E-02	0.00E+00	6.00E-02
		K-40	5.22E-01	1.69E-01	1.23E-01
430003	11/28/2016 - 12/7/2016	I-131	<6.57E-03	0.00E+00	6.57E-03
		Cs-134	<3.65E-03	0.00E+00	3.65E-03
		Cs-137	<6.41E-03	0.00E+00	6.41E-03
		Be-7	<5.81E-02	0.00E+00	5.81E-02
		K-40	4.03E-01	1.22E-01	2.27E-02
430635	12/7/2016 - 12/14/2016	I-131	<9.92E-03	0.00E+00	9.92E-03
		Cs-134	<8.05E-03	0.00E+00	8.05E-03
		Cs-137	<9.97E-03	0.00E+00	9.97E-03
		Be-7	<5.14E-02	0.00E+00	5.14E-02
		K-40	4.53E-01	1.46E-01	2.92E-02
431111	12/14/2016 - 12/21/2016	I-131	<1.29E-02	0.00E+00	1.29E-02
		Cs-134	<8.04E-03	0.00E+00	8.04E-03
		Cs-137	<9.93E-03	0.00E+00	9.93E-03
		Be-7	<7.72E-02	0.00E+00	7.72E-02
		K-40	3.63E-01	1.42E-01	1.25E-01
431510	12/21/2016 - 12/28/2016	I-131	<9.56E-03	0.00E+00	9.56E-03
		Cs-134	<6.46E-03	0.00E+00	6.46E-03
		Cs-137	<7.35E-03	0.00E+00	7.35E-03
		Be-7	<5.58E-02	0.00E+00	5.58E-02
		K-40	3.79E-01	1.40E-01	1.13E-01



ROBINSON Radiological Environmental Monitoring Analysis Report - 2016 (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
398757	12/28/2015 - 1/5/2016	I-131	<1.14E-02	0.00E+00	1.14E-02
		Cs-134	<5.84E-03	0.00E+00	5.84E-03
		Cs-137	<6.78E-03	0.00E+00	6.78E-03
		Be-7	<5.02E-02	0.00E+00	5.02E-02
		K-40	3.95E-01	1.20E-01	2.23E-02
399011	1/5/2016 - 1/12/2016	I-131	<4.20E-03	0.00E+00	4.20E-03
		Cs-134	<8.31E-03	0.00E+00	8.31E-03
		Cs-137	<6.84E-03	0.00E+00	6.84E-03
		Be-7	1.44E-02	2.39E-02	4.11E-02
		K-40	<2.91E-01	0.00E+00	2.91E-01
399312	1/12/2016 - 1/19/2016	I-131	<1.85E-02	0.00E+00	1.85E-02
		Cs-134	<1.40E-02	0.00E+00	1.40E-02
		Cs-137	<1.30E-02	0.00E+00	1.30E-02
		Be-7	<9.86E-02	0.00E+00	9.86E-02
		K-40	4.15E-01	1.91E-01	1.98E-01
400052	1/19/2016 - 1/26/2016	I-131	<1.60E-02	0.00E+00	1.60E-02
		Cs-134	<1.15E-02	0.00E+00	1.15E-02
		Cs-137	<1.32E-02	0.00E+00	1.32E-02
		Be-7	<1.04E-01	0.00E+00	1.04E-01
		K-40	5.19E-01	1.88E-01	4.39E-02
400415	1/26/2016 - 2/2/2016	I-131	<1.85E-02	0.00E+00	1.85E-02
		Cs-134	<5.73E-03	0.00E+00	5.73E-03
		Cs-137	<1.61E-02	0.00E+00	1.61E-02
		Be-7	<9.46E-02	0.00E+00	9.46E-02
		K-40	<4.39E-01	0.00E+00	4.39E-01
401059	2/2/2016 - 2/9/2016	I-131	<9.13E-03	0.00E+00	9.13E-03
		Cs-134	<8.39E-03	0.00E+00	8.39E-03
		Cs-137	<6.19E-03	0.00E+00	6.19E-03
		Be-7	<6.24E-02	0.00E+00	6.24E-02
		K-40	5.14E-01	1.49E-01	2.63E-02
401407	2/9/2016 - 2/15/2016	I-131	<1.09E-02	0.00E+00	1.09E-02
		Cs-134	<6.29E-03	0.00E+00	6.29E-03
		Cs-137	<6.99E-03	0.00E+00	6.99E-03
		Be-7	<6.05E-02	0.00E+00	6.05E-02
		K-40	3.57E-01	1.42E-01	1.22E-01
401851	2/15/2016 - 2/23/2016	I-131	<7.72E-03	0.00E+00	7.72E-03
		Cs-134	<3.98E-03	0.00E+00	3.98E-03
		Cs-137	<5.72E-03	0.00E+00	5.72E-03
		Be-7	<4.19E-02	0.00E+00	4.19E-02
		K-40	3.23E-01	1.19E-01	9.47E-02
402373	2/23/2016 - 3/1/2016	I-131	<1.15E-02	0.00E+00	1.15E-02
		Cs-134	<7.07E-03	0.00E+00	7.07E-03
		Cs-137	<7.64E-03	0.00E+00	7.64E-03
		Be-7	<5.23E-02	0.00E+00	5.23E-02
		K-40	<2.90E-01	0.00E+00	2.90E-01
403099	3/1/2016 - 3/8/2016	I-131	<1.07E-02	0.00E+00	1.07E-02
		Cs-134	<8.47E-03	0.00E+00	8.47E-03
		Cs-137	<9.47E-03	0.00E+00	9.47E-03
		Be-7	<6.56E-02	0.00E+00	6.56E-02
		K-40	4.99E-01	1.54E-01	2.94E-02



ROBINSON Radiological Environmental Monitoring Analysis Report - 2016 (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
404592	3/8/2016 - 3/15/2016	I-131	<8.75E-03	0.00E+00	8.75E-03
		Cs-134	<8.38E-03	0.00E+00	8.38E-03
		Cs-137	<5.81E-03	0.00E+00	5.81E-03
		Be-7	<4.36E-02	0.00E+00	4.36E-02
		K-40	3.33E-01	1.34E-01	1.20E-01
405454	3/15/2016 - 3/22/2016	I-131	<1.44E-02	0.00E+00	1.44E-02
		Cs-134	<7.07E-03	0.00E+00	7.07E-03
		Cs-137	<5.41E-03	0.00E+00	5.41E-03
		Be-7	<5.75E-02	0.00E+00	5.75E-02
		K-40	3.81E-01	1.35E-01	1.05E-01
406086	3/22/2016 - 3/29/2016	I-131	<9.02E-03	0.00E+00	9.02E-03
		Cs-134	<5.92E-03	0.00E+00	5.92E-03
		Cs-137	<6.03E-03	0.00E+00	6.03E-03
		Be-7	<4.83E-02	0.00E+00	4.83E-02
		K-40	4.42E-01	1.52E-01	1.36E-01
406457	3/29/2016 - 4/5/2016	I-131	<1.20E-02	0.00E+00	1.20E-02
		Cs-134	<6.23E-03	0.00E+00	6.23E-03
		Cs-137	<5.07E-03	0.00E+00	5.07E-03
		Be-7	<5.69E-02	0.00E+00	5.69E-02
		K-40	3.57E-01	1.28E-01	9.63E-02
407623	4/5/2016 - 4/12/2016	I-131	<9.30E-03	0.00E+00	9.30E-03
		Cs-134	<5.74E-03	0.00E+00	5.74E-03
		Cs-137	<6.51E-03	0.00E+00	6.51E-03
		Be-7	<4.50E-02	0.00E+00	4.50E-02
		K-40	2.97E-01	1.42E-01	1.75E-01
408179	4/12/2016 - 4/19/2016	I-131	<1.29E-02	0.00E+00	1.29E-02
		Cs-134	<7.76E-03	0.00E+00	7.76E-03
		Cs-137	<6.51E-03	0.00E+00	6.51E-03
		Be-7	<6.25E-02	0.00E+00	6.25E-02
		K-40	3.75E-01	1.64E-01	1.98E-01
409502	4/19/2016 - 4/26/2016	I-131	<1.35E-02	0.00E+00	1.35E-02
		Cs-134	<5.38E-03	0.00E+00	5.38E-03
		Cs-137	<8.72E-03	0.00E+00	8.72E-03
		Be-7	<5.08E-02	0.00E+00	5.08E-02
		K-40	4.17E-01	1.45E-01	1.08E-01
409836	4/26/2016 - 5/4/2016	I-131	<7.96E-03	0.00E+00	7.96E-03
		Cs-134	<6.27E-03	0.00E+00	6.27E-03
		Cs-137	<6.63E-03	0.00E+00	6.63E-03
		Be-7	<3.33E-02	0.00E+00	3.33E-02
		K-40	3.63E-01	1.29E-01	1.02E-01
411012	5/4/2016 - 5/10/2016	I-131	<9.92E-03	0.00E+00	9.92E-03
		Cs-134	<7.22E-03	0.00E+00	7.22E-03
		Cs-137	<7.63E-03	0.00E+00	7.63E-03
		Be-7	<6.59E-02	0.00E+00	6.59E-02
		K-40	5.44E-01	1.62E-01	2.95E-02
411483	5/10/2016 - 5/17/2016	I-131	<1.40E-02	0.00E+00	1.40E-02
		Cs-134	<6.25E-03	0.00E+00	6.25E-03
		Cs-137	<8.71E-03	0.00E+00	8.71E-03
		Be-7	<5.98E-02	0.00E+00	5.98E-02
		K-40	4.52E-01	1.37E-01	2.55E-02



ROBINSON Radiological Environmental Monitoring Analysis Report - 2016 (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
411813	5/17/2016 - 5/25/2016	I-131	<6.95E-03	0.00E+00	6.95E-03
		Cs-134	<4.11E-03	0.00E+00	4.11E-03
		Cs-137	<8.73E-03	0.00E+00	8.73E-03
		Be-7	<4.28E-02	0.00E+00	4.28E-02
		K-40	3.70E-01	1.22E-01	2.51E-02
412275	5/25/2016 - 5/31/2016	I-131	<1.09E-02	0.00E+00	1.09E-02
		Cs-134	<6.19E-03	0.00E+00	6.19E-03
		Cs-137	<7.69E-03	0.00E+00	7.69E-03
		Be-7	<5.47E-02	0.00E+00	5.47E-02
		K-40	4.95E-01	1.54E-01	2.98E-02
412791	5/31/2016 - 6/7/2016	I-131	<8.59E-03	0.00E+00	8.59E-03
		Cs-134	<6.71E-03	0.00E+00	6.71E-03
		Cs-137	<7.11E-03	0.00E+00	7.11E-03
		Be-7	<6.32E-02	0.00E+00	6.32E-02
		K-40	4.20E-01	1.49E-01	1.33E-01
413409	6/7/2016 - 6/13/2016	I-131	<8.78E-03	0.00E+00	8.78E-03
		Cs-134	<1.00E-02	0.00E+00	1.00E-02
		Cs-137	<1.07E-02	0.00E+00	1.07E-02
		Be-7	<6.60E-02	0.00E+00	6.60E-02
		K-40	4.94E-01	1.60E-01	3.27E-02
413942	6/13/2016 - 6/21/2016	I-131	<5.41E-03	0.00E+00	5.41E-03
		Cs-134	<6.45E-03	0.00E+00	6.45E-03
		Cs-137	<6.82E-03	0.00E+00	6.82E-03
		Be-7	<4.88E-02	0.00E+00	4.88E-02
		K-40	3.83E-01	1.25E-01	2.59E-02
415082	6/21/2016 - 6/28/2016	I-131	<8.73E-03	0.00E+00	8.73E-03
		Cs-134	<8.32E-03	0.00E+00	8.32E-03
		Cs-137	<7.44E-03	0.00E+00	7.44E-03
		Be-7	<5.71E-02	0.00E+00	5.71E-02
		K-40	3.76E-01	1.29E-01	2.83E-02
415491	6/28/2016 - 7/5/2016	I-131	<1.30E-02	0.00E+00	1.30E-02
		Cs-134	<4.86E-03	0.00E+00	4.86E-03
		Cs-137	<9.72E-03	0.00E+00	9.72E-03
		Be-7	<5.51E-02	0.00E+00	5.51E-02
		K-40	3.44E-01	1.19E-01	2.59E-02
416461	7/5/2016 - 7/13/2016	I-131	<9.69E-03	0.00E+00	9.69E-03
		Cs-134	<5.40E-03	0.00E+00	5.40E-03
		Cs-137	<4.09E-03	0.00E+00	4.09E-03
		Be-7	<5.35E-02	0.00E+00	5.35E-02
		K-40	2.93E-01	1.25E-01	1.30E-01
417071	7/13/2016 - 7/19/2016	I-131	<8.44E-03	0.00E+00	8.44E-03
		Cs-134	<6.47E-03	0.00E+00	6.47E-03
		Cs-137	<9.78E-03	0.00E+00	9.78E-03
		Be-7	<6.81E-02	0.00E+00	6.81E-02
		K-40	2.67E-01	1.65E-01	2.25E-01
417464	7/19/2016 - 7/27/2016	I-131	<6.13E-03	0.00E+00	6.13E-03
		Cs-134	<6.58E-03	0.00E+00	6.58E-03
		Cs-137	<7.36E-03	0.00E+00	7.36E-03
		Be-7	<3.83E-02	0.00E+00	3.83E-02
		K-40	2.97E-01	1.31E-01	1.54E-01



ROBINSON Radiological Environmental Monitoring Analysis Report - 2016 (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
417855	7/27/2016 - 8/2/2016	I-131	<1.21E-02	0.00E+00	1.21E-02
		Cs-134	<9.63E-03	0.00E+00	9.63E-03
		Cs-137	<7.00E-03	0.00E+00	7.00E-03
		Be-7	<6.41E-02	0.00E+00	6.41E-02
		K-40	5.47E-01	1.73E-01	3.45E-02
418334	8/2/2016 - 8/9/2016	I-131	<1.15E-02	0.00E+00	1.15E-02
		Cs-134	<4.78E-03	0.00E+00	4.78E-03
		Cs-137	<8.25E-03	0.00E+00	8.25E-03
		Be-7	<4.06E-02	0.00E+00	4.06E-02
		K-40	3.86E-01	1.34E-01	1.04E-01
419049	8/9/2016 - 8/16/2016	I-131	<6.72E-03	0.00E+00	6.72E-03
		Cs-134	<5.53E-03	0.00E+00	5.53E-03
		Cs-137	<8.06E-03	0.00E+00	8.06E-03
		Be-7	<5.25E-02	0.00E+00	5.25E-02
		K-40	4.90E-01	1.46E-01	2.66E-02
419549	8/16/2016 - 8/23/2016	I-131	<9.15E-03	0.00E+00	9.15E-03
		Cs-134	<5.57E-03	0.00E+00	5.57E-03
		Cs-137	<7.56E-03	0.00E+00	7.56E-03
		Be-7	<7.02E-02	0.00E+00	7.02E-02
		K-40	4.40E-01	1.50E-01	1.24E-01
420076	8/23/2016 - 8/30/2016	I-131	<9.28E-03	0.00E+00	9.28E-03
		Cs-134	<6.60E-03	0.00E+00	6.60E-03
		Cs-137	<6.51E-03	0.00E+00	6.51E-03
		Be-7	<5.84E-02	0.00E+00	5.84E-02
		K-40	3.99E-01	1.27E-01	2.51E-02
420621	8/30/2016 - 9/6/2016	I-131	<1.14E-02	0.00E+00	1.14E-02
		Cs-134	<7.84E-03	0.00E+00	7.84E-03
		Cs-137	<6.61E-03	0.00E+00	6.61E-03
		Be-7	<5.97E-02	0.00E+00	5.97E-02
		K-40	4.10E-01	1.45E-01	1.17E-01
421492	9/6/2016 - 9/13/2016	I-131	<1.03E-02	0.00E+00	1.03E-02
		Cs-134	<6.67E-03	0.00E+00	6.67E-03
		Cs-137	<8.71E-03	0.00E+00	8.71E-03
		Be-7	<5.35E-02	0.00E+00	5.35E-02
		K-40	<2.49E-01	0.00E+00	2.49E-01
422626	9/13/2016 - 9/19/2016	I-131	<9.99E-03	0.00E+00	9.99E-03
		Cs-134	<9.15E-03	0.00E+00	9.15E-03
		Cs-137	<8.93E-03	0.00E+00	8.93E-03
		Be-7	<5.83E-02	0.00E+00	5.83E-02
		K-40	4.42E-01	1.61E-01	1.31E-01
423367	9/19/2016 - 9/26/2016	I-131	<9.44E-03	0.00E+00	9.44E-03
		Cs-134	<4.44E-03	0.00E+00	4.44E-03
		Cs-137	<7.14E-03	0.00E+00	7.14E-03
		Be-7	<6.48E-02	0.00E+00	6.48E-02
		K-40	3.93E-01	1.36E-01	9.36E-02
424516	9/26/2016 - 10/3/2016	I-131	<9.61E-03	0.00E+00	9.61E-03
		Cs-134	<7.82E-03	0.00E+00	7.82E-03
		Cs-137	<1.57E-03	0.00E+00	1.57E-03
		Be-7	<4.64E-02	0.00E+00	4.64E-02
		K-40	3.51E-01	1.32E-01	1.06E-01



ROBINSON Radiological Environmental Monitoring Analysis Report - 2016 (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
425507	10/3/2016 - 10/12/2016	I-131	<1.19E-02	0.00E+00	1.19E-02
		Cs-134	<5.99E-03	0.00E+00	5.99E-03
		Cs-137	<6.27E-03	0.00E+00	6.27E-03
		Be-7	<4.33E-02	0.00E+00	4.33E-02
		K-40	3.65E-01	1.11E-01	2.06E-02
426047	10/12/2016 - 10/18/2016	I-131	<1.36E-02	0.00E+00	1.36E-02
		Cs-134	<7.04E-03	0.00E+00	7.04E-03
		Cs-137	<1.05E-02	0.00E+00	1.05E-02
		Be-7	<6.84E-02	0.00E+00	6.84E-02
		K-40	3.77E-01	1.57E-01	1.62E-01
426414	10/18/2016 - 10/25/2016	I-131	<8.76E-03	0.00E+00	8.76E-03
		Cs-134	<4.41E-03	0.00E+00	4.41E-03
		Cs-137	<4.34E-03	0.00E+00	4.34E-03
		Be-7	<5.73E-02	0.00E+00	5.73E-02
		K-40	3.85E-01	1.30E-01	2.75E-02
427097	10/25/2016 - 11/1/2016	I-131	<6.14E-03	0.00E+00	6.14E-03
		Cs-134	<7.70E-03	0.00E+00	7.70E-03
		Cs-137	<6.18E-03	0.00E+00	6.18E-03
		Be-7	<5.62E-02	0.00E+00	5.62E-02
		K-40	3.12E-01	1.38E-01	1.54E-01
427766	11/1/2016 - 11/8/2016	I-131	<9.78E-03	0.00E+00	9.78E-03
		Cs-134	<6.08E-03	0.00E+00	6.08E-03
		Cs-137	<9.98E-03	0.00E+00	9.98E-03
		Be-7	<6.13E-02	0.00E+00	6.13E-02
		K-40	5.09E-01	1.62E-01	1.13E-01
428272	11/8/2016 - 11/15/2016	I-131	<1.11E-02	0.00E+00	1.11E-02
		Cs-134	<6.68E-03	0.00E+00	6.68E-03
		Cs-137	<4.32E-03	0.00E+00	4.32E-03
		Be-7	<4.63E-02	0.00E+00	4.63E-02
		K-40	3.42E-01	1.32E-01	1.12E-01
428942	11/15/2016 - 11/21/2016	I-131	<1.46E-02	0.00E+00	1.46E-02
		Cs-134	<8.73E-03	0.00E+00	8.73E-03
		Cs-137	<6.06E-03	0.00E+00	6.06E-03
		Be-7	<6.84E-02	0.00E+00	6.84E-02
		K-40	<3.98E-01	0.00E+00	3.98E-01
429443	11/21/2016 - 11/28/2016	I-131	<6.47E-03	0.00E+00	6.47E-03
		Cs-134	<8.19E-03	0.00E+00	8.19E-03
		Cs-137	<7.01E-03	0.00E+00	7.01E-03
		Be-7	<5.41E-02	0.00E+00	5.41E-02
		K-40	2.70E-01	1.40E-01	1.77E-01
430004	11/28/2016 - 12/7/2016	I-131	<6.82E-03	0.00E+00	6.82E-03
		Cs-134	<5.44E-03	0.00E+00	5.44E-03
		Cs-137	<6.18E-03	0.00E+00	6.18E-03
		Be-7	<4.04E-02	0.00E+00	4.04E-02
		K-40	2.36E-01	1.01E-01	8.82E-02
430636	12/7/2016 - 12/14/2016	I-131	<1.09E-02	0.00E+00	1.09E-02
		Cs-134	<9.24E-03	0.00E+00	9.24E-03
		Cs-137	<7.05E-03	0.00E+00	7.05E-03
		Be-7	<5.25E-02	0.00E+00	5.25E-02
		K-40	4.32E-01	1.38E-01	2.72E-02



ROBINSON Radiological Environmental Monitoring Analysis Report - 2016 (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
431112	12/14/2016 - 12/21/2016	I-131	<1.67E-02	0.00E+00	1.67E-02
		Cs-134	<9.89E-03	0.00E+00	9.89E-03
		Cs-137	<7.54E-03	0.00E+00	7.54E-03
		Be-7	<6.62E-02	0.00E+00	6.62E-02
		K-40	3.61E-01	1.51E-01	1.60E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
431511	12/21/2016 - 12/28/2016	I-131	<9.66E-03	0.00E+00	9.66E-03
		Cs-134	<7.57E-03	0.00E+00	7.57E-03
		Cs-137	<9.42E-03	0.00E+00	9.42E-03
		Be-7	<4.34E-02	0.00E+00	4.34E-02
		K-40	4.65E-01	1.69E-01	1.67E-01

Sample Point 4 [INDICATOR - ESE @ 0.4 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
398758	12/28/2015 - 1/5/2016	I-131	<1.26E-02	0.00E+00	1.26E-02
		Cs-134	<5.65E-03	0.00E+00	5.65E-03
		Cs-137	<8.00E-03	0.00E+00	8.00E-03
		Be-7	<5.55E-02	0.00E+00	5.55E-02
		K-40	3.85E-01	1.24E-01	2.48E-02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
399012	1/5/2016 - 1/12/2016	I-131	<6.50E-03	0.00E+00	6.50E-03
		Cs-134	<7.44E-03	0.00E+00	7.44E-03
		Cs-137	<6.99E-03	0.00E+00	6.99E-03
		Be-7	<6.08E-02	0.00E+00	6.08E-02
		K-40	3.28E-01	1.29E-01	1.13E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
399313	1/12/2016 - 1/19/2016	I-131	<1.67E-02	0.00E+00	1.67E-02
		Cs-134	<1.05E-02	0.00E+00	1.05E-02
		Cs-137	<1.41E-02	0.00E+00	1.41E-02
		Be-7	<8.55E-02	0.00E+00	8.55E-02
		K-40	4.17E-01	2.31E-01	2.98E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
400053	1/19/2016 - 1/26/2016	I-131	<1.54E-02	0.00E+00	1.54E-02
		Cs-134	<1.44E-02	0.00E+00	1.44E-02
		Cs-137	<2.89E-03	0.00E+00	2.89E-03
		Be-7	<9.86E-02	0.00E+00	9.86E-02
		K-40	6.27E-01	2.80E-01	3.45E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
400416	1/26/2016 - 2/2/2016	I-131	<1.55E-02	0.00E+00	1.55E-02
		Cs-134	<1.38E-02	0.00E+00	1.38E-02
		Cs-137	<1.51E-02	0.00E+00	1.51E-02
		Be-7	<1.06E-01	0.00E+00	1.06E-01
		K-40	4.91E-01	2.34E-01	2.73E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
401060	2/2/2016 - 2/9/2016	I-131	<7.88E-03	0.00E+00	7.88E-03
		Cs-134	<7.76E-03	0.00E+00	7.76E-03
		Cs-137	<7.57E-03	0.00E+00	7.57E-03
		Be-7	<4.99E-02	0.00E+00	4.99E-02
		K-40	2.51E-01	1.39E-01	1.83E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
401408	2/9/2016 - 2/15/2016	I-131	<1.05E-02	0.00E+00	1.05E-02
		Cs-134	<8.90E-03	0.00E+00	8.90E-03
		Cs-137	<7.96E-03	0.00E+00	7.96E-03
		Be-7	<4.71E-02	0.00E+00	4.71E-02
		K-40	5.10E-01	1.78E-01	1.64E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
401852	2/15/2016 - 2/23/2016	I-131	<8.40E-03	0.00E+00	8.40E-03
		Cs-134	<4.11E-03	0.00E+00	4.11E-03
		Cs-137	<5.92E-03	0.00E+00	5.92E-03



ROBINSON Radiological Environmental Monitoring Analysis Report - 2016 (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
401852	2/15/2016 - 2/23/2016	Be-7	<4.30E-02	0.00E+00	4.30E-02
		K-40	2.84E-01	1.41E-01	1.79E-01
402374	2/23/2016 - 3/1/2016	I-131	<1.20E-02	0.00E+00	1.20E-02
		Cs-134	<7.16E-03	0.00E+00	7.16E-03
		Cs-137	<7.87E-03	0.00E+00	7.87E-03
		Be-7	<6.43E-02	0.00E+00	6.43E-02
		K-40	2.89E-01	1.16E-01	9.54E-02
403100	3/1/2016 - 3/8/2016	I-131	<8.06E-03	0.00E+00	8.06E-03
		Cs-134	<5.91E-03	0.00E+00	5.91E-03
		Cs-137	<7.34E-03	0.00E+00	7.34E-03
		Be-7	<6.01E-02	0.00E+00	6.01E-02
		K-40	4.39E-01	1.41E-01	2.84E-02
404593	3/8/2016 - 3/15/2016	I-131	<8.17E-03	0.00E+00	8.17E-03
		Cs-134	<5.92E-03	0.00E+00	5.92E-03
		Cs-137	<9.76E-03	0.00E+00	9.76E-03
		Be-7	<5.20E-02	0.00E+00	5.20E-02
		K-40	3.09E-01	1.21E-01	9.74E-02
405455	3/15/2016 - 3/22/2016	I-131	<1.75E-02	0.00E+00	1.75E-02
		Cs-134	<4.42E-03	0.00E+00	4.42E-03
		Cs-137	<7.06E-03	0.00E+00	7.06E-03
		Be-7	<5.87E-02	0.00E+00	5.87E-02
		K-40	2.93E-01	1.12E-01	2.74E-02
406087	3/22/2016 - 3/29/2016	I-131	<9.46E-03	0.00E+00	9.46E-03
		Cs-134	<7.10E-03	0.00E+00	7.10E-03
		Cs-137	<7.69E-03	0.00E+00	7.69E-03
		Be-7	<3.57E-02	0.00E+00	3.57E-02
		K-40	2.22E-01	9.68E-02	2.74E-02
406458	3/29/2016 - 4/5/2016	I-131	<1.01E-02	0.00E+00	1.01E-02
		Cs-134	<8.70E-03	0.00E+00	8.70E-03
		Cs-137	<6.86E-03	0.00E+00	6.86E-03
		Be-7	<5.20E-02	0.00E+00	5.20E-02
		K-40	4.11E-01	1.32E-01	2.65E-02
407624	4/5/2016 - 4/12/2016	I-131	<1.22E-02	0.00E+00	1.22E-02
		Cs-134	<7.29E-03	0.00E+00	7.29E-03
		Cs-137	<7.44E-03	0.00E+00	7.44E-03
		Be-7	<5.15E-02	0.00E+00	5.15E-02
		K-40	2.56E-01	1.39E-01	1.81E-01
408180	4/12/2016 - 4/19/2016	I-131	<9.94E-03	0.00E+00	9.94E-03
		Cs-134	<6.90E-03	0.00E+00	6.90E-03
		Cs-137	<5.27E-03	0.00E+00	5.27E-03
		Be-7	<6.25E-02	0.00E+00	6.25E-02
		K-40	3.70E-01	1.24E-01	2.64E-02
409503	4/19/2016 - 4/26/2016	I-131	<1.37E-02	0.00E+00	1.37E-02
		Cs-134	<5.22E-03	0.00E+00	5.22E-03
		Cs-137	<4.42E-03	0.00E+00	4.42E-03
		Be-7	<5.77E-02	0.00E+00	5.77E-02
		K-40	3.32E-01	1.19E-01	2.73E-02
409837	4/26/2016 - 5/4/2016	I-131	<6.48E-03	0.00E+00	6.48E-03



ROBINSON Radiological Environmental Monitoring Analysis Report - 2016 (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
409837	4/26/2016 - 5/4/2016	Cs-134	<5.69E-03	0.00E+00	5.69E-03
		Cs-137	<6.01E-03	0.00E+00	6.01E-03
		Be-7	<3.93E-02	0.00E+00	3.93E-02
		K-40	2.43E-01	1.09E-01	1.15E-01
411013	5/4/2016 - 5/10/2016	I-131	<9.88E-03	0.00E+00	9.88E-03
		Cs-134	<8.48E-03	0.00E+00	8.48E-03
		Cs-137	<7.14E-03	0.00E+00	7.14E-03
		Be-7	<6.89E-02	0.00E+00	6.89E-02
		K-40	3.55E-01	1.63E-01	1.91E-01
411484	5/10/2016 - 5/17/2016	I-131	<1.40E-02	0.00E+00	1.40E-02
		Cs-134	<6.88E-03	0.00E+00	6.88E-03
		Cs-137	<7.42E-03	0.00E+00	7.42E-03
		Be-7	<4.21E-02	0.00E+00	4.21E-02
		K-40	5.04E-01	1.47E-01	2.63E-02
411814	5/17/2016 - 5/25/2016	I-131	<3.73E-03	0.00E+00	3.73E-03
		Cs-134	<5.40E-03	0.00E+00	5.40E-03
		Cs-137	<5.50E-03	0.00E+00	5.50E-03
		Be-7	<4.39E-02	0.00E+00	4.39E-02
		K-40	3.24E-01	1.10E-01	2.37E-02
412276	5/25/2016 - 5/31/2016	I-131	<1.51E-02	0.00E+00	1.51E-02
		Cs-134	<7.03E-03	0.00E+00	7.03E-03
		Cs-137	<1.05E-02	0.00E+00	1.05E-02
		Be-7	<7.21E-02	0.00E+00	7.21E-02
		K-40	4.43E-01	1.59E-01	1.30E-01
412792	5/31/2016 - 6/7/2016	I-131	<9.79E-03	0.00E+00	9.79E-03
		Cs-134	<6.42E-03	0.00E+00	6.42E-03
		Cs-137	<6.78E-03	0.00E+00	6.78E-03
		Be-7	<5.18E-02	0.00E+00	5.18E-02
		K-40	3.59E-01	1.31E-01	1.02E-01
413410	6/7/2016 - 6/13/2016	I-131	<7.51E-03	0.00E+00	7.51E-03
		Cs-134	<7.24E-03	0.00E+00	7.24E-03
		Cs-137	<6.38E-03	0.00E+00	6.38E-03
		Be-7	<5.86E-02	0.00E+00	5.86E-02
		K-40	4.14E-01	1.42E-01	3.12E-02
413943	6/13/2016 - 6/21/2016	I-131	<6.48E-03	0.00E+00	6.48E-03
		Cs-134	<5.61E-03	0.00E+00	5.61E-03
		Cs-137	<3.91E-03	0.00E+00	3.91E-03
		Be-7	<5.49E-02	0.00E+00	5.49E-02
		K-40	3.15E-01	1.16E-01	8.59E-02
415083	6/21/2016 - 6/28/2016	I-131	<7.32E-03	0.00E+00	7.32E-03
		Cs-134	<6.63E-03	0.00E+00	6.63E-03
		Cs-137	<5.90E-03	0.00E+00	5.90E-03
		Be-7	<3.87E-02	0.00E+00	3.87E-02
		K-40	3.08E-01	1.45E-01	1.79E-01
415492	6/28/2016 - 7/5/2016	I-131	<1.78E-02	0.00E+00	1.78E-02
		Cs-134	<5.74E-03	0.00E+00	5.74E-03
		Cs-137	<7.09E-03	0.00E+00	7.09E-03
		Be-7	<5.41E-02	0.00E+00	5.41E-02
		K-40	2.98E-01	1.31E-01	1.36E-01



ROBINSON Radiological Environmental Monitoring Analysis Report - 2016 (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
416462	7/5/2016 - 7/13/2016	I-131	<4.57E-03	0.00E+00	4.57E-03
		Cs-134	<7.24E-03	0.00E+00	7.24E-03
		Cs-137	<6.98E-03	0.00E+00	6.98E-03
		Be-7	<3.89E-02	0.00E+00	3.89E-02
		K-40	3.73E-01	1.17E-01	2.30E-02
417072	7/13/2016 - 7/19/2016	I-131	<1.18E-02	0.00E+00	1.18E-02
		Cs-134	<6.51E-03	0.00E+00	6.51E-03
		Cs-137	<7.24E-03	0.00E+00	7.24E-03
		Be-7	<4.72E-02	0.00E+00	4.72E-02
		K-40	4.95E-01	1.58E-01	3.12E-02
417465	7/19/2016 - 7/27/2016	I-131	<7.62E-03	0.00E+00	7.62E-03
		Cs-134	<4.29E-03	0.00E+00	4.29E-03
		Cs-137	<4.59E-03	0.00E+00	4.59E-03
		Be-7	<3.47E-02	0.00E+00	3.47E-02
		K-40	3.22E-01	1.23E-01	1.20E-01
417856	7/27/2016 - 8/2/2016	I-131	<1.04E-02	0.00E+00	1.04E-02
		Cs-134	<6.95E-03	0.00E+00	6.95E-03
		Cs-137	<6.11E-03	0.00E+00	6.11E-03
		Be-7	<6.47E-02	0.00E+00	6.47E-02
		K-40	5.30E-01	1.62E-01	3.05E-02
418335	8/2/2016 - 8/9/2016	I-131	<1.19E-02	0.00E+00	1.19E-02
		Cs-134	<8.70E-03	0.00E+00	8.70E-03
		Cs-137	<6.38E-03	0.00E+00	6.38E-03
		Be-7	<5.37E-02	0.00E+00	5.37E-02
		K-40	4.16E-01	1.35E-01	2.75E-02
419050	8/9/2016 - 8/16/2016	I-131	<8.86E-03	0.00E+00	8.86E-03
		Cs-134	<8.26E-03	0.00E+00	8.26E-03
		Cs-137	<7.71E-03	0.00E+00	7.71E-03
		Be-7	<5.44E-02	0.00E+00	5.44E-02
		K-40	4.07E-01	1.40E-01	9.74E-02
419550	8/16/2016 - 8/23/2016	I-131	<8.25E-03	0.00E+00	8.25E-03
		Cs-134	<7.74E-03	0.00E+00	7.74E-03
		Cs-137	<5.35E-03	0.00E+00	5.35E-03
		Be-7	<5.29E-02	0.00E+00	5.29E-02
		K-40	4.51E-01	1.58E-01	1.48E-01
420077	8/23/2016 - 8/30/2016	I-131	<1.64E-02	0.00E+00	1.64E-02
		Cs-134	<7.53E-03	0.00E+00	7.53E-03
		Cs-137	<6.70E-03	0.00E+00	6.70E-03
		Be-7	<4.81E-02	0.00E+00	4.81E-02
		K-40	4.36E-01	1.46E-01	1.20E-01
420622	8/30/2016 - 9/6/2016	I-131	<9.67E-03	0.00E+00	9.67E-03
		Cs-134	<9.15E-03	0.00E+00	9.15E-03
		Cs-137	<8.93E-03	0.00E+00	8.93E-03
		Be-7	<7.06E-02	0.00E+00	7.06E-02
		K-40	3.33E-01	1.27E-01	3.11E-02
421493	9/6/2016 - 9/13/2016	I-131	<1.23E-02	0.00E+00	1.23E-02
		Cs-134	<7.33E-03	0.00E+00	7.33E-03
		Cs-137	<7.49E-03	0.00E+00	7.49E-03
		Be-7	<5.92E-02	0.00E+00	5.92E-02
		K-40	3.27E-01	1.56E-01	1.96E-01



ROBINSON Radiological Environmental Monitoring Analysis Report - 2016 (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
422627	9/13/2016 - 9/19/2016	I-131	<8.05E-03	0.00E+00	8.05E-03
		Cs-134	<7.75E-03	0.00E+00	7.75E-03
		Cs-137	<8.94E-03	0.00E+00	8.94E-03
		Be-7	<1.21E-02	0.00E+00	1.21E-02
		K-40	4.67E-01	1.54E-01	3.17E-02
423368	9/19/2016 - 9/26/2016	I-131	<8.48E-03	0.00E+00	8.48E-03
		Cs-134	<6.90E-03	0.00E+00	6.90E-03
		Cs-137	<5.65E-03	0.00E+00	5.65E-03
		Be-7	<5.62E-02	0.00E+00	5.62E-02
		K-40	3.51E-01	1.30E-01	9.64E-02
424517	9/26/2016 - 10/3/2016	I-131	<6.53E-03	0.00E+00	6.53E-03
		Cs-134	<7.39E-03	0.00E+00	7.39E-03
		Cs-137	<4.78E-03	0.00E+00	4.78E-03
		Be-7	<4.61E-02	0.00E+00	4.61E-02
		K-40	3.49E-01	1.39E-01	1.23E-01
425508	10/3/2016 - 10/12/2016	I-131	<8.42E-03	0.00E+00	8.42E-03
		Cs-134	<6.08E-03	0.00E+00	6.08E-03
		Cs-137	<7.16E-03	0.00E+00	7.16E-03
		Be-7	<2.89E-02	0.00E+00	2.89E-02
		K-40	3.08E-01	1.09E-01	8.78E-02
426048	10/12/2016 - 10/18/2016	I-131	<1.61E-02	0.00E+00	1.61E-02
		Cs-134	<1.16E-02	0.00E+00	1.16E-02
		Cs-137	<5.24E-03	0.00E+00	5.24E-03
		Be-7	<6.40E-02	0.00E+00	6.40E-02
		K-40	5.00E-01	1.63E-01	3.31E-02
426415	10/18/2016 - 10/25/2016	I-131	<8.15E-03	0.00E+00	8.15E-03
		Cs-134	<6.51E-03	0.00E+00	6.51E-03
		Cs-137	<8.61E-03	0.00E+00	8.61E-03
		Be-7	<4.88E-02	0.00E+00	4.88E-02
		K-40	3.93E-01	1.38E-01	1.07E-01
427098	10/25/2016 - 11/1/2016	I-131	<1.06E-02	0.00E+00	1.06E-02
		Cs-134	<6.23E-03	0.00E+00	6.23E-03
		Cs-137	<8.85E-03	0.00E+00	8.85E-03
		Be-7	<6.72E-02	0.00E+00	6.72E-02
		K-40	2.49E-01	1.18E-01	1.21E-01
427767	11/1/2016 - 11/8/2016	I-131	<1.04E-02	0.00E+00	1.04E-02
		Cs-134	<7.08E-03	0.00E+00	7.08E-03
		Cs-137	<8.17E-03	0.00E+00	8.17E-03
		Be-7	<4.90E-02	0.00E+00	4.90E-02
		K-40	<2.79E-01	0.00E+00	2.79E-01
428273	11/8/2016 - 11/15/2016	I-131	<7.91E-03	0.00E+00	7.91E-03
		Cs-134	<7.50E-03	0.00E+00	7.50E-03
		Cs-137	<7.18E-03	0.00E+00	7.18E-03
		Be-7	<5.14E-02	0.00E+00	5.14E-02
		K-40	3.99E-01	1.43E-01	1.14E-01
428943	11/15/2016 - 11/21/2016	I-131	<2.09E-02	0.00E+00	2.09E-02
		Cs-134	<9.47E-03	0.00E+00	9.47E-03
		Cs-137	<1.17E-02	0.00E+00	1.17E-02
		Be-7	<8.09E-02	0.00E+00	8.09E-02
		K-40	5.49E-01	1.90E-01	1.49E-01



ROBINSON Radiological Environmental Monitoring Analysis Report - 2016 (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
429444	11/21/2016 - 11/28/2016	I-131	<1.04E-02	0.00E+00	1.04E-02
		Cs-134	<7.69E-03	0.00E+00	7.69E-03
		Cs-137	<8.47E-03	0.00E+00	8.47E-03
		Be-7	<6.28E-02	0.00E+00	6.28E-02
		K-40	3.57E-01	1.47E-01	1.54E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
430005	11/28/2016 - 12/7/2016	I-131	<1.05E-02	0.00E+00	1.05E-02
		Cs-134	<5.30E-03	0.00E+00	5.30E-03
		Cs-137	<6.11E-03	0.00E+00	6.11E-03
		Be-7	<4.60E-02	0.00E+00	4.60E-02
		K-40	2.71E-01	9.62E-02	2.16E-02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
430637	12/7/2016 - 12/14/2016	I-131	<1.40E-02	0.00E+00	1.40E-02
		Cs-134	<5.87E-03	0.00E+00	5.87E-03
		Cs-137	<6.28E-03	0.00E+00	6.28E-03
		Be-7	<4.26E-02	0.00E+00	4.26E-02
		K-40	3.93E-01	1.59E-01	1.62E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
431113	12/14/2016 - 12/21/2016	I-131	<1.25E-02	0.00E+00	1.25E-02
		Cs-134	<9.24E-03	0.00E+00	9.24E-03
		Cs-137	<6.52E-03	0.00E+00	6.52E-03
		Be-7	<6.83E-02	0.00E+00	6.83E-02
		K-40	3.88E-01	1.38E-01	9.61E-02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
431512	12/21/2016 - 12/28/2016	I-131	<9.28E-03	0.00E+00	9.28E-03
		Cs-134	<6.71E-03	0.00E+00	6.71E-03
		Cs-137	<7.74E-03	0.00E+00	7.74E-03
		Be-7	<6.08E-02	0.00E+00	6.08E-02
		K-40	3.75E-01	1.36E-01	1.06E-01

Sample Point 5 [INDICATOR - ENE @ 0.9 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
398759	12/28/2015 - 1/5/2016	I-131	<9.48E-03	0.00E+00	9.48E-03
		Cs-134	<5.59E-03	0.00E+00	5.59E-03
		Cs-137	<5.68E-03	0.00E+00	5.68E-03
		Be-7	<2.70E-02	0.00E+00	2.70E-02
		K-40	3.54E-01	1.34E-01	1.29E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
399013	1/5/2016 - 1/12/2016	I-131	<9.74E-03	0.00E+00	9.74E-03
		Cs-134	<6.01E-03	0.00E+00	6.01E-03
		Cs-137	<7.46E-03	0.00E+00	7.46E-03
		Be-7	<5.61E-02	0.00E+00	5.61E-02
		K-40	4.01E-01	1.30E-01	2.65E-02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
399314	1/12/2016 - 1/19/2016	I-131	<1.86E-02	0.00E+00	1.86E-02
		Cs-134	<1.40E-02	0.00E+00	1.40E-02
		Cs-137	<7.64E-03	0.00E+00	7.64E-03
		Be-7	<1.09E-01	0.00E+00	1.09E-01
		K-40	<4.20E-01	0.00E+00	4.20E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
400054	1/19/2016 - 1/26/2016	I-131	<1.43E-02	0.00E+00	1.43E-02
		Cs-134	<9.22E-03	0.00E+00	9.22E-03
		Cs-137	<7.79E-03	0.00E+00	7.79E-03
		Be-7	<7.46E-02	0.00E+00	7.46E-02
		K-40	5.81E-01	2.05E-01	4.63E-02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
400417	1/26/2016 - 2/2/2016	I-131	<1.75E-02	0.00E+00	1.75E-02
		Cs-134	<1.26E-02	0.00E+00	1.26E-02
		Cs-137	<1.12E-02	0.00E+00	1.12E-02



ROBINSON Radiological Environmental Monitoring Analysis Report - 2016 (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
400417	1/26/2016 - 2/2/2016	Be-7	<9.61E-02	0.00E+00	9.61E-02
		K-40	6.42E-01	2.27E-01	1.67E-01
401061	2/2/2016 - 2/9/2016	I-131	<8.78E-03	0.00E+00	8.78E-03
		Cs-134	<4.95E-03	0.00E+00	4.95E-03
		Cs-137	<6.86E-03	0.00E+00	6.86E-03
		Be-7	<4.03E-02	0.00E+00	4.03E-02
		K-40	3.93E-01	1.29E-01	2.66E-02
401409	2/9/2016 - 2/15/2016	I-131	<5.15E-03	0.00E+00	5.15E-03
		Cs-134	<8.92E-03	0.00E+00	8.92E-03
		Cs-137	<6.17E-03	0.00E+00	6.17E-03
		Be-7	<4.71E-02	0.00E+00	4.71E-02
		K-40	3.57E-01	1.57E-01	1.71E-01
401853	2/15/2016 - 2/23/2016	I-131	<7.67E-03	0.00E+00	7.67E-03
		Cs-134	<7.15E-03	0.00E+00	7.15E-03
		Cs-137	<6.41E-03	0.00E+00	6.41E-03
		Be-7	<3.86E-02	0.00E+00	3.86E-02
		K-40	3.96E-01	1.21E-01	2.28E-02
402375	2/23/2016 - 3/1/2016	I-131	<9.04E-03	0.00E+00	9.04E-03
		Cs-134	<7.15E-03	0.00E+00	7.15E-03
		Cs-137	<6.34E-03	0.00E+00	6.34E-03
		Be-7	<4.88E-02	0.00E+00	4.88E-02
		K-40	3.91E-01	1.36E-01	8.71E-02
403101	3/1/2016 - 3/8/2016	I-131	<7.68E-03	0.00E+00	7.68E-03
		Cs-134	<5.61E-03	0.00E+00	5.61E-03
		Cs-137	<8.70E-03	0.00E+00	8.70E-03
		Be-7	<4.98E-02	0.00E+00	4.98E-02
		K-40	3.25E-01	1.33E-01	1.29E-01
404594	3/8/2016 - 3/15/2016	I-131	<8.95E-03	0.00E+00	8.95E-03
		Cs-134	<6.58E-03	0.00E+00	6.58E-03
		Cs-137	<7.59E-03	0.00E+00	7.59E-03
		Be-7	<5.37E-02	0.00E+00	5.37E-02
		K-40	3.29E-01	1.18E-01	2.70E-02
405456	3/15/2016 - 3/22/2016	I-131	<1.73E-02	0.00E+00	1.73E-02
		Cs-134	<6.28E-03	0.00E+00	6.28E-03
		Cs-137	<9.10E-03	0.00E+00	9.10E-03
		Be-7	<4.91E-02	0.00E+00	4.91E-02
		K-40	4.04E-01	1.46E-01	1.12E-01
406088	3/22/2016 - 3/29/2016	I-131	<7.91E-03	0.00E+00	7.91E-03
		Cs-134	<5.96E-03	0.00E+00	5.96E-03
		Cs-137	<7.41E-03	0.00E+00	7.41E-03
		Be-7	<5.99E-02	0.00E+00	5.99E-02
		K-40	1.96E-01	1.22E-01	1.60E-01
406459	3/29/2016 - 4/5/2016	I-131	<1.42E-02	0.00E+00	1.42E-02
		Cs-134	<6.65E-03	0.00E+00	6.65E-03
		Cs-137	<8.22E-03	0.00E+00	8.22E-03
		Be-7	<6.41E-02	0.00E+00	6.41E-02
		K-40	3.63E-01	1.55E-01	1.79E-01
407625	4/5/2016 - 4/12/2016	I-131	<1.37E-02	0.00E+00	1.37E-02



ROBINSON Radiological Environmental Monitoring Analysis Report - 2016 (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
407625	4/5/2016 - 4/12/2016	Cs-134	<6.03E-03	0.00E+00	6.03E-03
		Cs-137	<9.87E-03	0.00E+00	9.87E-03
		Be-7	<6.39E-02	0.00E+00	6.39E-02
		K-40	2.90E-01	1.29E-01	1.31E-01
408181	4/12/2016 - 4/19/2016	I-131	<1.11E-02	0.00E+00	1.11E-02
		Cs-134	<5.73E-03	0.00E+00	5.73E-03
		Cs-137	<6.35E-03	0.00E+00	6.35E-03
		Be-7	<5.34E-02	0.00E+00	5.34E-02
		K-40	3.96E-01	1.41E-01	1.11E-01
409504	4/19/2016 - 4/26/2016	I-131	<1.46E-02	0.00E+00	1.46E-02
		Cs-134	<7.06E-03	0.00E+00	7.06E-03
		Cs-137	<8.00E-03	0.00E+00	8.00E-03
		Be-7	<3.36E-02	0.00E+00	3.36E-02
		K-40	4.26E-01	1.43E-01	3.04E-02
409838	4/26/2016 - 5/4/2016	I-131	<9.71E-03	0.00E+00	9.71E-03
		Cs-134	<7.18E-03	0.00E+00	7.18E-03
		Cs-137	<1.02E-02	0.00E+00	1.02E-02
		Be-7	<5.46E-02	0.00E+00	5.46E-02
		K-40	3.60E-01	1.21E-01	2.56E-02
411014	5/4/2016 - 5/10/2016	I-131	<6.28E-03	0.00E+00	6.28E-03
		Cs-134	<9.14E-03	0.00E+00	9.14E-03
		Cs-137	<7.71E-03	0.00E+00	7.71E-03
		Be-7	<4.96E-02	0.00E+00	4.96E-02
		K-40	3.92E-01	1.64E-01	1.69E-01
411485	5/10/2016 - 5/17/2016	I-131	<1.41E-02	0.00E+00	1.41E-02
		Cs-134	<6.40E-03	0.00E+00	6.40E-03
		Cs-137	<7.92E-03	0.00E+00	7.92E-03
		Be-7	<4.99E-02	0.00E+00	4.99E-02
		K-40	1.99E-01	1.19E-01	1.50E-01
411815	5/17/2016 - 5/25/2016	I-131	<9.26E-03	0.00E+00	9.26E-03
		Cs-134	<5.56E-03	0.00E+00	5.56E-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	3.54E-01	1.34E-01	1.33E-01
412277	5/25/2016 - 5/31/2016	I-131	<1.18E-02	0.00E+00	1.18E-02
		Cs-134	<1.01E-02	0.00E+00	1.01E-02
		Cs-137	<7.94E-03	0.00E+00	7.94E-03
		Be-7	<5.45E-02	0.00E+00	5.45E-02
		K-40	6.32E-01	1.88E-01	1.30E-01
412793	5/31/2016 - 6/7/2016	I-131	<9.84E-03	0.00E+00	9.84E-03
		Cs-134	<5.74E-03	0.00E+00	5.74E-03
		Cs-137	<6.38E-03	0.00E+00	6.38E-03
		Be-7	<4.18E-02	0.00E+00	4.18E-02
		K-40	4.57E-01	1.42E-01	2.75E-02
413411	6/7/2016 - 6/13/2016	I-131	<9.35E-03	0.00E+00	9.35E-03
		Cs-134	<9.22E-03	0.00E+00	9.22E-03
		Cs-137	<8.20E-03	0.00E+00	8.20E-03
		Be-7	<6.00E-02	0.00E+00	6.00E-02
		K-40	4.75E-01	1.61E-01	3.48E-02



ROBINSON Radiological Environmental Monitoring Analysis Report - 2016 (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
413944	6/13/2016 - 6/21/2016	I-131	<1.15E-02	0.00E+00	1.15E-02
		Cs-134	<7.48E-03	0.00E+00	7.48E-03
		Cs-137	<5.74E-03	0.00E+00	5.74E-03
		Be-7	<4.36E-02	0.00E+00	4.36E-02
		K-40	3.32E-01	1.44E-01	1.58E-01
415084	6/21/2016 - 6/28/2016	I-131	<9.24E-03	0.00E+00	9.24E-03
		Cs-134	<8.11E-03	0.00E+00	8.11E-03
		Cs-137	<7.92E-03	0.00E+00	7.92E-03
		Be-7	<3.68E-02	0.00E+00	3.68E-02
		K-40	2.44E-01	1.11E-01	9.74E-02
415493	6/28/2016 - 7/5/2016	I-131	<1.52E-02	0.00E+00	1.52E-02
		Cs-134	<6.71E-03	0.00E+00	6.71E-03
		Cs-137	<7.60E-03	0.00E+00	7.60E-03
		Be-7	<4.73E-02	0.00E+00	4.73E-02
		K-40	4.47E-01	1.44E-01	2.89E-02
416463	7/5/2016 - 7/13/2016	I-131	<7.33E-03	0.00E+00	7.33E-03
		Cs-134	<5.18E-03	0.00E+00	5.18E-03
		Cs-137	<8.49E-03	0.00E+00	8.49E-03
		Be-7	<4.57E-02	0.00E+00	4.57E-02
		K-40	3.68E-01	1.21E-01	2.49E-02
417073	7/13/2016 - 7/19/2016	I-131	<1.28E-02	0.00E+00	1.28E-02
		Cs-134	<9.94E-03	0.00E+00	9.94E-03
		Cs-137	<1.04E-02	0.00E+00	1.04E-02
		Be-7	<6.78E-02	0.00E+00	6.78E-02
		K-40	5.11E-01	1.78E-01	1.33E-01
417466	7/19/2016 - 7/27/2016	I-131	<8.65E-03	0.00E+00	8.65E-03
		Cs-134	<4.85E-03	0.00E+00	4.85E-03
		Cs-137	<9.76E-03	0.00E+00	9.76E-03
		Be-7	<4.71E-02	0.00E+00	4.71E-02
		K-40	2.91E-01	1.07E-01	2.55E-02
417857	7/27/2016 - 8/2/2016	I-131	<1.20E-02	0.00E+00	1.20E-02
		Cs-134	<9.43E-03	0.00E+00	9.43E-03
		Cs-137	<8.87E-03	0.00E+00	8.87E-03
		Be-7	<6.31E-02	0.00E+00	6.31E-02
		K-40	5.20E-01	1.69E-01	3.44E-02
418336	8/2/2016 - 8/9/2016	I-131	<1.32E-02	0.00E+00	1.32E-02
		Cs-134	<3.54E-03	0.00E+00	3.54E-03
		Cs-137	<5.52E-03	0.00E+00	5.52E-03
		Be-7	<4.40E-02	0.00E+00	4.40E-02
		K-40	5.42E-01	1.56E-01	2.77E-02
419051	8/9/2016 - 8/16/2016	I-131	<9.92E-03	0.00E+00	9.92E-03
		Cs-134	<8.49E-03	0.00E+00	8.49E-03
		Cs-137	<5.87E-03	0.00E+00	5.87E-03
		Be-7	<4.96E-02	0.00E+00	4.96E-02
		K-40	5.82E-01	1.81E-01	1.43E-01
419551	8/16/2016 - 8/23/2016	I-131	<6.20E-03	0.00E+00	6.20E-03
		Cs-134	<8.56E-03	0.00E+00	8.56E-03
		Cs-137	<9.68E-03	0.00E+00	9.68E-03
		Be-7	<4.75E-02	0.00E+00	4.75E-02
		K-40	4.13E-01	1.44E-01	1.03E-01



ROBINSON Radiological Environmental Monitoring Analysis Report - 2016 (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
420078	8/23/2016 - 8/30/2016	I-131	<1.83E-02	0.00E+00	1.83E-02
		Cs-134	<4.50E-03	0.00E+00	4.50E-03
		Cs-137	<5.55E-03	0.00E+00	5.55E-03
		Be-7	<6.04E-02	0.00E+00	6.04E-02
		K-40	4.21E-01	1.37E-01	2.78E-02
420623	8/30/2016 - 9/6/2016	I-131	<1.03E-02	0.00E+00	1.03E-02
		Cs-134	<5.08E-03	0.00E+00	5.08E-03
		Cs-137	<7.32E-03	0.00E+00	7.32E-03
		Be-7	<6.25E-02	0.00E+00	6.25E-02
		K-40	3.40E-01	1.46E-01	1.45E-01
421494	9/6/2016 - 9/13/2016	I-131	<1.37E-02	0.00E+00	1.37E-02
		Cs-134	<7.32E-03	0.00E+00	7.32E-03
		Cs-137	<5.60E-03	0.00E+00	5.60E-03
		Be-7	<5.88E-02	0.00E+00	5.88E-02
		K-40	4.04E-01	1.53E-01	1.47E-01
422628	9/13/2016 - 9/19/2016	I-131	<9.88E-03	0.00E+00	9.88E-03
		Cs-134	<6.96E-03	0.00E+00	6.96E-03
		Cs-137	<8.64E-03	0.00E+00	8.64E-03
		Be-7	<6.14E-02	0.00E+00	6.14E-02
		K-40	5.44E-01	1.82E-01	1.33E-01
423369	9/19/2016 - 9/26/2016	I-131	<1.20E-02	0.00E+00	1.20E-02
		Cs-134	<8.34E-03	0.00E+00	8.34E-03
		Cs-137	<9.21E-03	0.00E+00	9.21E-03
		Be-7	<5.12E-02	0.00E+00	5.12E-02
		K-40	6.08E-01	1.86E-01	1.47E-01
424518	9/26/2016 - 10/3/2016	I-131	<1.21E-02	0.00E+00	1.21E-02
		Cs-134	<9.31E-03	0.00E+00	9.31E-03
		Cs-137	<9.73E-03	0.00E+00	9.73E-03
		Be-7	<5.33E-02	0.00E+00	5.33E-02
		K-40	4.85E-01	1.49E-01	2.86E-02
425509	10/3/2016 - 10/12/2016	I-131	<1.46E-02	0.00E+00	1.46E-02
		Cs-134	<7.29E-03	0.00E+00	7.29E-03
		Cs-137	<9.02E-03	0.00E+00	9.02E-03
		Be-7	<7.17E-02	0.00E+00	7.17E-02
		K-40	2.97E-01	1.48E-01	1.85E-01
426049	10/12/2016 - 10/18/2016	I-131	<1.05E-02	0.00E+00	1.05E-02
		Cs-134	<8.22E-03	0.00E+00	8.22E-03
		Cs-137	<7.76E-03	0.00E+00	7.76E-03
		Be-7	<5.93E-02	0.00E+00	5.93E-02
		K-40	3.59E-01	1.65E-01	1.85E-01
426416	10/18/2016 - 10/25/2016	I-131	<9.54E-03	0.00E+00	9.54E-03
		Cs-134	<7.79E-03	0.00E+00	7.79E-03
		Cs-137	<8.99E-03	0.00E+00	8.99E-03
		Be-7	<6.65E-02	0.00E+00	6.65E-02
		K-40	4.16E-01	1.43E-01	3.13E-02
427099	10/25/2016 - 11/1/2016	I-131	<1.02E-02	0.00E+00	1.02E-02
		Cs-134	<7.42E-03	0.00E+00	7.42E-03
		Cs-137	<7.36E-03	0.00E+00	7.36E-03
		Be-7	<6.02E-02	0.00E+00	6.02E-02
		K-40	3.90E-01	1.33E-01	2.86E-02



ROBINSON Radiological Environmental Monitoring Analysis Report - 2016 (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
427768	11/1/2016 - 11/8/2016	I-131	<8.42E-03	0.00E+00	8.42E-03
		Cs-134	<8.38E-03	0.00E+00	8.38E-03
		Cs-137	<7.05E-03	0.00E+00	7.05E-03
		Be-7	<5.59E-02	0.00E+00	5.59E-02
		K-40	3.47E-01	1.35E-01	1.05E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
428274	11/8/2016 - 11/15/2016	I-131	<8.65E-03	0.00E+00	8.65E-03
		Cs-134	<9.03E-03	0.00E+00	9.03E-03
		Cs-137	<6.66E-03	0.00E+00	6.66E-03
		Be-7	<6.07E-02	0.00E+00	6.07E-02
		K-40	4.57E-01	1.55E-01	1.17E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
428944	11/15/2016 - 11/21/2016	I-131	<1.61E-02	0.00E+00	1.61E-02
		Cs-134	<9.91E-03	0.00E+00	9.91E-03
		Cs-137	<9.28E-03	0.00E+00	9.28E-03
		Be-7	<6.41E-02	0.00E+00	6.41E-02
		K-40	5.06E-01	1.93E-01	1.89E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
429445	11/21/2016 - 11/28/2016	I-131	<8.69E-03	0.00E+00	8.69E-03
		Cs-134	<8.71E-03	0.00E+00	8.71E-03
		Cs-137	<8.41E-03	0.00E+00	8.41E-03
		Be-7	<4.70E-02	0.00E+00	4.70E-02
		K-40	4.10E-01	1.35E-01	2.77E-02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
430006	11/28/2016 - 12/7/2016	I-131	<5.65E-03	0.00E+00	5.65E-03
		Cs-134	<5.24E-03	0.00E+00	5.24E-03
		Cs-137	<4.96E-03	0.00E+00	4.96E-03
		Be-7	<3.97E-02	0.00E+00	3.97E-02
		K-40	2.54E-01	9.26E-02	2.15E-02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
430638	12/7/2016 - 12/14/2016	I-131	<9.28E-03	0.00E+00	9.28E-03
		Cs-134	<6.72E-03	0.00E+00	6.72E-03
		Cs-137	<7.09E-03	0.00E+00	7.09E-03
		Be-7	<4.33E-02	0.00E+00	4.33E-02
		K-40	4.87E-01	1.47E-01	2.75E-02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
431114	12/14/2016 - 12/21/2016	I-131	<1.30E-02	0.00E+00	1.30E-02
		Cs-134	<7.54E-03	0.00E+00	7.54E-03
		Cs-137	<8.27E-03	0.00E+00	8.27E-03
		Be-7	<6.58E-02	0.00E+00	6.58E-02
		K-40	3.53E-01	1.23E-01	2.73E-02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
431513	12/21/2016 - 12/28/2016	I-131	<8.70E-03	0.00E+00	8.70E-03
		Cs-134	<7.46E-03	0.00E+00	7.46E-03
		Cs-137	<5.73E-03	0.00E+00	5.73E-03
		Be-7	<7.25E-02	0.00E+00	7.25E-02
		K-40	3.87E-01	1.40E-01	9.93E-02

Sample Point 6 [INDICATOR - SSW @ 0.2 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
398761	12/28/2015 - 1/5/2016	I-131	<8.50E-03	0.00E+00	8.50E-03
		Cs-134	<6.76E-03	0.00E+00	6.76E-03
		Cs-137	<6.90E-03	0.00E+00	6.90E-03
		Be-7	<4.40E-02	0.00E+00	4.40E-02
		K-40	3.32E-01	1.34E-01	1.40E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
399015	1/5/2016 - 1/12/2016	I-131	<8.80E-03	0.00E+00	8.80E-03
		Cs-134	<6.50E-03	0.00E+00	6.50E-03
		Cs-137	<8.68E-03	0.00E+00	8.68E-03



ROBINSON Radiological Environmental Monitoring Analysis Report - 2016 (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
399015	1/5/2016 - 1/12/2016	Be-7	<6.70E-02	0.00E+00	6.70E-02
		K-40	4.66E-01	1.45E-01	2.81E-02
399316	1/12/2016 - 1/19/2016	I-131	<1.86E-02	0.00E+00	1.86E-02
		Cs-134	<1.39E-02	0.00E+00	1.39E-02
		Cs-137	<1.63E-02	0.00E+00	1.63E-02
		Be-7	<8.93E-02	0.00E+00	8.93E-02
		K-40	5.59E-01	2.34E-01	2.51E-01
400056	1/19/2016 - 1/26/2016	I-131	<1.58E-02	0.00E+00	1.58E-02
		Cs-134	<1.32E-02	0.00E+00	1.32E-02
		Cs-137	<1.94E-02	0.00E+00	1.94E-02
		Be-7	<1.07E-01	0.00E+00	1.07E-01
		K-40	5.69E-01	2.28E-01	2.26E-01
400419	1/26/2016 - 2/2/2016	I-131	<1.68E-02	0.00E+00	1.68E-02
		Cs-134	<1.18E-02	0.00E+00	1.18E-02
		Cs-137	<1.81E-02	0.00E+00	1.81E-02
		Be-7	<1.08E-01	0.00E+00	1.08E-01
		K-40	4.66E-01	2.01E-01	1.90E-01
401063	2/2/2016 - 2/9/2016	I-131	<9.15E-03	0.00E+00	9.15E-03
		Cs-134	<9.52E-03	0.00E+00	9.52E-03
		Cs-137	<7.58E-03	0.00E+00	7.58E-03
		Be-7	<6.19E-02	0.00E+00	6.19E-02
		K-40	3.96E-01	1.26E-01	2.50E-02
401411	2/9/2016 - 2/15/2016	I-131	<8.97E-03	0.00E+00	8.97E-03
		Cs-134	<8.60E-03	0.00E+00	8.60E-03
		Cs-137	<1.82E-03	0.00E+00	1.82E-03
		Be-7	<4.07E-02	0.00E+00	4.07E-02
		K-40	<3.46E-01	0.00E+00	3.46E-01
401855	2/15/2016 - 2/23/2016	I-131	<8.22E-03	0.00E+00	8.22E-03
		Cs-134	<6.32E-03	0.00E+00	6.32E-03
		Cs-137	<7.84E-03	0.00E+00	7.84E-03
		Be-7	<6.47E-02	0.00E+00	6.47E-02
		K-40	3.77E-01	1.21E-01	2.43E-02
402377	2/23/2016 - 3/1/2016	I-131	<1.58E-02	0.00E+00	1.58E-02
		Cs-134	<6.82E-03	0.00E+00	6.82E-03
		Cs-137	<1.04E-02	0.00E+00	1.04E-02
		Be-7	<6.16E-02	0.00E+00	6.16E-02
		K-40	<2.93E-01	0.00E+00	2.93E-01
403103	3/1/2016 - 3/8/2016	I-131	<8.03E-03	0.00E+00	8.03E-03
		Cs-134	<9.11E-03	0.00E+00	9.11E-03
		Cs-137	<1.13E-02	0.00E+00	1.13E-02
		Be-7	<8.00E-02	0.00E+00	8.00E-02
		K-40	<3.18E-01	0.00E+00	3.18E-01
404596	3/8/2016 - 3/15/2016	I-131	<5.20E-03	0.00E+00	5.20E-03
		Cs-134	<6.71E-03	0.00E+00	6.71E-03
		Cs-137	<7.46E-03	0.00E+00	7.46E-03
		Be-7	<7.20E-02	0.00E+00	7.20E-02
		K-40	4.26E-01	1.53E-01	1.10E-01
405458	3/15/2016 - 3/22/2016	I-131	<1.52E-02	0.00E+00	1.52E-02



ROBINSON Radiological Environmental Monitoring Analysis Report - 2016 (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
405458	3/15/2016 - 3/22/2016	Cs-134	<7.55E-03	0.00E+00	7.55E-03
		Cs-137	<5.76E-03	0.00E+00	5.76E-03
		Be-7	<5.79E-02	0.00E+00	5.79E-02
		K-40	3.65E-01	1.55E-01	1.70E-01
406090	3/22/2016 - 3/29/2016	I-131	<8.93E-03	0.00E+00	8.93E-03
		Cs-134	<7.06E-03	0.00E+00	7.06E-03
		Cs-137	<7.47E-03	0.00E+00	7.47E-03
		Be-7	<7.10E-02	0.00E+00	7.10E-02
		K-40	3.61E-01	1.53E-01	1.65E-01
406461	3/29/2016 - 4/5/2016	I-131	<1.47E-02	0.00E+00	1.47E-02
		Cs-134	<6.62E-03	0.00E+00	6.62E-03
		Cs-137	<8.19E-03	0.00E+00	8.19E-03
		Be-7	<5.64E-02	0.00E+00	5.64E-02
		K-40	3.21E-01	1.25E-01	3.11E-02
407627	4/5/2016 - 4/12/2016	I-131	<1.00E-02	0.00E+00	1.00E-02
		Cs-134	<5.00E-03	0.00E+00	5.00E-03
		Cs-137	<9.41E-03	0.00E+00	9.41E-03
		Be-7	<7.25E-02	0.00E+00	7.25E-02
		K-40	4.12E-01	1.64E-01	1.69E-01
408183	4/12/2016 - 4/19/2016	I-131	<1.27E-02	0.00E+00	1.27E-02
		Cs-134	<6.57E-03	0.00E+00	6.57E-03
		Cs-137	<8.87E-03	0.00E+00	8.87E-03
		Be-7	<4.32E-02	0.00E+00	4.32E-02
		K-40	4.14E-01	1.50E-01	1.09E-01
409506	4/19/2016 - 4/26/2016	I-131	<1.42E-02	0.00E+00	1.42E-02
		Cs-134	<8.44E-03	0.00E+00	8.44E-03
		Cs-137	<4.61E-03	0.00E+00	4.61E-03
		Be-7	<5.67E-02	0.00E+00	5.67E-02
		K-40	4.10E-01	1.47E-01	1.16E-01
409840	4/26/2016 - 5/4/2016	I-131	<1.35E-02	0.00E+00	1.35E-02
		Cs-134	<8.54E-03	0.00E+00	8.54E-03
		Cs-137	<8.56E-03	0.00E+00	8.56E-03
		Be-7	<6.56E-02	0.00E+00	6.56E-02
		K-40	3.28E-01	1.29E-01	1.09E-01
411016	5/4/2016 - 5/10/2016	I-131	<1.38E-02	0.00E+00	1.38E-02
		Cs-134	<7.61E-03	0.00E+00	7.61E-03
		Cs-137	<1.14E-02	0.00E+00	1.14E-02
		Be-7	<6.94E-02	0.00E+00	6.94E-02
		K-40	3.37E-01	1.55E-01	1.65E-01
411487	5/10/2016 - 5/17/2016	I-131	<1.14E-02	0.00E+00	1.14E-02
		Cs-134	<5.92E-03	0.00E+00	5.92E-03
		Cs-137	<8.00E-03	0.00E+00	8.00E-03
		Be-7	<5.51E-02	0.00E+00	5.51E-02
		K-40	4.16E-01	1.49E-01	1.24E-01
411817	5/17/2016 - 5/25/2016	I-131	<6.56E-03	0.00E+00	6.56E-03
		Cs-134	<7.75E-03	0.00E+00	7.75E-03
		Cs-137	<7.79E-03	0.00E+00	7.79E-03
		Be-7	<4.33E-02	0.00E+00	4.33E-02
		K-40	2.95E-01	1.09E-01	2.58E-02



ROBINSON Radiological Environmental Monitoring Analysis Report - 2016 (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
412279	5/25/2016 - 5/31/2016	I-131	<1.43E-02	0.00E+00	1.43E-02
		Cs-134	<9.87E-03	0.00E+00	9.87E-03
		Cs-137	<2.20E-03	0.00E+00	2.20E-03
		Be-7	<7.83E-02	0.00E+00	7.83E-02
		K-40	4.56E-01	1.74E-01	1.37E-01
412795	5/31/2016 - 6/7/2016	I-131	<8.24E-03	0.00E+00	8.24E-03
		Cs-134	<5.59E-03	0.00E+00	5.59E-03
		Cs-137	<7.76E-03	0.00E+00	7.76E-03
		Be-7	<6.96E-02	0.00E+00	6.96E-02
		K-40	4.06E-01	1.53E-01	1.43E-01
413413	6/7/2016 - 6/13/2016	I-131	<1.59E-02	0.00E+00	1.59E-02
		Cs-134	<8.63E-03	0.00E+00	8.63E-03
		Cs-137	<1.23E-02	0.00E+00	1.23E-02
		Be-7	<4.98E-02	0.00E+00	4.98E-02
		K-40	5.78E-01	1.97E-01	1.50E-01
413946	6/13/2016 - 6/21/2016	I-131	<9.21E-03	0.00E+00	9.21E-03
		Cs-134	<7.16E-03	0.00E+00	7.16E-03
		Cs-137	<8.88E-03	0.00E+00	8.88E-03
		Be-7	<4.97E-02	0.00E+00	4.97E-02
		K-40	3.29E-01	1.21E-01	2.88E-02
415086	6/21/2016 - 6/28/2016	I-131	<8.03E-03	0.00E+00	8.03E-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	<5.26E-02	0.00E+00	5.26E-02
		K-40	5.09E-01	1.68E-01	1.25E-01
415495	6/28/2016 - 7/5/2016	I-131	<1.45E-02	0.00E+00	1.45E-02
		Cs-134	<1.06E-02	0.00E+00	1.06E-02
		Cs-137	<1.02E-02	0.00E+00	1.02E-02
		Be-7	<6.06E-02	0.00E+00	6.06E-02
		K-40	4.89E-01	1.60E-01	3.31E-02
416465	7/5/2016 - 7/13/2016	I-131	<1.14E-02	0.00E+00	1.14E-02
		Cs-134	<6.38E-03	0.00E+00	6.38E-03
		Cs-137	<6.51E-03	0.00E+00	6.51E-03
		Be-7	<4.22E-02	0.00E+00	4.22E-02
		K-40	3.95E-01	1.59E-01	1.74E-01
417075	7/13/2016 - 7/19/2016	I-131	<1.09E-02	0.00E+00	1.09E-02
		Cs-134	<1.05E-02	0.00E+00	1.05E-02
		Cs-137	<1.16E-02	0.00E+00	1.16E-02
		Be-7	<9.27E-02	0.00E+00	9.27E-02
		K-40	5.13E-01	1.75E-01	3.76E-02
417468	7/19/2016 - 7/27/2016	I-131	<6.13E-03	0.00E+00	6.13E-03
		Cs-134	<7.70E-03	0.00E+00	7.70E-03
		Cs-137	<8.50E-03	0.00E+00	8.50E-03
		Be-7	<5.85E-02	0.00E+00	5.85E-02
		K-40	5.24E-01	1.71E-01	1.52E-01
417859	7/27/2016 - 8/2/2016	I-131	<1.05E-02	0.00E+00	1.05E-02
		Cs-134	<7.97E-03	0.00E+00	7.97E-03
		Cs-137	<1.31E-02	0.00E+00	1.31E-02
		Be-7	<7.01E-02	0.00E+00	7.01E-02
		K-40	5.13E-01	1.75E-01	3.76E-02



ROBINSON Radiological Environmental Monitoring Analysis Report - 2016 (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
418338	8/2/2016 - 8/9/2016	I-131	<1.71E-02	0.00E+00	1.71E-02
		Cs-134	<6.59E-03	0.00E+00	6.59E-03
		Cs-137	<1.08E-02	0.00E+00	1.08E-02
		Be-7	<5.58E-02	0.00E+00	5.58E-02
		K-40	3.43E-01	1.51E-01	1.62E-01
419053	8/9/2016 - 8/16/2016	I-131	<1.11E-02	0.00E+00	1.11E-02
		Cs-134	<9.18E-03	0.00E+00	9.18E-03
		Cs-137	<8.64E-03	0.00E+00	8.64E-03
		Be-7	<6.12E-02	0.00E+00	6.12E-02
		K-40	4.97E-01	1.72E-01	1.30E-01
419553	8/16/2016 - 8/23/2016	I-131	<1.10E-02	0.00E+00	1.10E-02
		Cs-134	<7.44E-03	0.00E+00	7.44E-03
		Cs-137	<8.60E-03	0.00E+00	8.60E-03
		Be-7	<5.93E-02	0.00E+00	5.93E-02
		K-40	4.18E-01	1.40E-01	2.98E-02
420080	8/23/2016 - 8/30/2016	I-131	<1.93E-02	0.00E+00	1.93E-02
		Cs-134	<9.09E-03	0.00E+00	9.09E-03
		Cs-137	<7.25E-03	0.00E+00	7.25E-03
		Be-7	<5.76E-02	0.00E+00	5.76E-02
		K-40	3.93E-01	1.63E-01	1.75E-01
420625	8/30/2016 - 9/6/2016	I-131	<7.71E-03	0.00E+00	7.71E-03
		Cs-134	<8.16E-03	0.00E+00	8.16E-03
		Cs-137	<9.41E-03	0.00E+00	9.41E-03
		Be-7	<5.62E-02	0.00E+00	5.62E-02
		K-40	4.03E-01	1.53E-01	1.19E-01
421496	9/6/2016 - 9/13/2016	I-131	<2.02E-02	0.00E+00	2.02E-02
		Cs-134	<8.85E-03	0.00E+00	8.85E-03
		Cs-137	<1.04E-02	0.00E+00	1.04E-02
		Be-7	<7.52E-02	0.00E+00	7.52E-02
		K-40	3.21E-01	1.32E-01	1.00E-01
422630	9/13/2016 - 9/19/2016	I-131	<1.18E-02	0.00E+00	1.18E-02
		Cs-134	<8.61E-03	0.00E+00	8.61E-03
		Cs-137	<1.23E-02	0.00E+00	1.23E-02
		Be-7	<7.94E-02	0.00E+00	7.94E-02
		K-40	5.91E-01	1.88E-01	3.72E-02
423371	9/19/2016 - 9/26/2016	I-131	<9.61E-03	0.00E+00	9.61E-03
		Cs-134	<8.99E-03	0.00E+00	8.99E-03
		Cs-137	<8.67E-03	0.00E+00	8.67E-03
		Be-7	<4.36E-02	0.00E+00	4.36E-02
		K-40	2.81E-01	1.47E-01	1.87E-01
424520	9/26/2016 - 10/3/2016	I-131	<9.05E-03	0.00E+00	9.05E-03
		Cs-134	<7.92E-03	0.00E+00	7.92E-03
		Cs-137	<6.47E-03	0.00E+00	6.47E-03
		Be-7	<6.02E-02	0.00E+00	6.02E-02
		K-40	3.11E-01	1.68E-01	2.19E-01
425511	10/3/2016 - 10/12/2016	I-131	<1.11E-02	0.00E+00	1.11E-02
		Cs-134	<5.67E-03	0.00E+00	5.67E-03
		Cs-137	<5.03E-03	0.00E+00	5.03E-03
		Be-7	<4.55E-02	0.00E+00	4.55E-02
		K-40	2.56E-01	9.34E-02	2.17E-02



ROBINSON Radiological Environmental Monitoring Analysis Report - 2016 (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
426051	10/12/2016 - 10/18/2016	I-131	<1.83E-02	0.00E+00	1.83E-02
		Cs-134	<8.81E-03	0.00E+00	8.81E-03
		Cs-137	<1.39E-02	0.00E+00	1.39E-02
		Be-7	<8.97E-02	0.00E+00	8.97E-02
		K-40	6.54E-01	2.15E-01	1.68E-01
426418	10/18/2016 - 10/25/2016	I-131	<1.02E-02	0.00E+00	1.02E-02
		Cs-134	<7.03E-03	0.00E+00	7.03E-03
		Cs-137	<8.74E-03	0.00E+00	8.74E-03
		Be-7	<5.16E-02	0.00E+00	5.16E-02
		K-40	3.06E-01	1.30E-01	1.14E-01
427101	10/25/2016 - 11/1/2016	I-131	<7.25E-03	0.00E+00	7.25E-03
		Cs-134	<6.03E-03	0.00E+00	6.03E-03
		Cs-137	<1.16E-02	0.00E+00	1.16E-02
		Be-7	<6.36E-02	0.00E+00	6.36E-02
		K-40	5.01E-01	1.71E-01	1.34E-01
427770	11/1/2016 - 11/8/2016	I-131	<1.16E-02	0.00E+00	1.16E-02
		Cs-134	<9.03E-03	0.00E+00	9.03E-03
		Cs-137	<9.26E-03	0.00E+00	9.26E-03
		Be-7	<3.39E-02	0.00E+00	3.39E-02
		K-40	2.59E-01	1.21E-01	1.02E-01
428276	11/8/2016 - 11/15/2016	I-131	<9.42E-03	0.00E+00	9.42E-03
		Cs-134	<6.56E-03	0.00E+00	6.56E-03
		Cs-137	<1.08E-02	0.00E+00	1.08E-02
		Be-7	<4.74E-02	0.00E+00	4.74E-02
		K-40	5.30E-01	1.69E-01	1.06E-01
428946	11/15/2016 - 11/21/2016	I-131	<1.52E-02	0.00E+00	1.52E-02
		Cs-134	<7.53E-03	0.00E+00	7.53E-03
		Cs-137	<1.00E-02	0.00E+00	1.00E-02
		Be-7	<8.98E-02	0.00E+00	8.98E-02
		K-40	4.67E-01	1.75E-01	1.63E-01
429447	11/21/2016 - 11/28/2016	I-131	<9.53E-03	0.00E+00	9.53E-03
		Cs-134	<6.97E-03	0.00E+00	6.97E-03
		Cs-137	<8.04E-03	0.00E+00	8.04E-03
		Be-7	<4.33E-02	0.00E+00	4.33E-02
		K-40	5.16E-01	1.55E-01	2.85E-02
430008	11/28/2016 - 12/7/2016	I-131	<9.96E-03	0.00E+00	9.96E-03
		Cs-134	<5.55E-03	0.00E+00	5.55E-03
		Cs-137	<7.41E-03	0.00E+00	7.41E-03
		Be-7	<5.14E-02	0.00E+00	5.14E-02
		K-40	2.92E-01	1.36E-01	1.67E-01
430640	12/7/2016 - 12/14/2016	I-131	<1.14E-02	0.00E+00	1.14E-02
		Cs-134	<4.56E-03	0.00E+00	4.56E-03
		Cs-137	<8.57E-03	0.00E+00	8.57E-03
		Be-7	<6.58E-02	0.00E+00	6.58E-02
		K-40	4.59E-01	1.45E-01	2.83E-02
431116	12/14/2016 - 12/21/2016	I-131	<1.70E-02	0.00E+00	1.70E-02
		Cs-134	<1.06E-02	0.00E+00	1.06E-02
		Cs-137	<7.23E-03	0.00E+00	7.23E-03
		Be-7	<8.24E-02	0.00E+00	8.24E-02
		K-40	2.84E-01	1.52E-01	1.92E-01

ROBINSON Radiological Environmental Monitoring Analysis Report - 2016 (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
431515	12/21/2016 - 12/28/2016	I-131	<1.05E-02	0.00E+00	1.05E-02
		Cs-134	<7.18E-03	0.00E+00	7.18E-03
		Cs-137	<8.17E-03	0.00E+00	8.17E-03
		Be-7	<6.18E-02	0.00E+00	6.18E-02
		K-40	4.66E-01	1.74E-01	1.71E-01

Sample Point 7 [INDICATOR - ESE @ 6.4 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
398764	12/28/2015 - 1/5/2016	I-131	<1.13E-02	0.00E+00	1.13E-02
		Cs-134	<6.08E-03	0.00E+00	6.08E-03
		Cs-137	<6.40E-03	0.00E+00	6.40E-03
		Be-7	<4.45E-02	0.00E+00	4.45E-02
		K-40	4.22E-01	1.30E-01	2.48E-02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
399018	1/5/2016 - 1/12/2016	I-131	<8.27E-03	0.00E+00	8.27E-03
		Cs-134	<7.87E-03	0.00E+00	7.87E-03
		Cs-137	<8.27E-03	0.00E+00	8.27E-03
		Be-7	<6.05E-02	0.00E+00	6.05E-02
		K-40	3.66E-01	1.25E-01	2.68E-02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
399319	1/12/2016 - 1/19/2016	I-131	<2.13E-02	0.00E+00	2.13E-02
		Cs-134	<1.29E-02	0.00E+00	1.29E-02
		Cs-137	<1.60E-02	0.00E+00	1.60E-02
		Be-7	<1.17E-01	0.00E+00	1.17E-01
		K-40	5.38E-01	2.10E-01	1.65E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
400059	1/19/2016 - 1/26/2016	I-131	<2.00E-02	0.00E+00	2.00E-02
		Cs-134	<1.69E-02	0.00E+00	1.69E-02
		Cs-137	<1.57E-02	0.00E+00	1.57E-02
		Be-7	<7.30E-02	0.00E+00	7.30E-02
		K-40	7.56E-01	2.50E-01	5.25E-02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
400422	1/26/2016 - 2/2/2016	I-131	<1.39E-02	0.00E+00	1.39E-02
		Cs-134	<1.37E-02	0.00E+00	1.37E-02
		Cs-137	<1.57E-02	0.00E+00	1.57E-02
		Be-7	<1.25E-01	0.00E+00	1.25E-01
		K-40	4.47E-01	2.36E-01	2.83E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
401066	2/2/2016 - 2/9/2016	I-131	<1.64E-02	0.00E+00	1.64E-02
		Cs-134	<8.14E-03	0.00E+00	8.14E-03
		Cs-137	<8.06E-03	0.00E+00	8.06E-03
		Be-7	<5.54E-02	0.00E+00	5.54E-02
		K-40	5.80E-01	1.79E-01	1.16E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
401414	2/9/2016 - 2/15/2016	I-131	<1.19E-02	0.00E+00	1.19E-02
		Cs-134	<7.15E-03	0.00E+00	7.15E-03
		Cs-137	<8.88E-03	0.00E+00	8.88E-03
		Be-7	<7.05E-02	0.00E+00	7.05E-02
		K-40	3.17E-01	1.74E-01	2.18E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
401858	2/15/2016 - 2/23/2016	I-131	<1.18E-02	0.00E+00	1.18E-02
		Cs-134	<5.49E-03	0.00E+00	5.49E-03
		Cs-137	<7.62E-03	0.00E+00	7.62E-03
		Be-7	<6.56E-02	0.00E+00	6.56E-02
		K-40	3.59E-01	1.54E-01	1.71E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
402380	2/23/2016 - 3/1/2016	I-131	<1.48E-02	0.00E+00	1.48E-02
		Cs-134	<6.18E-03	0.00E+00	6.18E-03
		Cs-137	<1.92E-03	0.00E+00	1.92E-03



ROBINSON Radiological Environmental Monitoring Analysis Report - 2016 (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
402380	2/23/2016 - 3/1/2016	Be-7	<7.69E-02	0.00E+00	7.69E-02
		K-40	4.03E-01	1.67E-01	1.77E-01
403106	3/1/2016 - 3/8/2016	I-131	<5.80E-03	0.00E+00	5.80E-03
		Cs-134	<9.39E-03	0.00E+00	9.39E-03
		Cs-137	<6.93E-03	0.00E+00	6.93E-03
		Be-7	<3.86E-02	0.00E+00	3.86E-02
		K-40	5.39E-01	1.59E-01	2.92E-02
404599	3/8/2016 - 3/15/2016	I-131	<1.25E-02	0.00E+00	1.25E-02
		Cs-134	<7.73E-03	0.00E+00	7.73E-03
		Cs-137	<1.73E-03	0.00E+00	1.73E-03
		Be-7	<5.86E-02	0.00E+00	5.86E-02
		K-40	3.31E-01	1.34E-01	1.21E-01
405461	3/15/2016 - 3/22/2016	I-131	<1.28E-02	0.00E+00	1.28E-02
		Cs-134	<7.97E-03	0.00E+00	7.97E-03
		Cs-137	<8.75E-03	0.00E+00	8.75E-03
		Be-7	<5.77E-02	0.00E+00	5.77E-02
		K-40	4.59E-01	1.46E-01	2.89E-02
406093	3/22/2016 - 3/29/2016	I-131	<8.56E-03	0.00E+00	8.56E-03
		Cs-134	<5.37E-03	0.00E+00	5.37E-03
		Cs-137	<9.41E-03	0.00E+00	9.41E-03
		Be-7	<5.62E-02	0.00E+00	5.62E-02
		K-40	4.03E-01	1.74E-01	1.94E-01
406464	3/29/2016 - 4/5/2016	I-131	<1.11E-02	0.00E+00	1.11E-02
		Cs-134	<7.47E-03	0.00E+00	7.47E-03
		Cs-137	<7.07E-03	0.00E+00	7.07E-03
		Be-7	<8.14E-02	0.00E+00	8.14E-02
		K-40	3.00E-01	1.27E-01	1.11E-01
407630	4/5/2016 - 4/12/2016	I-131	<1.30E-02	0.00E+00	1.30E-02
		Cs-134	<6.10E-03	0.00E+00	6.10E-03
		Cs-137	<6.77E-03	0.00E+00	6.77E-03
		Be-7	<3.15E-02	0.00E+00	3.15E-02
		K-40	3.33E-01	1.28E-01	9.61E-02
408186	4/12/2016 - 4/19/2016	I-131	<1.19E-02	0.00E+00	1.19E-02
		Cs-134	<6.71E-03	0.00E+00	6.71E-03
		Cs-137	<8.92E-03	0.00E+00	8.92E-03
		Be-7	<4.70E-02	0.00E+00	4.70E-02
		K-40	5.12E-01	1.56E-01	2.95E-02
409509	4/19/2016 - 4/26/2016	I-131	<1.39E-02	0.00E+00	1.39E-02
		Cs-134	<6.92E-03	0.00E+00	6.92E-03
		Cs-137	<1.07E-02	0.00E+00	1.07E-02
		Be-7	<6.41E-02	0.00E+00	6.41E-02
		K-40	4.57E-01	1.64E-01	1.29E-01
409843	4/26/2016 - 5/4/2016	I-131	<1.21E-02	0.00E+00	1.21E-02
		Cs-134	<6.81E-03	0.00E+00	6.81E-03
		Cs-137	<7.36E-03	0.00E+00	7.36E-03
		Be-7	<5.05E-02	0.00E+00	5.05E-02
		K-40	4.13E-01	1.32E-01	2.60E-02
411019	5/4/2016 - 5/10/2016	I-131	<1.09E-02	0.00E+00	1.09E-02



ROBINSON Radiological Environmental Monitoring Analysis Report - 2016 (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
411019	5/4/2016 - 5/10/2016	Cs-134	<1.02E-02	0.00E+00	1.02E-02
		Cs-137	<9.15E-03	0.00E+00	9.15E-03
		Be-7	<6.92E-02	0.00E+00	6.92E-02
		K-40	3.06E-01	1.28E-01	3.46E-02
411490	5/10/2016 - 5/17/2016	I-131	<1.33E-02	0.00E+00	1.33E-02
		Cs-134	<6.31E-03	0.00E+00	6.31E-03
		Cs-137	<6.04E-03	0.00E+00	6.04E-03
		Be-7	<5.80E-02	0.00E+00	5.80E-02
		K-40	4.91E-01	1.52E-01	2.95E-02
411820	5/17/2016 - 5/25/2016	I-131	<6.04E-03	0.00E+00	6.04E-03
		Cs-134	<6.71E-03	0.00E+00	6.71E-03
		Cs-137	<5.49E-03	0.00E+00	5.49E-03
		Be-7	<5.72E-02	0.00E+00	5.72E-02
		K-40	3.49E-01	1.29E-01	1.01E-01
412282	5/25/2016 - 5/31/2016	I-131	<1.60E-02	0.00E+00	1.60E-02
		Cs-134	<7.83E-03	0.00E+00	7.83E-03
		Cs-137	<7.49E-03	0.00E+00	7.49E-03
		Be-7	<7.73E-02	0.00E+00	7.73E-02
		K-40	5.43E-01	1.78E-01	3.68E-02
412798	5/31/2016 - 6/7/2016	I-131	<9.26E-03	0.00E+00	9.26E-03
		Cs-134	<7.20E-03	0.00E+00	7.20E-03
		Cs-137	<6.34E-03	0.00E+00	6.34E-03
		Be-7	<6.99E-02	0.00E+00	6.99E-02
		K-40	3.47E-01	1.49E-01	1.54E-01
413416	6/7/2016 - 6/13/2016	I-131	<1.11E-02	0.00E+00	1.11E-02
		Cs-134	<8.17E-03	0.00E+00	8.17E-03
		Cs-137	<7.19E-03	0.00E+00	7.19E-03
		Be-7	<6.60E-02	0.00E+00	6.60E-02
		K-40	<3.44E-01	0.00E+00	3.44E-01
413949	6/13/2016 - 6/21/2016	I-131	<9.40E-03	0.00E+00	9.40E-03
		Cs-134	<6.91E-03	0.00E+00	6.91E-03
		Cs-137	<8.58E-03	0.00E+00	8.58E-03
		Be-7	<7.31E-02	0.00E+00	7.31E-02
		K-40	4.22E-01	1.42E-01	1.03E-01
415089	6/21/2016 - 6/28/2016	I-131	<1.05E-02	0.00E+00	1.05E-02
		Cs-134	<7.65E-03	0.00E+00	7.65E-03
		Cs-137	<9.51E-03	0.00E+00	9.51E-03
		Be-7	<7.92E-02	0.00E+00	7.92E-02
		K-40	3.28E-01	1.50E-01	1.67E-01
415498	6/28/2016 - 7/5/2016	I-131	<1.54E-02	0.00E+00	1.54E-02
		Cs-134	<8.49E-03	0.00E+00	8.49E-03
		Cs-137	<9.99E-03	0.00E+00	9.99E-03
		Be-7	<6.59E-02	0.00E+00	6.59E-02
		K-40	4.37E-01	1.68E-01	1.75E-01
416468	7/5/2016 - 7/13/2016	I-131	<1.09E-02	0.00E+00	1.09E-02
		Cs-134	<5.16E-03	0.00E+00	5.16E-03
		Cs-137	<5.51E-03	0.00E+00	5.51E-03
		Be-7	<4.31E-02	0.00E+00	4.31E-02
		K-40	3.52E-01	1.29E-01	9.59E-02



ROBINSON Radiological Environmental Monitoring Analysis Report - 2016 (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
417078	7/13/2016 - 7/19/2016	I-131	<1.10E-02	0.00E+00	1.10E-02
		Cs-134	<1.73E-03	0.00E+00	1.73E-03
		Cs-137	<1.26E-02	0.00E+00	1.26E-02
		Be-7	<8.08E-02	0.00E+00	8.08E-02
		K-40	4.79E-01	1.65E-01	3.61E-02
417471	7/19/2016 - 7/27/2016	I-131	<5.91E-03	0.00E+00	5.91E-03
		Cs-134	<3.48E-03	0.00E+00	3.48E-03
		Cs-137	<7.07E-03	0.00E+00	7.07E-03
		Be-7	<6.30E-02	0.00E+00	6.30E-02
		K-40	3.11E-01	1.50E-01	1.87E-01
417862	7/27/2016 - 8/2/2016	I-131	<1.10E-02	0.00E+00	1.10E-02
		Cs-134	<5.78E-03	0.00E+00	5.78E-03
		Cs-137	<1.02E-02	0.00E+00	1.02E-02
		Be-7	<6.53E-02	0.00E+00	6.53E-02
		K-40	3.82E-01	1.67E-01	1.72E-01
418341	8/2/2016 - 8/9/2016	I-131	<9.83E-03	0.00E+00	9.83E-03
		Cs-134	<8.14E-03	0.00E+00	8.14E-03
		Cs-137	<6.24E-03	0.00E+00	6.24E-03
		Be-7	<5.48E-02	0.00E+00	5.48E-02
		K-40	4.95E-01	1.55E-01	3.05E-02
419056	8/9/2016 - 8/16/2016	I-131	<9.92E-03	0.00E+00	9.92E-03
		Cs-134	<1.50E-03	0.00E+00	1.50E-03
		Cs-137	<1.25E-02	0.00E+00	1.25E-02
		Be-7	<8.34E-02	0.00E+00	8.34E-02
		K-40	4.84E-01	1.55E-01	3.12E-02
419556	8/16/2016 - 8/23/2016	I-131	<8.68E-03	0.00E+00	8.68E-03
		Cs-134	<7.38E-03	0.00E+00	7.38E-03
		Cs-137	<8.52E-03	0.00E+00	8.52E-03
		Be-7	<4.54E-02	0.00E+00	4.54E-02
		K-40	3.40E-01	1.34E-01	9.89E-02
420083	8/23/2016 - 8/30/2016	I-131	<1.46E-02	0.00E+00	1.46E-02
		Cs-134	<7.23E-03	0.00E+00	7.23E-03
		Cs-137	<7.34E-03	0.00E+00	7.34E-03
		Be-7	<4.48E-02	0.00E+00	4.48E-02
		K-40	4.04E-01	1.58E-01	1.52E-01
420628	8/30/2016 - 9/6/2016	I-131	<9.01E-03	0.00E+00	9.01E-03
		Cs-134	<7.33E-03	0.00E+00	7.33E-03
		Cs-137	<6.46E-03	0.00E+00	6.46E-03
		Be-7	<4.18E-02	0.00E+00	4.18E-02
		K-40	5.34E-01	1.78E-01	1.46E-01
421499	9/6/2016 - 9/13/2016	I-131	<1.01E-02	0.00E+00	1.01E-02
		Cs-134	<8.36E-03	0.00E+00	8.36E-03
		Cs-137	<7.82E-03	0.00E+00	7.82E-03
		Be-7	<4.85E-02	0.00E+00	4.85E-02
		K-40	5.11E-01	1.68E-01	1.26E-01
422633	9/13/2016 - 9/19/2016	I-131	<1.08E-02	0.00E+00	1.08E-02
		Cs-134	<7.81E-03	0.00E+00	7.81E-03
		Cs-137	<8.71E-03	0.00E+00	8.71E-03
		Be-7	<6.82E-02	0.00E+00	6.82E-02
		K-40	5.33E-01	1.85E-01	1.31E-01



ROBINSON Radiological Environmental Monitoring Analysis Report - 2016 (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
423374	9/19/2016 - 9/26/2016	I-131	<1.06E-02	0.00E+00	1.06E-02
		Cs-134	<6.87E-03	0.00E+00	6.87E-03
		Cs-137	<9.76E-03	0.00E+00	9.76E-03
		Be-7	<7.79E-02	0.00E+00	7.79E-02
		K-40	6.02E-01	1.73E-01	3.02E-02
424523	9/26/2016 - 10/3/2016	I-131	<1.16E-02	0.00E+00	1.16E-02
		Cs-134	<6.67E-03	0.00E+00	6.67E-03
		Cs-137	<5.08E-03	0.00E+00	5.08E-03
		Be-7	<6.37E-02	0.00E+00	6.37E-02
		K-40	3.24E-01	1.25E-01	3.14E-02
425514	10/3/2016 - 10/12/2016	I-131	<1.54E-02	0.00E+00	1.54E-02
		Cs-134	<1.09E-02	0.00E+00	1.09E-02
		Cs-137	<1.27E-02	0.00E+00	1.27E-02
		Be-7	<6.68E-02	0.00E+00	6.68E-02
		K-40	6.14E-01	2.21E-01	1.86E-01
426054	10/12/2016 - 10/18/2016	I-131	<1.57E-02	0.00E+00	1.57E-02
		Cs-134	<8.75E-03	0.00E+00	8.75E-03
		Cs-137	<6.09E-03	0.00E+00	6.09E-03
		Be-7	<8.91E-02	0.00E+00	8.91E-02
		K-40	4.30E-01	1.59E-01	3.76E-02
426421	10/18/2016 - 10/25/2016	I-131	<1.01E-02	0.00E+00	1.01E-02
		Cs-134	<5.57E-03	0.00E+00	5.57E-03
		Cs-137	<8.42E-03	0.00E+00	8.42E-03
		Be-7	<5.89E-02	0.00E+00	5.89E-02
		K-40	5.47E-01	1.74E-01	1.31E-01
427104	10/25/2016 - 11/1/2016	I-131	<1.02E-02	0.00E+00	1.02E-02
		Cs-134	<7.97E-03	0.00E+00	7.97E-03
		Cs-137	<8.66E-03	0.00E+00	8.66E-03
		Be-7	<5.12E-02	0.00E+00	5.12E-02
		K-40	3.43E-01	1.27E-01	3.00E-02
427773	11/1/2016 - 11/8/2016	I-131	<1.15E-02	0.00E+00	1.15E-02
		Cs-134	<7.41E-03	0.00E+00	7.41E-03
		Cs-137	<7.83E-03	0.00E+00	7.83E-03
		Be-7	<4.61E-02	0.00E+00	4.61E-02
		K-40	5.13E-01	1.68E-01	1.22E-01
428279	11/8/2016 - 11/15/2016	I-131	<1.00E-02	0.00E+00	1.00E-02
		Cs-134	<8.22E-03	0.00E+00	8.22E-03
		Cs-137	<7.78E-03	0.00E+00	7.78E-03
		Be-7	<6.17E-02	0.00E+00	6.17E-02
		K-40	<2.87E-01	0.00E+00	2.87E-01
428949	11/15/2016 - 11/21/2016	I-131	<1.22E-02	0.00E+00	1.22E-02
		Cs-134	<8.64E-03	0.00E+00	8.64E-03
		Cs-137	<8.15E-03	0.00E+00	8.15E-03
		Be-7	<9.16E-02	0.00E+00	9.16E-02
		K-40	4.43E-01	1.57E-01	3.53E-02
429450	11/21/2016 - 11/28/2016	I-131	<7.21E-03	0.00E+00	7.21E-03
		Cs-134	<8.69E-03	0.00E+00	8.69E-03
		Cs-137	<6.01E-03	0.00E+00	6.01E-03
		Be-7	<5.59E-02	0.00E+00	5.59E-02
		K-40	4.54E-01	1.91E-01	2.30E-01



ROBINSON Radiological Environmental Monitoring Analysis Report - 2016 (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
430011	11/28/2016 - 12/7/2016	I-131	<9.60E-03	0.00E+00	9.60E-03
		Cs-134	<4.12E-03	0.00E+00	4.12E-03
		Cs-137	<6.62E-03	0.00E+00	6.62E-03
		Be-7	<5.06E-02	0.00E+00	5.06E-02
		K-40	<2.69E-01	0.00E+00	2.69E-01
430643	12/7/2016 - 12/14/2016	I-131	<1.13E-02	0.00E+00	1.13E-02
		Cs-134	<8.75E-03	0.00E+00	8.75E-03
		Cs-137	<9.16E-03	0.00E+00	9.16E-03
		Be-7	<6.66E-02	0.00E+00	6.66E-02
		K-40	5.25E-01	1.60E-01	3.03E-02
431119	12/14/2016 - 12/21/2016	I-131	<2.12E-02	0.00E+00	2.12E-02
		Cs-134	<7.49E-03	0.00E+00	7.49E-03
		Cs-137	<7.89E-03	0.00E+00	7.89E-03
		Be-7	<7.67E-02	0.00E+00	7.67E-02
		K-40	5.53E-01	1.63E-01	3.00E-02
431518	12/21/2016 - 12/28/2016	I-131	<7.48E-03	0.00E+00	7.48E-03
		Cs-134	<7.72E-03	0.00E+00	7.72E-03
		Cs-137	<8.93E-03	0.00E+00	8.93E-03
		Be-7	<6.16E-02	0.00E+00	6.16E-02
		K-40	4.47E-01	1.69E-01	1.66E-01

Sample Point 55 [INDICATOR - SSE @ 0.2 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
398760	12/28/2015 - 1/5/2016	I-131	<1.08E-02	0.00E+00	1.08E-02
		Cs-134	<5.51E-03	0.00E+00	5.51E-03
		Cs-137	<5.60E-03	0.00E+00	5.60E-03
		Be-7	<5.06E-02	0.00E+00	5.06E-02
		K-40	2.56E-01	1.22E-01	1.44E-01
399014	1/5/2016 - 1/12/2016	I-131	<8.81E-03	0.00E+00	8.81E-03
		Cs-134	<8.29E-03	0.00E+00	8.29E-03
		Cs-137	<8.51E-03	0.00E+00	8.51E-03
		Be-7	<6.49E-02	0.00E+00	6.49E-02
		K-40	4.39E-01	1.37E-01	2.64E-02
399315	1/12/2016 - 1/19/2016	I-131	<1.94E-02	0.00E+00	1.94E-02
		Cs-134	<1.18E-02	0.00E+00	1.18E-02
		Cs-137	<1.55E-02	0.00E+00	1.55E-02
		Be-7	<8.19E-02	0.00E+00	8.19E-02
		K-40	5.16E-01	2.25E-01	2.44E-01
400055	1/19/2016 - 1/26/2016	I-131	<1.30E-02	0.00E+00	1.30E-02
		Cs-134	<1.09E-02	0.00E+00	1.09E-02
		Cs-137	<1.54E-02	0.00E+00	1.54E-02
		Be-7	<1.22E-01	0.00E+00	1.22E-01
		K-40	3.75E-01	1.89E-01	2.08E-01
400418	1/26/2016 - 2/2/2016	I-131	<1.72E-02	0.00E+00	1.72E-02
		Cs-134	<1.43E-02	0.00E+00	1.43E-02
		Cs-137	<1.53E-02	0.00E+00	1.53E-02
		Be-7	<1.16E-01	0.00E+00	1.16E-01
		K-40	<4.71E-01	0.00E+00	4.71E-01
401062	2/2/2016 - 2/9/2016	I-131	<1.00E-02	0.00E+00	1.00E-02
		Cs-134	<6.35E-03	0.00E+00	6.35E-03
		Cs-137	<7.86E-03	0.00E+00	7.86E-03



ROBINSON Radiological Environmental Monitoring Analysis Report - 2016 (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
401062	2/2/2016 - 2/9/2016	Be-7	<6.04E-02	0.00E+00	6.04E-02
		K-40	<2.96E-01	0.00E+00	2.96E-01
401410	2/9/2016 - 2/15/2016	I-131	<1.08E-02	0.00E+00	1.08E-02
		Cs-134	<1.00E-02	0.00E+00	1.00E-02
		Cs-137	<1.05E-02	0.00E+00	1.05E-02
		Be-7	<8.51E-02	0.00E+00	8.51E-02
		K-40	4.37E-01	1.67E-01	1.46E-01
401854	2/15/2016 - 2/23/2016	I-131	<7.71E-03	0.00E+00	7.71E-03
		Cs-134	<6.89E-03	0.00E+00	6.89E-03
		Cs-137	<8.03E-03	0.00E+00	8.03E-03
		Be-7	<5.61E-02	0.00E+00	5.61E-02
		K-40	3.53E-01	1.31E-01	1.11E-01
402376	2/23/2016 - 3/1/2016	I-131	<1.01E-02	0.00E+00	1.01E-02
		Cs-134	<5.87E-03	0.00E+00	5.87E-03
		Cs-137	<5.15E-03	0.00E+00	5.15E-03
		Be-7	<6.00E-02	0.00E+00	6.00E-02
		K-40	4.37E-01	1.33E-01	2.52E-02
403102	3/1/2016 - 3/8/2016	I-131	<6.42E-03	0.00E+00	6.42E-03
		Cs-134	<5.30E-03	0.00E+00	5.30E-03
		Cs-137	<7.35E-03	0.00E+00	7.35E-03
		Be-7	<4.75E-02	0.00E+00	4.75E-02
		K-40	4.31E-01	1.38E-01	2.78E-02
404595	3/8/2016 - 3/15/2016	I-131	<7.98E-03	0.00E+00	7.98E-03
		Cs-134	<6.63E-03	0.00E+00	6.63E-03
		Cs-137	<7.19E-03	0.00E+00	7.19E-03
		Be-7	<6.27E-02	0.00E+00	6.27E-02
		K-40	2.57E-01	1.36E-01	1.76E-01
404547	3/15/2016 - 3/22/2016	I-131	<1.81E-02	0.00E+00	1.81E-02
		Cs-134	<5.75E-03	0.00E+00	5.75E-03
		Cs-137	<7.11E-03	0.00E+00	7.11E-03
		Be-7	<5.86E-02	0.00E+00	5.86E-02
		K-40	2.22E-01	1.04E-01	9.35E-02
406089	3/22/2016 - 3/29/2016	I-131	<9.44E-03	0.00E+00	9.44E-03
		Cs-134	<7.41E-03	0.00E+00	7.41E-03
		Cs-137	<4.26E-03	0.00E+00	4.26E-03
		Be-7	<3.54E-02	0.00E+00	3.54E-02
		K-40	2.89E-01	1.40E-01	1.70E-01
406460	3/29/2016 - 4/5/2016	I-131	<1.03E-02	0.00E+00	1.03E-02
		Cs-134	<6.43E-03	0.00E+00	6.43E-03
		Cs-137	<6.14E-03	0.00E+00	6.14E-03
		Be-7	<4.91E-02	0.00E+00	4.91E-02
		K-40	<2.74E-01	0.00E+00	2.74E-01
407626	4/5/2016 - 4/12/2016	I-131	<1.52E-02	0.00E+00	1.52E-02
		Cs-134	<5.72E-03	0.00E+00	5.72E-03
		Cs-137	<4.33E-03	0.00E+00	4.33E-03
		Be-7	<6.10E-02	0.00E+00	6.10E-02
		K-40	4.46E-01	1.40E-01	2.75E-02
408182	4/12/2016 - 4/19/2016	I-131	<1.20E-02	0.00E+00	1.20E-02



ROBINSON Radiological Environmental Monitoring Analysis Report - 2016 (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
408182	4/12/2016 - 4/19/2016	Cs-134	<7.34E-03	0.00E+00	7.34E-03
		Cs-137	<6.52E-03	0.00E+00	6.52E-03
		Be-7	<7.21E-02	0.00E+00	7.21E-02
		K-40	3.11E-01	1.41E-01	1.62E-01
409505	4/19/2016 - 4/26/2016	I-131	<1.43E-02	0.00E+00	1.43E-02
		Cs-134	<7.42E-03	0.00E+00	7.42E-03
		Cs-137	<9.64E-03	0.00E+00	9.64E-03
		Be-7	<4.78E-02	0.00E+00	4.78E-02
		K-40	3.74E-01	1.47E-01	1.50E-01
409839	4/26/2016 - 5/4/2016	I-131	<1.40E-02	0.00E+00	1.40E-02
		Cs-134	<6.90E-03	0.00E+00	6.90E-03
		Cs-137	<9.65E-03	0.00E+00	9.65E-03
		Be-7	<5.26E-02	0.00E+00	5.26E-02
		K-40	3.08E-01	1.08E-01	2.38E-02
411015	5/4/2016 - 5/10/2016	I-131	<1.25E-02	0.00E+00	1.25E-02
		Cs-134	<7.46E-03	0.00E+00	7.46E-03
		Cs-137	<8.30E-03	0.00E+00	8.30E-03
		Be-7	<7.53E-02	0.00E+00	7.53E-02
		K-40	4.29E-01	1.53E-01	3.52E-02
411486	5/10/2016 - 5/17/2016	I-131	<1.19E-02	0.00E+00	1.19E-02
		Cs-134	<5.66E-03	0.00E+00	5.66E-03
		Cs-137	<1.03E-02	0.00E+00	1.03E-02
		Be-7	<6.70E-02	0.00E+00	6.70E-02
		K-40	4.49E-01	1.45E-01	2.97E-02
411816	5/17/2016 - 5/25/2016	I-131	<5.91E-03	0.00E+00	5.91E-03
		Cs-134	<6.48E-03	0.00E+00	6.48E-03
		Cs-137	<9.04E-03	0.00E+00	9.04E-03
		Be-7	<4.85E-02	0.00E+00	4.85E-02
		K-40	4.21E-01	1.42E-01	1.11E-01
412278	5/25/2016 - 5/31/2016	I-131	<1.45E-02	0.00E+00	1.45E-02
		Cs-134	<8.83E-03	0.00E+00	8.83E-03
		Cs-137	<9.32E-03	0.00E+00	9.32E-03
		Be-7	<7.44E-02	0.00E+00	7.44E-02
		K-40	4.18E-01	1.52E-01	3.54E-02
412794	5/31/2016 - 6/7/2016	I-131	<9.47E-03	0.00E+00	9.47E-03
		Cs-134	<6.21E-03	0.00E+00	6.21E-03
		Cs-137	<8.42E-03	0.00E+00	8.42E-03
		Be-7	<5.47E-02	0.00E+00	5.47E-02
		K-40	3.59E-01	1.38E-01	1.11E-01
413412	6/7/2016 - 6/13/2016	I-131	<9.32E-03	0.00E+00	9.32E-03
		Cs-134	<7.37E-03	0.00E+00	7.37E-03
		Cs-137	<6.49E-03	0.00E+00	6.49E-03
		Be-7	<5.96E-02	0.00E+00	5.96E-02
		K-40	3.75E-01	1.36E-01	3.17E-02
413945	6/13/2016 - 6/21/2016	I-131	<8.14E-03	0.00E+00	8.14E-03
		Cs-134	<6.57E-03	0.00E+00	6.57E-03
		Cs-137	<3.78E-03	0.00E+00	3.78E-03
		Be-7	<4.45E-02	0.00E+00	4.45E-02
		K-40	3.14E-01	1.19E-01	1.03E-01



ROBINSON Radiological Environmental Monitoring Analysis Report - 2016 (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
415085	6/21/2016 - 6/28/2016	I-131	<9.04E-03	0.00E+00	9.04E-03
		Cs-134	<7.54E-03	0.00E+00	7.54E-03
		Cs-137	<9.37E-03	0.00E+00	9.37E-03
		Be-7	<5.19E-02	0.00E+00	5.19E-02
		K-40	4.04E-01	1.48E-01	1.40E-01
415494	6/28/2016 - 7/5/2016	I-131	<1.59E-02	0.00E+00	1.59E-02
		Cs-134	<6.20E-03	0.00E+00	6.20E-03
		Cs-137	<1.58E-03	0.00E+00	1.58E-03
		Be-7	<5.69E-02	0.00E+00	5.69E-02
		K-40	2.98E-01	1.18E-01	9.38E-02
416464	7/5/2016 - 7/13/2016	I-131	<1.18E-02	0.00E+00	1.18E-02
		Cs-134	<6.66E-03	0.00E+00	6.66E-03
		Cs-137	<7.02E-03	0.00E+00	7.02E-03
		Be-7	<6.33E-02	0.00E+00	6.33E-02
		K-40	4.04E-01	1.31E-01	2.67E-02
417074	7/13/2016 - 7/19/2016	I-131	<9.36E-03	0.00E+00	9.36E-03
		Cs-134	<8.34E-03	0.00E+00	8.34E-03
		Cs-137	<9.05E-03	0.00E+00	9.05E-03
		Be-7	<6.73E-02	0.00E+00	6.73E-02
		K-40	5.52E-01	1.84E-01	1.53E-01
417467	7/19/2016 - 7/27/2016	I-131	<8.20E-03	0.00E+00	8.20E-03
		Cs-134	<5.56E-03	0.00E+00	5.56E-03
		Cs-137	<6.91E-03	0.00E+00	6.91E-03
		Be-7	<4.01E-02	0.00E+00	4.01E-02
		K-40	4.17E-01	1.32E-01	2.63E-02
417858	7/27/2016 - 8/2/2016	I-131	<8.94E-03	0.00E+00	8.94E-03
		Cs-134	<8.77E-03	0.00E+00	8.77E-03
		Cs-137	<7.39E-03	0.00E+00	7.39E-03
		Be-7	<5.89E-02	0.00E+00	5.89E-02
		K-40	4.77E-01	1.81E-01	1.83E-01
418337	8/2/2016 - 8/9/2016	I-131	<1.25E-02	0.00E+00	1.25E-02
		Cs-134	<7.13E-03	0.00E+00	7.13E-03
		Cs-137	<7.69E-03	0.00E+00	7.69E-03
		Be-7	<4.86E-02	0.00E+00	4.86E-02
		K-40	3.63E-01	1.25E-01	2.73E-02
419052	8/9/2016 - 8/16/2016	I-131	<8.09E-03	0.00E+00	8.09E-03
		Cs-134	<6.94E-03	0.00E+00	6.94E-03
		Cs-137	<8.09E-03	0.00E+00	8.09E-03
		Be-7	<3.49E-02	0.00E+00	3.49E-02
		K-40	3.75E-01	1.35E-01	1.05E-01
419552	8/16/2016 - 8/23/2016	I-131	<6.14E-03	0.00E+00	6.14E-03
		Cs-134	<6.97E-03	0.00E+00	6.97E-03
		Cs-137	<8.05E-03	0.00E+00	8.05E-03
		Be-7	<5.58E-02	0.00E+00	5.58E-02
		K-40	4.69E-01	1.51E-01	9.74E-02
420079	8/23/2016 - 8/30/2016	I-131	<1.82E-02	0.00E+00	1.82E-02
		Cs-134	<5.32E-03	0.00E+00	5.32E-03
		Cs-137	<7.16E-03	0.00E+00	7.16E-03
		Be-7	<4.70E-02	0.00E+00	4.70E-02
		K-40	3.30E-01	1.40E-01	1.56E-01



ROBINSON Radiological Environmental Monitoring Analysis Report - 2016 (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
420624	8/30/2016 - 9/6/2016	I-131	<6.99E-03	0.00E+00	6.99E-03
		Cs-134	<6.93E-03	0.00E+00	6.93E-03
		Cs-137	<7.51E-03	0.00E+00	7.51E-03
		Be-7	<4.04E-02	0.00E+00	4.04E-02
		K-40	3.77E-01	1.34E-01	9.93E-02
421495	9/6/2016 - 9/13/2016	I-131	<1.13E-02	0.00E+00	1.13E-02
		Cs-134	<7.14E-03	0.00E+00	7.14E-03
		Cs-137	<8.36E-03	0.00E+00	8.36E-03
		Be-7	<5.04E-02	0.00E+00	5.04E-02
		K-40	3.16E-01	1.23E-01	1.02E-01
422629	9/13/2016 - 9/19/2016	I-131	<9.10E-03	0.00E+00	9.10E-03
		Cs-134	<6.96E-03	0.00E+00	6.96E-03
		Cs-137	<9.89E-03	0.00E+00	9.89E-03
		Be-7	<5.16E-02	0.00E+00	5.16E-02
		K-40	5.74E-01	1.89E-01	1.69E-01
423370	9/19/2016 - 9/26/2016	I-131	<8.51E-03	0.00E+00	8.51E-03
		Cs-134	<5.35E-03	0.00E+00	5.35E-03
		Cs-137	<6.64E-03	0.00E+00	6.64E-03
		Be-7	<4.80E-02	0.00E+00	4.80E-02
		K-40	3.80E-01	1.25E-01	2.58E-02
424519	9/26/2016 - 10/3/2016	I-131	<7.40E-03	0.00E+00	7.40E-03
		Cs-134	<7.17E-03	0.00E+00	7.17E-03
		Cs-137	<6.04E-03	0.00E+00	6.04E-03
		Be-7	<4.47E-02	0.00E+00	4.47E-02
		K-40	2.18E-01	1.00E-01	8.60E-02
425510	10/3/2016 - 10/12/2016	I-131	<1.06E-02	0.00E+00	1.06E-02
		Cs-134	<3.96E-03	0.00E+00	3.96E-03
		Cs-137	<4.91E-03	0.00E+00	4.91E-03
		Be-7	<7.50E-02	0.00E+00	7.50E-02
		K-40	3.07E-01	1.01E-01	2.08E-02
426050	10/12/2016 - 10/18/2016	I-131	<1.78E-02	0.00E+00	1.78E-02
		Cs-134	<6.37E-03	0.00E+00	6.37E-03
		Cs-137	<9.85E-03	0.00E+00	9.85E-03
		Be-7	<5.42E-02	0.00E+00	5.42E-02
		K-40	3.32E-01	1.33E-01	1.02E-01
426417	10/18/2016 - 10/25/2016	I-131	<7.49E-03	0.00E+00	7.49E-03
		Cs-134	<6.21E-03	0.00E+00	6.21E-03
		Cs-137	<5.90E-03	0.00E+00	5.90E-03
		Be-7	<5.56E-02	0.00E+00	5.56E-02
		K-40	2.93E-01	1.16E-01	1.02E-01
427100	10/25/2016 - 11/1/2016	I-131	<7.72E-03	0.00E+00	7.72E-03
		Cs-134	<6.72E-03	0.00E+00	6.72E-03
		Cs-137	<6.67E-03	0.00E+00	6.67E-03
		Be-7	<4.76E-02	0.00E+00	4.76E-02
		K-40	3.26E-01	1.43E-01	1.65E-01
427769	11/1/2016 - 11/8/2016	I-131	<7.89E-03	0.00E+00	7.89E-03
		Cs-134	<7.50E-03	0.00E+00	7.50E-03
		Cs-137	<6.01E-03	0.00E+00	6.01E-03
		Be-7	<6.37E-02	0.00E+00	6.37E-02
		K-40	3.32E-01	1.39E-01	1.51E-01



ROBINSON Radiological Environmental Monitoring Analysis Report - 2016 (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
428275	11/8/2016 - 11/15/2016	I-131	<8.47E-03	0.00E+00	8.47E-03
		Cs-134	<6.04E-03	0.00E+00	6.04E-03
		Cs-137	<7.50E-03	0.00E+00	7.50E-03
		Be-7	<5.79E-02	0.00E+00	5.79E-02
		K-40	3.73E-01	1.38E-01	1.33E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
428945	11/15/2016 - 11/21/2016	I-131	<1.24E-02	0.00E+00	1.24E-02
		Cs-134	<8.10E-03	0.00E+00	8.10E-03
		Cs-137	<7.58E-03	0.00E+00	7.58E-03
		Be-7	<4.73E-02	0.00E+00	4.73E-02
		K-40	4.13E-01	1.39E-01	2.94E-02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
429446	11/21/2016 - 11/28/2016	I-131	<8.73E-03	0.00E+00	8.73E-03
		Cs-134	<6.89E-03	0.00E+00	6.89E-03
		Cs-137	<7.94E-03	0.00E+00	7.94E-03
		Be-7	<5.96E-02	0.00E+00	5.96E-02
		K-40	2.86E-01	1.11E-01	2.77E-02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
430007	11/28/2016 - 12/7/2016	I-131	<7.09E-03	0.00E+00	7.09E-03
		Cs-134	<5.31E-03	0.00E+00	5.31E-03
		Cs-137	<6.12E-03	0.00E+00	6.12E-03
		Be-7	<3.29E-02	0.00E+00	3.29E-02
		K-40	2.13E-01	8.38E-02	2.14E-02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
430639	12/7/2016 - 12/14/2016	I-131	<7.69E-03	0.00E+00	7.69E-03
		Cs-134	<7.57E-03	0.00E+00	7.57E-03
		Cs-137	<7.58E-03	0.00E+00	7.58E-03
		Be-7	<4.81E-02	0.00E+00	4.81E-02
		K-40	3.89E-01	1.25E-01	2.51E-02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
431115	12/14/2016 - 12/21/2016	I-131	<1.67E-02	0.00E+00	1.67E-02
		Cs-134	<8.01E-03	0.00E+00	8.01E-03
		Cs-137	<7.78E-03	0.00E+00	7.78E-03
		Be-7	<5.91E-02	0.00E+00	5.91E-02
		K-40	2.86E-01	1.16E-01	8.85E-02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
431514	12/21/2016 - 12/28/2016	I-131	<8.89E-03	0.00E+00	8.89E-03
		Cs-134	<7.00E-03	0.00E+00	7.00E-03
		Cs-137	<5.62E-03	0.00E+00	5.62E-03
		Be-7	<5.62E-02	0.00E+00	5.62E-02
		K-40	3.04E-01	1.17E-01	9.93E-02

Sample Point 60 [INDICATOR - SE @ 0.2 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
398762	12/28/2015 - 1/5/2016	I-131	<1.04E-02	0.00E+00	1.04E-02
		Cs-134	<6.05E-03	0.00E+00	6.05E-03
		Cs-137	<6.95E-03	0.00E+00	6.95E-03
		Be-7	<3.96E-02	0.00E+00	3.96E-02
		K-40	4.93E-01	1.55E-01	1.29E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
399016	1/5/2016 - 1/12/2016	I-131	<1.04E-02	0.00E+00	1.04E-02
		Cs-134	<4.84E-03	0.00E+00	4.84E-03
		Cs-137	<4.76E-03	0.00E+00	4.76E-03
		Be-7	<5.54E-02	0.00E+00	5.54E-02
		K-40	3.81E-01	1.33E-01	2.95E-02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
399317	1/12/2016 - 1/19/2016	I-131	<1.56E-02	0.00E+00	1.56E-02
		Cs-134	<1.30E-02	0.00E+00	1.30E-02
		Cs-137	<1.40E-02	0.00E+00	1.40E-02



ROBINSON Radiological Environmental Monitoring Analysis Report - 2016 (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
399317	1/12/2016 - 1/19/2016	Be-7	<8.49E-02	0.00E+00	8.49E-02
		K-40	5.68E-01	2.36E-01	2.43E-01
400057	1/19/2016 - 1/26/2016	I-131	<1.73E-02	0.00E+00	1.73E-02
		Cs-134	<1.14E-02	0.00E+00	1.14E-02
		Cs-137	<1.16E-02	0.00E+00	1.16E-02
		Be-7	<7.59E-02	0.00E+00	7.59E-02
		K-40	6.82E-01	2.37E-01	1.73E-01
400420	1/26/2016 - 2/2/2016	I-131	<1.94E-02	0.00E+00	1.94E-02
		Cs-134	<1.29E-02	0.00E+00	1.29E-02
		Cs-137	<1.68E-02	0.00E+00	1.68E-02
		Be-7	<9.81E-02	0.00E+00	9.81E-02
		K-40	9.13E-01	2.81E-01	2.19E-01
401064	2/2/2016 - 2/9/2016	I-131	<1.05E-02	0.00E+00	1.05E-02
		Cs-134	<4.37E-03	0.00E+00	4.37E-03
		Cs-137	<9.25E-03	0.00E+00	9.25E-03
		Be-7	<5.22E-02	0.00E+00	5.22E-02
		K-40	3.78E-01	1.42E-01	1.31E-01
401412	2/9/2016 - 2/15/2016	I-131	<1.01E-02	0.00E+00	1.01E-02
		Cs-134	<6.69E-03	0.00E+00	6.69E-03
		Cs-137	<7.44E-03	0.00E+00	7.44E-03
		Be-7	<4.22E-02	0.00E+00	4.22E-02
		K-40	5.07E-01	1.75E-01	1.43E-01
401856	2/15/2016 - 2/23/2016	I-131	<7.56E-03	0.00E+00	7.56E-03
		Cs-134	<6.43E-03	0.00E+00	6.43E-03
		Cs-137	<6.54E-03	0.00E+00	6.54E-03
		Be-7	<6.65E-02	0.00E+00	6.65E-02
		K-40	3.38E-01	1.41E-01	1.46E-01
402378	2/23/2016 - 3/1/2016	I-131	<1.10E-02	0.00E+00	1.10E-02
		Cs-134	<5.31E-03	0.00E+00	5.31E-03
		Cs-137	<8.21E-03	0.00E+00	8.21E-03
		Be-7	<5.32E-02	0.00E+00	5.32E-02
		K-40	3.05E-01	1.42E-01	1.73E-01
403104	3/1/2016 - 3/8/2016	I-131	<7.41E-03	0.00E+00	7.41E-03
		Cs-134	<7.00E-03	0.00E+00	7.00E-03
		Cs-137	<8.70E-03	0.00E+00	8.70E-03
		Be-7	<5.68E-02	0.00E+00	5.68E-02
		K-40	3.51E-01	1.26E-01	2.88E-02
404597	3/8/2016 - 3/15/2016	I-131	<8.76E-03	0.00E+00	8.76E-03
		Cs-134	<4.93E-03	0.00E+00	4.93E-03
		Cs-137	<8.01E-03	0.00E+00	8.01E-03
		Be-7	<4.89E-02	0.00E+00	4.89E-02
		K-40	3.81E-01	1.27E-01	2.65E-02
405459	3/15/2016 - 3/22/2016	I-131	<1.43E-02	0.00E+00	1.43E-02
		Cs-134	<8.31E-03	0.00E+00	8.31E-03
		Cs-137	<8.85E-03	0.00E+00	8.85E-03
		Be-7	<5.02E-02	0.00E+00	5.02E-02
		K-40	<2.68E-01	0.00E+00	2.68E-01
406091	3/22/2016 - 3/29/2016	I-131	<9.64E-03	0.00E+00	9.64E-03



ROBINSON Radiological Environmental Monitoring Analysis Report - 2016 (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
406091	3/22/2016 - 3/29/2016	Cs-134	<6.78E-03	0.00E+00	6.78E-03
		Cs-137	<7.82E-03	0.00E+00	7.82E-03
		Be-7	<3.63E-02	0.00E+00	3.63E-02
		K-40	3.21E-01	1.45E-01	1.67E-01
406462	3/29/2016 - 4/5/2016	I-131	<1.44E-02	0.00E+00	1.44E-02
		Cs-134	<6.71E-03	0.00E+00	6.71E-03
		Cs-137	<7.07E-03	0.00E+00	7.07E-03
		Be-7	<3.00E-02	0.00E+00	3.00E-02
		K-40	3.97E-01	1.39E-01	1.01E-01
407628	4/5/2016 - 4/12/2016	I-131	<1.37E-02	0.00E+00	1.37E-02
		Cs-134	<7.90E-03	0.00E+00	7.90E-03
		Cs-137	<1.03E-02	0.00E+00	1.03E-02
		Be-7	<4.15E-02	0.00E+00	4.15E-02
		K-40	4.30E-01	1.50E-01	1.12E-01
408184	4/12/2016 - 4/19/2016	I-131	<1.17E-02	0.00E+00	1.17E-02
		Cs-134	<9.00E-03	0.00E+00	9.00E-03
		Cs-137	<6.87E-03	0.00E+00	6.87E-03
		Be-7	<3.67E-02	0.00E+00	3.67E-02
		K-40	3.78E-01	1.49E-01	1.55E-01
409507	4/19/2016 - 4/26/2016	I-131	<1.14E-02	0.00E+00	1.14E-02
		Cs-134	<4.66E-03	0.00E+00	4.66E-03
		Cs-137	<8.15E-03	0.00E+00	8.15E-03
		Be-7	<4.58E-02	0.00E+00	4.58E-02
		K-40	3.27E-01	1.48E-01	1.70E-01
409841	4/26/2016 - 5/4/2016	I-131	<7.95E-03	0.00E+00	7.95E-03
		Cs-134	<5.87E-03	0.00E+00	5.87E-03
		Cs-137	<6.81E-03	0.00E+00	6.81E-03
		Be-7	<3.57E-02	0.00E+00	3.57E-02
		K-40	2.40E-01	9.17E-02	2.24E-02
411017	5/4/2016 - 5/10/2016	I-131	<1.52E-02	0.00E+00	1.52E-02
		Cs-134	<4.78E-03	0.00E+00	4.78E-03
		Cs-137	<8.35E-03	0.00E+00	8.35E-03
		Be-7	<8.24E-02	0.00E+00	8.24E-02
		K-40	<2.99E-01	0.00E+00	2.99E-01
411488	5/10/2016 - 5/17/2016	I-131	<1.46E-02	0.00E+00	1.46E-02
		Cs-134	<5.27E-03	0.00E+00	5.27E-03
		Cs-137	<3.99E-03	0.00E+00	3.99E-03
		Be-7	<3.48E-02	0.00E+00	3.48E-02
		K-40	3.53E-01	1.19E-01	2.51E-02
411818	5/17/2016 - 5/25/2016	I-131	<6.99E-03	0.00E+00	6.99E-03
		Cs-134	<5.31E-03	0.00E+00	5.31E-03
		Cs-137	<8.25E-03	0.00E+00	8.25E-03
		Be-7	<4.67E-02	0.00E+00	4.67E-02
		K-40	3.42E-01	1.17E-01	2.51E-02
412280	5/25/2016 - 5/31/2016	I-131	<1.05E-02	0.00E+00	1.05E-02
		Cs-134	<9.01E-03	0.00E+00	9.01E-03
		Cs-137	<9.03E-03	0.00E+00	9.03E-03
		Be-7	<5.74E-02	0.00E+00	5.74E-02
		K-40	4.02E-01	1.70E-01	1.94E-01



ROBINSON Radiological Environmental Monitoring Analysis Report - 2016 (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
412796	5/31/2016 - 6/7/2016	I-131	<7.71E-03	0.00E+00	7.71E-03
		Cs-134	<7.93E-03	0.00E+00	7.93E-03
		Cs-137	<7.65E-03	0.00E+00	7.65E-03
		Be-7	<3.83E-02	0.00E+00	3.83E-02
		K-40	4.46E-01	1.35E-01	2.52E-02
413414	6/7/2016 - 6/13/2016	I-131	<1.21E-02	0.00E+00	1.21E-02
		Cs-134	<8.07E-03	0.00E+00	8.07E-03
		Cs-137	<6.79E-03	0.00E+00	6.79E-03
		Be-7	<3.07E-02	0.00E+00	3.07E-02
		K-40	5.73E-01	1.66E-01	2.93E-02
413947	6/13/2016 - 6/21/2016	I-131	<7.39E-03	0.00E+00	7.39E-03
		Cs-134	<5.68E-03	0.00E+00	5.68E-03
		Cs-137	<7.05E-03	0.00E+00	7.05E-03
		Be-7	<4.32E-02	0.00E+00	4.32E-02
		K-40	4.30E-01	1.27E-01	2.33E-02
415087	6/21/2016 - 6/28/2016	I-131	<7.63E-03	0.00E+00	7.63E-03
		Cs-134	<4.59E-03	0.00E+00	4.59E-03
		Cs-137	<9.22E-03	0.00E+00	9.22E-03
		Be-7	<4.18E-02	0.00E+00	4.18E-02
		K-40	4.44E-01	1.33E-01	2.46E-02
415496	6/28/2016 - 7/5/2016	I-131	<1.05E-02	0.00E+00	1.05E-02
		Cs-134	<5.54E-03	0.00E+00	5.54E-03
		Cs-137	<8.34E-03	0.00E+00	8.34E-03
		Be-7	<4.11E-02	0.00E+00	4.11E-02
		K-40	3.86E-01	1.33E-01	2.91E-02
416466	7/5/2016 - 7/13/2016	I-131	<9.32E-03	0.00E+00	9.32E-03
		Cs-134	<5.65E-03	0.00E+00	5.65E-03
		Cs-137	<8.46E-03	0.00E+00	8.46E-03
		Be-7	<5.76E-02	0.00E+00	5.76E-02
		K-40	4.13E-01	1.27E-01	2.43E-02
417076	7/13/2016 - 7/19/2016	I-131	<9.38E-03	0.00E+00	9.38E-03
		Cs-134	<7.82E-03	0.00E+00	7.82E-03
		Cs-137	<6.00E-03	0.00E+00	6.00E-03
		Be-7	<5.94E-02	0.00E+00	5.94E-02
		K-40	3.64E-01	1.46E-01	1.38E-01
417469	7/19/2016 - 7/27/2016	I-131	<6.65E-03	0.00E+00	6.65E-03
		Cs-134	<3.99E-03	0.00E+00	3.99E-03
		Cs-137	<9.68E-03	0.00E+00	9.68E-03
		Be-7	<4.53E-02	0.00E+00	4.53E-02
		K-40	3.98E-01	1.31E-01	9.07E-02
417860	7/27/2016 - 8/2/2016	I-131	<1.06E-02	0.00E+00	1.06E-02
		Cs-134	<8.51E-03	0.00E+00	8.51E-03
		Cs-137	<8.75E-03	0.00E+00	8.75E-03
		Be-7	<5.64E-02	0.00E+00	5.64E-02
		K-40	3.69E-01	1.32E-01	3.03E-02
418339	8/2/2016 - 8/9/2016	I-131	<1.29E-02	0.00E+00	1.29E-02
		Cs-134	<7.31E-03	0.00E+00	7.31E-03
		Cs-137	<7.65E-03	0.00E+00	7.65E-03
		Be-7	<5.62E-02	0.00E+00	5.62E-02
		K-40	2.88E-01	1.07E-01	2.52E-02



ROBINSON Radiological Environmental Monitoring Analysis Report - 2016 (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
419054	8/9/2016 - 8/16/2016	I-131	<6.75E-03	0.00E+00	6.75E-03
		Cs-134	<6.75E-03	0.00E+00	6.75E-03
		Cs-137	<7.67E-03	0.00E+00	7.67E-03
		Be-7	<5.45E-02	0.00E+00	5.45E-02
		K-40	4.69E-01	1.53E-01	9.92E-02
419554	8/16/2016 - 8/23/2016	I-131	<8.33E-03	0.00E+00	8.33E-03
		Cs-134	<7.18E-03	0.00E+00	7.18E-03
		Cs-137	<7.59E-03	0.00E+00	7.59E-03
		Be-7	<6.14E-02	0.00E+00	6.14E-02
		K-40	2.45E-01	1.04E-01	2.89E-02
420081	8/23/2016 - 8/30/2016	I-131	<1.74E-02	0.00E+00	1.74E-02
		Cs-134	<5.88E-03	0.00E+00	5.88E-03
		Cs-137	<9.60E-03	0.00E+00	9.60E-03
		Be-7	<5.17E-02	0.00E+00	5.17E-02
		K-40	4.88E-01	1.47E-01	2.76E-02
420626	8/30/2016 - 9/6/2016	I-131	<9.11E-03	0.00E+00	9.11E-03
		Cs-134	<7.33E-03	0.00E+00	7.33E-03
		Cs-137	<9.10E-03	0.00E+00	9.10E-03
		Be-7	<7.33E-02	0.00E+00	7.33E-02
		K-40	3.92E-01	1.44E-01	1.13E-01
421497	9/6/2016 - 9/13/2016	I-131	<1.00E-02	0.00E+00	1.00E-02
		Cs-134	<7.22E-03	0.00E+00	7.22E-03
		Cs-137	<1.61E-03	0.00E+00	1.61E-03
		Be-7	<4.88E-02	0.00E+00	4.88E-02
		K-40	2.62E-01	1.14E-01	9.99E-02
422631	9/13/2016 - 9/19/2016	I-131	<1.11E-02	0.00E+00	1.11E-02
		Cs-134	<7.37E-03	0.00E+00	7.37E-03
		Cs-137	<7.52E-03	0.00E+00	7.52E-03
		Be-7	<7.84E-02	0.00E+00	7.84E-02
		K-40	3.14E-01	1.39E-01	1.34E-01
423372	9/19/2016 - 9/26/2016	I-131	<9.77E-03	0.00E+00	9.77E-03
		Cs-134	<7.54E-03	0.00E+00	7.54E-03
		Cs-137	<8.42E-03	0.00E+00	8.42E-03
		Be-7	<5.26E-02	0.00E+00	5.26E-02
		K-40	3.27E-01	1.16E-01	2.60E-02
424521	9/26/2016 - 10/3/2016	I-131	<6.83E-03	0.00E+00	6.83E-03
		Cs-134	<5.73E-03	0.00E+00	5.73E-03
		Cs-137	<4.36E-03	0.00E+00	4.36E-03
		Be-7	<4.18E-02	0.00E+00	4.18E-02
		K-40	2.12E-01	1.13E-01	1.33E-01
425512	10/3/2016 - 10/12/2016	I-131	<8.84E-03	0.00E+00	8.84E-03
		Cs-134	<7.14E-03	0.00E+00	7.14E-03
		Cs-137	<8.83E-03	0.00E+00	8.83E-03
		Be-7	<5.12E-02	0.00E+00	5.12E-02
		K-40	3.20E-01	1.20E-01	9.89E-02
426052	10/12/2016 - 10/18/2016	I-131	<1.24E-02	0.00E+00	1.24E-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	<6.79E-02	0.00E+00	6.79E-02
		K-40	3.95E-01	1.60E-01	1.43E-01



ROBINSON Radiological Environmental Monitoring Analysis Report - 2016 (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
426419	10/18/2016 - 10/25/2016	I-131	<7.06E-03	0.00E+00	7.06E-03
		Cs-134	<6.46E-03	0.00E+00	6.46E-03
		Cs-137	<6.42E-03	0.00E+00	6.42E-03
		Be-7	<5.48E-02	0.00E+00	5.48E-02
		K-40	2.81E-01	1.19E-01	1.19E-01
427102	10/25/2016 - 11/1/2016	I-131	<7.12E-03	0.00E+00	7.12E-03
		Cs-134	<8.21E-03	0.00E+00	8.21E-03
		Cs-137	<7.35E-03	0.00E+00	7.35E-03
		Be-7	<7.19E-02	0.00E+00	7.19E-02
		K-40	3.65E-01	1.41E-01	1.31E-01
427771	11/1/2016 - 11/8/2016	I-131	<8.14E-03	0.00E+00	8.14E-03
		Cs-134	<8.04E-03	0.00E+00	8.04E-03
		Cs-137	<7.56E-03	0.00E+00	7.56E-03
		Be-7	<6.82E-02	0.00E+00	6.82E-02
		K-40	3.31E-01	1.31E-01	1.06E-01
428277	11/8/2016 - 11/15/2016	I-131	<7.99E-03	0.00E+00	7.99E-03
		Cs-134	<7.91E-03	0.00E+00	7.91E-03
		Cs-137	<6.07E-03	0.00E+00	6.07E-03
		Be-7	<4.43E-02	0.00E+00	4.43E-02
		K-40	3.88E-01	1.27E-01	2.63E-02
428947	11/15/2016 - 11/21/2016	I-131	<1.54E-02	0.00E+00	1.54E-02
		Cs-134	<8.68E-03	0.00E+00	8.68E-03
		Cs-137	<7.74E-03	0.00E+00	7.74E-03
		Be-7	<6.31E-02	0.00E+00	6.31E-02
		K-40	2.32E-01	1.04E-01	3.00E-02
429448	11/21/2016 - 11/28/2016	I-131	<9.41E-03	0.00E+00	9.41E-03
		Cs-134	<4.62E-03	0.00E+00	4.62E-03
		Cs-137	<7.42E-03	0.00E+00	7.42E-03
		Be-7	<4.34E-02	0.00E+00	4.34E-02
		K-40	3.15E-01	1.36E-01	1.39E-01
430009	11/28/2016 - 12/7/2016	I-131	<7.48E-03	0.00E+00	7.48E-03
		Cs-134	<5.59E-03	0.00E+00	5.59E-03
		Cs-137	<5.73E-03	0.00E+00	5.73E-03
		Be-7	<3.09E-02	0.00E+00	3.09E-02
		K-40	1.71E-01	9.44E-02	1.18E-01
430641	12/7/2016 - 12/14/2016	I-131	<9.71E-03	0.00E+00	9.71E-03
		Cs-134	<6.73E-03	0.00E+00	6.73E-03
		Cs-137	<5.15E-03	0.00E+00	5.15E-03
		Be-7	<4.07E-02	0.00E+00	4.07E-02
		K-40	4.09E-01	1.30E-01	2.58E-02
431117	12/14/2016 - 12/21/2016	I-131	<1.42E-02	0.00E+00	1.42E-02
		Cs-134	<6.72E-03	0.00E+00	6.72E-03
		Cs-137	<7.24E-03	0.00E+00	7.24E-03
		Be-7	<5.87E-02	0.00E+00	5.87E-02
		K-40	3.13E-01	1.13E-01	2.57E-02
431516	12/21/2016 - 12/28/2016	I-131	<8.87E-03	0.00E+00	8.87E-03
		Cs-134	<9.35E-03	0.00E+00	9.35E-03
		Cs-137	<7.58E-03	0.00E+00	7.58E-03
		Be-7	<5.23E-02	0.00E+00	5.23E-02
		K-40	3.35E-01	1.19E-01	2.67E-02



ROBINSON Radiological Environmental Monitoring Analysis Report - 2016 (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
398763	12/28/2015 - 1/5/2016	I-131	<1.18E-02	0.00E+00	1.18E-02
		Cs-134	<5.45E-03	0.00E+00	5.45E-03
		Cs-137	<5.15E-03	0.00E+00	5.15E-03
		Be-7	<5.99E-02	0.00E+00	5.99E-02
		K-40	2.70E-01	1.10E-01	1.09E-01
399017	1/5/2016 - 1/12/2016	I-131	<4.87E-03	0.00E+00	4.87E-03
		Cs-134	<8.93E-03	0.00E+00	8.93E-03
		Cs-137	<8.34E-03	0.00E+00	8.34E-03
		Be-7	<5.03E-02	0.00E+00	5.03E-02
		K-40	4.25E-01	1.41E-01	2.95E-02
399318	1/12/2016 - 1/19/2016	I-131	<1.40E-02	0.00E+00	1.40E-02
		Cs-134	<9.98E-03	0.00E+00	9.98E-03
		Cs-137	<1.54E-02	0.00E+00	1.54E-02
		Be-7	<1.13E-01	0.00E+00	1.13E-01
		K-40	<4.53E-01	0.00E+00	4.53E-01
400058	1/19/2016 - 1/26/2016	I-131	<1.60E-02	0.00E+00	1.60E-02
		Cs-134	<1.64E-02	0.00E+00	1.64E-02
		Cs-137	<1.47E-02	0.00E+00	1.47E-02
		Be-7	<1.29E-01	0.00E+00	1.29E-01
		K-40	6.39E-01	2.14E-01	4.56E-02
400421	1/26/2016 - 2/2/2016	I-131	<1.65E-02	0.00E+00	1.65E-02
		Cs-134	<8.84E-03	0.00E+00	8.84E-03
		Cs-137	<1.09E-02	0.00E+00	1.09E-02
		Be-7	<1.06E-01	0.00E+00	1.06E-01
		K-40	4.52E-01	2.03E-01	2.12E-01
401065	2/2/2016 - 2/9/2016	I-131	<6.56E-03	0.00E+00	6.56E-03
		Cs-134	<8.86E-03	0.00E+00	8.86E-03
		Cs-137	<8.24E-03	0.00E+00	8.24E-03
		Be-7	<6.12E-02	0.00E+00	6.12E-02
		K-40	3.99E-01	1.46E-01	1.16E-01
401413	2/9/2016 - 2/15/2016	I-131	<9.59E-03	0.00E+00	9.59E-03
		Cs-134	<6.74E-03	0.00E+00	6.74E-03
		Cs-137	<1.11E-02	0.00E+00	1.11E-02
		Be-7	<5.51E-02	0.00E+00	5.51E-02
		K-40	5.16E-01	1.64E-01	3.25E-02
401857	2/15/2016 - 2/23/2016	I-131	<7.83E-03	0.00E+00	7.83E-03
		Cs-134	<4.26E-03	0.00E+00	4.26E-03
		Cs-137	<5.29E-03	0.00E+00	5.29E-03
		Be-7	<4.24E-02	0.00E+00	4.24E-02
		K-40	2.61E-01	1.06E-01	9.55E-02
402379	2/23/2016 - 3/1/2016	I-131	<9.28E-03	0.00E+00	9.28E-03
		Cs-134	<8.18E-03	0.00E+00	8.18E-03
		Cs-137	<7.96E-03	0.00E+00	7.96E-03
		Be-7	<3.07E-02	0.00E+00	3.07E-02
		K-40	3.68E-01	1.27E-01	2.77E-02
403105	3/1/2016 - 3/8/2016	I-131	<8.40E-03	0.00E+00	8.40E-03
		Cs-134	<9.42E-03	0.00E+00	9.42E-03
		Cs-137	<6.94E-03	0.00E+00	6.94E-03
		Be-7	<5.05E-02	0.00E+00	5.05E-02
		K-40	3.50E-01	1.36E-01	1.10E-01



ROBINSON Radiological Environmental Monitoring Analysis Report - 2016 (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
404598	3/8/2016 - 3/15/2016	I-131	<7.01E-03	0.00E+00	7.01E-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	<3.52E-02	0.00E+00	3.52E-02
		K-40	3.78E-01	1.39E-01	1.26E-01
405460	3/15/2016 - 3/22/2016	I-131	<1.54E-02	0.00E+00	1.54E-02
		Cs-134	<5.64E-03	0.00E+00	5.64E-03
		Cs-137	<8.48E-03	0.00E+00	8.48E-03
		Be-7	<4.92E-02	0.00E+00	4.92E-02
		K-40	3.27E-01	1.44E-01	1.55E-01
406092	3/22/2016 - 3/29/2016	I-131	<5.19E-03	0.00E+00	5.19E-03
		Cs-134	<4.87E-03	0.00E+00	4.87E-03
		Cs-137	<7.37E-03	0.00E+00	7.37E-03
		Be-7	<5.78E-02	0.00E+00	5.78E-02
		K-40	2.36E-01	1.17E-01	1.35E-01
406463	3/29/2016 - 4/5/2016	I-131	<1.22E-02	0.00E+00	1.22E-02
		Cs-134	<7.30E-03	0.00E+00	7.30E-03
		Cs-137	<7.22E-03	0.00E+00	7.22E-03
		Be-7	<6.56E-02	0.00E+00	6.56E-02
		K-40	3.13E-01	1.27E-01	1.12E-01
407629	4/5/2016 - 4/12/2016	I-131	<1.01E-02	0.00E+00	1.01E-02
		Cs-134	<6.89E-03	0.00E+00	6.89E-03
		Cs-137	<7.58E-03	0.00E+00	7.58E-03
		Be-7	<6.45E-02	0.00E+00	6.45E-02
		K-40	3.60E-01	1.20E-01	2.50E-02
408185	4/12/2016 - 4/19/2016	I-131	<1.25E-02	0.00E+00	1.25E-02
		Cs-134	<6.14E-03	0.00E+00	6.14E-03
		Cs-137	<5.79E-03	0.00E+00	5.79E-03
		Be-7	<5.92E-02	0.00E+00	5.92E-02
		K-40	3.23E-01	1.21E-01	9.76E-02
409508	4/19/2016 - 4/26/2016	I-131	<1.09E-02	0.00E+00	1.09E-02
		Cs-134	<7.53E-03	0.00E+00	7.53E-03
		Cs-137	<6.72E-03	0.00E+00	6.72E-03
		Be-7	<5.38E-02	0.00E+00	5.38E-02
		K-40	3.51E-01	1.33E-01	1.24E-01
409842	4/26/2016 - 5/4/2016	I-131	<1.20E-02	0.00E+00	1.20E-02
		Cs-134	<4.67E-03	0.00E+00	4.67E-03
		Cs-137	<7.57E-03	0.00E+00	7.57E-03
		Be-7	<4.80E-02	0.00E+00	4.80E-02
		K-40	2.81E-01	1.03E-01	2.45E-02
411018	5/4/2016 - 5/10/2016	I-131	<1.05E-02	0.00E+00	1.05E-02
		Cs-134	<8.99E-03	0.00E+00	8.99E-03
		Cs-137	<9.00E-03	0.00E+00	9.00E-03
		Be-7	<4.71E-02	0.00E+00	4.71E-02
		K-40	4.61E-01	1.48E-01	2.98E-02
411489	5/10/2016 - 5/17/2016	I-131	<1.08E-02	0.00E+00	1.08E-02
		Cs-134	<5.24E-03	0.00E+00	5.24E-03
		Cs-137	<7.07E-03	0.00E+00	7.07E-03
		Be-7	<4.47E-02	0.00E+00	4.47E-02
		K-40	3.06E-01	1.22E-01	1.12E-01



ROBINSON Radiological Environmental Monitoring Analysis Report - 2016 (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
411819	5/17/2016 - 5/25/2016	I-131	<5.09E-03	0.00E+00	5.09E-03
		Cs-134	<6.37E-03	0.00E+00	6.37E-03
		Cs-137	<5.70E-03	0.00E+00	5.70E-03
		Be-7	<4.07E-02	0.00E+00	4.07E-02
		K-40	2.58E-01	1.13E-01	1.25E-01
412281	5/25/2016 - 5/31/2016	I-131	<1.42E-02	0.00E+00	1.42E-02
		Cs-134	<9.06E-03	0.00E+00	9.06E-03
		Cs-137	<9.28E-03	0.00E+00	9.28E-03
		Be-7	<6.74E-02	0.00E+00	6.74E-02
		K-40	4.13E-01	1.56E-01	1.51E-01
412797	5/31/2016 - 6/7/2016	I-131	<6.99E-03	0.00E+00	6.99E-03
		Cs-134	<7.55E-03	0.00E+00	7.55E-03
		Cs-137	<8.34E-03	0.00E+00	8.34E-03
		Be-7	1.97E-02	3.20E-02	5.46E-02
		K-40	3.45E-01	1.35E-01	1.25E-01
413415	6/7/2016 - 6/13/2016	I-131	<9.84E-03	0.00E+00	9.84E-03
		Cs-134	<8.78E-03	0.00E+00	8.78E-03
		Cs-137	<1.69E-03	0.00E+00	1.69E-03
		Be-7	<5.40E-02	0.00E+00	5.40E-02
		K-40	5.13E-01	1.68E-01	1.36E-01
413948	6/13/2016 - 6/21/2016	I-131	<9.09E-03	0.00E+00	9.09E-03
		Cs-134	<5.59E-03	0.00E+00	5.59E-03
		Cs-137	<7.46E-03	0.00E+00	7.46E-03
		Be-7	<5.20E-02	0.00E+00	5.20E-02
		K-40	3.47E-01	1.15E-01	2.41E-02
415088	6/21/2016 - 6/28/2016	I-131	<8.00E-03	0.00E+00	8.00E-03
		Cs-134	<7.05E-03	0.00E+00	7.05E-03
		Cs-137	<7.88E-03	0.00E+00	7.88E-03
		Be-7	<5.17E-02	0.00E+00	5.17E-02
		K-40	3.61E-01	1.34E-01	1.28E-01
415497	6/28/2016 - 7/5/2016	I-131	<1.03E-02	0.00E+00	1.03E-02
		Cs-134	<5.53E-03	0.00E+00	5.53E-03
		Cs-137	<6.85E-03	0.00E+00	6.85E-03
		Be-7	<5.16E-02	0.00E+00	5.16E-02
		K-40	2.71E-01	1.33E-01	1.62E-01
416467	7/5/2016 - 7/13/2016	I-131	<1.16E-02	0.00E+00	1.16E-02
		Cs-134	<4.70E-03	0.00E+00	4.70E-03
		Cs-137	<6.84E-03	0.00E+00	6.84E-03
		Be-7	<4.93E-02	0.00E+00	4.93E-02
		K-40	2.98E-01	1.13E-01	1.02E-01
417077	7/13/2016 - 7/19/2016	I-131	<9.83E-03	0.00E+00	9.83E-03
		Cs-134	<8.66E-03	0.00E+00	8.66E-03
		Cs-137	<5.99E-03	0.00E+00	5.99E-03
		Be-7	<5.04E-02	0.00E+00	5.04E-02
		K-40	3.77E-01	1.34E-01	3.01E-02
417470	7/19/2016 - 7/27/2016	I-131	<6.38E-03	0.00E+00	6.38E-03
		Cs-134	<4.53E-03	0.00E+00	4.53E-03
		Cs-137	<5.04E-03	0.00E+00	5.04E-03
		Be-7	<8.25E-03	0.00E+00	8.25E-03
		K-40	2.74E-01	1.07E-01	9.68E-02



ROBINSON Radiological Environmental Monitoring Analysis Report - 2016 (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
417861	7/27/2016 - 8/2/2016	I-131	<9.09E-03	0.00E+00	9.09E-03
		Cs-134	<8.65E-03	0.00E+00	8.65E-03
		Cs-137	<8.59E-03	0.00E+00	8.59E-03
		Be-7	<6.09E-02	0.00E+00	6.09E-02
		K-40	4.46E-01	1.83E-01	2.01E-01
418340	8/2/2016 - 8/9/2016	I-131	<1.31E-02	0.00E+00	1.31E-02
		Cs-134	<6.89E-03	0.00E+00	6.89E-03
		Cs-137	<8.53E-03	0.00E+00	8.53E-03
		Be-7	<5.09E-02	0.00E+00	5.09E-02
		K-40	2.74E-01	1.46E-01	1.92E-01
419055	8/9/2016 - 8/16/2016	I-131	<7.31E-03	0.00E+00	7.31E-03
		Cs-134	<6.36E-03	0.00E+00	6.36E-03
		Cs-137	<7.89E-03	0.00E+00	7.89E-03
		Be-7	<9.92E-03	0.00E+00	9.92E-03
		K-40	4.69E-01	1.49E-01	1.06E-01
419555	8/16/2016 - 8/23/2016	I-131	<7.14E-03	0.00E+00	7.14E-03
		Cs-134	<6.05E-03	0.00E+00	6.05E-03
		Cs-137	<5.74E-03	0.00E+00	5.74E-03
		Be-7	<4.53E-02	0.00E+00	4.53E-02
		K-40	3.39E-01	1.16E-01	2.48E-02
420082	8/23/2016 - 8/30/2016	I-131	<1.59E-02	0.00E+00	1.59E-02
		Cs-134	<4.65E-03	0.00E+00	4.65E-03
		Cs-137	<7.53E-03	0.00E+00	7.53E-03
		Be-7	<4.54E-02	0.00E+00	4.54E-02
		K-40	3.21E-01	1.20E-01	1.02E-01
420627	8/30/2016 - 9/6/2016	I-131	<7.46E-03	0.00E+00	7.46E-03
		Cs-134	<6.54E-03	0.00E+00	6.54E-03
		Cs-137	<7.44E-03	0.00E+00	7.44E-03
		Be-7	<5.30E-02	0.00E+00	5.30E-02
		K-40	4.44E-01	1.54E-01	1.29E-01
421498	9/6/2016 - 9/13/2016	I-131	<1.26E-02	0.00E+00	1.26E-02
		Cs-134	<6.24E-03	0.00E+00	6.24E-03
		Cs-137	<1.07E-02	0.00E+00	1.07E-02
		Be-7	<4.36E-02	0.00E+00	4.36E-02
		K-40	5.05E-01	1.59E-01	1.20E-01
422632	9/13/2016 - 9/19/2016	I-131	<1.14E-02	0.00E+00	1.14E-02
		Cs-134	<6.38E-03	0.00E+00	6.38E-03
		Cs-137	<1.05E-02	0.00E+00	1.05E-02
		Be-7	<6.00E-02	0.00E+00	6.00E-02
		K-40	3.65E-01	1.62E-01	1.86E-01
423373	9/19/2016 - 9/26/2016	I-131	<8.95E-03	0.00E+00	8.95E-03
		Cs-134	<6.20E-03	0.00E+00	6.20E-03
		Cs-137	<6.55E-03	0.00E+00	6.55E-03
		Be-7	<5.39E-02	0.00E+00	5.39E-02
		K-40	2.98E-01	1.37E-01	1.62E-01
424522	9/26/2016 - 10/3/2016	I-131	<1.23E-02	0.00E+00	1.23E-02
		Cs-134	<6.34E-03	0.00E+00	6.34E-03
		Cs-137	<9.01E-03	0.00E+00	9.01E-03
		Be-7	<5.95E-02	0.00E+00	5.95E-02
		K-40	3.35E-01	1.29E-01	1.04E-01



ROBINSON Radiological Environmental Monitoring Analysis Report - 2016 (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
425513	10/3/2016 - 10/12/2016	I-131	<6.36E-03	0.00E+00	6.36E-03
		Cs-134	<4.39E-03	0.00E+00	4.39E-03
		Cs-137	<6.22E-03	0.00E+00	6.22E-03
		Be-7	<3.43E-02	0.00E+00	3.43E-02
		K-40	2.77E-01	9.86E-02	7.67E-02
426053	10/12/2016 - 10/18/2016	I-131	<1.18E-02	0.00E+00	1.18E-02
		Cs-134	<8.34E-03	0.00E+00	8.34E-03
		Cs-137	<8.53E-03	0.00E+00	8.53E-03
		Be-7	<8.09E-02	0.00E+00	8.09E-02
		K-40	4.24E-01	1.63E-01	1.61E-01
426420	10/18/2016 - 10/25/2016	I-131	<7.51E-03	0.00E+00	7.51E-03
		Cs-134	<6.81E-03	0.00E+00	6.81E-03
		Cs-137	<6.40E-03	0.00E+00	6.40E-03
		Be-7	<3.72E-02	0.00E+00	3.72E-02
		K-40	2.30E-01	1.04E-01	9.68E-02
427103	10/25/2016 - 11/1/2016	I-131	<5.91E-03	0.00E+00	5.91E-03
		Cs-134	<6.68E-03	0.00E+00	6.68E-03
		Cs-137	<6.63E-03	0.00E+00	6.63E-03
		Be-7	<5.10E-02	0.00E+00	5.10E-02
		K-40	4.73E-01	1.40E-01	2.56E-02
427772	11/1/2016 - 11/8/2016	I-131	<8.16E-03	0.00E+00	8.16E-03
		Cs-134	<6.52E-03	0.00E+00	6.52E-03
		Cs-137	<8.54E-03	0.00E+00	8.54E-03
		Be-7	<4.63E-02	0.00E+00	4.63E-02
		K-40	4.07E-01	1.35E-01	9.52E-02
428278	11/8/2016 - 11/15/2016	I-131	<9.08E-03	0.00E+00	9.08E-03
		Cs-134	<8.21E-03	0.00E+00	8.21E-03
		Cs-137	<8.02E-03	0.00E+00	8.02E-03
		Be-7	<6.93E-02	0.00E+00	6.93E-02
		K-40	2.91E-01	1.47E-01	1.85E-01
428948	11/15/2016 - 11/21/2016	I-131	<1.26E-02	0.00E+00	1.26E-02
		Cs-134	<4.78E-03	0.00E+00	4.78E-03
		Cs-137	<8.35E-03	0.00E+00	8.35E-03
		Be-7	<7.02E-02	0.00E+00	7.02E-02
		K-40	4.33E-01	1.49E-01	9.67E-02
429449	11/21/2016 - 11/28/2016	I-131	<7.49E-03	0.00E+00	7.49E-03
		Cs-134	<7.69E-03	0.00E+00	7.69E-03
		Cs-137	<8.69E-03	0.00E+00	8.69E-03
		Be-7	<4.34E-02	0.00E+00	4.34E-02
		K-40	<2.77E-01	0.00E+00	2.77E-01
430010	11/28/2016 - 12/7/2016	I-131	<7.26E-03	0.00E+00	7.26E-03
		Cs-134	<5.43E-03	0.00E+00	5.43E-03
		Cs-137	<6.00E-03	0.00E+00	6.00E-03
		Be-7	<4.64E-02	0.00E+00	4.64E-02
		K-40	2.83E-01	1.02E-01	8.51E-02
430642	12/7/2016 - 12/14/2016	I-131	<1.37E-02	0.00E+00	1.37E-02
		Cs-134	<5.46E-03	0.00E+00	5.46E-03
		Cs-137	<6.76E-03	0.00E+00	6.76E-03
		Be-7	<6.77E-02	0.00E+00	6.77E-02
		K-40	2.22E-01	9.87E-02	2.87E-02

ROBINSON Radiological Environmental Monitoring Analysis Report - 2016 (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
431118	12/14/2016 - 12/21/2016		I-131	<1.97E-02	0.00E+00	1.97E-02
			Cs-134	<5.84E-03	0.00E+00	5.84E-03
			Cs-137	<5.11E-03	0.00E+00	5.11E-03
			Be-7	<4.70E-02	0.00E+00	4.70E-02
			K-40	2.12E-01	9.87E-02	8.69E-02

Sample ID:	Sample Dates:		Nuclide	Activity	2 Sigma Error	MDA
431517	12/21/2016 - 12/28/2016		I-131	<8.26E-03	0.00E+00	8.26E-03
			Cs-134	<6.60E-03	0.00E+00	6.60E-03
			Cs-137	<7.70E-03	0.00E+00	7.70E-03
			Be-7	<4.65E-02	0.00E+00	4.65E-02
			K-40	2.95E-01	1.31E-01	1.45E-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
418549	7/21/2016 - 7/21/2016	CORN	I-131	<1.09E+01	0.00E+00	1.09E+01
			Cs-134	<1.02E+01	0.00E+00	1.02E+01
			Cs-137	<1.43E+01	0.00E+00	1.43E+01
			Be-7	<6.69E+01	0.00E+00	6.69E+01
			K-40	2.32E+03	3.21E+02	9.03E+01

Sample ID:	Sample Dates:		Nuclide	Activity	2 Sigma Error	MDA
423131	9/6/2016 - 9/6/2016	CORN	I-131	<1.03E+01	0.00E+00	1.03E+01
			Cs-134	<1.16E+01	0.00E+00	1.16E+01
			Cs-137	<1.25E+01	0.00E+00	1.25E+01
			Be-7	<7.57E+01	0.00E+00	7.57E+01
			K-40	3.35E+03	4.32E+02	1.50E+02

Sample ID:	Sample Dates:		Nuclide	Activity	2 Sigma Error	MDA
427780	10/20/2016 - 10/20/2016	CORN	I-131	<1.40E+01	0.00E+00	1.40E+01
			Cs-134	<1.66E+01	0.00E+00	1.66E+01
			Cs-137	<1.18E+01	0.00E+00	1.18E+01
			Be-7	<8.61E+01	0.00E+00	8.61E+01
			K-40	3.19E+03	4.35E+02	1.90E+02

Sample ID:	Sample Dates:		Nuclide	Activity	2 Sigma Error	MDA
428132	10/26/2016 - 10/26/2016	CORN	I-131	<1.41E+01	0.00E+00	1.41E+01
			Cs-134	<1.41E+01	0.00E+00	1.41E+01
			Cs-137	<1.37E+01	0.00E+00	1.37E+01
			Be-7	<9.19E+01	0.00E+00	9.19E+01
			K-40	3.49E+03	4.56E+02	2.00E+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
410857	5/16/2016 - 5/16/2016	BOTMFEEDEDER	Mn-54	<1.74E+01	0.00E+00	1.74E+01
			Co-58	<2.35E+01	0.00E+00	2.35E+01
			Fe-59	<3.64E+01	0.00E+00	3.64E+01
			Co-60	<3.05E+01	0.00E+00	3.05E+01
			Zn-65	<3.81E+01	0.00E+00	3.81E+01
			Nb-95	<2.70E+01	0.00E+00	2.70E+01
			I-131	<2.93E+01	0.00E+00	2.93E+01
			Cs-134	<2.16E+01	0.00E+00	2.16E+01
			Cs-137	<3.30E+01	0.00E+00	3.30E+01
			Be-7	<1.78E+02	0.00E+00	1.78E+02
			K-40	3.51E+03	6.48E+02	2.48E+02
			Ag-110M	<1.83E+01	0.00E+00	1.83E+01
			Sb-122	<1.38E+02	0.00E+00	1.38E+02
			Sb-125	<4.80E+01	0.00E+00	4.80E+01

Sample ID:	Sample Dates:		Nuclide	Activity	2 Sigma Error	MDA
410858	5/16/2016 - 5/16/2016	FREESWIM	Mn-54	<2.04E+01	0.00E+00	2.04E+01
			Co-58	<1.84E+01	0.00E+00	1.84E+01
			Fe-59	<3.96E+01	0.00E+00	3.96E+01



ROBINSON Radiological Environmental Monitoring Analysis Report - 2016 (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
410858	5/16/2016 - 5/16/2016	FREESWIM	Co-60	<2.57E+01	0.00E+00	2.57E+01
			Zn-65	<3.72E+01	0.00E+00	3.72E+01
			Nb-95	<2.01E+01	0.00E+00	2.01E+01
			I-131	<2.93E+01	0.00E+00	2.93E+01
			Cs-134	<2.13E+01	0.00E+00	2.13E+01
			Cs-137	2.85E+01	1.93E+01	2.77E+01
			Be-7	<1.50E+02	0.00E+00	1.50E+02
			K-40	3.54E+03	6.09E+02	2.10E+02
			Ag-110M	<1.86E+01	0.00E+00	1.86E+01
			Sb-122	<1.09E+02	0.00E+00	1.09E+02
			Sb-125	<4.04E+01	0.00E+00	4.04E+01

Sample ID:	Sample Dates:	Location:	Nuclide	Activity	2 Sigma Error	MDA
427818	11/9/2016 - 11/9/2016	BOTMFEEDER	Mn-54	<2.15E+01	0.00E+00	2.15E+01
			Co-58	<2.14E+01	0.00E+00	2.14E+01
			Fe-59	<5.17E+01	0.00E+00	5.17E+01
			Co-60	<2.01E+01	0.00E+00	2.01E+01
			Zn-65	<3.60E+01	0.00E+00	3.60E+01
			Nb-95	<2.10E+01	0.00E+00	2.10E+01
			I-131	<5.49E+01	0.00E+00	5.49E+01
			Cs-134	<2.02E+01	0.00E+00	2.02E+01
			Cs-137	<3.54E+01	0.00E+00	3.54E+01
			Be-7	<1.50E+02	0.00E+00	1.50E+02
			K-40	3.11E+03	5.99E+02	3.36E+02
			Ag-110M	<1.59E+01	0.00E+00	1.59E+01
			Sb-122	<3.34E+02	0.00E+00	3.34E+02
			Sb-125	<6.17E+01	0.00E+00	6.17E+01

Sample ID:	Sample Dates:	Location:	Nuclide	Activity	2 Sigma Error	MDA
427819	11/9/2016 - 11/9/2016	FREESWIM	Mn-54	<2.11E+01	0.00E+00	2.11E+01
			Co-58	<2.27E+01	0.00E+00	2.27E+01
			Fe-59	<4.26E+01	0.00E+00	4.26E+01
			Co-60	<2.33E+01	0.00E+00	2.33E+01
			Zn-65	<4.18E+01	0.00E+00	4.18E+01
			Nb-95	<2.06E+01	0.00E+00	2.06E+01
			I-131	<4.17E+01	0.00E+00	4.17E+01
			Cs-134	<1.69E+01	0.00E+00	1.69E+01
			Cs-137	<3.15E+01	0.00E+00	3.15E+01
			Be-7	<1.71E+02	0.00E+00	1.71E+02
			K-40	3.96E+03	6.54E+02	3.81E+02
			Ag-110M	<1.93E+01	0.00E+00	1.93E+01
			Sb-122	<3.17E+02	0.00E+00	3.17E+02
			Sb-125	<4.46E+01	0.00E+00	4.46E+01

Sample Point 46 [INDICATOR - @ 0 miles]

Sample ID:	Sample Dates:	Location:	Nuclide	Activity	2 Sigma Error	MDA
410859	5/18/2016 - 5/18/2016	BOTMFEEDER	Mn-54	<1.93E+01	0.00E+00	1.93E+01
			Co-58	<1.81E+01	0.00E+00	1.81E+01
			Fe-59	<4.58E+01	0.00E+00	4.58E+01
			Co-60	<2.30E+01	0.00E+00	2.30E+01
			Zn-65	<4.03E+01	0.00E+00	4.03E+01
			Nb-95	<1.40E+01	0.00E+00	1.40E+01
			I-131	<2.06E+01	0.00E+00	2.06E+01
			Cs-134	<1.53E+01	0.00E+00	1.53E+01
			Cs-137	2.92E+01	1.41E+01	1.58E+01
			Be-7	<1.45E+02	0.00E+00	1.45E+02
			K-40	3.88E+03	6.67E+02	2.63E+02
			Ag-110M	<1.68E+01	0.00E+00	1.68E+01
			Sb-122	<8.95E+01	0.00E+00	8.95E+01
			Sb-125	<4.42E+01	0.00E+00	4.42E+01

Sample ID:	Sample Dates:	Location:	Nuclide	Activity	2 Sigma Error	MDA
410860	5/18/2016 - 5/18/2016	FREESWIM	Mn-54	<2.15E+01	0.00E+00	2.15E+01
			Co-58	<2.19E+01	0.00E+00	2.19E+01
			Fe-59	<5.55E+01	0.00E+00	5.55E+01



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

Sample Point 46 [INDICATOR - @ 0 miles]

Sample ID:	Sample Dates:	Location:	Nuclide	Activity	2 Sigma Error	MDA
410860	5/18/2016 - 5/18/2016	FREESWIM	Co-60	<3.39E+01	0.00E+00	3.39E+01
			Zn-65	<4.22E+01	0.00E+00	4.22E+01
			Nb-95	<2.57E+01	0.00E+00	2.57E+01
			I-131	<3.07E+01	0.00E+00	3.07E+01
			Cs-134	<2.82E+01	0.00E+00	2.82E+01
			Cs-137	4.24E+01	2.29E+01	2.89E+01
			Be-7	<1.94E+02	0.00E+00	1.94E+02
			K-40	4.12E+03	7.59E+02	4.04E+02
			Ag-110M	<2.32E+01	0.00E+00	2.32E+01
			Sb-122	<1.08E+02	0.00E+00	1.08E+02
			Sb-125	<4.66E+01	0.00E+00	4.66E+01

Sample ID:	Sample Dates:	Location:	Nuclide	Activity	2 Sigma Error	MDA
427820	11/7/2016 - 11/7/2016	BOTMFEEDER	Mn-54	<2.59E+01	0.00E+00	2.59E+01
			Co-58	<3.97E+01	0.00E+00	3.97E+01
			Fe-59	<9.72E+01	0.00E+00	9.72E+01
			Co-60	<4.27E+01	0.00E+00	4.27E+01
			Zn-65	<6.61E+01	0.00E+00	6.61E+01
			Nb-95	<4.67E+01	0.00E+00	4.67E+01
			I-131	<7.52E+01	0.00E+00	7.52E+01
			Cs-134	<4.03E+01	0.00E+00	4.03E+01
			Cs-137	<5.76E+01	0.00E+00	5.76E+01
			Be-7	<3.16E+02	0.00E+00	3.16E+02
			K-40	4.25E+03	8.90E+02	1.08E+02
			Ag-110M	<2.61E+01	0.00E+00	2.61E+01
			Sb-122	<1.37E+03	0.00E+00	1.37E+03
			Sb-125	<8.69E+01	0.00E+00	8.69E+01

Sample ID:	Sample Dates:	Location:	Nuclide	Activity	2 Sigma Error	MDA
427821	11/7/2016 - 11/10/2016	FREESWIM	Mn-54	<2.06E+01	0.00E+00	2.06E+01
			Co-58	<2.03E+01	0.00E+00	2.03E+01
			Fe-59	<5.80E+01	0.00E+00	5.80E+01
			Co-60	<2.95E+01	0.00E+00	2.95E+01
			Zn-65	<4.32E+01	0.00E+00	4.32E+01
			Nb-95	<2.57E+01	0.00E+00	2.57E+01
			I-131	<4.07E+01	0.00E+00	4.07E+01
			Cs-134	<2.75E+01	0.00E+00	2.75E+01
			Cs-137	<3.49E+01	0.00E+00	3.49E+01
			Be-7	<1.45E+02	0.00E+00	1.45E+02
			K-40	4.23E+03	7.07E+02	6.09E+01
			Ag-110M	<1.63E+01	0.00E+00	1.63E+01
			Sb-122	<5.17E+02	0.00E+00	5.17E+02
			Sb-125	<4.04E+01	0.00E+00	4.04E+01

Sample Point 47 [CONTROL - @ 0 miles]

Sample ID:	Sample Dates:	Location:	Nuclide	Activity	2 Sigma Error	MDA
410861	5/17/2016 - 5/17/2016	BOTMFEEDER	Mn-54	<2.29E+01	0.00E+00	2.29E+01
			Co-58	<1.66E+01	0.00E+00	1.66E+01
			Fe-59	<4.50E+01	0.00E+00	4.50E+01
			Co-60	<6.82E+00	0.00E+00	6.82E+00
			Zn-65	<3.26E+01	0.00E+00	3.26E+01
			Nb-95	<2.37E+01	0.00E+00	2.37E+01
			I-131	<3.24E+01	0.00E+00	3.24E+01
			Cs-134	<2.92E+01	0.00E+00	2.92E+01
			Cs-137	2.23E+01	2.75E+01	4.49E+01
			Be-7	<1.62E+02	0.00E+00	1.62E+02
			K-40	3.24E+03	6.30E+02	6.85E+01
			Ag-110M	<2.27E+01	0.00E+00	2.27E+01
			Sb-122	<9.58E+01	0.00E+00	9.58E+01
			Sb-125	<5.21E+01	0.00E+00	5.21E+01

Sample ID:	Sample Dates:	Location:	Nuclide	Activity	2 Sigma Error	MDA
410862	5/17/2016 - 5/17/2016	FREESWIM	Mn-54	<1.97E+01	0.00E+00	1.97E+01
			Co-58	<1.62E+01	0.00E+00	1.62E+01
			Fe-59	<4.43E+01	0.00E+00	4.43E+01



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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
410862	5/17/2016 - 5/17/2016	FREESWIM	Co-60	<2.27E+01	0.00E+00	2.27E+01
			Zn-65	<4.00E+01	0.00E+00	4.00E+01
			Nb-95	<1.78E+01	0.00E+00	1.78E+01
			I-131	<3.03E+01	0.00E+00	3.03E+01
			Cs-134	<2.32E+01	0.00E+00	2.32E+01
			Cs-137	6.12E+01	2.18E+01	2.23E+01
			Be-7	<1.49E+02	0.00E+00	1.49E+02
			K-40	3.08E+03	5.74E+02	3.62E+02
			Ag-110M	<1.36E+01	0.00E+00	1.36E+01
			Sb-122	<7.19E+01	0.00E+00	7.19E+01
			Sb-125	<4.11E+01	0.00E+00	4.11E+01

Sample ID:	Sample Dates:	Location:	Nuclide	Activity	2 Sigma Error	MDA
427822	11/8/2016 - 11/8/2016	BOTMFEEDER	Mn-54	<2.65E+01	0.00E+00	2.65E+01
			Co-58	<2.14E+01	0.00E+00	2.14E+01
			Fe-59	<3.74E+01	0.00E+00	3.74E+01
			Co-60	<1.74E+01	0.00E+00	1.74E+01
			Zn-65	<5.05E+01	0.00E+00	5.05E+01
			Nb-95	<2.80E+01	0.00E+00	2.80E+01
			I-131	<4.21E+01	0.00E+00	4.21E+01
			Cs-134	<2.54E+01	0.00E+00	2.54E+01
			Cs-137	<3.18E+01	0.00E+00	3.18E+01
			Be-7	<1.32E+02	0.00E+00	1.32E+02
			K-40	2.78E+03	5.20E+02	2.38E+02
			Ag-110M	<1.91E+01	0.00E+00	1.91E+01
			Sb-122	<5.31E+02	0.00E+00	5.31E+02
			Sb-125	<4.31E+01	0.00E+00	4.31E+01

Sample ID:	Sample Dates:	Location:	Nuclide	Activity	2 Sigma Error	MDA
427823	11/8/2016 - 11/8/2016	FREESWIM	Mn-54	<1.92E+01	0.00E+00	1.92E+01
			Co-58	<1.47E+01	0.00E+00	1.47E+01
			Fe-59	<5.00E+01	0.00E+00	5.00E+01
			Co-60	<2.46E+01	0.00E+00	2.46E+01
			Zn-65	<4.44E+01	0.00E+00	4.44E+01
			Nb-95	<2.29E+01	0.00E+00	2.29E+01
			I-131	<5.27E+01	0.00E+00	5.27E+01
			Cs-134	<2.12E+01	0.00E+00	2.12E+01
			Cs-137	6.00E+01	2.36E+01	2.67E+01
			Be-7	<1.59E+02	0.00E+00	1.59E+02
			K-40	3.39E+03	6.01E+02	2.15E+02
			Ag-110M	<2.58E+01	0.00E+00	2.58E+01
			Sb-122	<6.68E+02	0.00E+00	6.68E+02
			Sb-125	<3.86E+01	0.00E+00	3.86E+01

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
398620	1/20/2016 - 1/20/2016	Mn-54	<4.86E+00	0.00E+00	4.86E+00
		Co-58	<5.18E+00	0.00E+00	5.18E+00
		Fe-59	<1.19E+01	0.00E+00	1.19E+01
		Co-60	<6.57E+00	0.00E+00	6.57E+00
		Zn-65	<8.79E+00	0.00E+00	8.79E+00
		Zr-95	<6.23E+00	0.00E+00	6.23E+00
		Nb-95	<6.18E+00	0.00E+00	6.18E+00
		I-131	<6.77E+00	0.00E+00	6.77E+00
		Cs-134	<5.69E+00	0.00E+00	5.69E+00
		Cs-137	<5.70E+00	0.00E+00	5.70E+00
		BaLa-140	<6.94E+00	0.00E+00	6.94E+00
		Be-7	<4.34E+01	0.00E+00	4.34E+01
		K-40	8.76E+01	5.62E+01	7.83E+01
		H3GW	<1.95E+01	0.00E+00	1.95E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
406290	4/19/2016 - 4/19/2016	Mn-54	<2.15E+00	0.00E+00	2.15E+00
		Co-58	<2.30E+00	0.00E+00	2.30E+00



ROBINSON Radiological Environmental Monitoring Analysis Report - 2016 (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
406290	4/19/2016 - 4/19/2016	Fe-59	<4.58E+00	0.00E+00	4.58E+00
		Co-60	<2.75E+00	0.00E+00	2.75E+00
		Zn-65	<5.57E+00	0.00E+00	5.57E+00
		Zr-95	<4.45E+00	0.00E+00	4.45E+00
		Nb-95	<3.06E+00	0.00E+00	3.06E+00
		I-131	<4.79E+00	0.00E+00	4.79E+00
		Cs-134	<2.61E+00	0.00E+00	2.61E+00
		Cs-137	<2.68E+00	0.00E+00	2.68E+00
		BaLa-140	<4.60E+00	0.00E+00	4.60E+00
		Be-7	<1.90E+01	0.00E+00	1.90E+01
		K-40	7.71E+01	2.89E+01	3.90E+01
		H3GW	<6.03E+01	0.00E+00	1.86E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
415335	7/18/2016 - 7/18/2016	Mn-54	<6.45E+00	0.00E+00	6.45E+00
		Co-58	<6.67E+00	0.00E+00	6.67E+00
		Fe-59	<9.96E+00	0.00E+00	9.96E+00
		Co-60	<5.29E+00	0.00E+00	5.29E+00
		Zn-65	<1.02E+01	0.00E+00	1.02E+01
		Zr-95	<1.19E+01	0.00E+00	1.19E+01
		Nb-95	<6.18E+00	0.00E+00	6.18E+00
		I-131	<7.15E+00	0.00E+00	7.15E+00
		Cs-134	<7.65E+00	0.00E+00	7.65E+00
		Cs-137	<6.12E+00	0.00E+00	6.12E+00
		BaLa-140	<6.63E+00	0.00E+00	6.63E+00
		Be-7	<3.94E+01	0.00E+00	3.94E+01
		K-40	<1.08E+02	0.00E+00	1.08E+02
H3GW	<-7.6E+00	0.00E+00	1.84E+02		

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
424361	10/18/2016 - 10/18/2016	Mn-54	<6.10E+00	0.00E+00	6.10E+00
		Co-58	<5.90E+00	0.00E+00	5.90E+00
		Fe-59	<9.94E+00	0.00E+00	9.94E+00
		Co-60	<5.94E+00	0.00E+00	5.94E+00
		Zn-65	<1.11E+01	0.00E+00	1.11E+01
		Zr-95	<1.09E+01	0.00E+00	1.09E+01
		Nb-95	<7.48E+00	0.00E+00	7.48E+00
		I-131	<6.26E+00	0.00E+00	6.26E+00
		Cs-134	<6.00E+00	0.00E+00	6.00E+00
		Cs-137	<6.77E+00	0.00E+00	6.77E+00
		BaLa-140	<5.99E+00	0.00E+00	5.99E+00
		Be-7	<3.67E+01	0.00E+00	3.67E+01
		K-40	7.26E+01	6.39E+01	9.91E+01
H3GW	<4.90E+00	0.00E+00	1.96E+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
402951	2/17/2016 - 2/17/2016	Mn-54	<1.19E+01	0.00E+00	1.19E+01
		Co-58	<9.30E+00	0.00E+00	9.30E+00
		Fe-59	<2.19E+01	0.00E+00	2.19E+01
		Co-60	<7.97E+00	0.00E+00	7.97E+00
		Zn-65	<2.06E+01	0.00E+00	2.06E+01
		Zr-95	<1.90E+01	0.00E+00	1.90E+01
		Nb-95	<1.19E+01	0.00E+00	1.19E+01
		I-131	<1.52E+01	0.00E+00	1.52E+01
		Cs-134	<1.39E+01	0.00E+00	1.39E+01
		Cs-137	<1.35E+01	0.00E+00	1.35E+01
		Be-7	<1.00E+02	0.00E+00	1.00E+02
		K-40	1.41E+02	7.91E+01	2.94E+01
		Co-57	<8.65E+00	0.00E+00	8.65E+00
		Mo-99	<4.74E+02	0.00E+00	4.74E+02
		Ag-110M	<7.77E+00	0.00E+00	7.77E+00
		Sb-122	<7.83E+01	0.00E+00	7.83E+01



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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
402951	2/17/2016 - 2/17/2016	Sb-125	<1.94E+01	0.00E+00	1.94E+01
420223	8/16/2016 - 8/16/2016	Mn-54	<1.08E+01	0.00E+00	1.08E+01
		Co-58	<1.11E+01	0.00E+00	1.11E+01
		Fe-59	<2.01E+01	0.00E+00	2.01E+01
		Co-60	<9.56E+00	0.00E+00	9.56E+00
		Zn-65	<6.19E+00	0.00E+00	6.19E+00
		Zr-95	<2.42E+01	0.00E+00	2.42E+01
		Nb-95	<1.40E+01	0.00E+00	1.40E+01
		I-131	<1.83E+01	0.00E+00	1.83E+01
		Cs-134	<1.68E+01	0.00E+00	1.68E+01
		Cs-137	<1.30E+01	0.00E+00	1.30E+01
		Be-7	1.31E+02	1.00E+02	1.52E+02
		K-40	<3.07E+02	0.00E+00	3.07E+02
		Co-57	<1.01E+01	0.00E+00	1.01E+01
		Mo-99	<3.94E+02	0.00E+00	3.94E+02
		Ag-110M	<1.02E+01	0.00E+00	1.02E+01
		Sb-122	<6.04E+01	0.00E+00	6.04E+01
		Sb-125	<2.69E+01	0.00E+00	2.69E+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
401686	12/28/2015 - 2/2/2016	Mn-54	<2.61E+00	0.00E+00	2.61E+00
		Co-58	<2.78E+00	0.00E+00	2.78E+00
		Fe-59	<4.93E+00	0.00E+00	4.93E+00
		Co-60	<2.33E+00	0.00E+00	2.33E+00
		Zn-65	<5.57E+00	0.00E+00	5.57E+00
		Zr-95	<4.94E+00	0.00E+00	4.94E+00
		Nb-95	<2.65E+00	0.00E+00	2.65E+00
		I-131	<1.16E+01	0.00E+00	1.16E+01
		Cs-134	<2.43E+00	0.00E+00	2.43E+00
		Cs-137	<2.35E+00	0.00E+00	2.35E+00
		BaLa-140	<6.69E+00	0.00E+00	6.69E+00
		Be-7	<2.26E+01	0.00E+00	2.26E+01
		K-40	4.79E+01	2.22E+01	2.93E+01
		H3SW	1.09E+03	1.40E+02	1.94E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
402979	2/2/2016 - 3/1/2016	Mn-54	<3.58E+00	0.00E+00	3.58E+00
		Co-58	<3.99E+00	0.00E+00	3.99E+00
		Fe-59	<8.35E+00	0.00E+00	8.35E+00
		Co-60	<3.98E+00	0.00E+00	3.98E+00
		Zn-65	<7.33E+00	0.00E+00	7.33E+00
		Zr-95	<8.32E+00	0.00E+00	8.32E+00
		Nb-95	<3.93E+00	0.00E+00	3.93E+00
		I-131	<1.15E+01	0.00E+00	1.15E+01
		Cs-134	<3.97E+00	0.00E+00	3.97E+00
		Cs-137	<3.84E+00	0.00E+00	3.84E+00
		BaLa-140	<8.08E+00	0.00E+00	8.08E+00
		Be-7	<3.31E+01	0.00E+00	3.31E+01
		K-40	2.37E+01	2.98E+01	4.87E+01
		H3SW	6.55E+02	1.29E+02	1.93E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
406654	3/1/2016 - 4/5/2016	Mn-54	<1.86E+00	0.00E+00	1.86E+00
		Co-58	<2.46E+00	0.00E+00	2.46E+00
		Fe-59	<4.57E+00	0.00E+00	4.57E+00
		Co-60	<2.39E+00	0.00E+00	2.39E+00
		Zn-65	<4.12E+00	0.00E+00	4.12E+00
		Zr-95	<3.73E+00	0.00E+00	3.73E+00
		Nb-95	<2.86E+00	0.00E+00	2.86E+00
		I-131	<9.89E+00	0.00E+00	9.89E+00
		Cs-134	<2.32E+00	0.00E+00	2.32E+00



ROBINSON Radiological Environmental Monitoring Analysis Report - 2016 (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
406654	3/1/2016 - 4/5/2016	Cs-137	<2.06E+00	0.00E+00	2.06E+00
		BaLa-140	<6.99E+00	0.00E+00	6.99E+00
		Be-7	<2.15E+01	0.00E+00	2.15E+01
		K-40	3.05E+01	2.01E+01	2.99E+01
		H3SW	3.86E+02	1.22E+02	1.88E+02
410174	4/5/2016 - 5/4/2016	Mn-54	<2.32E+00	0.00E+00	2.32E+00
		Co-58	<3.16E+00	0.00E+00	3.16E+00
		Fe-59	<5.82E+00	0.00E+00	5.82E+00
		Co-60	<2.30E+00	0.00E+00	2.30E+00
		Zn-65	<5.37E+00	0.00E+00	5.37E+00
		Zr-95	<4.85E+00	0.00E+00	4.85E+00
		Nb-95	<3.27E+00	0.00E+00	3.27E+00
		I-131	<1.18E+01	0.00E+00	1.18E+01
		Cs-134	<2.01E+00	0.00E+00	2.01E+00
		Cs-137	<2.92E+00	0.00E+00	2.92E+00
		BaLa-140	<9.49E+00	0.00E+00	9.49E+00
		Be-7	<2.11E+01	0.00E+00	2.11E+01
		K-40	2.70E+01	2.22E+01	3.38E+01
		H3SW	3.53E+02	1.20E+02	1.91E+02
412672	5/4/2016 - 5/31/2016	Mn-54	<2.22E+00	0.00E+00	2.22E+00
		Co-58	<2.75E+00	0.00E+00	2.75E+00
		Fe-59	<6.01E+00	0.00E+00	6.01E+00
		Co-60	<2.55E+00	0.00E+00	2.55E+00
		Zn-65	<4.78E+00	0.00E+00	4.78E+00
		Zr-95	<4.11E+00	0.00E+00	4.11E+00
		Nb-95	<3.13E+00	0.00E+00	3.13E+00
		I-131	<1.18E+01	0.00E+00	1.18E+01
		Cs-134	<2.39E+00	0.00E+00	2.39E+00
		Cs-137	<2.59E+00	0.00E+00	2.59E+00
		BaLa-140	<7.38E+00	0.00E+00	7.38E+00
		Be-7	<2.48E+01	0.00E+00	2.48E+01
		K-40	3.63E+01	2.17E+01	3.08E+01
		H3SW	9.51E+02	1.41E+02	1.92E+02
415499	5/31/2016 - 7/5/2016	Mn-54	<1.64E+00	0.00E+00	1.64E+00
		Co-58	<1.69E+00	0.00E+00	1.69E+00
		Fe-59	<3.65E+00	0.00E+00	3.65E+00
		Co-60	<1.58E+00	0.00E+00	1.58E+00
		Zn-65	<3.09E+00	0.00E+00	3.09E+00
		Zr-95	<3.06E+00	0.00E+00	3.06E+00
		Nb-95	<2.50E+00	0.00E+00	2.50E+00
		I-131	<1.20E+01	0.00E+00	1.20E+01
		Cs-134	<1.66E+00	0.00E+00	1.66E+00
		Cs-137	<1.70E+00	0.00E+00	1.70E+00
		BaLa-140	<6.52E+00	0.00E+00	6.52E+00
		Be-7	<1.80E+01	0.00E+00	1.80E+01
		K-40	4.28E+01	1.73E+01	2.38E+01
		H3SW	1.07E+03	1.40E+02	1.95E+02
417925	7/5/2016 - 8/2/2016	Mn-54	<2.06E+00	0.00E+00	2.06E+00
		Co-58	<2.16E+00	0.00E+00	2.16E+00
		Fe-59	<4.90E+00	0.00E+00	4.90E+00
		Co-60	<1.91E+00	0.00E+00	1.91E+00
		Zn-65	<3.68E+00	0.00E+00	3.68E+00
		Zr-95	<3.78E+00	0.00E+00	3.78E+00
		Nb-95	<2.77E+00	0.00E+00	2.77E+00
		I-131	<1.04E+01	0.00E+00	1.04E+01
		Cs-134	<2.13E+00	0.00E+00	2.13E+00
		Cs-137	<1.91E+00	0.00E+00	1.91E+00
		BaLa-140	<6.84E+00	0.00E+00	6.84E+00



ROBINSON Radiological Environmental Monitoring Analysis Report - 2016 (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
417925	7/5/2016 - 8/2/2016	Be-7	<1.99E+01	0.00E+00	1.99E+01
		K-40	<3.28E+01	0.00E+00	3.28E+01
		H3SW	1.23E+03	1.48E+02	1.92E+02
420494	8/2/2016 - 8/30/2016	Mn-54	<1.53E+00	0.00E+00	1.53E+00
		Co-58	<2.12E+00	0.00E+00	2.12E+00
		Fe-59	<2.98E+00	0.00E+00	2.98E+00
		Co-60	<1.58E+00	0.00E+00	1.58E+00
		Zn-65	<3.49E+00	0.00E+00	3.49E+00
		Zr-95	<4.09E+00	0.00E+00	4.09E+00
		Nb-95	<2.63E+00	0.00E+00	2.63E+00
		I-131	<1.14E+01	0.00E+00	1.14E+01
		Cs-134	<1.93E+00	0.00E+00	1.93E+00
		Cs-137	<1.79E+00	0.00E+00	1.79E+00
		BaLa-140	<6.48E+00	0.00E+00	6.48E+00
		Be-7	<1.58E+01	0.00E+00	1.58E+01
		K-40	4.89E+01	1.80E+01	2.26E+01
		H3SW	1.05E+03	1.44E+02	1.94E+02
424366	8/30/2016 - 10/3/2016	Mn-54	<1.41E+00	0.00E+00	1.41E+00
		Co-58	<2.04E+00	0.00E+00	2.04E+00
		Fe-59	<5.14E+00	0.00E+00	5.14E+00
		Co-60	<2.09E+00	0.00E+00	2.09E+00
		Zn-65	<3.79E+00	0.00E+00	3.79E+00
		Zr-95	<3.71E+00	0.00E+00	3.71E+00
		Nb-95	<2.19E+00	0.00E+00	2.19E+00
		I-131	<1.08E+01	0.00E+00	1.08E+01
		Cs-134	<1.65E+00	0.00E+00	1.65E+00
		Cs-137	<1.84E+00	0.00E+00	1.84E+00
		BaLa-140	<6.73E+00	0.00E+00	6.73E+00
		Be-7	<1.91E+01	0.00E+00	1.91E+01
		K-40	2.73E+01	1.98E+01	3.04E+01
		H3SW	4.63E+03	2.19E+02	1.89E+02
427276	10/3/2016 - 10/25/2016	Mn-54	<2.30E+00	0.00E+00	2.30E+00
		Co-58	<2.14E+00	0.00E+00	2.14E+00
		Fe-59	<4.30E+00	0.00E+00	4.30E+00
		Co-60	<1.80E+00	0.00E+00	1.80E+00
		Zn-65	<4.25E+00	0.00E+00	4.25E+00
		Zr-95	<4.43E+00	0.00E+00	4.43E+00
		Nb-95	<2.48E+00	0.00E+00	2.48E+00
		I-131	<9.96E+00	0.00E+00	9.96E+00
		Cs-134	<2.01E+00	0.00E+00	2.01E+00
		Cs-137	<2.21E+00	0.00E+00	2.21E+00
		BaLa-140	<6.01E+00	0.00E+00	6.01E+00
		Be-7	<1.86E+01	0.00E+00	1.86E+01
		K-40	3.16E+01	1.86E+01	2.63E+01
		H3SW	7.77E+03	2.69E+02	1.91E+02
429778	10/25/2016 - 11/28/2016	Mn-54	<1.33E+00	0.00E+00	1.33E+00
		Co-58	<1.38E+00	0.00E+00	1.38E+00
		Fe-59	<3.08E+00	0.00E+00	3.08E+00
		Co-60	<1.27E+00	0.00E+00	1.27E+00
		Zn-65	<2.36E+00	0.00E+00	2.36E+00
		Zr-95	<2.87E+00	0.00E+00	2.87E+00
		Nb-95	<1.96E+00	0.00E+00	1.96E+00
		I-131	<6.55E+00	0.00E+00	6.55E+00
		Cs-134	<1.40E+00	0.00E+00	1.40E+00
		Cs-137	<1.44E+00	0.00E+00	1.44E+00
		BaLa-140	<3.41E+00	0.00E+00	3.41E+00
		Be-7	<1.26E+01	0.00E+00	1.26E+01
		K-40	4.52E+01	1.47E+01	1.91E+01



ROBINSON Radiological Environmental Monitoring Analysis Report - 2016 (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
429778	10/25/2016 - 11/28/2016	H3SW	4.62E+03	2.19E+02	1.89E+02
431732	11/28/2016 - 12/28/2016	Mn-54	<1.19E+00	0.00E+00	1.19E+00
		Co-58	<1.42E+00	0.00E+00	1.42E+00
		Fe-59	<3.01E+00	0.00E+00	3.01E+00
		Co-60	<1.23E+00	0.00E+00	1.23E+00
		Zn-65	<2.23E+00	0.00E+00	2.23E+00
		Zr-95	<2.73E+00	0.00E+00	2.73E+00
		Nb-95	<2.05E+00	0.00E+00	2.05E+00
		I-131	<1.19E+01	0.00E+00	1.19E+01
		Cs-134	<1.31E+00	0.00E+00	1.31E+00
		Cs-137	<1.33E+00	0.00E+00	1.33E+00
		BaLa-140	<5.18E+00	0.00E+00	5.18E+00
		Be-7	<1.20E+01	0.00E+00	1.20E+01
		K-40	3.04E+01	1.13E+01	1.50E+01
		H3SW	3.57E+03	1.88E+02	1.93E+02

Sample Point 41 [CONTROL - N @ 8 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
401687	12/28/2015 - 2/2/2016	Mn-54	<2.05E+00	0.00E+00	2.05E+00
		Co-58	<1.67E+00	0.00E+00	1.67E+00
		Fe-59	<4.99E+00	0.00E+00	4.99E+00
		Co-60	<1.84E+00	0.00E+00	1.84E+00
		Zn-65	<4.62E+00	0.00E+00	4.62E+00
		Zr-95	<3.92E+00	0.00E+00	3.92E+00
		Nb-95	<3.02E+00	0.00E+00	3.02E+00
		I-131	<1.09E+01	0.00E+00	1.09E+01
		Cs-134	<2.06E+00	0.00E+00	2.06E+00
		Cs-137	<2.57E+00	0.00E+00	2.57E+00
		BaLa-140	<5.84E+00	0.00E+00	5.84E+00
		Be-7	<1.92E+01	0.00E+00	1.92E+01
		K-40	<3.22E+01	0.00E+00	3.22E+01
		H3SW	<7.58E+01	0.00E+00	1.93E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
402980	2/2/2016 - 3/1/2016	Mn-54	<3.40E+00	0.00E+00	3.40E+00
		Co-58	<2.74E+00	0.00E+00	2.74E+00
		Fe-59	<6.91E+00	0.00E+00	6.91E+00
		Co-60	<3.65E+00	0.00E+00	3.65E+00
		Zn-65	<6.73E+00	0.00E+00	6.73E+00
		Zr-95	<4.57E+00	0.00E+00	4.57E+00
		Nb-95	<4.62E+00	0.00E+00	4.62E+00
		I-131	<1.19E+01	0.00E+00	1.19E+01
		Cs-134	<2.56E+00	0.00E+00	2.56E+00
		Cs-137	<2.63E+00	0.00E+00	2.63E+00
		BaLa-140	<9.31E+00	0.00E+00	9.31E+00
		Be-7	<2.23E+01	0.00E+00	2.23E+01
		K-40	3.82E+01	2.72E+01	3.89E+01
		H3SW	<-7.6E+00	0.00E+00	1.93E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
406655	3/1/2016 - 4/5/2016	Mn-54	<1.94E+00	0.00E+00	1.94E+00
		Co-58	<2.57E+00	0.00E+00	2.57E+00
		Fe-59	<4.84E+00	0.00E+00	4.84E+00
		Co-60	<2.28E+00	0.00E+00	2.28E+00
		Zn-65	<4.24E+00	0.00E+00	4.24E+00
		Zr-95	<4.94E+00	0.00E+00	4.94E+00
		Nb-95	<3.38E+00	0.00E+00	3.38E+00
		I-131	<1.08E+01	0.00E+00	1.08E+01
		Cs-134	<2.31E+00	0.00E+00	2.31E+00
		Cs-137	<2.18E+00	0.00E+00	2.18E+00
		BaLa-140	<6.17E+00	0.00E+00	6.17E+00
		Be-7	<1.88E+01	0.00E+00	1.88E+01
		K-40	<3.93E+01	0.00E+00	3.93E+01



ROBINSON Radiological Environmental Monitoring Analysis Report - 2016 (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
406655	3/1/2016 - 4/5/2016	H3SW	<4.33E+01	0.00E+00	1.89E+02
410175	4/5/2016 - 5/4/2016	Mn-54	<1.83E+00	0.00E+00	1.83E+00
		Co-58	<2.20E+00	0.00E+00	2.20E+00
		Fe-59	<5.23E+00	0.00E+00	5.23E+00
		Co-60	<2.37E+00	0.00E+00	2.37E+00
		Zn-65	<4.41E+00	0.00E+00	4.41E+00
		Zr-95	<3.82E+00	0.00E+00	3.82E+00
		Nb-95	<3.19E+00	0.00E+00	3.19E+00
		I-131	<1.13E+01	0.00E+00	1.13E+01
		Cs-134	<2.35E+00	0.00E+00	2.35E+00
		Cs-137	<2.12E+00	0.00E+00	2.12E+00
		BaLa-140	<7.12E+00	0.00E+00	7.12E+00
		Be-7	<1.67E+01	0.00E+00	1.67E+01
		K-40	5.22E+01	2.32E+01	3.12E+01
		H3SW	<1.51E+01	0.00E+00	1.90E+02
412673	5/4/2016 - 5/31/2016	Mn-54	<1.85E+00	0.00E+00	1.85E+00
		Co-58	<2.06E+00	0.00E+00	2.06E+00
		Fe-59	<4.65E+00	0.00E+00	4.65E+00
		Co-60	<1.21E+00	0.00E+00	1.21E+00
		Zn-65	<3.95E+00	0.00E+00	3.95E+00
		Zr-95	<3.69E+00	0.00E+00	3.69E+00
		Nb-95	<2.75E+00	0.00E+00	2.75E+00
		I-131	<1.03E+01	0.00E+00	1.03E+01
		Cs-134	<2.11E+00	0.00E+00	2.11E+00
		Cs-137	<1.61E+00	0.00E+00	1.61E+00
		BaLa-140	<5.43E+00	0.00E+00	5.43E+00
		Be-7	<2.20E+01	0.00E+00	2.20E+01
		K-40	6.42E+01	2.09E+01	2.45E+01
		H3SW	<-9.9E+00	0.00E+00	1.93E+02
415500	5/31/2016 - 7/5/2016	Mn-54	<1.90E+00	0.00E+00	1.90E+00
		Co-58	<1.92E+00	0.00E+00	1.92E+00
		Fe-59	<3.69E+00	0.00E+00	3.69E+00
		Co-60	<1.93E+00	0.00E+00	1.93E+00
		Zn-65	<3.04E+00	0.00E+00	3.04E+00
		Zr-95	<3.10E+00	0.00E+00	3.10E+00
		Nb-95	<2.59E+00	0.00E+00	2.59E+00
		I-131	<1.13E+01	0.00E+00	1.13E+01
		Cs-134	<2.06E+00	0.00E+00	2.06E+00
		Cs-137	<1.63E+00	0.00E+00	1.63E+00
		BaLa-140	<5.76E+00	0.00E+00	5.76E+00
		Be-7	1.23E+01	1.59E+01	2.62E+01
		K-40	<2.59E+01	0.00E+00	2.59E+01
		H3SW	<-4.6E+01	0.00E+00	1.96E+02
417926	7/5/2016 - 8/2/2016	Mn-54	<1.80E+00	0.00E+00	1.80E+00
		Co-58	<2.01E+00	0.00E+00	2.01E+00
		Fe-59	<4.00E+00	0.00E+00	4.00E+00
		Co-60	<1.75E+00	0.00E+00	1.75E+00
		Zn-65	<3.58E+00	0.00E+00	3.58E+00
		Zr-95	<3.39E+00	0.00E+00	3.39E+00
		Nb-95	<2.30E+00	0.00E+00	2.30E+00
		I-131	<9.79E+00	0.00E+00	9.79E+00
		Cs-134	<2.06E+00	0.00E+00	2.06E+00
		Cs-137	<1.79E+00	0.00E+00	1.79E+00
		BaLa-140	<6.46E+00	0.00E+00	6.46E+00
		Be-7	<2.00E+01	0.00E+00	2.00E+01
		K-40	<2.99E+01	0.00E+00	2.99E+01
		H3SW	<-1.5E+01	0.00E+00	1.92E+02



ROBINSON Radiological Environmental Monitoring Analysis Report - 2016 (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
420495	8/2/2016 - 8/30/2016	Mn-54	<1.68E+00	0.00E+00	1.68E+00
		Co-58	<2.09E+00	0.00E+00	2.09E+00
		Fe-59	<3.33E+00	0.00E+00	3.33E+00
		Co-60	<1.80E+00	0.00E+00	1.80E+00
		Zn-65	<3.38E+00	0.00E+00	3.38E+00
		Zr-95	<3.47E+00	0.00E+00	3.47E+00
		Nb-95	<2.42E+00	0.00E+00	2.42E+00
		I-131	<1.11E+01	0.00E+00	1.11E+01
		Cs-134	<2.21E+00	0.00E+00	2.21E+00
		Cs-137	<1.86E+00	0.00E+00	1.86E+00
		BaLa-140	<6.40E+00	0.00E+00	6.40E+00
		Be-7	<2.10E+01	0.00E+00	2.10E+01
		K-40	3.83E+01	1.88E+01	2.68E+01
		H3SW	<-2.9E+01	0.00E+00	1.92E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
424367	8/30/2016 - 10/3/2016	Mn-54	<1.72E+00	0.00E+00	1.72E+00
		Co-58	<1.92E+00	0.00E+00	1.92E+00
		Fe-59	<3.62E+00	0.00E+00	3.62E+00
		Co-60	<1.50E+00	0.00E+00	1.50E+00
		Zn-65	<3.48E+00	0.00E+00	3.48E+00
		Zr-95	<2.81E+00	0.00E+00	2.81E+00
		Nb-95	<2.48E+00	0.00E+00	2.48E+00
		I-131	<1.11E+01	0.00E+00	1.11E+01
		Cs-134	<2.06E+00	0.00E+00	2.06E+00
		Cs-137	<1.77E+00	0.00E+00	1.77E+00
		BaLa-140	<5.42E+00	0.00E+00	5.42E+00
		Be-7	<1.71E+01	0.00E+00	1.71E+01
		K-40	2.68E+01	1.84E+01	2.83E+01
		H3SW	<3.87E+01	0.00E+00	1.89E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
427277	10/3/2016 - 10/25/2016	Mn-54	<2.34E+00	0.00E+00	2.34E+00
		Co-58	<1.93E+00	0.00E+00	1.93E+00
		Fe-59	<5.12E+00	0.00E+00	5.12E+00
		Co-60	<2.27E+00	0.00E+00	2.27E+00
		Zn-65	<3.31E+00	0.00E+00	3.31E+00
		Zr-95	<4.02E+00	0.00E+00	4.02E+00
		Nb-95	<2.54E+00	0.00E+00	2.54E+00
		I-131	<1.14E+01	0.00E+00	1.14E+01
		Cs-134	<2.33E+00	0.00E+00	2.33E+00
		Cs-137	<1.84E+00	0.00E+00	1.84E+00
		BaLa-140	<7.17E+00	0.00E+00	7.17E+00
		Be-7	<2.18E+01	0.00E+00	2.18E+01
		K-40	2.81E+01	1.88E+01	2.68E+01
		H3SW	<-4.8E+00	0.00E+00	1.91E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
429779	10/25/2016 - 11/28/2016	Mn-54	<1.52E+00	0.00E+00	1.52E+00
		Co-58	<1.38E+00	0.00E+00	1.38E+00
		Fe-59	<3.70E+00	0.00E+00	3.70E+00
		Co-60	<1.36E+00	0.00E+00	1.36E+00
		Zn-65	<2.84E+00	0.00E+00	2.84E+00
		Zr-95	<3.15E+00	0.00E+00	3.15E+00
		Nb-95	<2.31E+00	0.00E+00	2.31E+00
		I-131	<6.98E+00	0.00E+00	6.98E+00
		Cs-134	<1.66E+00	0.00E+00	1.66E+00
		Cs-137	<1.63E+00	0.00E+00	1.63E+00
		BaLa-140	<4.04E+00	0.00E+00	4.04E+00
		Be-7	<1.46E+01	0.00E+00	1.46E+01
		K-40	3.94E+01	1.54E+01	2.08E+01
		H3SW	<-4.8E+00	0.00E+00	1.87E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
431733	11/28/2016 - 12/28/2016	Mn-54	<1.32E+00	0.00E+00	1.32E+00
		Co-58	<1.36E+00	0.00E+00	1.36E+00



ROBINSON Radiological Environmental Monitoring Analysis Report - 2016 (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
431733	11/28/2016 - 12/28/2016	Fe-59	<3.19E+00	0.00E+00	3.19E+00
		Co-60	<1.36E+00	0.00E+00	1.36E+00
		Zn-65	<2.79E+00	0.00E+00	2.79E+00
		Zr-95	<2.76E+00	0.00E+00	2.76E+00
		Nb-95	<2.16E+00	0.00E+00	2.16E+00
		I-131	<1.18E+01	0.00E+00	1.18E+01
		Cs-134	<1.36E+00	0.00E+00	1.36E+00
		Cs-137	<1.32E+00	0.00E+00	1.32E+00
		BaLa-140	<4.94E+00	0.00E+00	4.94E+00
		Be-7	<1.39E+01	0.00E+00	1.39E+01
		K-40	2.76E+01	1.32E+01	1.89E+01
		H3SW	<-7.7E+01	0.00E+00	1.94E+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
398834	1/12/2016 - 4/7/2016	mR/Std Qtr	17.20
407434	4/7/2016 - 7/14/2016	mR/Std Qtr	14.92
416129	7/14/2016 - 10/13/2016	mR/Std Qtr	12.92
425299	10/13/2016 - 1/13/2017	mR/Std Qtr	17.82

Sample Point 2 [INDICATOR - S @ 0.2 miles]

TLD RING TLD_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
398845	1/12/2016 - 4/7/2016	mR/Std Qtr	15.98
407445	4/7/2016 - 7/14/2016	mR/Std Qtr	14.66
416140	7/14/2016 - 10/13/2016	mR/Std Qtr	12.77
425310	10/13/2016 - 1/13/2017	mR/Std Qtr	18.89

Sample Point 3 [INDICATOR - N @ 0.5 miles]

TLD RING TLD_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
398856	1/12/2016 - 4/7/2016	mR/Std Qtr	19.49
407456	4/7/2016 - 7/14/2016	mR/Std Qtr	14.99
416151	7/14/2016 - 10/13/2016	mR/Std Qtr	13.45
425321	10/13/2016 - 1/13/2017	mR/Std Qtr	19.71

Sample Point 4 [INDICATOR - ESE @ 0.4 miles]

TLD RING TLD_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
398867	1/12/2016 - 4/7/2016	mR/Std Qtr	13.46
407467	4/7/2016 - 7/14/2016	mR/Std Qtr	12.67
416162	7/14/2016 - 10/13/2016	mR/Std Qtr	11.54
425332	10/13/2016 - 1/13/2017	mR/Std Qtr	14.21



ROBINSON Radiological Environmental Monitoring Analysis Report - 2016 (Appendix E)

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

Sample Point 5 [INDICATOR - ENE @ 0.9 miles]

TLD RING TLD_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
398868	1/12/2016 - 4/7/2016	mR/Std Qtr	19.37
407468	4/7/2016 - 7/14/2016	mR/Std Qtr	14.98
416163	7/14/2016 - 10/13/2016	mR/Std Qtr	11.13
425333	10/13/2016 - 1/13/2017	mR/Std Qtr	15.94

Sample Point 6 [INDICATOR - SSW @ 0.2 miles]

TLD RING TLD_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
398871	1/12/2016 - 4/7/2016	mR/Std Qtr	20.70
407471	4/7/2016 - 7/14/2016	mR/Std Qtr	14.52
416166	7/14/2016 - 10/13/2016	mR/Std Qtr	13.41
425336	10/13/2016 - 1/13/2017	mR/Std Qtr	18.54

Sample Point 7 [INDICATOR - ESE @ 6.4 miles]

TLD RING TLD_OUTER

Sample ID:	Sample Dates:	Nuclide	Activity
398874	1/12/2016 - 4/7/2016	mR/Std Qtr	16.53
407474	4/7/2016 - 7/14/2016	mR/Std Qtr	14.66
416169	7/14/2016 - 10/13/2016	mR/Std Qtr	14.27
425339	10/13/2016 - 1/13/2017	mR/Std Qtr	19.38

Sample Point 8 [INDICATOR - SSE @ 0.8 miles]

TLD RING TLD_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
398875	1/12/2016 - 4/7/2016	mR/Std Qtr	12.58
407475	4/7/2016 - 7/14/2016	mR/Std Qtr	12.53
416170	7/14/2016 - 10/13/2016	mR/Std Qtr	10.87
425340	10/13/2016 - 1/13/2017	mR/Std Qtr	13.41

Sample Point 9 [INDICATOR - S @ 1 miles]

TLD RING TLD_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
398876	1/12/2016 - 4/7/2016	mR/Std Qtr	13.25
407476	4/7/2016 - 7/14/2016	mR/Std Qtr	12.62
416171	7/14/2016 - 10/13/2016	mR/Std Qtr	10.97
425341	10/13/2016 - 1/13/2017	mR/Std Qtr	13.39

Sample Point 10 [INDICATOR - WSW @ 1 miles]

TLD RING TLD_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
398835	1/12/2016 - 4/7/2016	mR/Std Qtr	16.24

ROBINSON Radiological Environmental Monitoring Analysis Report - 2016 (Appendix E)

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

Sample Point 10 [INDICATOR - WSW @ 1 miles]

TLD RING TLD_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
407435	4/7/2016 - 7/14/2016	mR/Std Qtr	15.04
416130	7/14/2016 - 10/13/2016	mR/Std Qtr	11.99
425300	10/13/2016 - 1/13/2017	mR/Std Qtr	16.67

Sample Point 11 [INDICATOR - SW @ 1 miles]

TLD RING TLD_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
398836	1/12/2016 - 4/7/2016	mR/Std Qtr	14.71
407436	4/7/2016 - 7/14/2016	mR/Std Qtr	13.46
416131	7/14/2016 - 10/13/2016	mR/Std Qtr	12.88
425301	10/13/2016 - 1/13/2017	mR/Std Qtr	15.85

Sample Point 12 [INDICATOR - SSW @ 1.2 miles]

TLD RING TLD_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
398837	1/12/2016 - 4/7/2016	mR/Std Qtr	19.27
407437	4/7/2016 - 7/14/2016	mR/Std Qtr	18.11
416132	7/14/2016 - 10/13/2016	mR/Std Qtr	16.75
425302	10/13/2016 - 1/13/2017	mR/Std Qtr	18.93

Sample Point 13 [INDICATOR - W @ 0.7 miles]

TLD RING TLD_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
398838	1/12/2016 - 4/7/2016	mR/Std Qtr	18.24
407438	4/7/2016 - 7/14/2016	mR/Std Qtr	16.36
416133	7/14/2016 - 10/13/2016	mR/Std Qtr	13.92
425303	10/13/2016 - 1/13/2017	mR/Std Qtr	16.77

Sample Point 14 [INDICATOR - WNW @ 0.8 miles]

TLD RING TLD_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
398839	1/12/2016 - 4/7/2016	mR/Std Qtr	22.18
407439	4/7/2016 - 7/14/2016	mR/Std Qtr	18.87
416134	7/14/2016 - 10/13/2016	mR/Std Qtr	15.59
425304	10/13/2016 - 1/13/2017	mR/Std Qtr	21.23

Sample Point 15 [INDICATOR - NW @ 0.7 miles]

TLD RING TLD_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
398840	1/12/2016 - 4/7/2016	mR/Std Qtr	17.05
407440	4/7/2016 - 7/14/2016	mR/Std Qtr	14.37

ROBINSON Radiological Environmental Monitoring Analysis Report - 2016 (Appendix E)

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

Sample Point 15 [INDICATOR - NW @ 0.7 miles]

TLD RING TLD_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
416135	7/14/2016 - 10/13/2016	mR/Std Qtr	12.31

Sample ID:	Sample Dates:	Nuclide	Activity
425305	10/13/2016 - 1/13/2017	mR/Std Qtr	15.66

Sample Point 16 [INDICATOR - NNW @ 1 miles]

TLD RING TLD_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
398841	1/12/2016 - 4/7/2016	mR/Std Qtr	17.96

Sample ID:	Sample Dates:	Nuclide	Activity
407441	4/7/2016 - 7/14/2016	mR/Std Qtr	14.72

Sample ID:	Sample Dates:	Nuclide	Activity
416136	7/14/2016 - 10/13/2016	mR/Std Qtr	12.37

Sample ID:	Sample Dates:	Nuclide	Activity
425306	10/13/2016 - 1/13/2017	mR/Std Qtr	17.37

Sample Point 17 [INDICATOR - N @ 1.2 miles]

TLD RING TLD_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
398842	1/12/2016 - 4/7/2016	mR/Std Qtr	21.02

Sample ID:	Sample Dates:	Nuclide	Activity
407442	4/7/2016 - 7/14/2016	mR/Std Qtr	17.96

Sample ID:	Sample Dates:	Nuclide	Activity
416137	7/14/2016 - 10/13/2016	mR/Std Qtr	16.64

Sample ID:	Sample Dates:	Nuclide	Activity
425307	10/13/2016 - 1/13/2017	mR/Std Qtr	20.94

Sample Point 18 [INDICATOR - SE @ 0.7 miles]

TLD RING TLD_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
398843	1/12/2016 - 4/7/2016	mR/Std Qtr	17.78

Sample ID:	Sample Dates:	Nuclide	Activity
407443	4/7/2016 - 7/14/2016	mR/Std Qtr	17.34

Sample ID:	Sample Dates:	Nuclide	Activity
416138	7/14/2016 - 10/13/2016	mR/Std Qtr	15.26

Sample ID:	Sample Dates:	Nuclide	Activity
425308	10/13/2016 - 1/13/2017	mR/Std Qtr	21.65

Sample Point 19 [INDICATOR - E @ 1 miles]

TLD RING TLD_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
398844	1/12/2016 - 4/7/2016	mR/Std Qtr	16.53

Sample ID:	Sample Dates:	Nuclide	Activity
407444	4/7/2016 - 7/14/2016	mR/Std Qtr	13.60

Sample ID:	Sample Dates:	Nuclide	Activity
416139	7/14/2016 - 10/13/2016	mR/Std Qtr	13.17

Sample ID:	Sample Dates:	Nuclide	Activity
425309	10/13/2016 - 1/13/2017	mR/Std Qtr	17.02

Sample Point 20 [INDICATOR - ENE @ 1 miles]

TLD RING TLD_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
398846	1/12/2016 - 4/7/2016	mR/Std Qtr	17.90

Sample ID:	Sample Dates:	Nuclide	Activity
407446	4/7/2016 - 7/14/2016	mR/Std Qtr	14.83

Sample ID:	Sample Dates:	Nuclide	Activity
416141	7/14/2016 - 10/13/2016	mR/Std Qtr	11.14



ROBINSON Radiological Environmental Monitoring Analysis Report - 2016 (Appendix E)

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

Sample Point 20 [INDICATOR - ENE @ 1 miles]

TLD RING TLD_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
425311	10/13/2016 - 1/13/2017	mR/Std Qtr	15.87

Sample Point 21 [INDICATOR - NE @ 1.4 miles]

TLD RING TLD_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
398847	1/12/2016 - 4/7/2016	mR/Std Qtr	16.39

Sample ID:	Sample Dates:	Nuclide	Activity
407447	4/7/2016 - 7/14/2016	mR/Std Qtr	15.67

Sample ID:	Sample Dates:	Nuclide	Activity
416142	7/14/2016 - 10/13/2016	mR/Std Qtr	14.07

Sample ID:	Sample Dates:	Nuclide	Activity
425312	10/13/2016 - 1/13/2017	mR/Std Qtr	15.49

Sample Point 22 [INDICATOR - NNE @ 1.7 miles]

TLD RING TLD_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
398848	1/12/2016 - 4/7/2016	mR/Std Qtr	17.17

Sample ID:	Sample Dates:	Nuclide	Activity
407448	4/7/2016 - 7/14/2016	mR/Std Qtr	17.20

Sample ID:	Sample Dates:	Nuclide	Activity
416143	7/14/2016 - 10/13/2016	mR/Std Qtr	15.66

Sample ID:	Sample Dates:	Nuclide	Activity
425313	10/13/2016 - 1/13/2017	mR/Std Qtr	18.33

Sample Point 23 [INDICATOR - ESE @ 1 miles]

TLD RING TLD_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
398849	1/12/2016 - 4/7/2016	mR/Std Qtr	19.41

Sample ID:	Sample Dates:	Nuclide	Activity
407449	4/7/2016 - 7/14/2016	mR/Std Qtr	16.36

Sample ID:	Sample Dates:	Nuclide	Activity
416144	7/14/2016 - 10/13/2016	mR/Std Qtr	16.07

Sample ID:	Sample Dates:	Nuclide	Activity
425314	10/13/2016 - 1/13/2017	mR/Std Qtr	19.09

Sample Point 24 [INDICATOR - NW @ 4.6 miles]

TLD RING TLD_OUTER

Sample ID:	Sample Dates:	Nuclide	Activity
398850	1/12/2016 - 4/7/2016	mR/Std Qtr	23.68

Sample ID:	Sample Dates:	Nuclide	Activity
407450	4/7/2016 - 7/14/2016	mR/Std Qtr	19.83

Sample ID:	Sample Dates:	Nuclide	Activity
416145	7/14/2016 - 10/13/2016	mR/Std Qtr	16.53

Sample ID:	Sample Dates:	Nuclide	Activity
425315	10/13/2016 - 1/13/2017	mR/Std Qtr	21.93

Sample Point 25 [INDICATOR - NNW @ 4 miles]

TLD RING TLD_OUTER

Sample ID:	Sample Dates:	Nuclide	Activity
398851	1/12/2016 - 4/7/2016	mR/Std Qtr	16.52

Sample ID:	Sample Dates:	Nuclide	Activity
407451	4/7/2016 - 7/14/2016	mR/Std Qtr	15.31

Sample ID:	Sample Dates:	Nuclide	Activity
416146	7/14/2016 - 10/13/2016	mR/Std Qtr	14.93

Sample ID:	Sample Dates:	Nuclide	Activity
425316	10/13/2016 - 1/13/2017	mR/Std Qtr	17.31



ROBINSON Radiological Environmental Monitoring Analysis Report - 2016 (Appendix E)

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

Sample Point 26 [INDICATOR - N @ 5 miles]

TLD RING TLD_OUTER

Sample ID:	407452	Sample Dates:	4/7/2016 - 7/14/2016	Nuclide	Activity
				mR/Std Qtr	16.21

Sample ID:	416147	Sample Dates:	7/14/2016 - 10/13/2016	Nuclide	Activity
				mR/Std Qtr	13.06

Sample ID:	425317	Sample Dates:	10/13/2016 - 1/13/2017	Nuclide	Activity
				mR/Std Qtr	15.77

Sample Point 27 [INDICATOR - NNE @ 5.4 miles]

TLD RING TLD_OUTER

Sample ID:	398853	Sample Dates:	1/12/2016 - 4/7/2016	Nuclide	Activity
				mR/Std Qtr	17.49

Sample ID:	407453	Sample Dates:	4/7/2016 - 7/14/2016	Nuclide	Activity
				mR/Std Qtr	13.10

Sample ID:	416148	Sample Dates:	7/14/2016 - 10/13/2016	Nuclide	Activity
				mR/Std Qtr	11.61

Sample ID:	425318	Sample Dates:	10/13/2016 - 1/13/2017	Nuclide	Activity
				mR/Std Qtr	15.99

Sample Point 28 [INDICATOR - NE @ 4.3 miles]

TLD RING TLD_OUTER

Sample ID:	398854	Sample Dates:	1/12/2016 - 4/7/2016	Nuclide	Activity
				mR/Std Qtr	21.53

Sample ID:	407454	Sample Dates:	4/7/2016 - 7/14/2016	Nuclide	Activity
				mR/Std Qtr	20.68

Sample ID:	416149	Sample Dates:	7/14/2016 - 10/13/2016	Nuclide	Activity
				mR/Std Qtr	18.05

Sample ID:	425319	Sample Dates:	10/13/2016 - 1/13/2017	Nuclide	Activity
				mR/Std Qtr	24.16

Sample Point 29 [INDICATOR - ENE @ 4 miles]

TLD RING TLD_OUTER

Sample ID:	398855	Sample Dates:	1/12/2016 - 4/7/2016	Nuclide	Activity
				mR/Std Qtr	15.88

Sample ID:	407455	Sample Dates:	4/7/2016 - 7/14/2016	Nuclide	Activity
				mR/Std Qtr	13.41

Sample ID:	416150	Sample Dates:	7/14/2016 - 10/13/2016	Nuclide	Activity
				mR/Std Qtr	10.60

Sample ID:	425320	Sample Dates:	10/13/2016 - 1/13/2017	Nuclide	Activity
				mR/Std Qtr	17.37

Sample Point 30 [INDICATOR - E @ 4.4 miles]

TLD RING TLD_OUTER

Sample ID:	398857	Sample Dates:	1/12/2016 - 4/7/2016	Nuclide	Activity
				mR/Std Qtr	19.16

Sample ID:	407457	Sample Dates:	4/7/2016 - 7/14/2016	Nuclide	Activity
				mR/Std Qtr	18.96

Sample ID:	416152	Sample Dates:	7/14/2016 - 10/13/2016	Nuclide	Activity
				mR/Std Qtr	15.95

Sample ID:	425322	Sample Dates:	10/13/2016 - 1/13/2017	Nuclide	Activity
				mR/Std Qtr	19.79

Sample Point 31 [INDICATOR - ESE @ 4.6 miles]

TLD RING TLD_OUTER

Sample ID:	398858	Sample Dates:	1/12/2016 - 4/7/2016	Nuclide	Activity
				mR/Std Qtr	18.22

Sample ID:	407458	Sample Dates:	4/7/2016 - 7/14/2016	Nuclide	Activity
				mR/Std Qtr	17.23

ROBINSON Radiological Environmental Monitoring Analysis Report - 2016 (Appendix E)

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

Sample Point 31 [INDICATOR - ESE @ 4.6 miles]

TLD RING TLD_OUTER

Sample ID:	416153	Sample Dates:	7/14/2016 - 10/13/2016	Nuclide	Activity
				mR/Std Qtr	15.50

Sample ID:	425323	Sample Dates:	10/13/2016 - 1/13/2017	Nuclide	Activity
				mR/Std Qtr	20.35

Sample Point 32 [INDICATOR - SE @ 4 miles] TLD RING TLD_OUTER

Sample ID:	398859	Sample Dates:	1/12/2016 - 4/7/2016	Nuclide	Activity
				mR/Std Qtr	18.70

Sample ID:	407459	Sample Dates:	4/7/2016 - 7/14/2016	Nuclide	Activity
				mR/Std Qtr	16.05

Sample ID:	416154	Sample Dates:	7/14/2016 - 10/13/2016	Nuclide	Activity
				mR/Std Qtr	13.84

Sample ID:	425324	Sample Dates:	10/13/2016 - 1/13/2017	Nuclide	Activity
				mR/Std Qtr	16.34

Sample Point 33 [INDICATOR - SSE @ 4.5 miles] TLD RING TLD_OUTER

Sample ID:	398860	Sample Dates:	1/12/2016 - 4/7/2016	Nuclide	Activity
				mR/Std Qtr	20.60

Sample ID:	407460	Sample Dates:	4/7/2016 - 7/14/2016	Nuclide	Activity
				mR/Std Qtr	17.25

Sample ID:	416155	Sample Dates:	7/14/2016 - 10/13/2016	Nuclide	Activity
				mR/Std Qtr	14.92

Sample ID:	425325	Sample Dates:	10/13/2016 - 1/13/2017	Nuclide	Activity
				mR/Std Qtr	18.62

Sample Point 34 [INDICATOR - S @ 4.7 miles] TLD RING TLD_OUTER

Sample ID:	398861	Sample Dates:	1/12/2016 - 4/7/2016	Nuclide	Activity
				mR/Std Qtr	12.97

Sample ID:	407461	Sample Dates:	4/7/2016 - 7/14/2016	Nuclide	Activity
				mR/Std Qtr	12.11

Sample ID:	416156	Sample Dates:	7/14/2016 - 10/13/2016	Nuclide	Activity
				mR/Std Qtr	9.84

Sample ID:	425326	Sample Dates:	10/13/2016 - 1/13/2017	Nuclide	Activity
				mR/Std Qtr	13.04

Sample Point 35 [INDICATOR - SSW @ 4.5 miles] TLD RING TLD_OUTER

Sample ID:	398862	Sample Dates:	1/12/2016 - 4/7/2016	Nuclide	Activity
				mR/Std Qtr	25.42

Sample ID:	407462	Sample Dates:	4/7/2016 - 7/14/2016	Nuclide	Activity
				mR/Std Qtr	23.47

Sample ID:	416157	Sample Dates:	7/14/2016 - 10/13/2016	Nuclide	Activity
				mR/Std Qtr	20.42

Sample ID:	425327	Sample Dates:	10/13/2016 - 1/13/2017	Nuclide	Activity
				mR/Std Qtr	26.86

Sample Point 36 [INDICATOR - SW @ 5 miles] TLD RING TLD_OUTER

Sample ID:	398863	Sample Dates:	1/12/2016 - 4/7/2016	Nuclide	Activity
				mR/Std Qtr	25.22

Sample ID:	407463	Sample Dates:	4/7/2016 - 7/14/2016	Nuclide	Activity
				mR/Std Qtr	22.41

Sample ID:	416158	Sample Dates:	7/14/2016 - 10/13/2016	Nuclide	Activity
				mR/Std Qtr	18.33

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

Sample Point 36 [INDICATOR - SW @ 5 miles]

TLD RING TLD_OUTER

Sample ID: 425328	Sample Dates: 10/13/2016 - 1/13/2017	Nuclide	Activity
		mR/Std Qtr	21.98

Sample Point 37 [INDICATOR - WSW @ 5 miles]

TLD RING TLD_OUTER

Sample ID: 398864	Sample Dates: 1/12/2016 - 4/7/2016	Nuclide	Activity
		mR/Std Qtr	28.29

Sample ID: 407464	Sample Dates: 4/7/2016 - 7/14/2016	Nuclide	Activity
		mR/Std Qtr	22.64

Sample ID: 416159	Sample Dates: 7/14/2016 - 10/13/2016	Nuclide	Activity
		mR/Std Qtr	20.16

Sample ID: 425329	Sample Dates: 10/13/2016 - 1/13/2017	Nuclide	Activity
		mR/Std Qtr	26.44

Sample Point 38 [INDICATOR - W @ 4.9 miles]

TLD RING TLD_OUTER

Sample ID: 398865	Sample Dates: 1/12/2016 - 4/7/2016	Nuclide	Activity
		mR/Std Qtr	17.79

Sample ID: 407465	Sample Dates: 4/7/2016 - 7/14/2016	Nuclide	Activity
		mR/Std Qtr	17.51

Sample ID: 416160	Sample Dates: 7/14/2016 - 10/13/2016	Nuclide	Activity
		mR/Std Qtr	15.38

Sample ID: 425330	Sample Dates: 10/13/2016 - 1/13/2017	Nuclide	Activity
		mR/Std Qtr	19.63

Sample Point 39 [INDICATOR - WNW @ 5.1 miles]

TLD RING TLD_OUTER

Sample ID: 398866	Sample Dates: 1/12/2016 - 4/7/2016	Nuclide	Activity
		mR/Std Qtr	18.96

Sample ID: 407466	Sample Dates: 4/7/2016 - 7/14/2016	Nuclide	Activity
		mR/Std Qtr	16.88

Sample ID: 416161	Sample Dates: 7/14/2016 - 10/13/2016	Nuclide	Activity
		mR/Std Qtr	13.35

Sample ID: 425331	Sample Dates: 10/13/2016 - 1/13/2017	Nuclide	Activity
		mR/Std Qtr	17.39

Sample Point 55 [INDICATOR - SSE @ 0.2 miles]

TLD RING TLD_INNER

Sample ID: 398869	Sample Dates: 1/12/2016 - 4/7/2016	Nuclide	Activity
		mR/Std Qtr	17.10

Sample ID: 407469	Sample Dates: 4/7/2016 - 7/14/2016	Nuclide	Activity
		mR/Std Qtr	15.92

Sample ID: 416164	Sample Dates: 7/14/2016 - 10/13/2016	Nuclide	Activity
		mR/Std Qtr	14.40

Sample ID: 425334	Sample Dates: 10/13/2016 - 1/13/2017	Nuclide	Activity
		mR/Std Qtr	16.00

Sample Point 56 [INDICATOR - NNW @ 0.4 miles]

TLD RING TLD_INNER

Sample ID: 398870	Sample Dates: 1/12/2016 - 4/7/2016	Nuclide	Activity
		mR/Std Qtr	16.44

Sample ID: 407470	Sample Dates: 4/7/2016 - 7/14/2016	Nuclide	Activity
		mR/Std Qtr	14.97

Sample ID: 416165	Sample Dates: 7/14/2016 - 10/13/2016	Nuclide	Activity
		mR/Std Qtr	13.43

Sample ID: 425335	Sample Dates: 10/13/2016 - 1/13/2017	Nuclide	Activity
		mR/Std Qtr	18.00

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

Sample Point 61 [INDICATOR - WSW @ 0.3 miles]

TLD RING TLD_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
398872	1/12/2016 - 4/7/2016	mR/Std Qtr	23.43
407472	4/7/2016 - 7/14/2016	mR/Std Qtr	19.94
416167	7/14/2016 - 10/13/2016	mR/Std Qtr	18.72
425337	10/13/2016 - 1/13/2017	mR/Std Qtr	24.84

Sample Point 65 [INDICATOR - WNW @ 0.3 miles]

TLD RING TLD_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
398873	1/12/2016 - 4/7/2016	mR/Std Qtr	22.80
407473	4/7/2016 - 7/14/2016	mR/Std Qtr	21.00
416168	7/14/2016 - 10/13/2016	mR/Std Qtr	18.38
425338	10/13/2016 - 1/13/2017	mR/Std Qtr	22.40

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

Sample Point 50 [INDICATOR - SSE @ 0 miles]

Sample ID:	Sample Dates:	BLKCHERRY	Nuclide	Activity	2 Sigma Error	MDA
407633	4/19/2016 - 4/19/2016		Mn-54	<3.03E+01	0.00E+00	3.03E+01
			Co-58	<2.65E+01	0.00E+00	2.65E+01
			Fe-59	<8.02E+01	0.00E+00	8.02E+01
			Co-60	<2.82E+01	0.00E+00	2.82E+01
			Zn-65	<5.55E+01	0.00E+00	5.55E+01
			Zr-95	<6.80E+01	0.00E+00	6.80E+01
			Nb-95	<3.61E+01	0.00E+00	3.61E+01
			I-131	<4.41E+01	0.00E+00	4.41E+01
			Cs-134	<3.22E+01	0.00E+00	3.22E+01
			Cs-137	<3.29E+01	0.00E+00	3.29E+01
			BaLa-140	<4.93E+01	0.00E+00	4.93E+01
			Be-7	5.38E+02	2.29E+02	2.89E+02
K-40	2.56E+03	5.91E+02	3.94E+02			
407631	4/19/2016 - 4/19/2016	WAXMYRTLE	Mn-54	<3.43E+01	0.00E+00	3.43E+01
			Co-58	<3.55E+01	0.00E+00	3.55E+01
			Fe-59	<6.02E+01	0.00E+00	6.02E+01
			Co-60	<3.27E+01	0.00E+00	3.27E+01
			Zn-65	<7.22E+01	0.00E+00	7.22E+01
			Zr-95	<7.06E+01	0.00E+00	7.06E+01
			Nb-95	<2.99E+01	0.00E+00	2.99E+01
			I-131	<4.74E+01	0.00E+00	4.74E+01
			Cs-134	<3.52E+01	0.00E+00	3.52E+01
			Cs-137	<3.65E+01	0.00E+00	3.65E+01
			BaLa-140	<5.06E+01	0.00E+00	5.06E+01
			Be-7	1.19E+03	3.06E+02	2.84E+02
K-40	3.27E+03	6.77E+02	3.73E+02			
407632	4/19/2016 - 4/19/2016	SASSAFRAS	Mn-54	<1.20E+01	0.00E+00	1.20E+01
			Co-58	<1.66E+01	0.00E+00	1.66E+01
			Fe-59	<3.76E+01	0.00E+00	3.76E+01
			Co-60	<1.38E+01	0.00E+00	1.38E+01
			Zn-65	<3.21E+01	0.00E+00	3.21E+01
			Zr-95	<2.50E+01	0.00E+00	2.50E+01
			Nb-95	<1.33E+01	0.00E+00	1.33E+01
			I-131	<2.11E+01	0.00E+00	2.11E+01
			Cs-134	<1.55E+01	0.00E+00	1.55E+01



ROBINSON Radiological Environmental Monitoring Analysis Report - 2016 (Appendix E)

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

Sample Point 50 [INDICATOR - SSE @ 0 miles]

Sample ID:	Sample Dates:	Indicator	Nuclide	Activity	2 Sigma Error	MDA
407632	4/19/2016 - 4/19/2016	SASSAFRAS	Cs-137	<1.15E+01	0.00E+00	1.15E+01
			BaLa-140	<1.46E+01	0.00E+00	1.46E+01
			Be-7	9.17E+02	1.75E+02	1.27E+02
			K-40	3.75E+03	5.22E+02	1.89E+02
411020	5/11/2016 - 5/11/2016	PEARLEAF	Mn-54	<2.96E+01	0.00E+00	2.96E+01
			Co-58	<2.05E+01	0.00E+00	2.05E+01
			Fe-59	<4.02E+01	0.00E+00	4.02E+01
			Co-60	<2.44E+01	0.00E+00	2.44E+01
			Zn-65	<4.91E+01	0.00E+00	4.91E+01
			Zr-95	<4.15E+01	0.00E+00	4.15E+01
			Nb-95	<2.51E+01	0.00E+00	2.51E+01
			I-131	<3.06E+01	0.00E+00	3.06E+01
			Cs-134	<2.06E+01	0.00E+00	2.06E+01
			Cs-137	<3.22E+01	0.00E+00	3.22E+01
			BaLa-140	<3.45E+01	0.00E+00	3.45E+01
			Be-7	5.79E+02	1.94E+02	2.45E+02
K-40	6.30E+03	8.20E+02	3.20E+02			
411021	5/11/2016 - 5/11/2016	WAXMYRTLE	Mn-54	<1.94E+01	0.00E+00	1.94E+01
			Co-58	<2.08E+01	0.00E+00	2.08E+01
			Fe-59	<4.60E+01	0.00E+00	4.60E+01
			Co-60	<2.31E+01	0.00E+00	2.31E+01
			Zn-65	<4.92E+01	0.00E+00	4.92E+01
			Zr-95	<3.06E+01	0.00E+00	3.06E+01
			Nb-95	<1.64E+01	0.00E+00	1.64E+01
			I-131	<2.05E+01	0.00E+00	2.05E+01
			Cs-134	<2.16E+01	0.00E+00	2.16E+01
			Cs-137	<2.21E+01	0.00E+00	2.21E+01
			BaLa-140	<2.60E+01	0.00E+00	2.60E+01
			Be-7	1.14E+03	2.48E+02	2.24E+02
K-40	2.80E+03	5.15E+02	2.62E+02			
411022	5/11/2016 - 5/11/2016	PERSIMLEAF	Mn-54	<1.21E+01	0.00E+00	1.21E+01
			Co-58	<1.82E+01	0.00E+00	1.82E+01
			Fe-59	<4.45E+01	0.00E+00	4.45E+01
			Co-60	<1.75E+01	0.00E+00	1.75E+01
			Zn-65	<3.43E+01	0.00E+00	3.43E+01
			Zr-95	<2.40E+01	0.00E+00	2.40E+01
			Nb-95	<2.00E+01	0.00E+00	2.00E+01
			I-131	<2.67E+01	0.00E+00	2.67E+01
			Cs-134	<1.51E+01	0.00E+00	1.51E+01
			Cs-137	<2.55E+01	0.00E+00	2.55E+01
			BaLa-140	<3.10E+01	0.00E+00	3.10E+01
			Be-7	<2.28E+02	0.00E+00	2.28E+02
K-40	4.42E+03	6.55E+02	2.47E+02			
413417	6/17/2016 - 6/17/2016	WAXMYRTLE	Mn-54	<1.51E+01	0.00E+00	1.51E+01
			Co-58	<1.71E+01	0.00E+00	1.71E+01
			Fe-59	<4.34E+01	0.00E+00	4.34E+01
			Co-60	<1.56E+01	0.00E+00	1.56E+01
			Zn-65	<4.45E+01	0.00E+00	4.45E+01
			Zr-95	<3.24E+01	0.00E+00	3.24E+01
			Nb-95	<2.07E+01	0.00E+00	2.07E+01
			I-131	<2.27E+01	0.00E+00	2.27E+01
			Cs-134	<2.70E+01	0.00E+00	2.70E+01
			Cs-137	<2.12E+01	0.00E+00	2.12E+01
			BaLa-140	<2.77E+01	0.00E+00	2.77E+01
			Be-7	1.53E+03	2.64E+02	2.00E+02
K-40	2.53E+03	4.33E+02	3.94E+01			
413418	6/17/2016 - 6/17/2016	PEARLEAF	Nuclide	Activity	2 Sigma Error	MDA
			Mn-54	<2.87E+01	0.00E+00	2.87E+01



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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
413418	6/17/2016 - 6/17/2016	PEARLEAF	Co-58	<2.59E+01	0.00E+00	2.59E+01
			Fe-59	<5.73E+01	0.00E+00	5.73E+01
			Co-60	<2.89E+01	0.00E+00	2.89E+01
			Zn-65	<7.01E+01	0.00E+00	7.01E+01
			Zr-95	<5.09E+01	0.00E+00	5.09E+01
			Nb-95	<2.20E+01	0.00E+00	2.20E+01
			I-131	<3.52E+01	0.00E+00	3.52E+01
			Cs-134	<3.42E+01	0.00E+00	3.42E+01
			Cs-137	<2.33E+01	0.00E+00	2.33E+01
			BaLa-140	<3.24E+01	0.00E+00	3.24E+01
			Be-7	7.12E+02	2.27E+02	2.55E+02
			K-40	4.86E+03	7.91E+02	4.07E+02
			413419	6/17/2016 - 6/17/2016	SASSAFRAS	Mn-54
Co-58	<2.53E+01	0.00E+00				2.53E+01
Fe-59	<4.27E+01	0.00E+00				4.27E+01
Co-60	<2.14E+01	0.00E+00				2.14E+01
Zn-65	<4.05E+01	0.00E+00				4.05E+01
Zr-95	<3.18E+01	0.00E+00				3.18E+01
Nb-95	<1.74E+01	0.00E+00				1.74E+01
I-131	<2.37E+01	0.00E+00				2.37E+01
Cs-134	<2.38E+01	0.00E+00				2.38E+01
Cs-137	<3.11E+01	0.00E+00				3.11E+01
BaLa-140	<2.41E+01	0.00E+00				2.41E+01
Be-7	1.40E+03	2.70E+02				2.39E+02
K-40	4.08E+03	6.22E+02				2.44E+02
416470	7/12/2016 - 7/12/2016	WAXMYRTLE	Mn-54	<1.57E+01	0.00E+00	1.57E+01
			Co-58	<1.56E+01	0.00E+00	1.56E+01
			Fe-59	<2.71E+01	0.00E+00	2.71E+01
			Co-60	<1.73E+01	0.00E+00	1.73E+01
			Zn-65	<4.38E+01	0.00E+00	4.38E+01
			Zr-95	<3.09E+01	0.00E+00	3.09E+01
			Nb-95	<1.25E+01	0.00E+00	1.25E+01
			I-131	<1.62E+01	0.00E+00	1.62E+01
			Cs-134	<2.23E+01	0.00E+00	2.23E+01
			Cs-137	2.62E+01	1.72E+01	2.52E+01
			BaLa-140	<2.08E+01	0.00E+00	2.08E+01
			Be-7	2.37E+03	3.39E+02	2.11E+02
			K-40	1.76E+03	3.82E+02	2.93E+02
416469	7/12/2016 - 7/12/2016	BLKCHERRY	Mn-54	<2.08E+01	0.00E+00	2.08E+01
			Co-58	<1.89E+01	0.00E+00	1.89E+01
			Fe-59	<4.74E+01	0.00E+00	4.74E+01
			Co-60	<1.87E+01	0.00E+00	1.87E+01
			Zn-65	<4.28E+01	0.00E+00	4.28E+01
			Zr-95	<4.02E+01	0.00E+00	4.02E+01
			Nb-95	<2.46E+01	0.00E+00	2.46E+01
			I-131	<2.26E+01	0.00E+00	2.26E+01
			Cs-134	<2.81E+01	0.00E+00	2.81E+01
			Cs-137	<3.27E+01	0.00E+00	3.27E+01
			BaLa-140	<1.71E+01	0.00E+00	1.71E+01
			Be-7	1.20E+03	2.56E+02	2.44E+02
			K-40	3.24E+03	5.80E+02	3.78E+02
416471	7/12/2016 - 7/12/2016	PEARLEAF	Mn-54	<2.14E+01	0.00E+00	2.14E+01
			Co-58	<1.67E+01	0.00E+00	1.67E+01
			Fe-59	<4.44E+01	0.00E+00	4.44E+01
			Co-60	<1.20E+01	0.00E+00	1.20E+01
			Zn-65	<4.10E+01	0.00E+00	4.10E+01
			Zr-95	<3.37E+01	0.00E+00	3.37E+01
			Nb-95	<2.03E+01	0.00E+00	2.03E+01



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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
416471	7/12/2016 - 7/12/2016	PEARLEAF	I-131	<1.71E+01	0.00E+00	1.71E+01
			Cs-134	<2.55E+01	0.00E+00	2.55E+01
			Cs-137	<2.12E+01	0.00E+00	2.12E+01
			BaLa-140	<2.26E+01	0.00E+00	2.26E+01
			Be-7	1.03E+03	2.07E+02	1.97E+02
			K-40	5.47E+03	6.98E+02	2.36E+02
418342	8/11/2016 - 8/11/2016	SASSAFRAS	Mn-54	<1.89E+01	0.00E+00	1.89E+01
			Co-58	<2.27E+01	0.00E+00	2.27E+01
			Fe-59	<4.33E+01	0.00E+00	4.33E+01
			Co-60	<2.18E+01	0.00E+00	2.18E+01
			Zn-65	<3.85E+01	0.00E+00	3.85E+01
			Zr-95	<3.21E+01	0.00E+00	3.21E+01
			Nb-95	<2.22E+01	0.00E+00	2.22E+01
			I-131	<2.37E+01	0.00E+00	2.37E+01
			Cs-134	<3.00E+01	0.00E+00	3.00E+01
			Cs-137	4.00E+01	2.29E+01	3.25E+01
			BaLa-140	<8.65E+00	0.00E+00	8.65E+00
			Be-7	1.06E+03	2.64E+02	2.83E+02
			K-40	2.73E+03	5.04E+02	1.94E+02
418343	8/11/2016 - 8/11/2016	PEARLEAF	Mn-54	<2.12E+01	0.00E+00	2.12E+01
			Co-58	<1.76E+01	0.00E+00	1.76E+01
			Fe-59	<4.13E+01	0.00E+00	4.13E+01
			Co-60	<1.83E+01	0.00E+00	1.83E+01
			Zn-65	<5.51E+01	0.00E+00	5.51E+01
			Zr-95	<3.27E+01	0.00E+00	3.27E+01
			Nb-95	<1.73E+01	0.00E+00	1.73E+01
			I-131	<3.08E+01	0.00E+00	3.08E+01
			Cs-134	<2.01E+01	0.00E+00	2.01E+01
			Cs-137	<2.21E+01	0.00E+00	2.21E+01
			BaLa-140	<2.12E+01	0.00E+00	2.12E+01
			Be-7	1.02E+03	2.20E+02	2.23E+02
			K-40	6.87E+03	8.34E+02	3.45E+02
418344	8/11/2016 - 8/11/2016	WAXMYRTLE	Mn-54	<2.71E+01	0.00E+00	2.71E+01
			Co-58	<2.03E+01	0.00E+00	2.03E+01
			Fe-59	<5.89E+01	0.00E+00	5.89E+01
			Co-60	<2.99E+01	0.00E+00	2.99E+01
			Zn-65	<5.60E+01	0.00E+00	5.60E+01
			Zr-95	<3.97E+01	0.00E+00	3.97E+01
			Nb-95	<2.07E+01	0.00E+00	2.07E+01
			I-131	<3.64E+01	0.00E+00	3.64E+01
			Cs-134	<3.47E+01	0.00E+00	3.47E+01
			Cs-137	<2.50E+01	0.00E+00	2.50E+01
			BaLa-140	<4.20E+01	0.00E+00	4.20E+01
			Be-7	1.36E+03	2.93E+02	2.67E+02
			K-40	3.34E+03	6.11E+02	3.61E+02
421500	9/12/2016 - 9/12/2016	WAXMYRTLE	Mn-54	<3.20E+01	0.00E+00	3.20E+01
			Co-58	<3.17E+01	0.00E+00	3.17E+01
			Fe-59	<6.31E+01	0.00E+00	6.31E+01
			Co-60	<2.46E+01	0.00E+00	2.46E+01
			Zn-65	<7.02E+01	0.00E+00	7.02E+01
			Zr-95	<7.06E+01	0.00E+00	7.06E+01
			Nb-95	<3.08E+01	0.00E+00	3.08E+01
			I-131	<3.41E+01	0.00E+00	3.41E+01
			Cs-134	<3.25E+01	0.00E+00	3.25E+01
			Cs-137	<4.23E+01	0.00E+00	4.23E+01
			BaLa-140	<4.98E+01	0.00E+00	4.98E+01
			Be-7	9.46E+02	2.94E+02	3.35E+02
			K-40	3.02E+03	6.85E+02	5.61E+02



ROBINSON Radiological Environmental Monitoring Analysis Report - 2016 (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
421501	9/12/2016 - 9/12/2016	PEARLEAF	Mn-54	<3.42E+01	0.00E+00	3.42E+01
			Co-58	<2.41E+01	0.00E+00	2.41E+01
			Fe-59	<6.38E+01	0.00E+00	6.38E+01
			Co-60	<2.87E+01	0.00E+00	2.87E+01
			Zn-65	<7.01E+01	0.00E+00	7.01E+01
			Zr-95	<5.38E+01	0.00E+00	5.38E+01
			Nb-95	<3.90E+01	0.00E+00	3.90E+01
			I-131	<4.72E+01	0.00E+00	4.72E+01
			Cs-134	<4.43E+01	0.00E+00	4.43E+01
			Cs-137	<3.71E+01	0.00E+00	3.71E+01
			BaLa-140	<3.87E+01	0.00E+00	3.87E+01
			Be-7	8.10E+02	2.94E+02	3.83E+02
			K-40	7.81E+03	1.08E+03	3.08E+02
421502	9/12/2016 - 9/12/2016	SWEETGUM	Mn-54	<1.96E+01	0.00E+00	1.96E+01
			Co-58	<1.61E+01	0.00E+00	1.61E+01
			Fe-59	<3.55E+01	0.00E+00	3.55E+01
			Co-60	<2.25E+01	0.00E+00	2.25E+01
			Zn-65	<3.17E+01	0.00E+00	3.17E+01
			Zr-95	<3.52E+01	0.00E+00	3.52E+01
			Nb-95	<2.26E+01	0.00E+00	2.26E+01
			I-131	<3.07E+01	0.00E+00	3.07E+01
			Cs-134	<1.84E+01	0.00E+00	1.84E+01
			Cs-137	<2.68E+01	0.00E+00	2.68E+01
			BaLa-140	<1.89E+01	0.00E+00	1.89E+01
			Be-7	1.82E+03	2.98E+02	2.17E+02
			K-40	1.59E+03	3.54E+02	2.35E+02
425515	10/20/2016 - 10/20/2016	WAXMYRTLE	Mn-54	<3.79E+01	0.00E+00	3.79E+01
			Co-58	<3.08E+01	0.00E+00	3.08E+01
			Fe-59	<6.75E+01	0.00E+00	6.75E+01
			Co-60	<2.71E+01	0.00E+00	2.71E+01
			Zn-65	<7.21E+01	0.00E+00	7.21E+01
			Zr-95	<5.95E+01	0.00E+00	5.95E+01
			Nb-95	<3.59E+01	0.00E+00	3.59E+01
			I-131	<4.37E+01	0.00E+00	4.37E+01
			Cs-134	<3.92E+01	0.00E+00	3.92E+01
			Cs-137	<4.01E+01	0.00E+00	4.01E+01
			BaLa-140	<1.25E+01	0.00E+00	1.25E+01
			Be-7	1.42E+03	3.62E+02	3.71E+02
			K-40	2.25E+03	5.96E+02	4.82E+02
425516	10/20/2016 - 10/20/2016	PEARLEAF	Mn-54	<2.74E+01	0.00E+00	2.74E+01
			Co-58	<3.44E+01	0.00E+00	3.44E+01
			Fe-59	<4.95E+01	0.00E+00	4.95E+01
			Co-60	<3.77E+01	0.00E+00	3.77E+01
			Zn-65	<5.30E+01	0.00E+00	5.30E+01
			Zr-95	<4.87E+01	0.00E+00	4.87E+01
			Nb-95	<3.08E+01	0.00E+00	3.08E+01
			I-131	<3.61E+01	0.00E+00	3.61E+01
			Cs-134	<3.07E+01	0.00E+00	3.07E+01
			Cs-137	<3.64E+01	0.00E+00	3.64E+01
			BaLa-140	<2.94E+01	0.00E+00	2.94E+01
			Be-7	<3.41E+02	0.00E+00	3.41E+02
			K-40	3.66E+03	6.94E+02	3.20E+02
425517	10/20/2016 - 10/20/2016	BLKCHERRY	Mn-54	<2.99E+01	0.00E+00	2.99E+01
			Co-58	<2.52E+01	0.00E+00	2.52E+01
			Fe-59	<5.87E+01	0.00E+00	5.87E+01
			Co-60	<3.84E+01	0.00E+00	3.84E+01
			Zn-65	<7.59E+01	0.00E+00	7.59E+01
			Zr-95	<4.38E+01	0.00E+00	4.38E+01



ROBINSON Radiological Environmental Monitoring Analysis Report - 2016 (Appendix E)

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

Sample Point 50 [INDICATOR - SSE @ 0 miles]

Sample ID:	Sample Dates:	BLKCHERRY	Nuclide	Activity	2 Sigma Error	MDA
425517	10/20/2016 - 10/20/2016		Nb-95	<3.63E+01	0.00E+00	3.63E+01
			I-131	<4.55E+01	0.00E+00	4.55E+01
			Cs-134	<4.67E+01	0.00E+00	4.67E+01
			Cs-137	<4.07E+01	0.00E+00	4.07E+01
			BaLa-140	<5.65E+01	0.00E+00	5.65E+01
			Be-7	8.11E+02	2.78E+02	3.31E+02
			K-40	2.01E+03	5.82E+02	5.79E+02

Sample ID:	Sample Dates:	WAXMYRTLE	Nuclide	Activity	2 Sigma Error	MDA
428280	11/10/2016 - 11/10/2016		Mn-54	<2.71E+01	0.00E+00	2.71E+01
			Co-58	<2.02E+01	0.00E+00	2.02E+01
			Fe-59	<4.24E+01	0.00E+00	4.24E+01
			Co-60	<1.95E+01	0.00E+00	1.95E+01
			Zn-65	<4.63E+01	0.00E+00	4.63E+01
			Zr-95	<3.34E+01	0.00E+00	3.34E+01
			Nb-95	<2.44E+01	0.00E+00	2.44E+01
			I-131	<4.76E+01	0.00E+00	4.76E+01
			Cs-134	<3.46E+01	0.00E+00	3.46E+01
			Cs-137	<2.28E+01	0.00E+00	2.28E+01
			BaLa-140	<3.43E+01	0.00E+00	3.43E+01
			Be-7	1.48E+03	2.82E+02	2.52E+02
			K-40	2.05E+03	3.97E+02	1.90E+02

Sample ID:	Sample Dates:	MAGNOLIA	Nuclide	Activity	2 Sigma Error	MDA
428281	11/10/2016 - 11/10/2016		Mn-54	<3.58E+01	0.00E+00	3.58E+01
			Co-58	<2.77E+01	0.00E+00	2.77E+01
			Fe-59	<7.21E+01	0.00E+00	7.21E+01
			Co-60	<3.55E+01	0.00E+00	3.55E+01
			Zn-65	<5.36E+01	0.00E+00	5.36E+01
			Zr-95	<4.64E+01	0.00E+00	4.64E+01
			Nb-95	<3.06E+01	0.00E+00	3.06E+01
			I-131	<4.60E+01	0.00E+00	4.60E+01
			Cs-134	<3.52E+01	0.00E+00	3.52E+01
			Cs-137	1.88E+01	2.73E+01	4.54E+01
			BaLa-140	<4.97E+01	0.00E+00	4.97E+01
			Be-7	5.17E+02	2.44E+02	3.41E+02
			K-40	3.24E+03	6.00E+02	2.76E+02

Sample ID:	Sample Dates:	PEARLEAF	Nuclide	Activity	2 Sigma Error	MDA
428282	11/10/2016 - 11/10/2016		Mn-54	<2.20E+01	0.00E+00	2.20E+01
			Co-58	<3.00E+01	0.00E+00	3.00E+01
			Fe-59	<4.76E+01	0.00E+00	4.76E+01
			Co-60	<2.03E+01	0.00E+00	2.03E+01
			Zn-65	<4.74E+01	0.00E+00	4.74E+01
			Zr-95	<5.09E+01	0.00E+00	5.09E+01
			Nb-95	<3.09E+01	0.00E+00	3.09E+01
			I-131	<4.70E+01	0.00E+00	4.70E+01
			Cs-134	<3.21E+01	0.00E+00	3.21E+01
			Cs-137	<3.26E+01	0.00E+00	3.26E+01
			BaLa-140	<3.73E+01	0.00E+00	3.73E+01
			Be-7	<3.30E+02	0.00E+00	3.30E+02
			K-40	5.37E+03	7.90E+02	3.62E+02

Sample Point 51 [INDICATOR - SSW @ 0 miles]

Sample ID:	Sample Dates:	WAXMYRTLE	Nuclide	Activity	2 Sigma Error	MDA
407634	4/19/2016 - 4/19/2016		Mn-54	<2.48E+01	0.00E+00	2.48E+01
			Co-58	<2.36E+01	0.00E+00	2.36E+01
			Fe-59	<5.29E+01	0.00E+00	5.29E+01
			Co-60	<1.83E+01	0.00E+00	1.83E+01
			Zn-65	<6.55E+01	0.00E+00	6.55E+01
			Zr-95	<4.11E+01	0.00E+00	4.11E+01
			Nb-95	<2.41E+01	0.00E+00	2.41E+01
			I-131	<3.44E+01	0.00E+00	3.44E+01
			Cs-134	<2.54E+01	0.00E+00	2.54E+01
			Cs-137	<2.94E+01	0.00E+00	2.94E+01



ROBINSON Radiological Environmental Monitoring Analysis Report - 2016 (Appendix E)

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

Sample Point 51 [INDICATOR - SSW @ 0 miles]

Sample ID:	Sample Dates:	Indicator	Nuclide	Activity	2 Sigma Error	MDA
407634	4/19/2016 - 4/19/2016	WAXMYRTLE	BaLa-140	<4.55E+01	0.00E+00	4.55E+01
			Be-7	8.07E+02	2.59E+02	3.22E+02
			K-40	3.50E+03	6.27E+02	3.62E+02
407635	4/19/2016 - 4/19/2016	SASSAFRAS	Mn-54	<1.41E+01	0.00E+00	1.41E+01
			Co-58	<1.30E+01	0.00E+00	1.30E+01
			Fe-59	<2.60E+01	0.00E+00	2.60E+01
			Co-60	<1.37E+01	0.00E+00	1.37E+01
			Zn-65	<3.93E+01	0.00E+00	3.93E+01
			Zr-95	<3.41E+01	0.00E+00	3.41E+01
			Nb-95	<1.41E+01	0.00E+00	1.41E+01
			I-131	<1.97E+01	0.00E+00	1.97E+01
			Cs-134	<1.57E+01	0.00E+00	1.57E+01
			Cs-137	<2.54E+01	0.00E+00	2.54E+01
			BaLa-140	<6.06E+00	0.00E+00	6.06E+00
			Be-7	3.35E+02	1.40E+02	1.88E+02
K-40	3.66E+03	5.39E+02	2.60E+02			
407636	4/19/2016 - 4/19/2016	BLKCHERRY	Mn-54	<1.76E+01	0.00E+00	1.76E+01
			Co-58	<2.34E+01	0.00E+00	2.34E+01
			Fe-59	<5.30E+01	0.00E+00	5.30E+01
			Co-60	<2.16E+01	0.00E+00	2.16E+01
			Zn-65	<5.29E+01	0.00E+00	5.29E+01
			Zr-95	<4.51E+01	0.00E+00	4.51E+01
			Nb-95	<2.09E+01	0.00E+00	2.09E+01
			I-131	<3.46E+01	0.00E+00	3.46E+01
			Cs-134	<3.04E+01	0.00E+00	3.04E+01
			Cs-137	<2.32E+01	0.00E+00	2.32E+01
			BaLa-140	<3.80E+01	0.00E+00	3.80E+01
			Be-7	2.68E+02	1.58E+02	2.29E+02
K-40	4.22E+03	6.70E+02	3.13E+02			
411023	5/11/2016 - 5/11/2016	BLKCHERRY	Mn-54	<2.67E+01	0.00E+00	2.67E+01
			Co-58	<3.16E+01	0.00E+00	3.16E+01
			Fe-59	<5.17E+01	0.00E+00	5.17E+01
			Co-60	<2.66E+01	0.00E+00	2.66E+01
			Zn-65	<5.84E+01	0.00E+00	5.84E+01
			Zr-95	<4.11E+01	0.00E+00	4.11E+01
			Nb-95	<2.38E+01	0.00E+00	2.38E+01
			I-131	<3.18E+01	0.00E+00	3.18E+01
			Cs-134	<2.98E+01	0.00E+00	2.98E+01
			Cs-137	<2.68E+01	0.00E+00	2.67E+01
			BaLa-140	<3.92E+01	0.00E+00	3.92E+01
			Be-7	3.06E+02	1.61E+02	2.15E+02
K-40	4.99E+03	7.96E+02	3.52E+02			
411024	5/11/2016 - 5/11/2016	SASSAFRAS	Mn-54	<2.80E+01	0.00E+00	2.80E+01
			Co-58	<2.99E+01	0.00E+00	2.99E+01
			Fe-59	<5.79E+01	0.00E+00	5.79E+01
			Co-60	<2.50E+01	0.00E+00	2.50E+01
			Zn-65	<5.36E+01	0.00E+00	5.36E+01
			Zr-95	<5.95E+01	0.00E+00	5.95E+01
			Nb-95	<3.35E+01	0.00E+00	3.35E+01
			I-131	<3.63E+01	0.00E+00	3.63E+01
			Cs-134	<2.70E+01	0.00E+00	2.70E+01
			Cs-137	<2.58E+01	0.00E+00	2.58E+01
			BaLa-140	<4.99E+01	0.00E+00	4.99E+01
			Be-7	5.96E+02	2.25E+02	2.79E+02
K-40	3.30E+03	6.34E+02	3.29E+02			
411025	5/11/2016 - 5/11/2016	WAXMYRTLE	Mn-54	<1.55E+01	0.00E+00	1.55E+01
			Co-58	<2.28E+01	0.00E+00	2.28E+01



ROBINSON Radiological Environmental Monitoring Analysis Report - 2016 (Appendix E)

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

Sample Point 51 [INDICATOR - SSW @ 0 miles]

Sample ID:	Sample Dates:	Indicator	Nuclide	Activity	2 Sigma Error	MDA
411025	5/11/2016 - 5/11/2016	WAXMYRTLE	Fe-59	<3.70E+01	0.00E+00	3.70E+01
			Co-60	<2.55E+01	0.00E+00	2.55E+01
			Zn-65	<4.75E+01	0.00E+00	4.75E+01
			Zr-95	<3.67E+01	0.00E+00	3.67E+01
			Nb-95	<2.38E+01	0.00E+00	2.38E+01
			I-131	<2.73E+01	0.00E+00	2.73E+01
			Cs-134	<2.39E+01	0.00E+00	2.39E+01
			Cs-137	<1.80E+01	0.00E+00	1.80E+01
			BaLa-140	<2.59E+01	0.00E+00	2.59E+01
			Be-7	1.20E+03	2.47E+02	2.08E+02
K-40	3.29E+03	5.78E+02	3.78E+02			
413420	6/17/2016 - 6/17/2016	BLKCHERRY	Mn-54	<3.31E+01	0.00E+00	3.31E+01
			Co-58	<2.85E+01	0.00E+00	2.85E+01
			Fe-59	<7.89E+01	0.00E+00	7.89E+01
			Co-60	<3.83E+01	0.00E+00	3.83E+01
			Zn-65	<7.11E+01	0.00E+00	7.11E+01
			Zr-95	<4.09E+01	0.00E+00	4.09E+01
			Nb-95	<2.70E+01	0.00E+00	2.70E+01
			I-131	<4.44E+01	0.00E+00	4.44E+01
			Cs-134	<4.07E+01	0.00E+00	4.07E+01
			Cs-137	<3.50E+01	0.00E+00	3.50E+01
			BaLa-140	<3.77E+01	0.00E+00	3.77E+01
			Be-7	3.74E+02	2.77E+02	4.29E+02
			K-40	5.48E+03	9.48E+02	6.80E+02
			413421	6/17/2016 - 6/17/2016	WAXMYRTLE	Mn-54
Co-58	<2.62E+01	0.00E+00				2.62E+01
Fe-59	<3.86E+01	0.00E+00				3.86E+01
Co-60	<2.68E+01	0.00E+00				2.68E+01
Zn-65	<4.99E+01	0.00E+00				4.99E+01
Zr-95	<2.04E+01	0.00E+00				2.04E+01
Nb-95	<1.91E+01	0.00E+00				1.91E+01
I-131	<2.66E+01	0.00E+00				2.66E+01
Cs-134	<2.61E+01	0.00E+00				2.61E+01
Cs-137	<1.99E+01	0.00E+00				1.99E+01
BaLa-140	<2.64E+01	0.00E+00				2.64E+01
Be-7	2.12E+03	3.62E+02				2.95E+02
K-40	2.83E+03	5.47E+02				3.99E+02
413422	6/17/2016 - 6/17/2016	SASSAFRAS				Mn-54
			Co-58	<7.48E+00	0.00E+00	7.48E+00
			Fe-59	<2.04E+01	0.00E+00	2.04E+01
			Co-60	<7.06E+00	0.00E+00	7.06E+00
			Zn-65	<1.64E+01	0.00E+00	1.64E+01
			Zr-95	<1.41E+01	0.00E+00	1.41E+01
			Nb-95	<9.03E+00	0.00E+00	9.03E+00
			I-131	<4.74E+01	0.00E+00	4.74E+01
			Cs-134	<7.25E+00	0.00E+00	7.25E+00
			Cs-137	1.02E+01	5.93E+00	9.10E+00
			BaLa-140	<2.81E+01	0.00E+00	2.81E+01
			Be-7	4.84E+02	8.79E+01	9.68E+01
			K-40	3.25E+03	3.21E+02	9.47E+01
			416474	7/12/2016 - 7/12/2016	WAXMYRTLE	Mn-54
Co-58	<1.60E+01	0.00E+00				1.60E+01
Fe-59	<4.19E+01	0.00E+00				4.19E+01
Co-60	<1.92E+01	0.00E+00				1.92E+01
Zn-65	<2.89E+01	0.00E+00				2.89E+01
Zr-95	<3.70E+01	0.00E+00				3.70E+01
Nb-95	<1.98E+01	0.00E+00				1.98E+01
I-131	<2.00E+01	0.00E+00				2.00E+01



ROBINSON Radiological Environmental Monitoring Analysis Report - 2016 (Appendix E)

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

Sample Point 51 [INDICATOR - SSW @ 0 miles]

Sample ID:	Sample Dates:	Plant Name:	Nuclide	Activity	2 Sigma Error	MDA
416474	7/12/2016 - 7/12/2016	WAXMYRTLE	Cs-134	<2.40E+01	0.00E+00	2.40E+01
			Cs-137	<2.81E+01	0.00E+00	2.81E+01
			BaLa-140	<2.85E+01	0.00E+00	2.85E+01
			Be-7	1.92E+03	3.11E+02	1.71E+02
			K-40	3.44E+03	5.96E+02	3.42E+02
416472	7/12/2016 - 7/12/2016	BLKCERRY	Mn-54	<2.70E+01	0.00E+00	2.70E+01
			Co-58	<2.40E+01	0.00E+00	2.40E+01
			Fe-59	<5.08E+01	0.00E+00	5.08E+01
			Co-60	<2.53E+01	0.00E+00	2.53E+01
			Zn-65	<4.96E+01	0.00E+00	4.96E+01
			Zr-95	<4.28E+01	0.00E+00	4.28E+01
			Nb-95	<2.24E+01	0.00E+00	2.24E+01
			I-131	<2.04E+01	0.00E+00	2.04E+01
			Cs-134	<2.70E+01	0.00E+00	2.70E+01
			Cs-137	<2.55E+01	0.00E+00	2.55E+01
			BaLa-140	<2.20E+01	0.00E+00	2.20E+01
Be-7	9.36E+02	2.38E+02	2.59E+02			
K-40	3.73E+03	6.31E+02	3.80E+02			
416473	7/12/2016 - 7/12/2016	SASSAFRAS	Mn-54	<1.55E+01	0.00E+00	1.55E+01
			Co-58	<2.06E+01	0.00E+00	2.06E+01
			Fe-59	<3.52E+01	0.00E+00	3.52E+01
			Co-60	<1.92E+01	0.00E+00	1.92E+01
			Zn-65	<4.64E+01	0.00E+00	4.64E+01
			Zr-95	<2.49E+01	0.00E+00	2.49E+01
			Nb-95	<1.68E+01	0.00E+00	1.68E+01
			I-131	<1.92E+01	0.00E+00	1.92E+01
			Cs-134	<1.96E+01	0.00E+00	1.96E+01
			Cs-137	<2.27E+01	0.00E+00	2.27E+01
			BaLa-140	<1.96E+01	0.00E+00	1.96E+01
			Be-7	2.08E+03	3.21E+02	1.98E+02
			K-40	2.65E+03	4.85E+02	2.77E+02
418345	8/11/2016 - 8/11/2016	SASSAFRAS	Mn-54	<2.20E+01	0.00E+00	2.20E+01
			Co-58	<2.76E+01	0.00E+00	2.76E+01
			Fe-59	<4.56E+01	0.00E+00	4.56E+01
			Co-60	<2.69E+01	0.00E+00	2.69E+01
			Zn-65	<3.13E+01	0.00E+00	3.13E+01
			Zr-95	<3.79E+01	0.00E+00	3.79E+01
			Nb-95	<1.98E+01	0.00E+00	1.98E+01
			I-131	<3.65E+01	0.00E+00	3.65E+01
			Cs-134	<2.57E+01	0.00E+00	2.57E+01
			Cs-137	<2.55E+01	0.00E+00	2.55E+01
			BaLa-140	<4.07E+01	0.00E+00	4.07E+01
			Be-7	1.06E+03	2.50E+02	2.37E+02
			K-40	2.19E+03	4.79E+02	3.40E+02
418347	8/11/2016 - 8/11/2016	BLKCERRY	Mn-54	<2.44E+01	0.00E+00	2.44E+01
			Co-58	<3.39E+01	0.00E+00	3.39E+01
			Fe-59	<4.48E+01	0.00E+00	4.48E+01
			Co-60	<2.05E+01	0.00E+00	2.05E+01
			Zn-65	<4.20E+01	0.00E+00	4.20E+01
			Zr-95	<3.32E+01	0.00E+00	3.32E+01
			Nb-95	<2.57E+01	0.00E+00	2.57E+01
			I-131	<3.61E+01	0.00E+00	3.61E+01
			Cs-134	<3.44E+01	0.00E+00	3.44E+01
			Cs-137	<2.45E+01	0.00E+00	2.45E+01
			BaLa-140	<4.64E+01	0.00E+00	4.64E+01
			Be-7	8.76E+02	2.58E+02	2.87E+02
			K-40	3.34E+03	6.60E+02	4.90E+02



ROBINSON Radiological Environmental Monitoring Analysis Report - 2016 (Appendix E)

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

Sample Point 51 [INDICATOR - SSW @ 0 miles]

Sample ID:	Sample Dates:	Indicator	Nuclide	Activity	2 Sigma Error	MDA
418346	8/11/2016 - 8/11/2016	WAXMYRTLE	Mn-54	<2.30E+01	0.00E+00	2.30E+01
			Co-58	<2.28E+01	0.00E+00	2.28E+01
			Fe-59	<5.36E+01	0.00E+00	5.36E+01
			Co-60	<2.68E+01	0.00E+00	2.68E+01
			Zn-65	<3.62E+01	0.00E+00	3.62E+01
			Zr-95	<3.97E+01	0.00E+00	3.97E+01
			Nb-95	<2.63E+01	0.00E+00	2.63E+01
			I-131	<3.47E+01	0.00E+00	3.47E+01
			Cs-134	<2.67E+01	0.00E+00	2.67E+01
			Cs-137	<2.38E+01	0.00E+00	2.38E+01
			BaLa-140	<2.45E+01	0.00E+00	2.45E+01
			Be-7	1.64E+03	3.16E+02	2.71E+02
			K-40	3.11E+03	5.64E+02	2.84E+02
421503	9/12/2016 - 9/12/2016	WAXMYRTLE	Mn-54	<2.40E+01	0.00E+00	2.40E+01
			Co-58	<2.48E+01	0.00E+00	2.48E+01
			Fe-59	<6.06E+01	0.00E+00	6.06E+01
			Co-60	<2.38E+01	0.00E+00	2.38E+01
			Zn-65	<5.25E+01	0.00E+00	5.25E+01
			Zr-95	<4.98E+01	0.00E+00	4.98E+01
			Nb-95	<2.82E+01	0.00E+00	2.82E+01
			I-131	<4.64E+01	0.00E+00	4.64E+01
			Cs-134	<3.77E+01	0.00E+00	3.77E+01
			Cs-137	<3.55E+01	0.00E+00	3.55E+01
			BaLa-140	<4.83E+01	0.00E+00	4.83E+01
			Be-7	1.05E+03	3.03E+02	3.74E+02
			K-40	2.86E+03	5.52E+02	3.15E+02
421504	9/12/2016 - 9/12/2016	BLKCHERRY	Mn-54	<2.34E+01	0.00E+00	2.34E+01
			Co-58	<2.33E+01	0.00E+00	2.33E+01
			Fe-59	<4.61E+01	0.00E+00	4.61E+01
			Co-60	<2.26E+01	0.00E+00	2.26E+01
			Zn-65	<4.57E+01	0.00E+00	4.57E+01
			Zr-95	<3.60E+01	0.00E+00	3.60E+01
			Nb-95	<2.54E+01	0.00E+00	2.54E+01
			I-131	<3.31E+01	0.00E+00	3.31E+01
			Cs-134	<3.14E+01	0.00E+00	3.14E+01
			Cs-137	<2.70E+01	0.00E+00	2.70E+01
			BaLa-140	<3.58E+01	0.00E+00	3.58E+01
			Be-7	8.49E+02	2.08E+02	1.93E+02
			K-40	2.65E+03	5.25E+02	4.04E+02
421505	9/12/2016 - 9/12/2016	SASSAFRAS	Mn-54	<2.16E+01	0.00E+00	2.16E+01
			Co-58	<2.08E+01	0.00E+00	2.08E+01
			Fe-59	<5.60E+01	0.00E+00	5.60E+01
			Co-60	<3.51E+01	0.00E+00	3.51E+01
			Zn-65	<4.20E+01	0.00E+00	4.20E+01
			Zr-95	<6.04E+01	0.00E+00	6.04E+01
			Nb-95	<3.15E+01	0.00E+00	3.15E+01
			I-131	<3.88E+01	0.00E+00	3.88E+01
			Cs-134	<3.10E+01	0.00E+00	3.10E+01
			Cs-137	4.65E+01	2.15E+01	2.53E+01
			BaLa-140	<3.57E+01	0.00E+00	3.57E+01
			Be-7	4.09E+02	2.21E+02	3.18E+02
			K-40	2.92E+03	5.75E+02	2.68E+02
425518	10/20/2016 - 10/20/2016	WAXMYRTLE	Mn-54	<2.91E+01	0.00E+00	2.91E+01
			Co-58	<2.05E+01	0.00E+00	2.05E+01
			Fe-59	<4.75E+01	0.00E+00	4.75E+01
			Co-60	<6.51E+00	0.00E+00	6.51E+00
			Zn-65	<4.56E+01	0.00E+00	4.56E+01
			Zr-95	<4.70E+01	0.00E+00	4.70E+01



ROBINSON Radiological Environmental Monitoring Analysis Report - 2016 (Appendix E)

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

Sample Point 51 [INDICATOR - SSW @ 0 miles]

Sample ID:	Sample Dates:	INDICATOR	Nuclide	Activity	2 Sigma Error	MDA
425518	10/20/2016 - 10/20/2016	WAXMYRTLE	Nb-95	<2.56E+01	0.00E+00	2.56E+01
			I-131	<4.31E+01	0.00E+00	4.31E+01
			Cs-134	<3.11E+01	0.00E+00	3.11E+01
			Cs-137	2.81E+01	2.14E+01	3.14E+01
			BaLa-140	<4.99E+01	0.00E+00	4.99E+01
			Be-7	6.04E+02	2.58E+02	3.49E+02
			K-40	1.90E+03	4.97E+02	3.98E+02
425519	10/20/2016 - 10/20/2016	SWEETGUM	Mn-54	<2.22E+01	0.00E+00	2.22E+01
			Co-58	<2.27E+01	0.00E+00	2.27E+01
			Fe-59	<5.02E+01	0.00E+00	5.02E+01
			Co-60	<2.52E+01	0.00E+00	2.52E+01
			Zn-65	<3.14E+01	0.00E+00	3.14E+01
			Zr-95	<3.94E+01	0.00E+00	3.94E+01
			Nb-95	<1.27E+01	0.00E+00	1.27E+01
			I-131	<2.68E+01	0.00E+00	2.68E+01
			Cs-134	<2.54E+01	0.00E+00	2.54E+01
			Cs-137	<2.88E+01	0.00E+00	2.88E+01
			BaLa-140	<2.24E+01	0.00E+00	2.24E+01
			Be-7	3.73E+02	1.50E+02	1.74E+02
			K-40	2.23E+03	4.82E+02	3.28E+02
425520	10/20/2016 - 10/20/2016	SASSAFRAS	Mn-54	<2.68E+01	0.00E+00	2.68E+01
			Co-58	<3.27E+01	0.00E+00	3.27E+01
			Fe-59	<7.21E+01	0.00E+00	7.21E+01
			Co-60	<3.09E+01	0.00E+00	3.09E+01
			Zn-65	<6.85E+01	0.00E+00	6.85E+01
			Zr-95	<5.95E+01	0.00E+00	5.95E+01
			Nb-95	<3.43E+01	0.00E+00	3.43E+01
			I-131	<4.46E+01	0.00E+00	4.46E+01
			Cs-134	<3.40E+01	0.00E+00	3.40E+01
			Cs-137	3.58E+02	6.53E+01	5.55E+01
			BaLa-140	<4.62E+01	0.00E+00	4.62E+01
			Be-7	1.56E+03	2.90E+02	3.29E+02
			K-40	3.09E+03	5.84E+02	3.12E+02
428283	11/10/2016 - 11/10/2016	BLKCHERRY	Mn-54	<3.50E+01	0.00E+00	3.50E+01
			Co-58	<3.09E+01	0.00E+00	3.09E+01
			Fe-59	<4.80E+01	0.00E+00	4.80E+01
			Co-60	<3.26E+01	0.00E+00	3.26E+01
			Zn-65	<6.25E+01	0.00E+00	6.25E+01
			Zr-95	<5.88E+01	0.00E+00	5.88E+01
			Nb-95	<3.28E+01	0.00E+00	3.28E+01
			I-131	<4.70E+01	0.00E+00	4.70E+01
			Cs-134	<3.06E+01	0.00E+00	3.06E+01
			Cs-137	<3.22E+01	0.00E+00	3.22E+01
			BaLa-140	<4.97E+01	0.00E+00	4.97E+01
			Be-7	8.04E+02	2.84E+02	3.49E+02
			K-40	3.71E+03	7.04E+02	3.93E+02
428284	11/10/2016 - 11/10/2016	PEARLEAF	Mn-54	<2.83E+01	0.00E+00	2.83E+01
			Co-58	<2.62E+01	0.00E+00	2.62E+01
			Fe-59	<5.64E+01	0.00E+00	5.64E+01
			Co-60	<1.94E+01	0.00E+00	1.94E+01
			Zn-65	<4.22E+01	0.00E+00	4.22E+01
			Zr-95	<3.32E+01	0.00E+00	3.32E+01
			Nb-95	<3.28E+01	0.00E+00	3.28E+01
			I-131	<4.69E+01	0.00E+00	4.69E+01
			Cs-134	<3.14E+01	0.00E+00	3.14E+01
			Cs-137	1.88E+01	1.81E+01	2.84E+01
BaLa-140	<4.66E+01	0.00E+00	4.66E+01			
Be-7	3.50E+02	1.66E+02	2.21E+02			



ROBINSON Radiological Environmental Monitoring Analysis Report - 2016 (Appendix E)

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

Sample Point 51 [INDICATOR - SSW @ 0 miles]

Sample ID:	Sample Dates:	PEARLEAF	Nuclide	Activity	2 Sigma Error	MDA
428284	11/10/2016 - 11/10/2016		K-40	3.40E+03	6.13E+02	4.44E+02
Sample ID:	Sample Dates:	WAXMYRTLE	Nuclide	Activity	2 Sigma Error	MDA
428285	11/10/2016 - 11/10/2016		Mn-54	<2.53E+01	0.00E+00	2.53E+01
			Co-58	<1.87E+01	0.00E+00	1.87E+01
			Fe-59	<4.84E+01	0.00E+00	4.84E+01
			Co-60	<2.07E+01	0.00E+00	2.07E+01
			Zn-65	<5.13E+01	0.00E+00	5.13E+01
			Zr-95	<4.87E+01	0.00E+00	4.87E+01
			Nb-95	<2.75E+01	0.00E+00	2.75E+01
			I-131	<4.71E+01	0.00E+00	4.71E+01
			Cs-134	<2.49E+01	0.00E+00	2.49E+01
			Cs-137	<2.65E+01	0.00E+00	2.65E+01
			BaLa-140	<5.38E+01	0.00E+00	5.38E+01
			Be-7	1.55E+03	3.33E+02	3.28E+02
			K-40	2.38E+03	4.99E+02	3.38E+02

Sample Point 52 [CONTROL - W @ 10 miles]

Sample ID:	Sample Dates:	WAXMYRTLE	Nuclide	Activity	2 Sigma Error	MDA
407637	4/19/2016 - 4/19/2016		Mn-54	<3.31E+01	0.00E+00	3.31E+01
			Co-58	<3.07E+01	0.00E+00	3.07E+01
			Fe-59	<5.42E+01	0.00E+00	5.42E+01
			Co-60	<3.20E+01	0.00E+00	3.20E+01
			Zn-65	<7.20E+01	0.00E+00	7.20E+01
			Zr-95	<5.34E+01	0.00E+00	5.34E+01
			Nb-95	<3.72E+01	0.00E+00	3.72E+01
			I-131	<4.74E+01	0.00E+00	4.74E+01
			Cs-134	<4.46E+01	0.00E+00	4.46E+01
			Cs-137	<3.57E+01	0.00E+00	3.57E+01
			BaLa-140	<6.40E+01	0.00E+00	6.40E+01
			Be-7	1.67E+03	3.72E+02	3.67E+02
			K-40	3.03E+03	6.30E+02	4.01E+02

Sample ID:	Sample Dates:	SASSAFRAS	Nuclide	Activity	2 Sigma Error	MDA
407638	4/19/2016 - 4/19/2016		Mn-54	<2.70E+01	0.00E+00	2.70E+01
			Co-58	<2.26E+01	0.00E+00	2.26E+01
			Fe-59	<4.94E+01	0.00E+00	4.94E+01
			Co-60	<3.53E+01	0.00E+00	3.53E+01
			Zn-65	<6.56E+01	0.00E+00	6.56E+01
			Zr-95	<5.06E+01	0.00E+00	5.06E+01
			Nb-95	<2.73E+01	0.00E+00	2.73E+01
			I-131	<3.28E+01	0.00E+00	3.28E+01
			Cs-134	<3.36E+01	0.00E+00	3.36E+01
			Cs-137	1.56E+02	3.84E+01	3.28E+01
			BaLa-140	<3.61E+01	0.00E+00	3.61E+01
			Be-7	6.05E+02	2.09E+02	2.37E+02
			K-40	4.33E+03	7.36E+02	3.69E+02

Sample ID:	Sample Dates:	BLKCHERRY	Nuclide	Activity	2 Sigma Error	MDA
407639	4/19/2016 - 4/19/2016		Mn-54	<3.17E+01	0.00E+00	3.17E+01
			Co-58	<3.28E+01	0.00E+00	3.28E+01
			Fe-59	<8.06E+01	0.00E+00	8.06E+01
			Co-60	<2.55E+01	0.00E+00	2.55E+01
			Zn-65	<7.67E+01	0.00E+00	7.67E+01
			Zr-95	<5.72E+01	0.00E+00	5.72E+01
			Nb-95	<3.35E+01	0.00E+00	3.35E+01
			I-131	<4.49E+01	0.00E+00	4.49E+01
			Cs-134	<3.19E+01	0.00E+00	3.19E+01
			Cs-137	<2.59E+01	0.00E+00	2.59E+01
			BaLa-140	<5.16E+01	0.00E+00	5.16E+01
			Be-7	6.58E+02	2.73E+02	3.55E+02
			K-40	3.86E+03	7.50E+02	4.12E+02

Sample ID:	Sample Dates:	BLKCHERRY	Nuclide	Activity	2 Sigma Error	MDA
411026	5/11/2016 - 5/11/2016		Mn-54	<2.39E+01	0.00E+00	2.39E+01
			Co-58	<2.81E+01	0.00E+00	2.81E+01



ROBINSON Radiological Environmental Monitoring Analysis Report - 2016 (Appendix E)

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

Sample Point 52 [CONTROL - W @ 10 miles]

Sample ID:	Sample Dates:	Sample Type:	Nuclide	Activity	2 Sigma Error	MDA
411026	5/11/2016 - 5/11/2016	BLKCHERRY	Fe-59	<5.74E+01	0.00E+00	5.74E+01
			Co-60	<3.28E+01	0.00E+00	3.28E+01
			Zn-65	<5.03E+01	0.00E+00	5.03E+01
			Zr-95	<5.74E+01	0.00E+00	5.74E+01
			Nb-95	<2.48E+01	0.00E+00	2.48E+01
			I-131	<3.32E+01	0.00E+00	3.32E+01
			Cs-134	<2.93E+01	0.00E+00	2.93E+01
			Cs-137	<3.41E+01	0.00E+00	3.41E+01
			BaLa-140	<4.30E+01	0.00E+00	4.30E+01
			Be-7	5.11E+02	3.41E+02	1.83E+02
			K-40	3.89E+03	7.22E+02	5.29E+02
411027	5/11/2016 - 5/11/2016	PERSIMLEAF	Mn-54	<1.58E+01	0.00E+00	1.58E+01
			Co-58	<1.66E+01	0.00E+00	1.66E+01
			Fe-59	<3.11E+01	0.00E+00	3.11E+01
			Co-60	<1.88E+01	0.00E+00	1.88E+01
			Zn-65	<3.87E+01	0.00E+00	3.87E+01
			Zr-95	<3.61E+01	0.00E+00	3.61E+01
			Nb-95	<2.02E+01	0.00E+00	2.02E+01
			I-131	<2.15E+01	0.00E+00	2.15E+01
			Cs-134	<2.34E+01	0.00E+00	2.34E+01
			Cs-137	2.00E+01	1.28E+01	1.72E+01
			BaLa-140	<2.76E+01	0.00E+00	2.76E+01
Be-7	3.22E+02	1.46E+02	1.96E+02			
K-40	4.20E+03	6.34E+02	2.87E+02			
411028	5/11/2016 - 5/11/2016	WAXMYRTLE	Mn-54	<1.96E+01	0.00E+00	1.96E+01
			Co-58	<1.93E+01	0.00E+00	1.93E+01
			Fe-59	<4.30E+01	0.00E+00	4.30E+01
			Co-60	<1.87E+01	0.00E+00	1.87E+01
			Zn-65	<3.29E+01	0.00E+00	3.29E+01
			Zr-95	<3.75E+01	0.00E+00	3.75E+01
			Nb-95	<1.68E+01	0.00E+00	1.68E+01
			I-131	<2.48E+01	0.00E+00	2.48E+01
			Cs-134	<2.01E+01	0.00E+00	2.01E+01
			Cs-137	1.86E+01	1.40E+01	2.05E+01
			BaLa-140	<3.59E+01	0.00E+00	3.59E+01
Be-7	8.89E+02	2.18E+02	2.31E+02			
K-40	2.72E+03	4.66E+02	4.22E+01			
413423	6/17/2016 - 6/17/2016	PERSIMLEAF	Mn-54	<1.75E+01	0.00E+00	1.75E+01
			Co-58	<1.65E+01	0.00E+00	1.65E+01
			Fe-59	<2.39E+01	0.00E+00	2.39E+01
			Co-60	<2.25E+01	0.00E+00	2.25E+01
			Zn-65	<4.13E+01	0.00E+00	4.13E+01
			Zr-95	<3.52E+01	0.00E+00	3.52E+01
			Nb-95	<2.08E+01	0.00E+00	2.08E+01
			I-131	<2.16E+01	0.00E+00	2.16E+01
			Cs-134	<1.88E+01	0.00E+00	1.88E+01
			Cs-137	1.63E+01	1.24E+01	1.84E+01
			BaLa-140	<2.32E+01	0.00E+00	2.32E+01
Be-7	1.21E+03	2.35E+02	2.18E+02			
K-40	2.95E+03	5.10E+02	3.75E+02			
413424	6/17/2016 - 6/17/2016	WAXMYRTLE	Mn-54	<2.45E+01	0.00E+00	2.45E+01
			Co-58	<2.65E+01	0.00E+00	2.65E+01
			Fe-59	<6.82E+01	0.00E+00	6.82E+01
			Co-60	<2.54E+01	0.00E+00	2.54E+01
			Zn-65	<3.05E+01	0.00E+00	3.05E+01
			Zr-95	<5.47E+01	0.00E+00	5.47E+01
			Nb-95	<2.94E+01	0.00E+00	2.94E+01
			I-131	<4.18E+01	0.00E+00	4.18E+01



ROBINSON Radiological Environmental Monitoring Analysis Report - 2016 (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
413424	6/17/2016 - 6/17/2016	WAXMYRTLE	Cs-134	<3.54E+01	0.00E+00	3.54E+01
			Cs-137	<3.04E+01	0.00E+00	3.04E+01
			BaLa-140	<2.87E+01	0.00E+00	2.87E+01
			Be-7	1.61E+03	3.33E+02	2.75E+02
			K-40	2.85E+03	5.99E+02	3.72E+02
413425	6/17/2016 - 6/17/2016	BLKCERRY	Mn-54	<3.42E+01	0.00E+00	3.42E+01
			Co-58	<2.25E+01	0.00E+00	2.25E+01
			Fe-59	<4.86E+01	0.00E+00	4.86E+01
			Co-60	<3.18E+01	0.00E+00	3.18E+01
			Zn-65	<6.91E+01	0.00E+00	6.91E+01
			Zr-95	<4.17E+01	0.00E+00	4.17E+01
			Nb-95	<2.54E+01	0.00E+00	2.54E+01
			I-131	<3.41E+01	0.00E+00	3.41E+01
			Cs-134	<3.04E+01	0.00E+00	3.04E+01
			Cs-137	<2.93E+01	0.00E+00	2.93E+01
			BaLa-140	<3.31E+01	0.00E+00	3.31E+01
Be-7	1.18E+03	3.05E+02	3.32E+02			
K-40	2.84E+03	6.09E+02	4.77E+02			
416477	7/12/2016 - 7/12/2016	WAXMYRTLE	Mn-54	<2.74E+01	0.00E+00	2.74E+01
			Co-58	<2.61E+01	0.00E+00	2.61E+01
			Fe-59	<5.38E+01	0.00E+00	5.38E+01
			Co-60	<2.74E+01	0.00E+00	2.74E+01
			Zn-65	<6.64E+01	0.00E+00	6.64E+01
			Zr-95	<4.53E+01	0.00E+00	4.53E+01
			Nb-95	<2.29E+01	0.00E+00	2.29E+01
			I-131	<2.03E+01	0.00E+00	2.03E+01
			Cs-134	<2.49E+01	0.00E+00	2.49E+01
			Cs-137	<3.42E+01	0.00E+00	3.42E+01
			BaLa-140	<4.02E+01	0.00E+00	4.02E+01
			Be-7	6.97E+02	2.32E+02	2.76E+02
			K-40	2.95E+03	5.71E+02	6.20E+01
416475	7/12/2016 - 7/12/2016	BLKCERRY	Mn-54	<2.23E+01	0.00E+00	2.23E+01
			Co-58	<2.10E+01	0.00E+00	2.10E+01
			Fe-59	<2.36E+01	0.00E+00	2.36E+01
			Co-60	<3.41E+01	0.00E+00	3.41E+01
			Zn-65	<5.94E+01	0.00E+00	5.94E+01
			Zr-95	<4.57E+01	0.00E+00	4.57E+01
			Nb-95	<1.78E+01	0.00E+00	1.78E+01
			I-131	<1.90E+01	0.00E+00	1.90E+01
			Cs-134	<3.07E+01	0.00E+00	3.07E+01
			Cs-137	<2.90E+01	0.00E+00	2.90E+01
			BaLa-140	<2.02E+01	0.00E+00	2.02E+01
			Be-7	7.30E+02	2.54E+02	3.31E+02
			K-40	3.65E+03	6.63E+02	4.33E+02
416476	7/12/2016 - 7/12/2016	SASSAFRAS	Mn-54	<1.15E+01	0.00E+00	1.15E+01
			Co-58	<2.00E+01	0.00E+00	2.00E+01
			Fe-59	<3.87E+01	0.00E+00	3.87E+01
			Co-60	<1.68E+01	0.00E+00	1.68E+01
			Zn-65	<3.56E+01	0.00E+00	3.56E+01
			Zr-95	<2.60E+01	0.00E+00	2.60E+01
			Nb-95	<1.35E+01	0.00E+00	1.35E+01
			I-131	<1.72E+01	0.00E+00	1.72E+01
			Cs-134	<2.25E+01	0.00E+00	2.25E+01
			Cs-137	4.39E+01	1.73E+01	1.93E+01
			BaLa-140	<1.54E+01	0.00E+00	1.54E+01
			Be-7	1.64E+03	2.69E+02	1.64E+02
			K-40	2.24E+03	4.67E+02	3.88E+02



ROBINSON Radiological Environmental Monitoring Analysis Report - 2016 (Appendix E)

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

Sample Point 52 [CONTROL - W @ 10 miles]

Sample ID:	Sample Dates:	Plant Name:	Nuclide	Activity	2 Sigma Error	MDA
418349	8/11/2016 - 8/11/2016	WAXMYRTLE	Mn-54	<2.35E+01	0.00E+00	2.35E+01
			Co-58	<2.71E+01	0.00E+00	2.71E+01
			Fe-59	<4.15E+01	0.00E+00	4.15E+01
			Co-60	<2.32E+01	0.00E+00	2.32E+01
			Zn-65	<5.46E+01	0.00E+00	5.46E+01
			Zr-95	<4.19E+01	0.00E+00	4.19E+01
			Nb-95	<2.66E+01	0.00E+00	2.66E+01
			I-131	<4.27E+01	0.00E+00	4.27E+01
			Cs-134	<2.61E+01	0.00E+00	2.61E+01
			Cs-137	<2.66E+01	0.00E+00	2.66E+01
			BaLa-140	<4.48E+01	0.00E+00	4.48E+01
			Be-7	2.20E+03	3.73E+02	2.52E+02
			K-40	2.18E+03	4.55E+02	2.01E+02
418348	8/11/2016 - 8/11/2016	SASSAFRAS	Mn-54	<2.89E+01	0.00E+00	2.89E+01
			Co-58	<2.59E+01	0.00E+00	2.59E+01
			Fe-59	<3.76E+01	0.00E+00	3.76E+01
			Co-60	<2.58E+01	0.00E+00	2.58E+01
			Zn-65	<6.34E+01	0.00E+00	6.34E+01
			Zr-95	<4.23E+01	0.00E+00	4.23E+01
			Nb-95	<2.65E+01	0.00E+00	2.65E+01
			I-131	<4.76E+01	0.00E+00	4.76E+01
			Cs-134	<2.23E+01	0.00E+00	2.23E+01
			Cs-137	3.41E+02	6.20E+01	4.02E+01
			BaLa-140	<3.93E+01	0.00E+00	3.93E+01
			Be-7	3.52E+03	5.55E+02	4.13E+02
			K-40	2.58E+03	6.05E+02	5.19E+02
418350	8/11/2016 - 8/11/2016	BLKCERRY	Mn-54	<1.97E+01	0.00E+00	1.97E+01
			Co-58	<2.02E+01	0.00E+00	2.02E+01
			Fe-59	<4.17E+01	0.00E+00	4.17E+01
			Co-60	<2.59E+01	0.00E+00	2.59E+01
			Zn-65	<6.06E+01	0.00E+00	6.06E+01
			Zr-95	<3.94E+01	0.00E+00	3.94E+01
			Nb-95	<2.22E+01	0.00E+00	2.22E+01
			I-131	<4.63E+01	0.00E+00	4.63E+01
			Cs-134	<2.57E+01	0.00E+00	2.57E+01
			Cs-137	<3.05E+01	0.00E+00	3.05E+01
			BaLa-140	<3.59E+01	0.00E+00	3.59E+01
			Be-7	1.05E+03	2.34E+02	2.19E+02
			K-40	4.16E+03	6.15E+02	1.96E+02
421508	9/12/2016 - 9/12/2016	BLKCERRY	Mn-54	<2.06E+01	0.00E+00	2.06E+01
			Co-58	<1.98E+01	0.00E+00	1.98E+01
			Fe-59	<3.84E+01	0.00E+00	3.84E+01
			Co-60	<2.28E+01	0.00E+00	2.28E+01
			Zn-65	<4.89E+01	0.00E+00	4.89E+01
			Zr-95	<4.39E+01	0.00E+00	4.39E+01
			Nb-95	<2.80E+01	0.00E+00	2.80E+01
			I-131	<3.84E+01	0.00E+00	3.84E+01
			Cs-134	<3.07E+01	0.00E+00	3.07E+01
			Cs-137	<3.22E+01	0.00E+00	3.22E+01
			BaLa-140	<3.44E+01	0.00E+00	3.44E+01
			Be-7	1.97E+03	3.62E+02	2.90E+02
			K-40	2.65E+03	5.73E+02	4.50E+02
421507	9/12/2016 - 9/12/2016	SASSAFRAS	Mn-54	<1.96E+01	0.00E+00	1.96E+01
			Co-58	<1.91E+01	0.00E+00	1.91E+01
			Fe-59	<5.76E+01	0.00E+00	5.76E+01
			Co-60	<2.46E+01	0.00E+00	2.46E+01
			Zn-65	<5.53E+01	0.00E+00	5.53E+01
			Zr-95	<4.10E+01	0.00E+00	4.10E+01



ROBINSON Radiological Environmental Monitoring Analysis Report - 2016 (Appendix E)

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

Sample Point 52 [CONTROL - W @ 10 miles]

Sample ID:	Sample Dates:	SASSAFRAS	Nuclide	Activity	2 Sigma Error	MDA
421507	9/12/2016 - 9/12/2016	SASSAFRAS	Nb-95	<1.94E+01	0.00E+00	1.94E+01
			I-131	<3.05E+01	0.00E+00	3.05E+01
			Cs-134	<2.84E+01	0.00E+00	2.84E+01
			Cs-137	1.03E+02	2.84E+01	2.59E+01
			BaLa-140	<2.41E+01	0.00E+00	2.41E+01
			Be-7	2.65E+03	4.08E+02	2.53E+02
			K-40	2.56E+03	5.02E+02	2.66E+02
421506	9/12/2016 - 9/12/2016	WAXMYRTLE	Mn-54	<1.45E+01	0.00E+00	1.45E+01
			Co-58	<3.05E+01	0.00E+00	3.05E+01
			Fe-59	<5.37E+01	0.00E+00	5.37E+01
			Co-60	<3.39E+01	0.00E+00	3.39E+01
			Zn-65	<5.98E+01	0.00E+00	5.98E+01
			Zr-95	<4.48E+01	0.00E+00	4.48E+01
			Nb-95	<3.11E+01	0.00E+00	3.11E+01
			I-131	<2.38E+01	0.00E+00	2.38E+01
			Cs-134	<3.29E+01	0.00E+00	3.29E+01
			Cs-137	<2.83E+01	0.00E+00	2.83E+01
			BaLa-140	<2.89E+01	0.00E+00	2.89E+01
			Be-7	1.05E+03	2.76E+02	2.86E+02
			K-40	2.32E+03	5.21E+02	3.37E+02
425521	10/20/2016 - 10/20/2016	BLKCERRY	Mn-54	<3.42E+01	0.00E+00	3.42E+01
			Co-58	<3.52E+01	0.00E+00	3.52E+01
			Fe-59	<5.07E+01	0.00E+00	5.07E+01
			Co-60	<2.74E+01	0.00E+00	2.74E+01
			Zn-65	<6.70E+01	0.00E+00	6.70E+01
			Zr-95	<5.89E+01	0.00E+00	5.89E+01
			Nb-95	<3.77E+01	0.00E+00	3.77E+01
			I-131	<4.71E+01	0.00E+00	4.71E+01
			Cs-134	<4.17E+01	0.00E+00	4.17E+01
			Cs-137	<5.02E+01	0.00E+00	5.02E+01
			BaLa-140	<5.05E+01	0.00E+00	5.05E+01
			Be-7	1.40E+03	3.61E+02	4.03E+02
			K-40	3.22E+03	7.16E+02	6.29E+02
425522	10/20/2016 - 10/20/2016	SWEETGUM	Mn-54	<2.63E+01	0.00E+00	2.63E+01
			Co-58	<2.28E+01	0.00E+00	2.28E+01
			Fe-59	<4.07E+01	0.00E+00	4.07E+01
			Co-60	<2.45E+01	0.00E+00	2.45E+01
			Zn-65	<5.26E+01	0.00E+00	5.26E+01
			Zr-95	<4.69E+01	0.00E+00	4.69E+01
			Nb-95	<3.08E+01	0.00E+00	3.08E+01
			I-131	<2.93E+01	0.00E+00	2.93E+01
			Cs-134	<4.14E+01	0.00E+00	4.14E+01
			Cs-137	<2.28E+01	0.00E+00	2.28E+01
			BaLa-140	<3.48E+01	0.00E+00	3.48E+01
			Be-7	6.62E+02	2.63E+02	3.52E+02
			K-40	1.59E+03	4.51E+02	4.02E+02
425523	10/20/2016 - 10/20/2016	SASSAFRAS	Mn-54	<3.20E+01	0.00E+00	3.20E+01
			Co-58	<3.75E+01	0.00E+00	3.75E+01
			Fe-59	<6.71E+01	0.00E+00	6.71E+01
			Co-60	<3.05E+01	0.00E+00	3.05E+01
			Zn-65	<3.30E+01	0.00E+00	3.30E+01
			Zr-95	<5.93E+01	0.00E+00	5.93E+01
			Nb-95	<2.58E+01	0.00E+00	2.58E+01
			I-131	<4.19E+01	0.00E+00	4.19E+01
			Cs-134	<3.13E+01	0.00E+00	3.13E+01
			Cs-137	1.41E+02	4.79E+01	6.06E+01
			BaLa-140	<3.88E+01	0.00E+00	3.88E+01
			Be-7	2.24E+03	4.34E+02	3.89E+02



ROBINSON Radiological Environmental Monitoring Analysis Report - 2016 (Appendix E)

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

Sample Point 52 [CONTROL - W @ 10 miles]

Sample ID:	Sample Dates:	SASSAFRAS	Nuclide	Activity	2 Sigma Error	MDA
425523	10/20/2016 - 10/20/2016		K-40	2.08E+03	5.24E+02	3.80E+02

Sample ID:	Sample Dates:	WAXMYRTLE	Nuclide	Activity	2 Sigma Error	MDA
428286	11/10/2016 - 11/10/2016		Mn-54	<2.85E+01	0.00E+00	2.85E+01
			Co-58	<2.79E+01	0.00E+00	2.79E+01
			Fe-59	<4.08E+01	0.00E+00	4.08E+01
			Co-60	<2.80E+01	0.00E+00	2.80E+01
			Zn-65	<5.50E+01	0.00E+00	5.50E+01
			Zr-95	<4.25E+01	0.00E+00	4.25E+01
			Nb-95	<3.31E+01	0.00E+00	3.31E+01
			I-131	<4.29E+01	0.00E+00	4.29E+01
			Cs-134	<3.33E+01	0.00E+00	3.33E+01
			Cs-137	<3.46E+01	0.00E+00	3.46E+01
			BaLa-140	<4.26E+01	0.00E+00	4.26E+01
			Be-7	6.20E+02	2.75E+02	3.74E+02
			K-40	2.10E+03	5.64E+02	5.04E+02

Sample ID:	Sample Dates:	SWEETGUM	Nuclide	Activity	2 Sigma Error	MDA
428287	11/10/2016 - 11/10/2016		Mn-54	<1.71E+01	0.00E+00	1.71E+01
			Co-58	<1.90E+01	0.00E+00	1.90E+01
			Fe-59	<5.28E+01	0.00E+00	5.28E+01
			Co-60	<2.63E+01	0.00E+00	2.63E+01
			Zn-65	<4.96E+01	0.00E+00	4.96E+01
			Zr-95	<3.53E+01	0.00E+00	3.53E+01
			Nb-95	<2.30E+01	0.00E+00	2.30E+01
			I-131	<3.83E+01	0.00E+00	3.83E+01
			Cs-134	<2.30E+01	0.00E+00	2.30E+01
			Cs-137	<3.06E+01	0.00E+00	3.06E+01
			BaLa-140	<3.06E+01	0.00E+00	3.06E+01
			Be-7	8.35E+02	2.56E+02	3.15E+02
			K-40	2.45E+03	4.71E+02	5.07E+01

Sample ID:	Sample Dates:	HOLLY	Nuclide	Activity	2 Sigma Error	MDA
428288	11/10/2016 - 11/10/2016		Mn-54	<2.53E+01	0.00E+00	2.53E+01
			Co-58	<2.40E+01	0.00E+00	2.40E+01
			Fe-59	<4.23E+01	0.00E+00	4.23E+01
			Co-60	<2.54E+01	0.00E+00	2.54E+01
			Zn-65	<4.27E+01	0.00E+00	4.27E+01
			Zr-95	<4.15E+01	0.00E+00	4.15E+01
			Nb-95	<3.03E+01	0.00E+00	3.03E+01
			I-131	<4.68E+01	0.00E+00	4.68E+01
			Cs-134	<2.37E+01	0.00E+00	2.37E+01
			Cs-137	3.47E+01	2.25E+01	3.48E+01
			BaLa-140	<3.82E+01	0.00E+00	3.82E+01
			Be-7	8.91E+02	2.40E+02	3.19E+02
			K-40	2.73E+03	4.49E+02	3.78E+02

Sample Point 62 [INDICATOR - SE @ 0 miles]

Sample ID:	Sample Dates:	WAXMYRTLE	Nuclide	Activity	2 Sigma Error	MDA
407640	4/19/2016 - 4/19/2016		Mn-54	<5.88E+00	0.00E+00	5.88E+00
			Co-58	<1.55E+01	0.00E+00	1.55E+01
			Fe-59	<1.72E+01	0.00E+00	1.72E+01
			Co-60	<6.54E+00	0.00E+00	6.54E+00
			Zn-65	<1.30E+01	0.00E+00	1.30E+01
			Zr-95	<1.31E+01	0.00E+00	1.31E+01
			Nb-95	<9.02E+00	0.00E+00	9.02E+00
			I-131	<4.79E+01	0.00E+00	4.79E+01
			Cs-134	<6.95E+00	0.00E+00	6.95E+00
			Cs-137	<8.04E+00	0.00E+00	8.04E+00
			BaLa-140	<2.51E+01	0.00E+00	2.51E+01
			Be-7	1.31E+03	1.46E+02	9.98E+01
			K-40	3.97E+03	3.60E+02	9.79E+01

Sample ID:	Sample Dates:	SASSAFRAS	Nuclide	Activity	2 Sigma Error	MDA
407641	4/19/2016 - 4/19/2016		Mn-54	<1.65E+01	0.00E+00	1.65E+01
			Co-58	<1.61E+01	0.00E+00	1.61E+01



ROBINSON Radiological Environmental Monitoring Analysis Report - 2016 (Appendix E)

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

Sample Point 62 [INDICATOR - SE @ 0 miles]

Sample ID:	Sample Dates:	Indicator	Nuclide	Activity	2 Sigma Error	MDA
407641	4/19/2016 - 4/19/2016	SASSAFRAS	Fe-59	<4.02E+01	0.00E+00	4.02E+01
			Co-60	<2.38E+01	0.00E+00	2.38E+01
			Zn-65	<4.20E+01	0.00E+00	4.20E+01
			Zr-95	<3.46E+01	0.00E+00	3.46E+01
			Nb-95	<1.75E+01	0.00E+00	1.75E+01
			I-131	<3.10E+01	0.00E+00	3.10E+01
			Cs-134	<2.39E+01	0.00E+00	2.39E+01
			Cs-137	6.59E+01	2.53E+01	3.22E+01
			BaLa-140	<3.33E+01	0.00E+00	3.33E+01
			Be-7	5.04E+02	1.65E+02	1.87E+02
			K-40	3.57E+03	5.56E+02	4.31E+01
407642	4/19/2016 - 4/19/2016	BLKCHERRY	Mn-54	<1.97E+01	0.00E+00	1.97E+01
			Co-58	<2.04E+01	0.00E+00	2.04E+01
			Fe-59	<3.61E+01	0.00E+00	3.61E+01
			Co-60	<2.29E+01	0.00E+00	2.29E+01
			Zn-65	<4.05E+01	0.00E+00	4.05E+01
			Zr-95	<3.40E+01	0.00E+00	3.40E+01
			Nb-95	<2.17E+01	0.00E+00	2.17E+01
			I-131	<2.38E+01	0.00E+00	2.38E+01
			Cs-134	<2.00E+01	0.00E+00	2.00E+01
			Cs-137	<2.11E+01	0.00E+00	2.11E+01
			BaLa-140	<3.41E+01	0.00E+00	3.41E+01
Be-7	<2.86E+02	0.00E+00	2.86E+02			
K-40	4.47E+03	6.54E+02	2.06E+02			
411029	5/11/2016 - 5/11/2016	PEARLEAF	Mn-54	<2.21E+01	0.00E+00	2.21E+01
			Co-58	<2.26E+01	0.00E+00	2.26E+01
			Fe-59	<5.76E+01	0.00E+00	5.76E+01
			Co-60	<2.69E+01	0.00E+00	2.69E+01
			Zn-65	<5.86E+01	0.00E+00	5.86E+01
			Zr-95	<3.33E+01	0.00E+00	3.33E+01
			Nb-95	<2.29E+01	0.00E+00	2.29E+01
			I-131	<3.61E+01	0.00E+00	3.61E+01
			Cs-134	<2.97E+01	0.00E+00	2.97E+01
			Cs-137	3.28E+01	2.40E+01	3.64E+01
			BaLa-140	<3.39E+01	0.00E+00	3.39E+01
Be-7	7.09E+02	2.03E+02	2.12E+02			
K-40	3.90E+03	6.68E+02	4.24E+02			
411030	5/11/2016 - 5/11/2016	BLKCHERRY	Mn-54	<2.34E+01	0.00E+00	2.34E+01
			Co-58	<1.89E+01	0.00E+00	1.89E+01
			Fe-59	<4.19E+01	0.00E+00	4.19E+01
			Co-60	<2.52E+01	0.00E+00	2.52E+01
			Zn-65	<5.75E+01	0.00E+00	5.75E+01
			Zr-95	<3.30E+01	0.00E+00	3.30E+01
			Nb-95	<1.45E+01	0.00E+00	1.45E+01
			I-131	<2.16E+01	0.00E+00	2.16E+01
			Cs-134	<2.26E+01	0.00E+00	2.26E+01
			Cs-137	<1.77E+01	0.00E+00	1.77E+01
			BaLa-140	<2.97E+01	0.00E+00	2.97E+01
Be-7	2.89E+02	1.54E+02	2.18E+02			
K-40	3.98E+03	6.58E+02	4.61E+02			
411031	5/11/2016 - 5/11/2016	PERSIMLEAF	Mn-54	<1.78E+01	0.00E+00	1.78E+01
			Co-58	<1.76E+01	0.00E+00	1.76E+01
			Fe-59	<3.59E+01	0.00E+00	3.59E+01
			Co-60	<1.27E+01	0.00E+00	1.27E+01
			Zn-65	<4.35E+01	0.00E+00	4.35E+01
			Zr-95	<2.53E+01	0.00E+00	2.53E+01
			Nb-95	<1.84E+01	0.00E+00	1.84E+01
			I-131	<1.90E+01	0.00E+00	1.90E+01



ROBINSON Radiological Environmental Monitoring Analysis Report - 2016 (Appendix E)

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

Sample Point 62 [INDICATOR - SE @ 0 miles]

Sample ID:	Sample Dates:	Indicator	Nuclide	Activity	2 Sigma Error	MDA
411031	5/11/2016 - 5/11/2016	PERSIMLEAF	Cs-134	<1.84E+01	0.00E+00	1.84E+01
			Cs-137	<2.28E+01	0.00E+00	2.28E+01
			BaLa-140	<6.09E+00	0.00E+00	6.09E+00
			Be-7	1.87E+02	1.19E+02	1.76E+02
			K-40	3.55E+03	5.37E+02	2.28E+02
413426	6/17/2016 - 6/17/2016	SWEETGUM	Mn-54	<1.31E+01	0.00E+00	1.31E+01
			Co-58	<1.27E+01	0.00E+00	1.27E+01
			Fe-59	<2.57E+01	0.00E+00	2.57E+01
			Co-60	<1.69E+01	0.00E+00	1.69E+01
			Zn-65	<3.82E+01	0.00E+00	3.82E+01
			Zr-95	<3.04E+01	0.00E+00	3.04E+01
			Nb-95	<1.75E+01	0.00E+00	1.75E+01
			I-131	<1.75E+01	0.00E+00	1.75E+01
			Cs-134	<1.86E+01	0.00E+00	1.86E+01
			Cs-137	<1.39E+01	0.00E+00	1.39E+01
			BaLa-140	<2.26E+01	0.00E+00	2.26E+01
Be-7	1.06E+03	2.09E+02	2.00E+02			
K-40	2.72E+03	4.37E+02	2.23E+02			
413427	6/17/2016 - 6/17/2016	BLKCHERRY	Mn-54	<2.08E+01	0.00E+00	2.08E+01
			Co-58	<2.01E+01	0.00E+00	2.01E+01
			Fe-59	<6.07E+01	0.00E+00	6.07E+01
			Co-60	<1.76E+01	0.00E+00	1.76E+01
			Zn-65	<5.81E+01	0.00E+00	5.81E+01
			Zr-95	<3.49E+01	0.00E+00	3.49E+01
			Nb-95	<2.23E+01	0.00E+00	2.23E+01
			I-131	<2.64E+01	0.00E+00	2.64E+01
			Cs-134	<3.59E+01	0.00E+00	3.59E+01
			Cs-137	<2.29E+01	0.00E+00	2.29E+01
			BaLa-140	<3.23E+01	0.00E+00	3.23E+01
			Be-7	4.91E+02	1.94E+02	2.49E+02
			K-40	4.48E+03	6.98E+02	2.51E+02
413428	6/17/2016 - 6/17/2016	PEARLEAF	Mn-54	<3.28E+01	0.00E+00	3.28E+01
			Co-58	<2.18E+01	0.00E+00	2.18E+01
			Fe-59	<5.07E+01	0.00E+00	5.07E+01
			Co-60	<2.19E+01	0.00E+00	2.19E+01
			Zn-65	<7.22E+01	0.00E+00	7.22E+01
			Zr-95	<5.04E+01	0.00E+00	5.04E+01
			Nb-95	<3.14E+01	0.00E+00	3.14E+01
			I-131	<4.24E+01	0.00E+00	4.24E+01
			Cs-134	<3.00E+01	0.00E+00	3.00E+01
			Cs-137	3.20E+01	2.56E+01	3.89E+01
			BaLa-140	<4.01E+01	0.00E+00	4.01E+01
			Be-7	8.35E+02	2.68E+02	3.19E+02
			K-40	4.89E+03	8.38E+02	5.47E+02
416479	7/12/2016 - 7/12/2016	WAXMYRTLE	Mn-54	<2.58E+01	0.00E+00	2.58E+01
			Co-58	<2.12E+01	0.00E+00	2.12E+01
			Fe-59	<4.55E+01	0.00E+00	4.55E+01
			Co-60	<2.91E+01	0.00E+00	2.91E+01
			Zn-65	<4.72E+01	0.00E+00	4.72E+01
			Zr-95	<2.94E+01	0.00E+00	2.94E+01
			Nb-95	<2.29E+01	0.00E+00	2.29E+01
			I-131	<2.43E+01	0.00E+00	2.43E+01
			Cs-134	<3.00E+01	0.00E+00	3.00E+01
			Cs-137	<3.82E+01	0.00E+00	3.82E+01
			BaLa-140	<3.29E+01	0.00E+00	3.29E+01
			Be-7	1.97E+03	3.45E+02	2.46E+02
			K-40	2.30E+03	5.32E+02	4.55E+02



ROBINSON Radiological Environmental Monitoring Analysis Report - 2016 (Appendix E)

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

Sample Point 62 [INDICATOR - SE @ 0 miles]

Sample ID:	Sample Dates:	PEARLEAF	Nuclide	Activity	2 Sigma Error	MDA
416480	7/12/2016 - 7/12/2016	PEARLEAF	Mn-54	<2.70E+01	0.00E+00	2.70E+01
			Co-58	<2.77E+01	0.00E+00	2.77E+01
			Fe-59	<5.24E+01	0.00E+00	5.24E+01
			Co-60	<2.17E+01	0.00E+00	2.17E+01
			Zn-65	<5.85E+01	0.00E+00	5.85E+01
			Zr-95	<5.74E+01	0.00E+00	5.74E+01
			Nb-95	<2.93E+01	0.00E+00	2.93E+01
			I-131	<2.20E+01	0.00E+00	2.20E+01
			Cs-134	<3.95E+01	0.00E+00	3.95E+01
			Cs-137	2.28E+01	2.37E+01	3.80E+01
			BaLa-140	<2.89E+01	0.00E+00	2.89E+01
			Be-7	7.66E+02	2.44E+02	2.99E+02
			K-40	7.16E+03	9.53E+02	5.48E+01
			416478	7/12/2016 - 7/12/2016	BLKCERRY	Mn-54
Co-58	<1.37E+01	0.00E+00				1.37E+01
Fe-59	<3.41E+01	0.00E+00				3.41E+01
Co-60	<1.99E+01	0.00E+00				1.99E+01
Zn-65	<3.80E+01	0.00E+00				3.80E+01
Zr-95	<3.85E+01	0.00E+00				3.85E+01
Nb-95	<2.08E+01	0.00E+00				2.08E+01
I-131	<1.74E+01	0.00E+00				1.74E+01
Cs-134	<2.74E+01	0.00E+00				2.74E+01
Cs-137	<2.49E+01	0.00E+00				2.49E+01
BaLa-140	<3.31E+01	0.00E+00				3.31E+01
Be-7	9.94E+02	2.29E+02				2.30E+02
K-40	3.24E+03	5.41E+02				2.09E+02
418351	8/11/2016 - 8/11/2016	SASSAFRAS				Mn-54
			Co-58	<1.06E+01	0.00E+00	1.06E+01
			Fe-59	<2.58E+01	0.00E+00	2.58E+01
			Co-60	<9.29E+00	0.00E+00	9.29E+00
			Zn-65	<2.59E+01	0.00E+00	2.59E+01
			Zr-95	<1.87E+01	0.00E+00	1.87E+01
			Nb-95	<1.30E+01	0.00E+00	1.30E+01
			I-131	<2.25E+01	0.00E+00	2.25E+01
			Cs-134	<1.16E+01	0.00E+00	1.16E+01
			Cs-137	1.75E+01	1.16E+01	1.81E+01
			BaLa-140	<2.09E+01	0.00E+00	2.09E+01
			Be-7	2.87E+03	3.09E+02	1.47E+02
			K-40	3.05E+03	3.62E+02	1.96E+02
			418352	8/11/2016 - 8/11/2016	WAXMYRTLE	Mn-54
Co-58	<2.30E+01	0.00E+00				2.30E+01
Fe-59	<5.07E+01	0.00E+00				5.07E+01
Co-60	<1.83E+01	0.00E+00				1.83E+01
Zn-65	<3.64E+01	0.00E+00				3.64E+01
Zr-95	<4.32E+01	0.00E+00				4.32E+01
Nb-95	<2.02E+01	0.00E+00				2.02E+01
I-131	<4.70E+01	0.00E+00				4.70E+01
Cs-134	<2.81E+01	0.00E+00				2.81E+01
Cs-137	2.95E+01	2.01E+01				2.98E+01
BaLa-140	<3.93E+01	0.00E+00				3.93E+01
Be-7	2.15E+03	3.60E+02				2.70E+02
K-40	1.70E+03	4.08E+02				3.39E+02
418353	8/11/2016 - 8/11/2016	BLKCERRY				Mn-54
			Co-58	<1.77E+01	0.00E+00	1.77E+01
			Fe-59	<5.02E+01	0.00E+00	5.02E+01
			Co-60	<2.67E+01	0.00E+00	2.67E+01
			Zn-65	<4.23E+01	0.00E+00	4.23E+01
			Zr-95	<4.12E+01	0.00E+00	4.12E+01



ROBINSON Radiological Environmental Monitoring Analysis Report - 2016 (Appendix E)

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

Sample Point 62 [INDICATOR - SE @ 0 miles]

Sample ID:	Sample Dates:	Indicator	Nuclide	Activity	2 Sigma Error	MDA
418353	8/11/2016 - 8/11/2016	BLKCHERRY	Nb-95	<2.59E+01	0.00E+00	2.59E+01
			I-131	<3.01E+01	0.00E+00	3.01E+01
			Cs-134	<2.36E+01	0.00E+00	2.36E+01
			Cs-137	<2.85E+01	0.00E+00	2.85E+01
			BaLa-140	<5.11E+01	0.00E+00	5.11E+01
			Be-7	4.68E+02	1.95E+02	2.62E+02
			K-40	3.56E+03	5.99E+02	3.56E+02
421509	9/12/2016 - 9/12/2016	BLKCHERRY	Mn-54	<3.59E+01	0.00E+00	3.59E+01
			Co-58	<2.14E+01	0.00E+00	2.14E+01
			Fe-59	<4.66E+01	0.00E+00	4.66E+01
			Co-60	<2.26E+01	0.00E+00	2.26E+01
			Zn-65	<5.90E+01	0.00E+00	5.90E+01
			Zr-95	<4.39E+01	0.00E+00	4.39E+01
			Nb-95	<3.10E+01	0.00E+00	3.10E+01
			I-131	<3.88E+01	0.00E+00	3.88E+01
			Cs-134	<3.66E+01	0.00E+00	3.66E+01
			Cs-137	<2.11E+01	0.00E+00	2.11E+01
			BaLa-140	<3.39E+01	0.00E+00	3.39E+01
			Be-7	6.73E+02	2.27E+02	2.72E+02
			K-40	3.43E+03	6.38E+02	3.99E+02
421510	9/12/2016 - 9/12/2016	SASSAFRAS	Mn-54	<1.67E+01	0.00E+00	1.67E+01
			Co-58	<1.93E+01	0.00E+00	1.93E+01
			Fe-59	<4.14E+01	0.00E+00	4.14E+01
			Co-60	<2.33E+01	0.00E+00	2.33E+01
			Zn-65	<4.10E+01	0.00E+00	4.10E+01
			Zr-95	<2.53E+01	0.00E+00	2.53E+01
			Nb-95	<1.89E+01	0.00E+00	1.89E+01
			I-131	<2.74E+01	0.00E+00	2.74E+01
			Cs-134	<2.17E+01	0.00E+00	2.17E+01
			Cs-137	4.60E+01	2.09E+01	2.76E+01
			BaLa-140	<3.54E+01	0.00E+00	3.54E+01
			Be-7	1.58E+03	2.85E+02	2.33E+02
			K-40	2.12E+03	4.38E+02	3.30E+02
421511	9/12/2016 - 9/12/2016	PERSIMLEAF	Mn-54	<1.02E+01	0.00E+00	1.02E+01
			Co-58	<1.05E+01	0.00E+00	1.05E+01
			Fe-59	<2.43E+01	0.00E+00	2.43E+01
			Co-60	<9.31E+00	0.00E+00	9.31E+00
			Zn-65	<2.10E+01	0.00E+00	2.10E+01
			Zr-95	<1.71E+01	0.00E+00	1.71E+01
			Nb-95	<1.06E+01	0.00E+00	1.06E+01
			I-131	<4.75E+01	0.00E+00	4.75E+01
			Cs-134	<1.18E+01	0.00E+00	1.18E+01
			Cs-137	1.13E+01	8.73E+00	1.38E+01
			BaLa-140	<2.84E+01	0.00E+00	2.84E+01
			Be-7	2.01E+03	2.39E+02	1.53E+02
			K-40	3.60E+03	3.80E+02	1.20E+02
425524	10/20/2016 - 10/20/2016	BLKCHERRY	Mn-54	<2.40E+01	0.00E+00	2.40E+01
			Co-58	<2.82E+01	0.00E+00	2.82E+01
			Fe-59	<4.04E+01	0.00E+00	4.04E+01
			Co-60	<2.25E+01	0.00E+00	2.25E+01
			Zn-65	<5.28E+01	0.00E+00	5.28E+01
			Zr-95	<4.66E+01	0.00E+00	4.66E+01
			Nb-95	<2.64E+01	0.00E+00	2.64E+01
			I-131	<3.33E+01	0.00E+00	3.33E+01
			Cs-134	<3.26E+01	0.00E+00	3.26E+01
			Cs-137	<3.08E+01	0.00E+00	3.08E+01
			BaLa-140	<3.42E+01	0.00E+00	3.42E+01
			Be-7	1.24E+03	2.96E+02	3.40E+02



ROBINSON Radiological Environmental Monitoring Analysis Report - 2016 (Appendix E)

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

Sample Point 62 [INDICATOR - SE @ 0 miles]

Sample ID:	Sample Dates:	Indicator	Nuclide	Activity	2 Sigma Error	MDA
425524	10/20/2016 - 10/20/2016	BLKCERRY	K-40	2.20E+03	4.52E+02	2.90E+02
425525	10/20/2016 - 10/20/2016	PEARLEAF	Mn-54	<2.78E+01	0.00E+00	2.78E+01
			Co-58	<2.60E+01	0.00E+00	2.60E+01
			Fe-59	<6.66E+01	0.00E+00	6.66E+01
			Co-60	<2.76E+01	0.00E+00	2.76E+01
			Zn-65	<7.35E+01	0.00E+00	7.35E+01
			Zr-95	<4.52E+01	0.00E+00	4.52E+01
			Nb-95	<2.62E+01	0.00E+00	2.62E+01
			I-131	<3.70E+01	0.00E+00	3.70E+01
			Cs-134	<3.59E+01	0.00E+00	3.59E+01
			Cs-137	2.23E+01	2.40E+01	3.85E+01
			BaLa-140	<4.53E+01	0.00E+00	4.53E+01
			Be-7	3.97E+02	1.92E+02	2.55E+02
			K-40	4.76E+03	7.77E+02	2.92E+02
425526	10/20/2016 - 10/20/2016	WAXMYRTLE	Mn-54	<2.51E+01	0.00E+00	2.51E+01
			Co-58	<2.83E+01	0.00E+00	2.83E+01
			Fe-59	<4.09E+01	0.00E+00	4.09E+01
			Co-60	<3.44E+01	0.00E+00	3.44E+01
			Zn-65	<7.30E+01	0.00E+00	7.30E+01
			Zr-95	<4.51E+01	0.00E+00	4.51E+01
			Nb-95	<2.73E+01	0.00E+00	2.73E+01
			I-131	<2.54E+01	0.00E+00	2.54E+01
			Cs-134	<2.32E+01	0.00E+00	2.32E+01
			Cs-137	<3.15E+01	0.00E+00	3.15E+01
			BaLa-140	<5.32E+01	0.00E+00	5.32E+01
			Be-7	5.58E+02	2.31E+02	3.04E+02
			K-40	1.74E+03	4.80E+02	4.34E+02
428289	11/10/2016 - 11/10/2016	BAMBOO	Mn-54	<2.43E+01	0.00E+00	2.43E+01
			Co-58	<2.37E+01	0.00E+00	2.37E+01
			Fe-59	<4.91E+01	0.00E+00	4.91E+01
			Co-60	<2.44E+01	0.00E+00	2.44E+01
			Zn-65	<5.55E+01	0.00E+00	5.55E+01
			Zr-95	<4.79E+01	0.00E+00	4.79E+01
			Nb-95	<2.25E+01	0.00E+00	2.25E+01
			I-131	<4.03E+01	0.00E+00	4.03E+01
			Cs-134	<2.36E+01	0.00E+00	2.36E+01
			Cs-137	<3.26E+01	0.00E+00	3.26E+01
			BaLa-140	<4.08E+01	0.00E+00	4.08E+01
			Be-7	1.38E+03	2.92E+02	3.28E+02
			K-40	3.33E+03	5.47E+02	3.76E+02
428290	11/10/2016 - 11/10/2016	WAXMYRTLE	Mn-54	<2.06E+01	0.00E+00	2.06E+01
			Co-58	<2.44E+01	0.00E+00	2.44E+01
			Fe-59	<6.67E+01	0.00E+00	6.67E+01
			Co-60	<2.11E+01	0.00E+00	2.11E+01
			Zn-65	<4.81E+01	0.00E+00	4.81E+01
			Zr-95	<5.13E+01	0.00E+00	5.13E+01
			Nb-95	<2.89E+01	0.00E+00	2.89E+01
			I-131	<4.14E+01	0.00E+00	4.14E+01
			Cs-134	<3.17E+01	0.00E+00	3.17E+01
			Cs-137	<2.50E+01	0.00E+00	2.50E+01
			BaLa-140	<4.28E+01	0.00E+00	4.28E+01
			Be-7	7.94E+02	2.66E+02	3.27E+02
			K-40	2.43E+03	5.73E+02	4.89E+02
428291	11/10/2016 - 11/10/2016	BLKCERRY	Mn-54	<2.32E+01	0.00E+00	2.32E+01
			Co-58	<2.05E+01	0.00E+00	2.05E+01
			Fe-59	<2.69E+01	0.00E+00	2.69E+01
			Co-60	<1.26E+01	0.00E+00	1.26E+01



ROBINSON Radiological Environmental Monitoring Analysis Report - 2016 (Appendix E)

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

Sample Point 62 [INDICATOR - SE @ 0 miles]

Sample ID:	Sample Dates:	BLKCHERRY	Nuclide	Activity	2 Sigma Error	MDA
428291	11/10/2016 - 11/10/2016		Zn-65	<5.03E+01	0.00E+00	5.03E+01
			Zr-95	<3.92E+01	0.00E+00	3.92E+01
			Nb-95	<1.89E+01	0.00E+00	1.89E+01
			I-131	<3.33E+01	0.00E+00	3.33E+01
			Cs-134	<3.05E+01	0.00E+00	3.05E+01
			Cs-137	<2.15E+01	0.00E+00	2.15E+01
			BaLa-140	<2.78E+01	0.00E+00	2.78E+01
			Be-7	6.90E+02	2.09E+02	2.45E+02
			K-40	3.45E+03	5.59E+02	4.63E+01

Sample Point 67 [INDICATOR - S @ 0 miles]

Sample ID:	Sample Dates:	WAXMYRTLE	Nuclide	Activity	2 Sigma Error	MDA
407643	4/19/2016 - 4/19/2016		Mn-54	<2.32E+01	0.00E+00	2.32E+01
			Co-58	<1.82E+01	0.00E+00	1.82E+01
			Fe-59	<5.68E+01	0.00E+00	5.68E+01
			Co-60	<2.99E+01	0.00E+00	2.99E+01
			Zn-65	<6.22E+01	0.00E+00	6.22E+01
			Zr-95	<4.79E+01	0.00E+00	4.79E+01
			Nb-95	<3.02E+01	0.00E+00	3.02E+01
			I-131	<3.98E+01	0.00E+00	3.98E+01
			Cs-134	<2.84E+01	0.00E+00	2.84E+01
			Cs-137	<2.33E+01	0.00E+00	2.33E+01
			BaLa-140	<2.74E+01	0.00E+00	2.74E+01
			Be-7	1.30E+03	3.19E+02	3.51E+02
			K-40	3.37E+03	6.38E+02	4.10E+02

Sample ID:	Sample Dates:	SASSAFRAS	Nuclide	Activity	2 Sigma Error	MDA
407644	4/19/2016 - 4/19/2016		Mn-54	<2.55E+01	0.00E+00	2.55E+01
			Co-58	<2.19E+01	0.00E+00	2.19E+01
			Fe-59	<4.50E+01	0.00E+00	4.50E+01
			Co-60	<3.05E+01	0.00E+00	3.05E+01
			Zn-65	<5.05E+01	0.00E+00	5.05E+01
			Zr-95	<2.36E+01	0.00E+00	2.36E+01
			Nb-95	<2.48E+01	0.00E+00	2.48E+01
			I-131	<2.90E+01	0.00E+00	2.90E+01
			Cs-134	<2.95E+01	0.00E+00	2.95E+01
			Cs-137	3.35E+01	1.83E+01	2.33E+01
			BaLa-140	<5.05E+01	0.00E+00	5.05E+01
			Be-7	1.00E+03	2.54E+02	2.54E+02
			K-40	4.03E+03	6.60E+02	5.52E+01

Sample ID:	Sample Dates:	BLKCHERRY	Nuclide	Activity	2 Sigma Error	MDA
407645	4/19/2016 - 4/19/2016		Mn-54	<2.54E+01	0.00E+00	2.54E+01
			Co-58	<3.05E+01	0.00E+00	3.05E+01
			Fe-59	<4.43E+01	0.00E+00	4.43E+01
			Co-60	<3.19E+01	0.00E+00	3.19E+01
			Zn-65	<5.63E+01	0.00E+00	5.63E+01
			Zr-95	<6.50E+01	0.00E+00	6.50E+01
			Nb-95	<3.71E+01	0.00E+00	3.71E+01
			I-131	<4.79E+01	0.00E+00	4.79E+01
			Cs-134	<2.83E+01	0.00E+00	2.83E+01
			Cs-137	<4.13E+01	0.00E+00	4.13E+01
			BaLa-140	<6.02E+01	0.00E+00	6.02E+01
			Be-7	7.35E+02	3.00E+02	4.11E+02
			K-40	3.58E+03	6.55E+02	6.60E+01

Sample ID:	Sample Dates:	PEARLEAF	Nuclide	Activity	2 Sigma Error	MDA
411032	5/11/2016 - 5/11/2016		Mn-54	<1.99E+01	0.00E+00	1.99E+01
			Co-58	<1.97E+01	0.00E+00	1.97E+01
			Fe-59	<3.17E+01	0.00E+00	3.17E+01
			Co-60	<2.39E+01	0.00E+00	2.39E+01
			Zn-65	<3.95E+01	0.00E+00	3.95E+01
			Zr-95	<4.07E+01	0.00E+00	4.07E+01
			Nb-95	<2.30E+01	0.00E+00	2.30E+01
			I-131	<2.46E+01	0.00E+00	2.46E+01



ROBINSON Radiological Environmental Monitoring Analysis Report - 2016 (Appendix E)

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

Sample Point 67 [INDICATOR - S @ 0 miles]

Sample ID:	Sample Dates:	PEARLEAF	Nuclide	Activity	2 Sigma Error	MDA
411032	5/11/2016 - 5/11/2016	PEARLEAF	Cs-134	<2.50E+01	0.00E+00	2.50E+01
			Cs-137	3.93E+01	2.20E+01	3.15E+01
			BaLa-140	<2.45E+01	0.00E+00	2.45E+01
			Be-7	5.15E+02	1.79E+02	2.21E+02
			K-40	7.82E+03	9.57E+02	2.42E+02
Sample ID:	Sample Dates:	PERSIMLEAF	Nuclide	Activity	2 Sigma Error	MDA
411033	5/11/2016 - 5/11/2016	PERSIMLEAF	Mn-54	<1.80E+01	0.00E+00	1.80E+01
			Co-58	<1.26E+01	0.00E+00	1.26E+01
			Fe-59	<3.32E+01	0.00E+00	3.32E+01
			Co-60	<1.65E+01	0.00E+00	1.65E+01
			Zn-65	<2.90E+01	0.00E+00	2.90E+01
			Zr-95	<2.33E+01	0.00E+00	2.33E+01
			Nb-95	<1.69E+01	0.00E+00	1.69E+01
			I-131	<1.48E+01	0.00E+00	1.48E+01
			Cs-134	<1.69E+01	0.00E+00	1.69E+01
			Cs-137	9.59E+00	8.14E+00	1.20E+01
			BaLa-140	<2.24E+01	0.00E+00	2.24E+01
Be-7	1.73E+02	1.10E+02	1.62E+02			
K-40	3.02E+03	4.74E+02	2.08E+02			
Sample ID:	Sample Dates:	WAXMYRTLE	Nuclide	Activity	2 Sigma Error	MDA
411034	5/11/2016 - 5/11/2016	WAXMYRTLE	Mn-54	<2.11E+01	0.00E+00	2.11E+01
			Co-58	<2.05E+01	0.00E+00	2.05E+01
			Fe-59	<4.48E+01	0.00E+00	4.48E+01
			Co-60	<2.06E+01	0.00E+00	2.06E+01
			Zn-65	<5.34E+01	0.00E+00	5.34E+01
			Zr-95	<3.34E+01	0.00E+00	3.34E+01
			Nb-95	<1.65E+01	0.00E+00	1.65E+01
			I-131	<2.91E+01	0.00E+00	2.91E+01
			Cs-134	<2.79E+01	0.00E+00	2.79E+01
			Cs-137	<2.86E+01	0.00E+00	2.86E+01
			BaLa-140	<8.51E+00	0.00E+00	8.51E+00
			Be-7	1.47E+03	2.86E+02	2.22E+02
			K-40	3.30E+03	5.87E+02	3.01E+02
Sample ID:	Sample Dates:	SASSAFRAS	Nuclide	Activity	2 Sigma Error	MDA
413429	6/17/2016 - 6/17/2016	SASSAFRAS	Mn-54	<1.45E+01	0.00E+00	1.45E+01
			Co-58	<1.41E+01	0.00E+00	1.41E+01
			Fe-59	<2.59E+01	0.00E+00	2.59E+01
			Co-60	<1.29E+01	0.00E+00	1.29E+01
			Zn-65	<3.68E+01	0.00E+00	3.68E+01
			Zr-95	<2.34E+01	0.00E+00	2.34E+01
			Nb-95	<1.81E+01	0.00E+00	1.81E+01
			I-131	<1.96E+01	0.00E+00	1.96E+01
			Cs-134	<1.55E+01	0.00E+00	1.55E+01
			Cs-137	2.89E+01	1.54E+01	2.15E+01
			BaLa-140	<1.77E+01	0.00E+00	1.77E+01
			Be-7	2.21E+03	3.16E+02	2.15E+02
			K-40	2.20E+03	4.00E+02	2.79E+02
Sample ID:	Sample Dates:	PEARLEAF	Nuclide	Activity	2 Sigma Error	MDA
413430	6/17/2016 - 6/17/2016	PEARLEAF	Mn-54	<3.32E+01	0.00E+00	3.32E+01
			Co-58	<3.25E+01	0.00E+00	3.25E+01
			Fe-59	<6.88E+01	0.00E+00	6.88E+01
			Co-60	<2.46E+01	0.00E+00	2.46E+01
			Zn-65	<5.00E+01	0.00E+00	5.00E+01
			Zr-95	<6.11E+01	0.00E+00	6.11E+01
			Nb-95	<3.12E+01	0.00E+00	3.12E+01
			I-131	<4.02E+01	0.00E+00	4.02E+01
			Cs-134	<4.36E+01	0.00E+00	4.36E+01
			Cs-137	3.95E+01	2.52E+01	3.51E+01
			BaLa-140	<6.65E+01	0.00E+00	6.65E+01
			Be-7	6.95E+02	2.73E+02	3.51E+02
			K-40	5.03E+03	8.87E+02	5.69E+02



ROBINSON Radiological Environmental Monitoring Analysis Report - 2016 (Appendix E)

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

Sample Point 67 [INDICATOR - S @ 0 miles]

Sample ID:	Sample Dates:	Indicator	Nuclide	Activity	2 Sigma Error	MDA
413431	6/17/2016 - 6/17/2016	WAXMYRTLE	Mn-54	<2.09E+01	0.00E+00	2.09E+01
			Co-58	<2.07E+01	0.00E+00	2.07E+01
			Fe-59	<3.19E+01	0.00E+00	3.19E+01
			Co-60	<2.25E+01	0.00E+00	2.25E+01
			Zn-65	<4.23E+01	0.00E+00	4.23E+01
			Zr-95	<4.11E+01	0.00E+00	4.11E+01
			Nb-95	<2.00E+01	0.00E+00	2.00E+01
			I-131	<2.93E+01	0.00E+00	2.93E+01
			Cs-134	<2.78E+01	0.00E+00	2.78E+01
			Cs-137	<2.34E+01	0.00E+00	2.34E+01
			BaLa-140	<3.94E+01	0.00E+00	3.94E+01
			Be-7	2.35E+03	3.63E+02	2.59E+02
			K-40	2.64E+03	4.69E+02	1.72E+02
416482	7/12/2016 - 7/12/2016	WAXMYRTLE	Mn-54	<1.74E+01	0.00E+00	1.74E+01
			Co-58	<2.39E+01	0.00E+00	2.39E+01
			Fe-59	<4.20E+01	0.00E+00	4.20E+01
			Co-60	<2.69E+01	0.00E+00	2.69E+01
			Zn-65	<4.43E+01	0.00E+00	4.43E+01
			Zr-95	<2.62E+01	0.00E+00	2.62E+01
			Nb-95	<2.32E+01	0.00E+00	2.32E+01
			I-131	<2.27E+01	0.00E+00	2.27E+01
			Cs-134	<2.92E+01	0.00E+00	2.92E+01
			Cs-137	<2.52E+01	0.00E+00	2.52E+01
			BaLa-140	<2.43E+01	0.00E+00	2.43E+01
			Be-7	1.61E+03	3.03E+02	2.82E+02
			K-40	3.09E+03	5.44E+02	2.91E+02
416481	7/12/2016 - 7/12/2016	BLKCHERRY	Mn-54	<2.34E+01	0.00E+00	2.34E+01
			Co-58	<1.93E+01	0.00E+00	1.93E+01
			Fe-59	<3.62E+01	0.00E+00	3.62E+01
			Co-60	<3.41E+01	0.00E+00	3.41E+01
			Zn-65	<7.05E+01	0.00E+00	7.05E+01
			Zr-95	<4.62E+01	0.00E+00	4.62E+01
			Nb-95	<2.68E+01	0.00E+00	2.68E+01
			I-131	<2.48E+01	0.00E+00	2.48E+01
			Cs-134	<3.00E+01	0.00E+00	3.00E+01
			Cs-137	<2.96E+01	0.00E+00	2.96E+01
			BaLa-140	<2.11E+01	0.00E+00	2.11E+01
			Be-7	1.37E+03	2.92E+02	2.58E+02
			K-40	3.57E+03	6.87E+02	5.23E+02
416483	7/12/2016 - 7/12/2016	SASSAFRAS	Mn-54	<1.48E+01	0.00E+00	1.48E+01
			Co-58	<1.18E+01	0.00E+00	1.18E+01
			Fe-59	<3.37E+01	0.00E+00	3.37E+01
			Co-60	<2.02E+01	0.00E+00	2.02E+01
			Zn-65	<3.52E+01	0.00E+00	3.52E+01
			Zr-95	<2.84E+01	0.00E+00	2.84E+01
			Nb-95	<1.66E+01	0.00E+00	1.66E+01
			I-131	<1.73E+01	0.00E+00	1.73E+01
			Cs-134	<1.66E+01	0.00E+00	1.66E+01
			Cs-137	<2.44E+01	0.00E+00	2.44E+01
			BaLa-140	<1.77E+01	0.00E+00	1.77E+01
			Be-7	2.68E+03	3.68E+02	2.27E+02
			K-40	3.49E+03	5.36E+02	2.06E+02
418355	8/11/2016 - 8/11/2016	PEARLEAF	Mn-54	<2.60E+01	0.00E+00	2.60E+01
			Co-58	<2.29E+01	0.00E+00	2.29E+01
			Fe-59	<4.01E+01	0.00E+00	4.01E+01
			Co-60	<2.64E+01	0.00E+00	2.64E+01
			Zn-65	<4.92E+01	0.00E+00	4.92E+01
			Zr-95	<4.27E+01	0.00E+00	4.27E+01



ROBINSON Radiological Environmental Monitoring Analysis Report - 2016 (Appendix E)

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

Sample Point 67 [INDICATOR - S @ 0 miles]

Sample ID:	Sample Dates:	PEARLEAF	Nuclide	Activity	2 Sigma Error	MDA
418355	8/11/2016 - 8/11/2016	PEARLEAF	Nb-95	<2.44E+01	0.00E+00	2.44E+01
			I-131	<4.28E+01	0.00E+00	4.28E+01
			Cs-134	<2.94E+01	0.00E+00	2.94E+01
			Cs-137	3.21E+01	1.69E+01	2.23E+01
			BaLa-140	<3.21E+01	0.00E+00	3.21E+01
			Be-7	1.17E+03	2.64E+02	2.75E+02
			K-40	6.62E+03	8.56E+02	2.74E+02
418356	8/11/2016 - 8/11/2016	WAXMYRTLE	Mn-54	<2.56E+01	0.00E+00	2.56E+01
			Co-58	<1.92E+01	0.00E+00	1.92E+01
			Fe-59	<5.19E+01	0.00E+00	5.19E+01
			Co-60	<2.18E+01	0.00E+00	2.18E+01
			Zn-65	<4.58E+01	0.00E+00	4.58E+01
			Zr-95	<4.78E+01	0.00E+00	4.78E+01
			Nb-95	<1.89E+01	0.00E+00	1.89E+01
			I-131	<4.31E+01	0.00E+00	4.31E+01
			Cs-134	<2.36E+01	0.00E+00	2.36E+01
			Cs-137	<2.28E+01	0.00E+00	2.28E+01
			BaLa-140	<2.91E+01	0.00E+00	2.91E+01
			Be-7	3.07E+03	4.56E+02	3.00E+02
			K-40	2.51E+03	5.02E+02	3.32E+02
418354	8/11/2016 - 8/11/2016	SASSAFRAS	Mn-54	<1.77E+01	0.00E+00	1.77E+01
			Co-58	<1.65E+01	0.00E+00	1.65E+01
			Fe-59	<4.81E+01	0.00E+00	4.81E+01
			Co-60	<2.38E+01	0.00E+00	2.38E+01
			Zn-65	<6.42E+01	0.00E+00	6.42E+01
			Zr-95	<3.84E+01	0.00E+00	3.84E+01
			Nb-95	<2.77E+01	0.00E+00	2.77E+01
			I-131	<4.25E+01	0.00E+00	4.25E+01
			Cs-134	<2.08E+01	0.00E+00	2.08E+01
			Cs-137	<2.11E+01	0.00E+00	2.11E+01
			BaLa-140	<3.94E+01	0.00E+00	3.94E+01
			Be-7	2.14E+03	3.58E+02	2.80E+02
			K-40	2.64E+03	5.09E+02	3.65E+02
421512	9/12/2016 - 9/12/2016	WAXMYRTLE	Mn-54	<2.06E+01	0.00E+00	2.06E+01
			Co-58	<1.98E+01	0.00E+00	1.98E+01
			Fe-59	<3.08E+01	0.00E+00	3.08E+01
			Co-60	<1.82E+01	0.00E+00	1.82E+01
			Zn-65	<4.47E+01	0.00E+00	4.47E+01
			Zr-95	<2.05E+01	0.00E+00	2.05E+01
			Nb-95	<1.57E+01	0.00E+00	1.57E+01
			I-131	<2.81E+01	0.00E+00	2.81E+01
			Cs-134	<1.96E+01	0.00E+00	1.96E+01
			Cs-137	<1.97E+01	0.00E+00	1.97E+01
			BaLa-140	<2.84E+01	0.00E+00	2.84E+01
			Be-7	1.91E+03	3.11E+02	2.16E+02
			K-40	1.76E+03	4.02E+02	3.49E+02
421513	9/12/2016 - 9/12/2016	BLKCHERRY	Mn-54	<1.67E+01	0.00E+00	1.67E+01
			Co-58	<1.66E+01	0.00E+00	1.66E+01
			Fe-59	<2.09E+01	0.00E+00	2.09E+01
			Co-60	<2.01E+01	0.00E+00	2.01E+01
			Zn-65	<4.10E+01	0.00E+00	4.10E+01
			Zr-95	<3.01E+01	0.00E+00	3.01E+01
			Nb-95	<1.95E+01	0.00E+00	1.95E+01
			I-131	<2.57E+01	0.00E+00	2.57E+01
			Cs-134	<1.86E+01	0.00E+00	1.86E+01
			Cs-137	1.09E+02	2.66E+01	2.63E+01
			BaLa-140	<2.15E+01	0.00E+00	2.15E+01
			Be-7	1.24E+03	2.25E+02	1.73E+02



ROBINSON Radiological Environmental Monitoring Analysis Report - 2016 (Appendix E)

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

Sample Point 67 [INDICATOR - S @ 0 miles]

Sample ID:	Sample Dates:	Indicator	Nuclide	Activity	2 Sigma Error	MDA
421513	9/12/2016 - 9/12/2016	BLKCERRY	K-40	4.28E+03	6.21E+02	3.40E+02
421514	9/12/2016 - 9/12/2016	PERSIMLEAF	Mn-54	<2.12E+01	0.00E+00	2.12E+01
			Co-58	<2.65E+01	0.00E+00	2.65E+01
			Fe-59	<5.43E+01	0.00E+00	5.43E+01
			Co-60	<2.66E+01	0.00E+00	2.66E+01
			Zn-65	<5.68E+01	0.00E+00	5.68E+01
			Zr-95	<3.81E+01	0.00E+00	3.81E+01
			Nb-95	<2.80E+01	0.00E+00	2.80E+01
			I-131	<3.81E+01	0.00E+00	3.81E+01
			Cs-134	<3.16E+01	0.00E+00	3.16E+01
			Cs-137	1.05E+02	3.40E+01	3.99E+01
			BaLa-140	<3.79E+01	0.00E+00	3.79E+01
			Be-7	1.62E+03	3.18E+02	2.64E+02
			K-40	1.80E+03	4.25E+02	2.53E+02
425527	10/20/2016 - 10/20/2016	WAXMYRTLE	Mn-54	<3.94E+01	0.00E+00	3.94E+01
			Co-58	<3.08E+01	0.00E+00	3.08E+01
			Fe-59	<6.48E+01	0.00E+00	6.48E+01
			Co-60	<3.12E+01	0.00E+00	3.12E+01
			Zn-65	<7.62E+01	0.00E+00	7.62E+01
			Zr-95	<6.46E+01	0.00E+00	6.46E+01
			Nb-95	<3.38E+01	0.00E+00	3.38E+01
			I-131	<4.71E+01	0.00E+00	4.71E+01
			Cs-134	<4.04E+01	0.00E+00	4.04E+01
			Cs-137	<3.37E+01	0.00E+00	3.37E+01
			BaLa-140	<4.60E+01	0.00E+00	4.60E+01
			Be-7	1.40E+03	3.48E+02	3.66E+02
			K-40	2.66E+03	6.14E+02	4.57E+02
425528	10/20/2016 - 10/20/2016	BLKCERRY	Mn-54	<2.92E+01	0.00E+00	2.92E+01
			Co-58	<2.85E+01	0.00E+00	2.85E+01
			Fe-59	<3.90E+01	0.00E+00	3.90E+01
			Co-60	<2.72E+01	0.00E+00	2.72E+01
			Zn-65	<5.35E+01	0.00E+00	5.35E+01
			Zr-95	<5.89E+01	0.00E+00	5.89E+01
			Nb-95	<2.56E+01	0.00E+00	2.56E+01
			I-131	<3.64E+01	0.00E+00	3.64E+01
			Cs-134	<3.68E+01	0.00E+00	3.68E+01
			Cs-137	<2.03E+01	0.00E+00	2.03E+01
			BaLa-140	<1.13E+01	0.00E+00	1.13E+01
			Be-7	9.80E+02	2.74E+02	2.79E+02
			K-40	3.04E+03	6.55E+02	4.78E+02
425529	10/20/2016 - 10/20/2016	SWEETGUM	Mn-54	<2.53E+01	0.00E+00	2.53E+01
			Co-58	<1.72E+01	0.00E+00	1.72E+01
			Fe-59	<5.75E+01	0.00E+00	5.75E+01
			Co-60	<3.03E+01	0.00E+00	3.03E+01
			Zn-65	<4.88E+01	0.00E+00	4.88E+01
			Zr-95	<3.74E+01	0.00E+00	3.74E+01
			Nb-95	<3.00E+01	0.00E+00	3.00E+01
			I-131	<3.72E+01	0.00E+00	3.72E+01
			Cs-134	<3.11E+01	0.00E+00	3.11E+01
			Cs-137	<2.79E+01	0.00E+00	2.79E+01
			BaLa-140	<2.80E+01	0.00E+00	2.80E+01
			Be-7	9.78E+02	2.77E+02	3.04E+02
			K-40	2.29E+03	5.86E+02	5.78E+02
428292	11/10/2016 - 11/10/2016	WAXMYRTLE	Mn-54	<3.15E+01	0.00E+00	3.15E+01
			Co-58	<3.59E+01	0.00E+00	3.59E+01
			Fe-59	<6.11E+01	0.00E+00	6.11E+01
			Co-60	<4.69E+01	0.00E+00	4.69E+01



ROBINSON Radiological Environmental Monitoring Analysis Report - 2016 (Appendix E)

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

Sample Point 67 [INDICATOR - S @ 0 miles]

Sample ID:	Sample Dates:	Plant Name:	Nuclide	Activity	2 Sigma Error	MDA
428292	11/10/2016 - 11/10/2016	WAXMYRTLE	Zn-65	<5.11E+01	0.00E+00	5.11E+01
			Zr-95	<5.47E+01	0.00E+00	5.47E+01
			Nb-95	<3.44E+01	0.00E+00	3.44E+01
			I-131	<4.63E+01	0.00E+00	4.63E+01
			Cs-134	<4.39E+01	0.00E+00	4.39E+01
			Cs-137	<3.52E+01	0.00E+00	3.52E+01
			BaLa-140	<3.88E+01	0.00E+00	3.88E+01
			Be-7	1.62E+03	3.49E+02	3.15E+02
			K-40	2.40E+03	5.62E+02	4.23E+02
			428293	11/10/2016 - 11/10/2016	MAGNOLIA	Mn-54
Co-58	<2.62E+01	0.00E+00				2.62E+01
Fe-59	<6.67E+01	0.00E+00				6.67E+01
Co-60	<2.75E+01	0.00E+00				2.75E+01
Zn-65	<6.18E+01	0.00E+00				6.18E+01
Zr-95	<5.11E+01	0.00E+00				5.11E+01
Nb-95	<2.56E+01	0.00E+00				2.56E+01
I-131	<4.50E+01	0.00E+00				4.50E+01
Cs-134	<2.58E+01	0.00E+00				2.58E+01
Cs-137	5.31E+01	3.04E+01				4.41E+01
BaLa-140	<9.93E+00	0.00E+00				9.93E+00
Be-7	2.99E+02	1.91E+02				2.82E+02
K-40	1.24E+03	4.09E+02				4.33E+02
428294	11/10/2016 - 11/10/2016	HOLLY				Mn-54
			Co-58	<3.13E+01	0.00E+00	3.13E+01
			Fe-59	<6.43E+01	0.00E+00	6.43E+01
			Co-60	<2.96E+01	0.00E+00	2.96E+01
			Zn-65	<6.46E+01	0.00E+00	6.46E+01
			Zr-95	<5.75E+01	0.00E+00	5.75E+01
			Nb-95	<3.54E+01	0.00E+00	3.54E+01
			I-131	<4.42E+01	0.00E+00	4.42E+01
			Cs-134	<3.06E+01	0.00E+00	3.06E+01
			Cs-137	<4.18E+01	0.00E+00	4.18E+01
			BaLa-140	<5.50E+01	0.00E+00	5.50E+01
			Be-7	6.31E+01	1.64E+02	2.84E+02
			K-40	1.83E+03	5.30E+02	5.90E+02



APPENDIX F

**ERRATA TO
PREVIOUS REPORTS**

APPENDIX F

ERRATA TO THE 2014 and 2015 HBRSEP AREOR

During a 2016 Dosimetry Laboratory peer assessment, it was discovered the 2014 and 2015 (all quarters) internal environmental TLD crosschecks were not completed in accordance with procedure RD/0/B/4000/13, Environmental Monitoring (NCR # 02073609). Environmental monitoring is not National Voluntary Laboratory Accreditation Program (NVLAP) accredited, but the internal crosscheck data was reported to the NRC in the 2014 and 2015 AREORs. External environmental TLD crosschecks were performed during 2014 and 2015 in accordance with procedure RD/0/B/4000/13, Environmental Monitoring; therefore, environmental TLD QA/QC was performed.

Laboratory TLD data supporting the 2014 and 2015 internal environmental TLD crosscheck result tables could not be located during the 2016 assessment. The internal environmental crosscheck (Duke Energy) table indicated in the quality assurance sections of the 2014 and 2015 reports is therefore not considered acceptable and is removed from the 2014 and 2015 reports. The internal environmental TLD crosscheck data were not presented in the 2016 AREOR and were removed from the quality assurance section in entirety.

ERRATA TO THE 2015 HBRSEP AREOR

Section 3.12 LAND USE CENSUS

Table 3.12.3 HBRSEP Land Use Census Comparison (2014 - 2015) and Figure 3.12-1 Robinson Nuclear Plant 2015 Land Use Census Map

During the preparation of the HBRSEP 2016 Land Use Census (LUC), the following two reporting errors were found in the 2015 Land Use Census collection data for the residences in the WSW and NW sectors (NCR # 02062912). The 2015 Land Use Census field collection was performed by HBRSEP Chemistry and the data (information collection sheets) was then provide to EnRad for the compilation of the HBRSEP 2015 LUC Letter. The reporting errors discovered were (1) the bearing for the residence in the WSW sector at 60 degrees at 0.46 miles in the 2015 LUC should have been 57 degrees at 0.46 miles and (2) the distance for the residence in the NW sector at 1.50 miles from the 2015 LUC should have been 1.56 miles. Corrections to Table 3.12.3 from the 2015 HBRSEP AREOR were made and included in this report for the error pertaining to the residence in the NW sector mileage, but no mileage correction is necessary for the residence in the WSW sector. The Robinson Nuclear Plant 2015 Land Use Census Map (Figure 3.12.3 in the 2015 HBRSEP AREOR) does not need to be updated due to the negligible affect it produces on the land use census map.

Table 3.12.3 contains the correction for the HBRSEP 2015 AREOR.

Table 3.12.3 HBRSEP Land Use Census Comparison (2014 – 2015)

Nearest Pathway (Miles)***

SECTOR	RESIDENT		GARDEN		MEAT/EGG ANIMAL		MILK ANIMAL	
	2014	2015	2014	2015	2014	2015	2014	2015
N	2.83	2.83	2.83	2.83	2.83	2.83	----	----
NNE	1.53	1.53	2.07	2.07	2.69	2.69	----	----
NE	1.03	1.03	2.74	2.74	----	----	----	----
ENE	0.85	0.85	----	----	----	----	----	----
E	0.90	0.90	1.09	1.09	3.00	3.00	----	----
ESE	0.62	0.62	1.28	1.28	----	----	----	----
SE	0.38	0.38	----	----	----	----	----	----
SSE	0.33	0.33	2.39	2.39	2.39	2.39	----	----
S	0.44	0.44	2.23	2.23	2.62	2.62	----	----
SSW	0.37	0.37	0.83	0.83	0.84	0.84	----	----
SW	0.46	0.46	----	----	----	----	----	----
WSW	0.46	0.46	0.86	----*	0.86	0.86	----	----
W	0.56	0.56	0.70	0.70	----	----	----	----
WNW	0.57	0.57	0.81	0.81	4.23	4.23	----	----
NW	1.50	1.56**	1.62	1.62	1.62	1.62	----	----
NNW	2.00	2.00	3.82	3.82	3.82	3.82	----	----

* Represents a change from the previous year.

** Mileage change from previous year, but residence same as previous year (NCR # 02062912)

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

*** Sector and distance determined by Global Positioning System.