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Serial: HNP-18-032

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

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

Subject: Annual Radiological Environmental Operating Report

Ladies and Gentlemen:

In accordance with Harris Nuclear Plant Technical Specification 6.9.1.3, Duke Energy Progress, LLC, is providing the enclosed Annual Radiological Environmental Operating Report for 2017.

This submittal contains no regulatory commitments. Should you have any questions regarding this submittal, please contact Jeff Robertson, Manager – Regulatory Affairs, at (919) 362-3137.

Sincerely,

A handwritten signature in black ink, appearing to read "Bentley K. Jones", written over a faint circular stamp.

Bentley K. Jones

Enclosure

cc: J. Zeiler, NRC Sr. Resident Inspector, HNP
M. Barillas, NRC Project Manager, HNP
NRC Regional Administrator, Region II



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ANNUAL RADIOLOGICAL ENVIRONMENTAL OPERATING REPORT

DUKE ENERGY PROGRESS, LLC

SHEARON HARRIS NUCLEAR POWER PLANT

2017



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

A	Annually
AC	Air Cartridge
AP	Air Particulate
APAC	Air Particulate Air Cartridge/Radioiodine
AREOR	Annual Radiological Environmental Operating Report
BL	Broadleaf Vegetation
BW	Biweekly
C	Control
CR	Condition Report - Corrective Action Program
DW	Drinking Water
ERA	Environmental Resource Associates
GEL	General Engineering Laboratory, LLC
GPS	Global Positioning System
GW	Ground Water
HNP	Harris Nuclear Plant or Shearon Harris Nuclear Plant
ISFSI	Independent Spent Fuel Storage Installation
LLD	Lower Limit of Detection
M	Monthly
MDA	Minimum Detectable Activity
mrem	Millirem
Mk	Milk
NIST	National Institute of Standards and Technology
NRC	Nuclear Regulatory Commission
ODCM	Offsite Dose Calculation Manual
pCi/kg	picocurie per kilogram
pCi/l	picocurie per liter
pCi/m ³	picocurie per cubic meter
PIP	Problem Investigation Program
Q	Quarterly
REMP	Radiological Environmental Monitoring Program
SA	Semiannually
SM	Semimonthly
SW	Surface Water
TECH SPECS	Technical Specifications
TLD	Thermoluminescent Dosimeter
μCi/ml	microcurie per milliliter
W	Weekly

1.0 EXECUTIVE SUMMARY

The Harris Nuclear Plant (HNP) 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, Harris Nuclear Plant Technical Specifications, and the Harris Nuclear Plant Offsite Dose Calculation Manual (ODCM) establish the requirements of the Radiological Environmental Monitoring Program (REMP). This report describes the HNP REMP and the program results for January 1, 2017, through December 31, 2017.

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

Sampling activities were conducted as prescribed by the Harris Nuclear Plant ODCM. Required analyses were performed and detection capabilities were met for the collected samples required by the ODCM. One thousand four hundred and thirty-four samples were analyzed comprising 1,695 test results in order to compile data for the 2017 HNP Annual Radiological Environmental Operating Report (AREOR). Based on the annual HNP land use census, the current number of sampling sites for Harris Nuclear Plant is sufficient.

Concentrations observed in the environment in 2017 for plant related radionuclides were generally within the ranges of concentrations observed in the past. Inspection of the data showed that radioactivity concentrations were as expected and all positively identified measurements attributed to plant operations were within the HNP ODCM regulatory limits.

The continued operation of HNP has not contributed measurable radiation or the presence of gamma radioactivity, with the exception of Harris Lake bottom sediment and the aquatic vegetation, in the environmental monitoring program. The Harris Lake Surface water samples and the Ground 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 Harris Nuclear Plant consists of a pressurized water reactor with a net output of approximately 930 MWe (Megawatts electric). Commercial production was initiated on January 3, 1987. HNP is located in southwest Wake County, North Carolina. The site is along U.S. route 1 approximately sixteen (16) miles southwest of Raleigh, North Carolina and approximately fifteen (15) miles northeast of Sanford, North Carolina. The nearest community is New Hill, North Carolina, which is north of the site.

Harris Lake is adjacent to the plant itself and is the source of cooling tower makeup water. The lake was impounded during the construction of the Harris Plant. The lake is fed by Buckhorn Creek and is approximately 4,400 acres in area. The main dam is approximately 4.7 miles south of the site. The primary discharges to Harris Lake from the plant are surface runoff, cooling tower blowdown, and radiological waste process systems.

Fishing, boating, and swimming are popular activities on Harris Lake and other nearby lakes. Duke Energy Progress, LLC encourages the recreational use of the lake, Harris Lake County Park, and the adjoining lands through a variety of agreements with state and local government.

Within a five-mile radius, most of the land is wooded with only a few residences and limited agricultural activity. There are no residences on the plant site. The chief use of land is for production of timber and pulp fiber.

Within a ten-mile radius, the area is considered rural with significant populations in Apex, Holly Springs, and Fuquay - Varina. Currently, these communities are experiencing significant growth.

Within a fifty-mile radius, much of the land is used in agricultural production with significant crops including corn, soybeans, and tobacco. Livestock is also an important component with significant production in cattle, hogs, poultry, and dairy products.

Consumption of drinking water, food crops, and fish are sample media that are examples of ingestion pathways for exposure. Although the contribution to background radiation is small, Duke Energy Progress, LLC has established the Radiological Environmental Monitoring Program (REMP) to measure the exposure pathways to man. An exposure pathway describes the source of the radiological exposure. The primary forms of 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, preoperational monitoring, and results of the land use surveys. A number of locations are selected as controls. Control locations are selected because they are unaffected by the operation of the plant. Figures 2.1-1,

2.1-2, 2.1-3, and 2.1-4 are maps depicting the HNP REMP sampling locations and the Thermoluminescent Dosimeter (TLD) monitoring locations. The location numbers shown on these maps correspond to those listed in Tables 2.1-A, 2.1-B, and 2.1-C.

2.2 SCOPE AND REQUIREMENTS OF THE REMP

The Radiological Environmental Monitoring Program (REMP) was established in 1982 at the Harris Nuclear Plant (HNP). Radiation and radioactivity in various environmental media have been monitored for 35 years, including 5 years prior to commencing operation. Monitoring is also provided for control locations, which would not be impacted by operations of the HNP. Using these control locations and data collected prior to operation allows comparison of data collected at locations near the HNP, 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.

This monitoring program is based on NRC guidance and is conducted in accordance with Operational Requirement 3.12.1 in the HNP Offsite Dose Calculation Manual (ODCM) and applicable procedures; with regards to sample media, sampling locations, sampling frequency and analytical sensitivity requirements. Indicator and control locations were established for comparison purposes to distinguish radioactivity of plant origin from natural or other “man-made” environmental radioactivity. This program provides surveillance of all appropriate critical exposure pathways to man and protects vital interests of the company, public and state and federal agencies concerned with the environment. Reporting levels for activity found in environmental samples are listed in Table 2.2-A. Table 2.2-B lists the REMP analysis and frequency schedule.

The Annual Land Use Census, required by the HNP Offsite Dose Calculation Manual (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 3.12.3-1.

Participation in an interlaboratory comparison program is performed in fulfillment of HNP ODCM Operational Requirements. The comparison program provides for independent checks on the precision and accuracy of measurements of radioactive material in REMP sample matrices. Such checks are performed as part of the quality assurance program for environmental monitoring in order to demonstrate that the results are valid for the purposes of Section IV.B.2 of Appendix I to 10 CFR 50. A summary of the results obtained as part of this comparison program are in Section 4 of this annual report.

2.3 STATISTICAL AND CALCULATIONAL METHODOLOGY

2.3.1 ESTIMATION OF THE MEAN VALUE

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

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

Where:

\bar{x} = estimate of the mean,

i = individual sample,

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

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

2.3.2 LOWER LIMIT OF DETECTION AND MINIMUM DETECTABLE ACTIVITY

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

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

MDA - The MDA is the net counting rate (sample after subtraction of background) that must be surpassed before a sample is considered to contain a scientifically measurable amount of a radioactive material exceeding background amounts. The MDA is

calculated using a sample background and may be thought of as an "actual" LLD for a particular sample measurement. Certain gross counting measurements display a calculated negative value, indicating background is greater than sample activity.

2.3.3 TREND IDENTIFICATION

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

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

Figure 2.1-1

Radiological Environmental Sampling Locations
(Distant from Plant)

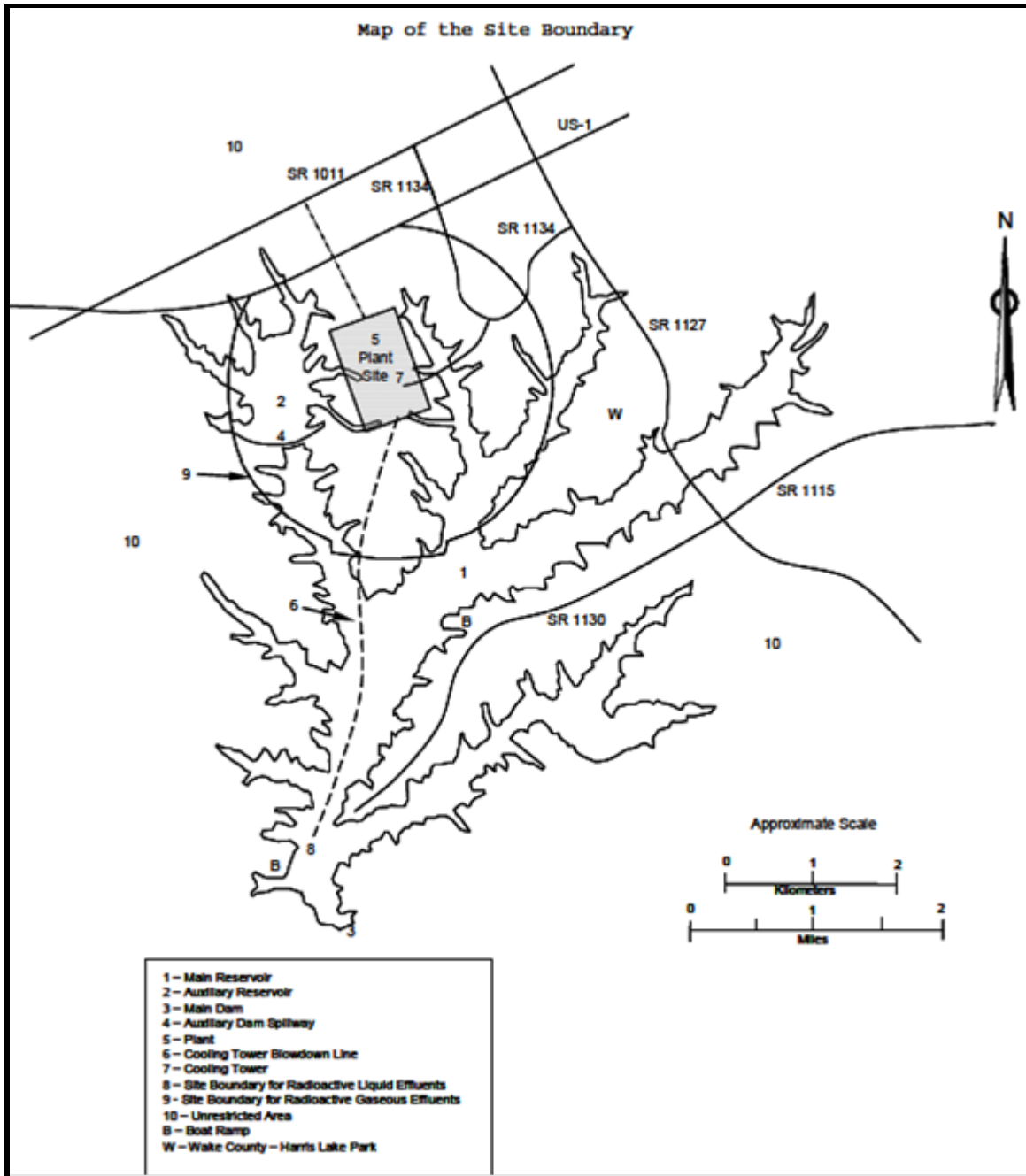


Figure 2.1-2

Harris Nuclear Plant ODCM Revision 26 and 27 Sampling Locations - One mile radius

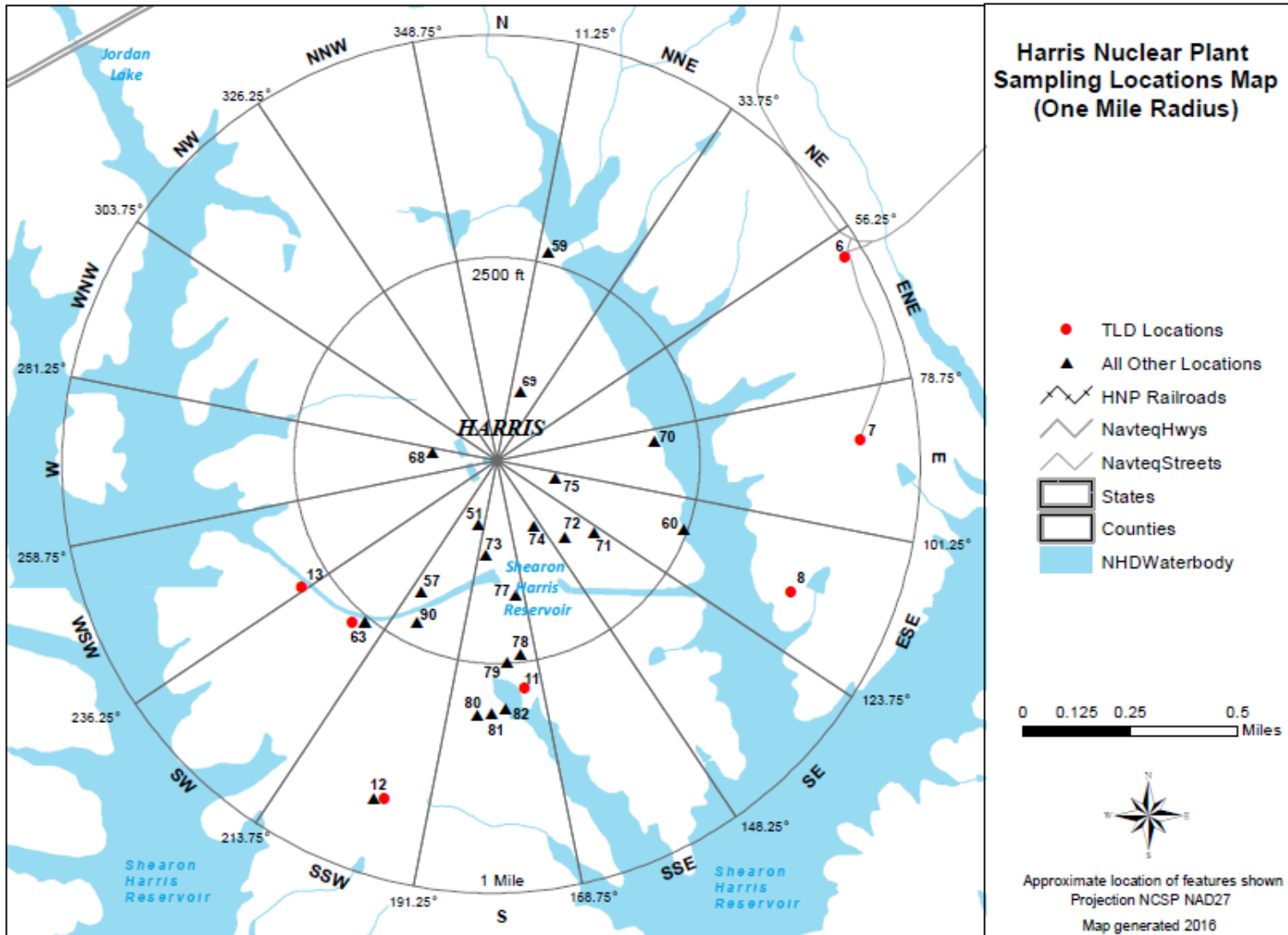


Figure 2.1-3

Harris Nuclear Plant ODCM Revision 26 Sampling Locations - Ten mile radius

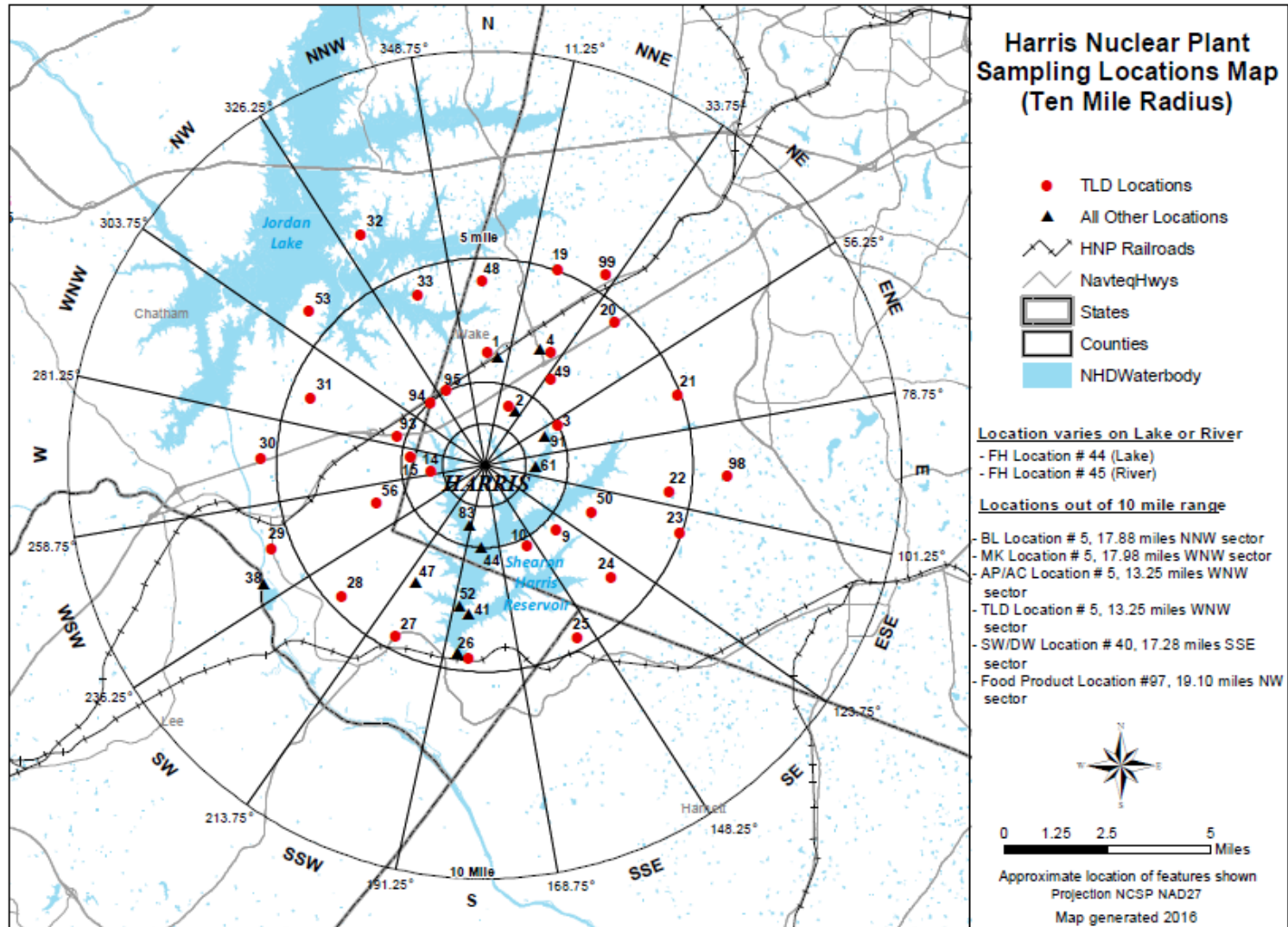


Figure 2.1-4

Harris Nuclear Plant ODCM Revision 27 Sampling Locations - Ten mile radius

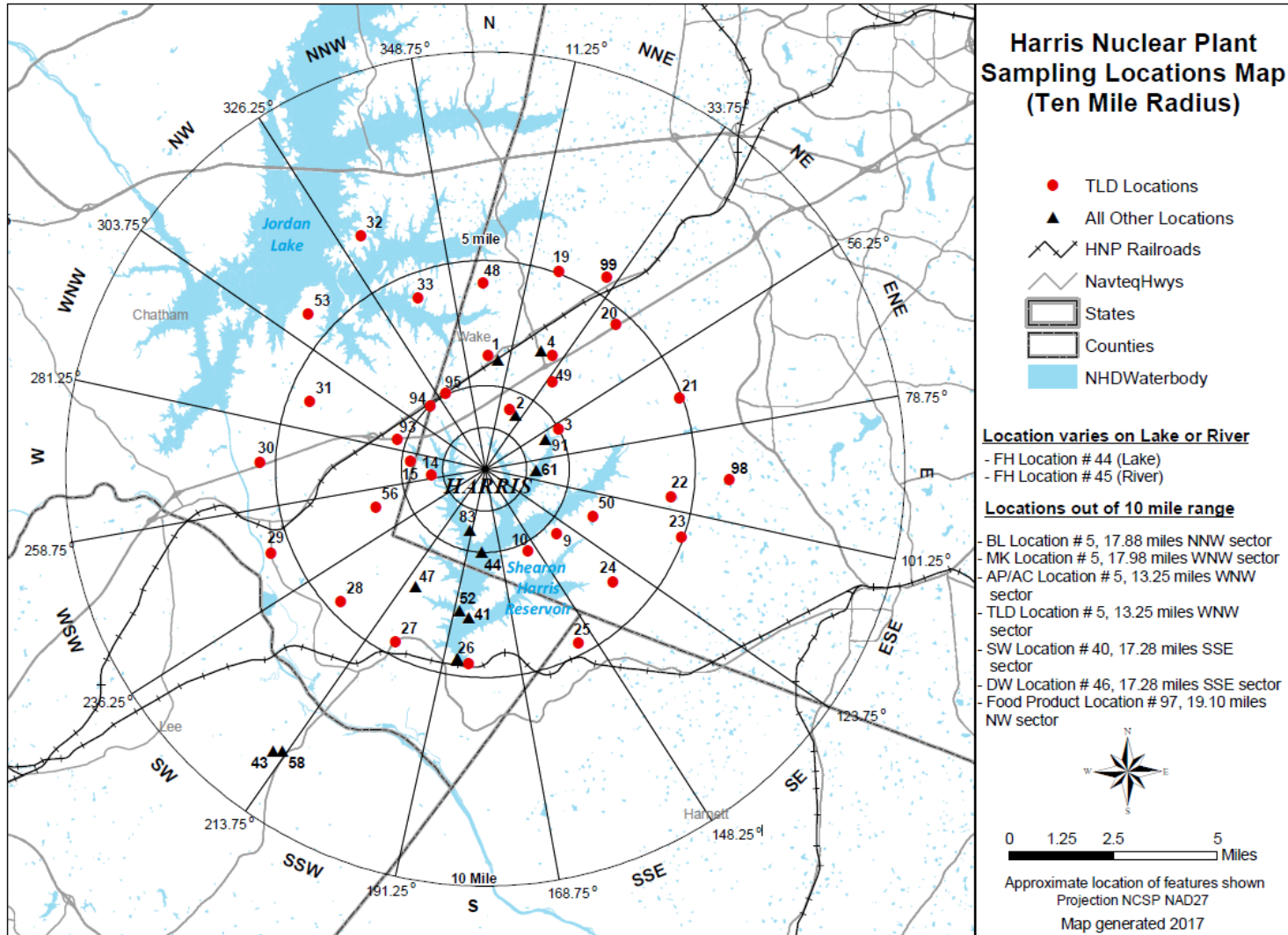


TABLE 2.1-A

HARRIS NUCLEAR PLANT ODCM Rev. 26

RADIOLOGICAL MONITORING PROGRAM SAMPLING LOCATIONS

Table 2.1-A Codes				Table 2.1-A Codes (Cont.)					
W	Weekly	SM	Semimonthly	AC	Air Cartridge	SB	Sediment Bottom	FI	Fish
BW	BiWeekly	Q	Quarterly	AP	Air Particulate	AV	Aquatic Vegetation	MK	Milk
M	Monthly	SA	Semiannually	SW	Surface Water	FP	Food Product		
A	Annual			DW	Drinking Water	BLV	Broadleaf Vegetation		
C	Control	I	Indicator	SS	Sediment Shoreline	GW	Ground Water		

Site #	Type	Location Description ⁽³⁾	AC & AP	SW	DW	SS	SB	AV	FP ⁽¹⁾	Fish (FI)	Milk (Mk)	BLV ⁽²⁾	GW
1	I	2.6 miles N	W/Q										
2	I	1.4 miles NNE	W/Q										
4	I	3.1 miles NNE	W/Q										
5	C	>12 miles WNW – Pittsboro >12 Miles NNW – Pittsboro-BLV	W/Q								SM/M	M ⁽²⁾	
12	I	0.9 miles SSW										M ⁽²⁾	
26	I	4.7 miles S	W/Q	BW/M		SA		A					
38	C	6.2 miles WSW		BW/M	BW/M								
40	I	17.2 miles SSE -- Lillington		BW/M	BW/M								
41	I	3.8 miles S				SA		A					
44	I	Site varies in Harris Lake								SA			
45	C	Site varies in Cape Fear River above Buckhorn Dam								SA			
47	I	3.4 miles SSW	W/Q										
51	I	Water Treatment Building (On Site)			BW/M								
52	I	3.8 miles S					SA						
57	I	0.4 miles SSW											Q
59	I	0.5 miles NNE											Q
60	I	0.5 miles ESE											Q
61	C	2.5 miles E						A					
63	I	0.6 miles SW	W/Q									M ⁽²⁾	
68	I	0.2 miles W											Q
69	I	0.2 miles NNE											Q
70	I	0.4 miles E											Q
71	I	0.3 miles SE											Q
72	I	0.2 miles SE											Q
73	I	0.2 miles S											Q
74	I	0.2 miles SSE											Q
75	I	0.1 miles ESE											Q
77	I	0.4 miles S											Q
78	I	0.5 miles S											Q
79	I	0.5 miles S											Q
80	I	0.6 miles S											Q
81	I	0.6 miles S											Q
82	I	0.6 miles S											Q
83	I	1.6 miles SSW											Q
90	I	0.5 miles SSW	W/Q										
91	I	1.6 miles ENE	W/Q										
97	C	19.1 miles NW – Granite Springs Farm							M ⁽¹⁾				

(1) When Available, during Harvest/Growing Season

(2) During Growing Season per ODCM – May through October

(3) 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

HARRIS NUCLEAR PLANT ODCM Rev. 27

RADIOLOGICAL MONITORING PROGRAM SAMPLING LOCATIONS

Table 2.1-B Codes				Table 2.1-B Codes (Cont.)					
W	Weekly	SM	Semimonthly	AC	Air Cartridge	SB	Sediment Bottom	FI	Fish
BW	BiWeekly	Q	Quarterly	AP	Air Particulate	AV	Aquatic Vegetation	MK	Milk
M	Monthly	SA	Semiannually	SW	Surface Water	FP	Food Product		
A	Annual			DW	Drinking Water	BLV	Broadleaf Vegetation		
C	Control	I	Indicator	SS	Sediment Shoreline	GW	Ground Water		

Site #	Type	Location Description ⁽⁴⁾	AC & AP	SW	DW	SS	SB	AV	FP ⁽¹⁾	Fish (FI)	Milk (Mk)	BLV ⁽²⁾	GW
1	I	2.6 miles N	W/Q										
2	I	1.4 miles NNE	W/Q										
4	I	3.1 miles NNE	W/Q										
5	C	>12 miles WNW – Pittsboro >12 Miles NNW – Pittsboro-BLV	W/Q								SM/M	M ⁽²⁾	
12	I	0.9 miles SSW										M ⁽²⁾	
26	I	4.7 miles S	W/Q	M		SA		A					
40	I	17.2 miles SSE -- Lillington		M									
41	I	3.8 miles S				SA		A					
43	C	8.5 miles SW		M									
44	I	Site varies in Harris Lake								SA			
45	C	Site varies in Cape Fear River above Buckhorn Dam								SA			
46	I	17.2 miles SSE - Lillington			BW/M								
47	I	3.4 miles SSW	W/Q										
51	I	Water Treatment Building (On Site)			BW/M								
52	I	3.8 miles S					SA						
57	I	0.4 miles SSW											Q
58	C	8.5 miles SW			BW/M								
59	I	0.5 miles NNE											Q
60	I	0.5 miles ESE											Q
61	C	2.5 miles E						A					
63	I	0.6 miles SW	W/Q									M ⁽²⁾	
68	I	0.2 miles W											Q
69	I	0.2 miles NNE											Q
70	I	0.4 miles E											Q
71	I	0.3 miles SE											Q
72	I	0.2 miles SE											Q
73	I	0.2 miles S											Q
74	I	0.2 miles SSE											Q
75	I	0.1 miles ESE											Q
77	I	0.4 miles S											Q
78	I	0.5 miles S											Q
79	I	0.5 miles S											Q
80	I	0.6 miles S											Q
81	I	0.6 miles S											Q
82	I	0.6 miles S											Q
83	I	1.6 miles SSW											Q
90	I	0.5 miles SSW	W/Q										
91	I	1.6 miles ENE	W/Q										
97	C	19.1 miles NW – Granite Springs Farm							M ⁽¹⁾				
102	I	2.82 miles W									SM ⁽³⁾		

- (1) When Available, during Harvest/Growing Season
- (2) During Growing Season per ODCM – May through October
- (3) When goats are lactating
- (4) GPS data reflect approximate accuracy to within 2-5 meters. GPS field measurements were taken as close as possible to the item of interest.

TABLE 2.1-C**HARRIS NUCLEAR PLANT****RADIOLOGICAL MONITORING PROGRAM SAMPLING LOCATIONS (TLD SITES)**

Table 2.1-C Codes			
IR	Inner Ring	OR	Outer Ring
C	Control	SI	Special Interest/ Population Center

Site #	Measure Type	Location ⁽¹⁾	Distance (miles)	Sector	Site #	Measure Type	Location ⁽¹⁾	Distance (miles)	Sector
1	IR		2.6	N	25	OR		4.7	SSE
2	IR		1.4	NNE	26	OR		4.7	S
3	SI	HE& EC Visitor Center (Population Center)	1.9	ENE	27	OR		4.8	SSW
4	SI	New Hill (Population Center)	3.1	NNE	28	OR		4.8	SW
5	C	Pittsboro (Control Station)	13.3	WNW	29	OR		5.7	WSW
6	IR		0.8	ENE	30	OR		5.6	W
7	IR		0.7	E	31	OR		4.7	WNW
8	IR		0.6	ESE	32	SI	Jordan Lake (Population Center)	6.4	NNW
9	IR		2.2	SE	33	OR		4.5	NNW
10	IR		2.2	SSE	48	OR		4.5	N
11	IR		0.6	S	49	IR		2.5	NE
12	IR		0.9	SSW	50	SI	Holleman Crossroads (Population Center)	2.6	ESE
13	IR		0.7	WSW	53	OR		5.8	NW
14	IR		1.5	W	56	IR		3.0	WSW
15	IR		2.0	W	63	IR		0.6	SW
19	OR		5.0	NNE	93	IR		2.2	WNW
20	OR		4.5	NE	94	IR		2.0	NW
21	OR		4.8	ENE	95	IR		2.0	NNW
22	OR		4.3	E	98	SI	Holly Springs School Complex (Population Center)	5.9	E
23	OR		4.8	ESE	99	SI	Friendship School (Population Center)	5.5	NNE
24	OR		4.0	SE					

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

TABLE 2.2-A

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

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

- (a) For drinking water samples. This is 40 CFR Part 141 value. If no drinking water pathway exists, a value of 30,000 pCi/liter may be used.
 (b) If no drinking water pathway exists, a value of 20 pCi/liter may be used.

TABLE 2.2-B

REMP ANALYSIS FREQUENCY

Sample Medium	Analysis Schedule	Gamma Isotopic	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			
Drinking Water	Monthly Composite	X	X			
Ground Water	Quarterly	X	X			
Bottom Sediment	Semiannually	X				
Shoreline Sediment	Semiannually	X				
Milk	Semimonthly/Monthly	X		X		
Fish	Semiannually	X				
Aquatic Vegetation	Annually	X				
Broadleaf Vegetation	Monthly ^(a)	X				
Food Products	Monthly ^(b)	X				

- (a) During growing season per ODCM - May through October
 (b) When Available
 (c) Low-level I-131 will be analyzed on each composite when the dose calculated for the consumption of the water is greater than 1 mrem/yr.

TABLE 2.2-C

DETECTION CAPABILITIES FOR THE *A PRIORI* LOWER LIMIT OF DETECTION

Analysis	Water (pCi/liter)	Airborne Particulates or Gases (pCi/m ³)	Fish (pCi/kg-wet)	Milk (pCi/liter)	Food Products (pCi/kg-wet)	Sediment (pCi/kg-dry)
Gross Beta	4	0.01				
H-3	2000 ^(a)					
Mn-54	15		130			
Fe-59	30		260			
Co-58, 60	15		130			
Zn-65	30		260			
Zr-Nb-95	15					
I-131	1 ^(b)	0.07		1	60	
Cs-134	15	0.05	130	15	60	150
Cs-137	18	0.06	150	18	80	180
Ba-La-140	15			15		

(a) If no drinking water pathway exists, a value of 3000 pCi/liter may be used.

(b) If no drinking water pathway exists, a value of 15 pCi/liter may be used.

3.0 INTERPRETATION OF RESULTS

The following section depicts and explains the review of the REMP results conducted during 2017 for the Harris Nuclear Plant (HNP) and fulfills the reporting requirements of Technical Specifications 6.9.1.3 and HNP ODCM E.3. Review of the 2017 REMP analysis results was performed to identify changes in environmental levels as a result of HNP operations. Sample data for 2017 was compared to preoperational and historical data.

Evaluation for significant trends was performed for radionuclides that are listed as required within the HNP ODCM. The radionuclides include: H-3, Mn-54, Fe-59, Co-58, Co-60, Zn-65, Zr-95, Nb-95, I-131, Cs-134, Cs-137, Ba-140 and La-140. Gross beta analysis results were trended for drinking water and gross beta trending for air particulates was initiated in 1996. Other radionuclides detected that are the result of plant operation, but not required for reporting, are trended.

The HNP ODCM addresses actions to be taken if radionuclides other than those required are detected in samples collected. The occurrences of these radionuclides could be the result of HNP liquid effluents which contained the radionuclides.

Review of the 2017 data presented in this section supports the conclusion that there were no significant changes in environmental sample radionuclide concentrations of samples collected and analyzed from HNP and surrounding areas that were attributable to plant operations. Inspection of the data showed that radioactivity concentrations were as expected and all positively identified measurements attributed to plant operations were within HNP ODCM regulatory limits; thus presenting no significant impact to the environment or public health and safety.

A statistical summary of the HNP data for 2017 has been compiled and summarized in Appendix B along with any plant-derived activity detected within the scope of the REMP. No detectable tritium activity was observed at Lillington, N.C., located 17 miles downstream on the Cape Fear River, which is the first public drinking water (ingestion pathway) location below the Harris Lake discharge spillway. No plant-related gamma activity has been detected in fish collected from Harris Lake or in the water samples from Lillington, N.C. The Harris Lake bottom sediment and aquatic vegetation detected plant-derived gamma activity, but pose no radiological dose to the general public via this pathway due to the fact that the bottom sediment is not easily accessible and aquatic vegetation is not an ingestion pathway. Bottom sediment samples are for long-term trends.

3.1 AIRBORNE RADIOIODINE AND PARTICULATES

The 477 air cartridge/radioiodine (AC) samples from indicator and control stations had I-131 concentrations less than the ODCM LLD of $7.00E-2$ pCi/m³. The air samplers

operated for a total of 99.93% availability for the 2017 year. No I-131 activity due to HNP operations has been detected in air samples collected from 1987 through 2017, which is the entire operating history of the plant. However, I-131 was detected in air samples for a three-week period following the Fukushima Dai-ichi Nuclear Power Plant incident after the March 11, 2011, earthquake and tsunami (NCR # 0456564) and for a six-week period following the Chernobyl incident in April 1986. Refer to Table 3.1-1-B for the highest annual mean indicator location and control location I-131 concentrations since 1999 to 2017.

For the period of January 1, 2017, to December 31, 2017, the gross beta activity was detectable in the airborne particulate (AP) samples, with acceptable runtime, from the eight indicator locations and the one control location. The 424 indicator samples had an average concentration of $2.02\text{E-}2$ pCi/m³, a value slightly higher than the preoperational data of $2.00\text{E-}2$ pCi/m³. Similar gross beta activities were observed at the control location in Pittsboro, which had an average concentration of $2.05\text{E-}2$ pCi/m³ in 53 control samples. Figure 3.1-1 and Table 3.1-1-A provide individual sample gross beta results for the highest annual mean indicator location and the control location concentrations since 1999 to 2017 (refer to Appendix B). The two sample locations' results are similar in concentration and have negligible variance. The HNP 2010 gross beta result for the highest annual mean indicator location in Figure 3.1-1 and Table 3.1-1-A was elevated due to this location being a new air sampler location (end of July 2010) with less than half the annual samples (22 instead of 52). This new location is near a new gravel road which receives a lot of travel due to construction in the area.

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

No plant-related gamma activity was detected in quarterly composite filter samples from either the indicator or control locations during 2017. HNP 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

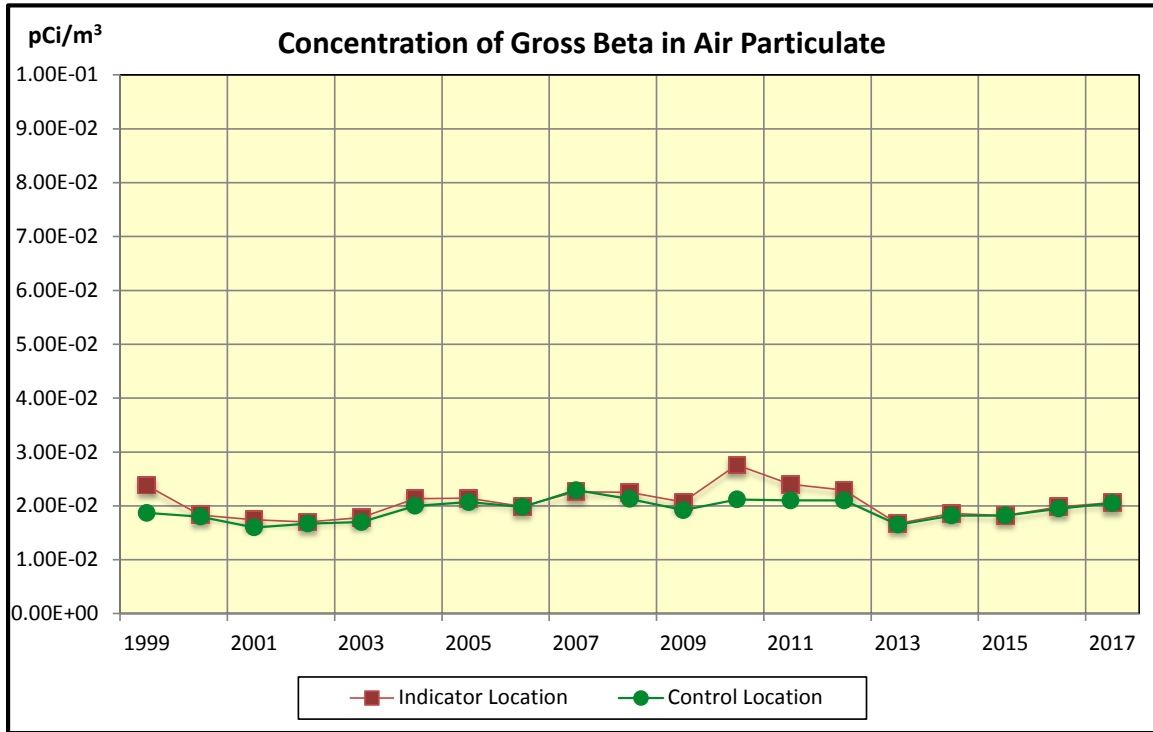


Table 3.1-1-A Mean Concentration of Gross Beta in Air Particulate

Year	Indicator Location (pCi/m³)	Control Location (pCi/m³)
1999	2.38E-2	1.87E-2
2000	1.83E-2	1.80E-2
2001	1.74E-2	1.60E-2
2002	1.70E-2	1.67E-2
2003	1.78E-2	1.70E-2
2004	2.13E-2	2.00E-2
2005	2.14E-2	2.07E-2
2006	1.99E-2	1.98E-2
2007	2.26E-2	2.29E-2
2008	2.25E-2	2.13E-2
2009	2.07E-2	1.92E-2
2010	2.76E-2	2.12E-2
2011	2.40E-2	2.10E-2
2012	2.29E-2	2.10E-2
2013	1.67E-2	1.65E-2
2014	1.86E-2	1.82E-2
2015	1.82E-2	1.82E-2
2016	1.98E-2	1.95E-2
2017	2.06E-2	2.05E-2

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⁾	1.66E-1	1.08E-1
2012	0.00E+0	0.00E+0
2013	0.00E+0	0.00E+0
2014 ⁽²⁾	0.00E+0	0.00E+0
2015	0.00E+0	0.00E+0
2016	0.00E+0	0.00E+0
2017	0.00E+0	0.00E+0

0.00E+0 indicates no detectable measurements

(1) 2011 concentrations affected by Fukushima Dai-ichi

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

3.2 DRINKING WATER

Low-level Iodine-131 analysis of drinking water was not required during 2017 since the dose calculated for the consumption of the water was not greater than 1 mrem per year in any supported program. This dose was calculated monthly during 2017 to ensure that low-level Iodine-131 analysis of drinking water samples was not required. The water samplers operated for a total of 99.47% availability for the 2017 year. Refer to Appendix C or Appendix D for deviations and unavailable samples in 2017 collection year, if applicable.

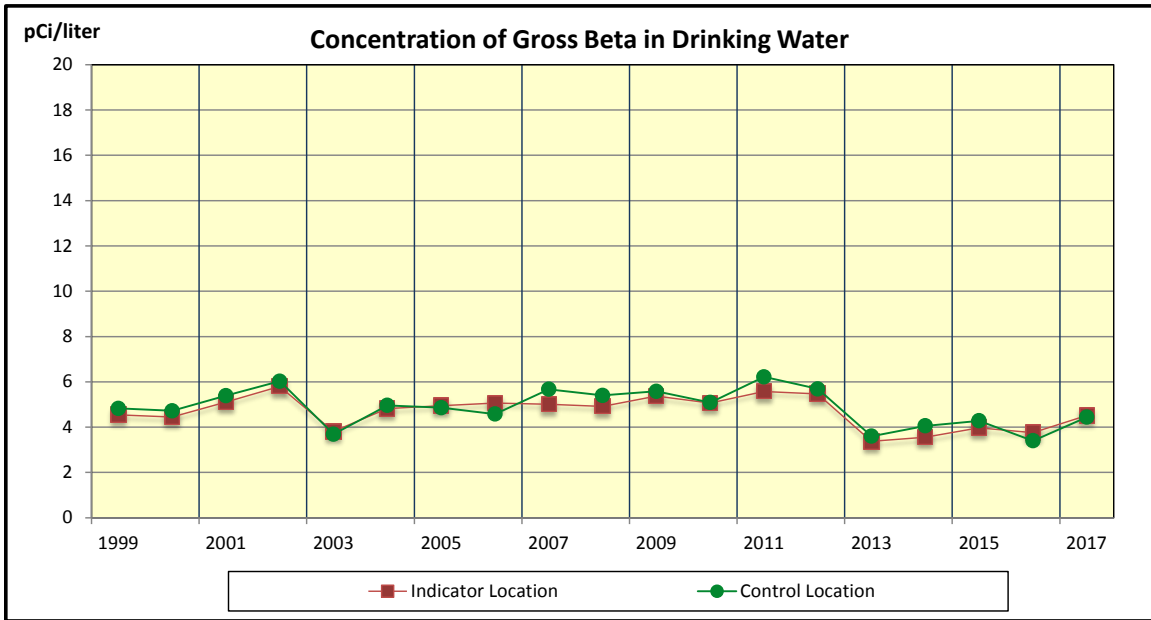
The average annual gross beta concentrations at the indicator and control locations were 3.61E+0 pCi/L and 4.44E+0 pCi/L, respectively. The preoperational average was 4.00E+0 pCi/L. These concentrations are attributed to the natural environment and are not attributed to plant operations. Figure 3.2-1 and Table 3.2-2 show individual gross beta results for the highest annual mean gross beta concentration for indicator and control locations since 1999 to 2017.

Analyses for gamma-emitting radionuclides from plant operations indicated concentrations were less than the lower limit of detection for drinking water. Table 2.2-C contains ODCM LLD values for gamma-emitting radionuclides in drinking water.

Tritium concentrations in the Lillington Municipal Water Supply samples (DW/SW-40) were less than the ODCM LLD (2000 pCi/L) and the administrative limit (200 pCi/L)

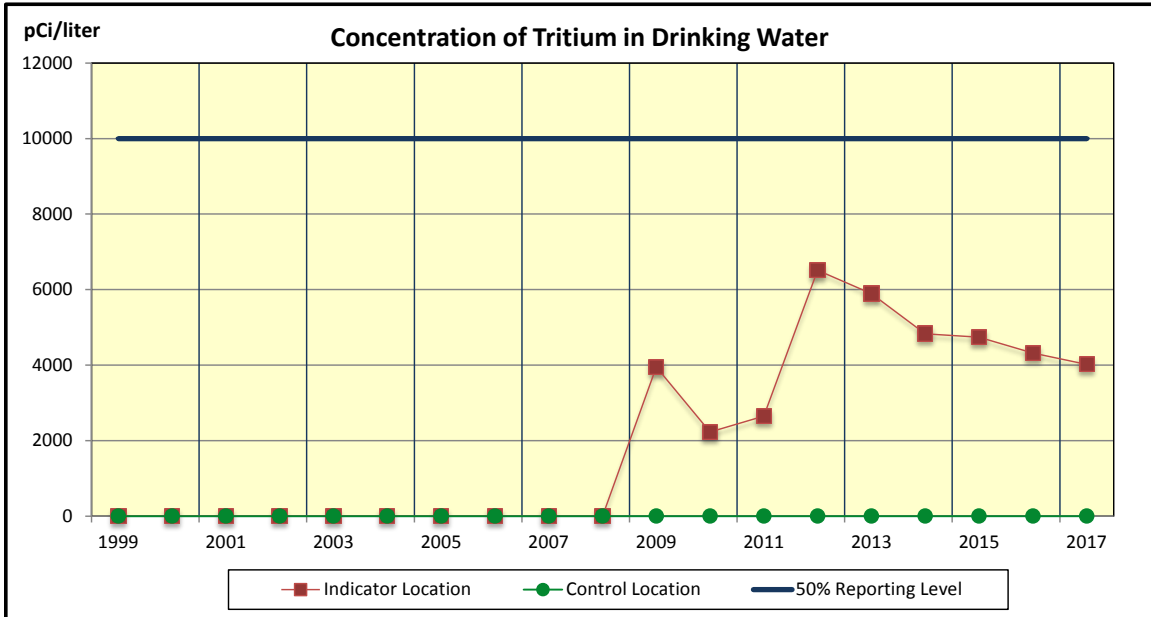
(see Appendix B, Footnote 7). The annual average tritium concentration for the Water Treatment Building sample on site (DW-51) was 4.02E+3 pCi/L, with a minimum and maximum value of 3.03E+3 pCi/L and 5.84E+3 pCi/L, respectively. Figure 3.2-2 and Table 3.2-2 display the highest annual mean indicator and control location concentrations for tritium since 1999 to 2017. Prior to 2009, DW-51 was not classified as a public drinking water source nor as a HNP REMP drinking water indicator location. In 2009, DW-51 was added to the HNP REMP as a drinking water indicator sample and it was classified as a public water source; however, it is not a community drinking water source.

Figure 3.2-1



There is no reporting level for gross beta in drinking water.

Figure 3.2-2



Prior to 2009, drinking water indicator location # 51 was previously reported as <LLD because the location was not classified as a public drinking water source. In 2009, location # 51 was classified as a public drinking water source; however, it is not a community drinking water source.

Table 3.2-2 Mean Concentration of Radionuclides in Drinking Water

YEAR	Gross Beta (pCi/l)		Tritium (pCi/l)	
	Indicator Location	Control Location	Indicator Location	Control Location
1999	4.55	4.83	2.37E+3	0.00E+0
2000	4.45	4.73	2.06E+3	0.00E+0
2001	5.11	5.39	3.76E+3	0.00E+0
2002	5.80	6.03	4.07E+3	0.00E+0
2003	3.81	3.69	2.40E+3	0.00E+0
2004	4.82	4.96	3.66E+3	0.00E+0
2005	4.95	4.86	4.20E+3	0.00E+0
2006	5.07	4.58	4.03E+3	0.00E+0
2007	5.01	5.67	3.12E+3	0.00E+0
2008	4.92	5.40	4.54E+3	0.00E+0
2009	5.37	5.58	3.95E+3	0.00E+0
2010	5.07	5.09	2.23E+3	0.00E+0
2011	5.58	6.22	2.65E+3	0.00E+0
2012	5.47	5.69	6.51E+3	0.00E+0
2013	3.37	3.60	5.89E+3	0.00E+0
2014	3.56	4.06	4.83E+3	0.00E+0
2015	3.97	4.28	4.74E+3	0.00E+0
2016	3.76	3.40	4.32E+3	0.00E+0
2017	4.52	4.44	4.02E+3	0.00E+0

0.00E+0 indicates no detectable measurements

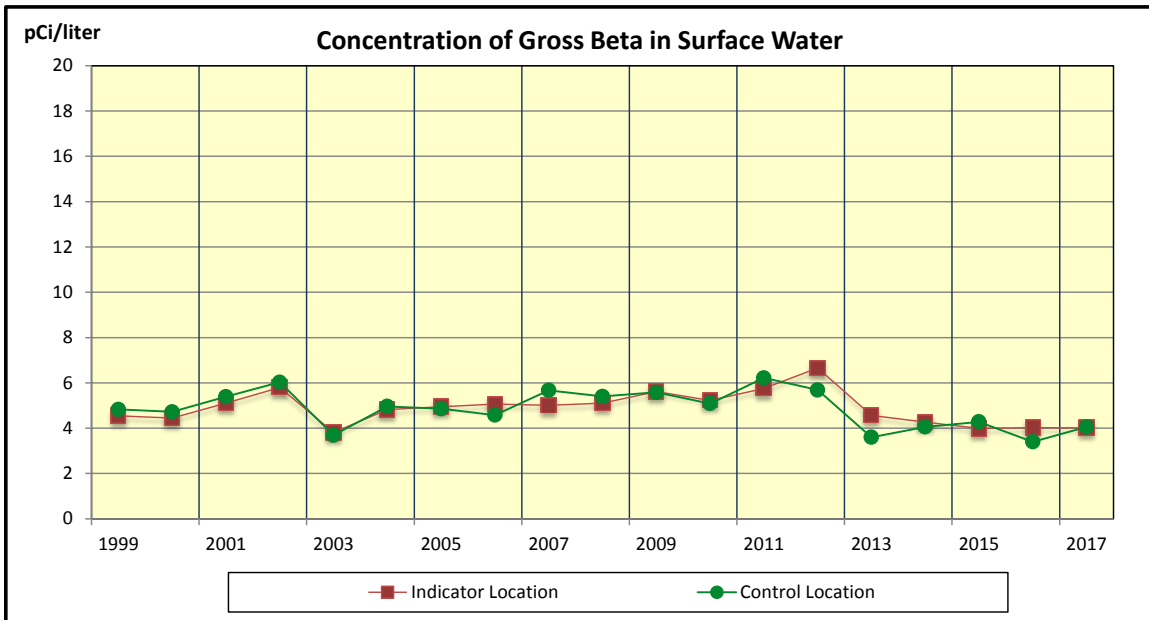
Prior to 2009, DW-51 was not classified as a public drinking water source. In 2009, DW-51 was added to the HNP REMP as a drinking water indicator sample and it was classified as a public water source; however, it is not a community drinking water source.

3.3 SURFACE WATER

Surface water samples were analyzed for gamma and tritium radioactivity. The water samplers operated for a total of 99.47% availability for the 2017 year. Refer to Appendix C or Appendix D for deviations and unavailable samples in the 2017 collection year, if applicable. The concentrations of man-made gamma-emitters were less than their respective lower limits of detection (see Table 2.2-C). The annual average tritium concentration in Harris Lake at the Spillway was $5.98E+3$ pCi/L with minimum and maximum values of $4.42E+3$ pCi/L and $9.12E+3$ pCi/L, respectively. The average Harris Lake Spillway (SW-26) tritium concentration is comparable to the previous tritium average of $5.68E+3$ pCi/L in 2016. This concentration remains well below the tritium regulatory limits. Figure 3.3-2 and Table 3.3-2 display the tritium results for the highest annual mean concentrations for indicator and control locations since 1999 to 2017.

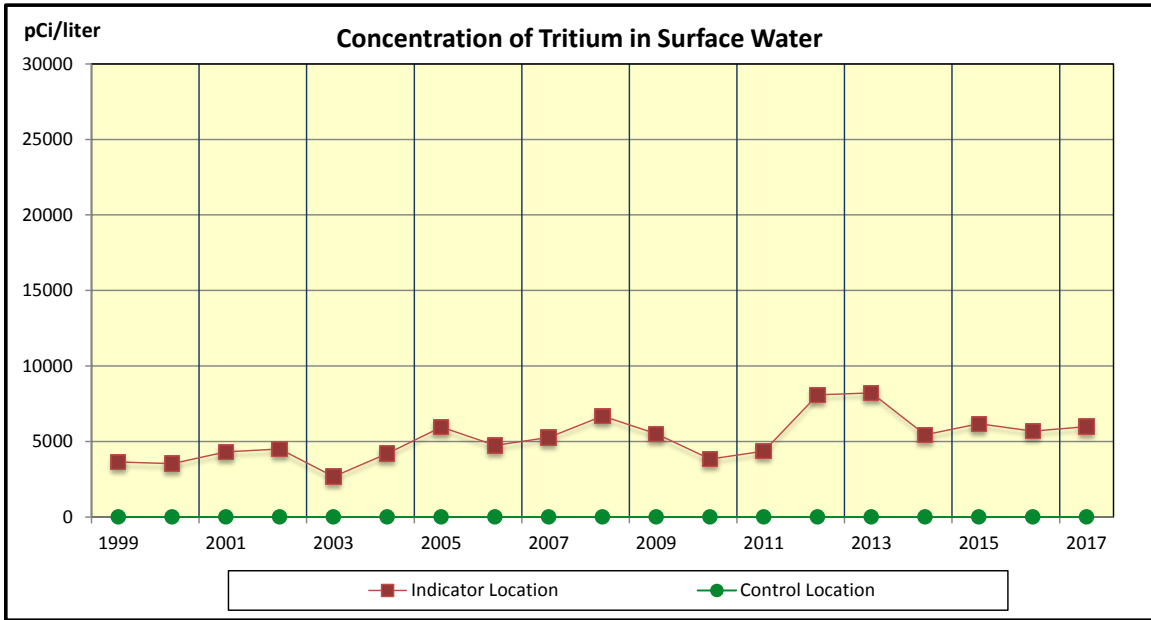
Average gross beta concentrations at the indicator and control locations were $3.97E+0$ pCi/L and $4.05E+0$ pCi/L, respectively, in 2017, indicating no contribution from plant operations. Figure 3.3-1 and Table 3.3-2 display individual gross beta results for the highest annual mean gross beta concentration for indicator and control locations since 1999 to 2017.

Figure 3.3-1



There is no reporting level for gross beta in surface water.

Figure 3.3-2



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

Table 3.3-2 Mean Concentrations of Radionuclides in Surface Water

YEAR	Gross Beta (pCi/l)		Tritium (pCi/l)	
	Indicator Location	Control Location	Indicator Location	Control Location
1999	4.55	4.83	3.63E+3	0.00E+0
2000	4.45	4.73	3.52E+3	0.00E+0
2001	5.11	5.39	4.31E+3	0.00E+0
2002	5.80	6.03	4.49E+3	0.00E+0
2003	3.81	3.69	2.67E+3	0.00E+0
2004	4.82	4.96	4.20E+3	0.00E+0
2005	4.95	4.86	5.94E+3	0.00E+0
2006	5.07	4.58	4.73E+3	0.00E+0
2007	5.01	5.67	5.26E+3	0.00E+0
2008	5.11	5.40	6.68E+3	0.00E+0
2009	5.62	5.58	5.50E+3	0.00E+0
2010	5.23	5.09	3.83E+3	0.00E+0
2011	5.76	6.22	4.36E+3	0.00E+0
2012	6.66	5.69	8.08E+3	0.00E+0
2013	4.57	3.60	8.21E+3	0.00E+0
2014	4.27	4.06	5.44E+3	0.00E+0
2015	3.99	4.28	6.17E+3	0.00E+0
2016	4.03	3.40	5.68E+3	0.00E+0
2017	4.02	4.05	5.98E+3	0.00E+0

0.00E+0 indicates no detectable measurements

3.4 GROUND WATER

Ground water samples are collected on site at HNP and analyzed for gamma emitters and tritium. The measured ground water gamma and tritium concentrations were below the required HNP ODCM Table 4.12-1 LLDs for environmental samples and Table 2.2-C. 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. HNP administratively established a ground water tritium analysis LLD of approximately 200 pCi/L, which is well below the requirements specified in the HNP ODCM.

The ground water tritium analysis shows the presence of tritium, ranging from 1.99E+2 pCi/Liter to 1.17E+3 pCi/Liter in 2017; however, the results are well below the EPA reportable drinking water limit (20,000 pCi/Liter) and non-drinking water limit (30,000 pCi/Liter). The ground water wells, located on site at HNP, are monitoring wells and are not a water supply for drinking or irrigation. Therefore, there is no radiological dose via this pathway.

3.5 MILK/BROADLEAF VEGETATION

During 2017, as in the past years with the exception of the 1986 Chernobyl incident and the 2011 Japan earthquake and tsunami which triggered the Fukushima Dai-ichi Nuclear Power Plant incident (NCR #0458543), no I-131 activity was detected in the control milk sample. This control milk location is located greater than 12 miles WNW from the plant, thus in an area to be out of the influence of the plant. Gamma analyses revealed no detectable radioactivity from plant operations. Natural gamma activity is consistently identified in each control milk sample along with other naturally occurring nuclides.

From 2010 to 2013, a small local goat dairy, Humbug Farm Milk # 96, provided goat milk samples during the spring and summer months. In 2013, Humbug Farm ceased operation (NCR # 0604191). ODCM Rev. 26 removed this location from the Radiological Environmental Monitoring Program. Maple Knoll Dairy was removed from the program in 1997. New milk animals (goats) were identified within the five mile radius of HNP during the 2016 HNP Land Use Census conducted August 2 - 4, 2016 in the W sector at 2.82 miles. The family has indicated that they could possibly participate by providing goat milk samples for analysis from late-Spring to late-Fall. This will be Milk Indicator location # 102. The sampling started semi-monthly in November 2016 and ran through middle of December 2016. This sample location was added to the HNP ODCM Rev. 27 effective June 15, 2017. Fifteen indicator milk samples were collected in 2017.

In lieu of the monthly milk samples, per HNP ODCM Table 3.12-1, indicator broadleaf vegetation samples were collected in both the SW and SSW sectors. Broadleaf sampling is conducted to simulate dose to an individual via the milk pathway for compliance purposes. Broadleaf vegetation sampling is accomplished by collecting monthly, three different species of samples, when available during the growing season (May through October), at two locations at the site boundary (two indicator locations of the highest predicted annual average ground level D/Q) and at the control location (BL-5 in the

NNW sector at greater than 12 miles). As of the 2017 broadleaf vegetation growing season (May through October), HNP broadleaf vegetation samples went to one mixed broadleaf vegetation (three types of broadleaf vegetation) per site instead of three separate types of broadleaf vegetation samples per site. This change was due to a lack of sufficient sample volume of each broadleaf vegetation type, which meets the HNP ODCM broadleaf vegetation sampling requirements. The gamma analyses on the broadleaf vegetation did not detect any plant-related radioactivity in any of the six control and twelve indicator broadleaf vegetation samples (mixed broadleaf vegetation) in 2017. Refer to Appendix C or Appendix D for deviations and unavailable samples in the 2017 collection year, if applicable.

3.6 FOOD PRODUCTS

None of the gardens identified during past or present annual Land Use Census are irrigated by water in which liquid plant wastes have been discharged; therefore, food product collection is not required. There is no indicator location for this media type and sampling at a control location is maintained for historical integrity. In November 2014, a new food product control location #97 at the Granite Springs Farm (19.1 miles in NW sector) was officially introduced to the REMP to be sampled along with control location #5. However, during the 2016 growing season, no food crops from location #5 were collected due to the lack of availability (NCR # 0727501). Location # 5 food product or food crop was deleted from the HNP ODCM with Revision 26 effective 9/23/16.

In addition to milk sampling (or broadleaf vegetation sampling), a food product sampling program was maintained. Various crops were collected during the growing season(s), which continued year round. The species selected were primarily broad-leaf vegetables, which are most sensitive to direct fallout of airborne radioactive particulates. Gamma analyses of the food products detected no plant-related activity in any of the thirty-six samples from control location #97 collected in 2017. Refer to Appendix C or Appendix D for deviations and unavailable samples in the 2017 collection year.

3.7 AQUATIC VEGETATION

The 2017 data shows that there were four aquatic vegetation indicator samples and two control samples collected from Harris Lake, which are sampled annually. The aquatic vegetation samples (Lyngbya and Hydrilla) from Harris Lake are not consumed by humans, thus pose no radiological dose to the general public by the ingestion pathway. Gamma analyses of the aquatic vegetation detected plant-related activity in the four indicator samples and the two control samples collected during 2017. The 2017 data shows the average concentration at the indicator and control locations, where Co-60 was 1.45E+1 pCi/kg wet and less than LLD respectively and Cs-137 was 8.99E+0 pCi/kg wet and 9.51E+0 pCi/kg wet respectively (NCR # 02162038). No long-term trends have been readily observed in these samples.

3.8 FISH

Analyses for gamma-emitting radionuclides in four samples of bottom-feeding species (catfish) and in eight samples of free-swimming species (sunfish and largemouth bass) from the indicator and control locations revealed no detectable activity for 2017, other than naturally occurring nuclides. This is consistent with the data for 1989-2016. During the Chernobyl period, Cs-134 and Cs-137 were detected in both control and indicator fish samples.

3.9 SHORELINE SEDIMENT

Shoreline sediment samples were collected semiannually in 2017 from opposite the discharge structure and near the main dam. Gamma analyses of the shoreline sediments detected natural activity in the samples collected during 2017. No long-term trends are readily observed in these samples.

3.10 BOTTOM SEDIMENT

During 2017, a total of two bottom sediment samples were analyzed from the indicator location. There is no control bottom sediment sample.

The 2017 data shows Co-58 ($4.01E+1$ pCi/kg dry), Co-60 ($2.14E+2$ pCi/kg dry), and Cs-137 ($8.35E+1$ pCi/kg dry) activity in the indicator samples, which are sampled semiannually. The bottom sediment sample from Harris Lake poses no radiological dose to the general public via this pathway due to the fact that it is not easily accessible (i.e. bottom sediment is approximately forty to sixty feet underwater). These samples are for long-term trends for liquid effluents. Figure 3.10-1 and Table 3.10-1 provide individual sample gamma results for the highest annual mean indicator location concentrations since 1999 to 2017 for Co-60 and Cs-137 (refer to Appendix B).

Figure 3.10-1

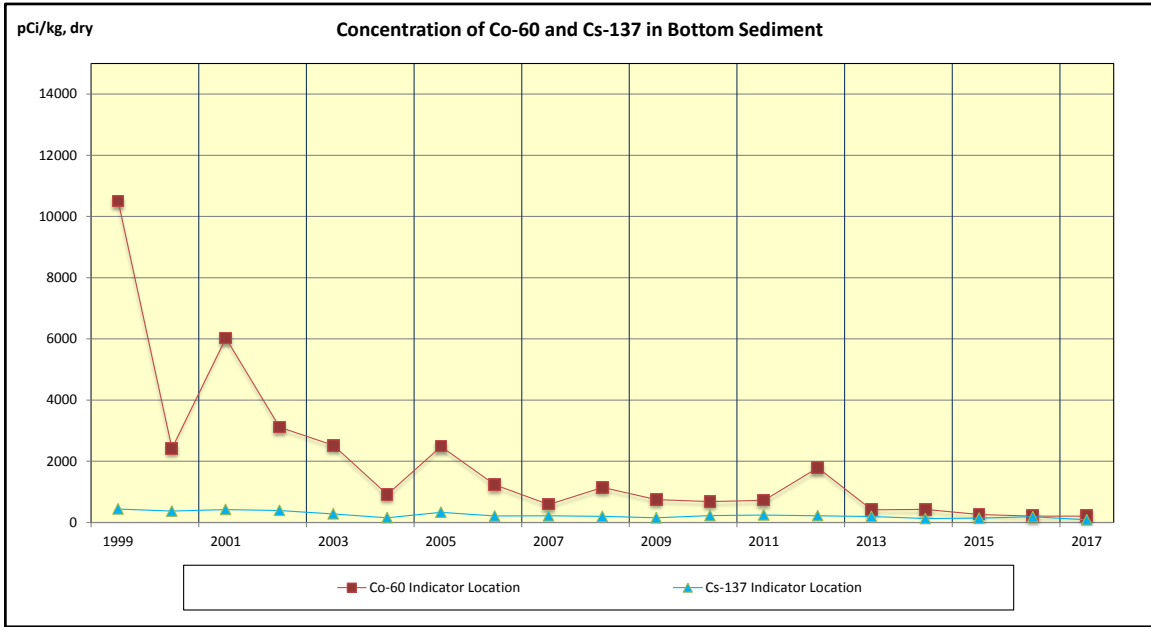


Table 3.10-1 Mean Concentration of Radionuclides in Bottom Sediment

YEAR	Gamma Radionuclides (pCi/kg, dry)		
	Control Location	Co-60 Indicator Location	Cs-137 Indicator Location
1999	No Control	1.05E+4	4.40E+2
2000	No Control	2.42E+3	3.69E+2
2001	No Control	6.03E+3	4.20E+2
2002	No Control	3.12E+3	3.91E+2
2003	No Control	2.52E+3	2.78E+2
2004	No Control	9.17E+2	1.52E+2
2005	No Control	2.49E+3	3.33E+2
2006	No Control	1.23E+3	2.11E+2
2007	No Control	5.92E+2	2.15E+2
2008	No Control	1.15E+3	1.99E+2
2009	No Control	7.50E+2	1.50E+2
2010	No Control	6.84E+2	2.23E+2
2011	No Control	7.30E+2	2.43E+2
2012	No Control	1.79E+3	2.19E+2
2013	No Control	4.20E+2	1.94E+2
2014 ⁽¹⁾	No Control	4.31E+2	1.26E+2
2015	No Control	2.66E+2	1.39E+2
2016	No Control	2.13E+2	1.85E+2
2017	No Control	2.14E+2	8.35E+1

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

There is no reporting level for Co-60 and Cs-137 in Bottom Sediment

3.11 DIRECT GAMMA RADIATION

3.11.1 ENVIRONMENTAL TLD

In 2017, 159 TLDs were analyzed, 155 at indicator locations and 4 at the control location. TLDs are collected and analyzed quarterly. Since the inception of the HNP REMP, the regional population has moved closer to the plant and TLD locations 3 and 50 are the new Special Interest locations per HNP ODCM Revision 26 effective 9/23/16.

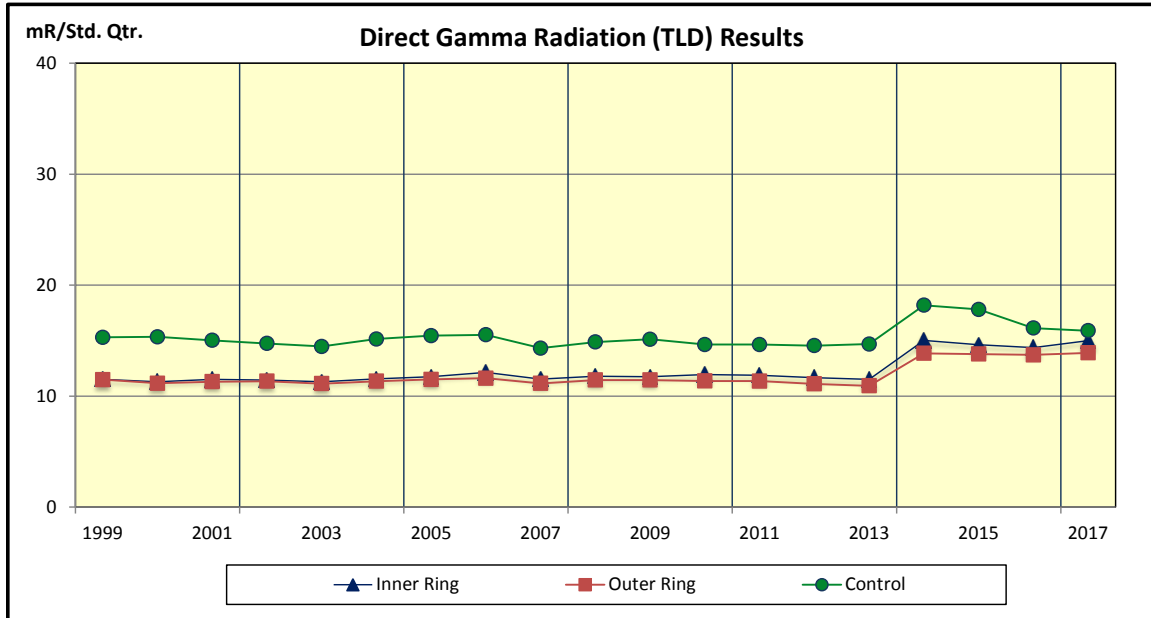
Thermoluminescent dosimeters (TLDs) were used to monitor ambient radiation exposures in the plant environs. The average quarterly exposure at the indicator and control locations was 14.4 mR/Std. Qtr. and 15.9 mR/Std. Qtr. respectively. The highest indicator location was 2.0 miles NW of the plant and its average was 17.9 mR/Std. Qtr. The differences among these locations are attributed to variations in soils, local geology, and are not the result of plant operations. Six TLDs were missing from different designated locations during the 2017 calendar year. No trends were identified and all TLD surveillance requirements were met for 2017 (see Appendix C).

Comparison of the average annual TLD exposure within approximately 2 miles (inner ring) of the plant with that at approximately 5 miles (outer ring) and the control for 1999 to 2017 is presented in Figure 3.11-1 and Table 3.11-1.

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 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). Data accrual began in 2016 for enhanced analytical methods which 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 3.11-1



There is no reporting level for Direct Radiation (TLD)

Table 3.11-1 Direct Gamma Radiation (TLD) Results

Year	Inner Ring Average (mR/Std. Qtr.)	Outer Ring Average (mR/Std. Qtr.)	Control Average (mR/Std. Qtr.)
1999	1.15E+1	1.15E+1	1.53E+1
2000	1.13E+1	1.12E+1	1.54E+1
2001	1.15E+1	1.13E+1	1.50E+1
2002	1.14E+1	1.14E+1	1.48E+1
2003	1.13E+1	1.11E+1	1.45E+1
2004	1.16E+1	1.14E+1	1.52E+1
2005	1.18E+1	1.15E+1	1.55E+1
2006	1.21E+1	1.16E+1	1.55E+1
2007	1.15E+1	1.12E+1	1.43E+1
2008	1.18E+1	1.15E+1	1.49E+1
2009	1.18E+1	1.15E+1	1.51E+1
2010	1.19E+1	1.14E+1	1.47E+1
2011	1.19E+1	1.14E+1	1.47E+1
2012	1.17E+1	1.11E+1	1.46E+1
2013	1.15E+1	1.09E+1	1.47E+1
2014	1.50E+1	1.39E+1	1.82E+1
2015	1.46E+1	1.38E+1	1.78E+1
2016	1.44E+1	1.37E+1	1.61E+1
2017	1.50E+1	1.39E+1	1.59E+1

3.12 LAND USE CENSUS

The 2017 HNP Annual Land Use Census was conducted August 22 through 23, 2017, as required by the HNP ODCM 4.12.2. Table 3.12.3-1 summarizes the comparison between the 2016 and 2017 census results. A map indicating identified locations is shown in Figure 3.12.3-1. During the 2017 census, no irrigated gardens were identified within five miles (8 kilometers) of HNP.

3.12.1 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 completed during the growing season each year. 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 crops that may have radioactive materials deposited on them, incorporated radioactive materials from the soil or atmosphere. Another pathway is through drinking milk or eating goat cheese 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.

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

3.12.3 LAND USE CENSUS RESULTS

The 2016 and 2017 results of the survey for the nearest resident, garden, milk and meat animals in each sector are compared in Table 3.12.3-1.

The nearest resident, garden, and meat animal in each sector remained the same from 2016 to 2017, except for the changes indicated in Table 3.12.3-1. In 2017, no resident, garden, meat or milk animal were located within 5 miles of the plant for the South (S) sector. Milk goats were found in the N and W sectors in 2017.

Table 3.12.3-1 Harris Land Use Census Comparison (2016 – 2017)

Nearest Pathway (Miles)

SECTOR	RESIDENT		GARDEN		MEAT ANIMAL ⁽¹⁾		MILK ANIMAL	
	2016	2017	2016	2017	2016	2017	2016	2017
N	2.21	2.21	2.21	2.29*	2.21	2.21	4.14	4.14 ⁽²⁾
NNE	1.81	1.81	1.81	1.81	1.91	---*	---	---
NE	2.43	2.43	2.92	2.92	3.22	---*	---	---
ENE	1.78	1.78	2.06	2.06	2.01	2.01	---	---
E	1.88	1.88	---	2.16*	---	---	---	---
ESE	2.73	2.73	2.75	2.83*	2.84	---*	4.72	---*
SE	4.11	4.11	4.11	4.11	4.11	4.11	---	---
SSE	4.26	4.26	4.26	4.26	4.32	---*	---	---
S	---	---	---	---	---	---	---	---
SSW	3.82	3.82	4.13	4.13	3.93	---*	---	---
SW	2.76	2.76	2.80	---*	2.80	---*	---	---
WSW	4.29	4.29	4.29	4.29	4.29	---*	---	---
W	2.75	2.75	2.75	2.75	2.82	---*	2.82	2.82 ⁽³⁾
WNW	2.13	2.13	4.33	4.33	3.39	---*	---	---
NW	2.24	2.24	3.17	3.17	2.24	---*	---	---
NNW	1.55	1.55	1.82	1.82	1.82	1.82	4.68	---*

Sector and distance determined by Global Positioning System.

* Represents a change from the previous year.

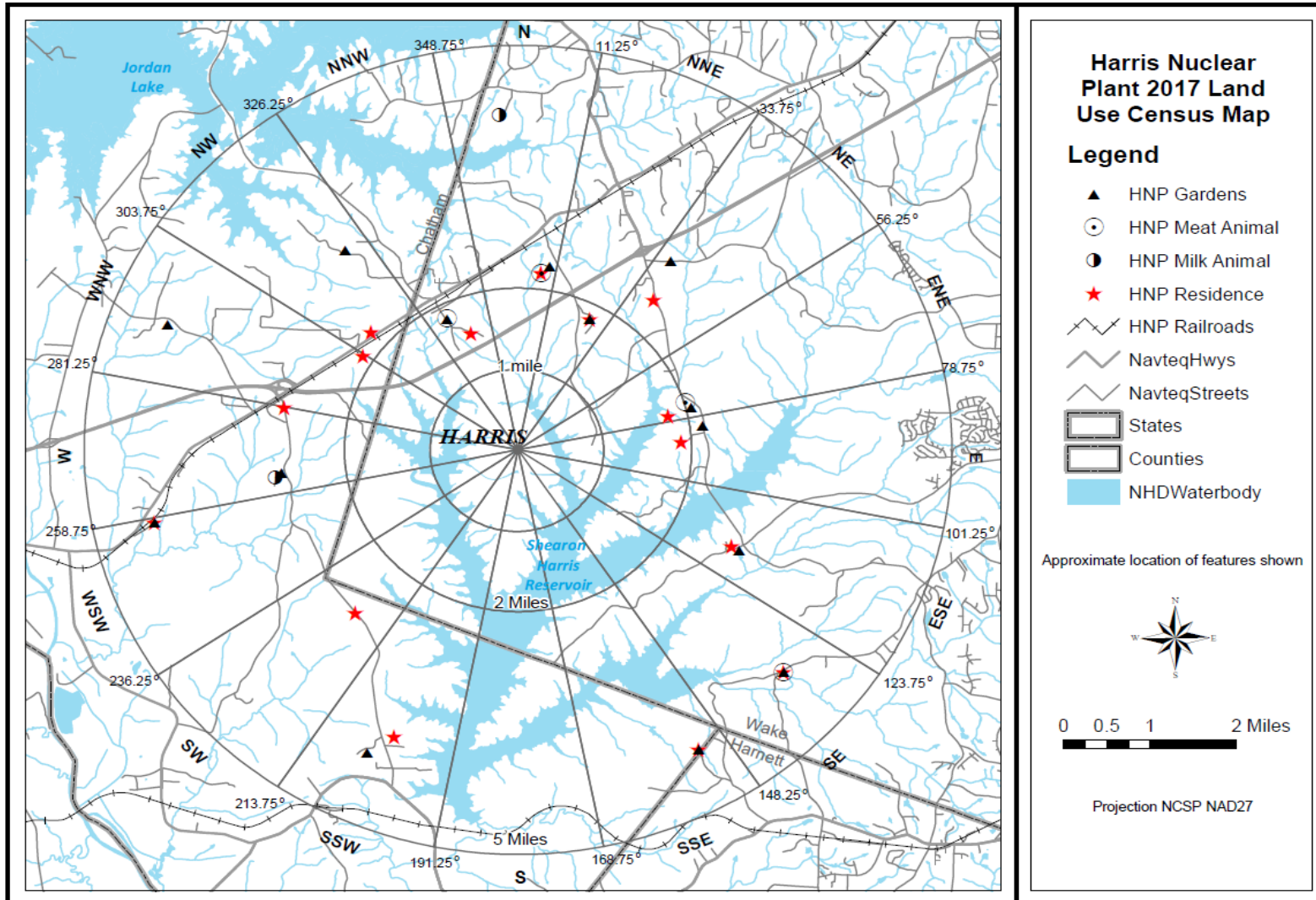
--- Indicates no occurrences within the 5 mile radius

(1) Meat animal was only identified at the nearest garden or closer in each sector. Poultry and egg laying animals were not classified as meat animals for the 2017 census.

(2) Goat Milk - Milk is used to feed goat kids, make a small quantity of cheese, and to make soap for personal use. Owner said they can now supply enough milk to participate in the HNP REMP. This dairy is not required due to HNP already having a dairy within 5 km (3.11 miles) and the dose being <1.0 mRem/year.

(3) Goat Milk - Milk is used to feed goat kids during the breeding months and the family consumes what is left. The milk that is not suitable for consumption is given to someone to make soap. This location participates in the REMP and milk is collected for 4 - 6 consecutive months per year (Late-Spring to Late-Fall months).

Figure 3.12.3-1



4.0 QUALITY ASSURANCE

4.1 SAMPLE COLLECTION

EnRad Laboratories and the Environmental Water Resources Group performed the environmental sample collections as specified by approved sample collection procedures.

4.2 SAMPLE ANALYSIS

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

4.3 DOSIMETRY ANALYSIS

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

4.4 LABORATORY EQUIPMENT QUALITY ASSURANCE

4.4.1 DAILY QUALITY CONTROL

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

4.4.2 CALIBRATION VERIFICATION

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

4.4.3 BATCH PROCESSING

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

4.5 DUKE ENERGY INTERLABORATORY COMPARISON PROGRAM

In 2017 Duke Energy Environmental Laboratory (EnRad) participated in an interlaboratory program to satisfy Radiological Environmental Monitoring Program requirements in Duke Energy nuclear plant Offsite Dose Calculation Manuals and Selected Licensee Commitments Manuals, as applicable. The EnRad organization, in 2017, elected to voluntarily withdraw its North Carolina State Drinking Water Certification with the North Carolina Department of Health and Human Services, State Laboratory of Public Health. It was determined that there was no longer a business case for maintaining this certification (NCR # 02093309). Samples requiring this certification are sent to General Engineering Laboratories, LLC (GEL), which maintains the necessary certifications to meet regulatory commitments for drinking water.

EnRad Laboratory participated in an interlaboratory program with Eckert & Ziegler Analytics (EZA) in 2017. EZA results were evaluated against the NRC Inspection Manual Procedure 84750 (IP 84750) acceptance criteria stated in EnRad Procedure 515, Cross Check Program Administration. All regulatory requirements continue to be met by the EZA Cross Check Program.

4.5.1 DUKE ENERGY INTERLABORATORY PROGRAM

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

4.5.2 ECKERT & ZIEGLER ANALYTICS CROSS CHECK PROGRAM

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

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

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

4.5.3 ERA PROFICIENCY TESTING

EnRad Laboratories made the determination in 2017 to discontinue its participation in the Environmental Resource Associates (ERA) Proficiency Testing program, as this program's participation was solely for the purpose of maintaining EnRad's North Carolina State Drinking Water Certification requirements (NCR # 02093309).

4.6 STATE OF NORTH CAROLINA INTERCOMPARISON PROGRAM

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

4.7 TLD INTERCOMPARISON PROGRAM

4.7.1 NUCLEAR TECHNOLOGY SERVICES INTERCOMPARISON PROGRAM

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

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

TLDs # 533830 and 103632 were both removed from service. Complete documentation of any evaluation will be available and provided to the NRC upon request.

4.7.2 INTERNAL CROSS CHECK (DUKE ENERGY)

Radiation Dosimetry and Records participates in a quarterly TLD internal comparison program administered internally by the Dosimetry Lab. The Dosimetry Lab Staff irradiates environmental dosimeters quarterly and submits them for analysis of the unknown estimated delivered exposure. A summary of the 2017 Internal Cross Check (Duke Energy) Program is documented in Table 4.0-B.

4.8 GENERAL ENGINEERING LABORATORY, LLC (GEL)

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

TABLE 4.0-A

ECKERT & ZIEGLER ANALYTICS

CROSS CHECK PROGRAM

2017 Cross Check Results for EnRad Laboratories

Interlaboratory cross check samples from EZA were received and analyzed in all four quarters of 2017. Results are reported directly to Eckert & Ziegler Analytics. Environmental cross check samples were analyzed in replicate, and the result closest to the mean is reported to Eckert & Ziegler Analytics. The acceptance criteria for the program was based on the NRC Inspection Manual Procedure 84750 (IP 84750). Table 4.0-A lists the performance for specific samples. Eighty-seven nuclide results were reported to EZA of which eighty-six (98.9%) met the acceptance criteria based on IP 84750.

Sample	Sample ID	Nuclide	Quarter	Units	EnRad Value	EZA Value	EnRad/EZA Ratio	Evaluation
Beta Filter in Planchet	E11755	Cs-137	1	pCi	247	244	1.01	Agreement
	E11925A	Cs-137	3	pCi	191	199	0.96	Agreement
Gamma in Cartridge	E11924	Ce-141	3	pCi	58.8	60.0	0.98	Agreement
		Co-58	3	pCi	81.0	80.7	1.00	Agreement
		Co-60	3	pCi	182	181	1.01	Agreement
		Cr-51	3	pCi	144	150	0.96	Agreement
		Cs-134	3	pCi	132	138	0.95	Agreement
		Cs-137	3	pCi	123	119	1.04	Agreement
		Fe-59	3	pCi	88.3	86.5	1.02	Agreement
		Mn-54	3	pCi	89.7	84.7	1.06	Agreement
Zn-65	3	pCi	141	127	1.11	Agreement		
LLI-131 in Water	E12007	I-131	4	pCi/L	58.8	57.7	1.02	Agreement
LLI-131 in Milk	E11889	I-131	2	pCi/L	95.4	96.3	0.99	Agreement
I-131 in Charcoal Cartridge	E11754	I-131	1	pCi	98.1	93.5	1.05	Agreement
	E12003	I-131	3	pCi	64.7	64.5	1.00	Agreement
Gamma in Simulated Vegetation (Coffee Grounds)	E12010	Ce-141	4	pCi/g	0.202	0.195	1.04	Agreement
		Co-58	4	pCi/g	0.181	0.178	1.02	Agreement
		Co-60	4	pCi/g	0.334	0.342	0.98	Agreement
		Cr-51	4	pCi/g	0.423	0.479	0.88	Agreement
		Cs-134	4	pCi/g	0.220	0.247	0.89	Agreement
		Cs-137	4	pCi/g	0.281	0.280	1.00	Agreement
		Fe-59	4	pCi/g	0.227	0.224	1.01	Agreement
		Mn-54	4	pCi/g	0.337	0.318	1.06	Agreement
Zn-65	4	pCi/g	0.447	0.418	1.07	Agreement		

TABLE 4.0-A (Cont.)

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

TABLE 4.0-A (Cont.)

Sample	Sample ID	Nuclide	Quarter	Units	EnRad Value	EZA Value	EnRad/EZA Ratio	Evaluation
Gamma in Filter (Falcon)	E11890	Ce-141	2	pCi	119	114	1.04	Agreement
		Co-58	2	pCi	124	117	1.06	Agreement
		Co-60	2	pCi	150	144	1.04	Agreement
		Cr-51	2	pCi	240	238	1.01	Agreement
		Cs-134	2	pCi	148	142	1.04	Agreement
		Cs-137	2	pCi	122	113	1.08	Agreement
		Fe-59	2	pCi	107	87.0	1.23	Agreement
		Mn-54	2	pCi	146	130	1.13	Agreement
		Zn-65	2	pCi	200	154	1.30	Non-Agreement ¹
Gamma in Filter (Falcon)	E12011	Ce-141	4	pCi	82.5	76.2	1.08	Agreement
		Co-58	4	pCi	70.8	69.6	1.02	Agreement
		Co-60	4	pCi	144	134	1.07	Agreement
		Cr-51	4	pCi	202	188	1.08	Agreement
		Cs-134	4	pCi	97.4	96.7	1.01	Agreement
		Cs-137	4	pCi	119	110	1.09	Agreement
		Fe-59	4	pCi	98.5	87.9	1.12	Agreement
		Mn-54	4	pCi	132	125	1.06	Agreement
		Zn-65	4	pCi	181	164	1.11	Agreement
Gamma in Milk	E11756	I-131	1	pCi/L	105	97.9	1.07	Agreement
		Ce-141	1	pCi/L	149	145	1.03	Agreement
		Cr-51	1	pCi/L	331	290	1.14	Agreement
		Cs-134	1	pCi/L	116	120	0.97	Agreement
		Cs-137	1	pCi/L	150	140	1.07	Agreement
		Co-58	1	pCi/L	152	150	1.02	Agreement
		Mn-54	1	pCi/L	177	164	1.08	Agreement
		Fe-59	1	pCi/L	148	129	1.15	Agreement
		Zn-65	1	pCi/L	224	199	1.12	Agreement
		Co-60	1	pCi/L	194	183	1.06	Agreement
Gross Alpha/Beta in Water	E11892	Am-241	2	pCi/L	52.8	51.1	1.03	Agreement
		Cs-137	2	pCi/L	255	270	0.94	Agreement
	E12009	Am-241	4	pCi/L	83.3	79.4	1.05	Agreement
		Cs-137	4	pCi/L	250	265	0.94	Agreement
Tritium in Water	E11891	H-3	2	pCi/L	14300	14000	1.02	Agreement
	E12008	H-3	4	pCi/L	13200	13400	0.98	Agreement

1) NCR # 02138003

TABLE 4.0-B

2017 ENVIRONMENTAL DOSIMETER CROSS CHECK RESULTS

Nuclear Technology Services

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

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

Fail** refers to NCR #02147847

TABLE 4.0-B (Cont.)

2017 ENVIRONMENTAL DOSIMETER

CROSS CHECK RESULTS

Internal Crosscheck (Duke Energy)

Radiation Dosimetry and Records participates in a quarterly TLD internal comparison program administered internally by the Dosimetry Lab. The Dosimetry Lab Staff irradiates environmental dosimetry quarterly and submits them for analysis of the unknown estimated delivered exposure.

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

TABLE 4.0-C

2017 ANNUAL QUALITY ASSURANCE REPORT

for the RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM

for GEL Laboratories, LLC (GEL)

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

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

APPENDIX A

ENVIRONMENTAL SAMPLING

&

ANALYSIS PROCEDURES

APPENDIX A

ENVIRONMENTAL SAMPLING AND ANALYSIS PROCEDURES

Adherence to established procedures for sampling and analysis of environmental media at the Harris Nuclear Plant (HNP) was required to ensure compliance with provisions of the Nuclear Regulatory Commission's Regulatory Guide 4.8, Harris Nuclear Plant Technical Specifications, and the Harris Nuclear Plant Offsite Dose Calculation Manual (ODCM). Analytical procedures were employed to ensure that the ODCM detection capabilities were achieved.

Environmental sampling and analyses were performed by EnRad Laboratories, Dosimetry and Records, Environmental Water Resources Group, and General Engineering Laboratories, LLC (vendor lab).

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

I. CHANGE OF SAMPLING PROCEDURES

Control location #038 (Drinking Water/Surface Water - at Cape Fear Steam Electric Plant water intake structure in the WSW sector) was deleted from the HNP REMP per HNP ODCM Rev. 27 effective June 15, 2017 and locations SW-43 (Control), DW-46, and DW-58 (Control) were added to the HNP REMP. Surface Water #43 and Drinking Water #58 are the control locations that replaced DWSW-38 (AR #02093193).

Indicator location #40 (Drinking Water/Surface Water - at NE Harnett Metro Water Treatment Plant Intake Building - Lillington in the SSE Sector) was changed to only a Surface Water per HNP ODCM Rev. 27 effective June 15, 2017 (AR #02093193).

The collection frequency was changed for HNP Surface Water locations SW-43 and SW-40 to monthly per HNP ODCM Rev. 27 Table 4.1 effective June 15, 2017. The frequency was listed as bimonthly previously to account for the dual usage (SW and DW) of locations #38 and #40 (AR #02093193).

New indicator milk animals (goats) were identified within the five mile radius of HNP during the 2016 HNP Land Use Census conducted August 2 - 4, 2016 in the W sector at 2.82 miles. This sample location was added to the HNP ODCM with Revision 27 effective June 15, 2017. This will be Milk Indicator location #102 with semi-monthly sampling from late-Spring to late-Fall (seasonally available - April through October) (AR #02093193).

Broadleaf Vegetation sample collection went to one mixed broadleaf vegetation (three types of broadleaf vegetation) per site instead of three separate types of broadleaf vegetation samples per site. This change was due to a lack of sufficient sample volume of each broadleaf vegetation type, which meets the HNP ODCM broadleaf vegetation sampling requirements.

II. DESCRIPTION OF ANALYSIS PROCEDURES

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

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

Tritium analyses are performed by using low-level environmental liquid scintillation analysis technique on a Perkin-Elmer 2900TR liquid scintillation system or Perkin-Elmer 3100TR liquid scintillation system. Tritium samples are distilled and batch processed with a laboratory fortified blank, matrix spike, matrix spike duplicate, and blank to verify instrument performance and sample preparation technique are acceptable.

Gross beta analysis is performed by concentrating a designated aliquot of sample precipitate and analyzing by Tennelec XLB Series 5 gas-flow proportional counters. Samples are batch processed with a blank to ensure sample contamination has not occurred.

III. CHANGE OF ANALYSIS PROCEDURES

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

IV. SAMPLING AND ANALYSIS PROCEDURES

A.1 AIRBORNE PARTICULATE AND RADIOIODINE

Airborne particulate and radioiodine samples at each of nine 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 sampler. The samplers are designed to operate at a constant flow rate (in order to compensate for any filter loading) and are set to sample approximately 2 cubic feet per minute. Filters and cartridges were collected weekly. 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	=	2.6 miles N
Location 2	=	1.4 miles NNE
Location 4	=	3.1 miles NNE
Location 5	=	>12 miles WNW – Pittsboro (Control)
Location 26	=	4.7 miles S
Location 47	=	3.4 miles SSW
Location 63	=	0.6 miles SW
Location 90	=	0.5 miles SSW
Location 91	=	1.6 miles ENE

A.2 DRINKING WATER

Drinking water/surface water location #38 was deleted from the HNP REMP per HNP ODCM Revision 27 effective June 15, 2017. The Cape Fear Plant has been decommissioned and the location returned to a green field. New drinking water locations were added at Lillington (#46) and Sanford (#58). Drinking water/surface water location #40 (intake water) was replaced with new Lillington #46 drinking water (DW) and location #40 was changed to only a surface water location. The new drinking water #58 located at the Sanford Water Treatment Plant intakes water upstream of Buckhorn Creek, 8.5 miles from the site in the SW sector. These drinking water samples are representative of the actual public drinking water. Location #46 and #58 are the finished water of the water treatment plant system and representative of the public drinking water pathway (AR # 02093193). The collection frequency changed to a monthly composite collection for DW-46 and DW-58 per HNP ODCM Rev. 27 (effective June 15, 2017). Drinking water # 51 went to a biweekly composite collection which comprises the DW-51 monthly composite sample. Gross beta, tritium, and gamma analyses were performed on the monthly composites. The composites are collected from the locations listed below.

Location 38	=	6.2 miles WSW (Control) <small>(Removed from REMP per HNP ODCM Rev. 27 Effective 6/15/17)</small>
Location 40	=	17.2 miles SSE Lillington <small>(Removed from REMP per HNP ODCM Rev. 27 Effective 6/15/17)</small>
Location 46	=	17.2 miles SSE Lillington - NE Harnett Metro Water Treatment Plant <small>(Added to REMP per HNP ODCM Rev. 27 Effective 6/15/17)</small>
Location 51	=	Water Treatment Building (on Site)
Location 58	=	8.5 miles SW (Control) - Sanford Water Treatment Plant <small>(Added to REMP per HNP ODCM Rev. 27 Effective 6/15/17)</small>

A.3 SURFACE WATER

Drinking water/surface water location #38 was deleted from the HNP REMP per HNP ODCM Revision 27 effective June 15, 2017. The Cape Fear Plant has been decommissioned and the location returned to a green field. Drinking water/surface water location #40 (intake water) was changed to only a surface water (SW) location. New surface water location was added at Sanford (#43). The new surface water #43 located at the Sanford Water Treatment Plant intakes water upstream of Buckhorn Creek, 8.5 miles from the site in the SW sector. These surface water samples are representative of the actual public surface/raw water pathway (AR # 02093193). The collection frequency changed for surface water samples to monthly per HNP ODCM Rev. 27 (effective June 15, 2017) Table 4.1. The frequency was previously listed as bimonthly to account for the dual usage of locations #38 and #40 (drinking water and surface water) samples; however, SW-26 location remained a biweekly composite. Gross beta, tritium, and gamma analyses were performed on the monthly composites. The composites are collected from the locations listed below.

Location 26	=	4.7 miles S
Location 38	=	6.2 miles WSW (Control) <small>(Removed from REMP per HNP ODCM Rev. 27 Effective 6/15/17)</small>
Location 40	=	17.2 miles SSE Lillington - NE Harnett Metro Water Treatment Plant <small>(Amended in REMP per HNP ODCM Rev. 27 Effective 6/15/17)</small>
Location 43	=	8.5 miles SW (Control) - Sanford Water Treatment Plant <small>(Added to REMP per HNP ODCM Rev. 27 Effective 6/15/17)</small>

A.4 GROUND WATER

Grab samples were collected quarterly from ground water wells at eighteen locations. A gamma analysis and tritium analysis were performed on each sample. The samples were collected from the locations listed below.

Location 57	=	0.4 miles SSW
Location 59	=	0.5 miles NNE
Location 60	=	0.5 miles ESE
Location 68	=	0.2 miles W
Location 69	=	0.2 miles NNE

Location 70	=	0.4 miles E
Location 71	=	0.3 miles SE
Location 72	=	0.2 miles SE
Location 73	=	0.2 miles S
Location 74	=	0.2 miles SSE
Location 75	=	0.1 miles ESE
Location 77	=	0.4 miles S
Location 78	=	0.5 miles S
Location 79	=	0.5 miles S
Location 80	=	0.6 miles S
Location 81	=	0.6 miles S
Location 82	=	0.6 miles S
Location 83	=	1.6 miles SSW

A.5 MILK

Monthly grab samples were collected at the control location January through April and in December of 2017. Semi-monthly grab samples were collected from the control location and the new indicator location May through mid-November of 2017. A gamma and low-level Iodine-131 analysis were performed on each sample. The grab samples were collected from the locations listed below.

Location 5	=	Manco Dairy - >12 miles WNW (Control)
Location 102	=	2.82 miles W (Indicator)

A.6 BROADLEAF VEGETATION

Monthly, three different species of broadleaf vegetation samples were collected when available during the growing season, May through October. As of the 2017 broadleaf vegetation growing season (May through October), HNP broadleaf vegetation samples went to one mixed broadleaf vegetation (three types of broadleaf vegetation) per site instead of three separate types of broadleaf vegetation samples per site. This change was due to a lack of sufficient sample volume of each broadleaf vegetation type. A gamma analysis was performed on each sample. The samples were collected from the locations listed below.

Location 5	=	>12 miles NNW – Pittsboro (Control)
Location 12	=	0.9 miles SSW
Location 63	=	0.6 miles SW

A.7 FOOD PRODUCTS

Monthly samples, of three different types of food products, were collected when available during the growing season at one location. A gamma analysis was performed on each sample. The samples were collected from the location listed below.

Location 97 = 19.1 miles NW – Granite Springs Farm (Control)

A.8 AQUATIC VEGETATION

Annual samples were collected at each of the three locations. A gamma analysis was performed on each sample. The samples were collected from the locations listed below.

Location 26 = 4.7 miles S
Location 41 = 3.8 miles S
Location 61 = 2.5 miles E (Control)

A.9 FISH

Semiannual samples of bottom feeders (catfish) and free swimmers (sunfish and largemouth bass) were collected at each of two locations. A gamma analysis was performed on the edible portions of each sample. The samples were collected from the locations listed below.

Location 44 = Site varies in Harris Lake
Location 45 = Site varies in Cape Fear River above Buckhorn Dam (Control)

A.10 SHORELINE SEDIMENT

Semiannual samples were collected at each of two locations. A gamma analysis was performed on each sample following the drying and removal of rocks and clams. The samples were collected from the locations listed below.

Location 26 = 4.6 miles S
Location 41 = 3.8 miles S

A.11 BOTTOM SEDIMENT

Semiannual samples were collected from the one location. A gamma analysis was performed on each sample following the drying; the removal of rocks, clams, etc.; and grinding. The samples were collected from the location listed below.

Location 52 = 3.8 miles S

A.12 DIRECT GAMMA RADIATION (TLD)

Thermoluminescent dosimeters (TLD) were collected quarterly at forty-one locations during 2017. 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 18 TLDs, one in each meteorological sector in the general area of the site boundary.
- * An outer ring of 16 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.13 ANNUAL LAND USE CENSUS

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

- * The Nearest Residence
- * The Nearest Garden greater than 50 square meters or 500 square feet, producing broadleaf vegetables
- * The Nearest Milk-giving Animal (cow, goat, etc.)
- * The Nearest Meat Animal (beef, hogs, etc.) was only identified at the nearest garden or closer in each sector, and poultry and egg laying animals were not classified as meat animals for the 2017 census.

The census was conducted during the growing season from August 22 - 23, 2017. Results are shown in Table 3.12.3-1. No changes were made to the sampling procedures during 2017 as a result of the 2017 Land Use Census.

APPENDIX B

**RADIOLOGICAL
ENVIRONMENTAL MONITORING
PROGRAM**

SUMMARY OF RESULTS

2017

**HARRIS NUCLEAR PLANT
RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM DATA SUMMARY**

Shearon Harris Nuclear Power Plant
Wake County, North Carolina

Docket Numbers: STN 50-400
Calendar Year: 2017

Medium or Pathway Sampled or Measured (Unit of Measurement)	Type and Total No. of Measurements Performed	Lower Limit of Detection (LLD) ⁽¹⁾	All Indicator Locations Mean ⁽²⁾⁽³⁾ Range ⁽²⁾	Location w/Highest Annual Mean ⁽²⁾		Control Locations Mean ⁽²⁾⁽³⁾ Range ⁽²⁾	No. of Non-Routine Report Meas.
				Name, Distance, and Direction	Mean ⁽²⁾⁽³⁾ Range ⁽²⁾		
Air Particulate (pCi/m ³)	Gross Beta 477 ⁽⁴⁾⁽⁹⁾	See Table 2.2-C	2.02E-2 (424/424) 9.48E-3 – 4.31E-2	Loc. # 90 0.5 miles SSW	2.06E-2 (53/53) 9.94E-3 – 4.31E-2	Loc. # 5 2.05E-2 (53/53) 9.16E-3 – 3.82E-2	0
	Gamma 45 ⁽⁹⁾	See Table 2.2-C	All less than LLD	----	----	All less than LLD	0
Air Radioiodine (pCi/m ³)	I-131 477 ⁽⁴⁾⁽⁹⁾	See Table 2.2-C	All less than LLD	----	----	All less than LLD	0
Drinking Water ⁽⁴⁾⁽⁸⁾ (pCi/l)	Gross Beta 48	4	3.61E+0 (30/30) 1.64E+0 – 6.90E+0	Loc. # 46 NE Harnett Metro Water Treatment Plant - Lillington 17.2 miles SSE	4.52E+0 (11/11) 2.61E+0 – 6.90E+0	Loc. # 38 & # 58 4.44E+0 (18/18) 2.83E+0 – 5.99E+0	0
	Gamma 48	See Table 2.2-C	All less than LLD	----	----	All less than LLD	0
	Tritium ⁽⁵⁾ 48	2000 ⁽⁷⁾	4.02E+3 (13/30) 3.03E+3 – 5.84E+3	Loc. # 51 Water Treatment Building on Site	4.02E+3 (13/13) 3.03E+3 – 5.84E+3	All less than LLD	0
Surface Water ⁽⁴⁾ (pCi/l)	Gross Beta 46	4	3.97E+0 (26/26) 2.24E+0 – 6.10E+0	Loc. # 40 NE Harnett Metro Water Treatment Plant - Lillington 17.2 miles SSE	4.02E+0 (13/13) 2.24E+0 – 6.10E+0	Loc. # 38 & # 43 4.05E+0 (20/20) 2.47E+0 – 6.60E+0	0
	Gamma 46	See Table 2.2-C	All less than LLD	----	----	All less than LLD	0
	Tritium 46	2000 ⁽⁷⁾	5.98E+3 (13/26) 4.42E+3 – 9.12E+3	Loc. # 26 Harris Lake Spillway 4.7 miles S	5.98E+3 (13/13) 4.42E+3 – 9.12E+3	All less than LLD	0

**HARRIS NUCLEAR PLANT
RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM DATA SUMMARY (cont.)**

Shearon Harris Nuclear Power Plant
Wake County, North Carolina

Docket Numbers: STN 50-400
Calendar Year: 2017

Medium or Pathway Sampled or Measured (Unit of Measurement)	Type and Total No. of Measurements Performed	Lower Limit of Detection (LLD) ⁽¹⁾	All Indicator Locations Mean ⁽²⁾⁽³⁾ Range ⁽²⁾	Location w/Highest Annual Mean ⁽²⁾		Control Locations Mean ⁽²⁾⁽³⁾ Range ⁽²⁾	No. of Non-Routine Report Meas.
				Name, Distance, and Direction	Mean ⁽²⁾⁽³⁾ Range ⁽²⁾		
Ground Water (pCi/l)	Gamma 72	See Table 2.2-C	All less than LLD	----	----	No Control	0
	Tritium 72	2000 ⁽⁷⁾	4.95E+2 (19/72) 1.99E+2 – 1.17E+3	Loc. # 83 On Site (BD-MW16) along Cooling Tower Blowdown line 1.6 miles SSW	1.10E+3 (4/4) 9.74E+2 – 1.17E+3	No Control	0
Milk (pCi/l)	I-131 36	See Table 2.2-C	All less than LLD	----	----	All less than LLD	0
	Gamma 36	See Table 2.2-C	All less than LLD	----	----	All less than LLD	0
Broadleaf Vegetation (pCi/kg, wet)	Gamma 18 ⁽⁴⁾	See Table 2.2-C	All less than LLD	----	----	All less than LLD	0
Food Products (pCi/kg, wet)	Gamma 36 ⁽⁴⁾	See Table 2.2-C	All less than LLD	----	----	All less than LLD	0
Aquatic Vegetation (pCi/kg, wet)	Gamma 6 Co-60	See Table 2.2-C	1.45E+1 (4/4) 5.67E+0 – 2.46E+1	Loc. # 26 Harris Lake Spillway 4.7 miles S	1.51E+1 (2/2) 5.67E+0 – 2.46E+1	All less than LLD	0
	Cs-137	See Table 2.2-C	8.99E+0 (4/4) 4.37E+0 – 1.32E+1	Loc. # 26 Harris Lake Spillway 4.7 miles S	1.05E+1 (2/2) 7.77E+0 – 1.32E+1	Loc. # 61 9.51E+0 (2/2) 7.71E+0 – 1.13E+1	0
Fish Bottom-Feeders (pCi/kg, wet)	Gamma 4	See Table 2.2-C	All less than LLD	----	----	All less than LLD	0
Fish Free-Swimmers (pCi/kg, wet)	Gamma 8	See Table 2.2-C	All less than LLD	----	----	All less than LLD	0

**HARRIS NUCLEAR PLANT
RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM DATA SUMMARY (cont.)**

Shearon Harris Nuclear Plant
Wake County, North Carolina

Docket Numbers: STN 50-400
Calendar Year: 2017

Medium or Pathway Sampled or Measured (Unit of Measurement)	Type and Total No. of Measurements Performed	Lower Limit of Detection (LLD) ⁽¹⁾	All Indicator Locations Mean ⁽²⁾⁽³⁾ Range ⁽²⁾	Location w/Highest Annual Mean ⁽²⁾		Control Locations Mean ⁽²⁾⁽³⁾ Range ⁽²⁾	No. of Non-Routine Report Meas.
				Name, Distance, and Direction	Mean ⁽²⁾⁽³⁾ Range ⁽²⁾		
Sediments -- Shoreline (pCi/kg, dry)	Gamma 4	See Table 2.2-C	All less than LLD	----	----	No Control	0
Sediments -- Bottom (pCi/kg, dry)	Gamma 2 Co-58	See Table 2.2-C	4.01E+1 (1/2) Single Value	Loc. # 52 Harris Lake Cooling Tower Mixing Zone 3.8 miles S	4.01E+1 (1/2) Single Value	No Control	0
	Co-60	See Table 2.2-C	2.14E+2 (2/2) 3.42E+1 – 3.94E+2	Loc. # 52 Harris Lake Cooling Tower Mixing Zone 3.8 miles S	2.14E+2 (2/2) 3.42E+1 – 3.94E+2	No Control	0
	Cs-137	See Table 2.2-C	8.35E+1 (2/2) 3.10E+1 – 1.36E+2	Loc. # 52 Harris Lake Cooling Tower Mixing Zone 3.8 miles S	8.35E+1 (2/2) 3.10E+1 – 1.36E+2	No Control	0
Direct Radiation (TLD) (mR per quarter) ⁽⁶⁾	TLD Readout 159 ⁽⁴⁾	----	1.44E+1 (155/155) 9.67E+0 – 2.25E+1	Loc. # 94 Old US Hwy 1 2.0 miles NW	1.79E+1 (4/4) 1.56E+1 – 2.13E+1	Loc. # 5 1.59E+1 (4/4) 1.43E+1 – 1.71E+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. Although quarterly composite samples are required, monthly composite samples are used to provide more frequent and sensitive analyses.
6. TLD exposure is reported in milliroentgen (mR) per standard quarter (91 days).
7. Tritium Lower Limit of Detection (LLD) is approximately 2.00E+2 pCi/L for samples that typically demonstrate activity less than the LLD.
8. Drinking Water 51 (DW-51) has been included, as of 2009, in the Data Summary even though it does not meet the EPA (Environmental Protection Agency) definition of a public drinking water supply.
9. Gamma filter composite calendar reconciliation period, 2017 (NCR # 02174515).

APPENDIX C

SAMPLING DEVIATIONS

&

UNAVAILABLE ANALYSES

APPENDIX C

HARRIS 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 Particulate and Air Radioiodines

REMP weekly air samples (Air Particulate (AP) or Air Radioiodine (AR)) that experience any downtime during a surveillance period are reported as a Deviation and classified as a “Sampling Deviation”. The sample is counted and the data reported; whereas, a Deviation with no available sample is classified as an “Unavailable Analyses” and does not have any data reported. The Harris REMP air samplers operated for a total of 99.93% availability in 2017.

Location	Scheduled Collection Dates	Code	Description & Action to Prevent Recurrence	Corrective Action
1	2/27/17 - 3/6/17	PI	2.14 hours of downtime due to thunderstorms and high winds in the area.	NCR # 02106184
4	2/27/17 - 3/6/17	PI	2.16 hours of downtime due to thunderstorms and high winds in the area.	NCR # 02106185
26	4/3/17 - 4/10/17	PI	7.88 hours of downtime due to thunderstorms and high winds in the area.	NCR # 02116141
47	4/3/17 - 4/10/17	PI	7.87 hours of downtime due to thunderstorms and high winds in the area.	NCR # 02116142
26	4/24/17 - 4/30/17	PI	1.07 hours of downtime due to thunderstorms and high winds in the area.	NCR # 02120801
47	4/24/17 - 4/30/17	PI	1.06 hours of downtime due to thunderstorms and high winds in the area.	NCR # 02120802
26	8/28/17 - 9/5/17	PI, IW	5.80 hours of downtime due to thunderstorms, high winds, and tornadoes in the area.	NCR # 02148892
47	8/28/17 - 9/5/17	PI, IW	5.73 hours of downtime due to thunderstorms, high winds, and tornadoes in the area.	NCR # 02148893
47	10/16/17 - 10/23/17	PI	21.29 hours of downtime due to a tripped ground fault circuit interruption (GFCI) possibly due to storms in area.	NCR # 02160540
47	10/23/17 - 10/30/17	PI	1.16 hours of downtime due to thunderstorms in area.	NCR # 02162071

Drinking / Surface Water

REMP monthly drinking water (DW), drinking water/surface water (DWSW), or surface water (SW) samples that experience any downtime during a surveillance period are reported as a Deviation and classified as a “Sampling Deviation”. The sample is counted and the data reported; whereas, a Deviation with no available sample is classified as an “Unavailable Analyses” and does not have any data reported. The Harris REMP water samplers operated for a total of 99.47% availability in 2017.

Location	Scheduled Collection Dates	Code	Description & Action to Prevent Recurrence	Corrective Action
40	2/20/17 – 3/6/17	PI	The DWSW-40 bi-weekly sample experienced 331.34 hrs. of downtime due to a power surge which was due to maintenance work at the sample intake facility. Some sample was collected along with a grab sample. The monthly composite (2/20/17 - 3/20/17) did have sufficient sample available for the monthly composite analyses.	NCR # 02106795
38	3/20/17 – 4/3/17	OT	The DWSW-38 bi-weekly sample was lost in transit by UPS when it was being shipped to EnRad. The monthly composite (3/20/17 - 4/17/17) did have sufficient sample available for the monthly composite analyses.	NCR # 02114621

C.2 UNAVAILABLE ANALYSES

TLD

Location	Scheduled Collection Dates	Code	Description & Action to Prevent Recurrence	Corrective Action
53	1/4/17 – 4/5/17 (1 st Qtr. 2017)	OT	TLD was found on the ground melted due to a fire, not in its designated location - TLD not valid.	NCR # 02114666
30	7/5/17 – 10/4/17 (3 rd Qtr. 2017)	VN	TLD was missing from its designated location, the area was searched, but TLD was not found.	NCR # 02156043
74	7/5/17 – 10/4/17 (3 rd Qtr. 2017)	OT	TLD was found on the ground, not in its designated location - TLD not valid.	NCR # 02156047
7	10/4/17 – 1/10/18 (4 th Qtr. 2017)	VN	TLD was missing from its designated location, the area was searched, but TLD was not found.	NCR # 02176267
33	10/4/17 – 1/10/18 (4 th Qtr. 2017)	VN	TLD was missing from its designated location, the area was searched, but TLD was not found.	NCR # 02176583
95	10/4/17 – 1/10/18 (4 th Qtr. 2017)	OT	TLD was found on the ground, not in its designated location - TLD not valid.	NCR # 02176581

APPENDIX D

ANALYTICAL DEVIATIONS

APPENDIX D

HARRIS NUCLEAR PLANT

ANALYTICAL DEVIATIONS

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

APPENDIX E

**RADIOLOGICAL
ENVIRONMENTAL MONITORING
PROGRAM RESULTS**

2017

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

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

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

Sample Point 1 [INDICATOR - N @ 2.6 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
431619	12/27/2016 - 1/3/2017	Beta	1.51E-02	2.74E-03	3.08E-03
432191	1/3/2017 - 1/9/2017	Beta	1.88E-02	3.14E-03	3.35E-03
432897	1/9/2017 - 1/16/2017	Beta	1.48E-02	2.79E-03	3.20E-03
433293	1/16/2017 - 1/23/2017	Beta	1.69E-02	2.52E-03	2.65E-03
433711	1/23/2017 - 1/30/2017	Beta	1.55E-02	2.77E-03	3.14E-03
434448	1/30/2017 - 2/6/2017	Beta	2.28E-02	2.81E-03	2.68E-03
435093	2/6/2017 - 2/13/2017	Beta	2.07E-02	2.67E-03	2.58E-03
435799	2/13/2017 - 2/20/2017	Beta	1.49E-02	2.75E-03	3.12E-03
436250	2/20/2017 - 2/27/2017	Beta	1.51E-02	2.92E-03	3.55E-03
436703	2/27/2017 - 3/6/2017	Beta	2.08E-02	3.07E-03	3.20E-03
437568	3/6/2017 - 3/13/2017	Beta	1.80E-02	3.05E-03	3.44E-03
438291	3/13/2017 - 3/20/2017	Beta	1.64E-02	2.59E-03	2.90E-03
438795	3/20/2017 - 3/27/2017	Beta	2.51E-02	3.36E-03	3.38E-03
439162	12/27/2016 - 3/27/2017	Cs-134	<5.22E-04	0.00E+00	5.22E-04
		Cs-137	<5.77E-04	0.00E+00	5.77E-04
		Be-7	1.37E-01	2.27E-02	1.69E-02
		K-40	<1.24E-02	0.00E+00	1.24E-02
439153	3/27/2017 - 4/3/2017	Beta	9.82E-03	2.21E-03	2.80E-03
439995	4/3/2017 - 4/10/2017	Beta	1.44E-02	2.75E-03	3.23E-03
440588	4/10/2017 - 4/17/2017	Beta	2.21E-02	2.75E-03	2.63E-03
441403	4/17/2017 - 4/24/2017	Beta	1.33E-02	2.44E-03	2.86E-03
441850	4/24/2017 - 4/30/2017	Beta	1.32E-02	2.96E-03	3.67E-03
442289	4/30/2017 - 5/8/2017	Beta	1.72E-02	2.61E-03	2.67E-03
442861	5/8/2017 - 5/15/2017	Beta	1.99E-02	3.15E-03	3.56E-03
443290	5/15/2017 - 5/22/2017	Beta	2.25E-02	3.15E-03	3.10E-03
443850	5/22/2017 - 5/30/2017	Beta	1.32E-02	2.31E-03	2.52E-03



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

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

Sample Point 1 [INDICATOR - N @ 2.6 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
444250	5/30/2017 - 6/5/2017	Beta	2.18E-02	3.75E-03	4.45E-03
445311	6/5/2017 - 6/12/2017	Beta	1.61E-02	2.49E-03	2.67E-03
446311	6/12/2017 - 6/19/2017	Beta	1.56E-02	2.62E-03	3.04E-03
446817	6/19/2017 - 6/26/2017	Beta	1.21E-02	2.35E-03	2.82E-03
447171	3/27/2017 - 6/26/2017	Cs-134	<5.43E-04	0.00E+00	5.43E-04
		Cs-137	<4.29E-04	0.00E+00	4.29E-04
		Be-7	1.53E-01	2.34E-02	8.70E-03
		K-40	1.17E-02	6.43E-03	6.33E-03
447162	6/26/2017 - 7/3/2017	Beta	2.14E-02	2.73E-03	2.63E-03
447793	7/3/2017 - 7/10/2017	Beta	1.41E-02	2.62E-03	3.23E-03
448258	7/10/2017 - 7/17/2017	Beta	1.86E-02	3.05E-03	3.35E-03
448886	7/17/2017 - 7/24/2017	Beta	2.53E-02	3.28E-03	3.28E-03
449208	7/24/2017 - 7/31/2017	Beta	2.12E-02	3.14E-03	3.34E-03
449938	7/31/2017 - 8/7/2017	Beta	1.93E-02	2.63E-03	2.65E-03
450184	8/7/2017 - 8/14/2017	Beta	1.82E-02	3.04E-03	3.37E-03
450719	8/14/2017 - 8/21/2017	Beta	2.33E-02	3.22E-03	3.29E-03
451176	8/21/2017 - 8/28/2017	Beta	2.13E-02	3.23E-03	3.55E-03
451529	8/28/2017 - 9/5/2017	Beta	1.62E-02	2.53E-03	2.62E-03
452337	9/5/2017 - 9/11/2017	Beta	1.88E-02	3.26E-03	3.56E-03
452779	9/11/2017 - 9/18/2017	Beta	2.23E-02	2.74E-03	2.55E-03
453431	9/18/2017 - 9/25/2017	Beta	3.15E-02	3.68E-03	3.49E-03
454203	6/26/2017 - 9/25/2017	Cs-134	<1.40E-03	0.00E+00	1.40E-03
		Cs-137	<1.14E-03	0.00E+00	1.14E-03
		Be-7	1.48E-01	3.66E-02	2.95E-02
		K-40	<2.27E-02	0.00E+00	2.27E-02
454194	9/25/2017 - 10/2/2017	Beta	1.99E-02	2.66E-03	2.64E-03
455049	10/2/2017 - 10/10/2017	Beta	1.62E-02	2.53E-03	2.64E-03
455406	10/10/2017 - 10/16/2017	Beta	1.25E-02	3.11E-03	4.10E-03



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

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

Sample Point 1 [INDICATOR - N @ 2.6 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
456029	10/16/2017 - 10/23/2017	Beta	3.04E-02	3.56E-03	3.18E-03
461405	10/23/2017 - 10/30/2017	Beta	1.53E-02	2.47E-03	2.77E-03
461951	10/30/2017 - 11/6/2017	Beta	2.79E-02	3.14E-03	2.96E-03
462589	11/6/2017 - 11/13/2017	Beta	1.77E-02	3.00E-03	3.40E-03
463079	11/13/2017 - 11/20/2017	Beta	3.10E-02	3.51E-03	3.13E-03
463499	11/20/2017 - 11/27/2017	Beta	2.97E-02	3.51E-03	3.33E-03
463769	11/27/2017 - 12/4/2017	Beta	4.15E-02	3.91E-03	2.88E-03
464686	12/4/2017 - 12/11/2017	Beta	2.72E-02	3.30E-03	3.03E-03
464953	12/11/2017 - 12/18/2017	Beta	3.08E-02	3.49E-03	3.10E-03
465199	12/18/2017 - 12/26/2017	Beta	2.92E-02	3.19E-03	2.95E-03
465597	9/25/2017 - 12/26/2017	Cs-134	<1.60E-03	0.00E+00	1.60E-03
		Cs-137	<1.31E-03	0.00E+00	1.31E-03
		Be-7	1.50E-01	3.63E-02	3.06E-02
		K-40	<2.76E-02	0.00E+00	2.76E-02
465588	12/26/2017 - 1/2/2018	Beta	3.06E-02	3.62E-03	3.45E-03
		Cs-134	<1.46E-02	0.00E+00	1.46E-02
		Cs-137	<1.14E-02	0.00E+00	1.14E-02
		Be-7	1.68E-01	1.00E-01	1.47E-01
		K-40	<2.86E-01	0.00E+00	2.86E-01

Sample Point 2 [INDICATOR - NNE @ 1.4 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
431620	12/27/2016 - 1/3/2017	Beta	1.44E-02	2.70E-03	3.08E-03
432192	1/3/2017 - 1/9/2017	Beta	1.87E-02	3.14E-03	3.35E-03
432898	1/9/2017 - 1/16/2017	Beta	1.73E-02	2.92E-03	3.20E-03
433294	1/16/2017 - 1/23/2017	Beta	1.48E-02	2.43E-03	2.65E-03
433712	1/23/2017 - 1/30/2017	Beta	1.44E-02	2.71E-03	3.13E-03
434449	1/30/2017 - 2/6/2017	Beta	2.23E-02	2.79E-03	2.68E-03
435094	2/6/2017 - 2/13/2017	Beta	2.47E-02	2.85E-03	2.58E-03
435800	2/13/2017 - 2/20/2017	Beta	1.73E-02	2.88E-03	3.12E-03
436251	2/20/2017 - 2/27/2017	Beta	1.46E-02	2.90E-03	3.55E-03



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

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

Sample Point 2 [INDICATOR - NNE @ 1.4 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
436704	2/27/2017 - 3/6/2017	Beta	1.66E-02	2.83E-03	3.16E-03
437569	3/6/2017 - 3/13/2017	Beta	2.05E-02	3.17E-03	3.44E-03
438292	3/13/2017 - 3/20/2017	Beta	1.82E-02	2.68E-03	2.90E-03
438796	3/20/2017 - 3/27/2017	Beta	2.09E-02	3.17E-03	3.38E-03
439163	12/27/2016 - 3/27/2017	Cs-134	<5.22E-04	0.00E+00	5.22E-04
		Cs-137	<4.61E-04	0.00E+00	4.61E-04
		Be-7	1.50E-01	2.26E-02	1.03E-02
		K-40	<1.19E-02	0.00E+00	1.19E-02
439154	3/27/2017 - 4/3/2017	Beta	1.20E-02	2.32E-03	2.80E-03
439996	4/3/2017 - 4/10/2017	Beta	1.61E-02	2.84E-03	3.23E-03
440589	4/10/2017 - 4/17/2017	Beta	2.15E-02	2.72E-03	2.63E-03
441404	4/17/2017 - 4/24/2017	Beta	1.62E-02	2.58E-03	2.86E-03
441851	4/24/2017 - 4/30/2017	Beta	1.30E-02	2.94E-03	3.67E-03
442290	4/30/2017 - 5/8/2017	Beta	1.67E-02	2.58E-03	2.67E-03
442862	5/8/2017 - 5/15/2017	Beta	1.57E-02	2.95E-03	3.57E-03
443291	5/15/2017 - 5/22/2017	Beta	2.75E-02	3.38E-03	3.09E-03
443851	5/22/2017 - 5/30/2017	Beta	1.35E-02	2.33E-03	2.52E-03
444251	5/30/2017 - 6/5/2017	Beta	2.56E-02	3.93E-03	4.45E-03
445312	6/5/2017 - 6/12/2017	Beta	1.77E-02	2.57E-03	2.67E-03
446312	6/12/2017 - 6/19/2017	Beta	1.57E-02	2.63E-03	3.04E-03
446818	6/19/2017 - 6/26/2017	Beta	1.47E-02	2.48E-03	2.82E-03
447172	3/27/2017 - 6/26/2017	Cs-134	<5.16E-04	0.00E+00	5.16E-04
		Cs-137	<5.35E-04	0.00E+00	5.35E-04
		Be-7	1.54E-01	2.36E-02	1.37E-02
		K-40	7.83E-03	5.79E-03	7.50E-03
447163	6/26/2017 - 7/3/2017	Beta	2.08E-02	2.70E-03	2.62E-03
447794	7/3/2017 - 7/10/2017	Beta	1.68E-02	2.75E-03	3.24E-03
448259	7/10/2017 - 7/17/2017	Beta	1.63E-02	2.94E-03	3.35E-03



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

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

Sample Point 2 [INDICATOR - NNE @ 1.4 miles]

Sample ID	Sample Dates	Nuclide	Activity	2 Sigma Error	MDA
448887	7/17/2017 - 7/24/2017	Beta	2.36E-02	3.20E-03	3.28E-03
449209	7/24/2017 - 7/31/2017	Beta	2.15E-02	3.15E-03	3.34E-03
449939	7/31/2017 - 8/7/2017	Beta	2.18E-02	2.75E-03	2.65E-03
450185	8/7/2017 - 8/14/2017	Beta	1.55E-02	2.89E-03	3.37E-03
450720	8/14/2017 - 8/21/2017	Beta	2.21E-02	3.17E-03	3.29E-03
451177	8/21/2017 - 8/28/2017	Beta	2.34E-02	3.33E-03	3.55E-03
451530	8/28/2017 - 9/5/2017	Beta	1.61E-02	2.53E-03	2.62E-03
452338	9/5/2017 - 9/11/2017	Beta	1.83E-02	3.24E-03	3.55E-03
452780	9/11/2017 - 9/18/2017	Beta	2.01E-02	2.64E-03	2.55E-03
453432	9/18/2017 - 9/25/2017	Beta	3.44E-02	3.80E-03	3.48E-03
454204	6/26/2017 - 9/25/2017	Cs-134	<1.61E-03	0.00E+00	1.61E-03
		Cs-137	<1.01E-03	0.00E+00	1.01E-03
		Be-7	1.60E-01	3.57E-02	1.67E-02
		K-40	1.82E-02	1.11E-02	4.49E-03
454195	9/25/2017 - 10/2/2017	Beta	1.78E-02	2.56E-03	2.65E-03
455050	10/2/2017 - 10/10/2017	Beta	1.68E-02	2.56E-03	2.64E-03
455407	10/10/2017 - 10/16/2017	Beta	1.07E-02	2.99E-03	4.09E-03
456030	10/16/2017 - 10/23/2017	Beta	3.05E-02	3.57E-03	3.19E-03
461406	10/23/2017 - 10/30/2017	Beta	1.92E-02	2.66E-03	2.77E-03
461952	10/30/2017 - 11/6/2017	Beta	2.61E-02	3.06E-03	2.97E-03
462590	11/6/2017 - 11/13/2017	Beta	2.02E-02	3.12E-03	3.40E-03
463080	11/13/2017 - 11/20/2017	Beta	2.90E-02	3.43E-03	3.13E-03
463500	11/20/2017 - 11/27/2017	Beta	2.70E-02	3.39E-03	3.32E-03
463770	11/27/2017 - 12/4/2017	Beta	3.42E-02	3.61E-03	2.88E-03
464687	12/4/2017 - 12/11/2017	Beta	2.24E-02	3.07E-03	3.03E-03
464954	12/11/2017 - 12/18/2017	Beta	3.02E-02	3.47E-03	3.10E-03



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

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

Sample Point 2 [INDICATOR - NNE @ 1.4 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
465200	12/18/2017 - 12/26/2017	Beta	2.58E-02	3.05E-03	2.95E-03
465598	9/25/2017 - 12/26/2017	Cs-134	<1.83E-03	0.00E+00	1.83E-03
		Cs-137	<2.00E-03	0.00E+00	2.00E-03
		Be-7	1.07E-01	3.04E-02	2.59E-02
		K-40	<3.56E-02	0.00E+00	3.56E-02
465589	12/26/2017 - 1/2/2018	Beta	2.94E-02	3.57E-03	3.45E-03
		Cs-134	<1.14E-02	0.00E+00	1.14E-02
		Cs-137	<1.18E-02	0.00E+00	1.18E-02
		Be-7	1.45E-01	8.84E-02	1.28E-01
		K-40	1.38E-01	1.03E-01	1.37E-01

Sample Point 4 [INDICATOR - NNE @ 3.1 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
431622	12/27/2016 - 1/3/2017	Beta	1.64E-02	2.81E-03	3.08E-03
432194	1/3/2017 - 1/9/2017	Beta	1.68E-02	2.98E-03	3.26E-03
432900	1/9/2017 - 1/16/2017	Beta	1.61E-02	2.91E-03	3.28E-03
433296	1/16/2017 - 1/23/2017	Beta	1.56E-02	2.46E-03	2.65E-03
433714	1/23/2017 - 1/30/2017	Beta	1.43E-02	2.71E-03	3.13E-03
434451	1/30/2017 - 2/6/2017	Beta	2.38E-02	2.86E-03	2.68E-03
435096	2/6/2017 - 2/13/2017	Beta	2.38E-02	2.81E-03	2.57E-03
435802	2/13/2017 - 2/20/2017	Beta	1.80E-02	2.91E-03	3.12E-03
436253	2/20/2017 - 2/27/2017	Beta	1.50E-02	2.92E-03	3.55E-03
436706	2/27/2017 - 3/6/2017	Beta	1.80E-02	2.93E-03	3.20E-03
437571	3/6/2017 - 3/13/2017	Beta	1.66E-02	2.97E-03	3.44E-03
438294	3/13/2017 - 3/20/2017	Beta	1.85E-02	2.69E-03	2.90E-03
438798	3/20/2017 - 3/27/2017	Beta	2.02E-02	3.13E-03	3.38E-03
439165	12/27/2016 - 3/27/2017	Cs-134	<6.22E-04	0.00E+00	6.22E-04
		Cs-137	<2.76E-04	0.00E+00	2.76E-04
		Be-7	1.71E-01	2.42E-02	7.38E-03
		K-40	<1.40E-02	0.00E+00	1.40E-02
439156	3/27/2017 - 4/3/2017	Beta	1.16E-02	2.31E-03	2.80E-03
439998	4/3/2017 - 4/10/2017	Beta	1.53E-02	2.78E-03	3.19E-03
440591	4/10/2017 - 4/17/2017	Beta	2.26E-02	2.79E-03	2.66E-03



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

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

Sample Point 4 [INDICATOR - NNE @ 3.1 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
441406	4/17/2017 - 4/24/2017	Beta	1.36E-02	2.45E-03	2.86E-03
441853	4/24/2017 - 4/30/2017	Beta	1.31E-02	2.95E-03	3.68E-03
442292	4/30/2017 - 5/8/2017	Beta	1.33E-02	2.39E-03	2.66E-03
442864	5/8/2017 - 5/15/2017	Beta	1.66E-02	3.01E-03	3.58E-03
443293	5/15/2017 - 5/22/2017	Beta	2.36E-02	3.26E-03	3.19E-03
443853	5/22/2017 - 5/30/2017	Beta	1.41E-02	2.35E-03	2.49E-03
444253	5/30/2017 - 6/5/2017	Beta	2.30E-02	3.77E-03	4.38E-03
445314	6/5/2017 - 6/12/2017	Beta	1.69E-02	2.53E-03	2.67E-03
446314	6/12/2017 - 6/19/2017	Beta	1.73E-02	2.70E-03	3.04E-03
446820	6/19/2017 - 6/26/2017	Beta	1.24E-02	2.36E-03	2.82E-03
447174	3/27/2017 - 6/26/2017	Cs-134	<3.45E-04	0.00E+00	3.45E-04
		Cs-137	<3.44E-04	0.00E+00	3.44E-04
		Be-7	1.44E-01	2.16E-02	8.12E-03
		K-40	<1.16E-02	0.00E+00	1.16E-02
447165	6/26/2017 - 7/3/2017	Beta	2.27E-02	2.78E-03	2.63E-03
447796	7/3/2017 - 7/10/2017	Beta	1.67E-02	2.72E-03	3.20E-03
448261	7/10/2017 - 7/17/2017	Beta	1.91E-02	3.10E-03	3.38E-03
448889	7/17/2017 - 7/24/2017	Beta	2.40E-02	3.22E-03	3.28E-03
449211	7/24/2017 - 7/31/2017	Beta	2.30E-02	3.26E-03	3.40E-03
449941	7/31/2017 - 8/7/2017	Beta	2.35E-02	2.79E-03	2.61E-03
450187	8/7/2017 - 8/14/2017	Beta	1.67E-02	2.95E-03	3.37E-03
450722	8/14/2017 - 8/21/2017	Beta	2.21E-02	3.16E-03	3.29E-03
451179	8/21/2017 - 8/28/2017	Beta	2.29E-02	3.30E-03	3.55E-03
451532	8/28/2017 - 9/5/2017	Beta	1.52E-02	2.48E-03	2.62E-03
452340	9/5/2017 - 9/11/2017	Beta	1.86E-02	3.26E-03	3.57E-03
452782	9/11/2017 - 9/18/2017	Beta	2.02E-02	2.64E-03	2.54E-03



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

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

Sample Point 4 [INDICATOR - NNE @ 3.1 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
453434	9/18/2017 - 9/25/2017	Beta	3.37E-02	3.77E-03	3.49E-03
454206	6/26/2017 - 9/25/2017	Cs-134	<1.63E-03	0.00E+00	1.63E-03
		Cs-137	<1.03E-03	0.00E+00	1.03E-03
		Be-7	1.66E-01	3.91E-02	2.99E-02
		K-40	<2.20E-02	0.00E+00	2.20E-02
454197	9/25/2017 - 10/2/2017	Beta	1.94E-02	2.63E-03	2.64E-03
455052	10/2/2017 - 10/10/2017	Beta	1.65E-02	2.58E-03	2.69E-03
455409	10/10/2017 - 10/16/2017	Beta	9.98E-03	2.91E-03	4.01E-03
456032	10/16/2017 - 10/23/2017	Beta	3.05E-02	3.57E-03	3.19E-03
461408	10/23/2017 - 10/30/2017	Beta	1.80E-02	2.59E-03	2.75E-03
461954	10/30/2017 - 11/6/2017	Beta	2.61E-02	3.06E-03	2.96E-03
462592	11/6/2017 - 11/13/2017	Beta	1.81E-02	3.02E-03	3.41E-03
463082	11/13/2017 - 11/20/2017	Beta	2.96E-02	3.45E-03	3.13E-03
463502	11/20/2017 - 11/27/2017	Beta	2.91E-02	3.48E-03	3.33E-03
463772	11/27/2017 - 12/4/2017	Beta	3.95E-02	3.82E-03	2.88E-03
464689	12/4/2017 - 12/11/2017	Beta	2.74E-02	3.30E-03	3.03E-03
464956	12/11/2017 - 12/18/2017	Beta	2.98E-02	3.45E-03	3.10E-03
465202	12/18/2017 - 12/26/2017	Beta	2.52E-02	3.03E-03	2.96E-03
465600	9/25/2017 - 12/26/2017	Cs-134	<1.80E-03	0.00E+00	1.80E-03
		Cs-137	<1.13E-03	0.00E+00	1.13E-03
		Be-7	1.80E-01	3.93E-02	3.09E-02
		K-40	<2.87E-02	0.00E+00	2.87E-02
465591	12/26/2017 - 1/2/2018	Beta	3.08E-02	3.62E-03	3.44E-03
		Cs-134	<1.26E-02	0.00E+00	1.26E-02
		Cs-137	<1.25E-02	0.00E+00	1.25E-02
		Be-7	<1.57E-01	0.00E+00	1.57E-01
		K-40	2.22E-01	1.36E-01	1.81E-01

Sample Point 5 [CONTROL - WNW @ 12 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
431624	12/27/2016 - 1/3/2017	Beta	1.49E-02	2.73E-03	3.07E-03
432196	1/3/2017 - 1/9/2017	Beta	2.00E-02	3.20E-03	3.35E-03
432902	1/9/2017 - 1/16/2017	Beta	1.85E-02	2.98E-03	3.19E-03



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

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

Sample Point 5 [CONTROL - WNW @ 12 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
433298	1/16/2017 - 1/23/2017	Beta	1.55E-02	2.47E-03	2.65E-03
433716	1/23/2017 - 1/30/2017	Beta	1.39E-02	2.68E-03	3.12E-03
434453	1/30/2017 - 2/6/2017	Beta	2.58E-02	2.95E-03	2.68E-03
435098	2/6/2017 - 2/13/2017	Beta	2.19E-02	2.73E-03	2.59E-03
435804	2/13/2017 - 2/20/2017	Beta	1.83E-02	2.92E-03	3.11E-03
436255	2/20/2017 - 2/27/2017	Beta	1.52E-02	2.94E-03	3.57E-03
436708	2/27/2017 - 3/6/2017	Beta	1.94E-02	2.95E-03	3.12E-03
437573	3/6/2017 - 3/13/2017	Beta	1.74E-02	3.06E-03	3.51E-03
438296	3/13/2017 - 3/20/2017	Beta	1.26E-02	2.38E-03	2.87E-03
438800	3/20/2017 - 3/27/2017	Beta	2.39E-02	3.33E-03	3.41E-03
439167	12/27/2016 - 3/27/2017	Cs-134	<5.71E-04	0.00E+00	5.71E-04
		Cs-137	<4.53E-04	0.00E+00	4.53E-04
		Be-7	1.65E-01	2.45E-02	1.17E-02
		K-40	<1.30E-02	0.00E+00	1.30E-02
439158	3/27/2017 - 4/3/2017	Beta	1.10E-02	2.25E-03	2.76E-03
440000	4/3/2017 - 4/10/2017	Beta	1.54E-02	2.84E-03	3.29E-03
440593	4/10/2017 - 4/17/2017	Beta	2.22E-02	2.73E-03	2.60E-03
441408	4/17/2017 - 4/24/2017	Beta	1.41E-02	2.48E-03	2.86E-03
441855	4/24/2017 - 4/30/2017	Beta	1.36E-02	2.95E-03	3.62E-03
442294	4/30/2017 - 5/8/2017	Beta	1.62E-02	2.60E-03	2.75E-03
442866	5/8/2017 - 5/15/2017	Beta	1.92E-02	3.06E-03	3.47E-03
443295	5/15/2017 - 5/22/2017	Beta	3.28E-02	3.70E-03	3.23E-03
443855	5/22/2017 - 5/30/2017	Beta	1.52E-02	2.38E-03	2.45E-03
444255	5/30/2017 - 6/5/2017	Beta	2.48E-02	3.89E-03	4.46E-03
445316	6/5/2017 - 6/12/2017	Beta	1.59E-02	2.45E-03	2.62E-03
446316	6/12/2017 - 6/19/2017	Beta	1.79E-02	2.76E-03	3.09E-03



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

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

Sample Point 5 [CONTROL - WNW @ 12 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
446822	6/19/2017 - 6/26/2017	Beta	1.35E-02	2.40E-03	2.79E-03
447176	3/27/2017 - 6/26/2017	Nuclide	Activity	2 Sigma Error	MDA
		Cs-134	<5.60E-04	0.00E+00	5.60E-04
		Cs-137	<5.40E-04	0.00E+00	5.40E-04
		Be-7	1.53E-01	2.44E-02	1.38E-02
		K-40	<1.44E-02	0.00E+00	1.44E-02
447167	6/26/2017 - 7/3/2017	Nuclide	Activity	2 Sigma Error	MDA
		Beta	2.34E-02	2.88E-03	2.72E-03
447798	7/3/2017 - 7/10/2017	Nuclide	Activity	2 Sigma Error	MDA
		Beta	1.93E-02	2.78E-03	3.11E-03
448263	7/10/2017 - 7/17/2017	Nuclide	Activity	2 Sigma Error	MDA
		Beta	1.98E-02	3.14E-03	3.39E-03
448891	7/17/2017 - 7/24/2017	Nuclide	Activity	2 Sigma Error	MDA
		Beta	2.61E-02	3.30E-03	3.26E-03
449213	7/24/2017 - 7/31/2017	Nuclide	Activity	2 Sigma Error	MDA
		Beta	2.30E-02	3.26E-03	3.39E-03
449943	7/31/2017 - 8/7/2017	Nuclide	Activity	2 Sigma Error	MDA
		Beta	1.92E-02	2.61E-03	2.63E-03
450189	8/7/2017 - 8/14/2017	Nuclide	Activity	2 Sigma Error	MDA
		Beta	1.90E-02	3.08E-03	3.38E-03
450724	8/14/2017 - 8/21/2017	Nuclide	Activity	2 Sigma Error	MDA
		Beta	2.26E-02	3.17E-03	3.26E-03
451181	8/21/2017 - 8/28/2017	Nuclide	Activity	2 Sigma Error	MDA
		Beta	2.23E-02	3.30E-03	3.58E-03
451534	8/28/2017 - 9/5/2017	Nuclide	Activity	2 Sigma Error	MDA
		Beta	1.52E-02	2.46E-03	2.60E-03
452342	9/5/2017 - 9/11/2017	Nuclide	Activity	2 Sigma Error	MDA
		Beta	1.99E-02	3.35E-03	3.60E-03
452784	9/11/2017 - 9/18/2017	Nuclide	Activity	2 Sigma Error	MDA
		Beta	2.30E-02	2.78E-03	2.55E-03
453436	9/18/2017 - 9/25/2017	Nuclide	Activity	2 Sigma Error	MDA
		Beta	3.01E-02	3.63E-03	3.49E-03
454208	6/26/2017 - 9/25/2017	Nuclide	Activity	2 Sigma Error	MDA
		Cs-134	<1.03E-03	0.00E+00	1.03E-03
		Cs-137	<1.49E-03	0.00E+00	1.49E-03
		Be-7	1.22E-01	3.65E-02	3.77E-02
		K-40	2.60E-02	1.36E-02	4.69E-03
454199	9/25/2017 - 10/2/2017	Nuclide	Activity	2 Sigma Error	MDA
		Beta	2.06E-02	2.67E-03	2.62E-03
455054	10/2/2017 - 10/10/2017	Nuclide	Activity	2 Sigma Error	MDA
		Beta	1.59E-02	2.56E-03	2.71E-03
455411	10/10/2017 - 10/16/2017	Nuclide	Activity	2 Sigma Error	MDA
		Beta	9.16E-03	2.89E-03	4.07E-03
456034	10/16/2017 - 10/23/2017	Nuclide	Activity	2 Sigma Error	MDA
		Beta	2.67E-02	3.37E-03	3.13E-03
461410	10/23/2017 - 10/30/2017	Nuclide	Activity	2 Sigma Error	MDA
		Beta	1.86E-02	2.61E-03	2.73E-03
461956	10/30/2017 - 11/6/2017	Nuclide	Activity	2 Sigma Error	MDA
		Beta	2.96E-02	3.24E-03	3.01E-03



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

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

Sample Point 5 [CONTROL - WNW @ 12 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
462594	11/6/2017 - 11/13/2017	Beta	1.90E-02	3.07E-03	3.40E-03
463084	11/13/2017 - 11/20/2017	Beta	2.47E-02	3.25E-03	3.14E-03
463504	11/20/2017 - 11/27/2017	Beta	2.41E-02	3.26E-03	3.33E-03
463774	11/27/2017 - 12/4/2017	Beta	3.82E-02	3.77E-03	2.87E-03
464691	12/4/2017 - 12/11/2017	Beta	2.52E-02	3.21E-03	3.03E-03
464958	12/11/2017 - 12/18/2017	Beta	2.84E-02	3.39E-03	3.10E-03
465204	12/18/2017 - 12/26/2017	Beta	2.90E-02	3.20E-03	2.98E-03
465602	9/25/2017 - 12/26/2017	Cs-134	<1.19E-03	0.00E+00	1.19E-03
		Cs-137	<1.74E-03	0.00E+00	1.74E-03
		Be-7	1.26E-01	3.49E-02	3.57E-02
		K-40	<2.88E-02	0.00E+00	2.88E-02
465593	12/26/2017 - 1/2/2018	Beta	2.82E-02	3.49E-03	3.40E-03
		Cs-134	<1.22E-02	0.00E+00	1.22E-02
		Cs-137	<1.05E-02	0.00E+00	1.05E-02
		Be-7	1.49E-01	7.63E-02	1.03E-01
		K-40	<1.86E-01	0.00E+00	1.86E-01

Sample Point 26 [INDICATOR - S @ 4.7 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
431621	12/27/2016 - 1/3/2017	Beta	1.35E-02	2.65E-03	3.08E-03
432193	1/3/2017 - 1/9/2017	Beta	1.89E-02	3.16E-03	3.38E-03
432899	1/9/2017 - 1/16/2017	Beta	1.82E-02	2.96E-03	3.18E-03
433295	1/16/2017 - 1/23/2017	Beta	1.86E-02	2.60E-03	2.64E-03
433713	1/23/2017 - 1/30/2017	Beta	1.73E-02	2.87E-03	3.14E-03
434450	1/30/2017 - 2/6/2017	Beta	2.64E-02	2.97E-03	2.67E-03
435095	2/6/2017 - 2/13/2017	Beta	2.47E-02	2.95E-03	2.72E-03
435801	2/13/2017 - 2/20/2017	Beta	1.53E-02	2.76E-03	3.10E-03
436252	2/20/2017 - 2/27/2017	Beta	1.57E-02	2.95E-03	3.54E-03
436705	2/27/2017 - 3/6/2017	Beta	1.62E-02	2.80E-03	3.15E-03
437570	3/6/2017 - 3/13/2017	Beta	1.59E-02	2.95E-03	3.46E-03
438293	3/13/2017 - 3/20/2017	Beta	1.97E-02	2.74E-03	2.89E-03



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

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

Sample Point 26 [INDICATOR - S @ 4.7 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
438797	3/20/2017 - 3/27/2017	Beta	2.09E-02	3.17E-03	3.39E-03
439164	12/27/2016 - 3/27/2017	Nuclide	Activity	2 Sigma Error	MDA
		Cs-134	<8.52E-04	0.00E+00	8.52E-04
		Cs-137	<7.05E-04	0.00E+00	7.05E-04
		Be-7	1.53E-01	2.39E-02	1.23E-02
		K-40	8.47E-03	9.06E-03	1.44E-02
439155	3/27/2017 - 4/3/2017	Nuclide	Activity	2 Sigma Error	MDA
		Beta	1.14E-02	2.30E-03	2.80E-03
439997	4/3/2017 - 4/10/2017	Nuclide	Activity	2 Sigma Error	MDA
		Beta	1.75E-02	3.01E-03	3.38E-03
440590	4/10/2017 - 4/17/2017	Nuclide	Activity	2 Sigma Error	MDA
		Beta	2.27E-02	2.78E-03	2.65E-03
441405	4/17/2017 - 4/24/2017	Nuclide	Activity	2 Sigma Error	MDA
		Beta	1.33E-02	2.43E-03	2.84E-03
441852	4/24/2017 - 4/30/2017	Nuclide	Activity	2 Sigma Error	MDA
		Beta	1.29E-02	2.96E-03	3.69E-03
442291	4/30/2017 - 5/8/2017	Nuclide	Activity	2 Sigma Error	MDA
		Beta	1.32E-02	2.40E-03	2.69E-03
442863	5/8/2017 - 5/15/2017	Nuclide	Activity	2 Sigma Error	MDA
		Beta	1.56E-02	2.93E-03	3.55E-03
443292	5/15/2017 - 5/22/2017	Nuclide	Activity	2 Sigma Error	MDA
		Beta	2.34E-02	3.19E-03	3.10E-03
443852	5/22/2017 - 5/30/2017	Nuclide	Activity	2 Sigma Error	MDA
		Beta	1.12E-02	2.21E-03	2.54E-03
444252	5/30/2017 - 6/5/2017	Nuclide	Activity	2 Sigma Error	MDA
		Beta	2.27E-02	3.74E-03	4.36E-03
445313	6/5/2017 - 6/12/2017	Nuclide	Activity	2 Sigma Error	MDA
		Beta	1.68E-02	2.53E-03	2.68E-03
446313	6/12/2017 - 6/19/2017	Nuclide	Activity	2 Sigma Error	MDA
		Beta	1.52E-02	2.60E-03	3.05E-03
446819	6/19/2017 - 6/26/2017	Nuclide	Activity	2 Sigma Error	MDA
		Beta	1.10E-02	2.28E-03	2.82E-03
447173	3/27/2017 - 6/26/2017	Nuclide	Activity	2 Sigma Error	MDA
		Cs-134	<6.09E-04	0.00E+00	6.09E-04
		Cs-137	<4.81E-04	0.00E+00	4.81E-04
		Be-7	1.37E-01	2.18E-02	9.57E-03
		K-40	1.06E-02	5.57E-03	1.92E-03
447164	6/26/2017 - 7/3/2017	Nuclide	Activity	2 Sigma Error	MDA
		Beta	1.88E-02	2.61E-03	2.64E-03
447795	7/3/2017 - 7/10/2017	Nuclide	Activity	2 Sigma Error	MDA
		Beta	1.51E-02	2.66E-03	3.21E-03
448260	7/10/2017 - 7/17/2017	Nuclide	Activity	2 Sigma Error	MDA
		Beta	1.76E-02	2.96E-03	3.28E-03
448888	7/17/2017 - 7/24/2017	Nuclide	Activity	2 Sigma Error	MDA
		Beta	2.51E-02	3.30E-03	3.34E-03
449210	7/24/2017 - 7/31/2017	Nuclide	Activity	2 Sigma Error	MDA
		Beta	1.92E-02	3.04E-03	3.33E-03
449940	7/31/2017 - 8/7/2017	Nuclide	Activity	2 Sigma Error	MDA
		Beta	1.99E-02	2.67E-03	2.67E-03



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

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

Sample Point 26 [INDICATOR - S @ 4.7 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
450186	8/7/2017 - 8/14/2017	Beta	1.64E-02	2.93E-03	3.35E-03
450721	8/14/2017 - 8/21/2017	Beta	2.33E-02	3.23E-03	3.31E-03
451178	8/21/2017 - 8/28/2017	Beta	2.13E-02	3.22E-03	3.53E-03
451531	8/28/2017 - 9/5/2017	Beta	1.39E-02	2.46E-03	2.71E-03
452339	9/5/2017 - 9/11/2017	Beta	1.63E-02	3.14E-03	3.58E-03
452781	9/11/2017 - 9/18/2017	Beta	2.07E-02	2.67E-03	2.54E-03
453433	9/18/2017 - 9/25/2017	Beta	3.31E-02	3.74E-03	3.47E-03
454205	6/26/2017 - 9/25/2017	Cs-134	<1.72E-03	0.00E+00	1.72E-03
		Cs-137	<8.58E-04	0.00E+00	8.58E-04
		Be-7	1.47E-01	3.84E-02	3.30E-02
		K-40	2.01E-02	1.54E-02	2.06E-02
454196	9/25/2017 - 10/2/2017	Beta	2.10E-02	2.71E-03	2.65E-03
455051	10/2/2017 - 10/10/2017	Beta	1.78E-02	2.59E-03	2.61E-03
455408	10/10/2017 - 10/16/2017	Beta	1.18E-02	3.13E-03	4.20E-03
456031	10/16/2017 - 10/23/2017	Beta	3.11E-02	3.56E-03	3.15E-03
461407	10/23/2017 - 10/30/2017	Beta	1.93E-02	2.67E-03	2.77E-03
461953	10/30/2017 - 11/6/2017	Beta	2.65E-02	3.07E-03	2.95E-03
462591	11/6/2017 - 11/13/2017	Beta	1.93E-02	3.09E-03	3.43E-03
463081	11/13/2017 - 11/20/2017	Beta	2.83E-02	3.38E-03	3.11E-03
463501	11/20/2017 - 11/27/2017	Beta	2.94E-02	3.52E-03	3.36E-03
463771	11/27/2017 - 12/4/2017	Beta	3.51E-02	3.62E-03	2.84E-03
464688	12/4/2017 - 12/11/2017	Beta	2.60E-02	3.26E-03	3.05E-03
464955	12/11/2017 - 12/18/2017	Beta	2.95E-02	3.43E-03	3.09E-03
465201	12/18/2017 - 12/26/2017	Beta	2.86E-02	3.18E-03	2.98E-03
465599	9/25/2017 - 12/26/2017	Cs-134	<3.56E-04	0.00E+00	3.56E-04
		Cs-137	<1.61E-03	0.00E+00	1.61E-03
		Be-7	1.36E-01	3.25E-02	2.26E-02
		K-40	<2.97E-02	0.00E+00	2.97E-02



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

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

Sample Point 26 [INDICATOR - S @ 4.7 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
465590	12/26/2017 - 1/2/2018	Beta	3.13E-02	3.62E-03	3.41E-03
		Cs-134	<1.46E-02	0.00E+00	1.46E-02
		Cs-137	<1.15E-02	0.00E+00	1.15E-02
		Be-7	1.66E-01	8.45E-02	1.16E-01
		K-40	<1.89E-01	0.00E+00	1.89E-01

Sample Point 47 [INDICATOR - SSW @ 3.4 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
431623	12/27/2016 - 1/3/2017	Beta	1.86E-02	2.94E-03	3.08E-03
432195	1/3/2017 - 1/9/2017	Beta	2.06E-02	3.25E-03	3.38E-03
432901	1/9/2017 - 1/16/2017	Beta	1.62E-02	2.85E-03	3.18E-03
433297	1/16/2017 - 1/23/2017	Beta	1.57E-02	2.46E-03	2.64E-03
433715	1/23/2017 - 1/30/2017	Beta	1.43E-02	2.71E-03	3.14E-03
434452	1/30/2017 - 2/6/2017	Beta	2.55E-02	2.92E-03	2.67E-03
435097	2/6/2017 - 2/13/2017	Beta	2.10E-02	2.77E-03	2.70E-03
435803	2/13/2017 - 2/20/2017	Beta	1.63E-02	2.81E-03	3.10E-03
436254	2/20/2017 - 2/27/2017	Beta	1.58E-02	2.96E-03	3.55E-03
436707	2/27/2017 - 3/6/2017	Beta	1.79E-02	2.89E-03	3.15E-03
437572	3/6/2017 - 3/13/2017	Beta	1.86E-02	3.09E-03	3.46E-03
438295	3/13/2017 - 3/20/2017	Beta	1.89E-02	2.70E-03	2.89E-03
438799	3/20/2017 - 3/27/2017	Beta	2.32E-02	3.28E-03	3.39E-03
439166	12/27/2016 - 3/27/2017	Cs-134	<6.70E-04	0.00E+00	6.70E-04
		Cs-137	<5.70E-04	0.00E+00	5.70E-04
		Be-7	1.53E-01	2.39E-02	1.25E-02
		K-40	<1.53E-02	0.00E+00	1.53E-02
439157	3/27/2017 - 4/3/2017	Beta	1.22E-02	2.34E-03	2.80E-03
439999	4/3/2017 - 4/10/2017	Beta	1.64E-02	2.95E-03	3.38E-03
440592	4/10/2017 - 4/17/2017	Beta	2.23E-02	2.76E-03	2.64E-03
441407	4/17/2017 - 4/24/2017	Beta	1.48E-02	2.50E-03	2.85E-03
441854	4/24/2017 - 4/30/2017	Beta	1.48E-02	3.06E-03	3.69E-03
442293	4/30/2017 - 5/8/2017	Beta	1.20E-02	2.33E-03	2.69E-03



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

Sample Point 47 [INDICATOR - SSW @ 3.4 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
442865	5/8/2017 - 5/15/2017	Beta	2.00E-02	3.15E-03	3.55E-03
443294	5/15/2017 - 5/22/2017	Beta	2.48E-02	3.26E-03	3.10E-03
443854	5/22/2017 - 5/30/2017	Beta	1.60E-02	2.46E-03	2.52E-03
444254	5/30/2017 - 6/5/2017	Beta	2.29E-02	3.79E-03	4.43E-03
445315	6/5/2017 - 6/12/2017	Beta	1.50E-02	2.44E-03	2.68E-03
446315	6/12/2017 - 6/19/2017	Beta	1.68E-02	2.68E-03	3.04E-03
446821	6/19/2017 - 6/26/2017	Beta	1.23E-02	2.35E-03	2.82E-03
447175	3/27/2017 - 6/26/2017	Cs-134	<3.48E-04	0.00E+00	3.48E-04
		Cs-137	<4.03E-04	0.00E+00	4.03E-04
		Be-7	1.60E-01	2.36E-02	7.73E-03
		K-40	6.86E-03	5.45E-03	7.28E-03
447166	6/26/2017 - 7/3/2017	Beta	2.05E-02	2.69E-03	2.64E-03
447797	7/3/2017 - 7/10/2017	Beta	1.64E-02	2.72E-03	3.21E-03
448262	7/10/2017 - 7/17/2017	Beta	1.58E-02	2.86E-03	3.27E-03
448890	7/17/2017 - 7/24/2017	Beta	2.90E-02	3.48E-03	3.35E-03
449212	7/24/2017 - 7/31/2017	Beta	1.89E-02	3.03E-03	3.33E-03
449942	7/31/2017 - 8/7/2017	Beta	1.88E-02	2.62E-03	2.67E-03
450188	8/7/2017 - 8/14/2017	Beta	1.75E-02	2.99E-03	3.35E-03
450723	8/14/2017 - 8/21/2017	Beta	2.22E-02	3.18E-03	3.31E-03
451180	8/21/2017 - 8/28/2017	Beta	2.35E-02	3.32E-03	3.53E-03
451533	8/28/2017 - 9/5/2017	Beta	1.49E-02	2.52E-03	2.71E-03
452341	9/5/2017 - 9/11/2017	Beta	1.78E-02	3.22E-03	3.58E-03
452783	9/11/2017 - 9/18/2017	Beta	1.99E-02	2.63E-03	2.54E-03
453435	9/18/2017 - 9/25/2017	Beta	3.46E-02	3.80E-03	3.47E-03
454207	6/26/2017 - 9/25/2017	Cs-134	<1.38E-03	0.00E+00	1.38E-03
		Cs-137	<1.31E-03	0.00E+00	1.31E-03
		Be-7	1.37E-01	4.07E-02	4.33E-02
		K-40	<2.58E-02	0.00E+00	2.58E-02



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

Sample Point 47 [INDICATOR - SSW @ 3.4 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
454198	9/25/2017 - 10/2/2017	Beta	1.87E-02	2.61E-03	2.65E-03
455053	10/2/2017 - 10/10/2017	Beta	1.48E-02	2.44E-03	2.61E-03
455410	10/10/2017 - 10/16/2017	Beta	9.48E-03	2.98E-03	4.19E-03
456033	10/16/2017 - 10/22/2017	Beta	2.67E-02	3.68E-03	3.62E-03
461409	10/23/2017 - 10/30/2017	Beta	1.82E-02	2.63E-03	2.80E-03
461955	10/30/2017 - 11/6/2017	Beta	2.62E-02	3.05E-03	2.95E-03
462593	11/6/2017 - 11/13/2017	Beta	1.86E-02	3.06E-03	3.43E-03
463083	11/13/2017 - 11/20/2017	Beta	2.62E-02	3.29E-03	3.11E-03
463503	11/20/2017 - 11/27/2017	Beta	2.69E-02	3.41E-03	3.36E-03
463773	11/27/2017 - 12/4/2017	Beta	3.55E-02	3.64E-03	2.84E-03
464690	12/4/2017 - 12/11/2017	Beta	2.60E-02	3.25E-03	3.05E-03
464957	12/11/2017 - 12/18/2017	Beta	3.00E-02	3.46E-03	3.10E-03
465203	12/18/2017 - 12/26/2017	Beta	3.01E-02	3.24E-03	2.98E-03
465601	9/25/2017 - 12/26/2017	Cs-134	<1.81E-03	0.00E+00	1.81E-03
		Cs-137	<1.48E-03	0.00E+00	1.48E-03
		Be-7	1.77E-01	4.08E-02	3.48E-02
		K-40	<3.68E-02	0.00E+00	3.68E-02
465592	12/26/2017 - 1/2/2018	Beta	2.86E-02	3.51E-03	3.41E-03
		Cs-134	<1.33E-02	0.00E+00	1.33E-02
		Cs-137	<1.27E-02	0.00E+00	1.27E-02
		Be-7	1.27E-01	7.62E-02	1.09E-01
		K-40	<2.20E-01	0.00E+00	2.20E-01

Sample Point 63 [INDICATOR - SW @ 0.6 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
431625	12/27/2016 - 1/3/2017	Beta	1.58E-02	2.78E-03	3.08E-03
432197	1/3/2017 - 1/9/2017	Beta	1.68E-02	3.04E-03	3.36E-03
432903	1/9/2017 - 1/16/2017	Beta	1.40E-02	2.74E-03	3.18E-03
433299	1/16/2017 - 1/23/2017	Beta	1.66E-02	2.52E-03	2.66E-03
433717	1/23/2017 - 1/30/2017	Beta	1.48E-02	2.72E-03	3.12E-03
434454	1/30/2017 - 2/6/2017	Beta	2.29E-02	2.83E-03	2.69E-03



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

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

Sample Point 63 [INDICATOR - SW @ 0.6 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
435099	2/6/2017 - 2/13/2017	Beta	2.32E-02	2.81E-03	2.61E-03
435805	2/13/2017 - 2/20/2017	Beta	1.44E-02	2.71E-03	3.11E-03
436256	2/20/2017 - 2/27/2017	Beta	1.32E-02	2.82E-03	3.54E-03
436709	2/27/2017 - 3/6/2017	Beta	1.96E-02	2.98E-03	3.16E-03
437574	3/6/2017 - 3/13/2017	Beta	1.78E-02	3.04E-03	3.44E-03
438297	3/13/2017 - 3/20/2017	Beta	1.71E-02	2.63E-03	2.91E-03
438801	3/20/2017 - 3/27/2017	Beta	2.28E-02	3.26E-03	3.39E-03
439168	12/27/2016 - 3/27/2017	Cs-134	<7.42E-04	0.00E+00	7.42E-04
		Cs-137	<3.87E-04	0.00E+00	3.87E-04
		Be-7	1.56E-01	2.40E-02	9.03E-03
		K-40	<1.27E-02	0.00E+00	1.27E-02
439159	3/27/2017 - 4/3/2017	Beta	1.13E-02	2.28E-03	2.79E-03
440001	4/3/2017 - 4/10/2017	Beta	1.50E-02	2.78E-03	3.22E-03
440594	4/10/2017 - 4/17/2017	Beta	2.19E-02	2.74E-03	2.63E-03
441409	4/17/2017 - 4/24/2017	Beta	1.66E-02	2.60E-03	2.86E-03
441856	4/24/2017 - 4/30/2017	Beta	1.18E-02	2.88E-03	3.67E-03
442295	4/30/2017 - 5/8/2017	Beta	1.53E-02	2.55E-03	2.73E-03
442867	5/8/2017 - 5/15/2017	Beta	1.82E-02	3.02E-03	3.48E-03
443296	5/15/2017 - 5/22/2017	Beta	2.83E-02	3.41E-03	3.08E-03
443856	5/22/2017 - 5/30/2017	Beta	1.41E-02	2.37E-03	2.53E-03
444256	5/30/2017 - 6/5/2017	Beta	2.48E-02	3.94E-03	4.53E-03
445317	6/5/2017 - 6/12/2017	Beta	1.36E-02	2.34E-03	2.63E-03
446317	6/12/2017 - 6/19/2017	Beta	1.82E-02	2.74E-03	3.04E-03
446823	6/19/2017 - 6/26/2017	Beta	1.32E-02	2.40E-03	2.82E-03
447177	3/27/2017 - 6/26/2017	Cs-134	<5.93E-04	0.00E+00	5.93E-04
		Cs-137	<4.69E-04	0.00E+00	4.69E-04
		Be-7	1.52E-01	2.38E-02	1.06E-02
		K-40	<1.09E-02	0.00E+00	1.09E-02



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

Sample Point 63 [INDICATOR - SW @ 0.6 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
447168	6/26/2017 - 7/3/2017	Beta	2.04E-02	2.74E-03	2.71E-03
447799	7/3/2017 - 7/10/2017	Beta	1.79E-02	2.73E-03	3.12E-03
448264	7/10/2017 - 7/17/2017	Beta	1.68E-02	2.97E-03	3.37E-03
448892	7/17/2017 - 7/24/2017	Beta	2.58E-02	3.29E-03	3.28E-03
449214	7/24/2017 - 7/31/2017	Beta	2.16E-02	3.16E-03	3.34E-03
449944	7/31/2017 - 8/7/2017	Beta	1.96E-02	2.66E-03	2.67E-03
450190	8/7/2017 - 8/14/2017	Beta	1.82E-02	3.03E-03	3.36E-03
450725	8/14/2017 - 8/21/2017	Beta	2.31E-02	3.21E-03	3.29E-03
451182	8/21/2017 - 8/28/2017	Beta	2.10E-02	3.22E-03	3.55E-03
451535	8/28/2017 - 9/5/2017	Beta	1.60E-02	2.52E-03	2.62E-03
452343	9/5/2017 - 9/11/2017	Beta	1.88E-02	3.27E-03	3.57E-03
452785	9/11/2017 - 9/18/2017	Beta	1.84E-02	2.56E-03	2.54E-03
453437	9/18/2017 - 9/25/2017	Beta	3.23E-02	3.71E-03	3.48E-03
454209	6/26/2017 - 9/25/2017	Cs-134	<1.84E-03	0.00E+00	1.84E-03
		Cs-137	<1.92E-03	0.00E+00	1.92E-03
		Be-7	1.19E-01	3.39E-02	3.25E-02
		K-40	<2.91E-02	0.00E+00	2.91E-02
454200	9/25/2017 - 10/2/2017	Beta	1.83E-02	2.58E-03	2.65E-03
455055	10/2/2017 - 10/9/2017	Beta	1.60E-02	2.77E-03	3.03E-03
455412	10/9/2017 - 10/16/2017	Beta	1.14E-02	2.67E-03	3.48E-03
456035	10/16/2017 - 10/23/2017	Beta	2.87E-02	3.51E-03	3.21E-03
461411	10/23/2017 - 10/30/2017	Beta	1.74E-02	2.58E-03	2.78E-03
461957	10/30/2017 - 11/6/2017	Beta	2.47E-02	2.99E-03	2.95E-03
462595	11/6/2017 - 11/13/2017	Beta	1.81E-02	3.02E-03	3.40E-03
463085	11/13/2017 - 11/20/2017	Beta	2.30E-02	3.15E-03	3.13E-03
463505	11/20/2017 - 11/27/2017	Beta	2.55E-02	3.32E-03	3.32E-03



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

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

Sample Point 63 [INDICATOR - SW @ 0.6 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
463775	11/27/2017 - 12/4/2017	Beta	3.69E-02	3.72E-03	2.88E-03
464692	12/4/2017 - 12/11/2017	Beta	2.03E-02	2.97E-03	3.03E-03
464959	12/11/2017 - 12/18/2017	Beta	2.92E-02	3.43E-03	3.11E-03
465205	12/18/2017 - 12/26/2017	Beta	2.66E-02	3.05E-03	2.92E-03
465603	9/25/2017 - 12/26/2017	Cs-134	<2.05E-03	0.00E+00	2.05E-03
		Cs-137	<1.34E-03	0.00E+00	1.34E-03
		Be-7	1.20E-01	3.25E-02	2.86E-02
		K-40	3.54E-02	1.88E-02	2.15E-02
465594	12/26/2017 - 1/2/2018	Beta	2.38E-02	3.34E-03	3.49E-03
		Cs-134	<1.10E-02	0.00E+00	1.10E-02
		Cs-137	<1.00E-02	0.00E+00	1.00E-02
		Be-7	1.70E-01	8.49E-02	1.16E-01
		K-40	<2.25E-01	0.00E+00	2.25E-01

Sample Point 90 [INDICATOR - SSW @ 0.5 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
431626	12/27/2016 - 1/3/2017	Beta	1.60E-02	2.79E-03	3.08E-03
432198	1/3/2017 - 1/9/2017	Beta	2.01E-02	3.22E-03	3.36E-03
432904	1/9/2017 - 1/16/2017	Beta	1.54E-02	2.81E-03	3.18E-03
433300	1/16/2017 - 1/23/2017	Beta	1.70E-02	2.54E-03	2.66E-03
433718	1/23/2017 - 1/30/2017	Beta	1.28E-02	2.62E-03	3.12E-03
434455	1/30/2017 - 2/6/2017	Beta	2.26E-02	2.81E-03	2.69E-03
435100	2/6/2017 - 2/13/2017	Beta	2.21E-02	2.76E-03	2.61E-03
435806	2/13/2017 - 2/20/2017	Beta	1.68E-02	2.85E-03	3.12E-03
436257	2/20/2017 - 2/27/2017	Beta	1.22E-02	2.76E-03	3.54E-03
436710	2/27/2017 - 3/6/2017	Beta	1.77E-02	2.89E-03	3.16E-03
437575	3/6/2017 - 3/13/2017	Beta	1.96E-02	3.12E-03	3.44E-03
438298	3/13/2017 - 3/20/2017	Beta	1.68E-02	2.61E-03	2.91E-03
438802	3/20/2017 - 3/27/2017	Beta	2.50E-02	3.36E-03	3.39E-03
439169	12/27/2016 - 3/27/2017	Cs-134	<5.99E-04	0.00E+00	5.99E-04
		Cs-137	<3.67E-04	0.00E+00	3.67E-04
		Be-7	1.58E-01	2.44E-02	1.07E-02
		K-40	<1.21E-02	0.00E+00	1.21E-02



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

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

Sample Point 90 [INDICATOR - SSW @ 0.5 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
439160	3/27/2017 - 4/3/2017	Beta	1.31E-02	2.38E-03	2.79E-03
440002	4/3/2017 - 4/10/2017	Beta	1.51E-02	2.78E-03	3.22E-03
440595	4/10/2017 - 4/17/2017	Beta	2.29E-02	2.79E-03	2.63E-03
441410	4/17/2017 - 4/24/2017	Beta	1.57E-02	2.56E-03	2.86E-03
441857	4/24/2017 - 4/30/2017	Beta	9.94E-03	2.77E-03	3.67E-03
442296	4/30/2017 - 5/8/2017	Beta	1.48E-02	2.52E-03	2.73E-03
442868	5/8/2017 - 5/15/2017	Beta	1.69E-02	2.96E-03	3.48E-03
443297	5/15/2017 - 5/22/2017	Beta	2.47E-02	3.24E-03	3.08E-03
443857	5/22/2017 - 5/30/2017	Beta	1.32E-02	2.32E-03	2.53E-03
444257	5/30/2017 - 6/5/2017	Beta	2.49E-02	3.94E-03	4.53E-03
445318	6/5/2017 - 6/12/2017	Beta	1.44E-02	2.38E-03	2.63E-03
446318	6/12/2017 - 6/19/2017	Beta	1.87E-02	2.76E-03	3.04E-03
446824	6/19/2017 - 6/26/2017	Beta	1.37E-02	2.42E-03	2.82E-03
447178	3/27/2017 - 6/26/2017	Nuclide	Activity	2 Sigma Error	MDA
		Cs-134	<4.87E-04	0.00E+00	4.87E-04
		Cs-137	<4.48E-04	0.00E+00	4.48E-04
		Be-7	1.59E-01	2.58E-02	1.41E-02
		K-40	<1.42E-02	0.00E+00	1.42E-02
447169	6/26/2017 - 7/3/2017	Beta	1.95E-02	2.69E-03	2.71E-03
447800	7/3/2017 - 7/10/2017	Beta	1.68E-02	2.68E-03	3.12E-03
448265	7/10/2017 - 7/17/2017	Beta	1.62E-02	2.94E-03	3.37E-03
448893	7/17/2017 - 7/24/2017	Beta	2.59E-02	3.30E-03	3.28E-03
449215	7/24/2017 - 7/31/2017	Beta	2.24E-02	3.20E-03	3.34E-03
449945	7/31/2017 - 8/7/2017	Beta	2.17E-02	2.75E-03	2.67E-03
450191	8/7/2017 - 8/14/2017	Beta	1.68E-02	2.96E-03	3.36E-03
450726	8/14/2017 - 8/21/2017	Beta	2.06E-02	3.09E-03	3.29E-03
451183	8/21/2017 - 8/28/2017	Beta	2.39E-02	3.35E-03	3.55E-03



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

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

Sample Point 90 [INDICATOR - SSW @ 0.5 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
451536	8/28/2017 - 9/5/2017	Beta	1.86E-02	2.66E-03	2.62E-03
452344	9/5/2017 - 9/11/2017	Beta	1.93E-02	3.30E-03	3.57E-03
452786	9/11/2017 - 9/18/2017	Beta	2.37E-02	2.80E-03	2.54E-03
453438	9/18/2017 - 9/25/2017	Beta	3.36E-02	3.76E-03	3.48E-03
454210	6/26/2017 - 9/25/2017	Cs-134	<1.25E-03	0.00E+00	1.25E-03
		Cs-137	<1.17E-03	0.00E+00	1.17E-03
		Be-7	1.47E-01	3.80E-02	3.47E-02
		K-40	<2.64E-02	0.00E+00	2.64E-02
454201	9/25/2017 - 10/2/2017	Beta	2.03E-02	2.67E-03	2.65E-03
455056	10/2/2017 - 10/9/2017	Beta	1.64E-02	2.79E-03	3.03E-03
455413	10/9/2017 - 10/16/2017	Beta	1.12E-02	2.67E-03	3.47E-03
456036	10/16/2017 - 10/23/2017	Beta	3.24E-02	3.67E-03	3.21E-03
461412	10/23/2017 - 10/30/2017	Beta	1.83E-02	2.62E-03	2.78E-03
461958	10/30/2017 - 11/6/2017	Beta	2.90E-02	3.17E-03	2.95E-03
462596	11/6/2017 - 11/13/2017	Beta	1.66E-02	2.95E-03	3.40E-03
463086	11/13/2017 - 11/20/2017	Beta	2.89E-02	3.43E-03	3.13E-03
463506	11/20/2017 - 11/27/2017	Beta	2.86E-02	3.46E-03	3.32E-03
463776	11/27/2017 - 12/4/2017	Beta	4.31E-02	3.96E-03	2.88E-03
464693	12/4/2017 - 12/11/2017	Beta	2.66E-02	3.27E-03	3.03E-03
464960	12/11/2017 - 12/18/2017	Beta	2.86E-02	3.41E-03	3.11E-03
465206	12/18/2017 - 12/26/2017	Beta	3.05E-02	3.22E-03	2.92E-03
465604	9/25/2017 - 12/26/2017	Cs-134	<1.56E-03	0.00E+00	1.56E-03
		Cs-137	<1.28E-03	0.00E+00	1.28E-03
		Be-7	1.19E-01	3.30E-02	3.26E-02
		K-40	<2.90E-02	0.00E+00	2.90E-02
465595	12/26/2017 - 1/2/2018	Beta	3.15E-02	3.68E-03	3.49E-03
		Cs-134	<1.39E-02	0.00E+00	1.39E-02
		Cs-137	<1.07E-02	0.00E+00	1.07E-02
		Be-7	2.38E-01	1.00E-01	1.32E-01
		K-40	2.97E-01	1.17E-01	2.98E-02



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

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

Sample Point 91 [INDICATOR - ENE @ 1.6 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
431627	12/27/2016 - 1/3/2017	Beta	1.74E-02	2.87E-03	3.08E-03
432199	1/3/2017 - 1/9/2017	Beta	2.16E-02	3.29E-03	3.35E-03
432905	1/9/2017 - 1/16/2017	Beta	1.84E-02	2.98E-03	3.20E-03
433301	1/16/2017 - 1/23/2017	Beta	1.65E-02	2.51E-03	2.65E-03
433719	1/23/2017 - 1/30/2017	Beta	1.44E-02	2.71E-03	3.13E-03
434456	1/30/2017 - 2/6/2017	Beta	2.76E-02	3.01E-03	2.68E-03
435101	2/6/2017 - 2/13/2017	Beta	2.55E-02	2.91E-03	2.61E-03
435807	2/13/2017 - 2/20/2017	Beta	1.81E-02	2.91E-03	3.11E-03
436258	2/20/2017 - 2/27/2017	Beta	1.51E-02	2.92E-03	3.55E-03
436711	2/27/2017 - 3/6/2017	Beta	1.71E-02	2.84E-03	3.15E-03
437576	3/6/2017 - 3/13/2017	Beta	1.69E-02	3.00E-03	3.46E-03
438299	3/13/2017 - 3/20/2017	Beta	1.83E-02	2.68E-03	2.90E-03
438803	3/20/2017 - 3/27/2017	Beta	2.16E-02	3.21E-03	3.39E-03
439170	12/27/2016 - 3/27/2017	Cs-134	<3.90E-04	0.00E+00	3.90E-04
		Cs-137	<5.94E-04	0.00E+00	5.94E-04
		Be-7	1.44E-01	2.48E-02	1.71E-02
		K-40	<1.62E-02	0.00E+00	1.62E-02
439161	3/27/2017 - 4/3/2017	Beta	1.20E-02	2.33E-03	2.80E-03
440003	4/3/2017 - 4/10/2017	Beta	1.65E-02	2.86E-03	3.23E-03
440596	4/10/2017 - 4/17/2017	Beta	2.41E-02	2.85E-03	2.64E-03
441411	4/17/2017 - 4/24/2017	Beta	1.42E-02	2.48E-03	2.85E-03
441858	4/24/2017 - 4/30/2017	Beta	1.46E-02	3.04E-03	3.67E-03
442297	4/30/2017 - 5/8/2017	Beta	1.61E-02	2.51E-03	2.63E-03
442869	5/8/2017 - 5/15/2017	Beta	1.60E-02	3.00E-03	3.64E-03
443298	5/15/2017 - 5/22/2017	Beta	2.54E-02	3.32E-03	3.15E-03
443858	5/22/2017 - 5/30/2017	Beta	1.49E-02	2.38E-03	2.48E-03



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

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

Sample Point 91 [INDICATOR - ENE @ 1.6 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
444258	5/30/2017 - 6/5/2017	Beta	1.99E-02	3.66E-03	4.44E-03
445319	6/5/2017 - 6/12/2017	Beta	1.77E-02	2.57E-03	2.68E-03
446319	6/12/2017 - 6/19/2017	Beta	1.72E-02	2.70E-03	3.05E-03
446825	6/19/2017 - 6/26/2017	Beta	1.23E-02	2.35E-03	2.81E-03
447179	3/27/2017 - 6/26/2017	Cs-134	<4.45E-04	0.00E+00	4.45E-04
		Cs-137	<4.09E-04	0.00E+00	4.09E-04
		Be-7	1.60E-01	2.39E-02	1.18E-02
		K-40	1.08E-02	5.50E-03	1.83E-03
447170	6/26/2017 - 7/3/2017	Beta	2.21E-02	2.73E-03	2.59E-03
447801	7/3/2017 - 7/10/2017	Beta	1.66E-02	2.76E-03	3.28E-03
448266	7/10/2017 - 7/17/2017	Beta	1.59E-02	2.85E-03	3.25E-03
448894	7/17/2017 - 7/24/2017	Beta	2.39E-02	3.27E-03	3.37E-03
449216	7/24/2017 - 7/31/2017	Beta	2.01E-02	3.08E-03	3.33E-03
449946	7/31/2017 - 8/7/2017	Beta	2.31E-02	2.81E-03	2.67E-03
450192	8/7/2017 - 8/14/2017	Beta	1.48E-02	2.85E-03	3.36E-03
450727	8/14/2017 - 8/21/2017	Beta	2.28E-02	3.21E-03	3.30E-03
451184	8/21/2017 - 8/28/2017	Beta	2.37E-02	3.34E-03	3.53E-03
451537	8/28/2017 - 9/5/2017	Beta	1.68E-02	2.57E-03	2.63E-03
452345	9/5/2017 - 9/11/2017	Beta	1.93E-02	3.31E-03	3.59E-03
452787	9/11/2017 - 9/18/2017	Beta	2.12E-02	2.69E-03	2.54E-03
453439	9/18/2017 - 9/25/2017	Beta	2.97E-02	3.59E-03	3.47E-03
454211	6/26/2017 - 9/25/2017	Cs-134	<1.05E-03	0.00E+00	1.05E-03
		Cs-137	<1.64E-03	0.00E+00	1.64E-03
		Be-7	1.37E-01	3.73E-02	3.37E-02
		K-40	<3.40E-02	0.00E+00	3.40E-02
454202	9/25/2017 - 10/2/2017	Beta	1.81E-02	2.58E-03	2.65E-03
455057	10/2/2017 - 10/10/2017	Beta	1.28E-02	2.33E-03	2.60E-03
455414	10/10/2017 - 10/16/2017	Beta	1.15E-02	3.01E-03	4.03E-03



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

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

Sample Point 91 [INDICATOR - ENE @ 1.6 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
456037	10/16/2017 - 10/23/2017	Beta	3.19E-02	3.69E-03	3.26E-03
461413	10/23/2017 - 10/30/2017	Beta	1.89E-02	2.65E-03	2.78E-03
461959	10/30/2017 - 11/6/2017	Beta	2.59E-02	3.04E-03	2.95E-03
462597	11/6/2017 - 11/13/2017	Beta	1.74E-02	3.00E-03	3.43E-03
463087	11/13/2017 - 11/20/2017	Beta	2.95E-02	3.44E-03	3.12E-03
463507	11/20/2017 - 11/27/2017	Beta	2.96E-02	3.50E-03	3.32E-03
463777	11/27/2017 - 12/4/2017	Beta	3.73E-02	3.74E-03	2.88E-03
464694	12/4/2017 - 12/11/2017	Beta	2.82E-02	3.35E-03	3.05E-03
464961	12/11/2017 - 12/18/2017	Beta	2.65E-02	3.30E-03	3.09E-03
465207	12/18/2017 - 12/26/2017	Beta	2.48E-02	2.97E-03	2.90E-03
465605	9/25/2017 - 12/26/2017	Cs-134	<1.35E-03	0.00E+00	1.35E-03
		Cs-137	<1.79E-03	0.00E+00	1.79E-03
		Be-7	1.54E-01	3.72E-02	2.90E-02
		K-40	<1.93E-02	0.00E+00	1.93E-02
465596	12/26/2017 - 1/2/2018	Beta	3.04E-02	3.65E-03	3.51E-03
		Cs-134	<1.04E-02	0.00E+00	1.04E-02
		Cs-137	<1.02E-02	0.00E+00	1.02E-02
		Be-7	1.44E-01	8.08E-02	1.14E-01
		K-40	<2.16E-01	0.00E+00	2.16E-01

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

Sample Point 1 [INDICATOR - N @ 2.6 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
431628	12/27/2016 - 1/3/2017	I-131	<8.65E-03	0.00E+00	8.65E-03
		Cs-134	<5.89E-03	0.00E+00	5.89E-03
		Cs-137	<7.98E-03	0.00E+00	7.98E-03
		Be-7	<5.23E-02	0.00E+00	5.23E-02
		K-40	<3.00E-01	0.00E+00	3.00E-01
432200	1/3/2017 - 1/9/2017	I-131	<1.13E-02	0.00E+00	1.13E-02
		Cs-134	<7.53E-03	0.00E+00	7.53E-03
		Cs-137	<1.02E-02	0.00E+00	1.02E-02
		Be-7	<5.49E-02	0.00E+00	5.49E-02
		K-40	4.24E-01	1.63E-01	1.27E-01
432906	1/9/2017 - 1/16/2017	I-131	<1.06E-02	0.00E+00	1.06E-02
		Cs-134	<9.18E-03	0.00E+00	9.18E-03
		Cs-137	<6.51E-03	0.00E+00	6.51E-03
		Be-7	<4.77E-02	0.00E+00	4.77E-02
		K-40	4.75E-01	1.56E-01	1.16E-01
433302	1/16/2017 - 1/23/2017	I-131	<8.01E-03	0.00E+00	8.01E-03
		Cs-134	<7.59E-03	0.00E+00	7.59E-03
		Cs-137	<7.79E-03	0.00E+00	7.79E-03



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

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

Sample Point 1 [INDICATOR - N @ 2.6 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
433302	1/16/2017 - 1/23/2017	Be-7	<4.16E-02	0.00E+00	4.16E-02
		K-40	4.98E-01	1.49E-01	2.76E-02
433720	1/23/2017 - 1/30/2017	I-131	<7.94E-03	0.00E+00	7.94E-03
		Cs-134	<7.22E-03	0.00E+00	7.22E-03
		Cs-137	<8.41E-03	0.00E+00	8.41E-03
		Be-7	<4.22E-02	0.00E+00	4.22E-02
		K-40	3.64E-01	1.47E-01	1.52E-01
434457	1/30/2017 - 2/6/2017	I-131	<6.93E-03	0.00E+00	6.93E-03
		Cs-134	<7.04E-03	0.00E+00	7.04E-03
		Cs-137	<4.57E-03	0.00E+00	4.57E-03
		Be-7	<5.99E-02	0.00E+00	5.99E-02
		K-40	3.78E-01	1.39E-01	1.10E-01
435102	2/6/2017 - 2/13/2017	I-131	<1.05E-02	0.00E+00	1.05E-02
		Cs-134	<4.69E-03	0.00E+00	4.69E-03
		Cs-137	<7.54E-03	0.00E+00	7.54E-03
		Be-7	<4.84E-02	0.00E+00	4.84E-02
		K-40	3.74E-01	1.68E-01	2.02E-01
435808	2/13/2017 - 2/20/2017	I-131	<7.39E-03	0.00E+00	7.39E-03
		Cs-134	<8.85E-03	0.00E+00	8.85E-03
		Cs-137	<1.19E-02	0.00E+00	1.19E-02
		Be-7	<4.91E-02	0.00E+00	4.91E-02
		K-40	<2.65E-01	0.00E+00	2.65E-01
436259	2/20/2017 - 2/27/2017	I-131	<9.95E-03	0.00E+00	9.95E-03
		Cs-134	<8.64E-03	0.00E+00	8.64E-03
		Cs-137	<9.10E-03	0.00E+00	9.10E-03
		Be-7	<5.89E-02	0.00E+00	5.89E-02
		K-40	2.42E-01	1.05E-01	2.98E-02
436712	2/27/2017 - 3/6/2017	I-131	<6.52E-03	0.00E+00	6.52E-03
		Cs-134	<7.53E-03	0.00E+00	7.53E-03
		Cs-137	<6.71E-03	0.00E+00	6.71E-03
		Be-7	<4.84E-02	0.00E+00	4.84E-02
		K-40	<2.53E-01	0.00E+00	2.53E-01
437577	3/6/2017 - 3/13/2017	I-131	<7.56E-03	0.00E+00	7.56E-03
		Cs-134	<6.97E-03	0.00E+00	6.97E-03
		Cs-137	<6.61E-03	0.00E+00	6.61E-03
		Be-7	<4.78E-02	0.00E+00	4.78E-02
		K-40	5.51E-02	9.59E-02	1.65E-01
438300	3/13/2017 - 3/20/2017	I-131	<9.89E-03	0.00E+00	9.89E-03
		Cs-134	<7.65E-03	0.00E+00	7.65E-03
		Cs-137	<9.50E-03	0.00E+00	9.50E-03
		Be-7	<5.26E-02	0.00E+00	5.26E-02
		K-40	1.98E-01	1.07E-01	1.08E-01
438804	3/20/2017 - 3/27/2017	I-131	<1.07E-02	0.00E+00	1.07E-02
		Cs-134	<7.43E-03	0.00E+00	7.43E-03
		Cs-137	<7.38E-03	0.00E+00	7.38E-03
		Be-7	<6.03E-02	0.00E+00	6.03E-02
		K-40	<2.38E-01	0.00E+00	2.38E-01
439171	3/27/2017 - 4/3/2017	I-131	<9.44E-03	0.00E+00	9.44E-03



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

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

Sample Point 1 [INDICATOR - N @ 2.6 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
439171	3/27/2017 - 4/3/2017	Cs-134	<7.63E-03	0.00E+00	7.63E-03
		Cs-137	<1.12E-02	0.00E+00	1.12E-02
		Be-7	<6.58E-02	0.00E+00	6.58E-02
		K-40	2.72E-01	1.13E-01	3.07E-02
440004	4/3/2017 - 4/10/2017	I-131	<6.11E-03	0.00E+00	6.11E-03
		Cs-134	<7.30E-03	0.00E+00	7.30E-03
		Cs-137	<1.05E-02	0.00E+00	1.05E-02
		Be-7	<5.87E-02	0.00E+00	5.87E-02
		K-40	<2.50E-01	0.00E+00	2.50E-01
440597	4/10/2017 - 4/17/2017	I-131	<1.06E-02	0.00E+00	1.06E-02
		Cs-134	<7.55E-03	0.00E+00	7.55E-03
		Cs-137	<1.26E-02	0.00E+00	1.26E-02
		Be-7	<5.30E-02	0.00E+00	5.30E-02
		K-40	4.69E-01	1.47E-01	2.89E-02
441412	4/17/2017 - 4/24/2017	I-131	<7.58E-03	0.00E+00	7.58E-03
		Cs-134	<8.86E-03	0.00E+00	8.86E-03
		Cs-137	<8.92E-03	0.00E+00	8.92E-03
		Be-7	<4.87E-02	0.00E+00	4.87E-02
		K-40	3.59E-01	1.41E-01	1.27E-01
441859	4/24/2017 - 4/30/2017	I-131	<9.99E-03	0.00E+00	9.99E-03
		Cs-134	<8.38E-03	0.00E+00	8.38E-03
		Cs-137	<1.10E-02	0.00E+00	1.10E-02
		Be-7	<5.90E-02	0.00E+00	5.90E-02
		K-40	4.19E-01	1.70E-01	1.76E-01
442298	4/30/2017 - 5/8/2017	I-131	<7.95E-03	0.00E+00	7.95E-03
		Cs-134	<5.35E-03	0.00E+00	5.35E-03
		Cs-137	<8.78E-03	0.00E+00	8.78E-03
		Be-7	<5.37E-02	0.00E+00	5.37E-02
		K-40	4.76E-01	1.46E-01	9.17E-02
442870	5/8/2017 - 5/15/2017	I-131	<9.94E-03	0.00E+00	9.94E-03
		Cs-134	<9.29E-03	0.00E+00	9.29E-03
		Cs-137	<1.16E-02	0.00E+00	1.16E-02
		Be-7	<4.96E-02	0.00E+00	4.96E-02
		K-40	3.65E-01	1.47E-01	1.41E-01
443299	5/15/2017 - 5/22/2017	I-131	<8.80E-03	0.00E+00	8.80E-03
		Cs-134	<9.37E-03	0.00E+00	9.37E-03
		Cs-137	<8.42E-03	0.00E+00	8.42E-03
		Be-7	<6.24E-02	0.00E+00	6.24E-02
		K-40	5.10E-01	1.62E-01	9.79E-02
443859	5/22/2017 - 5/30/2017	I-131	<6.72E-03	0.00E+00	6.72E-03
		Cs-134	<7.01E-03	0.00E+00	7.01E-03
		Cs-137	<8.25E-03	0.00E+00	8.25E-03
		Be-7	<4.69E-02	0.00E+00	4.69E-02
		K-40	4.14E-01	1.37E-01	9.73E-02
444259	5/30/2017 - 6/5/2017	I-131	<9.81E-03	0.00E+00	9.81E-03
		Cs-134	<8.28E-03	0.00E+00	8.28E-03
		Cs-137	<1.37E-02	0.00E+00	1.37E-02
		Be-7	<6.62E-02	0.00E+00	6.62E-02
		K-40	<2.82E-01	0.00E+00	2.82E-01



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

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

Sample Point 1 [INDICATOR - N @ 2.6 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
445320	6/5/2017 - 6/12/2017	I-131	<7.78E-03	0.00E+00	7.78E-03
		Cs-134	<7.59E-03	0.00E+00	7.59E-03
		Cs-137	<1.08E-02	0.00E+00	1.08E-02
		Be-7	<7.04E-02	0.00E+00	7.04E-02
		K-40	1.59E-01	9.05E-02	9.13E-02
446320	6/12/2017 - 6/19/2017	I-131	<6.64E-03	0.00E+00	6.64E-03
		Cs-134	<7.41E-03	0.00E+00	7.41E-03
		Cs-137	<1.02E-02	0.00E+00	1.02E-02
		Be-7	<4.32E-02	0.00E+00	4.32E-02
		K-40	2.03E-01	1.05E-01	1.04E-01
446826	6/19/2017 - 6/26/2017	I-131	<8.45E-03	0.00E+00	8.45E-03
		Cs-134	<5.35E-03	0.00E+00	5.35E-03
		Cs-137	<8.71E-03	0.00E+00	8.71E-03
		Be-7	<6.00E-02	0.00E+00	6.00E-02
		K-40	<2.28E-01	0.00E+00	2.28E-01
447180	6/26/2017 - 7/3/2017	I-131	<8.65E-03	0.00E+00	8.65E-03
		Cs-134	<9.16E-03	0.00E+00	9.16E-03
		Cs-137	<9.07E-03	0.00E+00	9.07E-03
		Be-7	<3.68E-02	0.00E+00	3.68E-02
		K-40	<1.81E-01	0.00E+00	1.81E-01
447802	7/3/2017 - 7/10/2017	I-131	<9.84E-03	0.00E+00	9.84E-03
		Cs-134	<7.75E-03	0.00E+00	7.75E-03
		Cs-137	<7.71E-03	0.00E+00	7.71E-03
		Be-7	<5.86E-02	0.00E+00	5.86E-02
		K-40	1.53E-01	1.03E-01	1.29E-01
448267	7/10/2017 - 7/17/2017	I-131	<1.20E-02	0.00E+00	1.20E-02
		Cs-134	<7.35E-03	0.00E+00	7.35E-03
		Cs-137	<7.49E-03	0.00E+00	7.49E-03
		Be-7	<5.45E-02	0.00E+00	5.45E-02
		K-40	2.25E-01	1.18E-01	1.21E-01
448895	7/17/2017 - 7/24/2017	I-131	<9.90E-03	0.00E+00	9.90E-03
		Cs-134	<9.02E-03	0.00E+00	9.02E-03
		Cs-137	<7.14E-03	0.00E+00	7.14E-03
		Be-7	<5.48E-02	0.00E+00	5.48E-02
		K-40	1.84E-01	1.05E-01	1.20E-01
449217	7/24/2017 - 7/31/2017	I-131	<6.33E-03	0.00E+00	6.33E-03
		Cs-134	<8.22E-03	0.00E+00	8.22E-03
		Cs-137	<7.75E-03	0.00E+00	7.75E-03
		Be-7	<4.97E-02	0.00E+00	4.97E-02
		K-40	2.75E-01	1.36E-01	1.56E-01
449947	7/31/2017 - 8/7/2017	I-131	<7.88E-03	0.00E+00	7.88E-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	<5.13E-02	0.00E+00	5.13E-02
		K-40	<2.20E-01	0.00E+00	2.20E-01
450193	8/7/2017 - 8/14/2017	I-131	<1.02E-02	0.00E+00	1.02E-02
		Cs-134	<7.31E-03	0.00E+00	7.31E-03
		Cs-137	<9.07E-03	0.00E+00	9.07E-03
		Be-7	<5.90E-02	0.00E+00	5.90E-02
		K-40	<2.12E-01	0.00E+00	2.12E-01



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

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

Sample Point 1 [INDICATOR - N @ 2.6 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
450728	8/14/2017 - 8/21/2017	I-131	<2.60E-02	0.00E+00	2.60E-02
		Cs-134	<4.52E-03	0.00E+00	4.52E-03
		Cs-137	<8.98E-03	0.00E+00	8.98E-03
		Be-7	<4.99E-02	0.00E+00	4.99E-02
		K-40	<1.72E-01	0.00E+00	1.72E-01
451185	8/21/2017 - 8/28/2017	I-131	<1.02E-02	0.00E+00	1.02E-02
		Cs-134	<6.40E-03	0.00E+00	6.40E-03
		Cs-137	<1.14E-02	0.00E+00	1.14E-02
		Be-7	<5.54E-02	0.00E+00	5.54E-02
		K-40	2.24E-01	1.06E-01	9.33E-02
451538	8/28/2017 - 9/5/2017	I-131	<7.66E-03	0.00E+00	7.66E-03
		Cs-134	<6.87E-03	0.00E+00	6.87E-03
		Cs-137	<6.46E-03	0.00E+00	6.46E-03
		Be-7	<4.94E-02	0.00E+00	4.94E-02
		K-40	<1.99E-01	0.00E+00	1.99E-01
452346	9/5/2017 - 9/11/2017	I-131	<1.16E-02	0.00E+00	1.16E-02
		Cs-134	<6.76E-03	0.00E+00	6.76E-03
		Cs-137	<8.39E-03	0.00E+00	8.39E-03
		Be-7	<6.41E-02	0.00E+00	6.41E-02
		K-40	<2.62E-01	0.00E+00	2.62E-01
452788	9/11/2017 - 9/18/2017	I-131	<1.13E-02	0.00E+00	1.13E-02
		Cs-134	<5.73E-03	0.00E+00	5.73E-03
		Cs-137	<1.10E-02	0.00E+00	1.10E-02
		Be-7	<6.82E-02	0.00E+00	6.82E-02
		K-40	1.49E-01	1.13E-01	1.57E-01
453440	9/18/2017 - 9/25/2017	I-131	<9.99E-03	0.00E+00	9.99E-03
		Cs-134	<1.28E-02	0.00E+00	1.28E-02
		Cs-137	<9.74E-03	0.00E+00	9.74E-03
		Be-7	<5.21E-02	0.00E+00	5.21E-02
		K-40	2.44E-01	1.15E-01	1.10E-01
454212	9/25/2017 - 10/2/2017	I-131	<1.59E-02	0.00E+00	1.59E-02
		Cs-134	<1.71E-02	0.00E+00	1.71E-02
		Cs-137	<1.20E-02	0.00E+00	1.20E-02
		Be-7	<1.18E-01	0.00E+00	1.18E-01
		K-40	2.45E-01	1.57E-01	2.12E-01
455061	10/2/2017 - 10/10/2017	I-131	<1.51E-02	0.00E+00	1.51E-02
		Cs-134	<9.76E-03	0.00E+00	9.76E-03
		Cs-137	<1.57E-02	0.00E+00	1.57E-02
		Be-7	<9.94E-02	0.00E+00	9.94E-02
		K-40	<3.27E-01	0.00E+00	3.27E-01
455415	10/10/2017 - 10/16/2017	I-131	<1.83E-02	0.00E+00	1.83E-02
		Cs-134	<1.89E-02	0.00E+00	1.89E-02
		Cs-137	<1.57E-02	0.00E+00	1.57E-02
		Be-7	<9.54E-02	0.00E+00	9.54E-02
		K-40	4.60E-01	1.88E-01	1.94E-01
456038	10/16/2017 - 10/23/2017	I-131	<1.30E-02	0.00E+00	1.30E-02
		Cs-134	<1.75E-02	0.00E+00	1.75E-02
		Cs-137	<1.36E-02	0.00E+00	1.36E-02
		Be-7	<1.18E-01	0.00E+00	1.18E-01
		K-40	<3.35E-01	0.00E+00	3.35E-01



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

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

Sample Point 1 [INDICATOR - N @ 2.6 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
461414	10/23/2017 - 10/30/2017	I-131	<2.10E-02	0.00E+00	2.10E-02
		Cs-134	<1.89E-02	0.00E+00	1.89E-02
		Cs-137	<1.56E-02	0.00E+00	1.56E-02
		Be-7	<1.13E-01	0.00E+00	1.13E-01
		K-40	4.73E-01	1.94E-01	2.19E-01
461960	10/30/2017 - 11/6/2017	I-131	<1.84E-02	0.00E+00	1.84E-02
		Cs-134	<1.62E-02	0.00E+00	1.62E-02
		Cs-137	<2.08E-02	0.00E+00	2.08E-02
		Be-7	<1.13E-01	0.00E+00	1.13E-01
		K-40	4.17E-01	1.88E-01	2.20E-01
462598	11/6/2017 - 11/13/2017	I-131	<2.10E-02	0.00E+00	2.10E-02
		Cs-134	<1.14E-02	0.00E+00	1.14E-02
		Cs-137	<1.63E-02	0.00E+00	1.63E-02
		Be-7	<1.20E-01	0.00E+00	1.20E-01
		K-40	4.51E-01	1.75E-01	1.68E-01
463088	11/13/2017 - 11/20/2017	I-131	<3.54E-02	0.00E+00	3.54E-02
		Cs-134	<1.62E-02	0.00E+00	1.62E-02
		Cs-137	<1.80E-02	0.00E+00	1.80E-02
		Be-7	<1.24E-01	0.00E+00	1.24E-01
		K-40	8.27E-01	2.27E-01	1.43E-01
463508	11/20/2017 - 11/27/2017	I-131	<2.78E-02	0.00E+00	2.78E-02
		Cs-134	<1.48E-02	0.00E+00	1.48E-02
		Cs-137	<1.44E-02	0.00E+00	1.44E-02
		Be-7	<1.18E-01	0.00E+00	1.18E-01
		K-40	5.62E-01	1.73E-01	3.39E-02
463778	11/27/2017 - 12/4/2017	I-131	<2.55E-02	0.00E+00	2.55E-02
		Cs-134	<1.85E-02	0.00E+00	1.85E-02
		Cs-137	<1.18E-02	0.00E+00	1.18E-02
		Be-7	<1.12E-01	0.00E+00	1.12E-01
		K-40	5.77E-01	2.14E-01	2.25E-01
464695	12/4/2017 - 12/11/2017	I-131	<2.22E-02	0.00E+00	2.22E-02
		Cs-134	<1.58E-02	0.00E+00	1.58E-02
		Cs-137	<1.86E-02	0.00E+00	1.86E-02
		Be-7	<1.11E-01	0.00E+00	1.11E-01
		K-40	6.07E-01	1.95E-01	1.48E-01
464962	12/11/2017 - 12/18/2017	I-131	<3.93E-02	0.00E+00	3.93E-02
		Cs-134	<1.01E-02	0.00E+00	1.01E-02
		Cs-137	<1.65E-02	0.00E+00	1.65E-02
		Be-7	<1.46E-01	0.00E+00	1.46E-01
		K-40	5.02E-01	1.66E-01	3.49E-02
465208	12/18/2017 - 12/26/2017	I-131	<1.98E-02	0.00E+00	1.98E-02
		Cs-134	<1.23E-02	0.00E+00	1.23E-02
		Cs-137	<1.32E-02	0.00E+00	1.32E-02
		Be-7	<1.00E-01	0.00E+00	1.00E-01
		K-40	4.88E-01	1.67E-01	1.47E-01
465606	12/26/2017 - 1/2/2018	I-131	<2.42E-02	0.00E+00	2.42E-02
		Cs-134	<1.71E-02	0.00E+00	1.71E-02
		Cs-137	<2.01E-02	0.00E+00	2.01E-02
		Be-7	<1.36E-01	0.00E+00	1.36E-01
		K-40	5.11E-01	2.05E-01	2.28E-01



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

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

Sample Point 2 [INDICATOR - NNE @ 1.4 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
431629	12/27/2016 - 1/3/2017	I-131	<9.96E-03	0.00E+00	9.96E-03
		Cs-134	<7.69E-03	0.00E+00	7.69E-03
		Cs-137	<6.86E-03	0.00E+00	6.86E-03
		Be-7	<4.45E-02	0.00E+00	4.45E-02
		K-40	5.94E-01	1.80E-01	1.30E-01
432201	1/3/2017 - 1/9/2017	I-131	<7.84E-03	0.00E+00	7.84E-03
		Cs-134	<5.33E-03	0.00E+00	5.33E-03
		Cs-137	<6.63E-03	0.00E+00	6.63E-03
		Be-7	<6.10E-02	0.00E+00	6.10E-02
		K-40	5.26E-01	1.77E-01	1.39E-01
432907	1/9/2017 - 1/16/2017	I-131	<1.13E-02	0.00E+00	1.13E-02
		Cs-134	<7.81E-03	0.00E+00	7.81E-03
		Cs-137	<1.08E-02	0.00E+00	1.08E-02
		Be-7	<6.25E-02	0.00E+00	6.25E-02
		K-40	3.96E-01	1.51E-01	1.36E-01
433303	1/16/2017 - 1/23/2017	I-131	<6.79E-03	0.00E+00	6.79E-03
		Cs-134	<5.77E-03	0.00E+00	5.77E-03
		Cs-137	<1.04E-02	0.00E+00	1.04E-02
		Be-7	<6.14E-02	0.00E+00	6.14E-02
		K-40	3.91E-01	1.40E-01	1.07E-01
433721	1/23/2017 - 1/30/2017	I-131	<8.87E-03	0.00E+00	8.87E-03
		Cs-134	<1.03E-02	0.00E+00	1.03E-02
		Cs-137	<7.67E-03	0.00E+00	7.67E-03
		Be-7	<5.43E-02	0.00E+00	5.43E-02
		K-40	4.61E-01	1.55E-01	1.09E-01
434458	1/30/2017 - 2/6/2017	I-131	<1.09E-02	0.00E+00	1.09E-02
		Cs-134	<6.90E-03	0.00E+00	6.90E-03
		Cs-137	<6.54E-03	0.00E+00	6.54E-03
		Be-7	<5.92E-02	0.00E+00	5.92E-02
		K-40	3.66E-01	1.28E-01	2.83E-02
435103	2/6/2017 - 2/13/2017	I-131	<8.77E-03	0.00E+00	8.77E-03
		Cs-134	<9.27E-03	0.00E+00	9.27E-03
		Cs-137	<8.34E-03	0.00E+00	8.34E-03
		Be-7	<4.59E-02	0.00E+00	4.59E-02
		K-40	2.10E-01	1.12E-01	1.29E-01
435809	2/13/2017 - 2/20/2017	I-131	<7.71E-03	0.00E+00	7.71E-03
		Cs-134	<7.17E-03	0.00E+00	7.17E-03
		Cs-137	<9.41E-03	0.00E+00	9.41E-03
		Be-7	<5.46E-02	0.00E+00	5.46E-02
		K-40	1.94E-01	9.05E-02	2.76E-02
436260	2/20/2017 - 2/27/2017	I-131	<6.85E-03	0.00E+00	6.85E-03
		Cs-134	<6.64E-03	0.00E+00	6.64E-03
		Cs-137	<9.01E-03	0.00E+00	9.01E-03
		Be-7	<7.04E-02	0.00E+00	7.04E-02
		K-40	<2.40E-01	0.00E+00	2.40E-01
436713	2/27/2017 - 3/6/2017	I-131	<8.31E-03	0.00E+00	8.31E-03
		Cs-134	<8.27E-03	0.00E+00	8.27E-03
		Cs-137	<1.07E-02	0.00E+00	1.07E-02
		Be-7	<5.06E-02	0.00E+00	5.06E-02
		K-40	2.15E-01	1.05E-01	1.01E-01



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

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

Sample Point 2 [INDICATOR - NNE @ 1.4 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
437578	3/6/2017 - 3/13/2017	I-131	<8.51E-03	0.00E+00	8.51E-03
		Cs-134	<6.34E-03	0.00E+00	6.34E-03
		Cs-137	<9.52E-03	0.00E+00	9.52E-03
		Be-7	<6.49E-02	0.00E+00	6.49E-02
		K-40	<1.94E-01	0.00E+00	1.94E-01
438301	3/13/2017 - 3/20/2017	I-131	<9.75E-03	0.00E+00	9.75E-03
		Cs-134	<8.63E-03	0.00E+00	8.63E-03
		Cs-137	<7.09E-03	0.00E+00	7.09E-03
		Be-7	<6.96E-02	0.00E+00	6.96E-02
		K-40	<1.84E-01	0.00E+00	1.84E-01
438805	3/20/2017 - 3/27/2017	I-131	<9.25E-03	0.00E+00	9.25E-03
		Cs-134	<6.49E-03	0.00E+00	6.49E-03
		Cs-137	<1.06E-02	0.00E+00	1.06E-02
		Be-7	<5.71E-02	0.00E+00	5.71E-02
		K-40	<2.27E-01	0.00E+00	2.27E-01
439172	3/27/2017 - 4/3/2017	I-131	<1.01E-02	0.00E+00	1.01E-02
		Cs-134	<8.46E-03	0.00E+00	8.46E-03
		Cs-137	<8.50E-03	0.00E+00	8.50E-03
		Be-7	<5.57E-02	0.00E+00	5.57E-02
		K-40	<1.73E-01	0.00E+00	1.73E-01
440005	4/3/2017 - 4/10/2017	I-131	<6.83E-03	0.00E+00	6.83E-03
		Cs-134	<4.50E-03	0.00E+00	4.50E-03
		Cs-137	<7.89E-03	0.00E+00	7.89E-03
		Be-7	<5.51E-02	0.00E+00	5.51E-02
		K-40	<2.58E-01	0.00E+00	2.58E-01
440598	4/10/2017 - 4/17/2017	I-131	<1.01E-02	0.00E+00	1.01E-02
		Cs-134	<6.66E-03	0.00E+00	6.66E-03
		Cs-137	<7.04E-03	0.00E+00	7.04E-03
		Be-7	<6.37E-02	0.00E+00	6.37E-02
		K-40	3.67E-01	1.32E-01	9.44E-02
441413	4/17/2017 - 4/24/2017	I-131	<1.16E-02	0.00E+00	1.16E-02
		Cs-134	<9.26E-03	0.00E+00	9.26E-03
		Cs-137	<1.09E-02	0.00E+00	1.09E-02
		Be-7	<4.79E-02	0.00E+00	4.79E-02
		K-40	4.42E-01	1.48E-01	3.15E-02
441860	4/24/2017 - 4/30/2017	I-131	<1.03E-02	0.00E+00	1.03E-02
		Cs-134	<8.12E-03	0.00E+00	8.12E-03
		Cs-137	<8.29E-03	0.00E+00	8.29E-03
		Be-7	<5.36E-02	0.00E+00	5.36E-02
		K-40	4.73E-01	1.92E-01	2.05E-01
442299	4/30/2017 - 5/8/2017	I-131	<9.21E-03	0.00E+00	9.21E-03
		Cs-134	<5.00E-03	0.00E+00	5.00E-03
		Cs-137	<7.56E-03	0.00E+00	7.56E-03
		Be-7	<6.22E-02	0.00E+00	6.22E-02
		K-40	4.23E-01	1.60E-01	1.73E-01
442871	5/8/2017 - 5/15/2017	I-131	<1.09E-02	0.00E+00	1.09E-02
		Cs-134	<4.99E-03	0.00E+00	4.99E-03
		Cs-137	<8.01E-03	0.00E+00	8.01E-03
		Be-7	<9.49E-02	0.00E+00	9.49E-02
		K-40	3.67E-01	1.58E-01	1.73E-01



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

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

Sample Point 2 [INDICATOR - NNE @ 1.4 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
443300	5/15/2017 - 5/22/2017	I-131	<7.80E-03	0.00E+00	7.80E-03
		Cs-134	<8.43E-03	0.00E+00	8.43E-03
		Cs-137	<5.58E-03	0.00E+00	5.58E-03
		Be-7	<4.71E-02	0.00E+00	4.71E-02
		K-40	3.63E-01	1.35E-01	1.05E-01
443860	5/22/2017 - 5/30/2017	I-131	<8.05E-03	0.00E+00	8.05E-03
		Cs-134	<5.87E-03	0.00E+00	5.87E-03
		Cs-137	<5.56E-03	0.00E+00	5.56E-03
		Be-7	<6.82E-02	0.00E+00	6.82E-02
		K-40	3.54E-01	1.17E-01	2.40E-02
444260	5/30/2017 - 6/5/2017	I-131	<1.01E-02	0.00E+00	1.01E-02
		Cs-134	<9.74E-03	0.00E+00	9.74E-03
		Cs-137	<1.49E-02	0.00E+00	1.49E-02
		Be-7	<5.85E-02	0.00E+00	5.85E-02
		K-40	3.50E-01	1.55E-01	1.48E-01
445321	6/5/2017 - 6/12/2017	I-131	<8.94E-03	0.00E+00	8.94E-03
		Cs-134	<7.16E-03	0.00E+00	7.16E-03
		Cs-137	<1.19E-02	0.00E+00	1.19E-02
		Be-7	<5.08E-02	0.00E+00	5.08E-02
		K-40	1.87E-01	9.75E-02	9.38E-02
446321	6/12/2017 - 6/19/2017	I-131	<9.61E-03	0.00E+00	9.61E-03
		Cs-134	<6.35E-03	0.00E+00	6.35E-03
		Cs-137	<1.00E-02	0.00E+00	1.00E-02
		Be-7	2.50E-02	4.18E-02	7.12E-02
		K-40	1.75E-01	8.66E-02	2.80E-02
446827	6/19/2017 - 6/26/2017	I-131	<9.39E-03	0.00E+00	9.39E-03
		Cs-134	<7.55E-03	0.00E+00	7.55E-03
		Cs-137	<1.03E-02	0.00E+00	1.03E-02
		Be-7	<5.46E-02	0.00E+00	5.46E-02
		K-40	<1.91E-01	0.00E+00	1.91E-01
447181	6/26/2017 - 7/3/2017	I-131	<9.85E-03	0.00E+00	9.85E-03
		Cs-134	<8.41E-03	0.00E+00	8.41E-03
		Cs-137	<1.10E-02	0.00E+00	1.10E-02
		Be-7	<4.61E-02	0.00E+00	4.61E-02
		K-40	<2.36E-01	0.00E+00	2.36E-01
447803	7/3/2017 - 7/10/2017	I-131	<7.97E-03	0.00E+00	7.97E-03
		Cs-134	<7.30E-03	0.00E+00	7.30E-03
		Cs-137	<1.14E-02	0.00E+00	1.14E-02
		Be-7	<6.51E-02	0.00E+00	6.51E-02
		K-40	1.95E-01	9.83E-02	8.67E-02
448268	7/10/2017 - 7/17/2017	I-131	<7.35E-03	0.00E+00	7.35E-03
		Cs-134	<1.02E-02	0.00E+00	1.02E-02
		Cs-137	<5.70E-03	0.00E+00	5.70E-03
		Be-7	<4.81E-02	0.00E+00	4.81E-02
		K-40	1.97E-01	1.12E-01	1.32E-01
448896	7/17/2017 - 7/24/2017	I-131	<8.76E-03	0.00E+00	8.76E-03
		Cs-134	<8.15E-03	0.00E+00	8.15E-03
		Cs-137	<9.21E-03	0.00E+00	9.21E-03
		Be-7	<4.99E-02	0.00E+00	4.99E-02
		K-40	1.26E-01	8.01E-02	8.55E-02



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

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

Sample Point 2 [INDICATOR - NNE @ 1.4 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
449218	7/24/2017 - 7/31/2017	I-131	<7.92E-03	0.00E+00	7.92E-03
		Cs-134	<6.87E-03	0.00E+00	6.87E-03
		Cs-137	<1.10E-02	0.00E+00	1.10E-02
		Be-7	<6.20E-02	0.00E+00	6.20E-02
		K-40	1.29E-01	9.59E-02	1.28E-01
449948	7/31/2017 - 8/7/2017	I-131	<1.03E-02	0.00E+00	1.03E-02
		Cs-134	<8.86E-03	0.00E+00	8.86E-03
		Cs-137	<8.77E-03	0.00E+00	8.77E-03
		Be-7	<4.13E-02	0.00E+00	4.13E-02
		K-40	<2.19E-01	0.00E+00	2.19E-01
450194	8/7/2017 - 8/14/2017	I-131	<9.08E-03	0.00E+00	9.08E-03
		Cs-134	<4.56E-03	0.00E+00	4.56E-03
		Cs-137	<7.33E-03	0.00E+00	7.33E-03
		Be-7	<5.97E-02	0.00E+00	5.97E-02
		K-40	2.52E-01	1.17E-01	1.12E-01
450729	8/14/2017 - 8/21/2017	I-131	<7.79E-03	0.00E+00	7.79E-03
		Cs-134	<8.20E-03	0.00E+00	8.20E-03
		Cs-137	<1.06E-02	0.00E+00	1.06E-02
		Be-7	<4.56E-02	0.00E+00	4.56E-02
		K-40	2.16E-01	1.11E-01	1.22E-01
451186	8/21/2017 - 8/28/2017	I-131	<7.87E-03	0.00E+00	7.87E-03
		Cs-134	<3.61E-03	0.00E+00	3.61E-03
		Cs-137	<9.15E-03	0.00E+00	9.15E-03
		Be-7	<6.23E-02	0.00E+00	6.23E-02
		K-40	1.69E-01	1.03E-01	1.23E-01
451539	8/28/2017 - 9/5/2017	I-131	<7.03E-03	0.00E+00	7.03E-03
		Cs-134	<5.01E-03	0.00E+00	5.01E-03
		Cs-137	<5.57E-03	0.00E+00	5.57E-03
		Be-7	<5.92E-02	0.00E+00	5.92E-02
		K-40	1.49E-01	9.15E-02	1.13E-01
452347	9/5/2017 - 9/11/2017	I-131	<8.00E-03	0.00E+00	8.00E-03
		Cs-134	<7.97E-03	0.00E+00	7.97E-03
		Cs-137	<1.27E-02	0.00E+00	1.27E-02
		Be-7	<6.83E-02	0.00E+00	6.83E-02
		K-40	3.37E-01	1.45E-01	1.33E-01
452789	9/11/2017 - 9/18/2017	I-131	<9.05E-03	0.00E+00	9.05E-03
		Cs-134	<6.40E-03	0.00E+00	6.40E-03
		Cs-137	<1.14E-02	0.00E+00	1.14E-02
		Be-7	<4.27E-02	0.00E+00	4.27E-02
		K-40	<2.16E-01	0.00E+00	2.16E-01
453441	9/18/2017 - 9/25/2017	I-131	<1.07E-02	0.00E+00	1.07E-02
		Cs-134	<8.28E-03	0.00E+00	8.28E-03
		Cs-137	<1.02E-02	0.00E+00	1.02E-02
		Be-7	<5.40E-02	0.00E+00	5.40E-02
		K-40	<2.64E-01	0.00E+00	2.64E-01
454213	9/25/2017 - 10/2/2017	I-131	<1.75E-02	0.00E+00	1.75E-02
		Cs-134	<1.85E-02	0.00E+00	1.85E-02
		Cs-137	<1.65E-02	0.00E+00	1.65E-02
		Be-7	<1.04E-01	0.00E+00	1.04E-01
		K-40	4.20E-01	1.62E-01	1.36E-01



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

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

Sample Point 2 [INDICATOR - NNE @ 1.4 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
455062	10/2/2017 - 10/10/2017	I-131	<1.90E-02	0.00E+00	1.90E-02
		Cs-134	<1.28E-02	0.00E+00	1.28E-02
		Cs-137	<1.36E-02	0.00E+00	1.36E-02
		Be-7	<9.21E-02	0.00E+00	9.21E-02
		K-40	1.53E-01	1.41E-01	2.16E-01
455416	10/10/2017 - 10/16/2017	I-131	<1.65E-02	0.00E+00	1.65E-02
		Cs-134	<1.39E-02	0.00E+00	1.39E-02
		Cs-137	<1.59E-02	0.00E+00	1.59E-02
		Be-7	<1.18E-01	0.00E+00	1.18E-01
		K-40	4.27E-01	1.57E-01	3.73E-02
456039	10/16/2017 - 10/23/2017	I-131	<1.58E-02	0.00E+00	1.58E-02
		Cs-134	<1.45E-02	0.00E+00	1.45E-02
		Cs-137	<1.89E-02	0.00E+00	1.89E-02
		Be-7	<1.03E-01	0.00E+00	1.03E-01
		K-40	3.21E-01	1.46E-01	1.37E-01
461415	10/23/2017 - 10/30/2017	I-131	<2.03E-02	0.00E+00	2.03E-02
		Cs-134	<1.63E-02	0.00E+00	1.63E-02
		Cs-137	<1.61E-02	0.00E+00	1.61E-02
		Be-7	<1.25E-01	0.00E+00	1.25E-01
		K-40	<3.80E-01	0.00E+00	3.80E-01
461961	10/30/2017 - 11/6/2017	I-131	<2.55E-02	0.00E+00	2.55E-02
		Cs-134	<1.84E-02	0.00E+00	1.84E-02
		Cs-137	<2.08E-02	0.00E+00	2.08E-02
		Be-7	<1.29E-01	0.00E+00	1.29E-01
		K-40	4.32E-01	1.96E-01	2.35E-01
462599	11/6/2017 - 11/13/2017	I-131	<2.39E-02	0.00E+00	2.39E-02
		Cs-134	<2.08E-02	0.00E+00	2.08E-02
		Cs-137	<1.63E-02	0.00E+00	1.63E-02
		Be-7	<1.39E-01	0.00E+00	1.39E-01
		K-40	4.82E-01	1.94E-01	2.13E-01
463089	11/13/2017 - 11/20/2017	I-131	<3.33E-02	0.00E+00	3.33E-02
		Cs-134	<1.54E-02	0.00E+00	1.54E-02
		Cs-137	<1.55E-02	0.00E+00	1.55E-02
		Be-7	<1.17E-01	0.00E+00	1.17E-01
		K-40	5.26E-01	1.87E-01	1.62E-01
463509	11/20/2017 - 11/27/2017	I-131	<2.21E-02	0.00E+00	2.21E-02
		Cs-134	<1.87E-02	0.00E+00	1.87E-02
		Cs-137	<1.60E-02	0.00E+00	1.60E-02
		Be-7	<1.02E-01	0.00E+00	1.02E-01
		K-40	<3.52E-01	0.00E+00	3.52E-01
463779	11/27/2017 - 12/4/2017	I-131	<2.02E-02	0.00E+00	2.02E-02
		Cs-134	<2.10E-02	0.00E+00	2.10E-02
		Cs-137	<1.52E-02	0.00E+00	1.52E-02
		Be-7	<9.72E-02	0.00E+00	9.72E-02
		K-40	5.83E-01	2.11E-01	2.12E-01
464696	12/4/2017 - 12/11/2017	I-131	<2.30E-02	0.00E+00	2.30E-02
		Cs-134	<2.08E-02	0.00E+00	2.08E-02
		Cs-137	<1.90E-02	0.00E+00	1.90E-02
		Be-7	<1.08E-01	0.00E+00	1.08E-01
		K-40	6.27E-01	2.11E-01	2.00E-01



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

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

Sample Point 2 [INDICATOR - NNE @ 1.4 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
464963	12/11/2017 - 12/18/2017	I-131	<4.02E-02	0.00E+00	4.02E-02
		Cs-134	<1.69E-02	0.00E+00	1.69E-02
		Cs-137	<1.93E-02	0.00E+00	1.93E-02
		Be-7	<1.43E-01	0.00E+00	1.43E-01
		K-40	6.49E-01	2.16E-01	2.03E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
465209	12/18/2017 - 12/26/2017	I-131	<1.94E-02	0.00E+00	1.94E-02
		Cs-134	<1.84E-02	0.00E+00	1.84E-02
		Cs-137	<1.57E-02	0.00E+00	1.57E-02
		Be-7	<1.06E-01	0.00E+00	1.06E-01
		K-40	4.60E-01	1.74E-01	1.85E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
465607	12/26/2017 - 1/2/2018	I-131	<2.54E-02	0.00E+00	2.54E-02
		Cs-134	<1.18E-02	0.00E+00	1.18E-02
		Cs-137	<1.88E-02	0.00E+00	1.88E-02
		Be-7	<1.15E-01	0.00E+00	1.15E-01
		K-40	4.54E-01	2.02E-01	2.41E-01

Sample Point 4 [INDICATOR - NNE @ 3.1 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
431631	12/27/2016 - 1/3/2017	I-131	<1.11E-02	0.00E+00	1.11E-02
		Cs-134	<7.78E-03	0.00E+00	7.78E-03
		Cs-137	<7.31E-03	0.00E+00	7.31E-03
		Be-7	<3.70E-02	0.00E+00	3.70E-02
		K-40	2.75E-01	1.19E-01	1.04E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
432203	1/3/2017 - 1/9/2017	I-131	<9.79E-03	0.00E+00	9.79E-03
		Cs-134	<7.58E-03	0.00E+00	7.58E-03
		Cs-137	<7.19E-03	0.00E+00	7.19E-03
		Be-7	<5.75E-02	0.00E+00	5.75E-02
		K-40	3.50E-01	1.38E-01	1.03E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
432909	1/9/2017 - 1/16/2017	I-131	<9.46E-03	0.00E+00	9.46E-03
		Cs-134	<6.13E-03	0.00E+00	6.13E-03
		Cs-137	<4.67E-03	0.00E+00	4.67E-03
		Be-7	<4.94E-02	0.00E+00	4.94E-02
		K-40	3.60E-01	1.29E-01	2.96E-02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
433305	1/16/2017 - 1/23/2017	I-131	<8.52E-03	0.00E+00	8.52E-03
		Cs-134	<7.19E-03	0.00E+00	7.19E-03
		Cs-137	<5.52E-03	0.00E+00	5.52E-03
		Be-7	<2.84E-02	0.00E+00	2.84E-02
		K-40	3.87E-01	1.30E-01	2.76E-02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
433723	1/23/2017 - 1/30/2017	I-131	<1.07E-02	0.00E+00	1.07E-02
		Cs-134	<6.94E-03	0.00E+00	6.94E-03
		Cs-137	<9.16E-03	0.00E+00	9.16E-03
		Be-7	<4.80E-02	0.00E+00	4.80E-02
		K-40	3.84E-01	1.45E-01	1.30E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
434460	1/30/2017 - 2/6/2017	I-131	<8.65E-03	0.00E+00	8.65E-03
		Cs-134	<6.00E-03	0.00E+00	6.00E-03
		Cs-137	<8.14E-03	0.00E+00	8.14E-03
		Be-7	<5.99E-02	0.00E+00	5.99E-02
		K-40	3.58E-01	1.34E-01	1.05E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
435105	2/6/2017 - 2/13/2017	I-131	<8.26E-03	0.00E+00	8.26E-03
		Cs-134	<6.64E-03	0.00E+00	6.64E-03
		Cs-137	<4.30E-03	0.00E+00	4.30E-03



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

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

Sample Point 4 [INDICATOR - NNE @ 3.1 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
435105	2/6/2017 - 2/13/2017	Be-7	<5.35E-02	0.00E+00	5.35E-02
		K-40	3.09E-01	1.26E-01	1.13E-01
435811	2/13/2017 - 2/20/2017	I-131	<7.70E-03	0.00E+00	7.70E-03
		Cs-134	<4.93E-03	0.00E+00	4.93E-03
		Cs-137	<9.90E-03	0.00E+00	9.90E-03
		Be-7	<6.04E-02	0.00E+00	6.04E-02
		K-40	2.22E-01	1.01E-01	3.01E-02
436262	2/20/2017 - 2/27/2017	I-131	<9.90E-03	0.00E+00	9.90E-03
		Cs-134	<7.79E-03	0.00E+00	7.79E-03
		Cs-137	<1.26E-02	0.00E+00	1.26E-02
		Be-7	<6.57E-02	0.00E+00	6.57E-02
		K-40	<2.41E-01	0.00E+00	2.41E-01
436715	2/27/2017 - 3/6/2017	I-131	<9.16E-03	0.00E+00	9.16E-03
		Cs-134	<4.98E-03	0.00E+00	4.98E-03
		Cs-137	<8.00E-03	0.00E+00	8.00E-03
		Be-7	<6.49E-02	0.00E+00	6.49E-02
		K-40	2.36E-01	1.22E-01	1.34E-01
437580	3/6/2017 - 3/13/2017	I-131	<7.41E-03	0.00E+00	7.41E-03
		Cs-134	<7.61E-03	0.00E+00	7.61E-03
		Cs-137	<1.06E-02	0.00E+00	1.06E-02
		Be-7	<6.84E-02	0.00E+00	6.84E-02
		K-40	2.03E-01	9.74E-02	3.06E-02
438303	3/13/2017 - 3/20/2017	I-131	<6.73E-03	0.00E+00	6.73E-03
		Cs-134	<8.60E-03	0.00E+00	8.60E-03
		Cs-137	<1.22E-02	0.00E+00	1.22E-02
		Be-7	<5.70E-02	0.00E+00	5.70E-02
		K-40	<1.98E-01	0.00E+00	1.98E-01
438807	3/20/2017 - 3/27/2017	I-131	<8.48E-03	0.00E+00	8.48E-03
		Cs-134	<5.84E-03	0.00E+00	5.84E-03
		Cs-137	<9.57E-03	0.00E+00	9.57E-03
		Be-7	<4.73E-02	0.00E+00	4.73E-02
		K-40	<1.95E-01	0.00E+00	1.95E-01
439174	3/27/2017 - 4/3/2017	I-131	<7.94E-03	0.00E+00	7.94E-03
		Cs-134	<5.95E-03	0.00E+00	5.95E-03
		Cs-137	<1.07E-02	0.00E+00	1.07E-02
		Be-7	<6.95E-02	0.00E+00	6.95E-02
		K-40	1.35E-01	7.57E-02	2.81E-02
440007	4/3/2017 - 4/10/2017	I-131	<6.04E-03	0.00E+00	6.04E-03
		Cs-134	<9.34E-03	0.00E+00	9.34E-03
		Cs-137	<9.44E-03	0.00E+00	9.44E-03
		Be-7	<5.45E-02	0.00E+00	5.45E-02
		K-40	2.24E-01	9.77E-02	2.76E-02
440600	4/10/2017 - 4/17/2017	I-131	<1.02E-02	0.00E+00	1.02E-02
		Cs-134	<6.70E-03	0.00E+00	6.70E-03
		Cs-137	<1.03E-02	0.00E+00	1.03E-02
		Be-7	<5.06E-02	0.00E+00	5.06E-02
		K-40	3.40E-01	1.42E-01	1.51E-01
441415	4/17/2017 - 4/24/2017	Nuclide	Activity	2 Sigma Error	MDA
		I-131	<6.84E-03	0.00E+00	6.84E-03



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

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

Sample Point 4 [INDICATOR - NNE @ 3.1 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
441415	4/17/2017 - 4/24/2017	Cs-134	<7.35E-03	0.00E+00	7.35E-03
		Cs-137	<7.30E-03	0.00E+00	7.30E-03
		Be-7	<7.40E-02	0.00E+00	7.40E-02
		K-40	5.04E-01	1.73E-01	1.64E-01
441862	4/24/2017 - 4/30/2017	I-131	<1.10E-02	0.00E+00	1.10E-02
		Cs-134	<8.91E-03	0.00E+00	8.91E-03
		Cs-137	<6.86E-03	0.00E+00	6.86E-03
		Be-7	<6.24E-02	0.00E+00	6.24E-02
		K-40	5.21E-01	1.96E-01	1.99E-01
442301	4/30/2017 - 5/8/2017	I-131	<6.58E-03	0.00E+00	6.58E-03
		Cs-134	<7.24E-03	0.00E+00	7.24E-03
		Cs-137	<6.77E-03	0.00E+00	6.77E-03
		Be-7	<3.61E-02	0.00E+00	3.61E-02
		K-40	3.69E-01	1.24E-01	7.91E-02
442873	5/8/2017 - 5/15/2017	I-131	<5.67E-03	0.00E+00	5.67E-03
		Cs-134	<8.23E-03	0.00E+00	8.23E-03
		Cs-137	<7.36E-03	0.00E+00	7.36E-03
		Be-7	<2.95E-02	0.00E+00	2.95E-02
		K-40	4.43E-01	1.42E-01	2.86E-02
443302	5/15/2017 - 5/22/2017	I-131	<1.21E-02	0.00E+00	1.21E-02
		Cs-134	<7.46E-03	0.00E+00	7.46E-03
		Cs-137	<8.08E-03	0.00E+00	8.08E-03
		Be-7	<6.07E-02	0.00E+00	6.07E-02
		K-40	4.45E-01	1.75E-01	1.96E-01
443862	5/22/2017 - 5/30/2017	I-131	<8.55E-03	0.00E+00	8.55E-03
		Cs-134	<5.36E-03	0.00E+00	5.36E-03
		Cs-137	<7.61E-03	0.00E+00	7.61E-03
		Be-7	<5.32E-02	0.00E+00	5.32E-02
		K-40	<2.63E-01	0.00E+00	2.63E-01
444262	5/30/2017 - 6/5/2017	I-131	<1.20E-02	0.00E+00	1.20E-02
		Cs-134	<4.18E-03	0.00E+00	4.18E-03
		Cs-137	<1.23E-02	0.00E+00	1.23E-02
		Be-7	<7.20E-02	0.00E+00	7.20E-02
		K-40	2.43E-01	1.11E-01	3.29E-02
445323	6/5/2017 - 6/12/2017	I-131	<7.78E-03	0.00E+00	7.78E-03
		Cs-134	<5.72E-03	0.00E+00	5.72E-03
		Cs-137	<1.07E-02	0.00E+00	1.07E-02
		Be-7	<5.08E-02	0.00E+00	5.08E-02
		K-40	<2.28E-01	0.00E+00	2.28E-01
446323	6/12/2017 - 6/19/2017	I-131	<7.95E-03	0.00E+00	7.95E-03
		Cs-134	<4.48E-03	0.00E+00	4.48E-03
		Cs-137	<8.44E-03	0.00E+00	8.44E-03
		Be-7	<6.23E-02	0.00E+00	6.23E-02
		K-40	2.36E-01	1.01E-01	2.78E-02
446829	6/19/2017 - 6/26/2017	I-131	<9.38E-03	0.00E+00	9.38E-03
		Cs-134	<6.27E-03	0.00E+00	6.27E-03
		Cs-137	<1.16E-02	0.00E+00	1.16E-02
		Be-7	<5.82E-02	0.00E+00	5.82E-02
		K-40	2.65E-01	1.07E-01	2.76E-02



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

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

Sample Point 4 [INDICATOR - NNE @ 3.1 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
447183	6/26/2017 - 7/3/2017	I-131	<9.49E-03	0.00E+00	9.49E-03
		Cs-134	<5.03E-03	0.00E+00	5.03E-03
		Cs-137	<1.01E-02	0.00E+00	1.01E-02
		Be-7	<7.32E-02	0.00E+00	7.32E-02
		K-40	<2.55E-01	0.00E+00	2.55E-01
447805	7/3/2017 - 7/10/2017	I-131	<8.37E-03	0.00E+00	8.37E-03
		Cs-134	<7.18E-03	0.00E+00	7.18E-03
		Cs-137	<9.90E-03	0.00E+00	9.90E-03
		Be-7	<3.58E-02	0.00E+00	3.58E-02
		K-40	9.84E-02	9.05E-02	1.33E-01
448270	7/10/2017 - 7/17/2017	I-131	<8.69E-03	0.00E+00	8.69E-03
		Cs-134	<8.66E-03	0.00E+00	8.66E-03
		Cs-137	<1.03E-02	0.00E+00	1.03E-02
		Be-7	<6.07E-02	0.00E+00	6.07E-02
		K-40	1.33E-01	8.55E-02	9.33E-02
448898	7/17/2017 - 7/24/2017	I-131	<1.24E-02	0.00E+00	1.24E-02
		Cs-134	<5.63E-03	0.00E+00	5.63E-03
		Cs-137	<9.75E-03	0.00E+00	9.75E-03
		Be-7	<5.95E-02	0.00E+00	5.95E-02
		K-40	1.89E-01	1.04E-01	1.08E-01
449220	7/24/2017 - 7/31/2017	I-131	<9.12E-03	0.00E+00	9.12E-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	<6.31E-02	0.00E+00	6.31E-02
		K-40	1.88E-01	1.05E-01	1.17E-01
449950	7/31/2017 - 8/7/2017	I-131	<1.06E-02	0.00E+00	1.06E-02
		Cs-134	<8.61E-03	0.00E+00	8.61E-03
		Cs-137	<9.05E-03	0.00E+00	9.05E-03
		Be-7	<6.63E-02	0.00E+00	6.63E-02
		K-40	<2.31E-01	0.00E+00	2.31E-01
450196	8/7/2017 - 8/14/2017	I-131	<8.54E-03	0.00E+00	8.54E-03
		Cs-134	<6.90E-03	0.00E+00	6.90E-03
		Cs-137	<1.01E-02	0.00E+00	1.01E-02
		Be-7	<6.30E-02	0.00E+00	6.30E-02
		K-40	1.63E-01	1.04E-01	1.30E-01
450731	8/14/2017 - 8/21/2017	I-131	<1.09E-02	0.00E+00	1.09E-02
		Cs-134	<6.30E-03	0.00E+00	6.30E-03
		Cs-137	<7.83E-03	0.00E+00	7.83E-03
		Be-7	<3.09E-02	0.00E+00	3.09E-02
		K-40	<2.53E-01	0.00E+00	2.53E-01
451188	8/21/2017 - 8/28/2017	I-131	<7.88E-03	0.00E+00	7.88E-03
		Cs-134	<7.33E-03	0.00E+00	7.33E-03
		Cs-137	<1.01E-02	0.00E+00	1.01E-02
		Be-7	<3.64E-02	0.00E+00	3.64E-02
		K-40	<2.50E-01	0.00E+00	2.50E-01
451541	8/28/2017 - 9/5/2017	I-131	<7.03E-03	0.00E+00	7.03E-03
		Cs-134	<4.47E-03	0.00E+00	4.47E-03
		Cs-137	<5.54E-03	0.00E+00	5.54E-03
		Be-7	<4.78E-02	0.00E+00	4.78E-02
		K-40	<2.08E-01	0.00E+00	2.08E-01



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

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

Sample Point 4 [INDICATOR - NNE @ 3.1 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
452349	9/5/2017 - 9/11/2017	I-131	<8.04E-03	0.00E+00	8.04E-03
		Cs-134	<9.83E-03	0.00E+00	9.83E-03
		Cs-137	<9.88E-03	0.00E+00	9.88E-03
		Be-7	<6.43E-02	0.00E+00	6.43E-02
		K-40	1.80E-01	9.44E-02	3.25E-02
452791	9/11/2017 - 9/18/2017	I-131	<7.20E-03	0.00E+00	7.20E-03
		Cs-134	<5.35E-03	0.00E+00	5.35E-03
		Cs-137	<9.27E-03	0.00E+00	9.27E-03
		Be-7	<6.34E-02	0.00E+00	6.34E-02
		K-40	<2.28E-01	0.00E+00	2.28E-01
453443	9/18/2017 - 9/25/2017	I-131	<1.11E-02	0.00E+00	1.11E-02
		Cs-134	<8.61E-03	0.00E+00	8.61E-03
		Cs-137	<1.17E-02	0.00E+00	1.17E-02
		Be-7	<5.18E-02	0.00E+00	5.18E-02
		K-40	2.43E-01	1.16E-01	1.04E-01
454215	9/25/2017 - 10/2/2017	I-131	<2.00E-02	0.00E+00	2.00E-02
		Cs-134	<1.59E-02	0.00E+00	1.59E-02
		Cs-137	<1.66E-02	0.00E+00	1.66E-02
		Be-7	<9.66E-02	0.00E+00	9.66E-02
		K-40	5.76E-01	1.99E-01	1.89E-01
455064	10/2/2017 - 10/10/2017	I-131	<1.29E-02	0.00E+00	1.29E-02
		Cs-134	<1.07E-02	0.00E+00	1.07E-02
		Cs-137	<1.18E-02	0.00E+00	1.18E-02
		Be-7	<8.38E-02	0.00E+00	8.38E-02
		K-40	1.60E-01	1.48E-01	2.30E-01
455418	10/10/2017 - 10/16/2017	I-131	<1.55E-02	0.00E+00	1.55E-02
		Cs-134	<1.22E-02	0.00E+00	1.22E-02
		Cs-137	<1.87E-02	0.00E+00	1.87E-02
		Be-7	<1.10E-01	0.00E+00	1.10E-01
		K-40	2.69E-01	1.50E-01	1.82E-01
456041	10/16/2017 - 10/23/2017	I-131	<1.75E-02	0.00E+00	1.75E-02
		Cs-134	<1.27E-02	0.00E+00	1.27E-02
		Cs-137	<1.52E-02	0.00E+00	1.52E-02
		Be-7	<1.06E-01	0.00E+00	1.06E-01
		K-40	<3.30E-01	0.00E+00	3.30E-01
461417	10/23/2017 - 10/30/2017	I-131	<2.26E-02	0.00E+00	2.26E-02
		Cs-134	<2.04E-02	0.00E+00	2.04E-02
		Cs-137	<1.49E-02	0.00E+00	1.49E-02
		Be-7	<1.18E-01	0.00E+00	1.18E-01
		K-40	5.69E-01	1.88E-01	1.51E-01
461963	10/30/2017 - 11/6/2017	I-131	<1.97E-02	0.00E+00	1.97E-02
		Cs-134	<1.96E-02	0.00E+00	1.96E-02
		Cs-137	<1.57E-02	0.00E+00	1.57E-02
		Be-7	<1.26E-01	0.00E+00	1.26E-01
		K-40	4.36E-01	2.14E-01	2.79E-01
462601	11/6/2017 - 11/13/2017	I-131	<1.97E-02	0.00E+00	1.97E-02
		Cs-134	<1.51E-02	0.00E+00	1.51E-02
		Cs-137	<1.94E-02	0.00E+00	1.94E-02
		Be-7	<1.37E-01	0.00E+00	1.37E-01
		K-40	6.69E-01	2.05E-01	1.54E-01



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

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

Sample Point 4 [INDICATOR - NNE @ 3.1 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
463091	11/13/2017 - 11/20/2017	I-131	<3.22E-02	0.00E+00	3.22E-02
		Cs-134	<1.76E-02	0.00E+00	1.76E-02
		Cs-137	<1.18E-02	0.00E+00	1.18E-02
		Be-7	<1.24E-01	0.00E+00	1.24E-01
		K-40	5.50E-01	2.01E-01	1.99E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
463511	11/20/2017 - 11/27/2017	I-131	<2.02E-02	0.00E+00	2.02E-02
		Cs-134	<1.75E-02	0.00E+00	1.75E-02
		Cs-137	<1.70E-02	0.00E+00	1.70E-02
		Be-7	<1.09E-01	0.00E+00	1.09E-01
		K-40	3.31E-01	1.80E-01	2.37E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
463781	11/27/2017 - 12/4/2017	I-131	<2.03E-02	0.00E+00	2.03E-02
		Cs-134	<1.29E-02	0.00E+00	1.29E-02
		Cs-137	<1.74E-02	0.00E+00	1.74E-02
		Be-7	<1.28E-01	0.00E+00	1.28E-01
		K-40	2.95E-01	1.66E-01	2.11E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
464698	12/4/2017 - 12/11/2017	I-131	<2.59E-02	0.00E+00	2.59E-02
		Cs-134	<1.72E-02	0.00E+00	1.72E-02
		Cs-137	<1.94E-02	0.00E+00	1.94E-02
		Be-7	<1.11E-01	0.00E+00	1.11E-01
		K-40	6.53E-01	1.96E-01	1.20E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
464965	12/11/2017 - 12/18/2017	I-131	<4.38E-02	0.00E+00	4.38E-02
		Cs-134	<2.01E-02	0.00E+00	2.01E-02
		Cs-137	<1.75E-02	0.00E+00	1.75E-02
		Be-7	<1.04E-01	0.00E+00	1.04E-01
		K-40	5.52E-01	2.12E-01	2.34E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
465211	12/18/2017 - 12/26/2017	I-131	<2.00E-02	0.00E+00	2.00E-02
		Cs-134	<1.24E-02	0.00E+00	1.24E-02
		Cs-137	<1.76E-02	0.00E+00	1.76E-02
		Be-7	<1.11E-01	0.00E+00	1.11E-01
		K-40	5.18E-01	1.57E-01	2.99E-02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
465609	12/26/2017 - 1/2/2018	I-131	<2.48E-02	0.00E+00	2.48E-02
		Cs-134	<1.97E-02	0.00E+00	1.97E-02
		Cs-137	<1.57E-02	0.00E+00	1.57E-02
		Be-7	<1.11E-01	0.00E+00	1.11E-01
		K-40	4.07E-01	1.67E-01	1.58E-01

Sample Point 5 [CONTROL - WNW @ 12 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
431633	12/27/2016 - 1/3/2017	I-131	<1.06E-02	0.00E+00	1.06E-02
		Cs-134	<7.05E-03	0.00E+00	7.05E-03
		Cs-137	<6.69E-03	0.00E+00	6.69E-03
		Be-7	<4.83E-02	0.00E+00	4.83E-02
		K-40	4.92E-01	1.49E-01	2.84E-02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
432205	1/3/2017 - 1/9/2017	I-131	<1.13E-02	0.00E+00	1.13E-02
		Cs-134	<9.16E-03	0.00E+00	9.16E-03
		Cs-137	<9.62E-03	0.00E+00	9.62E-03
		Be-7	<4.84E-02	0.00E+00	4.84E-02
		K-40	4.45E-01	1.60E-01	1.24E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
432911	1/9/2017 - 1/16/2017	I-131	<8.68E-03	0.00E+00	8.68E-03
		Cs-134	<6.65E-03	0.00E+00	6.65E-03
		Cs-137	<6.79E-03	0.00E+00	6.79E-03



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

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

Sample Point 5 [CONTROL - WNW @ 12 miles]

Sample ID	Sample Dates	Nuclide	Activity	2 Sigma Error	MDA
432911	1/9/2017 - 1/16/2017	Be-7	<4.86E-02	0.00E+00	4.86E-02
		K-40	4.04E-01	1.35E-01	2.88E-02
433307	1/16/2017 - 1/23/2017	I-131	<1.03E-02	0.00E+00	1.03E-02
		Cs-134	<7.56E-03	0.00E+00	7.56E-03
		Cs-137	<6.18E-03	0.00E+00	6.18E-03
		Be-7	<3.98E-02	0.00E+00	3.98E-02
		K-40	6.17E-01	1.75E-01	3.04E-02
433725	1/23/2017 - 1/30/2017	I-131	<5.62E-03	0.00E+00	5.62E-03
		Cs-134	<7.50E-03	0.00E+00	7.50E-03
		Cs-137	<8.76E-03	0.00E+00	8.76E-03
		Be-7	<4.33E-02	0.00E+00	4.33E-02
		K-40	3.10E-01	1.23E-01	9.10E-02
434462	1/30/2017 - 2/6/2017	I-131	<8.45E-03	0.00E+00	8.45E-03
		Cs-134	<5.18E-03	0.00E+00	5.18E-03
		Cs-137	<6.44E-03	0.00E+00	6.44E-03
		Be-7	<5.81E-02	0.00E+00	5.81E-02
		K-40	5.11E-01	1.77E-01	1.75E-01
435107	2/6/2017 - 2/13/2017	I-131	<8.46E-03	0.00E+00	8.46E-03
		Cs-134	<6.36E-03	0.00E+00	6.36E-03
		Cs-137	<7.90E-03	0.00E+00	7.90E-03
		Be-7	<6.35E-02	0.00E+00	6.35E-02
		K-40	4.28E-01	1.65E-01	1.65E-01
435813	2/13/2017 - 2/20/2017	I-131	<6.99E-03	0.00E+00	6.99E-03
		Cs-134	<5.81E-03	0.00E+00	5.81E-03
		Cs-137	<1.01E-02	0.00E+00	1.01E-02
		Be-7	<5.23E-02	0.00E+00	5.23E-02
		K-40	<2.48E-01	0.00E+00	2.48E-01
436264	2/20/2017 - 2/27/2017	I-131	<8.17E-03	0.00E+00	8.17E-03
		Cs-134	<7.50E-03	0.00E+00	7.50E-03
		Cs-137	<9.85E-03	0.00E+00	9.85E-03
		Be-7	<5.27E-02	0.00E+00	5.27E-02
		K-40	<1.70E-01	0.00E+00	1.70E-01
436717	2/27/2017 - 3/6/2017	I-131	<5.98E-03	0.00E+00	5.98E-03
		Cs-134	<8.89E-03	0.00E+00	8.89E-03
		Cs-137	<8.68E-03	0.00E+00	8.68E-03
		Be-7	<4.64E-02	0.00E+00	4.64E-02
		K-40	<2.63E-01	0.00E+00	2.63E-01
437582	3/6/2017 - 3/13/2017	I-131	<1.01E-02	0.00E+00	1.01E-02
		Cs-134	<7.91E-03	0.00E+00	7.91E-03
		Cs-137	<7.50E-03	0.00E+00	7.50E-03
		Be-7	<6.33E-02	0.00E+00	6.33E-02
		K-40	<2.37E-01	0.00E+00	2.37E-01
438305	3/13/2017 - 3/20/2017	I-131	<1.20E-02	0.00E+00	1.20E-02
		Cs-134	<8.85E-03	0.00E+00	8.85E-03
		Cs-137	<7.01E-03	0.00E+00	7.01E-03
		Be-7	<5.74E-02	0.00E+00	5.74E-02
		K-40	1.24E-01	1.13E-01	1.72E-01
438809	3/20/2017 - 3/27/2017	I-131	<7.26E-03	0.00E+00	7.26E-03



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

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

Sample Point 5 [CONTROL - WNW @ 12 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
438809	3/20/2017 - 3/27/2017	Cs-134	<5.26E-03	0.00E+00	5.26E-03
		Cs-137	<9.61E-03	0.00E+00	9.61E-03
		Be-7	<6.30E-02	0.00E+00	6.30E-02
		K-40	<2.39E-01	0.00E+00	2.39E-01
439176	3/27/2017 - 4/3/2017	I-131	<7.03E-03	0.00E+00	7.03E-03
		Cs-134	<5.62E-03	0.00E+00	5.62E-03
		Cs-137	<6.98E-03	0.00E+00	6.98E-03
		Be-7	<3.54E-02	0.00E+00	3.54E-02
		K-40	<2.12E-01	0.00E+00	2.12E-01
440009	4/3/2017 - 4/10/2017	I-131	<7.67E-03	0.00E+00	7.67E-03
		Cs-134	<7.13E-03	0.00E+00	7.13E-03
		Cs-137	<1.09E-02	0.00E+00	1.09E-02
		Be-7	<4.88E-02	0.00E+00	4.88E-02
		K-40	<2.31E-01	0.00E+00	2.31E-01
440602	4/10/2017 - 4/17/2017	I-131	<1.04E-02	0.00E+00	1.04E-02
		Cs-134	<4.82E-03	0.00E+00	4.82E-03
		Cs-137	<7.74E-03	0.00E+00	7.74E-03
		Be-7	<6.97E-02	0.00E+00	6.97E-02
		K-40	4.31E-01	1.54E-01	1.28E-01
441417	4/17/2017 - 4/24/2017	I-131	<9.61E-03	0.00E+00	9.61E-03
		Cs-134	<6.55E-03	0.00E+00	6.55E-03
		Cs-137	<8.75E-03	0.00E+00	8.75E-03
		Be-7	<7.00E-02	0.00E+00	7.00E-02
		K-40	4.52E-01	1.52E-01	1.05E-01
441864	4/24/2017 - 4/30/2017	I-131	<7.93E-03	0.00E+00	7.93E-03
		Cs-134	<9.33E-03	0.00E+00	9.33E-03
		Cs-137	<9.12E-03	0.00E+00	9.12E-03
		Be-7	<5.42E-02	0.00E+00	5.42E-02
		K-40	4.78E-01	1.57E-01	3.24E-02
442303	4/30/2017 - 5/8/2017	I-131	<8.78E-03	0.00E+00	8.78E-03
		Cs-134	<4.71E-03	0.00E+00	4.71E-03
		Cs-137	<8.16E-03	0.00E+00	8.16E-03
		Be-7	<3.81E-02	0.00E+00	3.81E-02
		K-40	3.84E-01	1.33E-01	9.98E-02
442875	5/8/2017 - 5/15/2017	I-131	<8.53E-03	0.00E+00	8.53E-03
		Cs-134	<8.46E-03	0.00E+00	8.46E-03
		Cs-137	<7.95E-03	0.00E+00	7.95E-03
		Be-7	<6.47E-02	0.00E+00	6.47E-02
		K-40	3.67E-01	1.44E-01	1.28E-01
443304	5/15/2017 - 5/22/2017	I-131	<1.01E-02	0.00E+00	1.01E-02
		Cs-134	<8.16E-03	0.00E+00	8.16E-03
		Cs-137	<9.59E-03	0.00E+00	9.59E-03
		Be-7	<3.87E-02	0.00E+00	3.87E-02
		K-40	4.50E-01	1.46E-01	2.98E-02
443864	5/22/2017 - 5/30/2017	I-131	<8.06E-03	0.00E+00	8.06E-03
		Cs-134	<5.41E-03	0.00E+00	5.41E-03
		Cs-137	<6.71E-03	0.00E+00	6.71E-03
		Be-7	<4.75E-02	0.00E+00	4.75E-02
		K-40	4.58E-01	1.33E-01	2.38E-02



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

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

Sample Point 5 [CONTROL - WNW @ 12 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
444264	5/30/2017 - 6/5/2017	I-131	<1.19E-02	0.00E+00	1.19E-02
		Cs-134	<8.60E-03	0.00E+00	8.60E-03
		Cs-137	<1.07E-02	0.00E+00	1.07E-02
		Be-7	<6.27E-02	0.00E+00	6.27E-02
		K-40	3.16E-01	1.34E-01	3.73E-02
445325	6/5/2017 - 6/12/2017	I-131	<1.02E-02	0.00E+00	1.02E-02
		Cs-134	<6.27E-03	0.00E+00	6.27E-03
		Cs-137	<1.03E-02	0.00E+00	1.03E-02
		Be-7	<5.47E-02	0.00E+00	5.47E-02
		K-40	<2.35E-01	0.00E+00	2.35E-01
446325	6/12/2017 - 6/19/2017	I-131	<7.97E-03	0.00E+00	7.97E-03
		Cs-134	<5.91E-03	0.00E+00	5.91E-03
		Cs-137	<1.07E-02	0.00E+00	1.07E-02
		Be-7	<4.79E-02	0.00E+00	4.79E-02
		K-40	<2.53E-01	0.00E+00	2.53E-01
446831	6/19/2017 - 6/26/2017	I-131	<6.35E-03	0.00E+00	6.35E-03
		Cs-134	<6.32E-03	0.00E+00	6.32E-03
		Cs-137	<8.44E-03	0.00E+00	8.44E-03
		Be-7	<4.69E-02	0.00E+00	4.69E-02
		K-40	<2.37E-01	0.00E+00	2.37E-01
447185	6/26/2017 - 7/3/2017	I-131	<1.00E-02	0.00E+00	1.00E-02
		Cs-134	<8.78E-03	0.00E+00	8.78E-03
		Cs-137	<9.39E-03	0.00E+00	9.39E-03
		Be-7	<3.81E-02	0.00E+00	3.81E-02
		K-40	2.74E-01	1.19E-01	1.01E-01
447807	7/3/2017 - 7/10/2017	I-131	<9.37E-03	0.00E+00	9.37E-03
		Cs-134	<7.31E-03	0.00E+00	7.31E-03
		Cs-137	<7.74E-03	0.00E+00	7.74E-03
		Be-7	<6.90E-02	0.00E+00	6.90E-02
		K-40	<2.25E-01	0.00E+00	2.25E-01
448272	7/10/2017 - 7/17/2017	I-131	<6.21E-03	0.00E+00	6.21E-03
		Cs-134	<7.28E-03	0.00E+00	7.28E-03
		Cs-137	<1.04E-02	0.00E+00	1.04E-02
		Be-7	<6.31E-02	0.00E+00	6.31E-02
		K-40	<2.74E-01	0.00E+00	2.74E-01
448900	7/17/2017 - 7/24/2017	I-131	<1.02E-02	0.00E+00	1.02E-02
		Cs-134	<7.97E-03	0.00E+00	7.97E-03
		Cs-137	<7.91E-03	0.00E+00	7.91E-03
		Be-7	<7.14E-02	0.00E+00	7.14E-02
		K-40	1.66E-01	1.09E-01	1.37E-01
449222	7/24/2017 - 7/31/2017	I-131	<9.28E-03	0.00E+00	9.28E-03
		Cs-134	<7.21E-03	0.00E+00	7.21E-03
		Cs-137	<1.29E-02	0.00E+00	1.29E-02
		Be-7	<6.59E-02	0.00E+00	6.59E-02
		K-40	1.95E-01	9.63E-02	3.11E-02
449952	7/31/2017 - 8/7/2017	I-131	<9.17E-03	0.00E+00	9.17E-03
		Cs-134	<6.98E-03	0.00E+00	6.98E-03
		Cs-137	<1.10E-02	0.00E+00	1.10E-02
		Be-7	<6.46E-02	0.00E+00	6.46E-02
		K-40	<1.94E-01	0.00E+00	1.94E-01



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

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

Sample Point 5 [CONTROL - WNW @ 12 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
450198	8/7/2017 - 8/14/2017	I-131	<8.64E-03	0.00E+00	8.64E-03
		Cs-134	<6.58E-03	0.00E+00	6.58E-03
		Cs-137	<1.18E-02	0.00E+00	1.18E-02
		Be-7	<5.78E-02	0.00E+00	5.78E-02
		K-40	2.40E-01	1.07E-01	3.10E-02
450733	8/14/2017 - 8/21/2017	I-131	<7.27E-03	0.00E+00	7.27E-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	<5.99E-02	0.00E+00	5.99E-02
		K-40	<2.02E-01	0.00E+00	2.02E-01
451190	8/21/2017 - 8/28/2017	I-131	<8.99E-03	0.00E+00	8.99E-03
		Cs-134	<8.15E-03	0.00E+00	8.15E-03
		Cs-137	<5.94E-03	0.00E+00	5.94E-03
		Be-7	<4.39E-02	0.00E+00	4.39E-02
		K-40	2.26E-01	1.01E-01	2.92E-02
451543	8/28/2017 - 9/5/2017	I-131	<8.93E-03	0.00E+00	8.93E-03
		Cs-134	<7.93E-03	0.00E+00	7.93E-03
		Cs-137	<7.85E-03	0.00E+00	7.85E-03
		Be-7	<5.98E-02	0.00E+00	5.98E-02
		K-40	<2.07E-01	0.00E+00	2.07E-01
452351	9/5/2017 - 9/11/2017	I-131	<8.92E-03	0.00E+00	8.92E-03
		Cs-134	<6.27E-03	0.00E+00	6.27E-03
		Cs-137	<1.15E-02	0.00E+00	1.15E-02
		Be-7	<6.15E-02	0.00E+00	6.15E-02
		K-40	<2.93E-01	0.00E+00	2.93E-01
452793	9/11/2017 - 9/18/2017	I-131	<9.37E-03	0.00E+00	9.37E-03
		Cs-134	<7.62E-03	0.00E+00	7.62E-03
		Cs-137	<8.96E-03	0.00E+00	8.96E-03
		Be-7	<6.17E-02	0.00E+00	6.17E-02
		K-40	2.22E-01	1.04E-01	8.72E-02
453445	9/18/2017 - 9/25/2017	I-131	<1.05E-02	0.00E+00	1.05E-02
		Cs-134	<1.15E-02	0.00E+00	1.15E-02
		Cs-137	<8.99E-03	0.00E+00	8.99E-03
		Be-7	<5.31E-02	0.00E+00	5.31E-02
		K-40	1.85E-01	9.37E-02	3.13E-02
454217	9/25/2017 - 10/2/2017	I-131	<1.43E-02	0.00E+00	1.43E-02
		Cs-134	<1.38E-02	0.00E+00	1.38E-02
		Cs-137	<1.34E-02	0.00E+00	1.34E-02
		Be-7	<9.86E-02	0.00E+00	9.86E-02
		K-40	3.56E-01	1.48E-01	1.26E-01
455066	10/2/2017 - 10/10/2017	I-131	<1.84E-02	0.00E+00	1.84E-02
		Cs-134	<1.22E-02	0.00E+00	1.22E-02
		Cs-137	<1.20E-02	0.00E+00	1.20E-02
		Be-7	<8.16E-02	0.00E+00	8.16E-02
		K-40	2.13E-01	1.12E-01	1.08E-01
455420	10/10/2017 - 10/16/2017	I-131	<1.71E-02	0.00E+00	1.71E-02
		Cs-134	<1.98E-02	0.00E+00	1.98E-02
		Cs-137	<1.97E-02	0.00E+00	1.97E-02
		Be-7	<1.03E-01	0.00E+00	1.03E-01
		K-40	<4.32E-01	0.00E+00	4.32E-01



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

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

Sample Point 5 [CONTROL - WNW @ 12 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
456043	10/16/2017 - 10/23/2017	I-131	<1.87E-02	0.00E+00	1.87E-02
		Cs-134	<1.84E-02	0.00E+00	1.84E-02
		Cs-137	<1.85E-02	0.00E+00	1.85E-02
		Be-7	<1.02E-01	0.00E+00	1.02E-01
		K-40	4.38E-01	1.82E-01	1.96E-01
461419	10/23/2017 - 10/30/2017	I-131	<2.20E-02	0.00E+00	2.20E-02
		Cs-134	<1.74E-02	0.00E+00	1.74E-02
		Cs-137	<1.43E-02	0.00E+00	1.43E-02
		Be-7	<1.12E-01	0.00E+00	1.12E-01
		K-40	6.59E-01	2.29E-01	2.49E-01
461965	10/30/2017 - 11/6/2017	I-131	<2.29E-02	0.00E+00	2.29E-02
		Cs-134	<1.49E-02	0.00E+00	1.49E-02
		Cs-137	<1.75E-02	0.00E+00	1.75E-02
		Be-7	<1.05E-01	0.00E+00	1.05E-01
		K-40	5.30E-01	1.73E-01	3.59E-02
462603	11/6/2017 - 11/13/2017	I-131	<2.28E-02	0.00E+00	2.28E-02
		Cs-134	<1.50E-02	0.00E+00	1.50E-02
		Cs-137	<1.41E-02	0.00E+00	1.41E-02
		Be-7	<1.29E-01	0.00E+00	1.29E-01
		K-40	4.75E-01	1.79E-01	1.69E-01
463093	11/13/2017 - 11/20/2017	I-131	<3.60E-02	0.00E+00	3.60E-02
		Cs-134	<1.76E-02	0.00E+00	1.76E-02
		Cs-137	<1.81E-02	0.00E+00	1.81E-02
		Be-7	<1.21E-01	0.00E+00	1.21E-01
		K-40	5.06E-01	1.90E-01	1.84E-01
463513	11/20/2017 - 11/27/2017	I-131	<2.37E-02	0.00E+00	2.37E-02
		Cs-134	<1.69E-02	0.00E+00	1.69E-02
		Cs-137	<1.74E-02	0.00E+00	1.74E-02
		Be-7	<1.21E-01	0.00E+00	1.21E-01
		K-40	6.35E-01	1.97E-01	1.47E-01
463783	11/27/2017 - 12/4/2017	I-131	<2.56E-02	0.00E+00	2.56E-02
		Cs-134	<1.78E-02	0.00E+00	1.78E-02
		Cs-137	<1.74E-02	0.00E+00	1.74E-02
		Be-7	<1.19E-01	0.00E+00	1.19E-01
		K-40	4.00E-01	1.94E-01	2.42E-01
464700	12/4/2017 - 12/11/2017	I-131	<2.29E-02	0.00E+00	2.29E-02
		Cs-134	<1.97E-02	0.00E+00	1.97E-02
		Cs-137	<1.63E-02	0.00E+00	1.63E-02
		Be-7	<1.04E-01	0.00E+00	1.04E-01
		K-40	5.38E-01	1.90E-01	1.70E-01
464967	12/11/2017 - 12/18/2017	I-131	<4.34E-02	0.00E+00	4.34E-02
		Cs-134	<1.27E-02	0.00E+00	1.27E-02
		Cs-137	<1.65E-02	0.00E+00	1.65E-02
		Be-7	<1.27E-01	0.00E+00	1.27E-01
		K-40	5.16E-01	1.68E-01	3.49E-02
465213	12/18/2017 - 12/26/2017	I-131	<2.38E-02	0.00E+00	2.38E-02
		Cs-134	<1.32E-02	0.00E+00	1.32E-02
		Cs-137	<1.84E-02	0.00E+00	1.84E-02
		Be-7	<9.59E-02	0.00E+00	9.59E-02
		K-40	5.23E-01	1.83E-01	1.83E-01



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

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

Sample Point 5 [CONTROL - WNW @ 12 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
465611	12/26/2017 - 1/2/2018	I-131	<2.10E-02	0.00E+00	2.10E-02
		Cs-134	<2.01E-02	0.00E+00	2.01E-02
		Cs-137	<1.86E-02	0.00E+00	1.86E-02
		Be-7	5.59E-02	9.04E-02	1.52E-01
		K-40	4.94E-01	1.77E-01	1.40E-01

Sample Point 26 [INDICATOR - S @ 4.7 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
431630	12/27/2016 - 1/3/2017	I-131	<9.42E-03	0.00E+00	9.42E-03
		Cs-134	<7.22E-03	0.00E+00	7.22E-03
		Cs-137	<6.42E-03	0.00E+00	6.42E-03
		Be-7	<5.51E-02	0.00E+00	5.51E-02
		K-40	3.88E-01	1.31E-01	2.77E-02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
432202	1/3/2017 - 1/9/2017	I-131	<1.13E-02	0.00E+00	1.13E-02
		Cs-134	<1.10E-02	0.00E+00	1.10E-02
		Cs-137	<9.42E-03	0.00E+00	9.42E-03
		Be-7	<7.24E-02	0.00E+00	7.24E-02
		K-40	4.89E-01	1.90E-01	1.88E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
432908	1/9/2017 - 1/16/2017	I-131	<5.24E-03	0.00E+00	5.24E-03
		Cs-134	<8.06E-03	0.00E+00	8.06E-03
		Cs-137	<5.58E-03	0.00E+00	5.58E-03
		Be-7	<3.62E-02	0.00E+00	3.62E-02
		K-40	4.22E-01	1.37E-01	2.79E-02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
433304	1/16/2017 - 1/23/2017	I-131	<9.68E-03	0.00E+00	9.68E-03
		Cs-134	<7.20E-03	0.00E+00	7.20E-03
		Cs-137	<8.95E-03	0.00E+00	8.95E-03
		Be-7	<4.89E-02	0.00E+00	4.89E-02
		K-40	3.39E-01	1.37E-01	1.24E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
433722	1/23/2017 - 1/30/2017	I-131	<9.43E-03	0.00E+00	9.43E-03
		Cs-134	<7.63E-03	0.00E+00	7.63E-03
		Cs-137	<8.42E-03	0.00E+00	8.42E-03
		Be-7	<5.87E-02	0.00E+00	5.87E-02
		K-40	3.49E-01	1.51E-01	1.70E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
434459	1/30/2017 - 2/6/2017	I-131	<8.56E-03	0.00E+00	8.56E-03
		Cs-134	<8.45E-03	0.00E+00	8.45E-03
		Cs-137	<9.93E-03	0.00E+00	9.93E-03
		Be-7	<3.95E-02	0.00E+00	3.95E-02
		K-40	4.45E-01	1.46E-01	3.02E-02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
435104	2/6/2017 - 2/13/2017	I-131	<1.10E-02	0.00E+00	1.10E-02
		Cs-134	<8.87E-03	0.00E+00	8.87E-03
		Cs-137	<9.34E-03	0.00E+00	9.34E-03
		Be-7	<5.10E-02	0.00E+00	5.10E-02
		K-40	3.89E-01	1.44E-01	1.05E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
435810	2/13/2017 - 2/20/2017	I-131	<1.07E-02	0.00E+00	1.07E-02
		Cs-134	<6.07E-03	0.00E+00	6.07E-03
		Cs-137	<8.86E-03	0.00E+00	8.86E-03
		Be-7	<6.11E-02	0.00E+00	6.11E-02
		K-40	<2.58E-01	0.00E+00	2.58E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
436261	2/20/2017 - 2/27/2017	I-131	<6.89E-03	0.00E+00	6.89E-03
		Cs-134	<6.39E-03	0.00E+00	6.39E-03
		Cs-137	<1.25E-02	0.00E+00	1.25E-02



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

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

Sample Point 26 [INDICATOR - S @ 4.7 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
436261	2/20/2017 - 2/27/2017	Be-7	<5.53E-02	0.00E+00	5.53E-02
		K-40	<2.34E-01	0.00E+00	2.34E-01
436714	2/27/2017 - 3/6/2017	I-131	<1.05E-02	0.00E+00	1.05E-02
		Cs-134	<6.82E-03	0.00E+00	6.82E-03
		Cs-137	<9.53E-03	0.00E+00	9.53E-03
		Be-7	<5.90E-02	0.00E+00	5.90E-02
		K-40	<2.54E-01	0.00E+00	2.54E-01
437579	3/6/2017 - 3/13/2017	I-131	<7.01E-03	0.00E+00	7.01E-03
		Cs-134	<8.28E-03	0.00E+00	8.28E-03
		Cs-137	<8.70E-03	0.00E+00	8.70E-03
		Be-7	<3.72E-02	0.00E+00	3.72E-02
		K-40	2.65E-01	1.09E-01	2.88E-02
438302	3/13/2017 - 3/20/2017	I-131	<1.11E-02	0.00E+00	1.11E-02
		Cs-134	<9.21E-03	0.00E+00	9.21E-03
		Cs-137	<9.26E-03	0.00E+00	9.26E-03
		Be-7	<6.72E-02	0.00E+00	6.72E-02
		K-40	<2.77E-01	0.00E+00	2.77E-01
438806	3/20/2017 - 3/27/2017	I-131	<1.02E-02	0.00E+00	1.02E-02
		Cs-134	<7.26E-03	0.00E+00	7.26E-03
		Cs-137	<9.69E-03	0.00E+00	9.69E-03
		Be-7	<4.16E-02	0.00E+00	4.16E-02
		K-40	1.94E-01	1.04E-01	9.74E-02
439173	3/27/2017 - 4/3/2017	I-131	<1.04E-02	0.00E+00	1.04E-02
		Cs-134	<7.97E-03	0.00E+00	7.97E-03
		Cs-137	<1.05E-02	0.00E+00	1.05E-02
		Be-7	<6.81E-02	0.00E+00	6.81E-02
		K-40	<2.55E-01	0.00E+00	2.55E-01
440006	4/3/2017 - 4/10/2017	I-131	<8.22E-03	0.00E+00	8.22E-03
		Cs-134	<7.66E-03	0.00E+00	7.66E-03
		Cs-137	<1.13E-02	0.00E+00	1.13E-02
		Be-7	<4.67E-02	0.00E+00	4.67E-02
		K-40	3.46E-01	1.30E-01	3.12E-02
440599	4/10/2017 - 4/17/2017	I-131	<9.80E-03	0.00E+00	9.80E-03
		Cs-134	<8.42E-03	0.00E+00	8.42E-03
		Cs-137	<6.76E-03	0.00E+00	6.76E-03
		Be-7	<5.34E-02	0.00E+00	5.34E-02
		K-40	3.54E-01	1.47E-01	1.51E-01
441414	4/17/2017 - 4/24/2017	I-131	<9.51E-03	0.00E+00	9.51E-03
		Cs-134	<7.30E-03	0.00E+00	7.30E-03
		Cs-137	<9.67E-03	0.00E+00	9.67E-03
		Be-7	<4.97E-02	0.00E+00	4.97E-02
		K-40	5.99E-01	1.76E-01	1.01E-01
441861	4/24/2017 - 4/30/2017	I-131	<1.29E-02	0.00E+00	1.29E-02
		Cs-134	<8.06E-03	0.00E+00	8.06E-03
		Cs-137	<8.52E-03	0.00E+00	8.52E-03
		Be-7	<6.06E-02	0.00E+00	6.06E-02
		K-40	5.12E-01	1.65E-01	3.31E-02
442300	4/30/2017 - 5/8/2017	Nuclide	Activity	2 Sigma Error	MDA
		I-131	<8.63E-03	0.00E+00	8.63E-03



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

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

Sample Point 26 [INDICATOR - S @ 4.7 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
442300	4/30/2017 - 5/8/2017	Cs-134	<6.73E-03	0.00E+00	6.73E-03
		Cs-137	<8.89E-03	0.00E+00	8.89E-03
		Be-7	<2.83E-02	0.00E+00	2.83E-02
		K-40	3.77E-01	1.38E-01	1.16E-01
442872	5/8/2017 - 5/15/2017	I-131	<6.51E-03	0.00E+00	6.51E-03
		Cs-134	<6.78E-03	0.00E+00	6.78E-03
		Cs-137	<8.97E-03	0.00E+00	8.97E-03
		Be-7	<6.20E-02	0.00E+00	6.20E-02
		K-40	4.16E-01	1.48E-01	1.26E-01
443301	5/15/2017 - 5/22/2017	I-131	<1.19E-02	0.00E+00	1.19E-02
		Cs-134	<7.57E-03	0.00E+00	7.57E-03
		Cs-137	<4.61E-03	0.00E+00	4.61E-03
		Be-7	<3.77E-02	0.00E+00	3.77E-02
		K-40	3.27E-01	1.21E-01	2.86E-02
443861	5/22/2017 - 5/30/2017	I-131	<9.17E-03	0.00E+00	9.17E-03
		Cs-134	<5.50E-03	0.00E+00	5.50E-03
		Cs-137	<6.83E-03	0.00E+00	6.83E-03
		Be-7	<4.12E-02	0.00E+00	4.12E-02
		K-40	3.57E-01	1.18E-01	2.42E-02
444261	5/30/2017 - 6/5/2017	I-131	<1.06E-02	0.00E+00	1.06E-02
		Cs-134	<8.46E-03	0.00E+00	8.46E-03
		Cs-137	<1.05E-02	0.00E+00	1.05E-02
		Be-7	<5.43E-02	0.00E+00	5.43E-02
		K-40	2.48E-01	1.25E-01	1.25E-01
445322	6/5/2017 - 6/12/2017	I-131	<1.06E-02	0.00E+00	1.06E-02
		Cs-134	<7.15E-03	0.00E+00	7.15E-03
		Cs-137	<1.13E-02	0.00E+00	1.13E-02
		Be-7	<5.78E-02	0.00E+00	5.78E-02
		K-40	1.35E-01	8.81E-02	9.45E-02
446322	6/12/2017 - 6/19/2017	I-131	<1.01E-02	0.00E+00	1.01E-02
		Cs-134	<8.10E-03	0.00E+00	8.10E-03
		Cs-137	<1.06E-02	0.00E+00	1.06E-02
		Be-7	<6.93E-02	0.00E+00	6.93E-02
		K-40	2.03E-01	9.74E-02	3.06E-02
446828	6/19/2017 - 6/26/2017	I-131	<8.74E-03	0.00E+00	8.74E-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	<5.75E-02	0.00E+00	5.75E-02
		K-40	1.98E-01	1.07E-01	1.06E-01
447182	6/26/2017 - 7/3/2017	I-131	<8.77E-03	0.00E+00	8.77E-03
		Cs-134	<4.64E-03	0.00E+00	4.64E-03
		Cs-137	<1.03E-02	0.00E+00	1.03E-02
		Be-7	<4.85E-02	0.00E+00	4.85E-02
		K-40	1.69E-01	9.82E-02	1.09E-01
447804	7/3/2017 - 7/10/2017	I-131	<7.77E-03	0.00E+00	7.77E-03
		Cs-134	<9.31E-03	0.00E+00	9.31E-03
		Cs-137	<9.00E-03	0.00E+00	9.00E-03
		Be-7	<6.51E-02	0.00E+00	6.51E-02
		K-40	2.27E-01	1.08E-01	8.86E-02



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

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

Sample Point 26 [INDICATOR - S @ 4.7 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
448269	7/10/2017 - 7/17/2017	I-131	<9.96E-03	0.00E+00	9.96E-03
		Cs-134	<7.73E-03	0.00E+00	7.73E-03
		Cs-137	<1.16E-02	0.00E+00	1.16E-02
		Be-7	<6.91E-02	0.00E+00	6.91E-02
		K-40	<2.46E-01	0.00E+00	2.46E-01
448897	7/17/2017 - 7/24/2017	I-131	<1.05E-02	0.00E+00	1.05E-02
		Cs-134	<7.74E-03	0.00E+00	7.74E-03
		Cs-137	<1.18E-02	0.00E+00	1.18E-02
		Be-7	<4.76E-02	0.00E+00	4.76E-02
		K-40	1.30E-01	9.91E-02	1.36E-01
449219	7/24/2017 - 7/31/2017	I-131	<7.09E-03	0.00E+00	7.09E-03
		Cs-134	<9.02E-03	0.00E+00	9.02E-03
		Cs-137	<1.17E-02	0.00E+00	1.17E-02
		Be-7	<6.55E-02	0.00E+00	6.55E-02
		K-40	2.42E-01	1.05E-01	2.98E-02
449949	7/31/2017 - 8/7/2017	I-131	<5.65E-03	0.00E+00	5.65E-03
		Cs-134	<6.83E-03	0.00E+00	6.83E-03
		Cs-137	<7.88E-03	0.00E+00	7.88E-03
		Be-7	<4.24E-02	0.00E+00	4.24E-02
		K-40	<2.02E-01	0.00E+00	2.02E-01
450195	8/7/2017 - 8/14/2017	I-131	<8.93E-03	0.00E+00	8.93E-03
		Cs-134	<8.23E-03	0.00E+00	8.23E-03
		Cs-137	<1.02E-02	0.00E+00	1.02E-02
		Be-7	<5.48E-02	0.00E+00	5.48E-02
		K-40	2.79E-01	1.27E-01	1.24E-01
450730	8/14/2017 - 8/21/2017	I-131	<8.55E-03	0.00E+00	8.55E-03
		Cs-134	<7.68E-03	0.00E+00	7.68E-03
		Cs-137	<8.48E-03	0.00E+00	8.48E-03
		Be-7	<5.11E-02	0.00E+00	5.11E-02
		K-40	2.38E-01	1.01E-01	2.80E-02
451187	8/21/2017 - 8/28/2017	I-131	<9.27E-03	0.00E+00	9.27E-03
		Cs-134	<7.31E-03	0.00E+00	7.31E-03
		Cs-137	<1.12E-02	0.00E+00	1.12E-02
		Be-7	<5.83E-02	0.00E+00	5.83E-02
		K-40	2.75E-01	1.13E-01	2.98E-02
451540	8/28/2017 - 9/5/2017	I-131	<9.73E-03	0.00E+00	9.73E-03
		Cs-134	<8.32E-03	0.00E+00	8.32E-03
		Cs-137	<9.93E-03	0.00E+00	9.93E-03
		Be-7	<6.20E-02	0.00E+00	6.20E-02
		K-40	2.57E-01	1.10E-01	9.14E-02
452348	9/5/2017 - 9/11/2017	I-131	<9.29E-03	0.00E+00	9.29E-03
		Cs-134	<8.54E-03	0.00E+00	8.54E-03
		Cs-137	<1.26E-02	0.00E+00	1.26E-02
		Be-7	<3.57E-02	0.00E+00	3.57E-02
		K-40	2.82E-01	1.40E-01	1.44E-01
452790	9/11/2017 - 9/18/2017	I-131	<1.09E-02	0.00E+00	1.09E-02
		Cs-134	<6.98E-03	0.00E+00	6.98E-03
		Cs-137	<9.93E-03	0.00E+00	9.93E-03
		Be-7	<6.82E-02	0.00E+00	6.82E-02
		K-40	2.48E-01	1.33E-01	1.60E-01



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

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

Sample Point 26 [INDICATOR - S @ 4.7 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
453442	9/18/2017 - 9/25/2017	I-131	<5.17E-03	0.00E+00	5.17E-03
		Cs-134	<6.22E-03	0.00E+00	6.22E-03
		Cs-137	<6.37E-03	0.00E+00	6.37E-03
		Be-7	2.63E-03	2.10E-02	3.90E-02
		K-40	1.40E-01	8.17E-02	1.13E-01
454214	9/25/2017 - 10/2/2017	I-131	<1.66E-02	0.00E+00	1.66E-02
		Cs-134	<1.30E-02	0.00E+00	1.30E-02
		Cs-137	<1.19E-02	0.00E+00	1.19E-02
		Be-7	<1.00E-01	0.00E+00	1.00E-01
		K-40	<2.92E-01	0.00E+00	2.92E-01
455063	10/2/2017 - 10/10/2017	I-131	<1.53E-02	0.00E+00	1.53E-02
		Cs-134	<1.47E-02	0.00E+00	1.47E-02
		Cs-137	<1.57E-02	0.00E+00	1.57E-02
		Be-7	<8.60E-02	0.00E+00	8.60E-02
		K-40	1.82E-01	1.03E-01	1.15E-01
455417	10/10/2017 - 10/16/2017	I-131	<1.90E-02	0.00E+00	1.90E-02
		Cs-134	<1.60E-02	0.00E+00	1.60E-02
		Cs-137	<2.09E-02	0.00E+00	2.09E-02
		Be-7	<1.35E-01	0.00E+00	1.35E-01
		K-40	3.50E-01	1.75E-01	1.99E-01
456040	10/16/2017 - 10/23/2017	I-131	<1.47E-02	0.00E+00	1.47E-02
		Cs-134	<1.53E-02	0.00E+00	1.53E-02
		Cs-137	<1.01E-02	0.00E+00	1.01E-02
		Be-7	<1.23E-01	0.00E+00	1.23E-01
		K-40	2.63E-01	1.39E-01	1.58E-01
461416	10/23/2017 - 10/30/2017	I-131	<2.33E-02	0.00E+00	2.33E-02
		Cs-134	<1.64E-02	0.00E+00	1.64E-02
		Cs-137	<1.80E-02	0.00E+00	1.80E-02
		Be-7	<1.23E-01	0.00E+00	1.23E-01
		K-40	4.53E-01	1.67E-01	1.38E-01
461962	10/30/2017 - 11/6/2017	I-131	<1.98E-02	0.00E+00	1.98E-02
		Cs-134	<1.82E-02	0.00E+00	1.82E-02
		Cs-137	<1.71E-02	0.00E+00	1.71E-02
		Be-7	<1.36E-01	0.00E+00	1.36E-01
		K-40	4.24E-01	1.71E-01	1.63E-01
462600	11/6/2017 - 11/13/2017	I-131	<2.23E-02	0.00E+00	2.23E-02
		Cs-134	<2.04E-02	0.00E+00	2.04E-02
		Cs-137	<1.74E-02	0.00E+00	1.74E-02
		Be-7	<1.06E-01	0.00E+00	1.06E-01
		K-40	4.90E-01	2.21E-01	2.80E-01
463090	11/13/2017 - 11/20/2017	I-131	<2.96E-02	0.00E+00	2.96E-02
		Cs-134	<1.36E-02	0.00E+00	1.36E-02
		Cs-137	<1.74E-02	0.00E+00	1.74E-02
		Be-7	<1.48E-01	0.00E+00	1.48E-01
		K-40	4.90E-01	1.95E-01	2.12E-01
463510	11/20/2017 - 11/27/2017	I-131	<2.12E-02	0.00E+00	2.12E-02
		Cs-134	<1.64E-02	0.00E+00	1.64E-02
		Cs-137	<1.76E-02	0.00E+00	1.76E-02
		Be-7	<1.10E-01	0.00E+00	1.10E-01
		K-40	3.13E-01	1.72E-01	2.22E-01



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

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

Sample Point 26 [INDICATOR - S @ 4.7 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
463780	11/27/2017 - 12/4/2017	I-131	<2.11E-02	0.00E+00	2.11E-02
		Cs-134	<1.46E-02	0.00E+00	1.46E-02
		Cs-137	<1.50E-02	0.00E+00	1.50E-02
		Be-7	<1.18E-01	0.00E+00	1.18E-01
		K-40	4.25E-01	1.97E-01	2.40E-01
464697	12/4/2017 - 12/11/2017	I-131	<2.16E-02	0.00E+00	2.16E-02
		Cs-134	<1.66E-02	0.00E+00	1.66E-02
		Cs-137	<2.15E-02	0.00E+00	2.15E-02
		Be-7	<1.27E-01	0.00E+00	1.27E-01
		K-40	5.04E-01	1.74E-01	1.23E-01
464964	12/11/2017 - 12/18/2017	I-131	<4.47E-02	0.00E+00	4.47E-02
		Cs-134	<1.75E-02	0.00E+00	1.75E-02
		Cs-137	<1.79E-02	0.00E+00	1.79E-02
		Be-7	<1.49E-01	0.00E+00	1.49E-01
		K-40	3.87E-01	1.88E-01	2.32E-01
465210	12/18/2017 - 12/26/2017	I-131	<2.35E-02	0.00E+00	2.35E-02
		Cs-134	<1.67E-02	0.00E+00	1.67E-02
		Cs-137	<1.42E-02	0.00E+00	1.42E-02
		Be-7	<1.14E-01	0.00E+00	1.14E-01
		K-40	4.34E-01	1.82E-01	2.17E-01
465608	12/26/2017 - 1/2/2018	I-131	<2.22E-02	0.00E+00	2.22E-02
		Cs-134	<1.54E-02	0.00E+00	1.54E-02
		Cs-137	<1.61E-02	0.00E+00	1.61E-02
		Be-7	<1.14E-01	0.00E+00	1.14E-01
		K-40	7.01E-01	2.09E-01	1.43E-01

Sample Point 47 [INDICATOR - SSW @ 3.4 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
431632	12/27/2016 - 1/3/2017	I-131	<6.97E-03	0.00E+00	6.97E-03
		Cs-134	<6.44E-03	0.00E+00	6.44E-03
		Cs-137	<1.11E-02	0.00E+00	1.11E-02
		Be-7	<4.01E-02	0.00E+00	4.01E-02
		K-40	5.13E-01	1.70E-01	1.31E-01
432204	1/3/2017 - 1/9/2017	I-131	<1.12E-02	0.00E+00	1.12E-02
		Cs-134	<7.77E-03	0.00E+00	7.77E-03
		Cs-137	<1.11E-02	0.00E+00	1.11E-02
		Be-7	<6.29E-02	0.00E+00	6.29E-02
		K-40	4.24E-01	1.81E-01	1.99E-01
432910	1/9/2017 - 1/16/2017	I-131	<8.07E-03	0.00E+00	8.07E-03
		Cs-134	<7.61E-03	0.00E+00	7.61E-03
		Cs-137	<1.17E-02	0.00E+00	1.17E-02
		Be-7	<5.66E-02	0.00E+00	5.66E-02
		K-40	4.74E-01	1.52E-01	3.06E-02
433306	1/16/2017 - 1/23/2017	I-131	<7.43E-03	0.00E+00	7.43E-03
		Cs-134	<5.87E-03	0.00E+00	5.87E-03
		Cs-137	<9.11E-03	0.00E+00	9.11E-03
		Be-7	<5.54E-02	0.00E+00	5.54E-02
		K-40	4.52E-01	1.50E-01	1.01E-01
433724	1/23/2017 - 1/30/2017	I-131	<9.14E-03	0.00E+00	9.14E-03
		Cs-134	<7.57E-03	0.00E+00	7.57E-03
		Cs-137	<8.74E-03	0.00E+00	8.74E-03



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

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

Sample Point 47 [INDICATOR - SSW @ 3.4 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
433724	1/23/2017 - 1/30/2017	Be-7	<4.66E-02	0.00E+00	4.66E-02
		K-40	4.42E-01	1.54E-01	1.09E-01
434461	1/30/2017 - 2/6/2017	I-131	<8.78E-03	0.00E+00	8.78E-03
		Cs-134	<8.63E-03	0.00E+00	8.63E-03
		Cs-137	<8.85E-03	0.00E+00	8.85E-03
		Be-7	<4.69E-02	0.00E+00	4.69E-02
		K-40	3.99E-01	1.50E-01	1.23E-01
435106	2/6/2017 - 2/13/2017	I-131	<7.43E-03	0.00E+00	7.43E-03
		Cs-134	<5.64E-03	0.00E+00	5.64E-03
		Cs-137	<5.98E-03	0.00E+00	5.98E-03
		Be-7	<3.98E-02	0.00E+00	3.98E-02
		K-40	2.86E-01	9.34E-02	8.25E-02
435812	2/13/2017 - 2/20/2017	I-131	<9.49E-03	0.00E+00	9.49E-03
		Cs-134	<7.41E-03	0.00E+00	7.41E-03
		Cs-137	<8.04E-03	0.00E+00	8.04E-03
		Be-7	<4.77E-02	0.00E+00	4.77E-02
		K-40	<2.32E-01	0.00E+00	2.32E-01
436263	2/20/2017 - 2/27/2017	I-131	<7.54E-03	0.00E+00	7.54E-03
		Cs-134	<6.85E-03	0.00E+00	6.85E-03
		Cs-137	<7.91E-03	0.00E+00	7.91E-03
		Be-7	<2.89E-02	0.00E+00	2.89E-02
		K-40	<1.72E-01	0.00E+00	1.72E-01
436716	2/27/2017 - 3/6/2017	I-131	<6.34E-03	0.00E+00	6.34E-03
		Cs-134	<4.92E-03	0.00E+00	4.92E-03
		Cs-137	<6.70E-03	0.00E+00	6.70E-03
		Be-7	<3.71E-02	0.00E+00	3.71E-02
		K-40	2.79E-01	9.31E-02	9.01E-02
437581	3/6/2017 - 3/13/2017	I-131	<8.18E-03	0.00E+00	8.18E-03
		Cs-134	<4.70E-03	0.00E+00	4.70E-03
		Cs-137	<9.46E-03	0.00E+00	9.46E-03
		Be-7	<6.07E-02	0.00E+00	6.07E-02
		K-40	1.80E-01	8.88E-02	2.88E-02
438304	3/13/2017 - 3/20/2017	I-131	<1.03E-02	0.00E+00	1.03E-02
		Cs-134	<8.45E-03	0.00E+00	8.45E-03
		Cs-137	<7.57E-03	0.00E+00	7.57E-03
		Be-7	<5.35E-02	0.00E+00	5.35E-02
		K-40	2.41E-01	1.13E-01	1.01E-01
438808	3/20/2017 - 3/27/2017	I-131	<1.06E-02	0.00E+00	1.06E-02
		Cs-134	<9.41E-03	0.00E+00	9.41E-03
		Cs-137	<1.21E-02	0.00E+00	1.21E-02
		Be-7	<5.49E-02	0.00E+00	5.49E-02
		K-40	1.57E-01	1.15E-01	1.59E-01
439175	3/27/2017 - 4/3/2017	I-131	<1.23E-02	0.00E+00	1.23E-02
		Cs-134	<8.15E-03	0.00E+00	8.15E-03
		Cs-137	<1.01E-02	0.00E+00	1.01E-02
		Be-7	<5.28E-02	0.00E+00	5.28E-02
		K-40	1.36E-01	7.95E-02	3.08E-02
440008	4/3/2017 - 4/10/2017	I-131	<6.76E-03	0.00E+00	6.76E-03



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

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

Sample Point 47 [INDICATOR - SSW @ 3.4 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
440008	4/3/2017 - 4/10/2017	Cs-134	<7.66E-03	0.00E+00	7.66E-03
		Cs-137	<9.52E-03	0.00E+00	9.52E-03
		Be-7	<5.22E-02	0.00E+00	5.22E-02
		K-40	2.60E-01	1.20E-01	1.05E-01
440601	4/10/2017 - 4/17/2017	I-131	<9.00E-03	0.00E+00	9.00E-03
		Cs-134	<8.04E-03	0.00E+00	8.04E-03
		Cs-137	<5.56E-03	0.00E+00	5.56E-03
		Be-7	<5.14E-02	0.00E+00	5.14E-02
		K-40	3.92E-01	1.58E-01	1.71E-01
441416	4/17/2017 - 4/24/2017	I-131	<7.51E-03	0.00E+00	7.51E-03
		Cs-134	<9.03E-03	0.00E+00	9.03E-03
		Cs-137	<9.50E-03	0.00E+00	9.50E-03
		Be-7	<6.12E-02	0.00E+00	6.12E-02
		K-40	2.87E-01	1.38E-01	1.51E-01
441863	4/24/2017 - 4/30/2017	I-131	<1.16E-02	0.00E+00	1.16E-02
		Cs-134	<1.21E-02	0.00E+00	1.21E-02
		Cs-137	<8.33E-03	0.00E+00	8.33E-03
		Be-7	<5.39E-02	0.00E+00	5.39E-02
		K-40	6.28E-01	1.99E-01	1.35E-01
442302	4/30/2017 - 5/8/2017	I-131	<7.82E-03	0.00E+00	7.82E-03
		Cs-134	<6.93E-03	0.00E+00	6.93E-03
		Cs-137	<4.00E-03	0.00E+00	4.00E-03
		Be-7	<4.60E-02	0.00E+00	4.60E-02
		K-40	3.66E-01	1.20E-01	2.48E-02
442874	5/8/2017 - 5/15/2017	I-131	<1.30E-02	0.00E+00	1.30E-02
		Cs-134	<6.70E-03	0.00E+00	6.70E-03
		Cs-137	<5.90E-03	0.00E+00	5.90E-03
		Be-7	<3.03E-02	0.00E+00	3.03E-02
		K-40	6.14E-01	1.83E-01	1.31E-01
443303	5/15/2017 - 5/22/2017	I-131	<8.85E-03	0.00E+00	8.85E-03
		Cs-134	<9.19E-03	0.00E+00	9.19E-03
		Cs-137	<7.36E-03	0.00E+00	7.36E-03
		Be-7	<4.80E-02	0.00E+00	4.80E-02
		K-40	4.29E-01	1.55E-01	1.20E-01
443863	5/22/2017 - 5/30/2017	I-131	<7.43E-03	0.00E+00	7.43E-03
		Cs-134	<4.10E-03	0.00E+00	4.10E-03
		Cs-137	<9.15E-03	0.00E+00	9.15E-03
		Be-7	<5.06E-02	0.00E+00	5.06E-02
		K-40	2.92E-01	1.16E-01	9.79E-02
444263	5/30/2017 - 6/5/2017	I-131	<1.02E-02	0.00E+00	1.02E-02
		Cs-134	<1.18E-02	0.00E+00	1.18E-02
		Cs-137	<1.06E-02	0.00E+00	1.06E-02
		Be-7	<7.32E-02	0.00E+00	7.32E-02
		K-40	<3.14E-01	0.00E+00	3.14E-01
445324	6/5/2017 - 6/12/2017	I-131	<1.09E-02	0.00E+00	1.09E-02
		Cs-134	<6.70E-03	0.00E+00	6.70E-03
		Cs-137	<1.15E-02	0.00E+00	1.15E-02
		Be-7	<5.81E-02	0.00E+00	5.81E-02
		K-40	2.71E-01	1.11E-01	2.94E-02



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

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

Sample Point 47 [INDICATOR - SSW @ 3.4 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
446324	6/12/2017 - 6/19/2017	I-131	<1.07E-02	0.00E+00	1.07E-02
		Cs-134	<6.34E-03	0.00E+00	6.34E-03
		Cs-137	<9.99E-03	0.00E+00	9.99E-03
		Be-7	<5.16E-02	0.00E+00	5.16E-02
		K-40	2.24E-01	1.24E-01	1.52E-01
446830	6/19/2017 - 6/26/2017	I-131	<8.79E-03	0.00E+00	8.79E-03
		Cs-134	<8.06E-03	0.00E+00	8.06E-03
		Cs-137	<1.15E-02	0.00E+00	1.15E-02
		Be-7	<4.41E-02	0.00E+00	4.41E-02
		K-40	<2.17E-01	0.00E+00	2.17E-01
447184	6/26/2017 - 7/3/2017	I-131	<4.50E-03	0.00E+00	4.50E-03
		Cs-134	<9.04E-03	0.00E+00	9.04E-03
		Cs-137	<9.94E-03	0.00E+00	9.94E-03
		Be-7	<4.70E-02	0.00E+00	4.70E-02
		K-40	<2.19E-01	0.00E+00	2.19E-01
447806	7/3/2017 - 7/10/2017	I-131	<9.62E-03	0.00E+00	9.62E-03
		Cs-134	<6.93E-03	0.00E+00	6.93E-03
		Cs-137	<8.61E-03	0.00E+00	8.61E-03
		Be-7	<5.95E-02	0.00E+00	5.95E-02
		K-40	<2.30E-01	0.00E+00	2.30E-01
448271	7/10/2017 - 7/17/2017	I-131	<8.00E-03	0.00E+00	8.00E-03
		Cs-134	<6.94E-03	0.00E+00	6.94E-03
		Cs-137	<1.15E-02	0.00E+00	1.15E-02
		Be-7	<5.24E-02	0.00E+00	5.24E-02
		K-40	<2.12E-01	0.00E+00	2.12E-01
448899	7/17/2017 - 7/24/2017	I-131	<1.01E-02	0.00E+00	1.01E-02
		Cs-134	<5.99E-03	0.00E+00	5.99E-03
		Cs-137	<9.84E-03	0.00E+00	9.84E-03
		Be-7	1.72E-03	3.19E-02	6.27E-02
		K-40	1.12E-01	1.06E-01	1.62E-01
449221	7/24/2017 - 7/31/2017	I-131	<9.11E-03	0.00E+00	9.11E-03
		Cs-134	<3.64E-03	0.00E+00	3.64E-03
		Cs-137	<6.62E-03	0.00E+00	6.62E-03
		Be-7	<5.61E-02	0.00E+00	5.61E-02
		K-40	<2.43E-01	0.00E+00	2.43E-01
449951	7/31/2017 - 8/7/2017	I-131	<9.11E-03	0.00E+00	9.11E-03
		Cs-134	<7.44E-03	0.00E+00	7.44E-03
		Cs-137	<9.24E-03	0.00E+00	9.24E-03
		Be-7	<4.79E-02	0.00E+00	4.79E-02
		K-40	2.18E-01	9.68E-02	2.81E-02
450197	8/7/2017 - 8/14/2017	I-131	<8.08E-03	0.00E+00	8.08E-03
		Cs-134	<8.65E-03	0.00E+00	8.65E-03
		Cs-137	<8.69E-03	0.00E+00	8.69E-03
		Be-7	<5.29E-02	0.00E+00	5.29E-02
		K-40	2.65E-01	1.09E-01	2.87E-02
450732	8/14/2017 - 8/21/2017	I-131	<6.10E-03	0.00E+00	6.10E-03
		Cs-134	<4.58E-03	0.00E+00	4.58E-03
		Cs-137	<8.66E-03	0.00E+00	8.66E-03
		Be-7	<5.56E-02	0.00E+00	5.56E-02
		K-40	1.20E-01	7.99E-02	8.81E-02



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

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

Sample Point 47 [INDICATOR - SSW @ 3.4 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
451189	8/21/2017 - 8/28/2017	I-131	<1.02E-02	0.00E+00	1.02E-02
		Cs-134	<7.64E-03	0.00E+00	7.64E-03
		Cs-137	<7.24E-03	0.00E+00	7.24E-03
		Be-7	<5.19E-02	0.00E+00	5.19E-02
		K-40	<2.61E-01	0.00E+00	2.61E-01
451542	8/28/2017 - 9/5/2017	I-131	<6.81E-03	0.00E+00	6.81E-03
		Cs-134	<3.30E-03	0.00E+00	3.30E-03
		Cs-137	<8.36E-03	0.00E+00	8.36E-03
		Be-7	<5.11E-02	0.00E+00	5.11E-02
		K-40	1.90E-01	9.52E-02	9.27E-02
452350	9/5/2017 - 9/11/2017	I-131	<1.23E-02	0.00E+00	1.23E-02
		Cs-134	<6.81E-03	0.00E+00	6.81E-03
		Cs-137	<1.03E-02	0.00E+00	1.03E-02
		Be-7	<6.10E-02	0.00E+00	6.10E-02
		K-40	<2.58E-01	0.00E+00	2.58E-01
452792	9/11/2017 - 9/18/2017	I-131	<7.21E-03	0.00E+00	7.21E-03
		Cs-134	<7.13E-03	0.00E+00	7.13E-03
		Cs-137	<9.51E-03	0.00E+00	9.51E-03
		Be-7	<5.29E-02	0.00E+00	5.29E-02
		K-40	<2.29E-01	0.00E+00	2.29E-01
453444	9/18/2017 - 9/25/2017	I-131	<1.12E-02	0.00E+00	1.12E-02
		Cs-134	<8.97E-03	0.00E+00	8.97E-03
		Cs-137	<6.72E-03	0.00E+00	6.72E-03
		Be-7	<4.81E-02	0.00E+00	4.81E-02
		K-40	1.44E-01	1.01E-01	1.32E-01
454216	9/25/2017 - 10/2/2017	I-131	<1.78E-02	0.00E+00	1.78E-02
		Cs-134	<1.35E-02	0.00E+00	1.35E-02
		Cs-137	<1.23E-02	0.00E+00	1.23E-02
		Be-7	<9.86E-02	0.00E+00	9.86E-02
		K-40	1.96E-01	1.36E-01	1.89E-01
455065	10/2/2017 - 10/10/2017	I-131	<1.62E-02	0.00E+00	1.62E-02
		Cs-134	<1.26E-02	0.00E+00	1.26E-02
		Cs-137	<1.60E-02	0.00E+00	1.60E-02
		Be-7	<9.48E-02	0.00E+00	9.48E-02
		K-40	2.63E-01	1.20E-01	1.03E-01
455419	10/10/2017 - 10/16/2017	I-131	<1.81E-02	0.00E+00	1.81E-02
		Cs-134	<1.83E-02	0.00E+00	1.83E-02
		Cs-137	<1.84E-02	0.00E+00	1.84E-02
		Be-7	<1.18E-01	0.00E+00	1.18E-01
		K-40	2.75E-01	1.56E-01	1.89E-01
456042	10/16/2017 - 10/22/2017	I-131	<1.77E-02	0.00E+00	1.77E-02
		Cs-134	<1.42E-02	0.00E+00	1.42E-02
		Cs-137	<1.94E-02	0.00E+00	1.94E-02
		Be-7	<1.04E-01	0.00E+00	1.04E-01
		K-40	<3.08E-01	0.00E+00	3.08E-01
461418	10/23/2017 - 10/30/2017	I-131	<1.83E-02	0.00E+00	1.83E-02
		Cs-134	<1.58E-02	0.00E+00	1.58E-02
		Cs-137	<1.47E-02	0.00E+00	1.47E-02
		Be-7	<1.08E-01	0.00E+00	1.08E-01
		K-40	5.71E-01	2.12E-01	2.28E-01



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

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

Sample Point 47 [INDICATOR - SSW @ 3.4 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
461964	10/30/2017 - 11/6/2017	I-131	<2.45E-02	0.00E+00	2.45E-02
		Cs-134	<1.45E-02	0.00E+00	1.45E-02
		Cs-137	<1.86E-02	0.00E+00	1.86E-02
		Be-7	<1.19E-01	0.00E+00	1.19E-01
		K-40	4.75E-01	1.91E-01	2.03E-01
462602	11/6/2017 - 11/13/2017	I-131	<2.49E-02	0.00E+00	2.49E-02
		Cs-134	<1.67E-02	0.00E+00	1.67E-02
		Cs-137	<1.42E-02	0.00E+00	1.42E-02
		Be-7	<1.25E-01	0.00E+00	1.25E-01
		K-40	4.66E-01	1.91E-01	2.11E-01
463092	11/13/2017 - 11/20/2017	I-131	<3.54E-02	0.00E+00	3.54E-02
		Cs-134	<1.75E-02	0.00E+00	1.75E-02
		Cs-137	<1.48E-02	0.00E+00	1.48E-02
		Be-7	<1.43E-01	0.00E+00	1.43E-01
		K-40	5.02E-01	1.77E-01	1.37E-01
463512	11/20/2017 - 11/27/2017	I-131	<2.74E-02	0.00E+00	2.74E-02
		Cs-134	<1.49E-02	0.00E+00	1.49E-02
		Cs-137	<1.51E-02	0.00E+00	1.51E-02
		Be-7	<1.25E-01	0.00E+00	1.25E-01
		K-40	4.41E-01	1.76E-01	1.78E-01
463782	11/27/2017 - 12/4/2017	I-131	<2.44E-02	0.00E+00	2.44E-02
		Cs-134	<1.46E-02	0.00E+00	1.46E-02
		Cs-137	<1.95E-02	0.00E+00	1.95E-02
		Be-7	<1.15E-01	0.00E+00	1.15E-01
		K-40	5.57E-01	2.01E-01	1.94E-01
464699	12/4/2017 - 12/11/2017	I-131	<2.49E-02	0.00E+00	2.49E-02
		Cs-134	<1.51E-02	0.00E+00	1.51E-02
		Cs-137	<1.64E-02	0.00E+00	1.64E-02
		Be-7	<1.02E-01	0.00E+00	1.02E-01
		K-40	5.42E-01	1.94E-01	1.82E-01
464966	12/11/2017 - 12/18/2017	I-131	<3.48E-02	0.00E+00	3.48E-02
		Cs-134	<2.01E-02	0.00E+00	2.01E-02
		Cs-137	<1.97E-02	0.00E+00	1.97E-02
		Be-7	4.18E-02	7.91E-02	1.36E-01
		K-40	5.54E-01	1.97E-01	1.85E-01
465212	12/18/2017 - 12/26/2017	I-131	<2.33E-02	0.00E+00	2.33E-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	<8.65E-02	0.00E+00	8.65E-02
		K-40	2.89E-01	1.61E-01	2.14E-01
465610	12/26/2017 - 1/2/2018	I-131	<2.28E-02	0.00E+00	2.28E-02
		Cs-134	<1.37E-02	0.00E+00	1.37E-02
		Cs-137	<2.13E-02	0.00E+00	2.13E-02
		Be-7	<1.27E-01	0.00E+00	1.27E-01
		K-40	3.64E-01	1.41E-01	3.52E-02

Sample Point 63 [INDICATOR - SW @ 0.6 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
431634	12/27/2016 - 1/3/2017	I-131	<8.45E-03	0.00E+00	8.45E-03
		Cs-134	<9.06E-03	0.00E+00	9.06E-03
		Cs-137	<8.98E-03	0.00E+00	8.98E-03



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

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

Sample Point 63 [INDICATOR - SW @ 0.6 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
431634	12/27/2016 - 1/3/2017	Be-7	<5.51E-02	0.00E+00	5.51E-02
		K-40	3.45E-01	1.48E-01	1.64E-01
432206	1/3/2017 - 1/9/2017	I-131	<1.03E-02	0.00E+00	1.03E-02
		Cs-134	<7.97E-03	0.00E+00	7.97E-03
		Cs-137	<6.51E-03	0.00E+00	6.51E-03
		Be-7	<6.51E-02	0.00E+00	6.51E-02
		K-40	4.38E-01	1.79E-01	1.92E-01
432912	1/9/2017 - 1/16/2017	I-131	<8.99E-03	0.00E+00	8.99E-03
		Cs-134	<1.00E-02	0.00E+00	1.00E-02
		Cs-137	<8.98E-03	0.00E+00	8.98E-03
		Be-7	<4.76E-02	0.00E+00	4.76E-02
		K-40	3.23E-01	1.25E-01	3.13E-02
433308	1/16/2017 - 1/23/2017	I-131	<7.53E-03	0.00E+00	7.53E-03
		Cs-134	<7.07E-03	0.00E+00	7.07E-03
		Cs-137	<8.80E-03	0.00E+00	8.80E-03
		Be-7	<3.72E-02	0.00E+00	3.72E-02
		K-40	3.47E-01	1.34E-01	1.12E-01
433726	1/23/2017 - 1/30/2017	I-131	<1.00E-02	0.00E+00	1.00E-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	<5.78E-02	0.00E+00	5.78E-02
		K-40	2.90E-01	1.49E-01	1.81E-01
434463	1/30/2017 - 2/6/2017	I-131	<8.01E-03	0.00E+00	8.01E-03
		Cs-134	<8.00E-03	0.00E+00	8.00E-03
		Cs-137	<7.16E-03	0.00E+00	7.16E-03
		Be-7	<6.46E-02	0.00E+00	6.46E-02
		K-40	4.18E-01	1.69E-01	1.94E-01
435108	2/6/2017 - 2/13/2017	I-131	<8.99E-03	0.00E+00	8.99E-03
		Cs-134	<6.00E-03	0.00E+00	6.00E-03
		Cs-137	<9.33E-03	0.00E+00	9.33E-03
		Be-7	<5.61E-02	0.00E+00	5.61E-02
		K-40	3.56E-01	1.26E-01	2.84E-02
435814	2/13/2017 - 2/20/2017	I-131	<5.56E-03	0.00E+00	5.56E-03
		Cs-134	<8.08E-03	0.00E+00	8.08E-03
		Cs-137	<6.48E-03	0.00E+00	6.48E-03
		Be-7	<3.65E-02	0.00E+00	3.65E-02
		K-40	<2.09E-01	0.00E+00	2.09E-01
436265	2/20/2017 - 2/27/2017	I-131	<1.04E-02	0.00E+00	1.04E-02
		Cs-134	<5.83E-03	0.00E+00	5.83E-03
		Cs-137	<1.01E-02	0.00E+00	1.01E-02
		Be-7	<5.20E-02	0.00E+00	5.20E-02
		K-40	<2.48E-01	0.00E+00	2.48E-01
436718	2/27/2017 - 3/6/2017	I-131	<9.84E-03	0.00E+00	9.84E-03
		Cs-134	<7.91E-03	0.00E+00	7.91E-03
		Cs-137	<8.30E-03	0.00E+00	8.30E-03
		Be-7	<4.63E-02	0.00E+00	4.63E-02
		K-40	<1.90E-01	0.00E+00	1.90E-01
437583	3/6/2017 - 3/13/2017	I-131	<6.10E-03	0.00E+00	6.10E-03



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

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

Sample Point 63 [INDICATOR - SW @ 0.6 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
437583	3/6/2017 - 3/13/2017	Cs-134	<5.83E-03	0.00E+00	5.83E-03
		Cs-137	<8.51E-03	0.00E+00	8.51E-03
		Be-7	<6.80E-02	0.00E+00	6.80E-02
		K-40	<2.33E-01	0.00E+00	2.33E-01
438306	3/13/2017 - 3/20/2017	I-131	<9.03E-03	0.00E+00	9.03E-03
		Cs-134	<5.85E-03	0.00E+00	5.85E-03
		Cs-137	<9.08E-03	0.00E+00	9.08E-03
		Be-7	<4.26E-02	0.00E+00	4.26E-02
		K-40	<1.65E-01	0.00E+00	1.65E-01
438810	3/20/2017 - 3/27/2017	I-131	<9.31E-03	0.00E+00	9.31E-03
		Cs-134	<5.02E-03	0.00E+00	5.02E-03
		Cs-137	<1.31E-02	0.00E+00	1.31E-02
		Be-7	<5.72E-02	0.00E+00	5.72E-02
		K-40	7.16E-02	9.09E-02	1.47E-01
439177	3/27/2017 - 4/3/2017	I-131	<6.56E-03	0.00E+00	6.56E-03
		Cs-134	<8.80E-03	0.00E+00	8.80E-03
		Cs-137	<7.23E-03	0.00E+00	7.23E-03
		Be-7	<2.90E-02	0.00E+00	2.90E-02
		K-40	1.35E-01	7.56E-02	2.81E-02
440010	4/3/2017 - 4/10/2017	I-131	<7.59E-03	0.00E+00	7.59E-03
		Cs-134	<5.33E-03	0.00E+00	5.33E-03
		Cs-137	<9.76E-03	0.00E+00	9.76E-03
		Be-7	<5.23E-02	0.00E+00	5.23E-02
		K-40	9.57E-02	9.10E-02	1.35E-01
440603	4/10/2017 - 4/17/2017	I-131	<9.38E-03	0.00E+00	9.38E-03
		Cs-134	<4.56E-03	0.00E+00	4.56E-03
		Cs-137	<8.00E-03	0.00E+00	8.00E-03
		Be-7	<5.57E-02	0.00E+00	5.57E-02
		K-40	4.73E-01	1.45E-01	2.79E-02
441418	4/17/2017 - 4/24/2017	I-131	<6.14E-03	0.00E+00	6.14E-03
		Cs-134	<9.54E-03	0.00E+00	9.54E-03
		Cs-137	<8.58E-03	0.00E+00	8.58E-03
		Be-7	<7.40E-02	0.00E+00	7.40E-02
		K-40	4.04E-01	1.64E-01	1.81E-01
441865	4/24/2017 - 4/30/2017	I-131	<8.73E-03	0.00E+00	8.73E-03
		Cs-134	<6.67E-03	0.00E+00	6.67E-03
		Cs-137	<1.09E-02	0.00E+00	1.09E-02
		Be-7	<3.66E-02	0.00E+00	3.66E-02
		K-40	4.54E-01	1.71E-01	1.39E-01
442304	4/30/2017 - 5/8/2017	I-131	<3.44E-03	0.00E+00	3.44E-03
		Cs-134	<2.55E-03	0.00E+00	2.55E-03
		Cs-137	<2.66E-03	0.00E+00	2.66E-03
		Be-7	<2.19E-02	0.00E+00	2.19E-02
		K-40	4.16E-01	6.87E-02	4.84E-02
442876	5/8/2017 - 5/15/2017	I-131	<7.75E-03	0.00E+00	7.75E-03
		Cs-134	<7.05E-03	0.00E+00	7.05E-03
		Cs-137	<6.26E-03	0.00E+00	6.26E-03
		Be-7	<5.39E-02	0.00E+00	5.39E-02
		K-40	5.58E-01	1.58E-01	2.70E-02



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

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

Sample Point 63 [INDICATOR - SW @ 0.6 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
443305	5/15/2017 - 5/22/2017	I-131	<7.78E-03	0.00E+00	7.78E-03
		Cs-134	<8.49E-03	0.00E+00	8.49E-03
		Cs-137	<4.89E-03	0.00E+00	4.89E-03
		Be-7	<5.66E-02	0.00E+00	5.66E-02
		K-40	4.82E-01	1.62E-01	1.18E-01
443865	5/22/2017 - 5/30/2017	I-131	<1.10E-02	0.00E+00	1.10E-02
		Cs-134	<5.68E-03	0.00E+00	5.68E-03
		Cs-137	<7.06E-03	0.00E+00	7.06E-03
		Be-7	<4.60E-02	0.00E+00	4.60E-02
		K-40	3.90E-01	1.23E-01	2.46E-02
444265	5/30/2017 - 6/5/2017	I-131	<1.00E-02	0.00E+00	1.00E-02
		Cs-134	<8.00E-03	0.00E+00	8.00E-03
		Cs-137	<9.95E-03	0.00E+00	9.95E-03
		Be-7	<5.21E-02	0.00E+00	5.21E-02
		K-40	<2.73E-01	0.00E+00	2.73E-01
445326	6/5/2017 - 6/12/2017	I-131	<8.42E-03	0.00E+00	8.42E-03
		Cs-134	<6.43E-03	0.00E+00	6.43E-03
		Cs-137	<1.02E-02	0.00E+00	1.02E-02
		Be-7	<5.93E-02	0.00E+00	5.93E-02
		K-40	<2.07E-01	0.00E+00	2.07E-01
446326	6/12/2017 - 6/19/2017	I-131	<9.51E-03	0.00E+00	9.51E-03
		Cs-134	<7.27E-03	0.00E+00	7.27E-03
		Cs-137	<1.02E-02	0.00E+00	1.02E-02
		Be-7	<4.99E-02	0.00E+00	4.99E-02
		K-40	<2.52E-01	0.00E+00	2.52E-01
446832	6/19/2017 - 6/26/2017	I-131	<1.08E-02	0.00E+00	1.08E-02
		Cs-134	<7.63E-03	0.00E+00	7.63E-03
		Cs-137	<1.10E-02	0.00E+00	1.10E-02
		Be-7	<5.77E-02	0.00E+00	5.77E-02
		K-40	2.84E-01	1.33E-01	1.44E-01
447186	6/26/2017 - 7/3/2017	I-131	<1.24E-02	0.00E+00	1.24E-02
		Cs-134	<5.90E-03	0.00E+00	5.90E-03
		Cs-137	<8.92E-03	0.00E+00	8.92E-03
		Be-7	<5.33E-02	0.00E+00	5.33E-02
		K-40	2.21E-01	1.19E-01	1.31E-01
447808	7/3/2017 - 7/10/2017	I-131	<9.72E-03	0.00E+00	9.72E-03
		Cs-134	<6.38E-03	0.00E+00	6.38E-03
		Cs-137	<9.61E-03	0.00E+00	9.61E-03
		Be-7	<4.67E-02	0.00E+00	4.67E-02
		K-40	1.02E-01	8.58E-02	1.20E-01
448273	7/10/2017 - 7/17/2017	I-131	<8.82E-03	0.00E+00	8.82E-03
		Cs-134	<9.00E-03	0.00E+00	9.00E-03
		Cs-137	<8.42E-03	0.00E+00	8.42E-03
		Be-7	<5.45E-02	0.00E+00	5.45E-02
		K-40	1.17E-01	8.06E-02	8.95E-02
448901	7/17/2017 - 7/24/2017	I-131	<4.39E-03	0.00E+00	4.39E-03
		Cs-134	<5.64E-03	0.00E+00	5.64E-03
		Cs-137	<5.86E-03	0.00E+00	5.86E-03
		Be-7	<4.06E-02	0.00E+00	4.06E-02
		K-40	1.66E-01	7.23E-02	8.10E-02



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

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

Sample Point 63 [INDICATOR - SW @ 0.6 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
449223	7/24/2017 - 7/31/2017	I-131	<8.05E-03	0.00E+00	8.05E-03
		Cs-134	<7.15E-03	0.00E+00	7.15E-03
		Cs-137	<9.47E-03	0.00E+00	9.47E-03
		Be-7	<4.85E-02	0.00E+00	4.85E-02
		K-40	<1.77E-01	0.00E+00	1.77E-01
449953	7/31/2017 - 8/7/2017	I-131	<8.92E-03	0.00E+00	8.92E-03
		Cs-134	<7.13E-03	0.00E+00	7.13E-03
		Cs-137	<7.09E-03	0.00E+00	7.09E-03
		Be-7	<4.63E-02	0.00E+00	4.63E-02
		K-40	1.62E-01	9.93E-02	1.19E-01
450199	8/7/2017 - 8/14/2017	I-131	<1.02E-02	0.00E+00	1.02E-02
		Cs-134	<6.11E-03	0.00E+00	6.11E-03
		Cs-137	<1.00E-02	0.00E+00	1.00E-02
		Be-7	<5.36E-02	0.00E+00	5.36E-02
		K-40	1.81E-01	8.91E-02	2.89E-02
450734	8/14/2017 - 8/21/2017	I-131	<6.65E-03	0.00E+00	6.65E-03
		Cs-134	<6.63E-03	0.00E+00	6.63E-03
		Cs-137	<1.02E-02	0.00E+00	1.02E-02
		Be-7	<5.35E-02	0.00E+00	5.35E-02
		K-40	2.13E-01	1.04E-01	9.97E-02
451191	8/21/2017 - 8/28/2017	I-131	<9.93E-03	0.00E+00	9.93E-03
		Cs-134	<7.85E-03	0.00E+00	7.85E-03
		Cs-137	<1.15E-02	0.00E+00	1.15E-02
		Be-7	<7.74E-02	0.00E+00	7.74E-02
		K-40	<2.42E-01	0.00E+00	2.42E-01
451544	8/28/2017 - 9/5/2017	I-131	<7.68E-03	0.00E+00	7.68E-03
		Cs-134	<4.99E-03	0.00E+00	4.99E-03
		Cs-137	<9.58E-03	0.00E+00	9.58E-03
		Be-7	<4.51E-02	0.00E+00	4.51E-02
		K-40	2.23E-01	9.49E-02	2.62E-02
452352	9/5/2017 - 9/11/2017	I-131	<8.19E-03	0.00E+00	8.19E-03
		Cs-134	<7.09E-03	0.00E+00	7.09E-03
		Cs-137	<1.10E-02	0.00E+00	1.10E-02
		Be-7	<5.08E-02	0.00E+00	5.08E-02
		K-40	2.47E-01	1.13E-01	3.35E-02
452794	9/11/2017 - 9/18/2017	I-131	<9.83E-03	0.00E+00	9.83E-03
		Cs-134	<6.10E-03	0.00E+00	6.10E-03
		Cs-137	<1.00E-02	0.00E+00	1.00E-02
		Be-7	<4.92E-02	0.00E+00	4.92E-02
		K-40	<2.59E-01	0.00E+00	2.59E-01
453446	9/18/2017 - 9/25/2017	I-131	<7.38E-03	0.00E+00	7.38E-03
		Cs-134	<7.77E-03	0.00E+00	7.77E-03
		Cs-137	<8.50E-03	0.00E+00	8.50E-03
		Be-7	<5.11E-02	0.00E+00	5.11E-02
		K-40	<2.33E-01	0.00E+00	2.33E-01
454218	9/25/2017 - 10/2/2017	I-131	<1.49E-02	0.00E+00	1.49E-02
		Cs-134	<8.53E-03	0.00E+00	8.53E-03
		Cs-137	<1.32E-02	0.00E+00	1.32E-02
		Be-7	<1.13E-01	0.00E+00	1.13E-01
		K-40	3.78E-01	1.52E-01	1.38E-01



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

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

Sample Point 63 [INDICATOR - SW @ 0.6 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
455067	10/2/2017 - 10/9/2017	I-131	<1.11E-02	0.00E+00	1.11E-02
		Cs-134	<1.59E-02	0.00E+00	1.59E-02
		Cs-137	<1.37E-02	0.00E+00	1.37E-02
		Be-7	<8.38E-02	0.00E+00	8.38E-02
		K-40	2.45E-01	1.11E-01	3.32E-02
455421	10/9/2017 - 10/16/2017	I-131	<1.65E-02	0.00E+00	1.65E-02
		Cs-134	<1.47E-02	0.00E+00	1.47E-02
		Cs-137	<1.05E-02	0.00E+00	1.05E-02
		Be-7	<1.11E-01	0.00E+00	1.11E-01
		K-40	1.43E-01	1.24E-01	1.84E-01
456044	10/16/2017 - 10/23/2017	I-131	<1.47E-02	0.00E+00	1.47E-02
		Cs-134	<1.13E-02	0.00E+00	1.13E-02
		Cs-137	<1.63E-02	0.00E+00	1.63E-02
		Be-7	<9.83E-02	0.00E+00	9.83E-02
		K-40	2.93E-01	1.22E-01	3.31E-02
461420	10/23/2017 - 10/30/2017	I-131	<2.56E-02	0.00E+00	2.56E-02
		Cs-134	<1.95E-02	0.00E+00	1.95E-02
		Cs-137	<1.40E-02	0.00E+00	1.40E-02
		Be-7	<1.26E-01	0.00E+00	1.26E-01
		K-40	4.28E-01	1.79E-01	1.94E-01
461966	10/30/2017 - 11/6/2017	I-131	<2.32E-02	0.00E+00	2.32E-02
		Cs-134	<1.89E-02	0.00E+00	1.89E-02
		Cs-137	<2.19E-02	0.00E+00	2.19E-02
		Be-7	<1.19E-01	0.00E+00	1.19E-01
		K-40	4.89E-01	1.93E-01	2.03E-01
462604	11/6/2017 - 11/13/2017	I-131	<2.48E-02	0.00E+00	2.48E-02
		Cs-134	<2.13E-02	0.00E+00	2.13E-02
		Cs-137	<1.58E-02	0.00E+00	1.58E-02
		Be-7	<1.05E-01	0.00E+00	1.05E-01
		K-40	4.01E-01	1.86E-01	2.24E-01
463094	11/13/2017 - 11/20/2017	I-131	<3.90E-02	0.00E+00	3.90E-02
		Cs-134	<1.54E-02	0.00E+00	1.54E-02
		Cs-137	<1.55E-02	0.00E+00	1.55E-02
		Be-7	<1.46E-01	0.00E+00	1.46E-01
		K-40	5.75E-01	1.95E-01	1.65E-01
463514	11/20/2017 - 11/27/2017	I-131	<2.11E-02	0.00E+00	2.11E-02
		Cs-134	<1.69E-02	0.00E+00	1.69E-02
		Cs-137	<1.74E-02	0.00E+00	1.74E-02
		Be-7	<1.15E-01	0.00E+00	1.15E-01
		K-40	5.54E-01	1.89E-01	1.65E-01
463784	11/27/2017 - 12/4/2017	I-131	<2.28E-02	0.00E+00	2.28E-02
		Cs-134	<1.18E-02	0.00E+00	1.18E-02
		Cs-137	<1.52E-02	0.00E+00	1.52E-02
		Be-7	<1.13E-01	0.00E+00	1.13E-01
		K-40	5.17E-01	2.22E-01	2.71E-01
464701	12/4/2017 - 12/11/2017	I-131	<2.51E-02	0.00E+00	2.51E-02
		Cs-134	<1.85E-02	0.00E+00	1.85E-02
		Cs-137	<2.02E-02	0.00E+00	2.02E-02
		Be-7	<1.29E-01	0.00E+00	1.29E-01
		K-40	5.42E-01	1.85E-01	1.51E-01



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

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

Sample Point 63 [INDICATOR - SW @ 0.6 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
464968	12/11/2017 - 12/18/2017	I-131	<3.23E-02	0.00E+00	3.23E-02
		Cs-134	<2.02E-02	0.00E+00	2.02E-02
		Cs-137	<1.80E-02	0.00E+00	1.80E-02
		Be-7	<1.41E-01	0.00E+00	1.41E-01
		K-40	5.04E-01	1.82E-01	1.57E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
465214	12/18/2017 - 12/26/2017	I-131	<1.92E-02	0.00E+00	1.92E-02
		Cs-134	<1.35E-02	0.00E+00	1.35E-02
		Cs-137	<1.55E-02	0.00E+00	1.55E-02
		Be-7	<1.07E-01	0.00E+00	1.07E-01
		K-40	4.02E-01	1.46E-01	1.18E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
465612	12/26/2017 - 1/2/2018	I-131	<2.43E-02	0.00E+00	2.43E-02
		Cs-134	<1.49E-02	0.00E+00	1.49E-02
		Cs-137	<1.59E-02	0.00E+00	1.59E-02
		Be-7	<1.29E-01	0.00E+00	1.29E-01
		K-40	7.27E-01	2.18E-01	1.59E-01

Sample Point 90 [INDICATOR - SSW @ 0.5 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
431635	12/27/2016 - 1/3/2017	I-131	<1.09E-02	0.00E+00	1.09E-02
		Cs-134	<9.98E-03	0.00E+00	9.98E-03
		Cs-137	<8.35E-03	0.00E+00	8.35E-03
		Be-7	<4.96E-02	0.00E+00	4.96E-02
		K-40	4.07E-01	1.45E-01	1.03E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
432207	1/3/2017 - 1/9/2017	I-131	<9.44E-03	0.00E+00	9.44E-03
		Cs-134	<8.69E-03	0.00E+00	8.69E-03
		Cs-137	<1.21E-02	0.00E+00	1.21E-02
		Be-7	<5.39E-02	0.00E+00	5.39E-02
		K-40	5.84E-01	1.89E-01	1.25E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
432913	1/9/2017 - 1/16/2017	I-131	<1.05E-02	0.00E+00	1.05E-02
		Cs-134	<9.15E-03	0.00E+00	9.15E-03
		Cs-137	<1.10E-02	0.00E+00	1.10E-02
		Be-7	<5.17E-02	0.00E+00	5.17E-02
		K-40	4.25E-01	1.48E-01	1.13E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
433309	1/16/2017 - 1/23/2017	I-131	<9.44E-03	0.00E+00	9.44E-03
		Cs-134	<6.80E-03	0.00E+00	6.80E-03
		Cs-137	<5.57E-03	0.00E+00	5.57E-03
		Be-7	<5.83E-02	0.00E+00	5.83E-02
		K-40	4.72E-01	1.55E-01	1.17E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
433727	1/23/2017 - 1/30/2017	I-131	<8.44E-03	0.00E+00	8.44E-03
		Cs-134	<7.22E-03	0.00E+00	7.22E-03
		Cs-137	<7.17E-03	0.00E+00	7.17E-03
		Be-7	<5.11E-02	0.00E+00	5.11E-02
		K-40	4.00E-01	1.33E-01	2.78E-02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
434464	1/30/2017 - 2/6/2017	I-131	<7.57E-03	0.00E+00	7.57E-03
		Cs-134	<7.79E-03	0.00E+00	7.79E-03
		Cs-137	<7.99E-03	0.00E+00	7.99E-03
		Be-7	<5.58E-02	0.00E+00	5.58E-02
		K-40	4.51E-01	1.43E-01	2.84E-02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
435109	2/6/2017 - 2/13/2017	I-131	<1.13E-02	0.00E+00	1.13E-02
		Cs-134	<5.06E-03	0.00E+00	5.06E-03
		Cs-137	<8.87E-03	0.00E+00	8.87E-03



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

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

Sample Point 90 [INDICATOR - SSW @ 0.5 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
435109	2/6/2017 - 2/13/2017	Be-7	<1.18E-02	0.00E+00	1.18E-02
		K-40	<2.15E-01	0.00E+00	2.15E-01
435815	2/13/2017 - 2/20/2017	I-131	<8.31E-03	0.00E+00	8.31E-03
		Cs-134	<7.53E-03	0.00E+00	7.53E-03
		Cs-137	<8.30E-03	0.00E+00	8.30E-03
		Be-7	<5.44E-02	0.00E+00	5.44E-02
		K-40	2.02E-01	9.20E-02	2.73E-02
436266	2/20/2017 - 2/27/2017	I-131	<8.16E-03	0.00E+00	8.16E-03
		Cs-134	<8.44E-03	0.00E+00	8.44E-03
		Cs-137	<8.26E-03	0.00E+00	8.26E-03
		Be-7	<5.29E-02	0.00E+00	5.29E-02
		K-40	<2.27E-01	0.00E+00	2.27E-01
436719	2/27/2017 - 3/6/2017	I-131	<6.46E-03	0.00E+00	6.46E-03
		Cs-134	<7.70E-03	0.00E+00	7.70E-03
		Cs-137	<9.55E-03	0.00E+00	9.55E-03
		Be-7	<5.55E-02	0.00E+00	5.55E-02
		K-40	<1.65E-01	0.00E+00	1.65E-01
437584	3/6/2017 - 3/13/2017	I-131	<9.40E-03	0.00E+00	9.40E-03
		Cs-134	<1.04E-02	0.00E+00	1.04E-02
		Cs-137	<1.25E-02	0.00E+00	1.25E-02
		Be-7	<5.82E-02	0.00E+00	5.82E-02
		K-40	1.83E-01	1.12E-01	1.37E-01
438307	3/13/2017 - 3/20/2017	I-131	<7.73E-03	0.00E+00	7.73E-03
		Cs-134	<5.72E-03	0.00E+00	5.72E-03
		Cs-137	<1.10E-02	0.00E+00	1.10E-02
		Be-7	<3.98E-02	0.00E+00	3.98E-02
		K-40	<2.56E-01	0.00E+00	2.56E-01
438811	3/20/2017 - 3/27/2017	I-131	<8.05E-03	0.00E+00	8.05E-03
		Cs-134	<7.60E-03	0.00E+00	7.60E-03
		Cs-137	<1.14E-02	0.00E+00	1.14E-02
		Be-7	<6.11E-02	0.00E+00	6.11E-02
		K-40	2.45E-01	1.16E-01	1.13E-01
439178	3/27/2017 - 4/3/2017	I-131	<9.81E-03	0.00E+00	9.81E-03
		Cs-134	<6.36E-03	0.00E+00	6.36E-03
		Cs-137	<9.87E-03	0.00E+00	9.87E-03
		Be-7	<6.43E-02	0.00E+00	6.43E-02
		K-40	<2.55E-01	0.00E+00	2.55E-01
440011	4/3/2017 - 4/10/2017	I-131	<8.75E-03	0.00E+00	8.75E-03
		Cs-134	<5.02E-03	0.00E+00	5.02E-03
		Cs-137	<1.06E-02	0.00E+00	1.06E-02
		Be-7	<6.86E-02	0.00E+00	6.86E-02
		K-40	<2.20E-01	0.00E+00	2.20E-01
440604	4/10/2017 - 4/17/2017	I-131	<7.01E-03	0.00E+00	7.01E-03
		Cs-134	<7.56E-03	0.00E+00	7.56E-03
		Cs-137	<6.18E-03	0.00E+00	6.18E-03
		Be-7	<4.02E-02	0.00E+00	4.02E-02
		K-40	4.04E-01	1.39E-01	3.04E-02
441419	4/17/2017 - 4/24/2017	Nuclide	Activity	2 Sigma Error	MDA
		I-131	<9.52E-03	0.00E+00	9.52E-03



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

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

Sample Point 90 [INDICATOR - SSW @ 0.5 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
441419	4/17/2017 - 4/24/2017	Cs-134	<9.18E-03	0.00E+00	9.18E-03
		Cs-137	<9.60E-03	0.00E+00	9.60E-03
		Be-7	<6.55E-02	0.00E+00	6.55E-02
		K-40	5.77E-01	1.73E-01	1.23E-01
441866	4/24/2017 - 4/30/2017	I-131	<1.12E-02	0.00E+00	1.12E-02
		Cs-134	<1.00E-02	0.00E+00	1.00E-02
		Cs-137	<1.03E-02	0.00E+00	1.03E-02
		Be-7	<7.18E-02	0.00E+00	7.18E-02
		K-40	3.17E-01	1.63E-01	1.94E-01
442305	4/30/2017 - 5/8/2017	I-131	<1.03E-02	0.00E+00	1.03E-02
		Cs-134	<6.42E-03	0.00E+00	6.42E-03
		Cs-137	<9.43E-03	0.00E+00	9.43E-03
		Be-7	<4.39E-02	0.00E+00	4.39E-02
		K-40	5.09E-01	1.58E-01	1.23E-01
442877	5/8/2017 - 5/15/2017	I-131	<1.04E-02	0.00E+00	1.04E-02
		Cs-134	<6.41E-03	0.00E+00	6.41E-03
		Cs-137	<6.55E-03	0.00E+00	6.55E-03
		Be-7	<4.24E-02	0.00E+00	4.24E-02
		K-40	2.11E-01	1.19E-01	1.46E-01
443306	5/15/2017 - 5/22/2017	I-131	<8.53E-03	0.00E+00	8.53E-03
		Cs-134	<7.95E-03	0.00E+00	7.95E-03
		Cs-137	<8.17E-03	0.00E+00	8.17E-03
		Be-7	<4.84E-02	0.00E+00	4.84E-02
		K-40	3.78E-01	1.30E-01	2.85E-02
443866	5/22/2017 - 5/30/2017	I-131	<8.49E-03	0.00E+00	8.49E-03
		Cs-134	<5.68E-03	0.00E+00	5.68E-03
		Cs-137	<6.32E-03	0.00E+00	6.32E-03
		Be-7	<6.10E-02	0.00E+00	6.10E-02
		K-40	3.07E-01	1.13E-01	2.68E-02
444266	5/30/2017 - 6/5/2017	I-131	<8.62E-03	0.00E+00	8.62E-03
		Cs-134	<7.84E-03	0.00E+00	7.84E-03
		Cs-137	<1.14E-02	0.00E+00	1.14E-02
		Be-7	<4.82E-02	0.00E+00	4.82E-02
		K-40	<3.07E-01	0.00E+00	3.07E-01
445327	6/5/2017 - 6/12/2017	I-131	<6.91E-03	0.00E+00	6.91E-03
		Cs-134	<7.87E-03	0.00E+00	7.87E-03
		Cs-137	<9.78E-03	0.00E+00	9.78E-03
		Be-7	<5.09E-02	0.00E+00	5.09E-02
		K-40	2.78E-01	1.23E-01	1.08E-01
446327	6/12/2017 - 6/19/2017	I-131	<1.11E-02	0.00E+00	1.11E-02
		Cs-134	<5.42E-03	0.00E+00	5.42E-03
		Cs-137	<8.21E-03	0.00E+00	8.21E-03
		Be-7	<6.09E-02	0.00E+00	6.09E-02
		K-40	1.37E-01	7.69E-02	2.86E-02
446833	6/19/2017 - 6/26/2017	I-131	<9.69E-03	0.00E+00	9.69E-03
		Cs-134	<8.42E-03	0.00E+00	8.42E-03
		Cs-137	<9.90E-03	0.00E+00	9.90E-03
		Be-7	<6.04E-02	0.00E+00	6.04E-02
		K-40	2.85E-01	1.22E-01	9.63E-02



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

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

Sample Point 90 [INDICATOR - SSW @ 0.5 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
447187	6/26/2017 - 7/3/2017	I-131	<8.97E-03	0.00E+00	8.97E-03
		Cs-134	<6.72E-03	0.00E+00	6.72E-03
		Cs-137	<7.65E-03	0.00E+00	7.65E-03
		Be-7	<6.21E-02	0.00E+00	6.21E-02
		K-40	<1.87E-01	0.00E+00	1.87E-01
447809	7/3/2017 - 7/10/2017	I-131	<6.62E-03	0.00E+00	6.62E-03
		Cs-134	<8.86E-03	0.00E+00	8.86E-03
		Cs-137	<1.10E-02	0.00E+00	1.10E-02
		Be-7	<5.59E-02	0.00E+00	5.59E-02
		K-40	2.28E-01	1.12E-01	1.03E-01
448274	7/10/2017 - 7/17/2017	I-131	<8.28E-03	0.00E+00	8.28E-03
		Cs-134	<7.40E-03	0.00E+00	7.40E-03
		Cs-137	<5.15E-03	0.00E+00	5.15E-03
		Be-7	<4.91E-02	0.00E+00	4.91E-02
		K-40	1.61E-01	1.13E-01	1.49E-01
448902	7/17/2017 - 7/24/2017	I-131	<1.10E-02	0.00E+00	1.10E-02
		Cs-134	<8.70E-03	0.00E+00	8.70E-03
		Cs-137	<7.46E-03	0.00E+00	7.46E-03
		Be-7	<4.33E-02	0.00E+00	4.33E-02
		K-40	<2.44E-01	0.00E+00	2.44E-01
449224	7/24/2017 - 7/31/2017	I-131	<8.88E-03	0.00E+00	8.88E-03
		Cs-134	<8.78E-03	0.00E+00	8.78E-03
		Cs-137	<9.69E-03	0.00E+00	9.69E-03
		Be-7	<1.20E-02	0.00E+00	1.20E-02
		K-40	2.32E-01	1.05E-01	3.14E-02
449954	7/31/2017 - 8/7/2017	I-131	<1.03E-02	0.00E+00	1.03E-02
		Cs-134	<7.13E-03	0.00E+00	7.13E-03
		Cs-137	<1.09E-02	0.00E+00	1.09E-02
		Be-7	<5.75E-02	0.00E+00	5.75E-02
		K-40	2.79E-01	1.12E-01	2.91E-02
450200	8/7/2017 - 8/14/2017	I-131	<8.12E-03	0.00E+00	8.12E-03
		Cs-134	<6.67E-03	0.00E+00	6.67E-03
		Cs-137	<1.15E-02	0.00E+00	1.15E-02
		Be-7	<7.12E-02	0.00E+00	7.12E-02
		K-40	1.72E-01	1.18E-01	1.56E-01
450735	8/14/2017 - 8/21/2017	I-131	<8.93E-03	0.00E+00	8.93E-03
		Cs-134	<8.38E-03	0.00E+00	8.38E-03
		Cs-137	<7.18E-03	0.00E+00	7.18E-03
		Be-7	<6.75E-02	0.00E+00	6.75E-02
		K-40	2.26E-01	9.85E-02	2.79E-02
451192	8/21/2017 - 8/28/2017	I-131	<9.32E-03	0.00E+00	9.32E-03
		Cs-134	<7.36E-03	0.00E+00	7.36E-03
		Cs-137	<6.56E-03	0.00E+00	6.56E-03
		Be-7	<5.54E-02	0.00E+00	5.54E-02
		K-40	1.76E-01	9.40E-02	8.61E-02
451545	8/28/2017 - 9/5/2017	I-131	<8.47E-03	0.00E+00	8.47E-03
		Cs-134	<5.09E-03	0.00E+00	5.09E-03
		Cs-137	<7.05E-03	0.00E+00	7.05E-03
		Be-7	<6.10E-02	0.00E+00	6.10E-02
		K-40	<1.99E-01	0.00E+00	1.99E-01



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

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

Sample Point 90 [INDICATOR - SSW @ 0.5 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
452353	9/5/2017 - 9/11/2017	I-131	<8.81E-03	0.00E+00	8.81E-03
		Cs-134	<9.01E-03	0.00E+00	9.01E-03
		Cs-137	<1.12E-02	0.00E+00	1.12E-02
		Be-7	<7.97E-02	0.00E+00	7.97E-02
		K-40	1.49E-01	1.12E-01	1.51E-01
452795	9/11/2017 - 9/18/2017	I-131	<7.13E-03	0.00E+00	7.13E-03
		Cs-134	<5.71E-03	0.00E+00	5.71E-03
		Cs-137	<8.86E-03	0.00E+00	8.86E-03
		Be-7	<4.65E-02	0.00E+00	4.65E-02
		K-40	1.74E-01	1.02E-01	1.18E-01
453447	9/18/2017 - 9/25/2017	I-131	<9.84E-03	0.00E+00	9.84E-03
		Cs-134	<5.27E-03	0.00E+00	5.27E-03
		Cs-137	<7.20E-03	0.00E+00	7.20E-03
		Be-7	<5.10E-02	0.00E+00	5.10E-02
		K-40	<1.87E-01	0.00E+00	1.87E-01
454219	9/25/2017 - 10/2/2017	I-131	<1.77E-02	0.00E+00	1.77E-02
		Cs-134	<1.67E-02	0.00E+00	1.67E-02
		Cs-137	<1.66E-02	0.00E+00	1.66E-02
		Be-7	<9.68E-02	0.00E+00	9.68E-02
		K-40	4.79E-01	1.72E-01	1.43E-01
455068	10/2/2017 - 10/9/2017	I-131	<1.99E-02	0.00E+00	1.99E-02
		Cs-134	<1.33E-02	0.00E+00	1.33E-02
		Cs-137	<1.96E-02	0.00E+00	1.96E-02
		Be-7	<1.31E-01	0.00E+00	1.31E-01
		K-40	3.84E-01	1.68E-01	1.75E-01
455422	10/9/2017 - 10/16/2017	I-131	<1.54E-02	0.00E+00	1.55E-02
		Cs-134	<1.18E-02	0.00E+00	1.18E-02
		Cs-137	<1.17E-02	0.00E+00	1.17E-02
		Be-7	<1.05E-01	0.00E+00	1.05E-01
		K-40	<2.93E-01	0.00E+00	2.93E-01
456045	10/16/2017 - 10/23/2017	I-131	<1.48E-02	0.00E+00	1.48E-02
		Cs-134	<1.46E-02	0.00E+00	1.46E-02
		Cs-137	<1.62E-02	0.00E+00	1.62E-02
		Be-7	<8.37E-02	0.00E+00	8.37E-02
		K-40	3.30E-01	1.58E-01	1.70E-01
461421	10/23/2017 - 10/30/2017	I-131	<2.39E-02	0.00E+00	2.39E-02
		Cs-134	<1.77E-02	0.00E+00	1.77E-02
		Cs-137	<1.28E-02	0.00E+00	1.28E-02
		Be-7	<1.34E-01	0.00E+00	1.34E-01
		K-40	5.43E-01	1.93E-01	1.81E-01
461967	10/30/2017 - 11/6/2017	I-131	<2.12E-02	0.00E+00	2.12E-02
		Cs-134	<2.01E-02	0.00E+00	2.01E-02
		Cs-137	<2.26E-02	0.00E+00	2.26E-02
		Be-7	<1.28E-01	0.00E+00	1.28E-01
		K-40	4.62E-01	1.93E-01	2.13E-01
462605	11/6/2017 - 11/13/2017	I-131	<2.64E-02	0.00E+00	2.64E-02
		Cs-134	<1.85E-02	0.00E+00	1.85E-02
		Cs-137	<2.02E-02	0.00E+00	2.02E-02
		Be-7	<9.76E-02	0.00E+00	9.76E-02
		K-40	5.40E-01	1.97E-01	1.97E-01



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

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

Sample Point 90 [INDICATOR - SSW @ 0.5 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
463095	11/13/2017 - 11/20/2017	I-131	<3.22E-02	0.00E+00	3.22E-02
		Cs-134	<1.89E-02	0.00E+00	1.89E-02
		Cs-137	<1.80E-02	0.00E+00	1.80E-02
		Be-7	<1.41E-01	0.00E+00	1.41E-01
		K-40	4.92E-01	2.08E-01	2.46E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
463515	11/20/2017 - 11/27/2017	I-131	<1.71E-02	0.00E+00	1.71E-02
		Cs-134	<1.81E-02	0.00E+00	1.81E-02
		Cs-137	<1.87E-02	0.00E+00	1.87E-02
		Be-7	<1.06E-01	0.00E+00	1.06E-01
		K-40	6.98E-01	1.95E-01	3.38E-02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
463785	11/27/2017 - 12/4/2017	I-131	<2.02E-02	0.00E+00	2.02E-02
		Cs-134	<1.48E-02	0.00E+00	1.48E-02
		Cs-137	<1.47E-02	0.00E+00	1.47E-02
		Be-7	<1.40E-01	0.00E+00	1.40E-01
		K-40	4.88E-01	1.65E-01	3.58E-02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
464702	12/4/2017 - 12/11/2017	I-131	<2.38E-02	0.00E+00	2.38E-02
		Cs-134	<2.08E-02	0.00E+00	2.08E-02
		Cs-137	<1.82E-02	0.00E+00	1.82E-02
		Be-7	2.51E-02	6.14E-02	1.08E-01
		K-40	5.81E-01	1.91E-01	1.49E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
464969	12/11/2017 - 12/18/2017	I-131	<4.21E-02	0.00E+00	4.21E-02
		Cs-134	<1.62E-02	0.00E+00	1.62E-02
		Cs-137	<1.66E-02	0.00E+00	1.66E-02
		Be-7	<1.09E-01	0.00E+00	1.09E-01
		K-40	3.73E-01	2.13E-01	2.97E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
465215	12/18/2017 - 12/26/2017	I-131	<2.31E-02	0.00E+00	2.31E-02
		Cs-134	<1.47E-02	0.00E+00	1.47E-02
		Cs-137	<1.63E-02	0.00E+00	1.63E-02
		Be-7	<1.12E-01	0.00E+00	1.12E-01
		K-40	4.98E-01	1.62E-01	1.21E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
465613	12/26/2017 - 1/2/2018	I-131	<2.51E-02	0.00E+00	2.51E-02
		Cs-134	<1.80E-02	0.00E+00	1.80E-02
		Cs-137	<1.85E-02	0.00E+00	1.85E-02
		Be-7	<1.29E-01	0.00E+00	1.29E-01
		K-40	4.65E-01	1.62E-01	3.60E-02

Sample Point 91 [INDICATOR - ENE @ 1.6 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
431636	12/27/2016 - 1/3/2017	I-131	<7.26E-03	0.00E+00	7.26E-03
		Cs-134	<7.61E-03	0.00E+00	7.61E-03
		Cs-137	<6.40E-03	0.00E+00	6.40E-03
		Be-7	<5.12E-02	0.00E+00	5.12E-02
		K-40	<2.55E-01	0.00E+00	2.55E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
432208	1/3/2017 - 1/9/2017	I-131	<1.22E-02	0.00E+00	1.22E-02
		Cs-134	<6.18E-03	0.00E+00	6.18E-03
		Cs-137	<9.36E-03	0.00E+00	9.36E-03
		Be-7	<6.99E-02	0.00E+00	6.99E-02
		K-40	3.71E-01	1.51E-01	1.35E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
432914	1/9/2017 - 1/16/2017	I-131	<8.34E-03	0.00E+00	8.34E-03
		Cs-134	<6.25E-03	0.00E+00	6.25E-03
		Cs-137	<7.78E-03	0.00E+00	7.78E-03



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

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

Sample Point 91 [INDICATOR - ENE @ 1.6 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
432914	1/9/2017 - 1/16/2017	Be-7	<5.92E-02	0.00E+00	5.92E-02
		K-40	5.42E-01	1.71E-01	1.20E-01
433310	1/16/2017 - 1/23/2017	I-131	<7.78E-03	0.00E+00	7.78E-03
		Cs-134	<7.68E-03	0.00E+00	7.68E-03
		Cs-137	<5.91E-03	0.00E+00	5.91E-03
		Be-7	<5.36E-02	0.00E+00	5.36E-02
		K-40	<3.61E-01	0.00E+00	3.61E-01
433728	1/23/2017 - 1/30/2017	I-131	<1.00E-02	0.00E+00	1.00E-02
		Cs-134	<1.00E-02	0.00E+00	1.00E-02
		Cs-137	<8.37E-03	0.00E+00	8.37E-03
		Be-7	<6.22E-02	0.00E+00	6.22E-02
		K-40	6.06E-01	1.82E-01	1.31E-01
434465	1/30/2017 - 2/6/2017	I-131	<9.85E-03	0.00E+00	9.85E-03
		Cs-134	<6.41E-03	0.00E+00	6.41E-03
		Cs-137	<6.16E-03	0.00E+00	6.16E-03
		Be-7	<5.61E-02	0.00E+00	5.61E-02
		K-40	2.94E-01	1.27E-01	1.09E-01
435110	2/6/2017 - 2/13/2017	I-131	<8.91E-03	0.00E+00	8.91E-03
		Cs-134	<5.77E-03	0.00E+00	5.77E-03
		Cs-137	<8.42E-03	0.00E+00	8.42E-03
		Be-7	<7.01E-02	0.00E+00	7.01E-02
		K-40	3.89E-01	1.31E-01	2.78E-02
435816	2/13/2017 - 2/20/2017	I-131	<1.03E-02	0.00E+00	1.03E-02
		Cs-134	<7.14E-03	0.00E+00	7.14E-03
		Cs-137	<1.07E-02	0.00E+00	1.07E-02
		Be-7	<6.12E-02	0.00E+00	6.12E-02
		K-40	1.73E-01	1.01E-01	1.18E-01
436267	2/20/2017 - 2/27/2017	I-131	<9.06E-03	0.00E+00	9.06E-03
		Cs-134	<5.14E-03	0.00E+00	5.14E-03
		Cs-137	<1.09E-02	0.00E+00	1.09E-02
		Be-7	<5.83E-02	0.00E+00	5.83E-02
		K-40	2.20E-01	1.03E-01	3.14E-02
436720	2/27/2017 - 3/6/2017	I-131	<6.43E-03	0.00E+00	6.43E-03
		Cs-134	<4.61E-03	0.00E+00	4.61E-03
		Cs-137	<5.32E-03	0.00E+00	5.32E-03
		Be-7	<4.00E-02	0.00E+00	4.00E-02
		K-40	1.89E-01	7.88E-02	8.94E-02
437585	3/6/2017 - 3/13/2017	I-131	<5.32E-03	0.00E+00	5.32E-03
		Cs-134	<7.28E-03	0.00E+00	7.28E-03
		Cs-137	<1.09E-02	0.00E+00	1.09E-02
		Be-7	<5.88E-02	0.00E+00	5.88E-02
		K-40	2.03E-01	1.12E-01	1.30E-01
438308	3/13/2017 - 3/20/2017	I-131	<9.51E-03	0.00E+00	9.51E-03
		Cs-134	<7.44E-03	0.00E+00	7.44E-03
		Cs-137	<1.03E-02	0.00E+00	1.03E-02
		Be-7	<5.22E-02	0.00E+00	5.22E-02
		K-40	<2.27E-01	0.00E+00	2.27E-01
438812	3/20/2017 - 3/27/2017	Nuclide	Activity	2 Sigma Error	MDA
		I-131	<8.17E-03	0.00E+00	8.17E-03



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

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

Sample Point 91 [INDICATOR - ENE @ 1.6 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
438812	3/20/2017 - 3/27/2017	Cs-134	<9.64E-03	0.00E+00	9.64E-03
		Cs-137	<7.39E-03	0.00E+00	7.39E-03
		Be-7	<6.31E-02	0.00E+00	6.31E-02
		K-40	1.57E-01	1.16E-01	1.59E-01
439179	3/27/2017 - 4/3/2017	I-131	<9.70E-03	0.00E+00	9.70E-03
		Cs-134	<6.99E-03	0.00E+00	6.99E-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	2.25E-01	1.17E-01	1.32E-01
440012	4/3/2017 - 4/10/2017	I-131	<1.01E-02	0.00E+00	1.01E-02
		Cs-134	<7.14E-03	0.00E+00	7.14E-03
		Cs-137	<1.05E-02	0.00E+00	1.05E-02
		Be-7	<6.41E-02	0.00E+00	6.41E-02
		K-40	2.06E-01	1.05E-01	1.02E-01
440605	4/10/2017 - 4/17/2017	I-131	<8.86E-03	0.00E+00	8.86E-03
		Cs-134	<7.52E-03	0.00E+00	7.52E-03
		Cs-137	<7.72E-03	0.00E+00	7.72E-03
		Be-7	<6.41E-02	0.00E+00	6.41E-02
		K-40	2.91E-01	1.50E-01	1.93E-01
441420	4/17/2017 - 4/24/2017	I-131	<9.49E-03	0.00E+00	9.49E-03
		Cs-134	<8.23E-03	0.00E+00	8.23E-03
		Cs-137	<9.11E-03	0.00E+00	9.11E-03
		Be-7	<5.44E-02	0.00E+00	5.44E-02
		K-40	6.80E-01	2.01E-01	1.65E-01
441867	4/24/2017 - 4/30/2017	I-131	<9.58E-03	0.00E+00	9.58E-03
		Cs-134	<6.23E-03	0.00E+00	6.23E-03
		Cs-137	<6.68E-03	0.00E+00	6.68E-03
		Be-7	<6.96E-02	0.00E+00	6.96E-02
		K-40	4.15E-01	1.56E-01	1.23E-01
442306	4/30/2017 - 5/8/2017	I-131	<7.48E-03	0.00E+00	7.48E-03
		Cs-134	<5.77E-03	0.00E+00	5.77E-03
		Cs-137	<5.47E-03	0.00E+00	5.47E-03
		Be-7	<6.25E-02	0.00E+00	6.25E-02
		K-40	3.31E-01	1.46E-01	1.80E-01
442878	5/8/2017 - 5/15/2017	I-131	<9.67E-03	0.00E+00	9.67E-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	<4.79E-02	0.00E+00	4.79E-02
		K-40	4.48E-01	1.65E-01	1.65E-01
443307	5/15/2017 - 5/22/2017	I-131	<9.03E-03	0.00E+00	9.03E-03
		Cs-134	<7.89E-03	0.00E+00	7.89E-03
		Cs-137	<9.10E-03	0.00E+00	9.10E-03
		Be-7	<5.44E-02	0.00E+00	5.44E-02
		K-40	2.86E-01	1.27E-01	1.08E-01
443867	5/22/2017 - 5/30/2017	I-131	<8.79E-03	0.00E+00	8.79E-03
		Cs-134	<5.46E-03	0.00E+00	5.46E-03
		Cs-137	<6.08E-03	0.00E+00	6.08E-03
		Be-7	<3.44E-02	0.00E+00	3.44E-02
		K-40	4.37E-01	1.35E-01	2.58E-02



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

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

Sample Point 91 [INDICATOR - ENE @ 1.6 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
444267	5/30/2017 - 6/5/2017	I-131	<8.44E-03	0.00E+00	8.44E-03
		Cs-134	<7.54E-03	0.00E+00	7.54E-03
		Cs-137	<1.25E-02	0.00E+00	1.25E-02
		Be-7	<6.90E-02	0.00E+00	6.90E-02
		K-40	1.60E-01	1.13E-01	1.45E-01
445328	6/5/2017 - 6/12/2017	I-131	<7.33E-03	0.00E+00	7.33E-03
		Cs-134	<5.87E-03	0.00E+00	5.87E-03
		Cs-137	<5.63E-03	0.00E+00	5.63E-03
		Be-7	<3.69E-02	0.00E+00	3.69E-02
		K-40	<2.17E-01	0.00E+00	2.17E-01
446328	6/12/2017 - 6/19/2017	I-131	<1.08E-02	0.00E+00	1.08E-02
		Cs-134	<9.18E-03	0.00E+00	9.18E-03
		Cs-137	<1.24E-02	0.00E+00	1.24E-02
		Be-7	<1.21E-02	0.00E+00	1.21E-02
		K-40	2.61E-01	1.20E-01	1.03E-01
446834	6/19/2017 - 6/26/2017	I-131	<8.94E-03	0.00E+00	8.94E-03
		Cs-134	<6.70E-03	0.00E+00	6.70E-03
		Cs-137	<8.85E-03	0.00E+00	8.85E-03
		Be-7	<5.81E-02	0.00E+00	5.81E-02
		K-40	1.74E-01	9.68E-02	1.03E-01
447188	6/26/2017 - 7/3/2017	I-131	<9.99E-03	0.00E+00	9.99E-03
		Cs-134	<8.04E-03	0.00E+00	8.04E-03
		Cs-137	<1.11E-02	0.00E+00	1.11E-02
		Be-7	<5.21E-02	0.00E+00	5.21E-02
		K-40	<2.33E-01	0.00E+00	2.33E-01
447810	7/3/2017 - 7/10/2017	I-131	<8.50E-03	0.00E+00	8.50E-03
		Cs-134	<5.91E-03	0.00E+00	5.91E-03
		Cs-137	<1.06E-02	0.00E+00	1.06E-02
		Be-7	<6.32E-02	0.00E+00	6.32E-02
		K-40	<2.24E-01	0.00E+00	2.24E-01
448275	7/10/2017 - 7/17/2017	I-131	<1.00E-02	0.00E+00	1.00E-02
		Cs-134	<8.19E-03	0.00E+00	8.19E-03
		Cs-137	<8.13E-03	0.00E+00	8.13E-03
		Be-7	<3.24E-02	0.00E+00	3.24E-02
		K-40	<2.57E-01	0.00E+00	2.57E-01
448903	7/17/2017 - 7/24/2017	I-131	<7.19E-03	0.00E+00	7.19E-03
		Cs-134	<6.78E-03	0.00E+00	6.78E-03
		Cs-137	<8.41E-03	0.00E+00	8.41E-03
		Be-7	<4.21E-02	0.00E+00	4.21E-02
		K-40	<1.71E-01	0.00E+00	1.71E-01
449225	7/24/2017 - 7/31/2017	I-131	<8.95E-03	0.00E+00	8.95E-03
		Cs-134	<7.71E-03	0.00E+00	7.71E-03
		Cs-137	<9.08E-03	0.00E+00	9.08E-03
		Be-7	<6.51E-02	0.00E+00	6.51E-02
		K-40	1.94E-01	9.88E-02	9.00E-02
449955	7/31/2017 - 8/7/2017	I-131	<7.83E-03	0.00E+00	7.83E-03
		Cs-134	<7.51E-03	0.00E+00	7.51E-03
		Cs-137	<8.81E-03	0.00E+00	8.81E-03
		Be-7	<5.05E-02	0.00E+00	5.05E-02
		K-40	1.71E-01	1.01E-01	1.19E-01



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

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

Sample Point 91 [INDICATOR - ENE @ 1.6 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
450201	8/7/2017 - 8/14/2017	I-131	<9.79E-03	0.00E+00	9.79E-03
		Cs-134	<6.67E-03	0.00E+00	6.67E-03
		Cs-137	<1.15E-02	0.00E+00	1.15E-02
		Be-7	<5.77E-02	0.00E+00	5.77E-02
		K-40	<2.21E-01	0.00E+00	2.21E-01
450736	8/14/2017 - 8/21/2017	I-131	<9.13E-03	0.00E+00	9.13E-03
		Cs-134	<8.35E-03	0.00E+00	8.35E-03
		Cs-137	<1.04E-02	0.00E+00	1.04E-02
		Be-7	<6.69E-02	0.00E+00	6.69E-02
		K-40	<1.84E-01	0.00E+00	1.84E-01
451193	8/21/2017 - 8/28/2017	I-131	<7.67E-03	0.00E+00	7.67E-03
		Cs-134	<6.24E-03	0.00E+00	6.24E-03
		Cs-137	<8.48E-03	0.00E+00	8.48E-03
		Be-7	<5.84E-02	0.00E+00	5.84E-02
		K-40	2.66E-01	1.35E-01	1.56E-01
451546	8/28/2017 - 9/5/2017	I-131	<8.53E-03	0.00E+00	8.53E-03
		Cs-134	<7.52E-03	0.00E+00	7.52E-03
		Cs-137	<9.80E-03	0.00E+00	9.80E-03
		Be-7	<5.06E-02	0.00E+00	5.06E-02
		K-40	1.83E-01	9.52E-02	9.18E-02
452354	9/5/2017 - 9/11/2017	I-131	<1.24E-02	0.00E+00	1.24E-02
		Cs-134	<9.11E-03	0.00E+00	9.11E-03
		Cs-137	<1.31E-02	0.00E+00	1.31E-02
		Be-7	<7.71E-02	0.00E+00	7.71E-02
		K-40	<2.67E-01	0.00E+00	2.67E-01
452796	9/11/2017 - 9/18/2017	I-131	<1.30E-02	0.00E+00	1.30E-02
		Cs-134	<6.39E-03	0.00E+00	6.39E-03
		Cs-137	<1.05E-02	0.00E+00	1.05E-02
		Be-7	<4.26E-02	0.00E+00	4.26E-02
		K-40	1.42E-01	9.98E-02	1.31E-01
453448	9/18/2017 - 9/25/2017	I-131	<1.19E-02	0.00E+00	1.19E-02
		Cs-134	<8.25E-03	0.00E+00	8.25E-03
		Cs-137	<8.39E-03	0.00E+00	8.39E-03
		Be-7	<7.74E-02	0.00E+00	7.74E-02
		K-40	2.84E-01	1.14E-01	2.96E-02
454220	9/25/2017 - 10/2/2017	I-131	<1.68E-02	0.00E+00	1.68E-02
		Cs-134	<1.27E-02	0.00E+00	1.27E-02
		Cs-137	<1.69E-02	0.00E+00	1.69E-02
		Be-7	<9.12E-02	0.00E+00	9.12E-02
		K-40	2.40E-01	1.72E-01	2.53E-01
455069	10/2/2017 - 10/10/2017	I-131	<1.41E-02	0.00E+00	1.41E-02
		Cs-134	<1.57E-02	0.00E+00	1.57E-02
		Cs-137	<1.26E-02	0.00E+00	1.26E-02
		Be-7	<1.01E-01	0.00E+00	1.01E-01
		K-40	<2.57E-01	0.00E+00	2.57E-01
455423	10/10/2017 - 10/16/2017	I-131	<2.11E-02	0.00E+00	2.11E-02
		Cs-134	<1.54E-02	0.00E+00	1.54E-02
		Cs-137	<2.01E-02	0.00E+00	2.01E-02
		Be-7	<1.30E-01	0.00E+00	1.30E-01
		K-40	4.44E-01	2.10E-01	2.59E-01



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

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

Sample Point 91 [INDICATOR - ENE @ 1.6 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
456046	10/16/2017 - 10/23/2017	I-131	<1.82E-02	0.00E+00	1.82E-02
		Cs-134	<1.96E-02	0.00E+00	1.96E-02
		Cs-137	<1.45E-02	0.00E+00	1.45E-02
		Be-7	<1.27E-01	0.00E+00	1.27E-01
		K-40	<2.76E-01	0.00E+00	2.76E-01
461422	10/23/2017 - 10/30/2017	I-131	<1.93E-02	0.00E+00	1.93E-02
		Cs-134	<1.64E-02	0.00E+00	1.64E-02
		Cs-137	<1.80E-02	0.00E+00	1.80E-02
		Be-7	<1.08E-01	0.00E+00	1.08E-01
		K-40	4.54E-01	2.18E-01	2.85E-01
461968	10/30/2017 - 11/6/2017	I-131	<2.02E-02	0.00E+00	2.02E-02
		Cs-134	<1.54E-02	0.00E+00	1.54E-02
		Cs-137	<1.71E-02	0.00E+00	1.71E-02
		Be-7	<1.31E-01	0.00E+00	1.31E-01
		K-40	4.67E-01	1.73E-01	1.43E-01
462606	11/6/2017 - 11/13/2017	I-131	<2.19E-02	0.00E+00	2.19E-02
		Cs-134	<1.98E-02	0.00E+00	1.98E-02
		Cs-137	<1.74E-02	0.00E+00	1.74E-02
		Be-7	<1.33E-01	0.00E+00	1.33E-01
		K-40	5.12E-01	1.89E-01	1.81E-01
463096	11/13/2017 - 11/20/2017	I-131	<3.23E-02	0.00E+00	3.23E-02
		Cs-134	<1.82E-02	0.00E+00	1.82E-02
		Cs-137	<1.70E-02	0.00E+00	1.70E-02
		Be-7	<1.31E-01	0.00E+00	1.31E-01
		K-40	5.60E-01	2.11E-01	2.27E-01
463516	11/20/2017 - 11/27/2017	I-131	<2.13E-02	0.00E+00	2.13E-02
		Cs-134	<1.75E-02	0.00E+00	1.75E-02
		Cs-137	<1.95E-02	0.00E+00	1.95E-02
		Be-7	<9.93E-02	0.00E+00	9.93E-02
		K-40	4.37E-01	1.77E-01	1.83E-01
463786	11/27/2017 - 12/4/2017	I-131	<2.26E-02	0.00E+00	2.26E-02
		Cs-134	<1.92E-02	0.00E+00	1.92E-02
		Cs-137	<1.84E-02	0.00E+00	1.84E-02
		Be-7	<1.16E-01	0.00E+00	1.16E-01
		K-40	6.39E-01	2.16E-01	2.04E-01
464703	12/4/2017 - 12/11/2017	I-131	<2.49E-02	0.00E+00	2.49E-02
		Cs-134	<1.86E-02	0.00E+00	1.86E-02
		Cs-137	<1.96E-02	0.00E+00	1.96E-02
		Be-7	<1.21E-01	0.00E+00	1.21E-01
		K-40	4.77E-01	1.91E-01	2.06E-01
464970	12/11/2017 - 12/18/2017	I-131	<4.42E-02	0.00E+00	4.42E-02
		Cs-134	<1.69E-02	0.00E+00	1.69E-02
		Cs-137	<1.84E-02	0.00E+00	1.84E-02
		Be-7	<1.13E-01	0.00E+00	1.13E-01
		K-40	7.35E-01	2.23E-01	1.88E-01
465216	12/18/2017 - 12/26/2017	I-131	<2.00E-02	0.00E+00	2.00E-02
		Cs-134	<1.35E-02	0.00E+00	1.35E-02
		Cs-137	<1.62E-02	0.00E+00	1.62E-02
		Be-7	<9.91E-02	0.00E+00	9.91E-02
		K-40	3.48E-01	1.80E-01	2.41E-01



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

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

Sample Point 91 [INDICATOR - ENE @ 1.6 miles]

Sample ID:	Sample Dates:	LYNGBYA	Nuclide	Activity	2 Sigma Error	MDA
465614	12/26/2017 - 1/2/2018		I-131	<2.50E-02	0.00E+00	2.50E-02
			Cs-134	<2.01E-02	0.00E+00	2.01E-02
			Cs-137	<1.77E-02	0.00E+00	1.77E-02
			Be-7	<1.14E-01	0.00E+00	1.14E-01
			K-40	5.71E-01	2.08E-01	2.07E-01

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

Sample Point 26 [INDICATOR - S @ 4.7 miles]

Sample ID:	Sample Dates:	LYNGBYA	Nuclide	Activity	2 Sigma Error	MDA
455058	10/13/2017 - 10/13/2017		Mn-54	<2.63E+00	0.00E+00	2.63E+00
			Co-58	<1.71E+00	0.00E+00	1.71E+00
			Fe-59	<5.18E+00	0.00E+00	5.18E+00
			Co-60	5.67E+00	2.99E+00	4.61E+00
			Zn-65	<5.77E+00	0.00E+00	5.77E+00
			Zr-95	<5.14E+00	0.00E+00	5.14E+00
			Nb-95	<3.12E+00	0.00E+00	3.12E+00
			I-131	<6.19E+00	0.00E+00	6.19E+00
			Cs-134	<3.90E+00	0.00E+00	3.90E+00
			Cs-137	7.77E+00	1.23E+00	2.95E+00
			BaLa-140	<4.23E+00	0.00E+00	4.23E+00
			Be-7	4.58E+02	5.26E+01	3.85E+01
			K-40	1.08E+03	1.05E+02	4.31E+01

Sample ID:	Sample Dates:	LYNGBYA	Nuclide	Activity	2 Sigma Error	MDA
462871	10/30/2017 - 10/30/2017		Mn-54	<6.78E+00	0.00E+00	6.78E+00
			Co-58	<6.34E+00	0.00E+00	6.34E+00
			Fe-59	<1.22E+01	0.00E+00	1.22E+01
			Co-60	2.46E+01	6.58E+00	7.84E+00
			Zn-65	<1.46E+01	0.00E+00	1.46E+01
			Zr-95	<1.17E+01	0.00E+00	1.17E+01
			Nb-95	<6.36E+00	0.00E+00	6.36E+00
			I-131	<6.18E+00	0.00E+00	6.18E+00
			Cs-134	<6.28E+00	0.00E+00	6.28E+00
			Cs-137	1.32E+01	6.05E+00	9.06E+00
			BaLa-140	<5.76E+00	0.00E+00	5.76E+00
			Be-7	6.70E+02	8.64E+01	7.15E+01
			K-40	3.01E+03	2.78E+02	6.24E+01

Sample Point 41 [INDICATOR - S @ 3.8 miles]

Sample ID:	Sample Dates:	LYNGBYA	Nuclide	Activity	2 Sigma Error	MDA
455059	10/13/2017 - 10/13/2017		Mn-54	<3.63E+00	0.00E+00	3.63E+00
			Co-58	<3.61E+00	0.00E+00	3.61E+00
			Fe-59	<6.69E+00	0.00E+00	6.69E+00
			Co-60	5.91E+00	1.77E+00	3.21E+00
			Zn-65	<5.85E+00	0.00E+00	5.85E+00
			Zr-95	<6.03E+00	0.00E+00	6.03E+00
			Nb-95	<4.04E+00	0.00E+00	4.04E+00
			I-131	<7.20E+00	0.00E+00	7.20E+00
			Cs-134	<5.46E+00	0.00E+00	5.46E+00
			Cs-137	1.06E+01	2.09E+00	3.76E+00
			BaLa-140	<4.60E+00	0.00E+00	4.60E+00
			Be-7	4.59E+02	4.44E+01	3.21E+01
			K-40	2.08E+03	1.84E+02	4.74E+01

Sample ID:	Sample Dates:	LYNGBYA	Nuclide	Activity	2 Sigma Error	MDA
462873	10/30/2017 - 10/30/2017		Mn-54	<7.98E+00	0.00E+00	7.98E+00
			Co-58	<5.95E+00	0.00E+00	5.95E+00
			Fe-59	<8.67E+00	0.00E+00	8.67E+00
			Co-60	2.17E+01	6.43E+00	8.09E+00
			Zn-65	<1.09E+01	0.00E+00	1.09E+01
			Zr-95	<9.66E+00	0.00E+00	9.66E+00
			Nb-95	<5.61E+00	0.00E+00	5.61E+00
			I-131	<5.65E+00	0.00E+00	5.65E+00
			Cs-134	<8.11E+00	0.00E+00	8.11E+00
			Cs-137	4.37E+00	5.32E+00	8.72E+00



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

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

Sample Point 41 [INDICATOR - S @ 3.8 miles]

Sample ID:	Sample Dates:	LYNGBYA	Nuclide	Activity	2 Sigma Error	MDA
462873	10/30/2017 - 10/30/2017		BaLa-140	<6.71E+00	0.00E+00	6.71E+00
			Be-7	3.25E+02	4.74E+01	5.43E+01
			K-40	1.29E+03	1.54E+02	9.26E+01

Sample Point 61 [CONTROL - E @ 2.5 miles]

Sample ID:	Sample Dates:	HYDRILLA	Nuclide	Activity	2 Sigma Error	MDA
455060	10/13/2017 - 10/13/2017		Mn-54	<3.17E+00	0.00E+00	3.17E+00
			Co-58	<3.30E+00	0.00E+00	3.30E+00
			Fe-59	<7.02E+00	0.00E+00	7.02E+00
			Co-60	<3.12E+00	0.00E+00	3.12E+00
			Zn-65	<7.18E+00	0.00E+00	7.18E+00
			Zr-95	<5.46E+00	0.00E+00	5.46E+00
			Nb-95	<3.34E+00	0.00E+00	3.34E+00
			I-131	<7.44E+00	0.00E+00	7.44E+00
			Cs-134	<4.82E+00	0.00E+00	4.82E+00
			Cs-137	1.13E+01	3.20E+00	4.32E+00
			BaLa-140	<5.19E+00	0.00E+00	5.19E+00
			Be-7	9.26E+01	2.63E+01	3.71E+01
			K-40	1.61E+03	1.56E+02	5.90E+01

Sample ID:	Sample Dates:	HYDRILLA	Nuclide	Activity	2 Sigma Error	MDA
462872	10/30/2017 - 10/30/2017		Mn-54	<7.41E+00	0.00E+00	7.41E+00
			Co-58	<7.24E+00	0.00E+00	7.24E+00
			Fe-59	<1.41E+01	0.00E+00	1.41E+01
			Co-60	<6.58E+00	0.00E+00	6.58E+00
			Zn-65	<1.30E+01	0.00E+00	1.30E+01
			Zr-95	<1.18E+01	0.00E+00	1.18E+01
			Nb-95	<7.40E+00	0.00E+00	7.40E+00
			I-131	<7.10E+00	0.00E+00	7.10E+00
			Cs-134	<7.69E+00	0.00E+00	7.69E+00
			Cs-137	7.71E+00	5.54E+00	8.55E+00
			BaLa-140	<8.91E+00	0.00E+00	8.91E+00
			Be-7	2.69E+02	6.33E+01	8.04E+01
			K-40	1.85E+03	2.17E+02	1.20E+02

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

Sample Point 97 [CONTROL - NW @ 19.1 miles]

Sample ID:	Sample Dates:	CABBAGE	Nuclide	Activity	2 Sigma Error	MDA
432209	1/3/2017 - 1/3/2017		I-131	<1.02E+01	0.00E+00	1.02E+01
			Cs-134	<8.75E+00	0.00E+00	8.75E+00
			Cs-137	<1.11E+01	0.00E+00	1.11E+01
			Be-7	<6.93E+01	0.00E+00	6.93E+01
			K-40	1.89E+03	2.90E+02	1.39E+02

Sample ID:	Sample Dates:	LETTUCE	Nuclide	Activity	2 Sigma Error	MDA
432211	1/3/2017 - 1/3/2017		I-131	<1.27E+01	0.00E+00	1.27E+01
			Cs-134	<1.75E+01	0.00E+00	1.75E+01
			Cs-137	<1.59E+01	0.00E+00	1.59E+01
			Be-7	<8.32E+01	0.00E+00	8.32E+01
			K-40	1.54E+03	3.01E+02	1.85E+02

Sample ID:	Sample Dates:	COLLARDS	Nuclide	Activity	2 Sigma Error	MDA
432210	1/3/2017 - 1/3/2017		I-131	<1.06E+01	0.00E+00	1.06E+01
			Cs-134	<1.42E+01	0.00E+00	1.42E+01
			Cs-137	<1.20E+01	0.00E+00	1.20E+01
			Be-7	6.95E+02	1.39E+02	1.32E+02
			K-40	2.85E+03	3.91E+02	1.48E+02

Sample ID:	Sample Dates:	COLLARDS	Nuclide	Activity	2 Sigma Error	MDA
435111	2/7/2017 - 2/7/2017		I-131	<9.71E+00	0.00E+00	9.71E+00
			Cs-134	<1.13E+01	0.00E+00	1.13E+01
			Cs-137	<1.22E+01	0.00E+00	1.22E+01
			Be-7	2.19E+02	9.08E+01	1.23E+02
			K-40	1.93E+03	3.19E+02	2.00E+02



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

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

Sample Point 97 [CONTROL - NW @ 19.1 miles]

Sample ID:	Sample Dates:	CABBAGE	Nuclide	Activity	2 Sigma Error	MDA
435112	2/7/2017 - 2/7/2017		I-131	<1.15E+01	0.00E+00	1.15E+01
			Cs-134	<1.16E+01	0.00E+00	1.16E+01
			Cs-137	<1.31E+01	0.00E+00	1.31E+01
			Be-7	<7.30E+01	0.00E+00	7.30E+01
			K-40	2.41E+03	3.76E+02	2.06E+02
Sample ID:	Sample Dates:	LETTUCE	Nuclide	Activity	2 Sigma Error	MDA
435113	2/7/2017 - 2/7/2017		I-131	<1.02E+01	0.00E+00	1.02E+01
			Cs-134	<1.40E+01	0.00E+00	1.40E+01
			Cs-137	<1.45E+01	0.00E+00	1.45E+01
			Be-7	4.09E+02	1.05E+02	1.02E+02
			K-40	2.10E+03	3.39E+02	1.34E+02
Sample ID:	Sample Dates:	COLLARDS	Nuclide	Activity	2 Sigma Error	MDA
437586	3/13/2017 - 3/13/2017		I-131	<1.23E+01	0.00E+00	1.23E+01
			Cs-134	<1.36E+01	0.00E+00	1.36E+01
			Cs-137	<1.01E+01	0.00E+00	1.01E+01
			Be-7	9.53E+01	8.34E+01	1.31E+02
			K-40	1.85E+03	3.17E+02	1.30E+02
Sample ID:	Sample Dates:	KALE	Nuclide	Activity	2 Sigma Error	MDA
437587	3/13/2017 - 3/13/2017		I-131	<9.86E+00	0.00E+00	9.86E+00
			Cs-134	<1.28E+01	0.00E+00	1.28E+01
			Cs-137	<1.24E+01	0.00E+00	1.24E+01
			Be-7	<1.12E+02	0.00E+00	1.12E+02
			K-40	1.83E+03	3.36E+02	2.65E+02
Sample ID:	Sample Dates:	CHARD	Nuclide	Activity	2 Sigma Error	MDA
437588	3/13/2017 - 3/13/2017		I-131	<1.16E+01	0.00E+00	1.16E+01
			Cs-134	<1.30E+01	0.00E+00	1.30E+01
			Cs-137	<1.26E+01	0.00E+00	1.26E+01
			Be-7	<1.01E+02	0.00E+00	1.01E+02
			K-40	2.29E+03	3.61E+02	1.48E+02
Sample ID:	Sample Dates:	CHARD	Nuclide	Activity	2 Sigma Error	MDA
440013	4/10/2017 - 4/10/2017		I-131	<1.07E+01	0.00E+00	1.07E+01
			Cs-134	<9.01E+00	0.00E+00	9.01E+00
			Cs-137	<1.47E+01	0.00E+00	1.47E+01
			Be-7	<8.52E+01	0.00E+00	8.52E+01
			K-40	1.46E+03	2.66E+02	2.59E+01
Sample ID:	Sample Dates:	KALE	Nuclide	Activity	2 Sigma Error	MDA
440014	4/10/2017 - 4/10/2017		I-131	<1.30E+01	0.00E+00	1.30E+01
			Cs-134	<1.49E+01	0.00E+00	1.49E+01
			Cs-137	<1.39E+01	0.00E+00	1.39E+01
			Be-7	1.43E+02	9.42E+01	1.41E+02
			K-40	1.53E+03	2.98E+02	1.45E+02
Sample ID:	Sample Dates:	COLLARDS	Nuclide	Activity	2 Sigma Error	MDA
440015	4/10/2017 - 4/10/2017		I-131	<9.42E+00	0.00E+00	9.42E+00
			Cs-134	<1.31E+01	0.00E+00	1.31E+01
			Cs-137	<1.22E+01	0.00E+00	1.22E+01
			Be-7	<1.13E+02	0.00E+00	1.13E+02
			K-40	1.63E+03	2.91E+02	1.83E+02
Sample ID:	Sample Dates:	ARUGULA	Nuclide	Activity	2 Sigma Error	MDA
442310	5/8/2017 - 5/8/2017		I-131	<1.28E+01	0.00E+00	1.28E+01
			Cs-134	<2.30E+01	0.00E+00	2.30E+01
			Cs-137	<1.99E+01	0.00E+00	1.99E+01
			Be-7	2.19E+02	1.34E+02	2.02E+02
			K-40	4.86E+03	6.51E+02	3.41E+02
Sample ID:	Sample Dates:	BEETLEAVES	Nuclide	Activity	2 Sigma Error	MDA
442311	5/8/2017 - 5/8/2017		I-131	<1.10E+01	0.00E+00	1.10E+01
			Cs-134	<1.41E+01	0.00E+00	1.41E+01
			Cs-137	<1.48E+01	0.00E+00	1.48E+01
			Be-7	<1.29E+02	0.00E+00	1.29E+02
			K-40	2.24E+03	3.56E+02	1.71E+02



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

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

Sample Point 97 [CONTROL - NW @ 19.1 miles]

Sample ID:	Sample Dates:	CROP	Nuclide	Activity	2 Sigma Error	MDA
442312	5/8/2017 - 5/8/2017	CHARD	I-131	<9.45E+00	0.00E+00	9.45E+00
			Cs-134	<1.14E+01	0.00E+00	1.14E+01
			Cs-137	<1.21E+01	0.00E+00	1.21E+01
			Be-7	<8.79E+01	0.00E+00	8.79E+01
			K-40	2.38E+03	3.68E+02	1.65E+02
445334	6/6/2017 - 6/6/2017	KALE	I-131	<1.29E+01	0.00E+00	1.29E+01
			Cs-134	<1.71E+01	0.00E+00	1.72E+01
			Cs-137	<1.43E+01	0.00E+00	1.43E+01
			Be-7	<1.13E+02	0.00E+00	1.13E+02
			K-40	3.02E+03	4.54E+02	1.52E+02
445332	6/6/2017 - 6/6/2017	CABBAGE	I-131	<1.13E+01	0.00E+00	1.13E+01
			Cs-134	<1.42E+01	0.00E+00	1.42E+01
			Cs-137	<1.11E+01	0.00E+00	1.11E+01
			Be-7	<9.02E+01	0.00E+00	9.02E+01
			K-40	2.41E+03	3.87E+02	1.75E+02
445333	6/6/2017 - 6/6/2017	CHARD	I-131	<8.98E+00	0.00E+00	8.98E+00
			Cs-134	<1.33E+01	0.00E+00	1.33E+01
			Cs-137	<1.30E+01	0.00E+00	1.30E+01
			Be-7	<9.39E+01	0.00E+00	9.39E+01
			K-40	2.32E+03	3.72E+02	1.78E+02
447814	7/3/2017 - 7/3/2017	CABBAGE	I-131	<1.14E+01	0.00E+00	1.14E+01
			Cs-134	<1.46E+01	0.00E+00	1.46E+01
			Cs-137	<1.18E+01	0.00E+00	1.18E+01
			Be-7	<9.50E+01	0.00E+00	9.50E+01
			K-40	1.70E+03	3.03E+02	1.54E+02
447815	7/3/2017 - 7/3/2017	CUCUMBERS	I-131	<9.33E+00	0.00E+00	9.33E+00
			Cs-134	<1.37E+01	0.00E+00	1.37E+01
			Cs-137	<1.33E+01	0.00E+00	1.33E+01
			Be-7	<8.63E+01	0.00E+00	8.63E+01
			K-40	1.29E+03	4.69E+02	2.89E+01
447816	7/3/2017 - 7/3/2017	KALE	I-131	<1.34E+01	0.00E+00	1.34E+01
			Cs-134	<1.63E+01	0.00E+00	1.63E+01
			Cs-137	<1.94E+01	0.00E+00	1.94E+01
			Be-7	3.22E+02	1.20E+02	1.45E+02
			K-40	3.08E+03	4.79E+02	3.65E+01
450205	8/7/2017 - 8/7/2017	PEPPERS	I-131	<1.24E+01	0.00E+00	1.24E+01
			Cs-134	<1.17E+01	0.00E+00	1.17E+01
			Cs-137	<1.34E+01	0.00E+00	1.34E+01
			Be-7	<1.03E+02	0.00E+00	1.03E+02
			K-40	1.33E+03	3.08E+02	2.45E+02
450207	8/7/2017 - 8/7/2017	TOMATOES	I-131	<1.16E+01	0.00E+00	1.16E+01
			Cs-134	<1.23E+01	0.00E+00	1.23E+01
			Cs-137	<1.16E+01	0.00E+00	1.16E+01
			Be-7	<9.42E+01	0.00E+00	9.42E+01
			K-40	1.78E+03	3.05E+02	2.72E+01
450206	8/7/2017 - 8/7/2017	SQUASH	I-131	<9.88E+00	0.00E+00	9.88E+00
			Cs-134	<9.82E+00	0.00E+00	9.82E+00
			Cs-137	<1.38E+01	0.00E+00	1.38E+01
			Be-7	<6.47E+01	0.00E+00	6.47E+01
			K-40	1.69E+03	2.94E+02	1.66E+02



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

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

Sample Point 97 [CONTROL - NW @ 19.1 miles]

Sample ID:	Sample Dates:	Sample Type:	Nuclide	Activity	2 Sigma Error	MDA
452358	9/11/2017 - 9/11/2017	ZUCCHINI	I-131	<8.24E+00	0.00E+00	8.24E+00
			Cs-134	<9.44E+00	0.00E+00	9.44E+00
			Cs-137	<8.15E+00	0.00E+00	8.15E+00
			Be-7	<7.48E+01	0.00E+00	7.48E+01
			K-40	1.90E+03	2.98E+02	9.33E+01
452359	9/11/2017 - 9/11/2017	OKRA	I-131	<1.13E+01	0.00E+00	1.13E+01
			Cs-134	<1.21E+01	0.00E+00	1.21E+01
			Cs-137	<1.67E+01	0.00E+00	1.67E+01
			Be-7	<8.38E+01	0.00E+00	8.38E+01
			K-40	2.80E+03	4.49E+02	3.02E+02
452360	9/11/2017 - 9/11/2017	TOMATOES	I-131	<9.77E+00	0.00E+00	9.77E+00
			Cs-134	<1.35E+01	0.00E+00	1.35E+01
			Cs-137	<1.26E+01	0.00E+00	1.26E+01
			Be-7	<7.52E+01	0.00E+00	7.52E+01
			K-40	2.59E+03	3.88E+02	1.27E+02
455073	10/10/2017 - 10/10/2017	GREENBEANS	I-131	<1.62E+01	0.00E+00	1.62E+01
			Cs-134	<1.71E+01	0.00E+00	1.71E+01
			Cs-137	<1.38E+01	0.00E+00	1.38E+01
			Be-7	<1.01E+02	0.00E+00	1.01E+02
			K-40	3.06E+03	4.48E+02	1.50E+02
455074	10/10/2017 - 10/10/2017	EGGPLANT	I-131	<9.82E+00	0.00E+00	9.82E+00
			Cs-134	<1.08E+01	0.00E+00	1.08E+01
			Cs-137	<1.25E+01	0.00E+00	1.25E+01
			Be-7	<8.38E+01	0.00E+00	8.38E+01
			K-40	1.52E+03	2.94E+02	2.43E+02
455075	10/10/2017 - 10/10/2017	CHARD	I-131	<9.24E+00	0.00E+00	9.24E+00
			Cs-134	<1.11E+01	0.00E+00	1.11E+01
			Cs-137	<1.01E+01	0.00E+00	1.01E+01
			Be-7	<7.50E+01	0.00E+00	7.50E+01
			K-40	2.07E+03	3.40E+02	1.58E+02
462607	11/9/2017 - 11/9/2017	CHARD	I-131	<4.10E+01	0.00E+00	4.10E+01
			Cs-134	<2.72E+01	0.00E+00	2.72E+01
			Cs-137	<2.89E+01	0.00E+00	2.89E+01
			Be-7	7.12E+01	1.37E+02	2.36E+02
			K-40	1.90E+03	4.67E+02	6.87E+01
462608	11/9/2017 - 11/9/2017	COLLARDS	I-131	<3.23E+01	0.00E+00	3.23E+01
			Cs-134	<2.52E+01	0.00E+00	2.52E+01
			Cs-137	<2.62E+01	0.00E+00	2.62E+01
			Be-7	<1.87E+02	0.00E+00	1.87E+02
			K-40	2.18E+03	5.61E+02	5.56E+02
462609	11/9/2017 - 11/9/2017	SPINACH	I-131	<4.69E+01	0.00E+00	4.69E+01
			Cs-134	<3.73E+01	0.00E+00	3.73E+01
			Cs-137	<3.09E+01	0.00E+00	3.09E+01
			Be-7	<2.42E+02	0.00E+00	2.42E+02
			K-40	5.42E+03	9.07E+02	4.47E+02
464704	12/4/2017 - 12/4/2017	CABBAGE	I-131	<4.55E+01	0.00E+00	4.55E+01
			Cs-134	<4.17E+01	0.00E+00	4.17E+01
			Cs-137	<3.29E+01	0.00E+00	3.29E+01
			Be-7	<2.70E+02	0.00E+00	2.70E+02
			K-40	1.80E+03	5.38E+02	4.45E+02



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

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

Sample Point 97 [CONTROL - NW @ 19.1 miles]

Sample ID:	Sample Dates:	CHARD	Nuclide	Activity	2 Sigma Error	MDA
464705	12/4/2017 - 12/4/2017		I-131	<4.54E+01	0.00E+00	4.54E+01
			Cs-134	<2.85E+01	0.00E+00	2.85E+01
			Cs-137	<2.98E+01	0.00E+00	2.98E+01
			Be-7	<2.45E+02	0.00E+00	2.45E+02
			K-40	4.97E+03	8.22E+02	6.16E+02

Sample ID:	Sample Dates:	KALE	Nuclide	Activity	2 Sigma Error	MDA
464706	12/4/2017 - 12/4/2017		I-131	<4.79E+01	0.00E+00	4.79E+01
			Cs-134	<4.41E+01	0.00E+00	4.41E+01
			Cs-137	<3.37E+01	0.00E+00	3.37E+01
			Be-7	1.38E+02	2.05E+02	3.41E+02
			K-40	3.44E+03	6.43E+02	4.35E+02

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

Sample Point 46 [INDICATOR - SSE @ 17.2 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
439419	3/6/2017 - 3/20/2017	Beta	2.61E+00	9.77E-01	1.51E+00
		Mn-54	<4.48E+00	0.00E+00	4.48E+00
		Co-58	<3.13E+00	0.00E+00	3.13E+00
		Fe-59	<4.37E+00	0.00E+00	4.37E+00
		Co-60	<9.00E-01	0.00E+00	9.00E-01
		Zn-65	<6.50E+00	0.00E+00	6.50E+00
		Zr-95	<7.99E+00	0.00E+00	7.99E+00
		Nb-95	<3.28E+00	0.00E+00	3.28E+00
		I-131	<8.58E+00	0.00E+00	8.58E+00
		Cs-134	<4.15E+00	0.00E+00	4.15E+00
		Cs-137	<2.92E+00	0.00E+00	2.92E+00
		BaLa-140	<5.90E+00	0.00E+00	5.90E+00
		Be-7	<3.72E+01	0.00E+00	3.72E+01
		K-40	3.12E+01	3.49E+01	5.56E+01
		H3DW	<-5.6E+01	0.00E+00	1.89E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
439459	3/20/2017 - 4/17/2017	Beta	6.90E+00	1.15E+00	1.50E+00
		Mn-54	<1.82E+00	0.00E+00	1.82E+00
		Co-58	<2.65E+00	0.00E+00	2.65E+00
		Fe-59	<5.73E+00	0.00E+00	5.73E+00
		Co-60	<2.44E+00	0.00E+00	2.44E+00
		Zn-65	<4.26E+00	0.00E+00	4.26E+00
		Zr-95	<5.66E+00	0.00E+00	5.66E+00
		Nb-95	<2.70E+00	0.00E+00	2.70E+00
		I-131	<1.11E+01	0.00E+00	1.11E+01
		Cs-134	<2.71E+00	0.00E+00	2.71E+00
		Cs-137	<2.43E+00	0.00E+00	2.43E+00
		BaLa-140	<5.67E+00	0.00E+00	5.67E+00
		Be-7	<2.15E+01	0.00E+00	2.15E+01
		K-40	5.28E+01	2.46E+01	3.09E+01
		H3DW	<-2.3E+01	0.00E+00	1.92E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
442314	4/17/2017 - 5/15/2017	Beta	3.56E+00	8.73E-01	1.25E+00
		Mn-54	<2.61E+00	0.00E+00	2.61E+00
		Co-58	<2.43E+00	0.00E+00	2.43E+00
		Fe-59	<6.04E+00	0.00E+00	6.04E+00
		Co-60	<2.39E+00	0.00E+00	2.39E+00
		Zn-65	<3.86E+00	0.00E+00	3.86E+00
		Zr-95	<5.33E+00	0.00E+00	5.33E+00
		Nb-95	<3.58E+00	0.00E+00	3.58E+00
		I-131	<1.01E+01	0.00E+00	1.01E+01
		Cs-134	<3.04E+00	0.00E+00	3.04E+00
		Cs-137	<2.32E+00	0.00E+00	2.32E+00
		BaLa-140	<5.06E+00	0.00E+00	5.06E+00
		Be-7	<2.21E+01	0.00E+00	2.21E+01
		K-40	5.87E+01	2.36E+01	2.56E+01
		H3DW	<3.84E+01	0.00E+00	1.93E+02



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

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

Sample Point 46 [INDICATOR - SSE @ 17.2 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
444269	5/15/2017 - 6/12/2017	Beta	2.88E+00	1.15E+00	1.80E+00
		Mn-54	<4.59E+00	0.00E+00	4.59E+00
		Co-58	<5.80E+00	0.00E+00	5.80E+00
		Fe-59	<8.06E+00	0.00E+00	8.06E+00
		Co-60	<4.08E+00	0.00E+00	4.08E+00
		Zn-65	<9.91E+00	0.00E+00	9.91E+00
		Zr-95	<8.69E+00	0.00E+00	8.69E+00
		Nb-95	<5.96E+00	0.00E+00	5.96E+00
		I-131	<1.20E+01	0.00E+00	1.20E+01
		Cs-134	<4.45E+00	0.00E+00	4.45E+00
		Cs-137	<4.26E+00	0.00E+00	4.26E+00
		BaLa-140	<1.15E+01	0.00E+00	1.15E+01
		Be-7	<3.29E+01	0.00E+00	3.29E+01
		K-40	<7.56E+01	0.00E+00	7.56E+01
		H3DW	<4.16E+01	0.00E+00	1.97E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
447190	6/12/2017 - 7/10/2017	Beta	2.92E+00	1.11E+00	1.73E+00
		Mn-54	<3.55E+00	0.00E+00	3.55E+00
		Co-58	<3.59E+00	0.00E+00	3.59E+00
		Fe-59	<6.46E+00	0.00E+00	6.46E+00
		Co-60	<3.55E+00	0.00E+00	3.55E+00
		Zn-65	<7.51E+00	0.00E+00	7.51E+00
		Zr-95	<6.70E+00	0.00E+00	6.70E+00
		Nb-95	<4.04E+00	0.00E+00	4.04E+00
		I-131	<1.18E+01	0.00E+00	1.18E+01
		Cs-134	<3.76E+00	0.00E+00	3.76E+00
		Cs-137	<3.58E+00	0.00E+00	3.58E+00
		BaLa-140	<8.13E+00	0.00E+00	8.13E+00
		Be-7	<3.49E+01	0.00E+00	3.49E+01
		K-40	4.47E+01	2.91E+01	3.84E+01
		H3DW	<-1.3E+02	0.00E+00	1.95E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
449227	7/10/2017 - 8/7/2017	Beta	4.34E+00	1.01E+00	1.42E+00
		Mn-54	<2.75E+00	0.00E+00	2.75E+00
		Co-58	<3.64E+00	0.00E+00	3.64E+00
		Fe-59	<5.31E+00	0.00E+00	5.31E+00
		Co-60	<3.05E+00	0.00E+00	3.05E+00
		Zn-65	<5.17E+00	0.00E+00	5.17E+00
		Zr-95	<5.97E+00	0.00E+00	5.97E+00
		Nb-95	<3.27E+00	0.00E+00	3.27E+00
		I-131	<1.13E+01	0.00E+00	1.13E+01
		Cs-134	<2.53E+00	0.00E+00	2.53E+00
		Cs-137	<2.80E+00	0.00E+00	2.80E+00
		BaLa-140	<5.69E+00	0.00E+00	5.69E+00
		Be-7	<2.56E+01	0.00E+00	2.56E+01
		K-40	7.38E+01	3.07E+01	3.81E+01
		H3DW	<5.15E+01	0.00E+00	1.87E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
451195	8/7/2017 - 9/5/2017	Beta	4.79E+00	1.09E+00	1.55E+00
		Mn-54	<2.84E+00	0.00E+00	2.84E+00
		Co-58	<3.28E+00	0.00E+00	3.28E+00
		Fe-59	<7.60E+00	0.00E+00	7.60E+00
		Co-60	<3.10E+00	0.00E+00	3.10E+00
		Zn-65	<6.01E+00	0.00E+00	6.01E+00
		Zr-95	<6.16E+00	0.00E+00	6.16E+00
		Nb-95	<2.93E+00	0.00E+00	2.93E+00
		I-131	<1.14E+01	0.00E+00	1.14E+01
		Cs-134	<3.25E+00	0.00E+00	3.25E+00
		Cs-137	<3.46E+00	0.00E+00	3.46E+00
		BaLa-140	<6.81E+00	0.00E+00	6.81E+00
		Be-7	<2.75E+01	0.00E+00	2.75E+01
		K-40	3.66E+01	2.92E+01	4.43E+01
		H3DW	<1.17E+01	0.00E+00	1.82E+02



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

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

Sample Point 46 [INDICATOR - SSE @ 17.2 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
453450	9/5/2017 - 10/2/2017	Beta	4.87E+00	1.12E+00	1.60E+00
		Mn-54	<2.56E+00	0.00E+00	2.56E+00
		Co-58	<3.65E+00	0.00E+00	3.65E+00
		Fe-59	<7.20E+00	0.00E+00	7.20E+00
		Co-60	<2.93E+00	0.00E+00	2.93E+00
		Zn-65	<6.32E+00	0.00E+00	6.32E+00
		Zr-95	<7.61E+00	0.00E+00	7.61E+00
		Nb-95	<3.93E+00	0.00E+00	3.93E+00
		I-131	<1.17E+01	0.00E+00	1.17E+01
		Cs-134	<3.36E+00	0.00E+00	3.36E+00
		Cs-137	<3.06E+00	0.00E+00	3.06E+00
		BaLa-140	<8.78E+00	0.00E+00	8.78E+00
		Be-7	<2.65E+01	0.00E+00	2.65E+01
		K-40	<6.62E+01	0.00E+00	6.62E+01
		H3DW	<7.03E+00	0.00E+00	1.84E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
456048	10/2/2017 - 10/30/2017	Beta	5.69E+00	1.15E+00	1.60E+00
		Mn-54	<3.08E+00	0.00E+00	3.08E+00
		Co-58	<3.13E+00	0.00E+00	3.13E+00
		Fe-59	<5.03E+00	0.00E+00	5.03E+00
		Co-60	<3.23E+00	0.00E+00	3.23E+00
		Zn-65	<5.36E+00	0.00E+00	5.36E+00
		Zr-95	<6.24E+00	0.00E+00	6.24E+00
		Nb-95	<4.06E+00	0.00E+00	4.06E+00
		I-131	<1.14E+01	0.00E+00	1.14E+01
		Cs-134	<2.41E+00	0.00E+00	2.41E+00
		Cs-137	<2.81E+00	0.00E+00	2.81E+00
		BaLa-140	<7.65E+00	0.00E+00	7.65E+00
		Be-7	<2.60E+01	0.00E+00	2.60E+01
		K-40	3.71E+01	2.82E+01	4.22E+01
		H3DW	<-2.6E+01	0.00E+00	1.78E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
463098	10/30/2017 - 11/27/2017	Beta	5.30E+00	1.01E+00	1.39E+00
		Mn-54	<2.45E+00	0.00E+00	2.45E+00
		Co-58	<3.11E+00	0.00E+00	3.11E+00
		Fe-59	<5.69E+00	0.00E+00	5.69E+00
		Co-60	<3.29E+00	0.00E+00	3.29E+00
		Zn-65	<6.91E+00	0.00E+00	6.91E+00
		Zr-95	<6.26E+00	0.00E+00	6.26E+00
		Nb-95	<4.46E+00	0.00E+00	4.46E+00
		I-131	<1.07E+01	0.00E+00	1.07E+01
		Cs-134	<3.67E+00	0.00E+00	3.67E+00
		Cs-137	<2.93E+00	0.00E+00	2.93E+00
		BaLa-140	<6.65E+00	0.00E+00	6.65E+00
		Be-7	<2.58E+01	0.00E+00	2.58E+01
		K-40	7.15E+01	2.83E+01	3.09E+01
		H3DW	<-4.6E+01	0.00E+00	1.99E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
464972	11/27/2017 - 12/26/2017	Beta	5.85E+00	1.02E+00	1.36E+00
		Mn-54	<3.51E+00	0.00E+00	3.51E+00
		Co-58	<3.60E+00	0.00E+00	3.60E+00
		Fe-59	<6.79E+00	0.00E+00	6.79E+00
		Co-60	<3.41E+00	0.00E+00	3.41E+00
		Zn-65	<7.19E+00	0.00E+00	7.19E+00
		Zr-95	<5.76E+00	0.00E+00	5.76E+00
		Nb-95	<4.76E+00	0.00E+00	4.76E+00
		I-131	<1.11E+01	0.00E+00	1.11E+01
		Cs-134	<3.89E+00	0.00E+00	3.89E+00
		Cs-137	<4.10E+00	0.00E+00	4.10E+00
		BaLa-140	<9.77E+00	0.00E+00	9.77E+00
		Be-7	<3.25E+01	0.00E+00	3.25E+01
		K-40	5.03E+01	3.15E+01	4.23E+01
		H3DW	<-1.0E+02	0.00E+00	1.94E+02



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

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

Sample Point 51 [INDICATOR - -- @ 0 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
433732	1/3/2017 - 1/23/2017	Beta	2.16E+00	7.71E-01	1.17E+00
		Mn-54	<2.51E+00	0.00E+00	2.51E+00
		Co-58	<4.19E+00	0.00E+00	4.19E+00
		Fe-59	<8.28E+00	0.00E+00	8.28E+00
		Co-60	<3.40E+00	0.00E+00	3.40E+00
		Zn-65	<8.10E+00	0.00E+00	8.10E+00
		Zr-95	<8.66E+00	0.00E+00	8.66E+00
		Nb-95	<4.74E+00	0.00E+00	4.74E+00
		I-131	<1.20E+01	0.00E+00	1.20E+01
		Cs-134	<3.90E+00	0.00E+00	3.90E+00
		Cs-137	<3.96E+00	0.00E+00	3.96E+00
		BaLa-140	<8.57E+00	0.00E+00	8.57E+00
		Be-7	<3.16E+01	0.00E+00	3.16E+01
		K-40	<6.11E+01	0.00E+00	6.11E+01
		H3DW	5.14E+03	2.13E+02	1.94E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
436271	1/30/2017 - 2/20/2017	Beta	2.14E+00	9.38E-01	1.47E+00
		Mn-54	<3.74E+00	0.00E+00	3.74E+00
		Co-58	<3.76E+00	0.00E+00	3.76E+00
		Fe-59	<8.79E+00	0.00E+00	8.79E+00
		Co-60	<4.30E+00	0.00E+00	4.30E+00
		Zn-65	<6.06E+00	0.00E+00	6.06E+00
		Zr-95	<8.05E+00	0.00E+00	8.05E+00
		Nb-95	<4.39E+00	0.00E+00	4.39E+00
		I-131	<1.01E+01	0.00E+00	1.01E+01
		Cs-134	<5.15E+00	0.00E+00	5.15E+00
		Cs-137	<3.40E+00	0.00E+00	3.40E+00
		BaLa-140	<8.85E+00	0.00E+00	8.85E+00
		Be-7	<3.00E+01	0.00E+00	3.00E+01
		K-40	<6.69E+01	0.00E+00	6.69E+01
		H3DW	4.95E+03	2.25E+02	1.90E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
438816	2/27/2017 - 3/20/2017	Beta	2.07E+00	9.27E-01	1.46E+00
		Mn-54	<3.77E+00	0.00E+00	3.77E+00
		Co-58	<4.28E+00	0.00E+00	4.28E+00
		Fe-59	<7.22E+00	0.00E+00	7.22E+00
		Co-60	<2.98E+00	0.00E+00	2.98E+00
		Zn-65	<5.43E+00	0.00E+00	5.43E+00
		Zr-95	<7.90E+00	0.00E+00	7.90E+00
		Nb-95	<3.65E+00	0.00E+00	3.65E+00
		I-131	<8.37E+00	0.00E+00	8.37E+00
		Cs-134	<4.19E+00	0.00E+00	4.19E+00
		Cs-137	<4.36E+00	0.00E+00	4.36E+00
		BaLa-140	<1.99E+00	0.00E+00	1.99E+00
		Be-7	<3.48E+01	0.00E+00	3.48E+01
		K-40	4.55E+01	2.80E+01	3.14E+01
		H3DW	4.63E+03	2.00E+02	1.91E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
441424	3/27/2017 - 4/17/2017	Beta	2.17E+00	9.25E-01	1.45E+00
		Mn-54	<3.73E+00	0.00E+00	3.73E+00
		Co-58	<2.90E+00	0.00E+00	2.90E+00
		Fe-59	<8.21E+00	0.00E+00	8.21E+00
		Co-60	<5.00E+00	0.00E+00	5.00E+00
		Zn-65	<8.60E+00	0.00E+00	8.60E+00
		Zr-95	<6.71E+00	0.00E+00	6.71E+00
		Nb-95	<5.88E+00	0.00E+00	5.88E+00
		I-131	<8.74E+00	0.00E+00	8.74E+00
		Cs-134	<4.62E+00	0.00E+00	4.62E+00
		Cs-137	<2.92E+00	0.00E+00	2.92E+00
		BaLa-140	<1.08E+01	0.00E+00	1.08E+01
		Be-7	<3.65E+01	0.00E+00	3.65E+01
		K-40	<6.65E+01	0.00E+00	6.65E+01
		H3DW	3.80E+03	1.88E+02	1.91E+02



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

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

Sample Point 51 [INDICATOR - -- @ 0 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
443311	4/24/2017 - 5/15/2017	Beta	2.47E+00	7.96E-01	1.20E+00
		Mn-54	<3.44E+00	0.00E+00	3.44E+00
		Co-58	<2.70E+00	0.00E+00	2.70E+00
		Fe-59	<5.70E+00	0.00E+00	5.70E+00
		Co-60	<2.58E+00	0.00E+00	2.58E+00
		Zn-65	<7.18E+00	0.00E+00	7.18E+00
		Zr-95	<5.61E+00	0.00E+00	5.61E+00
		Nb-95	<4.64E+00	0.00E+00	4.64E+00
		I-131	<1.16E+01	0.00E+00	1.16E+01
		Cs-134	<4.89E+00	0.00E+00	4.89E+00
		Cs-137	<3.78E+00	0.00E+00	3.78E+00
		BaLa-140	<8.12E+00	0.00E+00	8.12E+00
		Be-7	<3.16E+01	0.00E+00	3.16E+01
		K-40	5.11E+01	3.30E+01	4.47E+01
		H3DW	3.67E+03	2.02E+02	1.93E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
446332	5/22/2017 - 6/12/2017	Beta	1.64E+00	1.07E+00	1.75E+00
		Mn-54	<3.61E+00	0.00E+00	3.61E+00
		Co-58	<3.23E+00	0.00E+00	3.23E+00
		Fe-59	<7.54E+00	0.00E+00	7.54E+00
		Co-60	<4.60E+00	0.00E+00	4.60E+00
		Zn-65	<8.88E+00	0.00E+00	8.88E+00
		Zr-95	<9.27E+00	0.00E+00	9.27E+00
		Nb-95	<5.37E+00	0.00E+00	5.37E+00
		I-131	<1.15E+01	0.00E+00	1.15E+01
		Cs-134	<4.22E+00	0.00E+00	4.22E+00
		Cs-137	<3.52E+00	0.00E+00	3.52E+00
		BaLa-140	<8.46E+00	0.00E+00	8.46E+00
		Be-7	<3.93E+01	0.00E+00	3.93E+01
		K-40	7.88E+01	4.74E+01	6.66E+01
		H3DW	3.23E+03	1.83E+02	1.97E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
448280	6/12/2017 - 7/10/2017	Beta	2.61E+00	1.06E+00	1.66E+00
		Mn-54	<2.43E+00	0.00E+00	2.43E+00
		Co-58	<2.51E+00	0.00E+00	2.51E+00
		Fe-59	<6.86E+00	0.00E+00	6.86E+00
		Co-60	<1.70E+00	0.00E+00	1.70E+00
		Zn-65	<7.10E+00	0.00E+00	7.10E+00
		Zr-95	<7.04E+00	0.00E+00	7.04E+00
		Nb-95	<3.90E+00	0.00E+00	3.90E+00
		I-131	<1.16E+01	0.00E+00	1.16E+01
		Cs-134	<3.47E+00	0.00E+00	3.47E+00
		Cs-137	<3.03E+00	0.00E+00	3.03E+00
		BaLa-140	<5.97E+00	0.00E+00	5.97E+00
		Be-7	<3.37E+01	0.00E+00	3.37E+01
		K-40	2.64E+01	2.99E+01	4.81E+01
		H3DW	3.11E+03	1.89E+02	1.94E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
450210	7/10/2017 - 8/7/2017	Beta	4.98E+00	1.01E+00	1.37E+00
		Mn-54	<3.38E+00	0.00E+00	3.38E+00
		Co-58	<3.53E+00	0.00E+00	3.53E+00
		Fe-59	<7.85E+00	0.00E+00	7.85E+00
		Co-60	<2.81E+00	0.00E+00	2.81E+00
		Zn-65	<8.36E+00	0.00E+00	8.36E+00
		Zr-95	<6.67E+00	0.00E+00	6.67E+00
		Nb-95	<4.47E+00	0.00E+00	4.47E+00
		I-131	<1.16E+01	0.00E+00	1.16E+01
		Cs-134	<4.16E+00	0.00E+00	4.16E+00
		Cs-137	<3.63E+00	0.00E+00	3.63E+00
		BaLa-140	<9.09E+00	0.00E+00	9.09E+00
		Be-7	<3.32E+01	0.00E+00	3.32E+01
		K-40	5.26E+01	3.87E+01	5.62E+01
		H3DW	3.03E+03	1.85E+02	1.87E+02



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

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

Sample Point 51 [INDICATOR - -- @ 0 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
452363	8/7/2017 - 9/5/2017	Beta	2.34E+00	9.59E-01	1.48E+00
		Mn-54	<3.38E+00	0.00E+00	3.38E+00
		Co-58	<4.05E+00	0.00E+00	4.05E+00
		Fe-59	<6.52E+00	0.00E+00	6.52E+00
		Co-60	<3.74E+00	0.00E+00	3.74E+00
		Zn-65	<5.53E+00	0.00E+00	5.53E+00
		Zr-95	<7.87E+00	0.00E+00	7.87E+00
		Nb-95	<4.58E+00	0.00E+00	4.58E+00
		I-131	<1.18E+01	0.00E+00	1.18E+01
		Cs-134	<4.41E+00	0.00E+00	4.41E+00
		Cs-137	<2.86E+00	0.00E+00	2.86E+00
		BaLa-140	<9.32E+00	0.00E+00	9.32E+00
		Be-7	<2.94E+01	0.00E+00	2.94E+01
		K-40	4.63E+01	2.94E+01	3.95E+01
		H3DW	3.27E+03	1.89E+02	1.82E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
455078	9/5/2017 - 10/2/2017	Beta	2.81E+00	1.01E+00	1.54E+00
		Mn-54	<3.60E+00	0.00E+00	3.60E+00
		Co-58	<3.23E+00	0.00E+00	3.23E+00
		Fe-59	<7.14E+00	0.00E+00	7.14E+00
		Co-60	<2.98E+00	0.00E+00	2.98E+00
		Zn-65	<6.69E+00	0.00E+00	6.69E+00
		Zr-95	<6.77E+00	0.00E+00	6.77E+00
		Nb-95	<3.36E+00	0.00E+00	3.36E+00
		I-131	<1.18E+01	0.00E+00	1.18E+01
		Cs-134	<4.47E+00	0.00E+00	4.47E+00
		Cs-137	<2.63E+00	0.00E+00	2.63E+00
		BaLa-140	<9.83E+00	0.00E+00	9.83E+00
		Be-7	<3.23E+01	0.00E+00	3.23E+01
		K-40	7.79E+01	4.20E+01	5.60E+01
		H3DW	3.97E+03	2.02E+02	1.83E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
461971	10/2/2017 - 10/30/2017	Beta	3.95E+00	1.04E+00	1.53E+00
		Mn-54	<3.93E+00	0.00E+00	3.93E+00
		Co-58	<4.07E+00	0.00E+00	4.07E+00
		Fe-59	<8.90E+00	0.00E+00	8.90E+00
		Co-60	<3.81E+00	0.00E+00	3.81E+00
		Zn-65	<8.67E+00	0.00E+00	8.67E+00
		Zr-95	<8.47E+00	0.00E+00	8.47E+00
		Nb-95	<5.37E+00	0.00E+00	5.37E+00
		I-131	<1.16E+01	0.00E+00	1.16E+01
		Cs-134	<4.50E+00	0.00E+00	4.50E+00
		Cs-137	<3.93E+00	0.00E+00	3.93E+00
		BaLa-140	<8.97E+00	0.00E+00	8.97E+00
		Be-7	<2.85E+01	0.00E+00	2.85E+01
		K-40	9.68E+01	3.75E+01	3.64E+01
		H3DW	3.79E+03	1.98E+02	1.78E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
464156	10/30/2017 - 11/27/2017	Beta	4.27E+00	9.17E-01	1.28E+00
		Mn-54	<3.12E+00	0.00E+00	3.12E+00
		Co-58	<2.84E+00	0.00E+00	2.84E+00
		Fe-59	<1.70E+00	0.00E+00	1.70E+00
		Co-60	<3.83E+00	0.00E+00	3.83E+00
		Zn-65	<8.81E+00	0.00E+00	8.81E+00
		Zr-95	<7.79E+00	0.00E+00	7.79E+00
		Nb-95	<4.44E+00	0.00E+00	4.44E+00
		I-131	<1.20E+01	0.00E+00	1.20E+01
		Cs-134	<3.96E+00	0.00E+00	3.96E+00
		Cs-137	<5.04E+00	0.00E+00	5.04E+00
		BaLa-140	<6.48E+00	0.00E+00	6.48E+00
		Be-7	<4.45E+01	0.00E+00	4.45E+01
		K-40	3.77E+01	3.32E+01	4.94E+01
		H3DW	3.79E+03	2.03E+02	1.94E+02



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

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

Sample Point 51 [INDICATOR - -- @ 0 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
465617	11/27/2017 - 12/26/2017	Beta	3.97E+00	9.00E-01	1.28E+00
		Mn-54	<3.26E+00	0.00E+00	3.26E+00
		Co-58	<3.42E+00	0.00E+00	3.42E+00
		Fe-59	<7.08E+00	0.00E+00	7.08E+00
		Co-60	<2.68E+00	0.00E+00	2.68E+00
		Zn-65	<5.98E+00	0.00E+00	5.98E+00
		Zr-95	<5.47E+00	0.00E+00	5.47E+00
		Nb-95	<4.09E+00	0.00E+00	4.09E+00
		I-131	<1.18E+01	0.00E+00	1.18E+01
		Cs-134	<3.89E+00	0.00E+00	3.89E+00
		Cs-137	<4.10E+00	0.00E+00	4.10E+00
		BaLa-140	<7.56E+00	0.00E+00	7.56E+00
		Be-7	<2.99E+01	0.00E+00	2.99E+01
		K-40	1.09E+02	4.14E+01	5.09E+01
		H3DW	5.84E+03	2.38E+02	1.94E+02

Sample Point 58 [CONTROL - SW @ 8.47 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
439418	3/6/2017 - 3/20/2017	Beta	2.83E+00	9.83E-01	1.50E+00
		Mn-54	<2.93E+00	0.00E+00	2.93E+00
		Co-58	<4.28E+00	0.00E+00	4.28E+00
		Fe-59	<7.70E+00	0.00E+00	7.70E+00
		Co-60	<4.97E+00	0.00E+00	4.97E+00
		Zn-65	<7.85E+00	0.00E+00	7.85E+00
		Zr-95	<7.54E+00	0.00E+00	7.54E+00
		Nb-95	<4.68E+00	0.00E+00	4.68E+00
		I-131	<7.47E+00	0.00E+00	7.47E+00
		Cs-134	<4.10E+00	0.00E+00	4.10E+00
		Cs-137	<3.81E+00	0.00E+00	3.81E+00
		BaLa-140	<1.69E+00	0.00E+00	1.69E+00
		Be-7	<2.64E+01	0.00E+00	2.64E+01
		K-40	4.48E+01	3.13E+01	4.11E+01
		H3DW	<1.68E+01	0.00E+00	1.90E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
439460	3/20/2017 - 4/17/2017	Beta	5.83E+00	1.10E+00	1.49E+00
		Mn-54	<3.11E+00	0.00E+00	3.11E+00
		Co-58	<3.30E+00	0.00E+00	3.30E+00
		Fe-59	<6.44E+00	0.00E+00	6.44E+00
		Co-60	<1.65E+00	0.00E+00	1.65E+00
		Zn-65	<5.79E+00	0.00E+00	5.79E+00
		Zr-95	<6.12E+00	0.00E+00	6.12E+00
		Nb-95	<3.62E+00	0.00E+00	3.62E+00
		I-131	<1.19E+01	0.00E+00	1.19E+01
		Cs-134	<2.89E+00	0.00E+00	2.89E+00
		Cs-137	<4.07E+00	0.00E+00	4.07E+00
		BaLa-140	<7.56E+00	0.00E+00	7.56E+00
		Be-7	<3.01E+01	0.00E+00	3.01E+01
		K-40	8.29E+01	3.21E+01	3.83E+01
		H3DW	<-3.8E+01	0.00E+00	1.91E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
442315	4/17/2017 - 5/15/2017	Beta	4.72E+00	9.15E-01	1.25E+00
		Mn-54	<1.76E+00	0.00E+00	1.76E+00
		Co-58	<2.16E+00	0.00E+00	2.16E+00
		Fe-59	<5.58E+00	0.00E+00	5.58E+00
		Co-60	<1.96E+00	0.00E+00	1.96E+00
		Zn-65	<4.09E+00	0.00E+00	4.09E+00
		Zr-95	<4.31E+00	0.00E+00	4.31E+00
		Nb-95	<2.94E+00	0.00E+00	2.94E+00
		I-131	<1.19E+01	0.00E+00	1.19E+01
		Cs-134	<2.09E+00	0.00E+00	2.09E+00
		Cs-137	<2.55E+00	0.00E+00	2.55E+00
		BaLa-140	<7.14E+00	0.00E+00	7.14E+00
		Be-7	<1.96E+01	0.00E+00	1.96E+01
		K-40	2.85E+01	2.05E+01	3.09E+01



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

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

Sample Point 58 [CONTROL - SW @ 8.47 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
442315	4/17/2017 - 5/15/2017	H3DW	<9.61E+00	0.00E+00	1.93E+02
444270	5/15/2017 - 6/12/2017	Beta	3.50E+00	1.16E+00	1.78E+00
		Mn-54	<3.39E+00	0.00E+00	3.39E+00
		Co-58	<4.48E+00	0.00E+00	4.48E+00
		Fe-59	<7.27E+00	0.00E+00	7.27E+00
		Co-60	<2.81E+00	0.00E+00	2.81E+00
		Zn-65	<5.78E+00	0.00E+00	5.78E+00
		Zr-95	<6.39E+00	0.00E+00	6.39E+00
		Nb-95	<4.04E+00	0.00E+00	4.04E+00
		I-131	<1.17E+01	0.00E+00	1.17E+01
		Cs-134	<4.34E+00	0.00E+00	4.34E+00
		Cs-137	<3.55E+00	0.00E+00	3.55E+00
		BaLa-140	<1.09E+01	0.00E+00	1.09E+01
		Be-7	<2.86E+01	0.00E+00	2.86E+01
		K-40	1.23E+01	3.03E+01	5.34E+01
		H3DW	<-6.3E+01	0.00E+00	1.96E+02
447191	6/12/2017 - 7/10/2017	Beta	3.11E+00	1.11E+00	1.71E+00
		Mn-54	<3.75E+00	0.00E+00	3.75E+00
		Co-58	<3.39E+00	0.00E+00	3.39E+00
		Fe-59	<9.21E+00	0.00E+00	9.21E+00
		Co-60	<3.63E+00	0.00E+00	3.63E+00
		Zn-65	<6.69E+00	0.00E+00	6.69E+00
		Zr-95	<7.37E+00	0.00E+00	7.37E+00
		Nb-95	<3.99E+00	0.00E+00	3.99E+00
		I-131	<1.20E+01	0.00E+00	1.20E+01
		Cs-134	<3.01E+00	0.00E+00	3.01E+00
		Cs-137	<3.38E+00	0.00E+00	3.38E+00
		BaLa-140	<5.19E+00	0.00E+00	5.19E+00
		Be-7	<2.49E+01	0.00E+00	2.49E+01
		K-40	4.30E+01	3.58E+01	5.45E+01
		H3DW	<-1.3E+02	0.00E+00	1.95E+02
449228	7/10/2017 - 8/7/2017	Beta	4.14E+00	1.00E+00	1.41E+00
		Mn-54	<2.09E+00	0.00E+00	2.09E+00
		Co-58	<2.28E+00	0.00E+00	2.28E+00
		Fe-59	<4.54E+00	0.00E+00	4.54E+00
		Co-60	<1.95E+00	0.00E+00	1.95E+00
		Zn-65	<4.76E+00	0.00E+00	4.76E+00
		Zr-95	<4.18E+00	0.00E+00	4.18E+00
		Nb-95	<3.04E+00	0.00E+00	3.04E+00
		I-131	<8.38E+00	0.00E+00	8.38E+00
		Cs-134	<2.27E+00	0.00E+00	2.27E+00
		Cs-137	<2.55E+00	0.00E+00	2.55E+00
		BaLa-140	<5.44E+00	0.00E+00	5.44E+00
		Be-7	<1.57E+01	0.00E+00	1.57E+01
		K-40	7.45E+01	2.32E+01	2.54E+01
		H3DW	<-2.3E+00	0.00E+00	1.87E+02
451196	8/7/2017 - 9/5/2017	Beta	5.21E+00	1.10E+00	1.53E+00
		Mn-54	<3.36E+00	0.00E+00	3.36E+00
		Co-58	<2.98E+00	0.00E+00	2.98E+00
		Fe-59	<4.91E+00	0.00E+00	4.91E+00
		Co-60	<2.90E+00	0.00E+00	2.90E+00
		Zn-65	<6.88E+00	0.00E+00	6.88E+00
		Zr-95	<3.98E+00	0.00E+00	3.98E+00
		Nb-95	<3.36E+00	0.00E+00	3.36E+00
		I-131	<1.19E+01	0.00E+00	1.19E+01
		Cs-134	<2.97E+00	0.00E+00	2.97E+00
		Cs-137	<3.08E+00	0.00E+00	3.08E+00
		BaLa-140	<4.30E+00	0.00E+00	4.30E+00
		Be-7	<2.43E+01	0.00E+00	2.43E+01



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

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

Sample Point 58 [CONTROL - SW @ 8.47 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
451196	8/7/2017 - 9/5/2017	K-40	6.97E+00	1.90E+01	3.43E+01
		H3DW	<1.87E+01	0.00E+00	1.82E+02
453451	9/5/2017 - 10/2/2017	Beta	4.13E+00	1.09E+00	1.60E+00
		Mn-54	<3.31E+00	0.00E+00	3.31E+00
		Co-58	<3.49E+00	0.00E+00	3.49E+00
		Fe-59	<6.28E+00	0.00E+00	6.28E+00
		Co-60	<3.21E+00	0.00E+00	3.21E+00
		Zn-65	<6.44E+00	0.00E+00	6.44E+00
		Zr-95	<7.33E+00	0.00E+00	7.33E+00
		Nb-95	<3.89E+00	0.00E+00	3.89E+00
		I-131	<1.12E+01	0.00E+00	1.12E+01
		Cs-134	<4.30E+00	0.00E+00	4.30E+00
		Cs-137	<2.89E+00	0.00E+00	2.89E+00
		BaLa-140	<6.67E+00	0.00E+00	6.67E+00
		Be-7	<2.91E+01	0.00E+00	2.91E+01
		K-40	<5.80E+01	0.00E+00	5.80E+01
		H3DW	<-5.2E+01	0.00E+00	1.84E+02
456049	10/2/2017 - 10/30/2017	Beta	5.35E+00	1.13E+00	1.58E+00
		Mn-54	<4.67E+00	0.00E+00	4.67E+00
		Co-58	<3.99E+00	0.00E+00	3.99E+00
		Fe-59	<6.82E+00	0.00E+00	6.82E+00
		Co-60	<4.22E+00	0.00E+00	4.22E+00
		Zn-65	<6.37E+00	0.00E+00	6.37E+00
		Zr-95	<8.21E+00	0.00E+00	8.21E+00
		Nb-95	<3.91E+00	0.00E+00	3.91E+00
		I-131	<1.01E+01	0.00E+00	1.01E+01
		Cs-134	<3.48E+00	0.00E+00	3.48E+00
		Cs-137	<4.21E+00	0.00E+00	4.21E+00
		BaLa-140	<8.22E+00	0.00E+00	8.22E+00
		Be-7	<3.87E+01	0.00E+00	3.87E+01
		K-40	3.76E+01	3.95E+01	6.25E+01
		H3DW	<2.12E+01	0.00E+00	1.79E+02
463099	10/30/2017 - 11/27/2017	Beta	5.24E+00	1.01E+00	1.38E+00
		Mn-54	<3.61E+00	0.00E+00	3.61E+00
		Co-58	<2.68E+00	0.00E+00	2.68E+00
		Fe-59	<8.81E+00	0.00E+00	8.81E+00
		Co-60	<3.42E+00	0.00E+00	3.42E+00
		Zn-65	<7.74E+00	0.00E+00	7.74E+00
		Zr-95	<5.96E+00	0.00E+00	5.96E+00
		Nb-95	<3.77E+00	0.00E+00	3.77E+00
		I-131	<1.19E+01	0.00E+00	1.19E+01
		Cs-134	<3.59E+00	0.00E+00	3.59E+00
		Cs-137	<3.82E+00	0.00E+00	3.82E+00
		BaLa-140	<6.36E+00	0.00E+00	6.36E+00
		Be-7	<3.74E+01	0.00E+00	3.74E+01
		K-40	9.99E+01	3.99E+01	4.86E+01
		H3DW	<1.44E+01	0.00E+00	1.95E+02
464973	11/27/2017 - 12/26/2017	Beta	5.99E+00	1.03E+00	1.37E+00
		Mn-54	<2.08E+00	0.00E+00	2.08E+00
		Co-58	<3.45E+00	0.00E+00	3.45E+00
		Fe-59	<6.71E+00	0.00E+00	6.71E+00
		Co-60	<3.71E+00	0.00E+00	3.71E+00
		Zn-65	<6.22E+00	0.00E+00	6.22E+00
		Zr-95	<5.69E+00	0.00E+00	5.69E+00
		Nb-95	<4.59E+00	0.00E+00	4.59E+00
		I-131	<1.12E+01	0.00E+00	1.12E+01
		Cs-134	<3.43E+00	0.00E+00	3.43E+00
		Cs-137	<3.69E+00	0.00E+00	3.69E+00
		BaLa-140	<8.56E+00	0.00E+00	8.56E+00



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

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

Sample Point 58 [CONTROL - SW @ 8.47 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
464973	11/27/2017 - 12/26/2017	Be-7	<3.06E+01	0.00E+00	3.06E+01
		K-40	3.99E+01	2.43E+01	3.14E+01
		H3DW	<-1.2E+02	0.00E+00	1.94E+02

Media Type: DWSW Concentration (Activity): pCi/l

Sample Point 38 [CONTROL - WSW @ 6.2 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
433730	12/27/2016 - 1/23/2017	Beta	5.40E+00	9.23E-01	1.20E+00
		Mn-54	<2.14E+00	0.00E+00	2.14E+00
		Co-58	<2.90E+00	0.00E+00	2.90E+00
		Fe-59	<4.85E+00	0.00E+00	4.85E+00
		Co-60	<1.97E+00	0.00E+00	1.97E+00
		Zn-65	<5.70E+00	0.00E+00	5.70E+00
		Zr-95	<4.70E+00	0.00E+00	4.70E+00
		Nb-95	<3.95E+00	0.00E+00	3.95E+00
		I-131	<1.03E+01	0.00E+00	1.03E+01
		Cs-134	<2.57E+00	0.00E+00	2.57E+00
		Cs-137	<2.67E+00	0.00E+00	2.67E+00
		BaLa-140	<5.34E+00	0.00E+00	5.34E+00
		Be-7	<2.56E+01	0.00E+00	2.56E+01
		K-40	<4.45E+01	0.00E+00	4.45E+01
		H3DWSW	<9.28E+01	0.00E+00	1.93E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
436269	1/23/2017 - 2/20/2017	Beta	4.26E+00	1.09E+00	1.59E+00
		Mn-54	<2.99E+00	0.00E+00	2.99E+00
		Co-58	<3.32E+00	0.00E+00	3.32E+00
		Fe-59	<4.57E+00	0.00E+00	4.57E+00
		Co-60	<3.05E+00	0.00E+00	3.05E+00
		Zn-65	<6.91E+00	0.00E+00	6.91E+00
		Zr-95	<4.51E+00	0.00E+00	4.51E+00
		Nb-95	<3.84E+00	0.00E+00	3.84E+00
		I-131	<1.16E+01	0.00E+00	1.16E+01
		Cs-134	<2.90E+00	0.00E+00	2.90E+00
		Cs-137	<2.44E+00	0.00E+00	2.44E+00
		BaLa-140	<7.48E+00	0.00E+00	7.48E+00
		Be-7	<3.13E+01	0.00E+00	3.13E+01
		K-40	<4.67E+01	0.00E+00	4.67E+01
		H3DWSW	<-1.9E+01	0.00E+00	1.90E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
438814	2/20/2017 - 3/20/2017	Beta	3.01E+00	9.87E-01	1.49E+00
		Mn-54	<2.95E+00	0.00E+00	2.95E+00
		Co-58	<2.71E+00	0.00E+00	2.71E+00
		Fe-59	<6.45E+00	0.00E+00	6.45E+00
		Co-60	<3.27E+00	0.00E+00	3.27E+00
		Zn-65	<6.02E+00	0.00E+00	6.02E+00
		Zr-95	<5.32E+00	0.00E+00	5.32E+00
		Nb-95	<4.07E+00	0.00E+00	4.07E+00
		I-131	<1.20E+01	0.00E+00	1.20E+01
		Cs-134	<3.51E+00	0.00E+00	3.51E+00
		Cs-137	<3.69E+00	0.00E+00	3.69E+00
		BaLa-140	<7.25E+00	0.00E+00	7.25E+00
		Be-7	<2.69E+01	0.00E+00	2.69E+01
		K-40	3.57E+01	3.24E+01	5.04E+01
		H3DWSW	<9.35E+00	0.00E+00	1.91E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
441422	4/3/2017 - 4/17/2017	Beta	4.89E+00	1.07E+00	1.49E+00
		Mn-54	<3.54E+00	0.00E+00	3.54E+00
		Co-58	<3.72E+00	0.00E+00	3.72E+00
		Fe-59	<8.01E+00	0.00E+00	8.01E+00
		Co-60	<3.45E+00	0.00E+00	3.45E+00
		Zn-65	<7.59E+00	0.00E+00	7.59E+00
		Zr-95	<7.27E+00	0.00E+00	7.27E+00



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

Media Type: DWSW Concentration (Activity): pCi/l

Sample Point 38 [CONTROL - WSW @ 6.2 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
441422	4/3/2017 - 4/17/2017	Nb-95	<4.11E+00	0.00E+00	4.11E+00
		I-131	<6.12E+00	0.00E+00	6.12E+00
		Cs-134	<3.45E+00	0.00E+00	3.45E+00
		Cs-137	<3.86E+00	0.00E+00	3.86E+00
		BaLa-140	<7.94E+00	0.00E+00	7.94E+00
		Be-7	<3.32E+01	0.00E+00	3.32E+01
		K-40	<7.32E+01	0.00E+00	7.32E+01
		H3DWSW	<5.7E+01	0.00E+00	1.94E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
443309	4/17/2017 - 5/15/2017	Beta	4.44E+00	9.15E-01	1.26E+00
		Mn-54	<3.45E+00	0.00E+00	3.45E+00
		Co-58	<2.95E+00	0.00E+00	2.95E+00
		Fe-59	<8.60E+00	0.00E+00	8.60E+00
		Co-60	<3.93E+00	0.00E+00	3.93E+00
		Zn-65	<1.10E+01	0.00E+00	1.10E+01
		Zr-95	<6.85E+00	0.00E+00	6.85E+00
		Nb-95	<4.92E+00	0.00E+00	4.92E+00
		I-131	<1.07E+01	0.00E+00	1.07E+01
		Cs-134	<5.10E+00	0.00E+00	5.10E+00
		Cs-137	<3.34E+00	0.00E+00	3.34E+00
		BaLa-140	<1.15E+01	0.00E+00	1.15E+01
		Be-7	<2.32E+01	0.00E+00	2.32E+01
		K-40	1.84E+01	3.65E+01	6.31E+01
		H3DWSW	<5.26E+01	0.00E+00	1.92E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
446330	5/15/2017 - 6/12/2017	Beta	4.40E+00	1.24E+00	1.86E+00
		Mn-54	<3.56E+00	0.00E+00	3.56E+00
		Co-58	<4.27E+00	0.00E+00	4.27E+00
		Fe-59	<8.12E+00	0.00E+00	8.12E+00
		Co-60	<5.34E+00	0.00E+00	5.34E+00
		Zn-65	<7.12E+00	0.00E+00	7.12E+00
		Zr-95	<7.83E+00	0.00E+00	7.83E+00
		Nb-95	<4.79E+00	0.00E+00	4.79E+00
		I-131	<1.14E+01	0.00E+00	1.14E+01
		Cs-134	<4.41E+00	0.00E+00	4.41E+00
		Cs-137	<3.85E+00	0.00E+00	3.85E+00
		BaLa-140	<7.04E+00	0.00E+00	7.04E+00
		Be-7	<2.53E+01	0.00E+00	2.53E+01
		K-40	<5.79E+01	0.00E+00	5.79E+01
		H3DWSW	<9.7E+01	0.00E+00	1.96E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
447193	6/12/2017 - 6/26/2017	Beta	3.45E+00	1.01E+00	1.50E+00
		Mn-54	<3.87E+00	0.00E+00	3.87E+00
		Co-58	<6.96E-01	0.00E+00	6.96E-01
		Fe-59	<7.06E+00	0.00E+00	7.06E+00
		Co-60	<3.56E+00	0.00E+00	3.56E+00
		Zn-65	<7.85E+00	0.00E+00	7.85E+00
		Zr-95	<6.38E+00	0.00E+00	6.38E+00
		Nb-95	<3.79E+00	0.00E+00	3.79E+00
		I-131	<7.49E+00	0.00E+00	7.49E+00
		Cs-134	<4.55E+00	0.00E+00	4.55E+00
		Cs-137	<4.35E+00	0.00E+00	4.35E+00
		BaLa-140	<4.60E+00	0.00E+00	4.60E+00
		Be-7	<2.93E+01	0.00E+00	2.93E+01
		K-40	<5.72E+01	0.00E+00	5.72E+01
		H3DWSW	<5.2E+01	0.00E+00	1.91E+02

Sample Point 40 [INDICATOR - SSE @ 17.2 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
433731	12/27/2016 - 1/23/2017	Beta	5.34E+00	9.03E-01	1.17E+00
		Mn-54	<3.86E+00	0.00E+00	3.86E+00
		Co-58	<3.65E+00	0.00E+00	3.65E+00
		Fe-59	<6.26E+00	0.00E+00	6.26E+00



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

Media Type: DWSW Concentration (Activity): pCi/l

Sample Point 40 [INDICATOR - SSE @ 17.2 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
433731	12/27/2016 - 1/23/2017	Co-60	<3.48E+00	0.00E+00	3.48E+00
		Zn-65	<9.83E+00	0.00E+00	9.83E+00
		Zr-95	<8.05E+00	0.00E+00	8.05E+00
		Nb-95	<4.27E+00	0.00E+00	4.27E+00
		I-131	<1.20E+01	0.00E+00	1.20E+01
		Cs-134	<3.99E+00	0.00E+00	3.99E+00
		Cs-137	<3.62E+00	0.00E+00	3.62E+00
		BaLa-140	<1.00E+01	0.00E+00	1.00E+01
		Be-7	<3.77E+01	0.00E+00	3.77E+01
		K-40	2.45E+01	4.10E+01	6.92E+01
		H3DWSW	<3.18E+01	0.00E+00	1.94E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
436270	1/23/2017 - 2/20/2017	Beta	3.65E+00	1.04E+00	1.55E+00
		Mn-54	<2.53E+00	0.00E+00	2.53E+00
		Co-58	<3.21E+00	0.00E+00	3.21E+00
		Fe-59	<5.54E+00	0.00E+00	5.54E+00
		Co-60	<2.45E+00	0.00E+00	2.45E+00
		Zn-65	<5.46E+00	0.00E+00	5.46E+00
		Zr-95	<4.98E+00	0.00E+00	4.98E+00
		Nb-95	<4.44E+00	0.00E+00	4.44E+00
		I-131	<1.10E+01	0.00E+00	1.10E+01
		Cs-134	<3.80E+00	0.00E+00	3.80E+00
		Cs-137	<2.72E+00	0.00E+00	2.72E+00
		BaLa-140	<7.29E+00	0.00E+00	7.29E+00
		Be-7	<2.25E+01	0.00E+00	2.25E+01
		K-40	5.35E+01	2.80E+01	3.67E+01
		H3DWSW	<7.97E+01	0.00E+00	1.89E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
438815	2/20/2017 - 3/20/2017	Beta	2.44E+00	9.55E-01	1.48E+00
		Mn-54	<3.75E+00	0.00E+00	3.75E+00
		Co-58	<2.81E+00	0.00E+00	2.81E+00
		Fe-59	<7.95E+00	0.00E+00	7.95E+00
		Co-60	<3.56E+00	0.00E+00	3.56E+00
		Zn-65	<5.90E+00	0.00E+00	5.90E+00
		Zr-95	<5.23E+00	0.00E+00	5.23E+00
		Nb-95	<3.61E+00	0.00E+00	3.61E+00
		I-131	<1.07E+01	0.00E+00	1.07E+01
		Cs-134	<3.20E+00	0.00E+00	3.20E+00
		Cs-137	<2.69E+00	0.00E+00	2.69E+00
		BaLa-140	<8.96E+00	0.00E+00	8.96E+00
		Be-7	<2.73E+01	0.00E+00	2.73E+01
		K-40	2.75E+01	2.88E+01	4.58E+01
		H3DWSW	<-3.4E+01	0.00E+00	1.90E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
441423	3/20/2017 - 4/17/2017	Beta	2.34E+00	9.49E-01	1.47E+00
		Mn-54	<2.98E+00	0.00E+00	2.98E+00
		Co-58	<2.99E+00	0.00E+00	2.99E+00
		Fe-59	<6.69E+00	0.00E+00	6.69E+00
		Co-60	<2.58E+00	0.00E+00	2.58E+00
		Zn-65	<7.35E+00	0.00E+00	7.35E+00
		Zr-95	<6.64E+00	0.00E+00	6.64E+00
		Nb-95	<3.36E+00	0.00E+00	3.36E+00
		I-131	<1.12E+01	0.00E+00	1.12E+01
		Cs-134	<3.15E+00	0.00E+00	3.15E+00
		Cs-137	<2.60E+00	0.00E+00	2.60E+00
		BaLa-140	<8.04E+00	0.00E+00	8.04E+00
		Be-7	<2.73E+01	0.00E+00	2.73E+01
		K-40	6.17E+01	2.47E+01	6.43E+00
		H3DWSW	<3.23E+01	0.00E+00	1.93E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
443310	4/17/2017 - 5/15/2017	Beta	3.66E+00	8.65E-01	1.23E+00
		Mn-54	<3.43E+00	0.00E+00	3.43E+00
		Co-58	<3.27E+00	0.00E+00	3.27E+00



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Media Type: DWSW Concentration (Activity): pCi/l

Sample Point 40 [INDICATOR - SSE @ 17.2 miles]

Sample ID:	Sample Dates:		Nuclide	Activity	2 Sigma Error	MDA
443310	4/17/2017 - 5/15/2017		Fe-59	<8.10E+00	0.00E+00	8.10E+00
			Co-60	<1.98E+00	0.00E+00	1.98E+00
			Zn-65	<4.26E+00	0.00E+00	4.26E+00
			Zr-95	<6.24E+00	0.00E+00	6.24E+00
			Nb-95	<3.25E+00	0.00E+00	3.25E+00
			I-131	<1.13E+01	0.00E+00	1.13E+01
			Cs-134	<2.97E+00	0.00E+00	2.97E+00
			Cs-137	<2.34E+00	0.00E+00	2.34E+00
			BaLa-140	<8.27E+00	0.00E+00	8.27E+00
			Be-7	<3.13E+01	0.00E+00	3.13E+01
			K-40	<4.86E+01	0.00E+00	4.86E+01
			H3DWSW	<4.07E+01	0.00E+00	1.92E+02

Sample ID:	Sample Dates:		Nuclide	Activity	2 Sigma Error	MDA
446331	5/15/2017 - 6/12/2017		Beta	3.43E+00	1.16E+00	1.78E+00
			Mn-54	<3.47E+00	0.00E+00	3.47E+00
			Co-58	<2.74E+00	0.00E+00	2.74E+00
			Fe-59	<1.06E+01	0.00E+00	1.06E+01
			Co-60	<4.26E+00	0.00E+00	4.26E+00
			Zn-65	<7.85E+00	0.00E+00	7.85E+00
			Zr-95	<7.37E+00	0.00E+00	7.37E+00
			Nb-95	<5.53E+00	0.00E+00	5.53E+00
			I-131	<1.15E+01	0.00E+00	1.15E+01
			Cs-134	<4.90E+00	0.00E+00	4.90E+00
			Cs-137	<3.08E+00	0.00E+00	3.08E+00
			BaLa-140	<1.19E+01	0.00E+00	1.19E+01
			Be-7	<1.93E+01	0.00E+00	1.93E+01
			K-40	<6.85E+01	0.00E+00	6.85E+01
			H3DWSW	<-2.0E+01	0.00E+00	1.95E+02

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

Sample Point 44 [INDICATOR - -- @ 0 miles]

Sample ID:	Sample Dates:		Nuclide	Activity	2 Sigma Error	MDA
439088	4/17/2017 - 4/17/2017	FREESWIM	Mn-54	<2.26E+01	0.00E+00	2.26E+01
			Co-58	<2.55E+01	0.00E+00	2.55E+01
			Fe-59	<4.96E+01	0.00E+00	4.96E+01
			Co-60	<3.29E+01	0.00E+00	3.29E+01
			Zn-65	<4.47E+01	0.00E+00	4.47E+01
			Nb-95	<2.98E+01	0.00E+00	2.98E+01
			I-131	<2.87E+01	0.00E+00	2.87E+01
			Cs-134	<2.75E+01	0.00E+00	2.75E+01
			Cs-137	<1.32E+01	0.00E+00	1.32E+01
			Be-7	<2.26E+02	0.00E+00	2.26E+02
			K-40	2.37E+03	5.68E+02	3.43E+02
			Ag-110M	<2.44E+01	0.00E+00	2.44E+01
			Sb-122	<1.05E+02	0.00E+00	1.05E+02
			Sb-125	<6.47E+01	0.00E+00	6.47E+01

Sample ID:	Sample Dates:		Nuclide	Activity	2 Sigma Error	MDA
439089	4/17/2017 - 4/17/2017	FREESWIM	Mn-54	<3.61E+01	0.00E+00	3.61E+01
			Co-58	<4.28E+01	0.00E+00	4.28E+01
			Fe-59	<8.80E+01	0.00E+00	8.80E+01
			Co-60	<3.69E+01	0.00E+00	3.69E+01
			Zn-65	<9.89E+01	0.00E+00	9.89E+01
			Nb-95	<3.13E+01	0.00E+00	3.13E+01
			I-131	<5.07E+01	0.00E+00	5.07E+01
			Cs-134	<2.85E+01	0.00E+00	2.85E+01
			Cs-137	<2.45E+01	0.00E+00	2.45E+01
			Be-7	<2.74E+02	0.00E+00	2.74E+02
			K-40	2.83E+03	7.59E+02	5.45E+02
			Ag-110M	<2.21E+01	0.00E+00	2.21E+01
			Sb-122	<2.62E+02	0.00E+00	2.62E+02
			Sb-125	<8.16E+01	0.00E+00	8.16E+01



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

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

Sample Point 44 [INDICATOR - -- @ 0 miles]

Sample ID:	Sample Dates:	BOTMFEEDER	Nuclide	Activity	2 Sigma Error	MDA
439087	4/17/2017 - 4/17/2017	BOTMFEEDER	Mn-54	<5.63E+01	0.00E+00	5.63E+01
			Co-58	<4.12E+01	0.00E+00	4.12E+01
			Fe-59	<1.26E+02	0.00E+00	1.26E+02
			Co-60	<7.48E+01	0.00E+00	7.48E+01
			Zn-65	<1.02E+02	0.00E+00	1.02E+02
			Nb-95	<6.37E+01	0.00E+00	6.37E+01
			I-131	<7.36E+01	0.00E+00	7.36E+01
			Cs-134	<5.75E+01	0.00E+00	5.75E+01
			Cs-137	<5.79E+01	0.00E+00	5.79E+01
			Be-7	<4.71E+02	0.00E+00	4.71E+02
			K-40	3.02E+03	1.03E+03	9.90E+02
			Ag-110M	<4.85E+01	0.00E+00	4.85E+01
			Sb-122	<3.53E+02	0.00E+00	3.53E+02
			Sb-125	<1.26E+02	0.00E+00	1.26E+02

Sample ID:	Sample Dates:	BOTMFEEDER	Nuclide	Activity	2 Sigma Error	MDA
454146	10/5/2017 - 10/5/2017	BOTMFEEDER	Mn-54	<3.83E+01	0.00E+00	3.83E+01
			Co-58	<4.09E+01	0.00E+00	4.09E+01
			Fe-59	<8.53E+01	0.00E+00	8.53E+01
			Co-60	<5.50E+01	0.00E+00	5.50E+01
			Zn-65	<1.09E+02	0.00E+00	1.09E+02
			Nb-95	<5.29E+01	0.00E+00	5.29E+01
			I-131	<6.29E+01	0.00E+00	6.29E+01
			Cs-134	<4.24E+01	0.00E+00	4.24E+01
			Cs-137	<5.05E+01	0.00E+00	5.05E+01
			Be-7	<3.68E+02	0.00E+00	3.68E+02
			K-40	3.97E+03	1.00E+03	6.10E+02
			Ag-110M	<4.33E+01	0.00E+00	4.33E+01
			Sb-122	<8.12E+02	0.00E+00	8.12E+02
			Sb-125	<1.15E+02	0.00E+00	1.15E+02

Sample ID:	Sample Dates:	FREESWIM	Nuclide	Activity	2 Sigma Error	MDA
454147	10/5/2017 - 10/5/2017	FREESWIM	Mn-54	<3.60E+01	0.00E+00	3.60E+01
			Co-58	<3.27E+01	0.00E+00	3.27E+01
			Fe-59	<6.14E+01	0.00E+00	6.14E+01
			Co-60	<3.97E+01	0.00E+00	3.97E+01
			Zn-65	<9.24E+01	0.00E+00	9.24E+01
			Nb-95	<3.48E+01	0.00E+00	3.48E+01
			I-131	<5.58E+01	0.00E+00	5.58E+01
			Cs-134	<2.62E+01	0.00E+00	2.62E+01
			Cs-137	<2.90E+01	0.00E+00	2.90E+01
			Be-7	<2.95E+02	0.00E+00	2.95E+02
			K-40	3.81E+03	8.29E+02	3.70E+02
			Ag-110M	<2.89E+01	0.00E+00	2.89E+01
			Sb-122	<6.29E+02	0.00E+00	6.29E+02
			Sb-125	<7.53E+01	0.00E+00	7.53E+01

Sample ID:	Sample Dates:	FREESWIM	Nuclide	Activity	2 Sigma Error	MDA
454148	10/5/2017 - 10/5/2017	FREESWIM	Mn-54	<5.40E+01	0.00E+00	5.40E+01
			Co-58	<4.73E+01	0.00E+00	4.73E+01
			Fe-59	<1.28E+02	0.00E+00	1.28E+02
			Co-60	<4.38E+01	0.00E+00	4.38E+01
			Zn-65	<1.49E+02	0.00E+00	1.49E+02
			Nb-95	<7.02E+01	0.00E+00	7.02E+01
			I-131	<8.24E+01	0.00E+00	8.24E+01
			Cs-134	<3.36E+01	0.00E+00	3.36E+01
			Cs-137	<3.62E+01	0.00E+00	3.62E+01
			Be-7	<3.75E+02	0.00E+00	3.75E+02
			K-40	2.92E+03	8.68E+02	1.62E+02
			Ag-110M	<5.03E+01	0.00E+00	5.03E+01
			Sb-122	<1.14E+03	0.00E+00	1.14E+03
			Sb-125	<7.52E+01	0.00E+00	7.52E+01

Sample Point 45 [CONTROL - -- @ 0 miles]

Sample ID:	Sample Dates:	FREESWIM	Nuclide	Activity	2 Sigma Error	MDA
439090	4/18/2017 - 4/18/2017	FREESWIM	Mn-54	<3.66E+01	0.00E+00	3.66E+01



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

Sample Point 45 [CONTROL - -- @ 0 miles]

Sample ID:	Sample Dates:	FREESWIM	Nuclide	Activity	2 Sigma Error	MDA
439090	4/18/2017 - 4/18/2017		Co-58	<2.11E+01	0.00E+00	2.11E+01
			Fe-59	<1.82E+01	0.00E+00	1.82E+01
			Co-60	<3.75E+01	0.00E+00	3.75E+01
			Zn-65	<8.54E+01	0.00E+00	8.54E+01
			Nb-95	<2.13E+01	0.00E+00	2.13E+01
			I-131	<5.21E+01	0.00E+00	5.21E+01
			Cs-134	<3.74E+01	0.00E+00	3.74E+01
			Cs-137	<3.77E+01	0.00E+00	3.77E+01
			Be-7	<2.39E+02	0.00E+00	2.39E+02
			K-40	2.27E+03	6.65E+02	4.24E+02
			Ag-110M	<3.82E+01	0.00E+00	3.82E+01
			Sb-122	<1.89E+02	0.00E+00	1.89E+02
			Sb-125	<8.25E+01	0.00E+00	8.25E+01

Sample ID:	Sample Dates:	FREESWIM	Nuclide	Activity	2 Sigma Error	MDA
439091	4/18/2017 - 4/18/2017		Mn-54	<9.42E+00	0.00E+00	9.42E+00
			Co-58	<3.85E+01	0.00E+00	3.85E+01
			Fe-59	<1.11E+02	0.00E+00	1.11E+02
			Co-60	<1.38E+01	0.00E+00	1.38E+01
			Zn-65	<8.28E+01	0.00E+00	8.28E+01
			Nb-95	<5.10E+01	0.00E+00	5.10E+01
			I-131	<4.96E+01	0.00E+00	4.96E+01
			Cs-134	<5.83E+01	0.00E+00	5.83E+01
			Cs-137	<5.29E+01	0.00E+00	5.29E+01
			Be-7	<3.81E+02	0.00E+00	3.81E+02
			K-40	2.21E+03	8.04E+02	8.01E+02
			Ag-110M	<3.61E+01	0.00E+00	3.61E+01
			Sb-122	<2.91E+02	0.00E+00	2.91E+02
			Sb-125	<9.06E+01	0.00E+00	9.06E+01

Sample ID:	Sample Dates:	BOTMFEEDER	Nuclide	Activity	2 Sigma Error	MDA
439092	4/18/2017 - 4/18/2017		Mn-54	<4.98E+01	0.00E+00	4.98E+01
			Co-58	<3.37E+01	0.00E+00	3.37E+01
			Fe-59	<7.94E+01	0.00E+00	7.94E+01
			Co-60	<4.78E+01	0.00E+00	4.78E+01
			Zn-65	<1.09E+02	0.00E+00	1.09E+02
			Nb-95	<5.81E+01	0.00E+00	5.81E+01
			I-131	<6.07E+01	0.00E+00	6.07E+01
			Cs-134	<6.86E+01	0.00E+00	6.86E+01
			Cs-137	<5.63E+01	0.00E+00	5.63E+01
			Be-7	<2.78E+02	0.00E+00	2.78E+02
			K-40	2.40E+03	7.61E+02	4.91E+02
			Ag-110M	<5.07E+01	0.00E+00	5.07E+01
			Sb-122	<2.69E+02	0.00E+00	2.69E+02
			Sb-125	<8.40E+01	0.00E+00	8.40E+01

Sample ID:	Sample Dates:	FREESWIM	Nuclide	Activity	2 Sigma Error	MDA
454149	10/6/2017 - 10/6/2017		Mn-54	<2.90E+01	0.00E+00	2.90E+01
			Co-58	<4.53E+01	0.00E+00	4.53E+01
			Fe-59	<6.40E+01	0.00E+00	6.40E+01
			Co-60	<5.12E+01	0.00E+00	5.12E+01
			Zn-65	<5.09E+01	0.00E+00	5.09E+01
			Nb-95	<5.23E+01	0.00E+00	5.23E+01
			I-131	<6.20E+01	0.00E+00	6.20E+01
			Cs-134	<3.59E+01	0.00E+00	3.59E+01
			Cs-137	<3.35E+01	0.00E+00	3.35E+01
			Be-7	<1.99E+02	0.00E+00	1.99E+02
			K-40	1.90E+03	5.85E+02	3.30E+02
			Ag-110M	<2.80E+01	0.00E+00	2.80E+01
			Sb-122	<3.90E+02	0.00E+00	3.90E+02
			Sb-125	<7.50E+01	0.00E+00	7.50E+01

Sample ID:	Sample Dates:	FREESWIM	Nuclide	Activity	2 Sigma Error	MDA
454150	10/6/2017 - 10/6/2017		Mn-54	<4.25E+01	0.00E+00	4.25E+01
			Co-58	<4.51E+01	0.00E+00	4.51E+01
			Fe-59	<7.44E+01	0.00E+00	7.44E+01
			Co-60	<1.55E+01	0.00E+00	1.55E+01



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

Sample Point 45 [CONTROL - -- @ 0 miles]

Sample ID:	Sample Dates:	FREESWIM	Nuclide	Activity	2 Sigma Error	MDA
454150	10/6/2017 - 10/6/2017		Zn-65	<1.22E+02	0.00E+00	1.22E+02
			Nb-95	<6.21E+01	0.00E+00	6.21E+01
			I-131	<1.10E+02	0.00E+00	1.10E+02
			Cs-134	<5.75E+01	0.00E+00	5.75E+01
			Cs-137	<4.04E+01	0.00E+00	4.04E+01
			Be-7	<4.08E+02	0.00E+00	4.08E+02
			K-40	1.97E+03	8.49E+02	9.66E+02
			Ag-110M	<3.68E+01	0.00E+00	3.68E+01
			Sb-122	<6.41E+02	0.00E+00	6.41E+02
			Sb-125	<1.17E+02	0.00E+00	1.17E+02

Sample ID:	Sample Dates:	BOTMFEEDER	Nuclide	Activity	2 Sigma Error	MDA
454151	10/6/2017 - 10/6/2017		Mn-54	<1.93E+01	0.00E+00	1.93E+01
			Co-58	<4.18E+01	0.00E+00	4.18E+01
			Fe-59	<7.20E+01	0.00E+00	7.20E+01
			Co-60	<2.78E+01	0.00E+00	2.78E+01
			Zn-65	<6.24E+01	0.00E+00	6.24E+01
			Nb-95	<5.10E+01	0.00E+00	5.10E+01
			I-131	<5.58E+01	0.00E+00	5.58E+01
			Cs-134	<3.14E+01	0.00E+00	3.14E+01
			Cs-137	<4.85E+01	0.00E+00	4.85E+01
			Be-7	<2.52E+02	0.00E+00	2.52E+02
			K-40	3.22E+03	7.49E+02	1.03E+02
			Ag-110M	<3.20E+01	0.00E+00	3.20E+01
			Sb-122	<4.22E+02	0.00E+00	4.22E+02
			Sb-125	<9.64E+01	0.00E+00	9.64E+01

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

Sample Point 57 [INDICATOR - SSW @ 0.4 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
434295	2/22/2017 - 2/22/2017	Mn-54	<6.15E+00	0.00E+00	6.15E+00
		Co-58	<6.87E+00	0.00E+00	6.87E+00
		Fe-59	<1.40E+01	0.00E+00	1.40E+01
		Co-60	<7.14E+00	0.00E+00	7.14E+00
		Zn-65	<1.53E+01	0.00E+00	1.53E+01
		Zr-95	<1.19E+01	0.00E+00	1.19E+01
		Nb-95	<6.49E+00	0.00E+00	6.49E+00
		I-131	<9.21E+00	0.00E+00	9.21E+00
		Cs-134	<8.13E+00	0.00E+00	8.13E+00
		Cs-137	<7.87E+00	0.00E+00	7.87E+00
		BaLa-140	<1.02E+01	0.00E+00	1.02E+01
		Be-7	<5.86E+01	0.00E+00	5.86E+01
		K-40	1.35E+02	7.54E+01	1.06E+02
		H3GW	<-1.7E+01	0.00E+00	2.01E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
442709	5/24/2017 - 5/24/2017	Mn-54	<5.69E+00	0.00E+00	5.69E+00
		Co-58	<5.68E+00	0.00E+00	5.68E+00
		Fe-59	<1.17E+01	0.00E+00	1.17E+01
		Co-60	<4.33E+00	0.00E+00	4.33E+00
		Zn-65	<1.43E+01	0.00E+00	1.43E+01
		Zr-95	<9.57E+00	0.00E+00	9.57E+00
		Nb-95	<6.29E+00	0.00E+00	6.29E+00
		I-131	<9.07E+00	0.00E+00	9.07E+00
		Cs-134	<4.75E+00	0.00E+00	4.75E+00
		Cs-137	<6.01E+00	0.00E+00	6.01E+00
		BaLa-140	<1.00E+01	0.00E+00	1.00E+01
		Be-7	<4.86E+01	0.00E+00	4.86E+01
		K-40	5.90E+01	4.65E+01	6.77E+01
		H3GW	<8.09E+01	0.00E+00	1.85E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
449708	8/9/2017 - 8/9/2017	Mn-54	<6.65E+00	0.00E+00	6.65E+00
		Co-58	<5.90E+00	0.00E+00	5.90E+00
		Fe-59	<1.11E+01	0.00E+00	1.11E+01



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

Sample Point 57 [INDICATOR - SSW @ 0.4 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
449708	8/9/2017 - 8/9/2017	Co-60	<7.65E+00	0.00E+00	7.65E+00
		Zn-65	<1.05E+01	0.00E+00	1.05E+01
		Zr-95	<1.09E+01	0.00E+00	1.09E+01
		Nb-95	<7.61E+00	0.00E+00	7.61E+00
		I-131	<9.20E+00	0.00E+00	9.20E+00
		Cs-134	<7.80E+00	0.00E+00	7.80E+00
		Cs-137	<7.99E+00	0.00E+00	7.99E+00
		BaLa-140	<8.00E+00	0.00E+00	8.00E+00
		Be-7	<4.20E+01	0.00E+00	4.20E+01
		K-40	9.08E+01	6.69E+01	9.99E+01
		H3GW	<-7.0E+01	0.00E+00	2.07E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
441785	11/9/2017 - 11/9/2017	Mn-54	<6.79E+00	0.00E+00	6.79E+00
		Co-58	<5.81E+00	0.00E+00	5.81E+00
		Fe-59	<1.38E+01	0.00E+00	1.38E+01
		Co-60	<6.81E+00	0.00E+00	6.81E+00
		Zn-65	<1.07E+01	0.00E+00	1.07E+01
		Zr-95	<9.76E+00	0.00E+00	9.76E+00
		Nb-95	<7.59E+00	0.00E+00	7.59E+00
		I-131	<8.76E+00	0.00E+00	8.76E+00
		Cs-134	<6.81E+00	0.00E+00	6.81E+00
		Cs-137	<6.60E+00	0.00E+00	6.60E+00
		BaLa-140	<1.07E+01	0.00E+00	1.07E+01
		Be-7	<5.48E+01	0.00E+00	5.48E+01
		K-40	1.94E+02	6.28E+01	4.30E+01
		H3GW	<-1.7E+01	0.00E+00	2.08E+02

Sample Point 59 [INDICATOR - NNE @ 0.5 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
434296	2/22/2017 - 2/22/2017	Mn-54	<6.08E+00	0.00E+00	6.08E+00
		Co-58	<6.57E+00	0.00E+00	6.57E+00
		Fe-59	<1.12E+01	0.00E+00	1.12E+01
		Co-60	<6.06E+00	0.00E+00	6.06E+00
		Zn-65	<8.16E+00	0.00E+00	8.16E+00
		Zr-95	<1.01E+01	0.00E+00	1.01E+01
		Nb-95	<6.57E+00	0.00E+00	6.57E+00
		I-131	<8.63E+00	0.00E+00	8.63E+00
		Cs-134	<5.37E+00	0.00E+00	5.37E+00
		Cs-137	<4.90E+00	0.00E+00	4.90E+00
		BaLa-140	<4.90E+00	0.00E+00	4.90E+00
		Be-7	<4.03E+01	0.00E+00	4.03E+01
		K-40	1.02E+02	7.54E+01	1.14E+02
		H3GW	<-1.2E+02	0.00E+00	2.01E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
442710	5/24/2017 - 5/24/2017	Mn-54	<4.39E+00	0.00E+00	4.39E+00
		Co-58	<6.06E+00	0.00E+00	6.06E+00
		Fe-59	<1.26E+01	0.00E+00	1.26E+01
		Co-60	<4.46E+00	0.00E+00	4.46E+00
		Zn-65	<1.22E+01	0.00E+00	1.22E+01
		Zr-95	<8.76E+00	0.00E+00	8.76E+00
		Nb-95	<6.15E+00	0.00E+00	6.15E+00
		I-131	<8.05E+00	0.00E+00	8.05E+00
		Cs-134	<5.93E+00	0.00E+00	5.93E+00
		Cs-137	<5.33E+00	0.00E+00	5.33E+00
		BaLa-140	<7.43E+00	0.00E+00	7.43E+00
		Be-7	3.35E+01	3.25E+01	5.15E+01
		K-40	<9.96E+01	0.00E+00	9.96E+01
		H3GW	<6.42E+01	0.00E+00	1.87E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
449709	8/10/2017 - 8/10/2017	Mn-54	<5.30E+00	0.00E+00	5.30E+00
		Co-58	<4.94E+00	0.00E+00	4.94E+00
		Fe-59	<1.12E+01	0.00E+00	1.12E+01
		Co-60	<3.84E+00	0.00E+00	3.84E+00



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

Sample Point 59 [INDICATOR - NNE @ 0.5 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
449709	8/10/2017 - 8/10/2017	Zn-65	<1.22E+01	0.00E+00	1.22E+01
		Zr-95	<6.20E+00	0.00E+00	6.20E+00
		Nb-95	<4.91E+00	0.00E+00	4.91E+00
		I-131	<7.04E+00	0.00E+00	7.04E+00
		Cs-134	<5.94E+00	0.00E+00	5.94E+00
		Cs-137	<3.42E+00	0.00E+00	3.42E+00
		BaLa-140	<7.43E+00	0.00E+00	7.43E+00
		Be-7	<4.21E+01	0.00E+00	4.21E+01
		K-40	<9.06E+01	0.00E+00	9.06E+01
		H3GW	<-4.4E+01	0.00E+00	2.09E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
441786	11/8/2017 - 11/8/2017	Mn-54	<6.23E+00	0.00E+00	6.23E+00
		Co-58	<5.23E+00	0.00E+00	5.23E+00
		Fe-59	<7.45E+00	0.00E+00	7.45E+00
		Co-60	<5.43E+00	0.00E+00	5.43E+00
		Zn-65	<1.16E+01	0.00E+00	1.16E+01
		Zr-95	<1.05E+01	0.00E+00	1.05E+01
		Nb-95	<5.28E+00	0.00E+00	5.28E+00
		I-131	<7.59E+00	0.00E+00	7.59E+00
		Cs-134	<5.70E+00	0.00E+00	5.70E+00
		Cs-137	<4.94E+00	0.00E+00	4.94E+00
		BaLa-140	<4.96E+00	0.00E+00	4.96E+00
		Be-7	<5.07E+01	0.00E+00	5.07E+01
		K-40	1.19E+02	5.53E+01	6.32E+01
		H3GW	<-1.0E+02	0.00E+00	2.03E+02

Sample Point 60 [INDICATOR - ESE @ 0.5 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
434297	2/22/2017 - 2/22/2017	Mn-54	<6.14E+00	0.00E+00	6.14E+00
		Co-58	<6.25E+00	0.00E+00	6.25E+00
		Fe-59	<1.21E+01	0.00E+00	1.21E+01
		Co-60	<6.33E+00	0.00E+00	6.33E+00
		Zn-65	<1.35E+01	0.00E+00	1.35E+01
		Zr-95	<1.09E+01	0.00E+00	1.09E+01
		Nb-95	<6.60E+00	0.00E+00	6.60E+00
		I-131	<7.88E+00	0.00E+00	7.88E+00
		Cs-134	<6.88E+00	0.00E+00	6.88E+00
		Cs-137	<6.14E+00	0.00E+00	6.14E+00
		BaLa-140	<8.53E+00	0.00E+00	8.53E+00
		Be-7	<4.50E+01	0.00E+00	4.50E+01
		K-40	9.62E+01	6.23E+01	8.85E+01
		H3GW	<-4.6E+01	0.00E+00	2.01E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
442711	5/22/2017 - 5/22/2017	Mn-54	<5.72E+00	0.00E+00	5.72E+00
		Co-58	<5.40E+00	0.00E+00	5.40E+00
		Fe-59	<1.31E+01	0.00E+00	1.31E+01
		Co-60	<7.01E+00	0.00E+00	7.01E+00
		Zn-65	<1.30E+01	0.00E+00	1.30E+01
		Zr-95	<1.20E+01	0.00E+00	1.20E+01
		Nb-95	<6.19E+00	0.00E+00	6.19E+00
		I-131	<9.43E+00	0.00E+00	9.43E+00
		Cs-134	<7.62E+00	0.00E+00	7.62E+00
		Cs-137	<6.31E+00	0.00E+00	6.31E+00
		BaLa-140	<8.06E+00	0.00E+00	8.06E+00
		Be-7	<5.07E+01	0.00E+00	5.07E+01
		K-40	9.53E+01	5.27E+01	6.76E+01
		H3GW	<5.41E+01	0.00E+00	1.86E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
449710	8/10/2017 - 8/10/2017	Mn-54	<4.70E+00	0.00E+00	4.70E+00
		Co-58	<4.53E+00	0.00E+00	4.53E+00
		Fe-59	<1.04E+01	0.00E+00	1.04E+01
		Co-60	<7.29E+00	0.00E+00	7.29E+00
		Zn-65	<1.06E+01	0.00E+00	1.06E+01



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

Sample Point 60 [INDICATOR - ESE @ 0.5 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
449710	8/10/2017 - 8/10/2017	Zr-95	<1.09E+01	0.00E+00	1.09E+01
		Nb-95	<5.14E+00	0.00E+00	5.14E+00
		I-131	<7.24E+00	0.00E+00	7.24E+00
		Cs-134	<5.50E+00	0.00E+00	5.50E+00
		Cs-137	<6.01E+00	0.00E+00	6.01E+00
		BaLa-140	<7.16E+00	0.00E+00	7.16E+00
		Be-7	<3.36E+01	0.00E+00	3.36E+01
		K-40	9.89E+01	4.77E+01	5.19E+01
		H3GW	<-8.3E+01	0.00E+00	2.04E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
441787	11/7/2017 - 11/7/2017	Mn-54	<6.51E+00	0.00E+00	6.51E+00
		Co-58	<6.20E+00	0.00E+00	6.20E+00
		Fe-59	<1.25E+01	0.00E+00	1.25E+01
		Co-60	<6.69E+00	0.00E+00	6.69E+00
		Zn-65	<1.41E+01	0.00E+00	1.41E+01
		Zr-95	<1.15E+01	0.00E+00	1.15E+01
		Nb-95	<6.89E+00	0.00E+00	6.89E+00
		I-131	<8.12E+00	0.00E+00	8.12E+00
		Cs-134	<6.03E+00	0.00E+00	6.03E+00
		Cs-137	<6.62E+00	0.00E+00	6.62E+00
		BaLa-140	<7.87E+00	0.00E+00	7.87E+00
		Be-7	<4.29E+01	0.00E+00	4.29E+01
		K-40	1.63E+02	7.25E+01	9.07E+01
		H3GW	<-1.6E+02	0.00E+00	2.04E+02

Sample Point 68 [INDICATOR - W @ 0.2 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
434298	2/22/2017 - 2/22/2017	Mn-54	<4.70E+00	0.00E+00	4.70E+00
		Co-58	<3.77E+00	0.00E+00	3.77E+00
		Fe-59	<7.94E+00	0.00E+00	7.94E+00
		Co-60	<5.67E+00	0.00E+00	5.67E+00
		Zn-65	<1.18E+01	0.00E+00	1.18E+01
		Zr-95	<1.01E+01	0.00E+00	1.01E+01
		Nb-95	<5.23E+00	0.00E+00	5.23E+00
		I-131	<6.54E+00	0.00E+00	6.54E+00
		Cs-134	<6.36E+00	0.00E+00	6.36E+00
		Cs-137	<5.52E+00	0.00E+00	5.52E+00
		BaLa-140	<8.17E+00	0.00E+00	8.17E+00
		Be-7	<3.99E+01	0.00E+00	3.99E+01
		K-40	5.76E+01	4.58E+01	6.68E+01
		H3GW	<-1.2E+01	0.00E+00	2.01E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
442712	5/24/2017 - 5/24/2017	Mn-54	<5.70E+00	0.00E+00	5.70E+00
		Co-58	<5.25E+00	0.00E+00	5.25E+00
		Fe-59	<9.81E+00	0.00E+00	9.81E+00
		Co-60	<5.43E+00	0.00E+00	5.43E+00
		Zn-65	<1.38E+01	0.00E+00	1.38E+01
		Zr-95	<7.89E+00	0.00E+00	7.89E+00
		Nb-95	<4.84E+00	0.00E+00	4.84E+00
		I-131	<7.69E+00	0.00E+00	7.69E+00
		Cs-134	<6.97E+00	0.00E+00	6.97E+00
		Cs-137	<5.33E+00	0.00E+00	5.33E+00
		BaLa-140	<7.41E+00	0.00E+00	7.41E+00
		Be-7	<3.27E+01	0.00E+00	3.27E+01
		K-40	<1.19E+02	0.00E+00	1.19E+02
		H3GW	<9.73E+00	0.00E+00	1.87E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
449711	8/9/2017 - 8/9/2017	Mn-54	<4.12E+00	0.00E+00	4.12E+00
		Co-58	<5.61E+00	0.00E+00	5.61E+00
		Fe-59	<1.09E+01	0.00E+00	1.09E+01
		Co-60	<5.84E+00	0.00E+00	5.84E+00
		Zn-65	<1.16E+01	0.00E+00	1.16E+01
		Zr-95	<9.77E+00	0.00E+00	9.77E+00



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

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

Sample Point 68 [INDICATOR - W @ 0.2 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
449711	8/9/2017 - 8/9/2017	Nb-95	<7.48E+00	0.00E+00	7.48E+00
		I-131	<7.29E+00	0.00E+00	7.29E+00
		Cs-134	<5.93E+00	0.00E+00	5.93E+00
		Cs-137	<6.36E+00	0.00E+00	6.36E+00
		BaLa-140	<6.02E+00	0.00E+00	6.02E+00
		Be-7	<4.45E+01	0.00E+00	4.45E+01
		K-40	6.21E+01	5.68E+01	8.81E+01
		H3GW	<-8.2E+01	0.00E+00	2.07E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
441788	11/9/2017 - 11/9/2017	Mn-54	<5.03E+00	0.00E+00	5.03E+00
		Co-58	<6.31E+00	0.00E+00	6.31E+00
		Fe-59	<1.49E+01	0.00E+00	1.49E+01
		Co-60	<4.81E+00	0.00E+00	4.81E+00
		Zn-65	<8.52E+00	0.00E+00	8.52E+00
		Zr-95	<1.10E+01	0.00E+00	1.10E+01
		Nb-95	<6.35E+00	0.00E+00	6.35E+00
		I-131	<7.85E+00	0.00E+00	7.85E+00
		Cs-134	<5.33E+00	0.00E+00	5.33E+00
		Cs-137	<5.81E+00	0.00E+00	5.81E+00
		BaLa-140	<7.58E+00	0.00E+00	7.58E+00
		Be-7	<3.83E+01	0.00E+00	3.83E+01
		K-40	8.48E+01	5.26E+01	6.94E+01
		H3GW	<-7.2E+01	0.00E+00	2.04E+02

Sample Point 69 [INDICATOR - NNE @ 0.2 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
434299	2/22/2017 - 2/22/2017	Mn-54	<5.88E+00	0.00E+00	5.88E+00
		Co-58	<4.97E+00	0.00E+00	4.97E+00
		Fe-59	<1.02E+01	0.00E+00	1.02E+01
		Co-60	<6.56E+00	0.00E+00	6.56E+00
		Zn-65	<1.10E+01	0.00E+00	1.10E+01
		Zr-95	<9.79E+00	0.00E+00	9.79E+00
		Nb-95	<5.62E+00	0.00E+00	5.62E+00
		I-131	<7.46E+00	0.00E+00	7.46E+00
		Cs-134	<6.79E+00	0.00E+00	6.79E+00
		Cs-137	<5.73E+00	0.00E+00	5.73E+00
		BaLa-140	<8.41E+00	0.00E+00	8.41E+00
		Be-7	<3.90E+01	0.00E+00	3.90E+01
		K-40	7.13E+01	4.71E+01	6.36E+01
		H3GW	<-1.2E+02	0.00E+00	2.01E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
442713	5/24/2017 - 5/24/2017	Mn-54	<5.98E+00	0.00E+00	5.98E+00
		Co-58	<5.55E+00	0.00E+00	5.55E+00
		Fe-59	<9.99E+00	0.00E+00	9.99E+00
		Co-60	<8.22E+00	0.00E+00	8.22E+00
		Zn-65	<1.30E+01	0.00E+00	1.30E+01
		Zr-95	<8.47E+00	0.00E+00	8.47E+00
		Nb-95	<5.85E+00	0.00E+00	5.85E+00
		I-131	<7.48E+00	0.00E+00	7.48E+00
		Cs-134	<7.81E+00	0.00E+00	7.81E+00
		Cs-137	<7.34E+00	0.00E+00	7.34E+00
		BaLa-140	<7.59E+00	0.00E+00	7.59E+00
		Be-7	<4.01E+01	0.00E+00	4.01E+01
		K-40	8.13E+01	6.05E+01	8.95E+01
		H3GW	<1.06E+02	0.00E+00	1.86E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
449712	8/9/2017 - 8/9/2017	Mn-54	<6.35E+00	0.00E+00	6.35E+00
		Co-58	<5.25E+00	0.00E+00	5.25E+00
		Fe-59	<1.06E+01	0.00E+00	1.06E+01
		Co-60	<5.28E+00	0.00E+00	5.28E+00
		Zn-65	<1.07E+01	0.00E+00	1.07E+01
		Zr-95	<9.83E+00	0.00E+00	9.83E+00
		Nb-95	<4.85E+00	0.00E+00	4.85E+00



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

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

Sample Point 69 [INDICATOR - NNE @ 0.2 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
449712	8/9/2017 - 8/9/2017	I-131	<7.67E+00	0.00E+00	7.67E+00
		Cs-134	<4.76E+00	0.00E+00	4.76E+00
		Cs-137	<6.45E+00	0.00E+00	6.45E+00
		BaLa-140	<5.93E+00	0.00E+00	5.93E+00
		Be-7	<4.99E+01	0.00E+00	4.99E+01
		K-40	<9.89E+01	0.00E+00	9.89E+01
		H3GW	<-8.5E+01	0.00E+00	2.04E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
441789	11/8/2017 - 11/8/2017	Mn-54	<6.89E+00	0.00E+00	6.89E+00
		Co-58	<6.26E+00	0.00E+00	6.26E+00
		Fe-59	<1.40E+01	0.00E+00	1.40E+01
		Co-60	<8.57E+00	0.00E+00	8.57E+00
		Zn-65	<1.22E+01	0.00E+00	1.22E+01
		Zr-95	<8.36E+00	0.00E+00	8.36E+00
		Nb-95	<6.35E+00	0.00E+00	6.35E+00
		I-131	<9.86E+00	0.00E+00	9.86E+00
		Cs-134	<4.93E+00	0.00E+00	4.93E+00
		Cs-137	<5.73E+00	0.00E+00	5.73E+00
		BaLa-140	<9.69E+00	0.00E+00	9.69E+00
		Be-7	<4.63E+01	0.00E+00	4.63E+01
		K-40	<8.33E+01	0.00E+00	8.33E+01
		H3GW	<-1.1E+02	0.00E+00	2.03E+02

Sample Point 70 [INDICATOR - E @ 0.4 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
434300	2/22/2017 - 2/22/2017	Mn-54	<6.64E+00	0.00E+00	6.64E+00
		Co-58	<4.57E+00	0.00E+00	4.57E+00
		Fe-59	<1.05E+01	0.00E+00	1.05E+01
		Co-60	<6.04E+00	0.00E+00	6.04E+00
		Zn-65	<1.00E+01	0.00E+00	1.00E+01
		Zr-95	<9.10E+00	0.00E+00	9.10E+00
		Nb-95	<5.97E+00	0.00E+00	5.97E+00
		I-131	<7.00E+00	0.00E+00	7.00E+00
		Cs-134	<7.60E+00	0.00E+00	7.60E+00
		Cs-137	<5.35E+00	0.00E+00	5.35E+00
		BaLa-140	<7.50E+00	0.00E+00	7.50E+00
		Be-7	<4.00E+01	0.00E+00	4.00E+01
		K-40	<1.01E+02	0.00E+00	1.01E+02
		H3GW	<-4.1E+01	0.00E+00	2.01E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
442714	5/24/2017 - 5/24/2017	Mn-54	<5.79E+00	0.00E+00	5.79E+00
		Co-58	<6.33E+00	0.00E+00	6.33E+00
		Fe-59	<1.12E+01	0.00E+00	1.12E+01
		Co-60	<5.07E+00	0.00E+00	5.07E+00
		Zn-65	<1.18E+01	0.00E+00	1.18E+01
		Zr-95	<1.17E+01	0.00E+00	1.17E+01
		Nb-95	<7.43E+00	0.00E+00	7.43E+00
		I-131	<8.63E+00	0.00E+00	8.63E+00
		Cs-134	<5.27E+00	0.00E+00	5.27E+00
		Cs-137	<5.61E+00	0.00E+00	5.61E+00
		BaLa-140	<1.10E+01	0.00E+00	1.10E+01
		Be-7	<3.61E+01	0.00E+00	3.61E+01
		K-40	<1.10E+02	0.00E+00	1.10E+02
		H3GW	<-6.6E+01	0.00E+00	1.86E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
449713	8/10/2017 - 8/10/2017	Mn-54	<5.36E+00	0.00E+00	5.36E+00
		Co-58	<4.50E+00	0.00E+00	4.50E+00
		Fe-59	<9.66E+00	0.00E+00	9.66E+00
		Co-60	<5.06E+00	0.00E+00	5.06E+00
		Zn-65	<1.35E+01	0.00E+00	1.35E+01
		Zr-95	<9.09E+00	0.00E+00	9.09E+00
		Nb-95	<5.60E+00	0.00E+00	5.60E+00
		I-131	<6.79E+00	0.00E+00	6.79E+00



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

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

Sample Point 70 [INDICATOR - E @ 0.4 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
449713	8/10/2017 - 8/10/2017	Cs-134	<5.26E+00	0.00E+00	5.26E+00
		Cs-137	<6.46E+00	0.00E+00	6.46E+00
		BaLa-140	<8.23E+00	0.00E+00	8.23E+00
		Be-7	<4.46E+01	0.00E+00	4.46E+01
		K-40	<1.08E+02	0.00E+00	1.08E+02
		H3GW	<-8.6E+01	0.00E+00	2.07E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
441790	11/7/2017 - 11/7/2017	Mn-54	<6.07E+00	0.00E+00	6.07E+00
		Co-58	<5.06E+00	0.00E+00	5.06E+00
		Fe-59	<1.23E+01	0.00E+00	1.23E+01
		Co-60	<4.98E+00	0.00E+00	4.98E+00
		Zn-65	<1.23E+01	0.00E+00	1.23E+01
		Zr-95	<8.83E+00	0.00E+00	8.83E+00
		Nb-95	<8.05E+00	0.00E+00	8.05E+00
		I-131	<9.39E+00	0.00E+00	9.39E+00
		Cs-134	<5.94E+00	0.00E+00	5.94E+00
		Cs-137	<6.04E+00	0.00E+00	6.04E+00
		BaLa-140	<1.08E+01	0.00E+00	1.08E+01
		Be-7	<5.06E+01	0.00E+00	5.06E+01
		K-40	9.50E+01	6.15E+01	8.76E+01
		H3GW	<-1.8E+02	0.00E+00	2.01E+02

Sample Point 71 [INDICATOR - SE @ 0.3 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
434301	2/22/2017 - 2/22/2017	Mn-54	<4.70E+00	0.00E+00	4.70E+00
		Co-58	<4.55E+00	0.00E+00	4.55E+00
		Fe-59	<1.11E+01	0.00E+00	1.11E+01
		Co-60	<4.54E+00	0.00E+00	4.54E+00
		Zn-65	<1.35E+01	0.00E+00	1.35E+01
		Zr-95	<1.03E+01	0.00E+00	1.03E+01
		Nb-95	<5.30E+00	0.00E+00	5.30E+00
		I-131	<7.95E+00	0.00E+00	7.95E+00
		Cs-134	<6.02E+00	0.00E+00	6.02E+00
		Cs-137	<5.79E+00	0.00E+00	5.79E+00
		BaLa-140	<7.19E+00	0.00E+00	7.19E+00
		Be-7	<4.20E+01	0.00E+00	4.20E+01
		K-40	9.29E+01	5.08E+01	6.22E+01
		H3GW	<1.21E+01	0.00E+00	2.02E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
442715	5/22/2017 - 5/22/2017	Mn-54	<6.28E+00	0.00E+00	6.28E+00
		Co-58	<3.70E+00	0.00E+00	3.70E+00
		Fe-59	<1.35E+01	0.00E+00	1.35E+01
		Co-60	<6.89E+00	0.00E+00	6.89E+00
		Zn-65	<1.39E+01	0.00E+00	1.39E+01
		Zr-95	<9.39E+00	0.00E+00	9.39E+00
		Nb-95	<7.16E+00	0.00E+00	7.16E+00
		I-131	<7.58E+00	0.00E+00	7.58E+00
		Cs-134	<6.19E+00	0.00E+00	6.19E+00
		Cs-137	<5.17E+00	0.00E+00	5.17E+00
		BaLa-140	<9.22E+00	0.00E+00	9.22E+00
		Be-7	<4.76E+01	0.00E+00	4.76E+01
		K-40	3.68E+01	3.92E+01	6.13E+01
		H3GW	<2.13E+01	0.00E+00	1.86E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
449714	8/6/2017 - 8/6/2017	Mn-54	<4.41E+00	0.00E+00	4.41E+00
		Co-58	<6.54E+00	0.00E+00	6.54E+00
		Fe-59	<1.08E+01	0.00E+00	1.08E+01
		Co-60	<5.43E+00	0.00E+00	5.43E+00
		Zn-65	<9.68E+00	0.00E+00	9.68E+00
		Zr-95	<9.72E+00	0.00E+00	9.72E+00
		Nb-95	<5.52E+00	0.00E+00	5.52E+00
		I-131	<8.62E+00	0.00E+00	8.62E+00
Cs-134	<4.92E+00	0.00E+00	4.92E+00		



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

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

Sample Point 71 [INDICATOR - SE @ 0.3 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
449714	8/6/2017 - 8/6/2017	Cs-137	<5.70E+00	0.00E+00	5.70E+00
		BaLa-140	<1.07E+01	0.00E+00	1.07E+01
		Be-7	<4.29E+01	0.00E+00	4.29E+01
		K-40	9.81E+01	5.66E+01	7.54E+01
		H3GW	<-7.0E+01	0.00E+00	2.08E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
441791	11/5/2017 - 11/5/2017	Mn-54	<6.01E+00	0.00E+00	6.01E+00
		Co-58	<5.91E+00	0.00E+00	5.91E+00
		Fe-59	<1.17E+01	0.00E+00	1.17E+01
		Co-60	<6.34E+00	0.00E+00	6.34E+00
		Zn-65	<1.47E+01	0.00E+00	1.47E+01
		Zr-95	<1.03E+01	0.00E+00	1.03E+01
		Nb-95	<4.62E+00	0.00E+00	4.62E+00
		I-131	<8.70E+00	0.00E+00	8.70E+00
		Cs-134	<6.27E+00	0.00E+00	6.27E+00
		Cs-137	<5.97E+00	0.00E+00	5.97E+00
		BaLa-140	<9.79E+00	0.00E+00	9.79E+00
		Be-7	<4.75E+01	0.00E+00	4.75E+01
		K-40	8.72E+01	4.65E+01	5.30E+01
		H3GW	<-1.1E+02	0.00E+00	2.05E+02

Sample Point 72 [INDICATOR - SE @ 0.2 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
434302	2/22/2017 - 2/22/2017	Mn-54	<6.18E+00	0.00E+00	6.18E+00
		Co-58	<6.63E+00	0.00E+00	6.63E+00
		Fe-59	<1.16E+01	0.00E+00	1.16E+01
		Co-60	<8.33E+00	0.00E+00	8.33E+00
		Zn-65	<1.38E+01	0.00E+00	1.38E+01
		Zr-95	<1.16E+01	0.00E+00	1.16E+01
		Nb-95	<9.50E+00	0.00E+00	9.50E+00
		I-131	<8.74E+00	0.00E+00	8.74E+00
		Cs-134	<7.10E+00	0.00E+00	7.10E+00
		Cs-137	<6.73E+00	0.00E+00	6.73E+00
		BaLa-140	<9.79E+00	0.00E+00	9.79E+00
		Be-7	<5.05E+01	0.00E+00	5.05E+01
		K-40	<9.25E+01	0.00E+00	9.25E+01
		H3GW	<-6.9E+01	0.00E+00	1.98E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
442716	5/22/2017 - 5/22/2017	Mn-54	<4.15E+00	0.00E+00	4.15E+00
		Co-58	<3.95E+00	0.00E+00	3.95E+00
		Fe-59	<6.34E+00	0.00E+00	6.34E+00
		Co-60	<4.92E+00	0.00E+00	4.92E+00
		Zn-65	<1.05E+01	0.00E+00	1.05E+01
		Zr-95	<8.89E+00	0.00E+00	8.89E+00
		Nb-95	<5.34E+00	0.00E+00	5.34E+00
		I-131	<8.52E+00	0.00E+00	8.52E+00
		Cs-134	<4.91E+00	0.00E+00	4.91E+00
		Cs-137	<4.55E+00	0.00E+00	4.55E+00
		BaLa-140	<9.89E+00	0.00E+00	9.89E+00
		Be-7	<3.03E+01	0.00E+00	3.03E+01
		K-40	<6.68E+01	0.00E+00	6.68E+01
		H3GW	<2.50E+01	0.00E+00	1.85E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
449715	8/6/2017 - 8/6/2017	Mn-54	<6.28E+00	0.00E+00	6.28E+00
		Co-58	<5.04E+00	0.00E+00	5.04E+00
		Fe-59	<1.26E+01	0.00E+00	1.26E+01
		Co-60	<4.32E+00	0.00E+00	4.32E+00
		Zn-65	<1.36E+01	0.00E+00	1.36E+01
		Zr-95	<9.87E+00	0.00E+00	9.87E+00
		Nb-95	<7.31E+00	0.00E+00	7.31E+00
		I-131	<8.76E+00	0.00E+00	8.76E+00
		Cs-134	<6.49E+00	0.00E+00	6.49E+00
		Cs-137	<5.71E+00	0.00E+00	5.71E+00



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

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

Sample Point 72 [INDICATOR - SE @ 0.2 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
449715	8/6/2017 - 8/6/2017	BaLa-140	<1.12E+01	0.00E+00	1.12E+01
		Be-7	<4.75E+01	0.00E+00	4.75E+01
		K-40	1.11E+02	6.58E+01	9.69E+01
		H3GW	<-1.2E+02	0.00E+00	2.06E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
441792	11/6/2017 - 11/6/2017	Mn-54	<6.00E+00	0.00E+00	6.00E+00
		Co-58	<8.10E+00	0.00E+00	8.10E+00
		Fe-59	<1.60E+01	0.00E+00	1.60E+01
		Co-60	<3.92E+00	0.00E+00	3.92E+00
		Zn-65	<1.64E+01	0.00E+00	1.64E+01
		Zr-95	<9.09E+00	0.00E+00	9.09E+00
		Nb-95	<8.81E+00	0.00E+00	8.81E+00
		I-131	<1.04E+01	0.00E+00	1.04E+01
		Cs-134	<7.83E+00	0.00E+00	7.83E+00
		Cs-137	<7.48E+00	0.00E+00	7.48E+00
		BaLa-140	<9.40E+00	0.00E+00	9.40E+00
		Be-7	<5.77E+01	0.00E+00	5.77E+01
		K-40	8.86E+01	5.91E+01	8.41E+01
		H3GW	<-9.5E+01	0.00E+00	2.03E+02

Sample Point 73 [INDICATOR - S @ 0.2 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
434303	2/22/2017 - 2/22/2017	Mn-54	<5.49E+00	0.00E+00	5.49E+00
		Co-58	<4.97E+00	0.00E+00	4.97E+00
		Fe-59	<1.14E+01	0.00E+00	1.14E+01
		Co-60	<4.97E+00	0.00E+00	4.97E+00
		Zn-65	<1.16E+01	0.00E+00	1.16E+01
		Zr-95	<8.65E+00	0.00E+00	8.65E+00
		Nb-95	<5.82E+00	0.00E+00	5.82E+00
		I-131	<6.52E+00	0.00E+00	6.52E+00
		Cs-134	<5.45E+00	0.00E+00	5.45E+00
		Cs-137	<5.52E+00	0.00E+00	5.52E+00
		BaLa-140	<7.80E+00	0.00E+00	7.80E+00
		Be-7	<4.24E+01	0.00E+00	4.24E+01
		K-40	<1.04E+02	0.00E+00	1.04E+02
		H3GW	<-8.0E+01	0.00E+00	2.01E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
442717	5/24/2017 - 5/24/2017	Mn-54	<4.14E+00	0.00E+00	4.14E+00
		Co-58	<3.91E+00	0.00E+00	3.91E+00
		Fe-59	<7.49E+00	0.00E+00	7.49E+00
		Co-60	<3.74E+00	0.00E+00	3.74E+00
		Zn-65	<9.53E+00	0.00E+00	9.53E+00
		Zr-95	<7.33E+00	0.00E+00	7.33E+00
		Nb-95	<4.73E+00	0.00E+00	4.73E+00
		I-131	<5.86E+00	0.00E+00	5.86E+00
		Cs-134	<4.24E+00	0.00E+00	4.24E+00
		Cs-137	<4.72E+00	0.00E+00	4.72E+00
		BaLa-140	<5.41E+00	0.00E+00	5.41E+00
		Be-7	<3.63E+01	0.00E+00	3.63E+01
		K-40	1.85E+02	5.34E+01	5.91E+01
		H3GW	<-7.8E+01	0.00E+00	1.88E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
449716	8/7/2017 - 8/7/2017	Mn-54	<5.33E+00	0.00E+00	5.33E+00
		Co-58	<6.50E+00	0.00E+00	6.50E+00
		Fe-59	<9.26E+00	0.00E+00	9.26E+00
		Co-60	<6.21E+00	0.00E+00	6.21E+00
		Zn-65	<1.33E+01	0.00E+00	1.33E+01
		Zr-95	<8.88E+00	0.00E+00	8.88E+00
		Nb-95	<6.09E+00	0.00E+00	6.09E+00
		I-131	<8.00E+00	0.00E+00	8.00E+00
		Cs-134	<4.63E+00	0.00E+00	4.63E+00
		Cs-137	<5.55E+00	0.00E+00	5.55E+00
		BaLa-140	<1.15E+01	0.00E+00	1.15E+01



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

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

Sample Point 73 [INDICATOR - S @ 0.2 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
449716	8/7/2017 - 8/7/2017	Be-7	<3.62E+01	0.00E+00	3.62E+01
		K-40	<1.06E+02	0.00E+00	1.06E+02
		H3GW	<-2.1E+02	0.00E+00	2.09E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
441793	11/5/2017 - 11/5/2017	Mn-54	<5.75E+00	0.00E+00	5.75E+00
		Co-58	<5.49E+00	0.00E+00	5.49E+00
		Fe-59	<1.39E+01	0.00E+00	1.39E+01
		Co-60	<6.39E+00	0.00E+00	6.39E+00
		Zn-65	<1.02E+01	0.00E+00	1.02E+01
		Zr-95	<9.23E+00	0.00E+00	9.23E+00
		Nb-95	<5.99E+00	0.00E+00	5.99E+00
		I-131	<1.16E+01	0.00E+00	1.16E+01
		Cs-134	<5.05E+00	0.00E+00	5.05E+00
		Cs-137	<6.32E+00	0.00E+00	6.32E+00
		BaLa-140	<2.21E+00	0.00E+00	2.21E+00
		Be-7	<3.91E+01	0.00E+00	3.91E+01
		K-40	8.32E+01	5.23E+01	7.14E+01
		H3GW	<-1.2E+02	0.00E+00	2.05E+02

Sample Point 74 [INDICATOR - SSE @ 0.2 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
434304	2/22/2017 - 2/22/2017	Mn-54	<6.14E+00	0.00E+00	6.14E+00
		Co-58	<5.90E+00	0.00E+00	5.90E+00
		Fe-59	<1.05E+01	0.00E+00	1.05E+01
		Co-60	<5.06E+00	0.00E+00	5.06E+00
		Zn-65	<1.18E+01	0.00E+00	1.18E+01
		Zr-95	<1.06E+01	0.00E+00	1.06E+01
		Nb-95	<6.49E+00	0.00E+00	6.49E+00
		I-131	<6.84E+00	0.00E+00	6.84E+00
		Cs-134	<7.26E+00	0.00E+00	7.26E+00
		Cs-137	<6.30E+00	0.00E+00	6.30E+00
		BaLa-140	<8.73E+00	0.00E+00	8.73E+00
		Be-7	<3.57E+01	0.00E+00	3.57E+01
		K-40	1.32E+02	6.70E+01	8.78E+01
		H3GW	<1.46E+01	0.00E+00	2.02E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
442718	5/22/2017 - 5/22/2017	Mn-54	<5.45E+00	0.00E+00	5.45E+00
		Co-58	<5.69E+00	0.00E+00	5.69E+00
		Fe-59	<7.28E+00	0.00E+00	7.28E+00
		Co-60	<4.96E+00	0.00E+00	4.96E+00
		Zn-65	<1.22E+01	0.00E+00	1.22E+01
		Zr-95	<1.14E+01	0.00E+00	1.14E+01
		Nb-95	<7.09E+00	0.00E+00	7.09E+00
		I-131	<8.85E+00	0.00E+00	8.85E+00
		Cs-134	<6.08E+00	0.00E+00	6.08E+00
		Cs-137	<5.12E+00	0.00E+00	5.12E+00
		BaLa-140	<1.13E+01	0.00E+00	1.13E+01
		Be-7	<4.66E+01	0.00E+00	4.66E+01
		K-40	1.83E+02	6.69E+01	7.70E+01
		H3GW	<4.09E+01	0.00E+00	1.87E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
449717	8/6/2017 - 8/6/2017	Mn-54	<5.58E+00	0.00E+00	5.58E+00
		Co-58	<6.03E+00	0.00E+00	6.03E+00
		Fe-59	<1.26E+01	0.00E+00	1.26E+01
		Co-60	<5.90E+00	0.00E+00	5.90E+00
		Zn-65	<1.40E+01	0.00E+00	1.40E+01
		Zr-95	<1.18E+01	0.00E+00	1.18E+01
		Nb-95	<6.62E+00	0.00E+00	6.62E+00
		I-131	<8.23E+00	0.00E+00	8.23E+00
		Cs-134	<6.65E+00	0.00E+00	6.65E+00
		Cs-137	<5.93E+00	0.00E+00	5.93E+00
		BaLa-140	<1.01E+01	0.00E+00	1.01E+01
		Be-7	<4.44E+01	0.00E+00	4.44E+01



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

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

Sample Point 74 [INDICATOR - SSE @ 0.2 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
449717	8/6/2017 - 8/6/2017	K-40	1.68E+02	7.88E+01	1.05E+02
		H3GW	<-1.2E+02	0.00E+00	2.06E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
441794	11/5/2017 - 11/5/2017	Mn-54	<6.20E+00	0.00E+00	6.20E+00
		Co-58	<5.71E+00	0.00E+00	5.71E+00
		Fe-59	<1.29E+01	0.00E+00	1.29E+01
		Co-60	<7.04E+00	0.00E+00	7.04E+00
		Zn-65	<1.26E+01	0.00E+00	1.26E+01
		Zr-95	<8.27E+00	0.00E+00	8.27E+00
		Nb-95	<7.72E+00	0.00E+00	7.72E+00
		I-131	<9.08E+00	0.00E+00	9.08E+00
		Cs-134	<6.27E+00	0.00E+00	6.27E+00
		Cs-137	<6.30E+00	0.00E+00	6.30E+00
		BaLa-140	<6.05E+00	0.00E+00	6.05E+00
		Be-7	<5.28E+01	0.00E+00	5.28E+01
		K-40	9.60E+01	5.70E+01	7.65E+01
H3GW	<-1.7E+01	0.00E+00	2.06E+02		

Sample Point 75 [INDICATOR - ESE @ 0.1 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
434305	2/22/2017 - 2/22/2017	Mn-54	<6.06E+00	0.00E+00	6.06E+00
		Co-58	<4.98E+00	0.00E+00	4.98E+00
		Fe-59	<1.19E+01	0.00E+00	1.19E+01
		Co-60	<5.83E+00	0.00E+00	5.83E+00
		Zn-65	<1.22E+01	0.00E+00	1.22E+01
		Zr-95	<9.07E+00	0.00E+00	9.07E+00
		Nb-95	<5.22E+00	0.00E+00	5.22E+00
		I-131	<8.97E+00	0.00E+00	8.97E+00
		Cs-134	<5.94E+00	0.00E+00	5.94E+00
		Cs-137	<5.36E+00	0.00E+00	5.36E+00
		BaLa-140	<8.49E+00	0.00E+00	8.49E+00
		Be-7	<4.36E+01	0.00E+00	4.36E+01
		K-40	3.03E+01	3.47E+01	5.46E+01
H3GW	<-1.3E+02	0.00E+00	1.94E+02		

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
442719	5/23/2017 - 5/23/2017	Mn-54	<4.73E+00	0.00E+00	4.73E+00
		Co-58	<5.12E+00	0.00E+00	5.12E+00
		Fe-59	<1.29E+01	0.00E+00	1.29E+01
		Co-60	<4.84E+00	0.00E+00	4.84E+00
		Zn-65	<1.19E+01	0.00E+00	1.19E+01
		Zr-95	<9.32E+00	0.00E+00	9.32E+00
		Nb-95	<6.75E+00	0.00E+00	6.75E+00
		I-131	<9.35E+00	0.00E+00	9.35E+00
		Cs-134	<6.58E+00	0.00E+00	6.58E+00
		Cs-137	<6.47E+00	0.00E+00	6.47E+00
		BaLa-140	<7.53E+00	0.00E+00	7.53E+00
		Be-7	<4.64E+01	0.00E+00	4.64E+01
		K-40	<1.10E+02	0.00E+00	1.10E+02
H3GW	<1.95E+00	0.00E+00	1.87E+02		

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
449718	8/10/2017 - 8/10/2017	Mn-54	<6.01E+00	0.00E+00	6.01E+00
		Co-58	<5.75E+00	0.00E+00	5.75E+00
		Fe-59	<1.14E+01	0.00E+00	1.14E+01
		Co-60	<7.00E+00	0.00E+00	7.00E+00
		Zn-65	<9.99E+00	0.00E+00	9.99E+00
		Zr-95	<1.12E+01	0.00E+00	1.12E+01
		Nb-95	<5.72E+00	0.00E+00	5.72E+00
		I-131	<7.47E+00	0.00E+00	7.47E+00
		Cs-134	<5.95E+00	0.00E+00	5.95E+00
		Cs-137	<5.69E+00	0.00E+00	5.69E+00
		BaLa-140	<9.03E+00	0.00E+00	9.03E+00
		Be-7	<3.37E+01	0.00E+00	3.37E+01
		K-40	8.60E+01	6.12E+01	9.02E+01



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

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

Sample Point 75 [INDICATOR - ESE @ 0.1 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
449718	8/10/2017 - 8/10/2017	H3GW	<-8.4E+01	0.00E+00	1.99E+02
441795	11/9/2017 - 11/9/2017	Mn-54	<5.70E+00	0.00E+00	5.70E+00
		Co-58	<5.82E+00	0.00E+00	5.82E+00
		Fe-59	<1.29E+01	0.00E+00	1.29E+01
		Co-60	<5.83E+00	0.00E+00	5.83E+00
		Zn-65	<1.43E+01	0.00E+00	1.43E+01
		Zr-95	<9.81E+00	0.00E+00	9.81E+00
		Nb-95	<5.44E+00	0.00E+00	5.44E+00
		I-131	<7.45E+00	0.00E+00	7.45E+00
		Cs-134	<6.99E+00	0.00E+00	6.99E+00
		Cs-137	<6.23E+00	0.00E+00	6.23E+00
		BaLa-140	<6.02E+00	0.00E+00	6.02E+00
		Be-7	<5.40E+01	0.00E+00	5.40E+01
		K-40	<8.82E+01	0.00E+00	8.82E+01
		H3GW	<-1.4E+01	0.00E+00	1.84E+02

Sample Point 77 [INDICATOR - S @ 0.4 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
434307	2/21/2017 - 2/21/2017	Mn-54	<5.71E+00	0.00E+00	5.71E+00
		Co-58	<5.92E+00	0.00E+00	5.92E+00
		Fe-59	<9.96E+00	0.00E+00	9.96E+00
		Co-60	<4.14E+00	0.00E+00	4.14E+00
		Zn-65	<1.11E+01	0.00E+00	1.11E+01
		Zr-95	<9.53E+00	0.00E+00	9.53E+00
		Nb-95	<5.11E+00	0.00E+00	5.11E+00
		I-131	<5.90E+00	0.00E+00	5.90E+00
		Cs-134	<6.17E+00	0.00E+00	6.17E+00
		Cs-137	<6.21E+00	0.00E+00	6.21E+00
		BaLa-140	<7.82E+00	0.00E+00	7.82E+00
		Be-7	<4.33E+01	0.00E+00	4.33E+01
		K-40	<1.16E+02	0.00E+00	1.16E+02
		H3GW	<8.05E+01	0.00E+00	1.95E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
442721	5/24/2017 - 5/24/2017	Mn-54	<5.11E+00	0.00E+00	5.11E+00
		Co-58	<5.88E+00	0.00E+00	5.88E+00
		Fe-59	<1.31E+01	0.00E+00	1.31E+01
		Co-60	<6.56E+00	0.00E+00	6.56E+00
		Zn-65	<7.90E+00	0.00E+00	7.90E+00
		Zr-95	<9.56E+00	0.00E+00	9.56E+00
		Nb-95	<5.77E+00	0.00E+00	5.77E+00
		I-131	<7.52E+00	0.00E+00	7.52E+00
		Cs-134	<7.18E+00	0.00E+00	7.18E+00
		Cs-137	<4.96E+00	0.00E+00	4.96E+00
		BaLa-140	<6.39E+00	0.00E+00	6.39E+00
		Be-7	<4.20E+01	0.00E+00	4.20E+01
		K-40	7.65E+01	4.87E+01	6.50E+01
		H3GW	<1.61E+02	0.00E+00	1.88E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
449720	8/9/2017 - 8/9/2017	Mn-54	<5.08E+00	0.00E+00	5.08E+00
		Co-58	<5.61E+00	0.00E+00	5.61E+00
		Fe-59	<1.19E+01	0.00E+00	1.19E+01
		Co-60	<3.84E+00	0.00E+00	3.84E+00
		Zn-65	<8.80E+00	0.00E+00	8.80E+00
		Zr-95	<9.42E+00	0.00E+00	9.42E+00
		Nb-95	<5.82E+00	0.00E+00	5.82E+00
		I-131	<7.45E+00	0.00E+00	7.45E+00
		Cs-134	<6.15E+00	0.00E+00	6.15E+00
		Cs-137	<6.66E+00	0.00E+00	6.66E+00
		BaLa-140	<6.99E+00	0.00E+00	6.99E+00
		Be-7	<4.01E+01	0.00E+00	4.01E+01
		K-40	5.93E+01	4.85E+01	7.17E+01



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

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

Sample Point 77 [INDICATOR - S @ 0.4 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
449720	8/9/2017 - 8/9/2017	H3GW	<8.33E+01	0.00E+00	1.97E+02
441797	11/8/2017 - 11/8/2017	Mn-54	<5.52E+00	0.00E+00	5.52E+00
		Co-58	<4.62E+00	0.00E+00	4.62E+00
		Fe-59	<1.01E+01	0.00E+00	1.01E+01
		Co-60	<4.83E+00	0.00E+00	4.83E+00
		Zn-65	<5.24E+00	0.00E+00	5.24E+00
		Zr-95	<1.05E+01	0.00E+00	1.05E+01
		Nb-95	<7.09E+00	0.00E+00	7.09E+00
		I-131	<8.32E+00	0.00E+00	8.32E+00
		Cs-134	<6.18E+00	0.00E+00	6.18E+00
		Cs-137	<4.79E+00	0.00E+00	4.79E+00
		BaLa-140	<7.98E+00	0.00E+00	7.98E+00
		Be-7	<4.77E+01	0.00E+00	4.77E+01
		K-40	<1.10E+02	0.00E+00	1.10E+02
		H3GW	1.99E+02	1.13E+02	1.84E+02

Sample Point 78 [INDICATOR - S @ 0.5 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
434308	2/21/2017 - 2/21/2017	Mn-54	<5.17E+00	0.00E+00	5.17E+00
		Co-58	<6.32E+00	0.00E+00	6.32E+00
		Fe-59	<1.17E+01	0.00E+00	1.17E+01
		Co-60	<6.69E+00	0.00E+00	6.69E+00
		Zn-65	<1.12E+01	0.00E+00	1.12E+01
		Zr-95	<1.00E+01	0.00E+00	1.00E+01
		Nb-95	<5.81E+00	0.00E+00	5.81E+00
		I-131	<7.63E+00	0.00E+00	7.63E+00
		Cs-134	<7.08E+00	0.00E+00	7.08E+00
		Cs-137	<5.61E+00	0.00E+00	5.61E+00
		BaLa-140	<7.46E+00	0.00E+00	7.46E+00
		Be-7	<4.87E+01	0.00E+00	4.87E+01
		K-40	<1.06E+02	0.00E+00	1.06E+02
		H3GW	2.97E+02	1.20E+02	1.93E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
442722	5/23/2017 - 5/23/2017	Mn-54	<5.52E+00	0.00E+00	5.52E+00
		Co-58	<5.92E+00	0.00E+00	5.92E+00
		Fe-59	<9.26E+00	0.00E+00	9.26E+00
		Co-60	<6.90E+00	0.00E+00	6.90E+00
		Zn-65	<1.23E+01	0.00E+00	1.23E+01
		Zr-95	<1.19E+01	0.00E+00	1.19E+01
		Nb-95	<6.63E+00	0.00E+00	6.63E+00
		I-131	<7.56E+00	0.00E+00	7.56E+00
		Cs-134	<5.19E+00	0.00E+00	5.19E+00
		Cs-137	<6.04E+00	0.00E+00	6.04E+00
		BaLa-140	<8.70E+00	0.00E+00	8.70E+00
		Be-7	<3.15E+01	0.00E+00	3.15E+01
		K-40	5.01E+00	6.42E+01	1.16E+02
		H3GW	2.36E+02	1.18E+02	1.92E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
449721	8/9/2017 - 8/9/2017	Mn-54	<5.87E+00	0.00E+00	5.87E+00
		Co-58	<4.72E+00	0.00E+00	4.72E+00
		Fe-59	<8.23E+00	0.00E+00	8.23E+00
		Co-60	<4.97E+00	0.00E+00	4.97E+00
		Zn-65	<1.28E+01	0.00E+00	1.28E+01
		Zr-95	<8.23E+00	0.00E+00	8.23E+00
		Nb-95	<5.19E+00	0.00E+00	5.19E+00
		I-131	<6.92E+00	0.00E+00	6.92E+00
		Cs-134	<5.93E+00	0.00E+00	5.93E+00
		Cs-137	<5.14E+00	0.00E+00	5.14E+00
		BaLa-140	<7.74E+00	0.00E+00	7.74E+00
		Be-7	<3.36E+01	0.00E+00	3.36E+01
		K-40	8.32E+01	5.24E+01	7.12E+01



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

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

Sample Point 78 [INDICATOR - S @ 0.5 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
449721	8/9/2017 - 8/9/2017	H3GW	5.04E+02	1.30E+02	1.97E+02
441798	11/8/2017 - 11/8/2017	Mn-54	<6.03E+00	0.00E+00	6.03E+00
		Co-58	<5.86E+00	0.00E+00	5.86E+00
		Fe-59	<1.01E+01	0.00E+00	1.01E+01
		Co-60	<5.27E+00	0.00E+00	5.27E+00
		Zn-65	<1.43E+01	0.00E+00	1.43E+01
		Zr-95	<9.22E+00	0.00E+00	9.22E+00
		Nb-95	<7.24E+00	0.00E+00	7.24E+00
		I-131	<7.78E+00	0.00E+00	7.78E+00
		Cs-134	<6.75E+00	0.00E+00	6.75E+00
		Cs-137	<5.69E+00	0.00E+00	5.69E+00
		BaLa-140	<7.18E+00	0.00E+00	7.18E+00
		Be-7	<4.28E+01	0.00E+00	4.28E+01
		K-40	6.50E+01	5.19E+01	7.73E+01
		H3GW	6.20E+02	1.29E+02	1.88E+02

Sample Point 79 [INDICATOR - S @ 0.5 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
434309	2/21/2017 - 2/21/2017	Mn-54	<5.09E+00	0.00E+00	5.09E+00
		Co-58	<6.74E+00	0.00E+00	6.74E+00
		Fe-59	<9.77E+00	0.00E+00	9.77E+00
		Co-60	<6.22E+00	0.00E+00	6.22E+00
		Zn-65	<1.04E+01	0.00E+00	1.04E+01
		Zr-95	<1.02E+01	0.00E+00	1.02E+01
		Nb-95	<5.71E+00	0.00E+00	5.71E+00
		I-131	<7.66E+00	0.00E+00	7.66E+00
		Cs-134	<5.93E+00	0.00E+00	5.93E+00
		Cs-137	<4.50E+00	0.00E+00	4.50E+00
		BaLa-140	<6.29E+00	0.00E+00	6.29E+00
		Be-7	<4.05E+01	0.00E+00	4.05E+01
		K-40	<9.74E+01	0.00E+00	9.74E+01
		H3GW	<1.79E+02	0.00E+00	1.93E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
442723	5/23/2017 - 5/23/2017	Mn-54	<5.54E+00	0.00E+00	5.54E+00
		Co-58	<5.97E+00	0.00E+00	5.97E+00
		Fe-59	<1.27E+01	0.00E+00	1.27E+01
		Co-60	<4.81E+00	0.00E+00	4.81E+00
		Zn-65	<1.04E+01	0.00E+00	1.04E+01
		Zr-95	<1.12E+01	0.00E+00	1.12E+01
		Nb-95	<6.56E+00	0.00E+00	6.56E+00
		I-131	<9.98E+00	0.00E+00	9.98E+00
		Cs-134	<6.53E+00	0.00E+00	6.53E+00
		Cs-137	<5.81E+00	0.00E+00	5.81E+00
		BaLa-140	<9.26E+00	0.00E+00	9.26E+00
		Be-7	<4.73E+01	0.00E+00	4.73E+01
		K-40	4.98E+01	4.42E+01	6.55E+01
		H3GW	2.22E+02	1.17E+02	1.91E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
449722	8/9/2017 - 8/9/2017	Mn-54	<5.69E+00	0.00E+00	5.69E+00
		Co-58	<4.80E+00	0.00E+00	4.80E+00
		Fe-59	<9.32E+00	0.00E+00	9.32E+00
		Co-60	<6.38E+00	0.00E+00	6.38E+00
		Zn-65	<1.13E+01	0.00E+00	1.13E+01
		Zr-95	<1.01E+01	0.00E+00	1.01E+01
		Nb-95	<7.21E+00	0.00E+00	7.21E+00
		I-131	<8.13E+00	0.00E+00	8.13E+00
		Cs-134	<6.17E+00	0.00E+00	6.17E+00
		Cs-137	<5.70E+00	0.00E+00	5.70E+00
		BaLa-140	<1.17E+01	0.00E+00	1.17E+01
		Be-7	<4.11E+01	0.00E+00	4.11E+01
		K-40	<8.35E+01	0.00E+00	8.35E+01



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

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

Sample Point 79 [INDICATOR - S @ 0.5 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
449722	8/9/2017 - 8/9/2017	H3GW	2.10E+02	1.22E+02	1.99E+02
441799	11/8/2017 - 11/8/2017	Mn-54	<3.81E+00	0.00E+00	3.81E+00
		Co-58	<5.44E+00	0.00E+00	5.44E+00
		Fe-59	<1.25E+01	0.00E+00	1.25E+01
		Co-60	<4.81E+00	0.00E+00	4.81E+00
		Zn-65	<1.19E+01	0.00E+00	1.19E+01
		Zr-95	<1.03E+01	0.00E+00	1.03E+01
		Nb-95	<7.05E+00	0.00E+00	7.05E+00
		I-131	<7.64E+00	0.00E+00	7.64E+00
		Cs-134	<4.66E+00	0.00E+00	4.66E+00
		Cs-137	<6.21E+00	0.00E+00	6.21E+00
		BaLa-140	<9.62E+00	0.00E+00	9.62E+00
		Be-7	<4.29E+01	0.00E+00	4.29E+01
		K-40	<1.05E+02	0.00E+00	1.05E+02
		H3GW	3.19E+02	1.18E+02	1.85E+02

Sample Point 80 [INDICATOR - S @ 0.6 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
434310	2/21/2017 - 2/21/2017	Mn-54	<4.64E+00	0.00E+00	4.64E+00
		Co-58	<5.24E+00	0.00E+00	5.24E+00
		Fe-59	<7.47E+00	0.00E+00	7.47E+00
		Co-60	<4.46E+00	0.00E+00	4.46E+00
		Zn-65	<1.17E+01	0.00E+00	1.17E+01
		Zr-95	<9.13E+00	0.00E+00	9.13E+00
		Nb-95	<5.52E+00	0.00E+00	5.52E+00
		I-131	<7.21E+00	0.00E+00	7.21E+00
		Cs-134	<6.16E+00	0.00E+00	6.16E+00
		Cs-137	<6.51E+00	0.00E+00	6.51E+00
		BaLa-140	<6.32E+00	0.00E+00	6.32E+00
		Be-7	<4.17E+01	0.00E+00	4.17E+01
		K-40	<9.74E+01	0.00E+00	9.74E+01
		H3GW	3.99E+02	1.24E+02	1.95E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
442724	5/23/2017 - 5/23/2017	Mn-54	<5.33E+00	0.00E+00	5.33E+00
		Co-58	<4.57E+00	0.00E+00	4.57E+00
		Fe-59	<1.17E+01	0.00E+00	1.17E+01
		Co-60	<6.21E+00	0.00E+00	6.21E+00
		Zn-65	<1.23E+01	0.00E+00	1.23E+01
		Zr-95	<5.72E+00	0.00E+00	5.72E+00
		Nb-95	<4.38E+00	0.00E+00	4.38E+00
		I-131	<8.37E+00	0.00E+00	8.37E+00
		Cs-134	<3.53E+00	0.00E+00	3.53E+00
		Cs-137	<5.90E+00	0.00E+00	5.90E+00
		BaLa-140	<9.39E+00	0.00E+00	9.39E+00
		Be-7	<3.32E+01	0.00E+00	3.32E+01
		K-40	<8.06E+01	0.00E+00	8.06E+01
		H3GW	3.00E+02	1.19E+02	1.91E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
449723	8/9/2017 - 8/9/2017	Mn-54	<6.49E+00	0.00E+00	6.49E+00
		Co-58	<4.26E+00	0.00E+00	4.26E+00
		Fe-59	<8.34E+00	0.00E+00	8.34E+00
		Co-60	<5.06E+00	0.00E+00	5.06E+00
		Zn-65	<8.01E+00	0.00E+00	8.01E+00
		Zr-95	<9.55E+00	0.00E+00	9.55E+00
		Nb-95	<5.49E+00	0.00E+00	5.49E+00
		I-131	<6.53E+00	0.00E+00	6.53E+00
		Cs-134	<6.67E+00	0.00E+00	6.67E+00
		Cs-137	<6.30E+00	0.00E+00	6.30E+00
		BaLa-140	<1.78E+00	0.00E+00	1.78E+00
		Be-7	<4.91E+01	0.00E+00	4.91E+01
		K-40	1.42E+02	7.49E+01	1.03E+02



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

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

Sample Point 80 [INDICATOR - S @ 0.6 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
449723	8/9/2017 - 8/9/2017	H3GW	3.50E+02	1.25E+02	1.97E+02
441800	11/8/2017 - 11/8/2017	Mn-54	<5.52E+00	0.00E+00	5.52E+00
		Co-58	<4.54E+00	0.00E+00	4.54E+00
		Fe-59	<1.16E+01	0.00E+00	1.16E+01
		Co-60	<3.04E+00	0.00E+00	3.04E+00
		Zn-65	<8.82E+00	0.00E+00	8.82E+00
		Zr-95	<6.92E+00	0.00E+00	6.92E+00
		Nb-95	<5.12E+00	0.00E+00	5.12E+00
		I-131	<7.42E+00	0.00E+00	7.42E+00
		Cs-134	<6.18E+00	0.00E+00	6.18E+00
		Cs-137	<5.73E+00	0.00E+00	5.73E+00
		BaLa-140	<1.04E+01	0.00E+00	1.04E+01
		Be-7	<4.74E+01	0.00E+00	4.74E+01
		K-40	8.90E+01	5.09E+01	6.50E+01
		H3GW	3.59E+02	1.19E+02	1.85E+02

Sample Point 81 [INDICATOR - S @ 0.6 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
434311	2/21/2017 - 2/21/2017	Mn-54	<5.73E+00	0.00E+00	5.73E+00
		Co-58	<6.28E+00	0.00E+00	6.28E+00
		Fe-59	<6.46E+00	0.00E+00	6.46E+00
		Co-60	<6.22E+00	0.00E+00	6.22E+00
		Zn-65	<7.92E+00	0.00E+00	7.92E+00
		Zr-95	<1.19E+01	0.00E+00	1.19E+01
		Nb-95	<6.18E+00	0.00E+00	6.18E+00
		I-131	<8.83E+00	0.00E+00	8.83E+00
		Cs-134	<7.21E+00	0.00E+00	7.21E+00
		Cs-137	<6.58E+00	0.00E+00	6.58E+00
		BaLa-140	<1.15E+01	0.00E+00	1.15E+01
		Be-7	<4.87E+01	0.00E+00	4.87E+01
		K-40	1.13E+02	5.86E+01	7.43E+01
		H3GW	3.23E+02	1.23E+02	1.96E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
442725	5/23/2017 - 5/23/2017	Mn-54	<4.80E+00	0.00E+00	4.80E+00
		Co-58	<5.69E+00	0.00E+00	5.69E+00
		Fe-59	<1.26E+01	0.00E+00	1.26E+01
		Co-60	<5.11E+00	0.00E+00	5.11E+00
		Zn-65	<1.26E+01	0.00E+00	1.26E+01
		Zr-95	<8.23E+00	0.00E+00	8.23E+00
		Nb-95	<5.09E+00	0.00E+00	5.09E+00
		I-131	<8.52E+00	0.00E+00	8.52E+00
		Cs-134	<5.37E+00	0.00E+00	5.37E+00
		Cs-137	<4.66E+00	0.00E+00	4.66E+00
		BaLa-140	<1.17E+01	0.00E+00	1.17E+01
		Be-7	<2.21E+01	0.00E+00	2.21E+01
		K-40	4.25E+01	4.57E+01	7.21E+01
		H3GW	<1.86E+02	0.00E+00	1.91E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
449724	8/9/2017 - 8/9/2017	Mn-54	<6.17E+00	0.00E+00	6.17E+00
		Co-58	<6.09E+00	0.00E+00	6.09E+00
		Fe-59	<1.29E+01	0.00E+00	1.29E+01
		Co-60	<6.30E+00	0.00E+00	6.30E+00
		Zn-65	<1.12E+01	0.00E+00	1.12E+01
		Zr-95	<1.02E+01	0.00E+00	1.02E+01
		Nb-95	<6.74E+00	0.00E+00	6.74E+00
		I-131	<8.41E+00	0.00E+00	8.41E+00
		Cs-134	<5.33E+00	0.00E+00	5.33E+00
		Cs-137	<6.21E+00	0.00E+00	6.21E+00
		BaLa-140	<7.54E+00	0.00E+00	7.54E+00
		Be-7	<4.37E+01	0.00E+00	4.37E+01
		K-40	<1.03E+02	0.00E+00	1.03E+02



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

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

Sample Point 81 [INDICATOR - S @ 0.6 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
449724	8/9/2017 - 8/9/2017	H3GW	3.85E+02	1.26E+02	1.97E+02
441801	11/8/2017 - 11/8/2017	Mn-54	<4.73E+00	0.00E+00	4.73E+00
		Co-58	<3.83E+00	0.00E+00	3.83E+00
		Fe-59	<1.07E+01	0.00E+00	1.07E+01
		Co-60	<4.33E+00	0.00E+00	4.33E+00
		Zn-65	<7.67E+00	0.00E+00	7.67E+00
		Zr-95	<9.93E+00	0.00E+00	9.93E+00
		Nb-95	<6.65E+00	0.00E+00	6.65E+00
		I-131	<8.02E+00	0.00E+00	8.02E+00
		Cs-134	<5.52E+00	0.00E+00	5.52E+00
		Cs-137	<4.99E+00	0.00E+00	4.99E+00
		BaLa-140	<1.01E+01	0.00E+00	1.01E+01
		Be-7	<4.08E+01	0.00E+00	4.08E+01
		K-40	6.62E+01	5.56E+01	8.46E+01
		H3GW	2.97E+02	1.16E+02	1.83E+02

Sample Point 82 [INDICATOR - S @ 0.6 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
434312	2/21/2017 - 2/21/2017	Mn-54	<5.10E+00	0.00E+00	5.10E+00
		Co-58	<6.06E+00	0.00E+00	6.06E+00
		Fe-59	<1.21E+01	0.00E+00	1.21E+01
		Co-60	<4.45E+00	0.00E+00	4.45E+00
		Zn-65	<7.89E+00	0.00E+00	7.89E+00
		Zr-95	<8.34E+00	0.00E+00	8.34E+00
		Nb-95	<5.94E+00	0.00E+00	5.94E+00
		I-131	<8.47E+00	0.00E+00	8.47E+00
		Cs-134	<6.17E+00	0.00E+00	6.17E+00
		Cs-137	<4.96E+00	0.00E+00	4.96E+00
		BaLa-140	<1.02E+01	0.00E+00	1.02E+01
		Be-7	<4.92E+01	0.00E+00	4.92E+01
		K-40	6.20E+01	5.54E+01	8.53E+01
		H3GW	<6.68E+01	0.00E+00	1.95E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
442726	5/23/2017 - 5/23/2017	Mn-54	<5.77E+00	0.00E+00	5.77E+00
		Co-58	<6.21E+00	0.00E+00	6.21E+00
		Fe-59	<1.08E+01	0.00E+00	1.08E+01
		Co-60	<5.37E+00	0.00E+00	5.37E+00
		Zn-65	<1.20E+01	0.00E+00	1.20E+01
		Zr-95	<1.16E+01	0.00E+00	1.16E+01
		Nb-95	<6.80E+00	0.00E+00	6.80E+00
		I-131	<7.48E+00	0.00E+00	7.48E+00
		Cs-134	<5.64E+00	0.00E+00	5.64E+00
		Cs-137	<5.60E+00	0.00E+00	5.60E+00
		BaLa-140	<7.24E+00	0.00E+00	7.24E+00
		Be-7	<5.72E+01	0.00E+00	5.72E+01
		K-40	<1.03E+02	0.00E+00	1.03E+02
		H3GW	<1.57E+02	0.00E+00	1.91E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
449725	8/9/2017 - 8/9/2017	Mn-54	<6.35E+00	0.00E+00	6.35E+00
		Co-58	<6.67E+00	0.00E+00	6.67E+00
		Fe-59	<1.43E+01	0.00E+00	1.43E+01
		Co-60	<8.38E+00	0.00E+00	8.38E+00
		Zn-65	<1.37E+01	0.00E+00	1.37E+01
		Zr-95	<1.20E+01	0.00E+00	1.20E+01
		Nb-95	<7.24E+00	0.00E+00	7.24E+00
		I-131	<1.00E+01	0.00E+00	1.00E+01
		Cs-134	<6.89E+00	0.00E+00	6.89E+00
		Cs-137	<6.19E+00	0.00E+00	6.19E+00
		BaLa-140	<7.41E+00	0.00E+00	7.41E+00
		Be-7	<4.47E+01	0.00E+00	4.47E+01
		K-40	<1.02E+02	0.00E+00	1.02E+02



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

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

Sample Point 82 [INDICATOR - S @ 0.6 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
449725	8/9/2017 - 8/9/2017	H3GW	<2.92E+01	0.00E+00	2.01E+02
441802	11/8/2017 - 11/8/2017	Mn-54	<5.70E+00	0.00E+00	5.70E+00
		Co-58	<6.06E+00	0.00E+00	6.06E+00
		Fe-59	<1.16E+01	0.00E+00	1.16E+01
		Co-60	<6.22E+00	0.00E+00	6.22E+00
		Zn-65	<1.17E+01	0.00E+00	1.17E+01
		Zr-95	<9.90E+00	0.00E+00	9.90E+00
		Nb-95	<4.19E+00	0.00E+00	4.19E+00
		I-131	<8.99E+00	0.00E+00	8.99E+00
		Cs-134	<6.78E+00	0.00E+00	6.78E+00
		Cs-137	<6.66E+00	0.00E+00	6.66E+00
		BaLa-140	<8.30E+00	0.00E+00	8.30E+00
		Be-7	<4.19E+01	0.00E+00	4.19E+01
		K-40	<1.11E+02	0.00E+00	1.11E+02
		H3GW	<1.57E+02	0.00E+00	1.82E+02

Sample Point 83 [INDICATOR - SSW @ 1.6 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
434313	2/21/2017 - 2/21/2017	Mn-54	<6.39E+00	0.00E+00	6.39E+00
		Co-58	<5.92E+00	0.00E+00	5.92E+00
		Fe-59	<1.19E+01	0.00E+00	1.19E+01
		Co-60	<5.37E+00	0.00E+00	5.37E+00
		Zn-65	<1.26E+01	0.00E+00	1.26E+01
		Zr-95	<1.18E+01	0.00E+00	1.18E+01
		Nb-95	<6.65E+00	0.00E+00	6.65E+00
		I-131	<9.23E+00	0.00E+00	9.23E+00
		Cs-134	<6.19E+00	0.00E+00	6.19E+00
		Cs-137	<6.58E+00	0.00E+00	6.58E+00
		BaLa-140	<8.82E+00	0.00E+00	8.82E+00
		Be-7	<4.79E+01	0.00E+00	4.79E+01
		K-40	<1.10E+02	0.00E+00	1.10E+02
		H3GW	9.74E+02	1.38E+02	1.96E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
442727	5/23/2017 - 5/23/2017	Mn-54	<5.47E+00	0.00E+00	5.47E+00
		Co-58	<5.68E+00	0.00E+00	5.68E+00
		Fe-59	<1.21E+01	0.00E+00	1.21E+01
		Co-60	<6.36E+00	0.00E+00	6.36E+00
		Zn-65	<1.26E+01	0.00E+00	1.26E+01
		Zr-95	<1.17E+01	0.00E+00	1.17E+01
		Nb-95	<5.10E+00	0.00E+00	5.10E+00
		I-131	<8.71E+00	0.00E+00	8.71E+00
		Cs-134	<6.35E+00	0.00E+00	6.35E+00
		Cs-137	<6.88E+00	0.00E+00	6.88E+00
		BaLa-140	<6.94E+00	0.00E+00	6.94E+00
		Be-7	<5.34E+01	0.00E+00	5.34E+01
		K-40	<1.02E+02	0.00E+00	1.02E+02
		H3GW	1.14E+03	1.39E+02	1.91E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
449726	8/9/2017 - 8/9/2017	Mn-54	<4.11E+00	0.00E+00	4.11E+00
		Co-58	<3.09E+00	0.00E+00	3.09E+00
		Fe-59	<6.90E+00	0.00E+00	6.90E+00
		Co-60	<3.79E+00	0.00E+00	3.79E+00
		Zn-65	<8.17E+00	0.00E+00	8.17E+00
		Zr-95	<6.19E+00	0.00E+00	6.19E+00
		Nb-95	<4.83E+00	0.00E+00	4.83E+00
		I-131	<5.15E+00	0.00E+00	5.15E+00
		Cs-134	<4.46E+00	0.00E+00	4.47E+00
		Cs-137	<4.62E+00	0.00E+00	4.62E+00
		BaLa-140	<6.41E+00	0.00E+00	6.41E+00
		Be-7	<3.51E+01	0.00E+00	3.51E+01
		K-40	1.92E+01	3.21E+01	5.41E+01



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

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

Sample Point 83 [INDICATOR - SSW @ 1.6 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
449726	8/9/2017 - 8/9/2017	H3GW	1.10E+03	1.47E+02	1.98E+02
441803	11/8/2017 - 11/8/2017	Mn-54	<6.46E+00	0.00E+00	6.46E+00
		Co-58	<7.66E+00	0.00E+00	7.66E+00
		Fe-59	<1.31E+01	0.00E+00	1.31E+01
		Co-60	<7.79E+00	0.00E+00	7.79E+00
		Zn-65	<1.33E+01	0.00E+00	1.33E+01
		Zr-95	<1.19E+01	0.00E+00	1.19E+01
		Nb-95	<7.12E+00	0.00E+00	7.12E+00
		I-131	<8.19E+00	0.00E+00	8.19E+00
		Cs-134	<5.91E+00	0.00E+00	5.91E+00
		Cs-137	<6.44E+00	0.00E+00	6.44E+00
		BaLa-140	<8.63E+00	0.00E+00	8.63E+00
		Be-7	<5.20E+01	0.00E+00	5.20E+01
		K-40	1.56E+02	7.01E+01	8.67E+01
		H3GW	1.17E+03	1.44E+02	1.86E+02

Media Type: MILK Concentration (Activity): pCi/l

Sample Point 5 [CONTROL - WNW @ 12 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
430780	1/3/2017 - 1/3/2017	LLI-131	<5.07E-01	0.00E+00	5.07E-01
		I-131	<6.43E+00	0.00E+00	6.43E+00
		Cs-134	<7.88E+00	0.00E+00	7.88E+00
		Cs-137	<6.08E+00	0.00E+00	6.08E+00
		BaLa-140	<7.75E+00	0.00E+00	7.75E+00
		Be-7	<4.95E+01	0.00E+00	4.95E+01
		K-40	1.61E+03	2.44E+02	7.96E+01
431000	2/6/2017 - 2/6/2017	LLI-131	<6.48E-01	0.00E+00	6.48E-01
		I-131	<4.77E+00	0.00E+00	4.77E+00
		Cs-134	<7.86E+00	0.00E+00	7.86E+00
		Cs-137	<6.95E+00	0.00E+00	6.95E+00
		BaLa-140	<7.43E+00	0.00E+00	7.43E+00
		Be-7	<4.90E+01	0.00E+00	4.90E+01
		K-40	1.51E+03	2.38E+02	1.16E+02
433248	3/6/2017 - 3/6/2017	LLI-131	<5.76E-01	0.00E+00	5.76E-01
		I-131	<5.97E+00	0.00E+00	5.97E+00
		Cs-134	<4.31E+00	0.00E+00	4.31E+00
		Cs-137	<7.30E+00	0.00E+00	7.30E+00
		BaLa-140	<6.76E+00	0.00E+00	6.76E+00
		Be-7	<4.55E+01	0.00E+00	4.55E+01
		K-40	1.46E+03	2.37E+02	8.35E+01
435754	4/3/2017 - 4/3/2017	LLI-131	<6.47E-01	0.00E+00	6.47E-01
		I-131	<7.98E+00	0.00E+00	7.98E+00
		Cs-134	<4.86E+00	0.00E+00	4.86E+00
		Cs-137	<6.53E+00	0.00E+00	6.53E+00
		BaLa-140	<1.09E+01	0.00E+00	1.09E+01
		Be-7	<6.07E+01	0.00E+00	6.07E+01
		K-40	1.42E+03	2.32E+02	1.31E+02
438246	4/30/2017 - 4/30/2017	LLI-131	<6.16E-01	0.00E+00	6.16E-01
		I-131	<7.34E+00	0.00E+00	7.34E+00
		Cs-134	<6.52E+00	0.00E+00	6.52E+00
		Cs-137	<9.03E+00	0.00E+00	9.03E+00
		BaLa-140	<2.29E+00	0.00E+00	2.29E+00
		Be-7	<4.21E+01	0.00E+00	4.21E+01
		K-40	1.47E+03	2.43E+02	1.57E+02



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

Media Type: MILK Concentration (Activity): pCi/l

Sample Point 5 [CONTROL - WNW @ 12 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
442605	5/15/2017 - 5/15/2017	LLI-131	<5.85E-01	0.00E+00	5.85E-01
		I-131	<7.38E+00	0.00E+00	7.38E+00
		Cs-134	<8.79E+00	0.00E+00	8.79E+00
		Cs-137	<6.22E+00	0.00E+00	6.22E+00
		BaLa-140	<2.49E+00	0.00E+00	2.49E+00
		Be-7	<4.90E+01	0.00E+00	4.90E+01
		K-40	1.52E+03	2.48E+02	1.23E+02
442806	5/30/2017 - 5/30/2017	LLI-131	<6.25E-01	0.00E+00	6.25E-01
		I-131	<8.22E+00	0.00E+00	8.22E+00
		Cs-134	<8.53E+00	0.00E+00	8.53E+00
		Cs-137	<7.53E+00	0.00E+00	7.53E+00
		BaLa-140	<6.51E+00	0.00E+00	6.51E+00
		Be-7	<5.33E+01	0.00E+00	5.33E+01
		K-40	1.49E+03	2.43E+02	1.24E+02
442609	6/12/2017 - 6/12/2017	LLI-131	<5.83E-01	0.00E+00	5.83E-01
		I-131	<6.32E+00	0.00E+00	6.32E+00
		Cs-134	<6.30E+00	0.00E+00	6.30E+00
		Cs-137	<6.96E+00	0.00E+00	6.96E+00
		BaLa-140	<7.67E+00	0.00E+00	7.67E+00
		Be-7	<4.94E+01	0.00E+00	4.94E+01
		K-40	1.37E+03	2.25E+02	1.15E+02
443244	6/26/2017 - 6/26/2017	LLI-131	<4.64E-01	0.00E+00	4.64E-01
		I-131	<6.32E+00	0.00E+00	6.32E+00
		Cs-134	<9.56E+00	0.00E+00	9.56E+00
		Cs-137	<6.37E+00	0.00E+00	6.37E+00
		BaLa-140	<7.95E+00	0.00E+00	7.95E+00
		Be-7	<4.60E+01	0.00E+00	4.60E+01
		K-40	1.30E+03	2.17E+02	9.64E+01
444191	7/10/2017 - 7/10/2017	LLI-131	<5.96E-01	0.00E+00	5.96E-01
		I-131	<6.75E+00	0.00E+00	6.75E+00
		Cs-134	<5.84E+00	0.00E+00	5.84E+00
		Cs-137	<9.03E+00	0.00E+00	9.03E+00
		BaLa-140	<6.21E+00	0.00E+00	6.21E+00
		Be-7	<4.81E+01	0.00E+00	4.81E+01
		K-40	1.46E+03	2.31E+02	9.26E+01
447094	7/24/2017 - 7/24/2017	LLI-131	<5.58E-01	0.00E+00	5.58E-01
		I-131	<6.00E+00	0.00E+00	6.00E+00
		Cs-134	<6.30E+00	0.00E+00	6.30E+00
		Cs-137	<7.36E+00	0.00E+00	7.36E+00
		BaLa-140	<7.66E+00	0.00E+00	7.66E+00
		Be-7	<5.42E+01	0.00E+00	5.42E+01
		K-40	1.52E+03	2.38E+02	1.06E+02
446265	8/7/2017 - 8/7/2017	LLI-131	<5.59E-01	0.00E+00	5.59E-01
		I-131	<7.42E+00	0.00E+00	7.42E+00
		Cs-134	<6.88E+00	0.00E+00	6.88E+00
		Cs-137	<7.36E+00	0.00E+00	7.36E+00
		BaLa-140	<8.92E+00	0.00E+00	8.92E+00
		Be-7	<4.39E+01	0.00E+00	4.39E+01
		K-40	1.44E+03	2.28E+02	7.86E+01
448838	8/21/2017 - 8/21/2017	LLI-131	<6.50E-01	0.00E+00	6.50E-01
		I-131	<5.97E+00	0.00E+00	5.97E+00
		Cs-134	<8.32E+00	0.00E+00	8.32E+00
		Cs-137	<8.08E+00	0.00E+00	8.08E+00
		BaLa-140	<6.05E+00	0.00E+00	6.05E+00



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

Media Type: MILK Concentration (Activity): pCi/l

Sample Point 5 [CONTROL - WNW @ 12 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
448838	8/21/2017 - 8/21/2017	Be-7	<5.85E+01	0.00E+00	5.85E+01
		K-40	1.29E+03	2.12E+02	7.50E+01
448212	9/5/2017 - 9/5/2017	LLI-131	<5.78E-01	0.00E+00	5.78E-01
		I-131	<8.44E+00	0.00E+00	8.44E+00
		Cs-134	<6.82E+00	0.00E+00	6.82E+00
		Cs-137	<7.53E+00	0.00E+00	7.53E+00
		BaLa-140	<2.39E+00	0.00E+00	2.39E+00
		Be-7	<4.40E+01	0.00E+00	4.40E+01
		K-40	1.55E+03	2.44E+02	8.58E+01
449888	9/18/2017 - 9/18/2017	LLI-131	<4.89E-01	0.00E+00	4.89E-01
		I-131	<7.19E+00	0.00E+00	7.19E+00
		Cs-134	<8.53E+00	0.00E+00	8.53E+00
		Cs-137	<7.96E+00	0.00E+00	7.96E+00
		BaLa-140	<9.59E+00	0.00E+00	9.59E+00
		Be-7	<4.75E+01	0.00E+00	4.75E+01
		K-40	1.34E+03	2.23E+02	8.27E+01
450687	10/2/2017 - 10/2/2017	LLI-131	<6.28E-01	0.00E+00	6.28E-01
		I-131	<6.74E+00	0.00E+00	6.74E+00
		Cs-134	<9.12E+00	0.00E+00	9.12E+00
		Cs-137	<7.71E+00	0.00E+00	7.71E+00
		BaLa-140	<2.25E+00	0.00E+00	2.25E+00
		Be-7	<4.40E+01	0.00E+00	4.40E+01
		K-40	1.45E+03	2.33E+02	1.17E+02
451500	10/16/2017 - 10/16/2017	LLI-131	<6.47E-01	0.00E+00	6.47E-01
		I-131	<5.65E+00	0.00E+00	5.65E+00
		Cs-134	<8.24E+00	0.00E+00	8.24E+00
		Cs-137	<5.84E+00	0.00E+00	5.84E+00
		BaLa-140	<7.98E+00	0.00E+00	7.98E+00
		Be-7	<4.28E+01	0.00E+00	4.28E+01
		K-40	1.33E+03	2.15E+02	1.79E+01
452721	10/31/2017 - 10/31/2017	LLI-131	<5.28E-01	0.00E+00	5.28E-01
		I-131	<7.01E+00	0.00E+00	7.01E+00
		Cs-134	<6.30E+00	0.00E+00	6.30E+00
		Cs-137	<8.08E+00	0.00E+00	8.08E+00
		BaLa-140	<8.60E+00	0.00E+00	8.60E+00
		Be-7	<4.64E+01	0.00E+00	4.64E+01
		K-40	1.46E+03	2.29E+02	7.41E+01
454140	11/13/2017 - 11/13/2017	LLI-131	<6.12E-01	0.00E+00	6.12E-01
		I-131	<5.40E+00	0.00E+00	5.40E+00
		Cs-134	<9.14E+00	0.00E+00	9.14E+00
		Cs-137	<6.96E+00	0.00E+00	6.96E+00
		BaLa-140	<5.88E+00	0.00E+00	5.88E+00
		Be-7	<5.14E+01	0.00E+00	5.14E+01
		K-40	1.32E+03	2.12E+02	1.73E+01
455364	11/27/2017 - 11/27/2017	LLI-131	<5.94E-01	0.00E+00	5.94E-01
		I-131	<7.29E+00	0.00E+00	7.29E+00
		Cs-134	<9.47E+00	0.00E+00	9.47E+00
		Cs-137	<6.03E+00	0.00E+00	6.03E+00
		BaLa-140	<8.34E+00	0.00E+00	8.34E+00
		Be-7	<4.76E+01	0.00E+00	4.76E+01
		K-40	1.52E+03	2.43E+02	1.04E+02
455991	12/4/2017 - 12/4/2017	Nuclide	Activity	2 Sigma Error	MDA
		LLI-131	<6.46E-01	0.00E+00	6.46E-01



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

Media Type: MILK Concentration (Activity): pCi/l

Sample Point 5 [CONTROL - WNW @ 12 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
455991	12/4/2017 - 12/4/2017	I-131	<1.05E+01	0.00E+00	1.05E+01
		Cs-134	<6.98E+00	0.00E+00	6.98E+00
		Cs-137	<5.62E+00	0.00E+00	5.62E+00
		BaLa-140	<1.19E+01	0.00E+00	1.19E+01
		Be-7	<5.04E+01	0.00E+00	5.04E+01
		K-40	1.39E+03	2.26E+02	1.09E+02

Sample Point 102 [INDICATOR - W @ 2.82 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
431520	4/30/2017 - 4/30/2017	I-131	<5.36E+00	0.00E+00	5.36E+00
		Cs-134	<9.50E+00	0.00E+00	9.50E+00
		Cs-137	<8.39E+00	0.00E+00	8.39E+00
		BaLa-140	<6.05E+00	0.00E+00	6.05E+00
		Be-7	<5.18E+01	0.00E+00	5.18E+01
		K-40	2.00E+03	2.84E+02	1.22E+02
		LLI-131	<4.83E-01	0.00E+00	4.83E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
442604	5/15/2017 - 5/15/2017	I-131	<6.77E+00	0.00E+00	6.77E+00
		Cs-134	<7.67E+00	0.00E+00	7.67E+00
		Cs-137	<7.77E+00	0.00E+00	7.77E+00
		BaLa-140	<6.80E+00	0.00E+00	6.80E+00
		Be-7	<4.90E+01	0.00E+00	4.90E+01
		K-40	1.74E+03	2.64E+02	8.43E+01
		LLI-131	<4.94E-01	0.00E+00	4.94E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
442805	5/30/2017 - 5/30/2017	I-131	<6.67E+00	0.00E+00	6.67E+00
		Cs-134	<7.83E+00	0.00E+00	7.83E+00
		Cs-137	<6.96E+00	0.00E+00	6.96E+00
		BaLa-140	<8.94E+00	0.00E+00	8.94E+00
		Be-7	<4.94E+01	0.00E+00	4.94E+01
		K-40	1.83E+03	2.62E+02	1.73E+01
		LLI-131	<5.02E-01	0.00E+00	5.02E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
442608	6/12/2017 - 6/12/2017	I-131	<7.16E+00	0.00E+00	7.16E+00
		Cs-134	<9.89E+00	0.00E+00	9.89E+00
		Cs-137	<8.74E+00	0.00E+00	8.74E+00
		BaLa-140	<6.54E+00	0.00E+00	6.54E+00
		Be-7	<5.34E+01	0.00E+00	5.34E+01
		K-40	1.75E+03	2.66E+02	1.12E+02
		LLI-131	<6.60E-01	0.00E+00	6.60E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
443243	6/26/2017 - 6/26/2017	I-131	<7.10E+00	0.00E+00	7.10E+00
		Cs-134	<8.33E+00	0.00E+00	8.33E+00
		Cs-137	<9.86E+00	0.00E+00	9.86E+00
		BaLa-140	<9.56E+00	0.00E+00	9.56E+00
		Be-7	<6.62E+01	0.00E+00	6.62E+01
		K-40	1.76E+03	2.66E+02	9.45E+01
		LLI-131	<5.54E-01	0.00E+00	5.54E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
444190	7/10/2017 - 7/10/2017	I-131	<5.44E+00	0.00E+00	5.44E+00
		Cs-134	<1.09E+01	0.00E+00	1.09E+01
		Cs-137	<7.71E+00	0.00E+00	7.71E+00
		BaLa-140	<8.93E+00	0.00E+00	8.93E+00
		Be-7	<4.40E+01	0.00E+00	4.40E+01
		K-40	1.88E+03	2.74E+02	1.28E+02
		LLI-131	<5.43E-01	0.00E+00	5.43E-01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
447093	7/24/2017 - 7/24/2017	I-131	<1.00E+01	0.00E+00	1.00E+01
		Cs-134	<1.03E+01	0.00E+00	1.03E+01
		Cs-137	<9.10E+00	0.00E+00	9.10E+00
		BaLa-140	<6.60E+00	0.00E+00	6.60E+00



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Media Type: MILK Concentration (Activity): pCi/l

Sample Point 102 [INDICATOR - W @ 2.82 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
447093	7/24/2017 - 7/24/2017	Be-7	<5.35E+01	0.00E+00	5.35E+01
		K-40	2.02E+03	2.88E+02	8.43E+01
		LLI-131	<5.63E-01	0.00E+00	5.63E-01
446264	8/7/2017 - 8/7/2017	I-131	<7.33E+00	0.00E+00	7.33E+00
		Cs-134	<8.53E+00	0.00E+00	8.53E+00
		Cs-137	<8.74E+00	0.00E+00	8.74E+00
		BaLa-140	<9.71E+00	0.00E+00	9.71E+00
		Be-7	<6.58E+01	0.00E+00	6.58E+01
		K-40	1.81E+03	2.75E+02	1.36E+02
		LLI-131	<5.39E-01	0.00E+00	5.39E-01
448837	8/21/2017 - 8/21/2017	I-131	<7.82E+00	0.00E+00	7.82E+00
		Cs-134	<6.11E+00	0.00E+00	6.11E+00
		Cs-137	<7.96E+00	0.00E+00	7.96E+00
		BaLa-140	<1.07E+01	0.00E+00	1.07E+01
		Be-7	<5.35E+01	0.00E+00	5.35E+01
		K-40	2.14E+03	3.02E+02	1.06E+02
		LLI-131	<4.96E-01	0.00E+00	4.96E-01
448211	9/5/2017 - 9/5/2017	I-131	<5.05E+00	0.00E+00	5.05E+00
		Cs-134	<8.75E+00	0.00E+00	8.75E+00
		Cs-137	<8.08E+00	0.00E+00	8.08E+00
		BaLa-140	<8.97E+00	0.00E+00	8.97E+00
		Be-7	<4.95E+01	0.00E+00	4.95E+01
		K-40	1.81E+03	2.63E+02	7.95E+01
		LLI-131	<5.69E-01	0.00E+00	5.69E-01
449887	9/18/2017 - 9/18/2017	I-131	<7.32E+00	0.00E+00	7.32E+00
		Cs-134	<8.73E+00	0.00E+00	8.73E+00
		Cs-137	<7.34E+00	0.00E+00	7.34E+00
		BaLa-140	<2.26E+00	0.00E+00	2.26E+00
		Be-7	<5.20E+01	0.00E+00	5.20E+01
		K-40	1.85E+03	2.66E+02	8.09E+01
		LLI-131	<7.99E-01	0.00E+00	7.99E-01
450686	10/2/2017 - 10/2/2017	I-131	<7.04E+00	0.00E+00	7.04E+00
		Cs-134	<7.66E+00	0.00E+00	7.66E+00
		Cs-137	<1.02E+01	0.00E+00	1.02E+01
		BaLa-140	<6.38E+00	0.00E+00	6.38E+00
		Be-7	<4.55E+01	0.00E+00	4.55E+01
		K-40	1.94E+03	2.80E+02	1.15E+02
		LLI-131	<8.93E-01	0.00E+00	8.93E-01
451499	10/16/2017 - 10/16/2017	I-131	<8.36E+00	0.00E+00	8.36E+00
		Cs-134	<9.25E+00	0.00E+00	9.25E+00
		Cs-137	<7.78E+00	0.00E+00	7.78E+00
		BaLa-140	<6.49E+00	0.00E+00	6.49E+00
		Be-7	<4.93E+01	0.00E+00	4.93E+01
		K-40	2.23E+03	3.12E+02	1.17E+02
		LLI-131	<7.59E-01	0.00E+00	7.59E-01
452720	10/30/2017 - 10/30/2017	I-131	<7.86E+00	0.00E+00	7.86E+00
		Cs-134	<7.03E+00	0.00E+00	7.03E+00
		Cs-137	<1.04E+01	0.00E+00	1.04E+01
		BaLa-140	<2.52E+00	0.00E+00	2.52E+00
		Be-7	<4.57E+01	0.00E+00	4.57E+01
		K-40	1.59E+03	2.53E+02	1.11E+02
		LLI-131	<9.58E-01	0.00E+00	9.58E-01



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

Media Type: MILK Concentration (Activity): pCi/l

Sample Point 102 [INDICATOR - W @ 2.82 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
454139	11/13/2017 - 11/13/2017	I-131	<7.70E+00	0.00E+00	7.70E+00
		Cs-134	<9.01E+00	0.00E+00	9.01E+00
		Cs-137	<7.07E+00	0.00E+00	7.07E+00
		BaLa-140	<8.05E+00	0.00E+00	8.05E+00
		Be-7	<5.31E+01	0.00E+00	5.31E+01
		K-40	2.04E+03	2.93E+02	1.13E+02
		LLI-131	<6.79E-01	0.00E+00	6.79E-01

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

Sample Point 52 [INDICATOR - S @ 3.8 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
432915	2/9/2017 - 2/9/2017	Mn-54	<3.44E+01	0.00E+00	3.44E+01
		Co-58	4.01E+01	3.08E+01	4.75E+01
		Fe-59	<6.29E+01	0.00E+00	6.29E+01
		Co-60	3.94E+02	6.87E+01	4.21E+01
		Zn-65	<7.44E+01	0.00E+00	7.44E+01
		Zr-95	<6.15E+01	0.00E+00	6.15E+01
		Nb-95	<4.12E+01	0.00E+00	4.12E+01
		I-131	<6.34E+01	0.00E+00	6.34E+01
		Cs-134	<4.85E+01	0.00E+00	4.85E+01
		Cs-137	1.36E+02	5.39E+01	7.73E+01
		Be-7	<3.56E+02	0.00E+00	3.56E+02
		K-40	1.06E+04	1.29E+03	5.04E+02
		Co-57	<2.46E+01	0.00E+00	2.46E+01
		Mo-99	<3.90E+03	0.00E+00	3.90E+03
		Ag-110M	<3.27E+01	0.00E+00	3.27E+01
		Sb-122	<7.40E+02	0.00E+00	7.40E+02
		Sb-125	<9.38E+01	0.00E+00	9.38E+01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
448276	8/7/2017 - 8/7/2017	Mn-54	<2.49E+01	0.00E+00	2.49E+01
		Co-58	<2.33E+01	0.00E+00	2.33E+01
		Fe-59	<5.78E+01	0.00E+00	5.78E+01
		Co-60	3.42E+01	2.48E+01	3.70E+01
		Zn-65	<5.18E+01	0.00E+00	5.18E+01
		Zr-95	<4.50E+01	0.00E+00	4.50E+01
		Nb-95	<2.45E+01	0.00E+00	2.45E+01
		I-131	<3.09E+01	0.00E+00	3.09E+01
		Cs-134	<2.97E+01	0.00E+00	2.97E+01
		Cs-137	3.10E+01	2.31E+01	3.56E+01
		Be-7	<1.70E+02	0.00E+00	1.70E+02
		K-40	5.94E+03	8.07E+02	4.20E+02
		Co-57	<2.04E+01	0.00E+00	2.04E+01
		Mo-99	<1.08E+03	0.00E+00	1.08E+03
		Ag-110M	<2.06E+01	0.00E+00	2.06E+01
		Sb-122	<1.78E+02	0.00E+00	1.78E+02
		Sb-125	<5.48E+01	0.00E+00	5.48E+01

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

Sample Point 26 [INDICATOR - S @ 4.6 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
432917	2/9/2017 - 2/9/2017	Mn-54	<2.09E+01	0.00E+00	2.09E+01
		Co-58	<2.23E+01	0.00E+00	2.23E+01
		Fe-59	<3.51E+01	0.00E+00	3.51E+01
		Co-60	<2.17E+01	0.00E+00	2.17E+01
		Zn-65	<4.21E+01	0.00E+00	4.21E+01
		Zr-95	<3.62E+01	0.00E+00	3.62E+01
		Nb-95	<2.07E+01	0.00E+00	2.07E+01
		I-131	<3.07E+01	0.00E+00	3.07E+01
		Cs-134	<2.57E+01	0.00E+00	2.57E+01
		Cs-137	<2.40E+01	0.00E+00	2.40E+01
		Be-7	<1.67E+02	0.00E+00	1.67E+02
		K-40	9.03E+03	1.01E+03	1.79E+02
		Co-57	<1.45E+01	0.00E+00	1.45E+01



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

Sample Point 26 [INDICATOR - S @ 4.6 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
432917	2/9/2017 - 2/9/2017	Mo-99	<2.67E+03	0.00E+00	2.67E+03
		Ag-110M	<1.86E+01	0.00E+00	1.86E+01
		Sb-122	<3.31E+02	0.00E+00	3.31E+02
		Sb-125	<3.50E+01	0.00E+00	3.50E+01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
448288	8/7/2017 - 8/7/2017	Mn-54	<1.89E+01	0.00E+00	1.89E+01
		Co-58	<1.90E+01	0.00E+00	1.90E+01
		Fe-59	<3.98E+01	0.00E+00	3.98E+01
		Co-60	<1.77E+01	0.00E+00	1.77E+01
		Zn-65	<4.80E+01	0.00E+00	4.80E+01
		Zr-95	<3.30E+01	0.00E+00	3.30E+01
		Nb-95	<2.23E+01	0.00E+00	2.23E+01
		I-131	<2.41E+01	0.00E+00	2.41E+01
		Cs-134	<2.52E+01	0.00E+00	2.52E+01
		Cs-137	<2.12E+01	0.00E+00	2.12E+01
		Be-7	<1.70E+02	0.00E+00	1.70E+02
		K-40	1.08E+04	1.16E+03	2.65E+02
		Co-57	<1.56E+01	0.00E+00	1.56E+01
		Mo-99	<8.54E+02	0.00E+00	8.54E+02
		Ag-110M	<1.87E+01	0.00E+00	1.87E+01
		Sb-122	<1.10E+02	0.00E+00	1.10E+02
		Sb-125	<3.84E+01	0.00E+00	3.84E+01

Sample Point 41 [INDICATOR - S @ 3.8 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
432918	2/9/2017 - 2/9/2017	Mn-54	<2.29E+01	0.00E+00	2.29E+01
		Co-58	<2.02E+01	0.00E+00	2.02E+01
		Fe-59	<4.87E+01	0.00E+00	4.87E+01
		Co-60	<2.28E+01	0.00E+00	2.28E+01
		Zn-65	<5.61E+01	0.00E+00	5.61E+01
		Zr-95	<4.43E+01	0.00E+00	4.43E+01
		Nb-95	<2.54E+01	0.00E+00	2.54E+01
		I-131	<3.76E+01	0.00E+00	3.76E+01
		Cs-134	<2.77E+01	0.00E+00	2.77E+01
		Cs-137	<2.26E+01	0.00E+00	2.26E+01
		Be-7	<1.73E+02	0.00E+00	1.73E+02
		K-40	1.28E+04	1.33E+03	3.36E+02
		Co-57	<1.71E+01	0.00E+00	1.71E+01
		Mo-99	<2.39E+03	0.00E+00	2.39E+03
		Ag-110M	<1.78E+01	0.00E+00	1.78E+01
		Sb-122	<3.87E+02	0.00E+00	3.87E+02
		Sb-125	<5.27E+01	0.00E+00	5.27E+01

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
448289	8/7/2017 - 8/7/2017	Mn-54	<1.97E+01	0.00E+00	1.97E+01
		Co-58	<1.62E+01	0.00E+00	1.62E+01
		Fe-59	<4.18E+01	0.00E+00	4.18E+01
		Co-60	<2.10E+01	0.00E+00	2.10E+01
		Zn-65	<4.80E+01	0.00E+00	4.80E+01
		Zr-95	<2.63E+01	0.00E+00	2.63E+01
		Nb-95	<1.91E+01	0.00E+00	1.91E+01
		I-131	<2.36E+01	0.00E+00	2.36E+01
		Cs-134	<1.64E+01	0.00E+00	1.64E+01
		Cs-137	<1.85E+01	0.00E+00	1.85E+01
		Be-7	1.67E+02	1.15E+02	1.74E+02
		K-40	1.10E+04	1.17E+03	2.57E+02
		Co-57	<1.39E+01	0.00E+00	1.39E+01
		Mo-99	<6.93E+02	0.00E+00	6.93E+02
		Ag-110M	<1.04E+01	0.00E+00	1.04E+01
		Sb-122	<1.05E+02	0.00E+00	1.05E+02
		Sb-125	<3.88E+01	0.00E+00	3.88E+01



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

Sample Point 26 [INDICATOR - S @ 4.7 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
433729	12/27/2016 - 1/23/2017	Beta	3.85E+00	8.37E-01	1.16E+00
		Mn-54	<3.24E+00	0.00E+00	3.24E+00
		Co-58	<3.05E+00	0.00E+00	3.05E+00
		Fe-59	<8.52E+00	0.00E+00	8.52E+00
		Co-60	<5.14E+00	0.00E+00	5.14E+00
		Zn-65	<6.10E+00	0.00E+00	6.10E+00
		Zr-95	<7.84E+00	0.00E+00	7.84E+00
		Nb-95	<6.05E+00	0.00E+00	6.05E+00
		I-131	<1.03E+01	0.00E+00	1.03E+01
		Cs-134	<3.83E+00	0.00E+00	3.83E+00
		Cs-137	<3.88E+00	0.00E+00	3.88E+00
		BaLa-140	<1.18E+01	0.00E+00	1.18E+01
		Be-7	<4.00E+01	0.00E+00	4.00E+01
		K-40	<6.87E+01	0.00E+00	6.87E+01
		H3SW	7.28E+03	2.40E+02	1.89E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
436268	1/23/2017 - 2/20/2017	Beta	4.19E+00	1.04E+00	1.51E+00
		Mn-54	<2.94E+00	0.00E+00	2.94E+00
		Co-58	<3.02E+00	0.00E+00	3.02E+00
		Fe-59	<6.88E+00	0.00E+00	6.88E+00
		Co-60	<3.49E+00	0.00E+00	3.49E+00
		Zn-65	<7.74E+00	0.00E+00	7.74E+00
		Zr-95	<5.35E+00	0.00E+00	5.35E+00
		Nb-95	<4.03E+00	0.00E+00	4.03E+00
		I-131	<9.20E+00	0.00E+00	9.20E+00
		Cs-134	<3.78E+00	0.00E+00	3.78E+00
		Cs-137	<3.47E+00	0.00E+00	3.47E+00
		BaLa-140	<1.05E+01	0.00E+00	1.05E+01
		Be-7	<3.43E+01	0.00E+00	3.43E+01
		K-40	4.35E+01	2.52E+01	3.22E+01
		H3SW	6.94E+03	2.57E+02	1.91E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
438813	2/20/2017 - 3/20/2017	Beta	3.16E+00	9.71E-01	1.46E+00
		Mn-54	<2.59E+00	0.00E+00	2.59E+00
		Co-58	<3.59E+00	0.00E+00	3.59E+00
		Fe-59	<9.05E+00	0.00E+00	9.05E+00
		Co-60	<3.47E+00	0.00E+00	3.47E+00
		Zn-65	<6.38E+00	0.00E+00	6.38E+00
		Zr-95	<7.07E+00	0.00E+00	7.07E+00
		Nb-95	<5.23E+00	0.00E+00	5.23E+00
		I-131	<1.17E+01	0.00E+00	1.17E+01
		Cs-134	<3.79E+00	0.00E+00	3.79E+00
		Cs-137	<2.73E+00	0.00E+00	2.73E+00
		BaLa-140	<7.47E+00	0.00E+00	7.47E+00
		Be-7	<3.86E+01	0.00E+00	3.86E+01
		K-40	3.29E+01	3.57E+01	5.70E+01
		H3SW	6.46E+03	2.25E+02	1.90E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
441421	3/20/2017 - 4/17/2017	Beta	3.75E+00	9.93E-01	1.44E+00
		Mn-54	<2.88E+00	0.00E+00	2.88E+00
		Co-58	<3.20E+00	0.00E+00	3.20E+00
		Fe-59	<7.64E+00	0.00E+00	7.64E+00
		Co-60	<6.06E+00	0.00E+00	6.06E+00
		Zn-65	<7.76E+00	0.00E+00	7.76E+00
		Zr-95	<6.19E+00	0.00E+00	6.19E+00
		Nb-95	<5.43E+00	0.00E+00	5.43E+00
		I-131	<1.13E+01	0.00E+00	1.13E+01
		Cs-134	<3.49E+00	0.00E+00	3.49E+00
		Cs-137	<3.87E+00	0.00E+00	3.87E+00
		BaLa-140	<9.66E+00	0.00E+00	9.66E+00
		Be-7	<4.69E+01	0.00E+00	4.69E+01
		K-40	<5.79E+01	0.00E+00	5.79E+01
		H3SW	5.93E+03	2.21E+02	1.93E+02



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

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

Sample Point 26 [INDICATOR - S @ 4.7 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
443308	4/17/2017 - 5/15/2017	Beta	3.74E+00	8.62E-01	1.22E+00
		Mn-54	<3.14E+00	0.00E+00	3.14E+00
		Co-58	<3.10E+00	0.00E+00	3.10E+00
		Fe-59	<7.44E+00	0.00E+00	7.44E+00
		Co-60	<3.42E+00	0.00E+00	3.42E+00
		Zn-65	<5.76E+00	0.00E+00	5.76E+00
		Zr-95	<5.30E+00	0.00E+00	5.30E+00
		Nb-95	<4.59E+00	0.00E+00	4.59E+00
		I-131	<1.17E+01	0.00E+00	1.17E+01
		Cs-134	<2.58E+00	0.00E+00	2.58E+00
		Cs-137	<3.11E+00	0.00E+00	3.11E+00
		BaLa-140	<8.67E+00	0.00E+00	8.67E+00
		Be-7	<3.12E+01	0.00E+00	3.12E+01
		K-40	4.98E+01	3.06E+01	4.34E+01
		H3SW	5.71E+03	2.38E+02	1.93E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
446329	5/15/2017 - 6/12/2017	Beta	2.42E+00	1.10E+00	1.75E+00
		Mn-54	<3.08E+00	0.00E+00	3.08E+00
		Co-58	<3.42E+00	0.00E+00	3.42E+00
		Fe-59	<6.88E+00	0.00E+00	6.88E+00
		Co-60	<2.95E+00	0.00E+00	2.95E+00
		Zn-65	<5.95E+00	0.00E+00	5.95E+00
		Zr-95	<5.79E+00	0.00E+00	5.79E+00
		Nb-95	<4.93E+00	0.00E+00	4.93E+00
		I-131	<1.19E+01	0.00E+00	1.19E+01
		Cs-134	<3.41E+00	0.00E+00	3.41E+00
		Cs-137	<3.49E+00	0.00E+00	3.49E+00
		BaLa-140	<7.39E+00	0.00E+00	7.39E+00
		Be-7	<3.33E+01	0.00E+00	3.33E+01
		K-40	<5.46E+01	0.00E+00	5.46E+01
		H3SW	5.08E+03	2.13E+02	1.97E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
448277	6/12/2017 - 7/10/2017	Beta	4.11E+00	1.13E+00	1.69E+00
		Mn-54	<2.92E+00	0.00E+00	2.92E+00
		Co-58	<3.46E+00	0.00E+00	3.46E+00
		Fe-59	<5.21E+00	0.00E+00	5.21E+00
		Co-60	<3.01E+00	0.00E+00	3.01E+00
		Zn-65	<8.51E+00	0.00E+00	8.51E+00
		Zr-95	<7.10E+00	0.00E+00	7.10E+00
		Nb-95	<4.41E+00	0.00E+00	4.41E+00
		I-131	<1.09E+01	0.00E+00	1.09E+01
		Cs-134	<3.13E+00	0.00E+00	3.13E+00
		Cs-137	<3.09E+00	0.00E+00	3.09E+00
		BaLa-140	<9.29E+00	0.00E+00	9.29E+00
		Be-7	<2.43E+01	0.00E+00	2.43E+01
		K-40	6.21E+01	3.29E+01	4.45E+01
		H3SW	4.90E+03	2.22E+02	1.94E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
450208	7/10/2017 - 8/7/2017	Beta	4.10E+00	9.73E-01	1.37E+00
		Mn-54	<3.21E+00	0.00E+00	3.21E+00
		Co-58	<3.69E+00	0.00E+00	3.69E+00
		Fe-59	<4.07E+00	0.00E+00	4.07E+00
		Co-60	<2.90E+00	0.00E+00	2.90E+00
		Zn-65	<6.11E+00	0.00E+00	6.11E+00
		Zr-95	<5.66E+00	0.00E+00	5.66E+00
		Nb-95	<3.74E+00	0.00E+00	3.74E+00
		I-131	<1.16E+01	0.00E+00	1.16E+01
		Cs-134	<3.89E+00	0.00E+00	3.89E+00
		Cs-137	<2.89E+00	0.00E+00	2.89E+00
		BaLa-140	<9.35E+00	0.00E+00	9.35E+00
		Be-7	<3.16E+01	0.00E+00	3.16E+01
		K-40	6.37E+01	2.85E+01	3.09E+01
		H3SW	4.61E+03	2.15E+02	1.87E+02



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

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

Sample Point 26 [INDICATOR - S @ 4.7 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
452361	8/7/2017 - 9/5/2017	Beta	3.99E+00	1.02E+00	1.48E+00
		Mn-54	<4.00E+00	0.00E+00	4.00E+00
		Co-58	<4.02E+00	0.00E+00	4.02E+00
		Fe-59	<6.90E+00	0.00E+00	6.90E+00
		Co-60	<2.99E+00	0.00E+00	2.99E+00
		Zn-65	<9.88E+00	0.00E+00	9.88E+00
		Zr-95	<7.92E+00	0.00E+00	7.92E+00
		Nb-95	<5.49E+00	0.00E+00	5.49E+00
		I-131	<1.14E+01	0.00E+00	1.14E+01
		Cs-134	<3.99E+00	0.00E+00	3.99E+00
		Cs-137	<4.21E+00	0.00E+00	4.21E+00
		BaLa-140	<1.11E+01	0.00E+00	1.11E+01
		Be-7	<3.15E+01	0.00E+00	3.15E+01
		K-40	<5.56E+01	0.00E+00	5.56E+01
		H3SW	4.60E+03	2.13E+02	1.82E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
455076	9/5/2017 - 10/2/2017	Beta	4.55E+00	1.08E+00	1.55E+00
		Mn-54	<2.63E+00	0.00E+00	2.63E+00
		Co-58	<3.45E+00	0.00E+00	3.45E+00
		Fe-59	<8.57E+00	0.00E+00	8.57E+00
		Co-60	<3.75E+00	0.00E+00	3.75E+00
		Zn-65	<7.67E+00	0.00E+00	7.67E+00
		Zr-95	<6.65E+00	0.00E+00	6.65E+00
		Nb-95	<4.51E+00	0.00E+00	4.51E+00
		I-131	<1.07E+01	0.00E+00	1.07E+01
		Cs-134	<3.45E+00	0.00E+00	3.45E+00
		Cs-137	<2.43E+00	0.00E+00	2.43E+00
		BaLa-140	<8.92E+00	0.00E+00	8.92E+00
		Be-7	<2.82E+01	0.00E+00	2.82E+01
		K-40	<5.94E+01	0.00E+00	5.94E+01
		H3SW	4.42E+03	2.11E+02	1.84E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
461969	10/2/2017 - 10/30/2017	Beta	4.33E+00	1.06E+00	1.54E+00
		Mn-54	<2.18E+00	0.00E+00	2.18E+00
		Co-58	<2.97E+00	0.00E+00	2.97E+00
		Fe-59	<5.68E+00	0.00E+00	5.68E+00
		Co-60	<2.58E+00	0.00E+00	2.58E+00
		Zn-65	<6.13E+00	0.00E+00	6.13E+00
		Zr-95	<4.90E+00	0.00E+00	4.90E+00
		Nb-95	<3.55E+00	0.00E+00	3.55E+00
		I-131	<1.09E+01	0.00E+00	1.09E+01
		Cs-134	<3.24E+00	0.00E+00	3.24E+00
		Cs-137	<2.83E+00	0.00E+00	2.83E+00
		BaLa-140	<9.26E+00	0.00E+00	9.26E+00
		Be-7	<2.62E+01	0.00E+00	2.62E+01
		K-40	<4.96E+01	0.00E+00	4.96E+01
		H3SW	5.25E+03	2.24E+02	1.79E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
464154	10/30/2017 - 11/27/2017	Beta	4.57E+00	9.40E-01	1.31E+00
		Mn-54	<3.02E+00	0.00E+00	3.02E+00
		Co-58	<3.35E+00	0.00E+00	3.35E+00
		Fe-59	<7.11E+00	0.00E+00	7.11E+00
		Co-60	<3.07E+00	0.00E+00	3.07E+00
		Zn-65	<7.06E+00	0.00E+00	7.06E+00
		Zr-95	<5.28E+00	0.00E+00	5.28E+00
		Nb-95	<4.62E+00	0.00E+00	4.62E+00
		I-131	<1.13E+01	0.00E+00	1.13E+01
		Cs-134	<3.17E+00	0.00E+00	3.17E+00
		Cs-137	<2.92E+00	0.00E+00	2.92E+00
		BaLa-140	<7.63E+00	0.00E+00	7.63E+00
		Be-7	<2.59E+01	0.00E+00	2.59E+01
		K-40	<5.95E+01	0.00E+00	5.95E+01
		H3SW	9.12E+03	2.83E+02	1.90E+02



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

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

Sample Point 26 [INDICATOR - S @ 4.7 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
465615	11/27/2017 - 12/26/2017	Beta	4.20E+00	9.07E-01	1.28E+00
		Mn-54	<3.20E+00	0.00E+00	3.20E+00
		Co-58	<3.40E+00	0.00E+00	3.40E+00
		Fe-59	<8.53E+00	0.00E+00	8.53E+00
		Co-60	<2.76E+00	0.00E+00	2.76E+00
		Zn-65	<7.11E+00	0.00E+00	7.11E+00
		Zr-95	<7.15E+00	0.00E+00	7.15E+00
		Nb-95	<4.39E+00	0.00E+00	4.39E+00
		I-131	<1.16E+01	0.00E+00	1.16E+01
		Cs-134	<3.37E+00	0.00E+00	3.37E+00
		Cs-137	<3.49E+00	0.00E+00	3.49E+00
		BaLa-140	<9.60E+00	0.00E+00	9.60E+00
		Be-7	<3.21E+01	0.00E+00	3.21E+01
		K-40	4.32E+01	2.78E+01	3.64E+01
		H3SW	7.47E+03	2.64E+02	1.95E+02

Sample Point 40 [INDICATOR - SSE @ 17.2 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
448279	6/12/2017 - 7/10/2017	Beta	2.24E+00	1.06E+00	1.69E+00
		Mn-54	<3.08E+00	0.00E+00	3.08E+00
		Co-58	<3.42E+00	0.00E+00	3.42E+00
		Fe-59	<7.45E+00	0.00E+00	7.45E+00
		Co-60	<3.57E+00	0.00E+00	3.57E+00
		Zn-65	<5.73E+00	0.00E+00	5.73E+00
		Zr-95	<4.19E+00	0.00E+00	4.19E+00
		Nb-95	<4.16E+00	0.00E+00	4.16E+00
		I-131	<1.06E+01	0.00E+00	1.06E+01
		Cs-134	<3.41E+00	0.00E+00	3.41E+00
		Cs-137	<2.24E+00	0.00E+00	2.24E+00
		BaLa-140	<9.34E+00	0.00E+00	9.34E+00
		Be-7	<2.31E+01	0.00E+00	2.31E+01
		K-40	5.68E+01	3.10E+01	3.97E+01
		H3DWSW	<-8.9E+01	0.00E+00	1.94E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
450209	7/10/2017 - 8/7/2017	Beta	4.10E+00	9.95E-01	1.39E+00
		Mn-54	<2.90E+00	0.00E+00	2.90E+00
		Co-58	<3.23E+00	0.00E+00	3.23E+00
		Fe-59	<8.67E+00	0.00E+00	8.67E+00
		Co-60	<3.48E+00	0.00E+00	3.48E+00
		Zn-65	<8.33E+00	0.00E+00	8.33E+00
		Zr-95	<4.51E+00	0.00E+00	4.51E+00
		Nb-95	<4.11E+00	0.00E+00	4.11E+00
		I-131	<1.08E+01	0.00E+00	1.08E+01
		Cs-134	<2.72E+00	0.00E+00	2.72E+00
		Cs-137	<2.94E+00	0.00E+00	2.94E+00
		BaLa-140	<1.14E+01	0.00E+00	1.14E+01
		Be-7	<2.99E+01	0.00E+00	2.99E+01
		K-40	<4.75E+01	0.00E+00	4.75E+01
		H3DWSW	<-1.9E+01	0.00E+00	1.87E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
452362	8/7/2017 - 9/5/2017	Beta	4.69E+00	1.08E+00	1.53E+00
		Mn-54	<3.38E+00	0.00E+00	3.38E+00
		Co-58	<3.51E+00	0.00E+00	3.51E+00
		Fe-59	<7.70E+00	0.00E+00	7.70E+00
		Co-60	<3.86E+00	0.00E+00	3.86E+00
		Zn-65	<9.87E+00	0.00E+00	9.87E+00
		Zr-95	<7.13E+00	0.00E+00	7.13E+00
		Nb-95	<6.62E+00	0.00E+00	6.62E+00
		I-131	<9.71E+00	0.00E+00	9.71E+00
		Cs-134	<2.86E+00	0.00E+00	2.86E+00
		Cs-137	<4.03E+00	0.00E+00	4.03E+00
		BaLa-140	<6.80E+00	0.00E+00	6.80E+00
		Be-7	<3.68E+01	0.00E+00	3.68E+01
		K-40	3.82E+01	3.75E+01	5.83E+01



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

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

Sample Point 40 [INDICATOR - SSE @ 17.2 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
452362	8/7/2017 - 9/5/2017	H3SW	<-7.0E+00	0.00E+00	1.82E+02
455077	9/5/2017 - 10/2/2017	Beta	4.39E+00	1.10E+00	1.59E+00
		Mn-54	<2.60E+00	0.00E+00	2.60E+00
		Co-58	<3.60E+00	0.00E+00	3.60E+00
		Fe-59	<6.82E+00	0.00E+00	6.82E+00
		Co-60	<3.46E+00	0.00E+00	3.46E+00
		Zn-65	<7.48E+00	0.00E+00	7.48E+00
		Zr-95	<7.40E+00	0.00E+00	7.40E+00
		Nb-95	<3.79E+00	0.00E+00	3.79E+00
		I-131	<1.19E+01	0.00E+00	1.19E+01
		Cs-134	<3.60E+00	0.00E+00	3.60E+00
		Cs-137	<2.52E+00	0.00E+00	2.52E+00
		BaLa-140	<7.31E+00	0.00E+00	7.31E+00
		Be-7	<3.59E+01	0.00E+00	3.59E+01
		K-40	<4.96E+01	0.00E+00	4.96E+01
		H3SW	<-5.2E+01	0.00E+00	1.84E+02
461970	10/2/2017 - 10/30/2017	Beta	4.81E+00	1.10E+00	1.57E+00
		Mn-54	<3.07E+00	0.00E+00	3.07E+00
		Co-58	<2.95E+00	0.00E+00	2.95E+00
		Fe-59	<6.42E+00	0.00E+00	6.42E+00
		Co-60	<2.68E+00	0.00E+00	2.68E+00
		Zn-65	<7.33E+00	0.00E+00	7.33E+00
		Zr-95	<5.45E+00	0.00E+00	5.45E+00
		Nb-95	<4.86E+00	0.00E+00	4.86E+00
		I-131	<1.19E+01	0.00E+00	1.19E+01
		Cs-134	<3.60E+00	0.00E+00	3.60E+00
		Cs-137	<3.05E+00	0.00E+00	3.05E+00
		BaLa-140	<8.63E+00	0.00E+00	8.63E+00
		Be-7	<3.03E+01	0.00E+00	3.03E+01
		K-40	<5.55E+01	0.00E+00	5.55E+01
		H3SW	<-1.9E+01	0.00E+00	1.79E+02
464155	10/30/2017 - 11/27/2017	Beta	5.12E+00	9.88E-01	1.36E+00
		Mn-54	<2.90E+00	0.00E+00	2.90E+00
		Co-58	<2.98E+00	0.00E+00	2.98E+00
		Fe-59	<6.80E+00	0.00E+00	6.80E+00
		Co-60	<3.26E+00	0.00E+00	3.26E+00
		Zn-65	<4.98E+00	0.00E+00	4.98E+00
		Zr-95	<5.50E+00	0.00E+00	5.50E+00
		Nb-95	<4.32E+00	0.00E+00	4.32E+00
		I-131	<1.18E+01	0.00E+00	1.18E+01
		Cs-134	<3.33E+00	0.00E+00	3.33E+00
		Cs-137	<3.00E+00	0.00E+00	3.00E+00
		BaLa-140	<7.51E+00	0.00E+00	7.51E+00
		Be-7	<2.41E+01	0.00E+00	2.41E+01
		K-40	6.24E+01	2.89E+01	3.42E+01
		H3SW	<4.74E+00	0.00E+00	1.94E+02
465616	11/27/2017 - 12/26/2017	Beta	6.10E+00	1.00E+00	1.32E+00
		Mn-54	<3.14E+00	0.00E+00	3.14E+00
		Co-58	<3.36E+00	0.00E+00	3.36E+00
		Fe-59	<6.66E+00	0.00E+00	6.66E+00
		Co-60	<2.57E+00	0.00E+00	2.57E+00
		Zn-65	<4.74E+00	0.00E+00	4.74E+00
		Zr-95	<5.40E+00	0.00E+00	5.40E+00
		Nb-95	<3.79E+00	0.00E+00	3.79E+00
		I-131	<1.07E+01	0.00E+00	1.07E+01
		Cs-134	<2.94E+00	0.00E+00	2.94E+00
		Cs-137	<2.90E+00	0.00E+00	2.90E+00
		BaLa-140	<8.25E+00	0.00E+00	8.25E+00
		Be-7	<2.08E+01	0.00E+00	2.08E+01



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

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

Sample Point 40 [INDICATOR - SSE @ 17.2 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
465616	11/27/2017 - 12/26/2017	K-40	3.73E+01	2.80E+01	4.23E+01
		H3SW	<-1.7E+02	0.00E+00	1.94E+02

Sample Point 43 [CONTROL - SW @ 8.47 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
431471	12/27/2016 - 1/23/2017	Beta	3.80E+00	8.28E-01	1.15E+00
		Mn-54	<3.00E+00	0.00E+00	3.00E+00
		Co-58	<2.96E+00	0.00E+00	2.96E+00
		Fe-59	<7.06E+00	0.00E+00	7.06E+00
		Co-60	<3.10E+00	0.00E+00	3.10E+00
		Zn-65	<6.33E+00	0.00E+00	6.33E+00
		Zr-95	<5.88E+00	0.00E+00	5.88E+00
		Nb-95	<4.76E+00	0.00E+00	4.76E+00
		I-131	<1.11E+01	0.00E+00	1.11E+01
		Cs-134	<3.32E+00	0.00E+00	3.32E+00
		Cs-137	<3.35E+00	0.00E+00	3.35E+00
		BaLa-140	<6.00E+00	0.00E+00	6.00E+00
		Be-7	<2.75E+01	0.00E+00	2.75E+01
		K-40	<5.41E+01	0.00E+00	5.41E+01
		H3DWSW	<-2.0E+00	0.00E+00	1.93E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
436721	1/23/2017 - 2/20/2017	Beta	2.88E+00	1.01E+00	1.54E+00
		Mn-54	<3.77E+00	0.00E+00	3.77E+00
		Co-58	<3.12E+00	0.00E+00	3.12E+00
		Fe-59	<9.66E+00	0.00E+00	9.66E+00
		Co-60	<3.55E+00	0.00E+00	3.55E+00
		Zn-65	<6.95E+00	0.00E+00	6.95E+00
		Zr-95	<6.94E+00	0.00E+00	6.94E+00
		Nb-95	<5.24E+00	0.00E+00	5.24E+00
		I-131	<1.12E+01	0.00E+00	1.12E+01
		Cs-134	<4.18E+00	0.00E+00	4.18E+00
		Cs-137	<3.87E+00	0.00E+00	3.87E+00
		BaLa-140	<6.47E+00	0.00E+00	6.47E+00
		Be-7	<3.11E+01	0.00E+00	3.11E+01
		K-40	<7.94E+01	0.00E+00	7.94E+01
		H3DWSW	<-3.6E+01	0.00E+00	1.90E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
434466	2/20/2017 - 3/20/2017	Beta	2.60E+00	9.68E-01	1.49E+00
		Mn-54	<3.50E+00	0.00E+00	3.50E+00
		Co-58	<3.88E+00	0.00E+00	3.88E+00
		Fe-59	<7.65E+00	0.00E+00	7.65E+00
		Co-60	<3.10E+00	0.00E+00	3.10E+00
		Zn-65	<8.95E+00	0.00E+00	8.95E+00
		Zr-95	<6.02E+00	0.00E+00	6.02E+00
		Nb-95	<4.97E+00	0.00E+00	4.97E+00
		I-131	<1.10E+01	0.00E+00	1.10E+01
		Cs-134	<2.80E+00	0.00E+00	2.80E+00
		Cs-137	<2.63E+00	0.00E+00	2.63E+00
		BaLa-140	<1.00E+01	0.00E+00	1.00E+01
		Be-7	<3.20E+01	0.00E+00	3.20E+01
		K-40	1.17E+02	4.42E+01	4.98E+01
		H3DWSW	<-5.6E+01	0.00E+00	1.91E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
439458	3/20/2017 - 4/17/2017	Beta	3.27E+00	1.01E+00	1.51E+00
		Mn-54	<3.67E+00	0.00E+00	3.67E+00
		Co-58	<3.74E+00	0.00E+00	3.74E+00
		Fe-59	<8.03E+00	0.00E+00	8.03E+00
		Co-60	<3.25E+00	0.00E+00	3.25E+00
		Zn-65	<6.54E+00	0.00E+00	6.54E+00
		Zr-95	<6.94E+00	0.00E+00	6.94E+00
		Nb-95	<4.00E+00	0.00E+00	4.00E+00
		I-131	<1.15E+01	0.00E+00	1.15E+01
		Cs-134	<3.74E+00	0.00E+00	3.74E+00



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

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

Sample Point 43 [CONTROL - SW @ 8.47 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
439458	3/20/2017 - 4/17/2017	Cs-137	<3.41E+00	0.00E+00	3.41E+00
		BaLa-140	<2.02E+00	0.00E+00	2.02E+00
		Be-7	<2.74E+01	0.00E+00	2.74E+01
		K-40	4.55E+01	3.57E+01	5.31E+01
		H3SW	<-8.6E+01	0.00E+00	1.93E+02
442313	4/17/2017 - 5/15/2017	Beta	3.18E+00	8.59E-01	1.25E+00
		Mn-54	<4.11E+00	0.00E+00	4.11E+00
		Co-58	<3.50E+00	0.00E+00	3.50E+00
		Fe-59	<7.98E+00	0.00E+00	7.98E+00
		Co-60	<3.30E+00	0.00E+00	3.30E+00
		Zn-65	<4.99E+00	0.00E+00	4.99E+00
		Zr-95	<7.01E+00	0.00E+00	7.01E+00
		Nb-95	<5.59E+00	0.00E+00	5.59E+00
		I-131	<1.19E+01	0.00E+00	1.19E+01
		Cs-134	<4.43E+00	0.00E+00	4.43E+00
		Cs-137	<3.64E+00	0.00E+00	3.64E+00
		BaLa-140	<1.04E+01	0.00E+00	1.04E+01
		Be-7	<3.14E+01	0.00E+00	3.14E+01
		K-40	7.48E+01	2.80E+01	6.75E+00
H3SW	<2.87E+01	0.00E+00	1.92E+02		
444268	5/15/2017 - 6/12/2017	Beta	2.47E+00	1.15E+00	1.82E+00
		Mn-54	<3.90E+00	0.00E+00	3.90E+00
		Co-58	<3.13E+00	0.00E+00	3.13E+00
		Fe-59	<5.27E+00	0.00E+00	5.27E+00
		Co-60	<3.09E+00	0.00E+00	3.09E+00
		Zn-65	<7.47E+00	0.00E+00	7.47E+00
		Zr-95	<5.96E+00	0.00E+00	5.96E+00
		Nb-95	<4.85E+00	0.00E+00	4.85E+00
		I-131	<1.12E+01	0.00E+00	1.12E+01
		Cs-134	<4.32E+00	0.00E+00	4.32E+00
		Cs-137	<3.62E+00	0.00E+00	3.62E+00
		BaLa-140	<1.12E+01	0.00E+00	1.12E+01
		Be-7	<3.15E+01	0.00E+00	3.15E+01
		K-40	5.94E+01	3.80E+01	5.27E+01
H3SW	<-6.8E+01	0.00E+00	1.95E+02		
447189	6/12/2017 - 7/10/2017	Beta	2.79E+00	1.10E+00	1.72E+00
		Mn-54	<3.73E+00	0.00E+00	3.73E+00
		Co-58	<3.96E+00	0.00E+00	3.96E+00
		Fe-59	<8.99E+00	0.00E+00	8.99E+00
		Co-60	<3.46E+00	0.00E+00	3.46E+00
		Zn-65	<6.93E+00	0.00E+00	6.93E+00
		Zr-95	<7.93E+00	0.00E+00	7.93E+00
		Nb-95	<5.19E+00	0.00E+00	5.19E+00
		I-131	<1.14E+01	0.00E+00	1.14E+01
		Cs-134	<4.31E+00	0.00E+00	4.31E+00
		Cs-137	<3.61E+00	0.00E+00	3.61E+00
		BaLa-140	<5.84E+00	0.00E+00	5.84E+00
		Be-7	<3.83E+01	0.00E+00	3.83E+01
		K-40	3.83E+01	3.01E+01	4.31E+01
H3SW	<-1.4E+02	0.00E+00	1.95E+02		
449226	7/10/2017 - 8/7/2017	Beta	4.97E+00	1.06E+00	1.45E+00
		Mn-54	<2.52E+00	0.00E+00	2.52E+00
		Co-58	<2.80E+00	0.00E+00	2.80E+00
		Fe-59	<4.09E+00	0.00E+00	4.09E+00
		Co-60	<2.07E+00	0.00E+00	2.07E+00
		Zn-65	<5.86E+00	0.00E+00	5.86E+00
		Zr-95	<5.10E+00	0.00E+00	5.10E+00
		Nb-95	<3.31E+00	0.00E+00	3.31E+00
		I-131	<1.07E+01	0.00E+00	1.07E+01



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

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

Sample Point 43 [CONTROL - SW @ 8.47 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
449226	7/10/2017 - 8/7/2017	Cs-134	<2.55E+00	0.00E+00	2.55E+00
		Cs-137	<3.07E+00	0.00E+00	3.07E+00
		BaLa-140	<6.19E+00	0.00E+00	6.19E+00
		Be-7	<2.43E+01	0.00E+00	2.43E+01
		K-40	<4.54E+01	0.00E+00	4.54E+01
		H3SW	<-6.3E+01	0.00E+00	1.87E+02
451194	8/7/2017 - 9/5/2017	Beta	3.81E+00	1.04E+00	1.52E+00
		Mn-54	<2.36E+00	0.00E+00	2.36E+00
		Co-58	<2.56E+00	0.00E+00	2.56E+00
		Fe-59	<6.28E+00	0.00E+00	6.28E+00
		Co-60	<2.73E+00	0.00E+00	2.73E+00
		Zn-65	<4.51E+00	0.00E+00	4.51E+00
		Zr-95	<5.19E+00	0.00E+00	5.19E+00
		Nb-95	<2.89E+00	0.00E+00	2.89E+00
		I-131	<1.05E+01	0.00E+00	1.05E+01
		Cs-134	<3.28E+00	0.00E+00	3.28E+00
		Cs-137	<2.49E+00	0.00E+00	2.49E+00
		BaLa-140	<5.98E+00	0.00E+00	5.98E+00
		Be-7	<2.55E+01	0.00E+00	2.55E+01
		K-40	1.01E+02	3.13E+01	3.50E+01
		H3SW	<-5.6E+01	0.00E+00	1.82E+02
453449	9/5/2017 - 10/2/2017	Beta	5.03E+00	1.12E+00	1.60E+00
		Mn-54	<3.60E+00	0.00E+00	3.60E+00
		Co-58	<3.98E+00	0.00E+00	3.98E+00
		Fe-59	<8.25E+00	0.00E+00	8.25E+00
		Co-60	<3.86E+00	0.00E+00	3.86E+00
		Zn-65	<6.36E+00	0.00E+00	6.36E+00
		Zr-95	<7.05E+00	0.00E+00	7.05E+00
		Nb-95	<4.44E+00	0.00E+00	4.44E+00
		I-131	<1.12E+01	0.00E+00	1.12E+01
		Cs-134	<3.75E+00	0.00E+00	3.75E+00
		Cs-137	<3.27E+00	0.00E+00	3.27E+00
		BaLa-140	<8.06E+00	0.00E+00	8.06E+00
		Be-7	<3.74E+01	0.00E+00	3.74E+01
		K-40	4.43E+01	3.13E+01	4.17E+01
		H3SW	<5.62E+01	0.00E+00	1.84E+02
456047	10/2/2017 - 10/30/2017	Beta	4.57E+00	1.10E+00	1.60E+00
		Mn-54	<2.53E+00	0.00E+00	2.53E+00
		Co-58	<3.12E+00	0.00E+00	3.12E+00
		Fe-59	<7.04E+00	0.00E+00	7.04E+00
		Co-60	<3.56E+00	0.00E+00	3.56E+00
		Zn-65	<6.57E+00	0.00E+00	6.57E+00
		Zr-95	<4.35E+00	0.00E+00	4.35E+00
		Nb-95	<3.33E+00	0.00E+00	3.33E+00
		I-131	<1.15E+01	0.00E+00	1.15E+01
		Cs-134	<2.64E+00	0.00E+00	2.64E+00
		Cs-137	<2.97E+00	0.00E+00	2.97E+00
		BaLa-140	<7.42E+00	0.00E+00	7.42E+00
		Be-7	<3.48E+01	0.00E+00	3.48E+01
		K-40	<5.23E+01	0.00E+00	5.23E+01
		H3SW	<-8.2E+01	0.00E+00	1.78E+02
463097	10/30/2017 - 11/27/2017	Beta	6.60E+00	1.06E+00	1.40E+00
		Mn-54	<3.09E+00	0.00E+00	3.09E+00
		Co-58	<2.58E+00	0.00E+00	2.58E+00
		Fe-59	<6.58E+00	0.00E+00	6.58E+00
		Co-60	<3.75E+00	0.00E+00	3.75E+00
		Zn-65	<6.14E+00	0.00E+00	6.14E+00
		Zr-95	<4.93E+00	0.00E+00	4.93E+00
		Nb-95	<4.16E+00	0.00E+00	4.16E+00



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

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

Sample Point 43 [CONTROL - SW @ 8.47 miles]

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
463097	10/30/2017 - 11/27/2017	I-131	<1.14E+01	0.00E+00	1.14E+01
		Cs-134	<3.43E+00	0.00E+00	3.43E+00
		Cs-137	<2.58E+00	0.00E+00	2.58E+00
		BaLa-140	<7.00E+00	0.00E+00	7.00E+00
		Be-7	<2.95E+01	0.00E+00	2.95E+01
		K-40	3.03E+01	2.80E+01	4.29E+01
		H3SW	<-8.3E+01	0.00E+00	1.94E+02

Sample ID:	Sample Dates:	Nuclide	Activity	2 Sigma Error	MDA
464971	11/27/2017 - 12/26/2017	Beta	5.25E+00	9.82E-01	1.34E+00
		Mn-54	<2.89E+00	0.00E+00	2.89E+00
		Co-58	<2.90E+00	0.00E+00	2.90E+00
		Fe-59	<6.91E+00	0.00E+00	6.91E+00
		Co-60	<3.03E+00	0.00E+00	3.03E+00
		Zn-65	<5.60E+00	0.00E+00	5.60E+00
		Zr-95	<5.35E+00	0.00E+00	5.35E+00
		Nb-95	<3.52E+00	0.00E+00	3.52E+00
		I-131	<1.18E+01	0.00E+00	1.18E+01
		Cs-134	<3.30E+00	0.00E+00	3.30E+00
		Cs-137	<2.32E+00	0.00E+00	2.32E+00
		BaLa-140	<6.53E+00	0.00E+00	6.53E+00
		Be-7	<2.99E+01	0.00E+00	2.99E+01
		K-40	2.83E+01	3.13E+01	5.06E+01
		H3SW	<-1.2E+02	0.00E+00	1.94E+02

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

Sample Point 1 [INDICATOR - N @ 2.6 miles]

TLD RING TLD_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
437151	1/4/2017 - 4/5/2017	mR/Std Qtr	14.53
445049	4/5/2017 - 7/5/2017	mR/Std Qtr	14.30
452080	7/5/2017 - 10/4/2017	mR/Std Qtr	14.87
464462	10/4/2017 - 1/10/2018	mR/Std Qtr	16.20

Sample Point 2 [INDICATOR - NNE @ 1.4 miles]

TLD RING TLD_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
437159	1/4/2017 - 4/5/2017	mR/Std Qtr	13.69
445057	4/5/2017 - 7/5/2017	mR/Std Qtr	13.42
452088	7/5/2017 - 10/4/2017	mR/Std Qtr	13.89
464470	10/4/2017 - 1/10/2018	mR/Std Qtr	17.75

Sample Point 3 [INDICATOR - ENE @ 1.9 miles]

TLD RING TLD_SPEC

Sample ID:	Sample Dates:	Nuclide	Activity
437170	1/4/2017 - 4/5/2017	mR/Std Qtr	16.36
445068	4/5/2017 - 7/5/2017	mR/Std Qtr	12.89
452099	7/5/2017 - 10/4/2017	mR/Std Qtr	13.05
464481	10/4/2017 - 1/10/2018	mR/Std Qtr	15.26



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

Sample Point 4 [INDICATOR - NNE @ 3.1 miles]

TLD RING TLD_SPEC

Sample ID:	Sample Dates:	Nuclide	Activity
437175	1/4/2017 - 4/5/2017	mR/Std Qtr	12.51
445073	4/5/2017 - 7/5/2017	mR/Std Qtr	12.59
452104	7/5/2017 - 10/4/2017	mR/Std Qtr	12.50
464486	10/4/2017 - 1/10/2018	mR/Std Qtr	15.21

Sample Point 5 [CONTROL - WNW @ 12 miles]

TLD RING TLD_CTRL

Sample ID:	Sample Dates:	Nuclide	Activity
437178	1/4/2017 - 4/5/2017	mR/Std Qtr	16.31
445076	4/5/2017 - 7/5/2017	mR/Std Qtr	15.70
452107	7/5/2017 - 10/4/2017	mR/Std Qtr	14.28
464489	10/4/2017 - 1/10/2018	mR/Std Qtr	17.12

Sample Point 6 [INDICATOR - ENE @ 0.8 miles]

TLD RING TLD_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
437182	1/4/2017 - 4/5/2017	mR/Std Qtr	12.84
445080	4/5/2017 - 7/5/2017	mR/Std Qtr	13.61
452111	7/5/2017 - 10/4/2017	mR/Std Qtr	14.18
464493	10/4/2017 - 1/10/2018	mR/Std Qtr	20.39

Sample Point 7 [INDICATOR - E @ 0.7 miles]

TLD RING TLD_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
437184	1/4/2017 - 4/5/2017	mR/Std Qtr	14.87
445082	4/5/2017 - 7/5/2017	mR/Std Qtr	15.24
452113	7/5/2017 - 10/4/2017	mR/Std Qtr	13.72

Sample Point 8 [INDICATOR - ESE @ 0.6 miles]

TLD RING TLD_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
437189	1/4/2017 - 4/5/2017	mR/Std Qtr	15.78
445087	4/5/2017 - 7/5/2017	mR/Std Qtr	14.19
452118	7/5/2017 - 10/4/2017	mR/Std Qtr	12.81
464500	10/4/2017 - 1/10/2018	mR/Std Qtr	19.46

Sample Point 9 [INDICATOR - SE @ 2.2 miles]

TLD RING TLD_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
437190	1/4/2017 - 4/5/2017	mR/Std Qtr	13.19
445088	4/5/2017 - 7/5/2017	mR/Std Qtr	12.20

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

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

Sample Point 9 [INDICATOR - SE @ 2.2 miles]

TLD RING TLD_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
452119	7/5/2017 - 10/4/2017	mR/Std Qtr	11.41
464501	10/4/2017 - 1/10/2018	mR/Std Qtr	15.88

Sample Point 10 [INDICATOR - SSE @ 2.2 miles]

TLD RING TLD_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
437152	1/4/2017 - 4/5/2017	mR/Std Qtr	13.21
445050	4/5/2017 - 7/5/2017	mR/Std Qtr	11.30
452081	7/5/2017 - 10/4/2017	mR/Std Qtr	10.68
464463	10/4/2017 - 1/10/2018	mR/Std Qtr	18.21

Sample Point 11 [INDICATOR - S @ 0.6 miles]

TLD RING TLD_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
437153	1/4/2017 - 4/5/2017	mR/Std Qtr	12.35
445051	4/5/2017 - 7/5/2017	mR/Std Qtr	13.40
452082	7/5/2017 - 10/4/2017	mR/Std Qtr	14.71
464464	10/4/2017 - 1/10/2018	mR/Std Qtr	17.50

Sample Point 12 [INDICATOR - SSW @ 0.9 miles]

TLD RING TLD_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
437154	1/4/2017 - 4/5/2017	mR/Std Qtr	12.21
445052	4/5/2017 - 7/5/2017	mR/Std Qtr	11.99
452083	7/5/2017 - 10/4/2017	mR/Std Qtr	9.67
464465	10/4/2017 - 1/10/2018	mR/Std Qtr	15.10

Sample Point 13 [INDICATOR - WSW @ 0.7 miles]

TLD RING TLD_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
437155	1/4/2017 - 4/5/2017	mR/Std Qtr	12.96
445053	4/5/2017 - 7/5/2017	mR/Std Qtr	12.26
452084	7/5/2017 - 10/4/2017	mR/Std Qtr	12.98
464466	10/4/2017 - 1/10/2018	mR/Std Qtr	17.29

Sample Point 14 [INDICATOR - W @ 1.5 miles]

TLD RING TLD_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
437156	1/4/2017 - 4/5/2017	mR/Std Qtr	17.15
445054	4/5/2017 - 7/5/2017	mR/Std Qtr	14.13
452085	7/5/2017 - 10/4/2017	mR/Std Qtr	14.41



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

Sample Point 14 [INDICATOR - W @ 1.5 miles]

TLD RING TLD_INNER

Sample ID:	464467	Sample Dates:	10/4/2017 - 1/10/2018	Nuclide	Activity
				mR/Std Qtr	19.93

Sample Point 15 [INDICATOR - W @ 2 miles]

TLD RING TLD_INNER

Sample ID:	437157	Sample Dates:	1/4/2017 - 4/5/2017	Nuclide	Activity
				mR/Std Qtr	16.44

Sample ID:	445055	Sample Dates:	4/5/2017 - 7/5/2017	Nuclide	Activity
				mR/Std Qtr	12.19

Sample ID:	452086	Sample Dates:	7/5/2017 - 10/4/2017	Nuclide	Activity
				mR/Std Qtr	10.22

Sample ID:	464468	Sample Dates:	10/4/2017 - 1/10/2018	Nuclide	Activity
				mR/Std Qtr	17.51

Sample Point 19 [INDICATOR - NNE @ 5 miles]

TLD RING TLD_OUTER

Sample ID:	437158	Sample Dates:	1/4/2017 - 4/5/2017	Nuclide	Activity
				mR/Std Qtr	14.28

Sample ID:	445056	Sample Dates:	4/5/2017 - 7/5/2017	Nuclide	Activity
				mR/Std Qtr	12.42

Sample ID:	452087	Sample Dates:	7/5/2017 - 10/4/2017	Nuclide	Activity
				mR/Std Qtr	13.01

Sample ID:	464469	Sample Dates:	10/4/2017 - 1/10/2018	Nuclide	Activity
				mR/Std Qtr	17.09

Sample Point 20 [INDICATOR - NE @ 4.5 miles]

TLD RING TLD_OUTER

Sample ID:	437160	Sample Dates:	1/4/2017 - 4/5/2017	Nuclide	Activity
				mR/Std Qtr	17.30

Sample ID:	445058	Sample Dates:	4/5/2017 - 7/5/2017	Nuclide	Activity
				mR/Std Qtr	15.68

Sample ID:	452089	Sample Dates:	7/5/2017 - 10/4/2017	Nuclide	Activity
				mR/Std Qtr	15.59

Sample ID:	464471	Sample Dates:	10/4/2017 - 1/10/2018	Nuclide	Activity
				mR/Std Qtr	20.01

Sample Point 21 [INDICATOR - ENE @ 4.8 miles]

TLD RING TLD_OUTER

Sample ID:	437161	Sample Dates:	1/4/2017 - 4/5/2017	Nuclide	Activity
				mR/Std Qtr	15.97

Sample ID:	445059	Sample Dates:	4/5/2017 - 7/5/2017	Nuclide	Activity
				mR/Std Qtr	13.21

Sample ID:	452090	Sample Dates:	7/5/2017 - 10/4/2017	Nuclide	Activity
				mR/Std Qtr	12.23

Sample ID:	464472	Sample Dates:	10/4/2017 - 1/10/2018	Nuclide	Activity
				mR/Std Qtr	15.91

Sample Point 22 [INDICATOR - E @ 4.3 miles]

TLD RING TLD_OUTER

Sample ID:	437162	Sample Dates:	1/4/2017 - 4/5/2017	Nuclide	Activity
				mR/Std Qtr	13.88

Sample ID:	445060	Sample Dates:	4/5/2017 - 7/5/2017	Nuclide	Activity
				mR/Std Qtr	11.50

Sample ID:	452091	Sample Dates:	7/5/2017 - 10/4/2017	Nuclide	Activity
				mR/Std Qtr	11.44

Sample ID:	464473	Sample Dates:	10/4/2017 - 1/10/2018	Nuclide	Activity
				mR/Std Qtr	14.29

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

Sample Point 23 [INDICATOR - ESE @ 4.8 miles]

TLD RING TLD_OUTER

Sample ID:	Sample Dates:	Nuclide	Activity
437163	1/4/2017 - 4/5/2017	mR/Std Qtr	14.62
445061	4/5/2017 - 7/5/2017	mR/Std Qtr	14.26
452092	7/5/2017 - 10/4/2017	mR/Std Qtr	13.04
464474	10/4/2017 - 1/10/2018	mR/Std Qtr	16.07

Sample Point 24 [INDICATOR - SE @ 4 miles]

TLD RING TLD_OUTER

Sample ID:	Sample Dates:	Nuclide	Activity
437164	1/4/2017 - 4/5/2017	mR/Std Qtr	13.98
445062	4/5/2017 - 7/5/2017	mR/Std Qtr	12.54
452093	7/5/2017 - 10/4/2017	mR/Std Qtr	12.40
464475	10/4/2017 - 1/10/2018	mR/Std Qtr	18.03

Sample Point 25 [INDICATOR - SSE @ 4.7 miles]

TLD RING TLD_OUTER

Sample ID:	Sample Dates:	Nuclide	Activity
437165	1/4/2017 - 4/5/2017	mR/Std Qtr	15.88
445063	4/5/2017 - 7/5/2017	mR/Std Qtr	12.87
452094	7/5/2017 - 10/4/2017	mR/Std Qtr	12.62
464476	10/4/2017 - 1/10/2018	mR/Std Qtr	17.02

Sample Point 26 [INDICATOR - S @ 4.7 miles]

TLD RING TLD_OUTER

Sample ID:	Sample Dates:	Nuclide	Activity
437166	1/4/2017 - 4/5/2017	mR/Std Qtr	14.78
445064	4/5/2017 - 7/5/2017	mR/Std Qtr	13.10
452095	7/5/2017 - 10/4/2017	mR/Std Qtr	11.73
464477	10/4/2017 - 1/10/2018	mR/Std Qtr	15.37

Sample Point 27 [INDICATOR - SSW @ 4.8 miles]

TLD RING TLD_OUTER

Sample ID:	Sample Dates:	Nuclide	Activity
437167	1/4/2017 - 4/5/2017	mR/Std Qtr	14.07
445065	4/5/2017 - 7/5/2017	mR/Std Qtr	11.63
452096	7/5/2017 - 10/4/2017	mR/Std Qtr	10.62
464478	10/4/2017 - 1/10/2018	mR/Std Qtr	12.87

Sample Point 28 [INDICATOR - SW @ 4.8 miles]

TLD RING TLD_OUTER

Sample ID:	Sample Dates:	Nuclide	Activity
437168	1/4/2017 - 4/5/2017	mR/Std Qtr	11.53



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

Sample Point 28 [INDICATOR - SW @ 4.8 miles]

TLD RING TLD_OUTER

Sample ID:	Sample Dates:	Nuclide	Activity
445066	4/5/2017 - 7/5/2017	mR/Std Qtr	12.85
452097	7/5/2017 - 10/4/2017	mR/Std Qtr	12.03
464479	10/4/2017 - 1/10/2018	mR/Std Qtr	14.69

Sample Point 29 [INDICATOR - WSW @ 5.7 miles]

TLD RING TLD_OUTER

Sample ID:	Sample Dates:	Nuclide	Activity
437169	1/4/2017 - 4/5/2017	mR/Std Qtr	17.46
445067	4/5/2017 - 7/5/2017	mR/Std Qtr	15.47
452098	7/5/2017 - 10/4/2017	mR/Std Qtr	15.01
464480	10/4/2017 - 1/10/2018	mR/Std Qtr	17.42

Sample Point 30 [INDICATOR - W @ 5.6 miles]

TLD RING TLD_OUTER

Sample ID:	Sample Dates:	Nuclide	Activity
437171	1/4/2017 - 4/5/2017	mR/Std Qtr	11.70
445069	4/5/2017 - 7/5/2017	mR/Std Qtr	11.40
464482	10/4/2017 - 1/10/2018	mR/Std Qtr	12.89

Sample Point 31 [INDICATOR - WNW @ 4.7 miles]

TLD RING TLD_OUTER

Sample ID:	Sample Dates:	Nuclide	Activity
437172	1/4/2017 - 4/5/2017	mR/Std Qtr	11.94
445070	4/5/2017 - 7/5/2017	mR/Std Qtr	11.94
452101	7/5/2017 - 10/4/2017	mR/Std Qtr	10.81
464483	10/4/2017 - 1/10/2018	mR/Std Qtr	13.44

Sample Point 32 [INDICATOR - NNW @ 6.4 miles]

TLD RING TLD_SPEC

Sample ID:	Sample Dates:	Nuclide	Activity
437173	1/4/2017 - 4/5/2017	mR/Std Qtr	15.28
445071	4/5/2017 - 7/5/2017	mR/Std Qtr	14.69
452102	7/5/2017 - 10/4/2017	mR/Std Qtr	14.02
464484	10/4/2017 - 1/10/2018	mR/Std Qtr	17.06

Sample Point 33 [INDICATOR - NNW @ 4.5 miles]

TLD RING TLD_OUTER

Sample ID:	Sample Dates:	Nuclide	Activity
437174	1/4/2017 - 4/5/2017	mR/Std Qtr	12.01
445072	4/5/2017 - 7/5/2017	mR/Std Qtr	12.37
452103	7/5/2017 - 10/4/2017	mR/Std Qtr	11.70

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

Sample Point 48 [INDICATOR - N @ 4.5 miles]

TLD RING TLD_OUTER

Sample ID:	Sample Dates:	Nuclide	Activity
437176	1/4/2017 - 4/5/2017	mR/Std Qtr	16.63
445074	4/5/2017 - 7/5/2017	mR/Std Qtr	14.72
452105	7/5/2017 - 10/4/2017	mR/Std Qtr	15.06
464487	10/4/2017 - 1/10/2018	mR/Std Qtr	18.06

Sample Point 49 [INDICATOR - NE @ 2.5 miles]

TLD RING TLD_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
437177	1/4/2017 - 4/5/2017	mR/Std Qtr	16.30
445075	4/5/2017 - 7/5/2017	mR/Std Qtr	15.30
452106	7/5/2017 - 10/4/2017	mR/Std Qtr	15.80
464488	10/4/2017 - 1/10/2018	mR/Std Qtr	22.54

Sample Point 50 [INDICATOR - ESE @ 2.6 miles]

TLD RING TLD_SPEC

Sample ID:	Sample Dates:	Nuclide	Activity
437179	1/4/2017 - 4/5/2017	mR/Std Qtr	12.12
445077	4/5/2017 - 7/5/2017	mR/Std Qtr	12.43
452108	7/5/2017 - 10/4/2017	mR/Std Qtr	12.16
464490	10/4/2017 - 1/10/2018	mR/Std Qtr	14.65

Sample Point 53 [INDICATOR - NW @ 5.8 miles]

TLD RING TLD_OUTER

Sample ID:	Sample Dates:	Nuclide	Activity
445078	4/5/2017 - 7/5/2017	mR/Std Qtr	11.22
452109	7/5/2017 - 10/4/2017	mR/Std Qtr	11.28
464491	10/4/2017 - 1/10/2018	mR/Std Qtr	14.26

Sample Point 56 [INDICATOR - WSW @ 3 miles]

TLD RING TLD_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
437181	1/4/2017 - 4/5/2017	mR/Std Qtr	15.87
445079	4/5/2017 - 7/5/2017	mR/Std Qtr	12.02
452110	7/5/2017 - 10/4/2017	mR/Std Qtr	12.89
464492	10/4/2017 - 1/10/2018	mR/Std Qtr	16.11

Sample Point 63 [INDICATOR - SW @ 0.6 miles]

TLD RING TLD_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
437183	1/4/2017 - 4/5/2017	mR/Std Qtr	17.25
445081	4/5/2017 - 7/5/2017	mR/Std Qtr	15.49



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

Sample Point 63 [INDICATOR - SW @ 0.6 miles]

TLD RING TLD_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
452112	7/5/2017 - 10/4/2017	mR/Std Qtr	16.03
464494	10/4/2017 - 1/10/2018	mR/Std Qtr	19.64

Sample Point 93 [INDICATOR - WNW @ 2.2 miles]

TLD RING TLD_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
437191	1/4/2017 - 4/5/2017	mR/Std Qtr	14.03
445089	4/5/2017 - 7/5/2017	mR/Std Qtr	15.07
452120	7/5/2017 - 10/4/2017	mR/Std Qtr	13.85
464502	10/4/2017 - 1/10/2018	mR/Std Qtr	16.80

Sample Point 94 [INDICATOR - NW @ 2 miles]

TLD RING TLD_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
437192	1/4/2017 - 4/5/2017	mR/Std Qtr	18.64
445090	4/5/2017 - 7/5/2017	mR/Std Qtr	15.58
452121	7/5/2017 - 10/4/2017	mR/Std Qtr	16.16
464503	10/4/2017 - 1/10/2018	mR/Std Qtr	21.33

Sample Point 95 [INDICATOR - NNW @ 2 miles]

TLD RING TLD_INNER

Sample ID:	Sample Dates:	Nuclide	Activity
437193	1/4/2017 - 4/5/2017	mR/Std Qtr	16.38
445091	4/5/2017 - 7/5/2017	mR/Std Qtr	13.27
452122	7/5/2017 - 10/4/2017	mR/Std Qtr	15.14

Sample Point 98 [INDICATOR - E @ 5.9 miles]

TLD RING TLD_SPEC

Sample ID:	Sample Dates:	Nuclide	Activity
437194	1/4/2017 - 4/5/2017	mR/Std Qtr	18.29
445092	4/5/2017 - 7/5/2017	mR/Std Qtr	13.64
452123	7/5/2017 - 10/4/2017	mR/Std Qtr	12.80
464505	10/4/2017 - 1/10/2018	mR/Std Qtr	16.58

Sample Point 99 [INDICATOR - NNE @ 5.47 miles]

TLD RING TLD_SPEC

Sample ID:	Sample Dates:	Nuclide	Activity
437195	1/4/2017 - 4/5/2017	mR/Std Qtr	14.32
445093	4/5/2017 - 7/5/2017	mR/Std Qtr	14.06
452124	7/5/2017 - 10/4/2017	mR/Std Qtr	12.34
464506	10/4/2017 - 1/10/2018	mR/Std Qtr	17.74



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

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

Sample Point 5 [CONTROL - NNW @ 12 miles]

Sample ID:	Sample Dates:	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
442308	5/8/2017 - 5/8/2017	MIXEDBLV	Mn-54	<1.78E+01	0.00E+00	1.78E+01
			Co-58	<1.88E+01	0.00E+00	1.88E+01
			Fe-59	<4.55E+01	0.00E+00	4.55E+01
			Co-60	<1.98E+01	0.00E+00	1.98E+01
			Zn-65	<4.51E+01	0.00E+00	4.51E+01
			Zr-95	<2.85E+01	0.00E+00	2.85E+01
			Nb-95	<2.45E+01	0.00E+00	2.45E+01
			I-131	<1.98E+01	0.00E+00	1.98E+01
			Cs-134	<2.36E+01	0.00E+00	2.36E+01
			Cs-137	<1.47E+01	0.00E+00	1.47E+01
			BaLa-140	<3.43E+01	0.00E+00	3.43E+01
			Be-7	6.52E+02	2.02E+02	2.35E+02
			K-40	3.35E+03	5.90E+02	3.20E+02
445330	6/5/2017 - 6/5/2017	MIXEDBLV	Mn-54	<1.97E+01	0.00E+00	1.97E+01
			Co-58	<2.16E+01	0.00E+00	2.16E+01
			Fe-59	<4.24E+01	0.00E+00	4.24E+01
			Co-60	<2.37E+01	0.00E+00	2.37E+01
			Zn-65	<4.73E+01	0.00E+00	4.73E+01
			Zr-95	<4.04E+01	0.00E+00	4.04E+01
			Nb-95	<2.09E+01	0.00E+00	2.09E+01
			I-131	<2.22E+01	0.00E+00	2.22E+01
			Cs-134	<2.89E+01	0.00E+00	2.89E+01
			Cs-137	<2.35E+01	0.00E+00	2.35E+01
			BaLa-140	<2.57E+01	0.00E+00	2.57E+01
			Be-7	1.47E+03	2.74E+02	2.10E+02
			K-40	3.53E+03	5.85E+02	1.95E+02
447812	7/3/2017 - 7/3/2017	MIXEDBLV	Mn-54	<2.42E+01	0.00E+00	2.42E+01
			Co-58	<2.23E+01	0.00E+00	2.23E+01
			Fe-59	<3.59E+01	0.00E+00	3.59E+01
			Co-60	<2.26E+01	0.00E+00	2.26E+01
			Zn-65	<2.60E+01	0.00E+00	2.60E+01
			Zr-95	<2.89E+01	0.00E+00	2.89E+01
			Nb-95	<2.25E+01	0.00E+00	2.25E+01
			I-131	<1.88E+01	0.00E+00	1.88E+01
			Cs-134	<2.16E+01	0.00E+00	2.16E+01
			Cs-137	<1.94E+01	0.00E+00	1.94E+01
			BaLa-140	<2.41E+01	0.00E+00	2.41E+01
			Be-7	1.94E+03	3.15E+02	2.38E+02
			K-40	4.85E+03	6.98E+02	3.14E+02
450203	8/7/2017 - 8/7/2017	MIXEDBLV	Mn-54	<2.66E+01	0.00E+00	2.66E+01
			Co-58	<1.91E+01	0.00E+00	1.91E+01
			Fe-59	<5.46E+01	0.00E+00	5.46E+01
			Co-60	<2.51E+01	0.00E+00	2.51E+01
			Zn-65	<6.44E+01	0.00E+00	6.44E+01
			Zr-95	<5.19E+01	0.00E+00	5.19E+01
			Nb-95	<1.85E+01	0.00E+00	1.85E+01
			I-131	<3.20E+01	0.00E+00	3.20E+01
			Cs-134	<4.58E+01	0.00E+00	4.58E+01
			Cs-137	<2.58E+01	0.00E+00	2.58E+01
			BaLa-140	<4.34E+01	0.00E+00	4.34E+01
			Be-7	1.59E+03	3.45E+02	3.39E+02
			K-40	4.44E+03	7.75E+02	4.50E+02
452356	9/11/2017 - 9/11/2017	MIXEDBLV	Mn-54	<1.98E+01	0.00E+00	1.98E+01
			Co-58	<1.53E+01	0.00E+00	1.53E+01
			Fe-59	<3.26E+01	0.00E+00	3.26E+01
			Co-60	<2.66E+01	0.00E+00	2.66E+01
			Zn-65	<4.62E+01	0.00E+00	4.62E+01
			Zr-95	<2.99E+01	0.00E+00	2.99E+01
			Nb-95	<1.84E+01	0.00E+00	1.84E+01



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

Sample Point 5 [CONTROL - NNW @ 12 miles]

Sample ID:	Sample Dates:	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
452356	9/11/2017 - 9/11/2017		I-131	<1.67E+01	0.00E+00	1.67E+01
			Cs-134	<2.39E+01	0.00E+00	2.39E+01
			Cs-137	<2.00E+01	0.00E+00	2.00E+01
			BaLa-140	<2.53E+01	0.00E+00	2.53E+01
			Be-7	1.67E+03	2.97E+02	2.55E+02
			K-40	4.48E+03	6.55E+02	2.10E+02

Sample ID:	Sample Dates:	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
455071	10/10/2017 - 10/10/2017		Mn-54	<2.42E+01	0.00E+00	2.42E+01
			Co-58	<2.31E+01	0.00E+00	2.31E+01
			Fe-59	<5.28E+01	0.00E+00	5.28E+01
			Co-60	<2.43E+01	0.00E+00	2.43E+01
			Zn-65	<5.28E+01	0.00E+00	5.28E+01
			Zr-95	<3.14E+01	0.00E+00	3.14E+01
			Nb-95	<2.14E+01	0.00E+00	2.14E+01
			I-131	<1.97E+01	0.00E+00	1.97E+01
			Cs-134	<3.03E+01	0.00E+00	3.03E+01
			Cs-137	<2.24E+01	0.00E+00	2.24E+01
			BaLa-140	<2.53E+01	0.00E+00	2.53E+01
			Be-7	7.19E+02	2.38E+02	2.97E+02
			K-40	2.76E+03	5.61E+02	3.88E+02

Sample Point 12 [INDICATOR - SSW @ 0.9 miles]

Sample ID:	Sample Dates:	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
442307	5/8/2017 - 5/8/2017		Mn-54	<3.00E+01	0.00E+00	3.00E+01
			Co-58	<2.08E+01	0.00E+00	2.08E+01
			Fe-59	<5.45E+01	0.00E+00	5.45E+01
			Co-60	<2.78E+01	0.00E+00	2.78E+01
			Zn-65	<7.33E+01	0.00E+00	7.33E+01
			Zr-95	<3.88E+01	0.00E+00	3.88E+01
			Nb-95	<2.90E+01	0.00E+00	2.90E+01
			I-131	<2.04E+01	0.00E+00	2.04E+01
			Cs-134	<2.98E+01	0.00E+00	2.98E+01
			Cs-137	<2.69E+01	0.00E+00	2.69E+01
			BaLa-140	<4.05E+01	0.00E+00	4.05E+01
			Be-7	4.80E+02	1.99E+02	2.51E+02
			K-40	3.30E+03	6.63E+02	4.82E+02

Sample ID:	Sample Dates:	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
445329	6/5/2017 - 6/5/2017		Mn-54	<2.17E+01	0.00E+00	2.17E+01
			Co-58	<2.28E+01	0.00E+00	2.28E+01
			Fe-59	<3.95E+01	0.00E+00	3.95E+01
			Co-60	<2.96E+01	0.00E+00	2.96E+01
			Zn-65	<4.80E+01	0.00E+00	4.80E+01
			Zr-95	<4.69E+01	0.00E+00	4.69E+01
			Nb-95	<1.97E+01	0.00E+00	1.97E+01
			I-131	<2.18E+01	0.00E+00	2.18E+01
			Cs-134	<1.74E+01	0.00E+00	1.74E+01
			Cs-137	<1.83E+01	0.00E+00	1.83E+01
			BaLa-140	<3.39E+01	0.00E+00	3.39E+01
			Be-7	6.86E+02	2.10E+02	2.29E+02
			K-40	2.18E+03	4.95E+02	3.42E+02

Sample ID:	Sample Dates:	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
447811	7/3/2017 - 7/3/2017		Mn-54	<2.28E+01	0.00E+00	2.28E+01
			Co-58	<2.09E+01	0.00E+00	2.09E+01
			Fe-59	<4.26E+01	0.00E+00	4.26E+01
			Co-60	<1.76E+01	0.00E+00	1.76E+01
			Zn-65	<5.52E+01	0.00E+00	5.52E+01
			Zr-95	<4.44E+01	0.00E+00	4.44E+01
			Nb-95	<2.82E+01	0.00E+00	2.82E+01
			I-131	<2.62E+01	0.00E+00	2.62E+01
			Cs-134	<2.33E+01	0.00E+00	2.33E+01
			Cs-137	<2.77E+01	0.00E+00	2.77E+01
			BaLa-140	<2.88E+01	0.00E+00	2.88E+01
			Be-7	5.20E+02	3.70E+02	5.87E+02



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

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

Sample Point 12 [INDICATOR - SSW @ 0.9 miles]

Sample ID:	Sample Dates:	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
447811	7/3/2017 - 7/3/2017		K-40	2.73E+03	5.39E+02	3.60E+02
450202	8/7/2017 - 8/7/2017		Mn-54	<2.48E+01	0.00E+00	2.48E+01
			Co-58	<1.59E+01	0.00E+00	1.59E+01
			Fe-59	<5.10E+01	0.00E+00	5.10E+01
			Co-60	<5.88E+00	0.00E+00	5.88E+00
			Zn-65	<5.33E+01	0.00E+00	5.33E+01
			Zr-95	<4.83E+01	0.00E+00	4.83E+01
			Nb-95	<2.80E+01	0.00E+00	2.80E+01
			I-131	<2.15E+01	0.00E+00	2.15E+01
			Cs-134	<2.78E+01	0.00E+00	2.78E+01
			Cs-137	<3.15E+01	0.00E+00	3.15E+01
			BaLa-140	<7.84E+00	0.00E+00	7.84E+00
			Be-7	1.68E+03	3.17E+02	2.35E+02
			K-40	2.25E+03	5.11E+02	3.50E+02
452355	9/11/2017 - 9/11/2017		Mn-54	<2.54E+01	0.00E+00	2.54E+01
			Co-58	<2.21E+01	0.00E+00	2.21E+01
			Fe-59	<4.64E+01	0.00E+00	4.64E+01
			Co-60	<2.29E+01	0.00E+00	2.29E+01
			Zn-65	<5.16E+01	0.00E+00	5.16E+01
			Zr-95	<5.29E+01	0.00E+00	5.29E+01
			Nb-95	<2.45E+01	0.00E+00	2.45E+01
			I-131	<2.45E+01	0.00E+00	2.45E+01
			Cs-134	<3.44E+01	0.00E+00	3.44E+01
			Cs-137	<2.85E+01	0.00E+00	2.85E+01
			BaLa-140	<4.32E+01	0.00E+00	4.32E+01
			Be-7	2.25E+03	4.15E+02	3.50E+02
			K-40	2.17E+03	5.44E+02	4.30E+02
455070	10/9/2017 - 10/9/2017		Mn-54	<3.01E+01	0.00E+00	3.01E+01
			Co-58	<2.76E+01	0.00E+00	2.76E+01
			Fe-59	<5.24E+01	0.00E+00	5.24E+01
			Co-60	<2.70E+01	0.00E+00	2.70E+01
			Zn-65	<6.19E+01	0.00E+00	6.19E+01
			Zr-95	<5.02E+01	0.00E+00	5.02E+01
			Nb-95	<2.71E+01	0.00E+00	2.71E+01
			I-131	<2.83E+01	0.00E+00	2.83E+01
			Cs-134	<3.37E+01	0.00E+00	3.37E+01
			Cs-137	<2.51E+01	0.00E+00	2.51E+01
			BaLa-140	<9.63E+00	0.00E+00	9.63E+00
			Be-7	2.08E+03	3.98E+02	3.35E+02
			K-40	1.96E+03	5.32E+02	4.69E+02

Sample Point 63 [INDICATOR - SW @ 0.6 miles]

Sample ID:	Sample Dates:	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
442309	5/8/2017 - 5/8/2017		Mn-54	<1.26E+01	0.00E+00	1.26E+01
			Co-58	<9.48E+00	0.00E+00	9.48E+00
			Fe-59	<2.23E+01	0.00E+00	2.23E+01
			Co-60	<1.16E+01	0.00E+00	1.16E+01
			Zn-65	<2.34E+01	0.00E+00	2.34E+01
			Zr-95	<2.08E+01	0.00E+00	2.08E+01
			Nb-95	<1.16E+01	0.00E+00	1.16E+01
			I-131	<1.65E+01	0.00E+00	1.65E+01
			Cs-134	<1.40E+01	0.00E+00	1.40E+01
			Cs-137	<1.17E+01	0.00E+00	1.17E+01
			BaLa-140	<1.71E+01	0.00E+00	1.71E+01
			Be-7	5.13E+02	1.15E+02	1.37E+02
			K-40	3.48E+03	4.04E+02	1.39E+02
445331	6/5/2017 - 6/5/2017		Mn-54	<2.50E+01	0.00E+00	2.50E+01
			Co-58	<2.14E+01	0.00E+00	2.14E+01



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

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

Sample Point 63 [INDICATOR - SW @ 0.6 miles]

Sample ID:	Sample Dates:	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
445331	6/5/2017 - 6/5/2017	MIXEDBLV	Fe-59	<4.89E+01	0.00E+00	4.89E+01
			Co-60	<2.02E+01	0.00E+00	2.02E+01
			Zn-65	<5.45E+01	0.00E+00	5.45E+01
			Zr-95	<3.13E+01	0.00E+00	3.13E+01
			Nb-95	<2.17E+01	0.00E+00	2.17E+01
			I-131	<2.39E+01	0.00E+00	2.39E+01
			Cs-134	<2.16E+01	0.00E+00	2.16E+01
			Cs-137	<2.17E+01	0.00E+00	2.17E+01
			BaLa-140	<2.34E+01	0.00E+00	2.34E+01
			Be-7	6.96E+02	1.89E+02	1.83E+02
			K-40	2.09E+03	4.72E+02	3.63E+02
447813	7/3/2017 - 7/3/2017	MIXEDBLV	Mn-54	<1.90E+01	0.00E+00	1.90E+01
			Co-58	<3.18E+01	0.00E+00	3.18E+01
			Fe-59	<5.29E+01	0.00E+00	5.29E+01
			Co-60	<2.52E+01	0.00E+00	2.52E+01
			Zn-65	<4.81E+01	0.00E+00	4.81E+01
			Zr-95	<4.00E+01	0.00E+00	4.00E+01
			Nb-95	<2.48E+01	0.00E+00	2.48E+01
			I-131	<2.56E+01	0.00E+00	2.56E+01
			Cs-134	<3.26E+01	0.00E+00	3.26E+01
			Cs-137	<2.63E+01	0.00E+00	2.63E+01
			BaLa-140	<2.18E+01	0.00E+00	2.18E+01
			Be-7	6.41E+02	2.28E+02	2.88E+02
			K-40	2.70E+03	5.47E+02	3.13E+02
			450204	8/7/2017 - 8/7/2017	MIXEDBLV	Mn-54
Co-58	<2.30E+01	0.00E+00				2.30E+01
Fe-59	<4.66E+01	0.00E+00				4.66E+01
Co-60	<1.96E+01	0.00E+00				1.96E+01
Zn-65	<6.94E+01	0.00E+00				6.94E+01
Zr-95	<4.37E+01	0.00E+00				4.37E+01
Nb-95	<2.65E+01	0.00E+00				2.65E+01
I-131	<2.91E+01	0.00E+00				2.91E+01
Cs-134	<3.07E+01	0.00E+00				3.07E+01
Cs-137	<2.55E+01	0.00E+00				2.55E+01
BaLa-140	<2.61E+01	0.00E+00				2.61E+01
Be-7	1.36E+03	2.98E+02				2.86E+02
K-40	2.66E+03	5.64E+02				4.13E+02
452357	9/11/2017 - 9/11/2017	MIXEDBLV				Mn-54
			Co-58	<2.90E+01	0.00E+00	2.90E+01
			Fe-59	<3.07E+01	0.00E+00	3.07E+01
			Co-60	<4.23E+01	0.00E+00	4.23E+01
			Zn-65	<6.98E+01	0.00E+00	6.98E+01
			Zr-95	<5.75E+01	0.00E+00	5.75E+01
			Nb-95	<3.22E+01	0.00E+00	3.22E+01
			I-131	<2.97E+01	0.00E+00	2.97E+01
			Cs-134	<3.09E+01	0.00E+00	3.09E+01
			Cs-137	<3.46E+01	0.00E+00	3.46E+01
			BaLa-140	<9.60E+00	0.00E+00	9.60E+00
			Be-7	2.65E+03	4.54E+02	3.26E+02
			K-40	3.32E+03	7.00E+02	4.89E+02
			455072	10/9/2017 - 10/9/2017	MIXEDBLV	Mn-54
Co-58	<2.96E+01	0.00E+00				2.96E+01
Fe-59	<6.50E+01	0.00E+00				6.50E+01
Co-60	<2.63E+01	0.00E+00				2.63E+01
Zn-65	<6.04E+01	0.00E+00				6.04E+01
Zr-95	<5.55E+01	0.00E+00				5.55E+01
Nb-95	<2.64E+01	0.00E+00				2.64E+01
I-131	<3.09E+01	0.00E+00				3.09E+01
Cs-134	<3.93E+01	0.00E+00				3.93E+01



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

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

Sample Point 63 [INDICATOR - SW @ 0.6 miles]

Sample ID:	Sample Dates:	MIXEDBLV	Nuclide	Activity	2 Sigma Error	MDA
455072	10/9/2017 - 10/9/2017		Cs-137	<2.59E+01	0.00E+00	2.59E+01
			BaLa-140	<2.55E+01	0.00E+00	2.55E+01
			Be-7	1.62E+03	3.38E+02	2.90E+02
			K-40	2.90E+03	6.02E+02	3.12E+02



APPENDIX F

**ERRATA TO
PREVIOUS REPORTS**

APPENDIX F

ERRATA TO THE 2017 HNP AREOR

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