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PNP 2017-029

May 10, 2017

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

Subject: 2016 Radiological Environmental Operating Report

Palisades Nuclear Plant
Docket 50-255
License No. DPR-20

Dear Sir or Madam:

Entergy Nuclear Operations, Inc. is submitting the enclosed Radiological Environmental Operating Report for the Palisades Nuclear Plant. This report was prepared in accordance with the requirements of Technical Specification 5.6.2. The period covered by the enclosed report is January 1, 2016, through December 31, 2016.

This letter contains no new commitments and no revision to existing commitments.

Sincerely,

JAH/bed

Enclosure 1: Annual Radiological Environmental Operating Report January 1, 2016, Through December 31, 2016

CC Administrator, Region III, USNRC
Project Manager, Palisades, USNRC
Resident Inspector, Palisades, USNRC

ANNUAL RADIOLOGICAL ENVIRONMENTAL OPERATING REPORT
JANUARY 1, 2016THROUGH DECEMBER 31, 2016

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ANNUAL RADIOLOGICAL ENVIRONMENTAL OPERATING REPORT
JANUARY 1, 2016 THROUGH DECEMBER 31, 2016

I. INTRODUCTION

The Annual Radiological Environmental Operating Report provides a summary and data interpretation of the Palisades Nuclear Plant (PNP) Radiological Environmental Monitoring Program as conducted during the 2016 reporting period. This report was prepared in accordance with the requirements of 10 CFR 50, Appendix I, Sections IV.B.2, IV.B.3, IV.C, and Technical Specification 5.6.2.

II. NON-ROUTINE REPORTS

No reportable events occurred during this reporting period.

III. DISCUSSION AND INTERPRETATION OF RESULTS

A. Air Samples

There were 312 air samples collected and analyzed for gross beta and I-131. Air iodine/particulate samples are collected weekly from six air-sampling locations. Air is metered into the sampling unit at an approximate one cubic foot per minute flow rate through a 47-mm air filter (air particulate) and an air iodine cartridge. Both filters are in-line with each other and housed within the same filter holder. Weekly samples were sent to Teledyne Brown Engineering Environmental Services for analysis.

Analysis of the airborne particulate sample data, between the five near-site indicator locations and the control location, demonstrated no statistical difference. The average concentration of gross beta activity for both indicator and control locations was 2.16 pCi/m^3. All I-131 activity results, for both indicator and control locations, were below the MDC levels.

Five out of the seven sample collection anomalies involved air samples. All sample collection anomalies are described in Section VI Table A. Two of the anomalies involved an electrical trip at the air sample station. Two of the anomalies involved a seized pump. The other sample anomaly involved a delay in shipping. Three of these five sample collection anomalies resulted in a minimum detectable concentration (MDC) greater than the required lower limit of detection (LLD).

One of the control samples collected in 2016 did not contain sufficient volume for the I-131 MDC to be achieved. As such, a control sample from Donald Cook Nuclear Power Plant was reviewed for this data point. This is elaborated upon in Section IV, Table A.

B. Lake Water (Surface Water)

Palisades' Lake In (Indicator) and Ludington (Control) lake water samples were collected daily and combined into monthly composite samples. One gallon of both Palisades' Lake-In and Ludington Lake-in composites was sent to Teledyne Brown Engineering, Inc. for monthly analysis for gross beta, gamma spectroscopy, and tritium. No treatment of the water samples with preservative was required. Of the 12 indicator samples, seven had detectable activity with an average concentration of 2.65 pCi/L gross beta. Of the 12 control samples analyzed, three had detectable activity with an average concentration of 2.67 pCi/L gross beta. No tritium or gamma emitters were detected above the MDC for indicator or control samples. None of the gross beta activity detected was greater than two standard deviations above the MDC.

No statistical difference was found between the indicator and control location samples and no PNP Offsite Dose Calculation Manual (ODCM) reporting limits were exceeded.

C. Drinking Water

Palisades' Domestic Water and South Haven Municipal Raw Water (Indicators) and Ludington (Control) water samples were collected daily and combined into monthly composite samples. One gallon of each composite was sent to Teledyne Brown Engineering, Inc. for gross beta, gamma emitters, and tritium analysis. No treatment of the water samples with preservative was required. No tritium or gamma emitters were detected in these samples.

Gross beta emitters were detected in 8 of the 12 Palisades domestic water indicator samples. The average gross beta concentration in these samples was 2.76 pCi/L.

Gross beta emitters were detected in 6 of the 12 South Haven Raw water indicator samples. The average gross beta concentration in these samples was 2.74 pCi/L.

Gross beta emitters were detected in 3 of the 12 Ludington control samples. The average gross beta concentration in these samples was 2.67 pCi/L.

None of the gross beta activity detected in drinking water samples was greater than 2 sigma above the MDC. No statistical difference was found between the indicator and control location samples and no PNP ODCM, reporting limits were exceeded.

D. Milk

There are no dairy farms meeting the sampling criteria of being within eight kilometers (km) of PNP. Because of a lack of dairy farms, PNP analyzes broad leaf vegetation samples as a substitute for milk sampling.

E. Thermoluminescent Dosimeters (TLDs) - Gamma Dose

Environmental gamma doses are measured quarterly by placement of TLDs at designated locations. Sensitivity for the TLDs is 3 mrem, with a linear response of 1 mrem to 50 rem.

The PNP direct radiation monitoring program consists of TLDs placed at 23 locations. There are ten inner ring TLDs, one on-site TLD, nine outer ring TLDs, and three control TLDs located in Grand Rapids, Kalamazoo and Dowagiac, MI.

91 of 92 environmental TLDs were collected and analyzed during 2016. TLD #18 was identified to be missing in April 2016. A description of this event is in the anomaly table in Section VI, Attachment A. The on-site TLD is included with the inner ring (site boundary) TLDs for evaluating any dose effect that could be attributed to PNP operations.

The TLD data evaluations were performed by comparing the inner ring TLDs and the outer ring TLDs against the control TLDs.

The quarterly average gamma readings in mrem were:

Inner Ring	9.6
Outer Ring	11.3
Control	11.2

The highest average reading was observed at outer ring location number 2 with an average value of 13.9 mrem and a maximum reading of 14.6 mrem. This location is historically the highest among the outer ring TLD's, but is not attributed to plant operations, since the inner ring in the same sector is relatively low (9.5 mrem). This location is on a dirt road by an animal farm which contributes to the higher natural background at this location due to radon daughter products.

The average control TLD dose was 11.2 mrem. The standard deviations for the control TLD's was 0.9 mrem. Only one TLD location was greater than 2 times the standard deviation of the control TLD's. This location was location number 2 which, as mentioned above, is historically higher due to natural background in the area. This demonstrates that there was no direct radiation effect due to PNP operations.

Note: It should be noted that the critical aspect of environmental TLD monitoring is the comparison between Indicator and Control TLD dose in the same monitoring period – more so than the comparison from one year to the next.

All TLD's were analyzed by Environmental Dosimetry Company. The Quality Assurance status report for Environmental Dosimetry Company is provided in Attachment G.

F. Crops

Two principal area crops, apples and blueberries, were collected in 2016. Approximately 1 kg of sample is placed in a plastic bag for shipment to the vendor for analysis. No special treatment of the samples with a preservative is necessary.

Apples were grown locally, and collected in the vicinity of indicator station 4-JS (3.5 miles SE). There was no activity detected in the blueberry or apple samples with the exception of naturally occurring K-40 which was detected in the apple sample at a concentration of 1.09E+03 pCi/kg and in the blueberry samples at a concentration of 9.68 E+02 pCi/kg. These values are typical of what is observed and is indicative of natural sources.

G. Sediment

Sediment samples are collected semi-annually from a location ½ mile north and at the southern site boundary of the plant along the waterline. No treatment of the samples with a preservative is necessary prior to shipment to the vendor for analysis. A total of four sediment samples were collected and analyzed in 2016.

The only gamma emitters detected in the sediment samples collected in 2016 were naturally occurring radionuclides. Naturally occurring K-40 and Th-228 were detected in all 4 samples and there was no statistical difference between sample collected north of south of the Palisades. The average concentration of K-40 and Th-228 detected was 4.60E3 pCi/kg and 1.65E2 pCi/kg respectively.

H. Fish

Fish samples are collected semi-annually. Samples consist of species of commercially and/or recreational importance near the plant discharge area. Control samples are obtained in an area not influenced by plant discharge. At least one common species is typically collected from the indicator and control locations during sampling. This was not the case during fall sampling as described in Section VI Attachment A. Each one-liter quantity of fish sample is frozen for preservation for shipment to Teledyne Brown Engineering, Inc. for analysis.

Six fish samples were collected in the vicinity of PNP and seven control samples were collected from Ludington Pumped Storage Facility. The only activity detected in the fish samples was from naturally occurring K-40, a nuclide which is naturally occurring in nature and typically not detected in Palisades' effluents. The average K-40 concentration in control and indicator samples is 3.13E3 pCi/kg and 3.09E3 pCi/kg respectively.

I. Broad Leaf Vegetation

PNP derived an acceptance criterion for broadleaf sample Cs-137 results for the sample locations historically used based upon background sampling. The acceptance value has been determined to be 146 pCi/kg, which is the background average plus one standard deviation. This means that any sample result above this would be warrant additional evaluation pertaining to the source of activity. None of the broadleaf samples collected from the sample locations historically used had detectable Cs-137 above 146 pCi/kg.

An additional sample location, "location 3", was implemented in the latter of 2016 for broadleaf sampling. The sample location is within 20 meters of sample location 1 in the SSE quadrant of Palisades' property; in an area with less tree cover than location 1. The background values of Cs-137 in BV-3 are larger than the background levels in location 1 but are still well within what would be expected based upon natural variance such as soil type, vegetation type, and the levels of Cs-137 in the biosphere from historical nuclear testing. Nevertheless the gaseous particulate effluent data for 2016 was reviewed and other particulates would be expected to be observed before Cs-137 if deposition from PNP were a cause of environmental contamination.

There is documented evidence that Cs-137 exists in the biosphere from activities 25 to 50 plus years ago. Cs-137 is readily transported through the environment due to its chemical properties. When in solution (during

rainfall events) it can be efficiently taken up by plants. The evidence presented documents that there is a fairly wide ranging span of Cs-137 concentration in the environment that is far enough away from the site to not be associated with deposits from plant effluents.

In support of this conclusion is the fact that Location 1 is in a heavily wooded area where sample media would typically attain activity from the sediment rather than gaseous effluents. Location 2 and control are in areas that are more open and next to roads which allows a better opportunity to receive activity from gaseous releases. I-131 was released during the course of the year at a consistent quantity and would have been detected in the foliage if the Cs-137 was from plant gaseous effluents.

2016 sample results were reviewed and assessed based on the above criterion. Location 1, located in a wooded area, had Cs-137 identified in three samples collected in 2016 with an average of 62.1 pCi/Kg. Location 2 and the control location had zero samples indicate Cs-137 above the MDC. Location 3, located near next to location 1 in an area with less tree coverage had three samples indicate Cs-137 at an average of 162 pCi/Kg.

J. Non-Routine Samples

Seven monthly samples were taken from the closest commercial well water at the seasonal Palisades Park housing subdivision south of PNP. Another seven samples were taken from the community well at the seasonal Palisades Park facility also. Wells are not turned on before April 15th and are secured by October 15th of each year. These samples were sent to Teledyne Brown Engineering, Inc. for analysis and analyzed for gross beta, gamma spectroscopy, and tritium. Four of the commercial well samples contained detectable beta activity and none of the community well samples contained detectable beta activity. Of the four commercial wells that detected beta activity, none of the activity was detected in a concentration greater than two standard deviations above the mean. None of the commercial or community well samples contained a detectable tritium concentration.

All of the activity detected in Palisades Park housing water samples is attributed to naturally occurring activity.

K. Gaseous and Liquid Radwaste Effluent Composite Samples

Gaseous and liquid radwaste effluent composite samples were collected and analyzed on site and by Teledyne Brown Engineering, Inc. No special sample treatment with a preservative is required prior to laboratory

analysis. The liquid effluent composite sample is produced from samples collected from each batch release. The gaseous radwaste effluent weekly composite sample results are based on analyzing weekly stack gas particulate and iodine filters.

Although not a direct reporting component in the PNP Annual Radiological Environmental Operating Report, results of the gaseous and liquid monthly radwaste effluent composite samples in addition to normal release data are evaluated against overall environmental trending data. This evaluation assists in determining isotopic dispersion and deposition patterns within the surrounding environment of PNP.

IV. ASSESSMENT OF PALISADES OPERATION ENVIRONMENTAL IMPACT

In reviewing the 2016 PNP radiological environmental monitoring data, and comparing it to previous operational and pre-operational data, all trending parameters continue to indicate that the operation of PNP has minimal environmental impact. Most isotopic activity is at environmental background levels. Evidence of an overall environmental isotopic buildup attributable to plant effluents remains negligible as well. The positive Cs-137 results detected in crops, broadleaf, and fish samples are attributed to atmospheric weapons testing and Chernobyl accident source term.

V. TABLES

Table 10.4-1 Sampling and Analysis Summary

Medium	Collection Description	Location	Number of Samples Collected	Type of Analysis	Frequency of Analysis
Air	Continuous at ~1 cfm	Stations 4, 5, 8, 9, 10, and 19	312	Gross Beta, I-131	Weekly
Lake Water	1 gallon composite	Lake Intake	12	Gross Beta, Tritium	Monthly
Lake Water - Control	1 gallon composite	Ludington Lake In	12	Gross Beta, Tritium	Monthly
Drinking Water	1 gallon composite	South Haven Municipal (Domestic Water) and South Haven Raw	24	Gross Beta, Tritium	Monthly
TLD	Continuous	Inner Ring, Outer Ring, Controls	91	Gamma dose	Quarterly
Food Products	1 kg grab	4-JS, 3.5 miles SE	2	Gamma isotopic and I-131	At time of harvest
Sediment	1 L grab	Discharge 1/2 mile north and south of plant near site boundary	4	Gamma isotopic	Semiannually
Fish	1 L grab	Discharge and Control	7 Control, 6 indicator	Gamma isotopic	Semiannually
Broad leaf Vegetation	1 kg grab	Plant boundary – S and SSE sectors, Control 9 to 18 miles NNE of plant	18	Gamma isotopic and I-131	Monthly during growing season

a. Only sediment samples 1/2 mile north of plant are required

Table 10.4-2
Sample Data Summary

Name of Facility	Palisades Nuclear Plant	Docket No	50-255
Location of Facility (County, State)	Van Buren, Michigan	Reporting Period	Jan 1, 2016 to Dec 31, 2016

Medium or Pathway Sampled (Unit of Measure)	Type/Total Number of Analyses Performed	Lower Limit of Detection	All Indicator Locations Mean (f, b) Range (b)	Greatest Mean Name Distance & Direction	Greatest Mean (f, b) Range (b)	Control Locations Mean (f, b) Range (b)	Number of Reportable Occurrences
Air (pCi/m^3)	I-131 / 312	0.07	< MDC (0/260)	NA	< MDC (0/52)	< MDC (0/52)	0
	Gross beta / 312	0.01	0.022 (260/260) 0.012-0.088	8SP 0.595 mi NE	0.023 (52/52) 0.013-0.042	0.022 (52/52) 0.014-0.040	0
Lake Water (pCi/L)c	Gross beta / 24	4.0	2.65 (7/12) 2.09-3.41	Palisades LKIN	3.41 (1/12) NA	2.67 (3/12) 2.24-2.93	0
	Tritium / 24	2000	< MDC (0/12)	NA	< MDC (0/12)	< MDC (0/12)	0
Drinking Water (pCi/L)c	Gross beta / 36	4.0	2.75 (14/24) 2.15-3.50	Palisades Domestic	2.76 (8/24) 2.15-3.17	2.67 (3/12) 2.24-2.93	0
	Tritium / 36	2000	< MDC (0/24)	NA	< MDC (0/12)	< MDC (0/12)	0
Inner Ring TLD (Gamma mR)d	Gamma Dose / 55	Sensitivity of 3 mR per vendor	9.59 (43/43) 8.17-10.90	Station # 1 Palisades	10.74 (4/4) 10.32-10.90	11.21 (12/12) 9.61-12.78	0
Outer Ring TLD (Gamma mR)d	Gamma Dose / 48	Sensitivity of 3 mR per vendor	11.27 (36/36) 9.36 – 14.61	Station # 2 5.6 miles S	13.90 (4/4) 13.05 -14.61	11.21 (12/12) 9.61-12.78	0

Table 10.4-2
Sample Data Summary

Medium or Pathway Sampled (Unit of Measure)	Type/Total Number of Analyses Performed	Lower Limit of Detection	All Indicator Locations Mean (f, b) Range (b)	Greatest Mean Name Distance & Direction	Greatest Mean (f, b) Range (b)	Control Locations Mean (f, b) Range (b)	Number of Reportable Occurrences
Food Crops (pCi/kg wet)	I-131 / 2	60	< MDC (0/2)	NA	< MDC (0/2)	Control sample not required	0
	Cs-134 / 2	60	< MDC (0/2)	NA	< MDC (0/2)	Control sample not required	0
	Cs-137 / 2	80	< MDC (0/2)	NA	< MDC (0/2)	Control sample not required	0
Sediment (pCi/kg dry)	Cs-134 / 4	150	< MDC (0/4)	NA	< MDC (0/4)	Control sample not required	0
	Cs-137 / 4	180	< MDC (0/4)	NA	< MDC (0/4)	Control sample not required	0
Fish (pCi/kg wet)	Mn-54 / 13	130	< MDC (0/6)	NA	< MDC (0/6)	< MDC (0/7)	0
	Fe-59 / 13	260	< MDC (0/6)	NA	< MDC (0/6)	< MDC (0/7)	0
	Co-58 / 13	130	< MDC (0/6)	NA	< MDC (0/6)	< MDC (0/7)	0
	Co-60 / 13	130	< MDC (0/6)	NA	< MDC (0/6)	< MDC (0/7)	0
	Zn-65 / 13	260	< MDC (0/6)	NA	< MDC (0/6)	< MDC (0/7)	0
	Cs-134 / 13	130	< MDC (0/6)	NA	< MDC (0/6)	< MDC (0/7)	0
	Cs-137 / 13	150	<MDC (0/6)	NA	<MDC (0/6)	< MDC (0/7)	0
Broad Leaf Vegetation (pCi/kg wet)	I-131 / 18	60	< MDC (0/13)	NA	< MDC (0/8)	< MDC (0/5)	0
	Cs-134 / 18	60	< MDC (0/13)	NA	< MDC (0/8)	< MDC (0/5)	0
	Cs-137 / 18	80	115 (6/13) 44.9-231	Location 3 0.5 miles SE	168 (3/3) 124-231	< MDC (0/5)	0

a Nominal Lower Limit of Detection (LLD) as defined in table notation c of ODCM Table 1-9.
b Mean and range based on detectable measurements only.
c The Lake Water and the Drinking Water totals in column 2 both account for the use of the same samples from Ludington Control.
d The Inner and Outer TLD totals in column 2 account for the use of the same control TLDs in both areas.
f Fraction of detectable measurements at specific locations is indicated in parenthesis.

Table 10.4-3
Greatest Mean Sampling Location
January 1, 2015 to December 31, 2015

Medium or Pathway Sampled (unit of measurement)	Type of Analysis	Location	High	Low	Mean
Air (pCi/m^3)	I-131	NA	< MDC	< MDC	< MDC
	Gross Beta	8SP	0.023	0.013	0.042
Lake Water (pCi/L)	Gross Beta	Palisades	3.41	3.41	3.41
	Tritium	NA	< MDC	< MDC	< MDC
Drinking Water (pCi/L)	Gross Beta	South Haven Raw/Domestic	3.17	2.15	2.76
	Tritium	NA	< MDC	< MDC	< MDC
Inner Ring TLD (gamma mR)	Quarterly	#1 (Palisades)	10.90	10.32	10.74
Outer Ring TLD (gamma mR)	Quarterly	# 2 5.6 miles S	14.61	13.05	13.90
Crops (pCi/kg wet)	I-131	NA	< MDC	< MDC	< MDC
	Other Gamma	NA	< MDC	< MDC	< MDC
Sediment (pCi/kg dry)	Gamma Emitters	NA	< MDC	< MDC	< MDC
Fish (pCi/gm wet)	Gamma Emitters	Palisades	< MDC	< MDC	< MDC
Broad leaf vegetation (pCi/kg wet)	Gamma Emitters	Site boundary SE	231	124	168

ATTACHMENT A
Sample Collection Anomalies

Sample Affected	Location	Date	Problem	Evaluation
Air Sample Station	GR10	7/11/2016	Electrical trip	The air pump was found to be tripped off at station GR10 on 7/11/2016. Resetting the GFCI restored power to the pump. The electrical trip resulted in a low sample volume which resulted in the required lower limit of detection for I-131 not being achieved during analysis. Per ODCM guidance, the control environmental air sample for this week from Donald C. Cook Nuclear plant was reviewed. There was no detectable I-131 in the control sample Donald C. Cook collected during this week which is consistent with long-term trending results from Palisades.
Air Sample Station	19ST	6/13/2016	Electrical trip	The air pump was found to be tripped off at station 19ST on 6/13/2016. The circuit breaker was reset and power was restored to the pump. All ODCM required lower limits of detection were achieved for the affected sample.
Control Air Sample for 5/23/16 - 5/31/2016	GR10	6/6/2016	Sample delivery not timely	The control air sample representative of 5/23/16 through 5/31/16 was not received as timely as what is typical. Upon receipt of the sample, the sample was promptly shipped to the vendor. The vendor analysis was able to meet all ODCM required lower limits of detection for the sample. The sample results were typical of what is normally observed.
Air Sample Station	8SP	5/2/2016	Pump Failure	The air pump at station 8SP was found to be seized on 5/2/2016. The cause of the pump failure was due to water intake through the sample filter during a heavy rainstorm. As a result the ODCM required lower limit of detection for this sample was not achieved. The pump was replaced the same day the failure was discovered.
Air Sample Station	5PR	1/18/2016	Pump Failure	The air pump at station 5PR was found off on 1/18/2016. The pump could not be restarted and therefore the pump was replaced. As a result the ODCM required lower limit of detection for this sample, for I-131, was not achieved.

Sample Affected	Location	Date	Problem	Evaluation
Fall Fish Sample	Palisades	10/2/2016	Fish Species Collected	The fall fish collection at Palisades did not yield one of the same species as was collected from the control location due to inclement weather. The species collected during the fall were a Carp and Catfish from Palisades and a Coho Salmon, Gizzard Shad, and Freshwater Drum from the control location. Per the PNP ODCM, environmental sample deviations may be permitted due to hazardous conditions such as weather. One of the species collected in the spring from the control location was a Carp.
TLD	Location 18	3/21/2016	Missing TLD	A TLD was discovered to be missing from location 18 on 3/21/16. The TLD housing was still in the location; the area was searched and the TLD could not be located. It is most likely that the TLD was missing due to weather and/or wildlife activity.

ATTACHMENT B
Palisades Land Use Census

2016 Land Use Census Report

The attached tables are the results of the Palisades Land Use Census conducted on 10/25/2016. The first table references the distance (miles) from Palisades to the nearest residence, garden (greater than 500 square feet), beef cattle, dairy cattle and goat per meteorological sector. The next table identifies the locations of the nearest residence, garden, beef/dairy cattle and goats within a five (5) mile radius of Palisades per meteorological sector. The last table lists the critical receptor locations used to calculate offsite doses by the GASPAR computer program.

Closest Receptor by Sector

Sector	Residence	Garden	Beef Cattle	Dairy Cow	Goat
NNE	1.67	1.71	> 5	> 5	> 5
NE	1.14	2.09	> 5	> 5	2.45
ENE	1.19	> 5	3.38	> 5	>5
E	1.67	2.46	> 5	> 5	3.49
ESE	1.35	1.66	> 5	> 5	> 5
SE	0.87	1.51	3.88	> 5	> 5
SSE	0.80	0.70	> 5	> 5	> 5
S	0.51	3.70	> 5	> 5	> 5
SSW	0.48	4.85	> 5	> 5	> 5

Locations

Sector	Location Description	Item	Distance from Plant (miles)
NNE	20620 Ruggles Road	Residence	1.67
	20096 O Fire Lane	Garden	1.71
NE	Ruggles Road, State Park Manager	Residence	1.14
	21175 Blue Star Hwy	Garden	2.09
	75522 CR 380	Goat	2.45
ENE	77198 24th Avenue	Residence	1.19
	73103 CR 380	Cow	3.38
E	25112 76th Street	Residence	1.67
	74494 28th Avenue	Garden	2.46
	72375 28th Avenue	Goat	3.49
ESE	28160 77 ½ Street	Residence	1.35
	27720 76th Street	Garden	1.66
SE	30th Ave	Residence	0.87
	30602 77 ½ Street	Garden	1.51
	Across from REMP Air sample A4	Cow	3.88
SSE	Ravine Road	Residence	0.80
	Palisades Park Community Garden	Garden	0.70
S	Shorewood Lane	Residence	0.51
	40422 78th Street	Garden	3.70
SSW	Shorewood Walk, Palisades Park	Residence	0.48
	Corner of 82nd and Blue Star Hwy	Garden	4.85

Critical Receptors

Meteorology Data for the period January 1, 2006 to December 31, 2016			
Atmospheric Dispersion			
Location Type	**Direction * From Site**	**Distance * (miles)**	**X/Q (sec/m^3)**
Site Boundary	SSE	0.48	2.30E-06
Residence	S	0.51	1.40E-06
Garden	SSE	0.70	1.29E-06
Beef Cattle	SE	3.88	9.76E-08
Goat	NE	2.45	1.83E-07
Atmospheric Deposition			
Location Type	**Direction From Site**	**Distance (miles)**	**D/Q (1/m^2)**
Site Boundary	SSE	0.48	1.97E-08
Residence	SSE	0.80	8.47E-09
Garden	SSE	0.70	1.06E-08
Beef Cattle	SE	3.88	5.29E-10
Goat	NE	2.45	9.20E-10

ATTACHMENT C
Chemistry Procedure CH 6.10, "Palisades Radiological Environmental Monitoring Program"

42 Pages Follow

Procedure No CH 6.10
Revision 19
Effective Date 3/21/17

PALISADES NUCLEAR PLANT
CHEMISTRY PROCEDURE

TITLE: RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM

Approved: JCBritting / 3/14/17
Procedure Sponsor **Date**

Process Applicability Exclusion ☒

New Procedure/Revision Summary

Rev 19, Editorial Correction

Specific Changes:

Revision 19:

DRN-16-01087 - include directions for fish collection, include driving directions for TLD change-out, include direction to ensure activity is less than environmental LLD's prior to shipping, added septic sample to shipping checklist in attachment 9.

Revision 18:

DRN-16-01120 - Update reference to the ODCM in accordance with ODCM, Rev 27.

Revision 17:

DRN-16-00031 - Added Section 5.5, "How to Replace Environmental Air Pump"
DRN-16-00440 - Added Section 5.4, "How to Replace Environmental Air Flowmeter"
Also included non-ODCM required sediment sample from site boundary south of the plant in Attachments 1, 2, and 3.
DRN-16-00600 - Created new Attachment 9, "Monthly and Quarterly Shipment Requirement Checklist"

TITLE: RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM

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ATTACHMENTS

Attachment 10, "Fish Collection"
Attachment 11, "TLD Driving Directions"

TITLE: RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM

REFERENCE USE
• **Procedure and Procedure Precautions and Limitations are at the work location for reference.** • **Review and understand segments before performing any steps.** • **Signoff steps are completed, when included, before starting the next step.** • **Place keep in accordance with EN-HU-106, "Procedure and Work Instruction Use and Adherence."** • **Review the Procedure to verify segments have been completed.**

1.0 PURPOSE

This procedure provides instructions for collection of environmental samples in support of the Radiological Environmental Monitoring Program (REMP) as required by the Offsite Dose Calculation Manual (ODCM). In addition to the ODCM required samples, additional required sampling is listed.

2.0 REFERENCES

2.1 SOURCE DOCUMENTS

2.1.1 Reg Guide 4.15 (Revision 2, July 2007), "Quality Assurance for Radiological Monitoring Programs (Inception through Normal Operations to License Termination) - Effluent Streams and the Environment"

2.1.2 10CFR50, Appendix I, "Numerical Guides for Design Objectives and Limiting Conditions for Operation to Meet the Criterion 'As Low as is Reasonably Achievable' for Radioactive Material in Light-Water-Cooled Nuclear Power Reactor Effluents"

2.1.3 Offsite Dose Calculation Manual (ODCM)

2.1.4 Branch Technical Position (Revision 1, 1979), "Radiological Portion of the Environmental Monitoring Program"

2.1.5 NRC IE Bulletin 80-10 (May 1980), "Contamination of Nonradioactive System and Resulting Potential for Unmonitored, Uncontrolled Release of Radioactivity to Environment"

2.1.6 Entergy Procedure EN-RP-121, "Radioactive Material Control"

2.2 REFERENCE DOCUMENTS

2.2.1 Palisades ODCM, Sections 1.4, 2.2.2, and Tables 1-7, 1-8, and 1-9

2.2.2 Entergy Procedure EN-AD-103, "Document Control and Records Management Programs"

2.2.3 Chemistry Procedure CH 1.5, "Chemistry Logs, Records, and Data Management"

2.2.4 Chemistry Procedure CH 4.39, "Gamma Ray Spectroscopy System"

2.2.5 Chemistry Procedure CH 6.50, "Annual Radiological Environmental Operating Report"

2.2.6 Entergy Procedure EN-HU-106, "Procedure and Work Instruction Use and Adherence"

2.3 COMMITMENTS

2.3.1 [CMT 022011097], IE Bulletin 80-10 Response - "Contamination of Nonradioactive System and Resulting Potential for Unmonitored, Uncontrolled Release of Radioactivity to Environment"

2.3.2 [CMT 032011144], IE Bulletin 80-10 Response - "Contamination of Nonradioactive System and Resulting Potential for Unmonitored, Uncontrolled Release of Radioactivity to Environment"

3.0 PREREQUISITES

None

4.0 PRECAUTIONS AND LIMITATIONS

4.1 Any revisions to this procedure shall be reviewed against Palisades ODCM Specifications to verify compliance to all requirements.

4.2 Deviations from the required sampling schedule shall be documented in the Annual Radiological Environmental Operating Report.

4.3 Every effort shall be made to complete corrective action on malfunctioning sampling equipment prior to the end of the next sampling period.

4.4 If it is not possible to obtain the required samples, suitable alternative media and locations shall be substituted within 30 days.

4.5 Samples shall be collected, prepared, and shipped for analysis in a timely manner to ensure detection requirements are met. Other specific handling precautions for sample media are indicated in Section 5.0 as required.

4.6 Any deviation in the Radiological Environmental Monitoring Program including missing samples, unusual analytical results, elevated LLDs, etc, shall be investigated, evaluated, corrected, and documented.

4.7 If an air sampling unit is discovered not operating, attempt to find the cause and repair. If this cannot be done, replace applicable component and document on air sample collection data sheet.

4.8 Calibrate airflow meters every two years.

4.9 Change out airflow meters prior to the expiration of calibration dates.

4.10 Change out air sample pumps every two years.

4.11 Ensure trees and bushes in the vicinity of air sampler locations are removed, along with any branches extending over the top of the sampler. The goal is to keep every station away from the drip line.

4.12 In the event that the Radiological Environmental Monitoring Programs sampling are not substantially conducted as described in Palisades ODCM, Section 1.4, or an unusual or important event occurs from Plant operation that causes a significant environmental impact or affects a potential environmental impact, a report shall be submitted to the NRC within 30 days.

4.13 Record sample collected or shipped in Chemistry Database Management System (NuclearIQ).

4.14 All shipping time frames listed in this procedure are administrative in nature and do not need to be strictly adhered to in order to meet the intent of this procedure. Time frames are listed to ensure prompt shipping in order to avoid delays and reduce the possibility of not meeting LLD requirements. Time frames should be met every time if possible or inform the REMP Analyst as to the cause of the delay.

5.0 PROCEDURE

REFERENCE USE
• **Procedure and Procedure Precautions and Limitations are at the work location for reference.** • **Review and understand segments before performing any steps.** • **Signoff steps are completed, when included, before starting the next step.** • **Place keep in accordance with EN-HU-106, "Procedure and Work Instruction Use and Adherence."** • **Review the Procedure to verify segments have been completed.**

5.1 LAKE-IN WATER SAMPLE COLLECTION - DAILY - ODCM REQUIRED [CMT 032011144]

5.1.1 **FILL** a 500 ml sample bottle from water downstream of "bio-box" located in the screen house.

5.1.2 **ADD** the sample to the composite container (carboy).

NOTE:	At the end of each month, check the composite container (carboy), the field sampling bottle and the graduated cylinder for cleanliness (ie, no excessive algae growth, excessively dirty or broken) and clean or replace as necessary.

5.1.3 At end of the month, **OBTAIN** a 1-gallon sample from carboy.

5.1.4 **PACKAGE** AND **SHIP** sample per Attachment 4 within 5 days of sampling.

5.2 DRINKING WATER SAMPLE COLLECTION - DAILY - ODCM REQUIRED

5.2.1 **OBTAIN** a 500 ml sample from any potable water sink.

5.2.2 **ADD** the sample to the monthly sample container (carboy).

NOTE:	At the end of each month, check the composite container (carboy), the field sampling bottle and the graduated cylinder for cleanliness (ie, no excessive algae growth, excessively dirty or broken) and clean or replace as necessary.

5.2.3 At end of the month, **OBTAIN** a 1-gallon sample from carboy.

5.2.4 **PACKAGE** AND **SHIP** sample per Attachment 4 within 5 days of sampling.

5.3 ENVIRONMENTAL AIR SAMPLE COLLECTION - WEEKLY - ODCM REQUIRED

5.3.1 **OPEN** cover at air sample station.

5.3.2 **DETERMINE** "As Found Leakage" by blocking air flow and checking air flow meter for movement.

a. IF no leakage, THEN **MARK** N in As Found Leakage column on Air Sample Data Sheet.

b. IF leakage is indicated, THEN **MARK** Y in As Found Leakage column, determine cause and repair.

5.3.3 **REMOVE** old sampler assembly.

5.3.4 **REMOVE** protective cover from new sampler assembly and place on old sampler assembly.

5.3.5 **INSTALL** new sampler assembly.

5.3.6 **DETERMINE** "As Left Leakage" by blocking air flow and checking air flow meter for movement.

a. IF no leakage, THEN **MARK** N in As Left Leakage column.

b. IF leakage is indicated, THEN **DETERMINE** cause AND **REPAIR**.

5.3.7 **RECORD** the Flow Meter Cal Due Date, Removed Date, Removed Time, Removed Meter Reading (ft^3) and Pump Replacement Date.

5.3.8 **CLOSE** AND **LATCH** the air sample station cover.

5.3.9 **PROCEED** to the next station and continue process.

5.3.10 After completing air sample change out, **COMPLETE** the following for each sampler assembly:

a. **REMOVE** particulate filter and place in glassine envelope.

b. **PLACE** filter envelope and charcoal cartridge in labeled zip-lock bag.

c. **CLEAN** out any residue or moisture buildup in sampler head.

d. **CHECK** condition of O-rings AND **REPLACE** if necessary.

5.3.11 **PLACE** new particulate filter (fuzzy side out) and charcoal cartridge in sampler assembly AND **SCREW** on cap.

5.3.12 **PLACE** protective cover on sampler assembly.

5.3.13 **PREPARE** new air sample packages for following week.

5.3.14 **TRANSFER** data to vendor Chain of Custody sample data sheet.

a. **OPEN** network folder J:/Chem_Rad/RETS/Environmental Air Samples.

b. **OPEN** the folder for the current year.

c. **SELECT** AND **OPEN** the previous week's Excel spreadsheet.

d. **SELECT** Save-As from the File dropdown menu.

e. **SAVE** the file as ASxxyyzz (where xx is the two digit month, yy is the two digit day and zz is the two digit year).

f. **COPY** the cells in GH9-GH14.

NOTE:	Copy the cells; do not Cut the cells as this will change the formatting.

g. **PASTE** the cells into EF9-EF14. This will copy over the previous data in those cells.

h. **DELETE** the information in cells GH9-GH14.

i. **COPY** the cells in J9-J14.

j. **PASTE** the cells into I9-I14.

k. **DELETE** the information in J9-J14.

l. **ENTER** the monitoring stop Date/Time as appropriate into cells GH9-GH14.

m. **ENTER** the Stop Meter Reading into cells J9-J14 as appropriate.

n. IF volume is less than 100 m^3, THEN **NOTIFY** REMP/RETS analyst.

NOTE:	Sample volumes as low as 60 m^3 have been found to meet LLDs provided there is no delay in shipping and count times are met.

o. **CHANGE** the "Collected By" cell, as appropriate.

p. **SAVE** the spreadsheet.

q. **PRINT** the spreadsheet.

r. **SIGN** in the Relinquished box under Chain of Custody AND **ASSIGN** the current date and time.

s. **PACKAGE** the printout with the air samples for shipping.

5.3.15 WHEN control air sample is obtained, THEN **PACKAGE** AND **SHIP** samples per Attachment 4 within 2 days of sampling.

5.4 REPLACING ENVIRONMENTAL AIR FLOWMETER

5.4.1 **DE-ENERGIZE** the pump.

5.4.2 Using a pipe wrench or another tool, **REMOVE** the flowmeter by loosening the threaded nuts connected to the flowmeter.

5.4.3 Using a pipe wrench or another tool, **ATTACH** the new flowmeter by tightening the threaded nuts connected to the flowmeter.

5.4.4 **RE-ENERGIZE** the pump.

5.4.5 **PERFORM** a leak test by blocking the air flow to the pump and checking the airflow meter for movement.

a. IF leakage is indicated, THEN **REPEAT** Steps 5.4.1 through 5.4.4.

b. IF no leakage, THEN **PROCEED** to Step 5.4.6.

5.4.6 **RECORD** the calibrated flowmeter reading in Attachment 5 so that the following week's volume will have the correct starting point.

5.5 REPLACING ENVIRONMENTAL AIR PUMP

5.5.1 **DE-ENERGIZE** the pump.

5.5.2 Using a screwdriver or some other tool, **REMOVE** the pump from the inlet and outlet air hose by removing the hose clamps.

5.5.3 Using a screwdriver or some other tool, **CONNECT** the new pump to the inlet and outlet air hose.

5.5.4 **RE-ENERGIZE** the pump.

5.5.5 **PERFORM** a leak test by blocking the air flow to the pump and checking the airflow meter for movement.

a. IF leakage is indicated, THEN **REPEAT** Steps 5.5.1 through 5.5.4.

b. IF no leakage, THEN **PROCEED** to Step 5.5.6.

5.5.6 **RECORD** the pump replacement date in Attachment 5 as 2 years from the date the new pump was installed.

5.6 SOUTH HAVEN RAW WATER SAMPLE COLLECTION (SHRAW) - MONTHLY - ODCM REQUIRED

NOTE:	Water treatment plant personnel add approximately 150 ml of raw water per day to sample containers.

5.6.1 **PREPARE** a 1-gallon container labeled "SHRAW," "PAL," month and year.

5.6.2 **DROP OFF** container at the South Haven Municipal Water Treatment Plant.

5.6.3 **PICK UP** previous month's container.

5.6.4 **PACKAGE** AND **SHIP** samples per Attachment 4 within 5 days of obtaining.

5.7 BROADLEAF VEGETATION SAMPLE COLLECTION - MONTHLY-ODCM REQUIRED

5.7.1 **VALIDATE** with REMP/RETS Analyst that the denoted sectors are still the highest D/Q (SE and SSE) and a least prevalent D/Q (NE or NNE).

5.7.2 **OBTAIN** 1 kg (2.2 lbs) samples of three different kinds of broadleaf vegetation in both the SE and SSE sectors. BV-1 is collected on the trail in the woods near the site boundary in the SSE quadrant. BV-2 is collected near the site boundary in the empty lot just off of Blue Star Highway in the SE quadrant.

5.7.3 **OBTAIN** 1 kg (2.2 lbs.) samples of the similar broadleaf vegetation 15 - 30 km (9.3 to 18.6 miles) distant in the NNE or NE sector (this is the BV-C sample).

5.7.4 **OBTAIN** samples monthly during growing season.

5.7.5 **PACKAGE** AND **SHIP** samples per Attachment 4 within 2 days of sampling.

5.8 ENVIRONMENTAL TLD COLLECTION - QUARTERLY-ODCM REQUIRED

5.8.1 Upon receipt of TLDs from the laboratory contractor, **INVENTORY** all TLDs AND **PLACE** in lead cave.

NOTE:	Field TLDs are removed from the lead cave only for delivery to their proper locations. All control TLDs remain in the lead cave throughout the entire exposure period.

5.8.2 **CHANGE-OUT** TLDs at each sample location. The TLD should be displayed so that it is visible from the side and not tucked up under the spherical cap.

5.8.3 Attachment 10 may be used to assist with locating TLD's. Attachment 10 lists practical directions which may assist with locating the TLD's.

5.8.4 For any missing TLDs, then:

a. **SEARCH** immediate area.

b. IF lost TLD is found, THEN **COLLECT** it AND **PERFORM** standard change-out procedure.

c. IF lost TLD is not found, THEN **POST** the new TLD in proper location.

5.8.5 **STORE** collected field TLDs in lead cave along with control TLDs until ready for mailing to laboratory contractor.

5.8.6 **PACKAGE** AND **SHIP** samples per Attachment 4 within 5 days of change-out.

5.9 PLANT AIR SAMPLE COLLECTION - QUARTERLY - NON-ODCM REQUIRED [CMT 0220011097]

5.9.1 **OBTAIN** 1-liter air samples from Air Receiver Tanks T-8A, 8B and 8C.

5.9.2 **COUNT** samples per the posting on the MCA or CH 4.39, "Gamma Ray Spectroscopy System," to ensure LLD's are met.

5.9.3 **REVIEW** printout AND **FORWARD** to REMP Specialist.

5.10 SEPTIC SYSTEM SAMPLE COLLECTION - QUARTERLY - NON-ODCM REQUIRED

5.10.1 **OBTAIN** a 1 liter liquid sample from sanitary system septic tank.

5.10.2 **COUNT** sample per the posting on the MCA or CH 4.39, "Gamma Ray Spectroscopy System," to ensure LLD's are met.

5.10.3 **PACKAGE** AND **SHIP** samples per Attachment 4 within 5 days of sampling.

5.11 SEDIMENT SAMPLE COLLECTION - SEMIANNUALLY - ODCM REQUIRED

5.11.1 **COLLECT** a 1-liter sediment sample semiannually 1/2 mile north of discharge.

5.11.2 **COLLECT** a 1-liter sediment sample semiannually south of discharge near site boundary (Non-ODCM Required).

5.11.3 **LABEL** containers with sample type, location, and date.

5.11.4 **PACKAGE** AND **SHIP** samples per Attachment 4 within 5 days of sampling.

5.12 FOOD PRODUCT SAMPLE COLLECTION - YEARLY - ODCM REQUIRED

5.12.1 **OBTAIN** one sample each of approximately 1 kg each of blueberries and apples from the Arellanos' store, or other local service in appropriate section.

5.12.2 **LABEL** containers with sample type, location, and date.

5.12.3 **PACKAGE** AND **SHIP** samples per Attachment 4 within 5 days of sampling.

5.13 PALISADES PARK SAMPLES - MONTHLY WHILE IN SERVICE - ODCM REQUIRED

5.13.1 **CALL** Palisades Park Manager (Jim Thornton) at 269-214-2011 to align sampling.

5.13.2 **COLLECT** 1 gallon of sample from each well (1 - Community Well, 1 - Commercial Well).

5.13.3 **PACKAGE** AND **SHIP** samples per Attachment 4 within 5 days of sampling.

5.14 MISCELLANEOUS SAMPLES - ODCM REQUIRED

5.14.1 Ludington - Control Lake-In daily composite samples are collected daily and shipped to Palisades monthly.

5.14.2 **PACKAGE** AND **SHIP** samples per Attachment 4 within 5 days of receiving.

5.15 MONTHLY SAMPLE COLLECTION VERIFICATION

5.15.1 Attachment 6, "REMP Sample Collection Checklist," may be used to track collection and shipment of Environmental Samples.

5.15.2 **VERIFY** that the indicated number and type of samples required by the ODCM were collected.

a. **DOCUMENT** any unusual collection conditions or missing samples.

5.15.3 **IDENTIFY** new locations for obtaining replacement samples AND **ADD** them to the Radiological Environmental Monitoring Program (REMP) within thirty (30) days if milk or fresh leafy vegetable samples become unavailable from one or more of the sample locations. The specific locations from which samples were unavailable may then be deleted from the monitoring program.

a. **IDENTIFY** the cause(s) of sample unavailability AND **LIST** the new location(s) for obtaining replacement samples in the next Annual Radiological Environmental Operating Report.

5.16 REVIEW OF SAMPLE ANALYSIS RESULTS

5.16.1 The sample analysis results should be reviewed by the REMP/RETS Analyst upon receipt of the analyses from the laboratory contractor.

5.16.2 **COMPARE** the monthly analytical results to the appropriate ODCM requirements (Attachment 7 of this procedure) to verify the following:

a. The required analyses were performed.

b. Any results exceeding the action level shall be checked against ODCM Specification reporting requirements.

c. LLD sensitivity levels were reached. If sample LLDs are not reached, **EVALUATE** AND **DOCUMENT** contributing factors.

d. The action taken if either isotopic action levels and/or NRC reporting levels are exceeded.

e. Any specific types of evaluation required.

f. Any action related to unusual or missing sample results.

5.17 AIR FLOW METER CALIBRATION

5.17.1 WHEN Air flow meter calibration due date is approaching, THEN **SHIP** a spare flow meter for calibration, approximately two weeks in advance to allow for time to calibrate and return. Calibration frequency is currently every two years.

5.17.2 **SHIP** the meter that requires calibration to the following address:

Meter Technology Center
1975 W Parnell Road
Jackson, MI 49201

5.17.3 Calibration takes place at this facility in accordance with Department of Consumer and Industry Services Public Service Commission Technical Standards for Gas Service and then returned for use.

5.17.4 As found documentation should accompany flow meters back and be retained or submitted as records.

5.18 SPECIAL REPORT

5.18.1 **PREPARE** AND **SUBMIT** to the NRC (within 30 days) a special report identifying the following, if the level of radioactivity as a result of Plant effluents in an environmental sampling medium at a specified location exceeds Palisades ODCM, Table 1-8, reporting levels when averaged over any calendar quarter.

a. The cause(s) for exceeding the limit(s).

b. Corrective action(s) taken to reduce radioactive effluents.

5.18.2 The NRC Special Report shall be submitted if more than one (1) of the radionuclides listed in the specifications (Palisades ODCM, Table 1-8) are detected in an environmental sample medium and:

$$\frac{\text{Concentration (1)}}{\text{Reporting Level (1)}} + \frac{\text{Concentration (2)}}{\text{Reporting Level (2)}} + \ldots \geq 1.0$$

The quarterly sum of fractions calculation shall be completed within 90 days of end of quarter.

5.18.3 If radionuclides other than those listed in the specifications (Palisades ODCM, Table 1-8), are detected and are the result of Plant effluents, the NRC Special Report shall be submitted if the potential annual dose to a member of the public is equal to or greater than the calendar year limits specifications (Palisades ODCM, Sections 1.1.3, 1.1.4, 1.2.3). An NRC Special Report is not required if the measured level of radioactivity is not the result of Plant effluents. The condition shall be described in the Annual Radiological Environmental Operating Report.

Under all conditions, any radiological environmental surveillance sample possessing sufficient isotopic activity above the action level where an action level is listed in Attachment 2 but still below ODCM reporting requirements shall be evaluated. If no action level is listed in Attachment 2, any isotopic activity trending up shall be evaluated.

6.0 ATTACHMENTS AND RECORDS

6.1 ATTACHMENTS

6.1.1 Attachment 1, "Environmental Sample Collection Schedule"

6.1.2 Attachment 2, "REMP Sample Locations"

6.1.3 Attachment 3, "Sample Shipment Identification"

6.1.4 Attachment 4, "Sample Packaging and Shipment"

6.1.5 Attachment 5, "Environmental Air Sample Data Sheet"

6.1.6 Attachment 6, "REMP Sample Collection Checklist"

6.1.7 Attachment 7, "REMP Analytical Requirements"

6.1.8 Attachment 8, "Environmental Monitoring Locations"

6.1.9 Attachment 9, "Shipping Checklist"

6.1.10 Attachment 10, "Fish Collection"

6.1.11 Attachment 11, "TLD Driving Directions"

6.2 RECORDS

6.2.1 Analytical Results and Special Reports are included in the Annual Radiological Operating Report (Chemistry Procedure CH 6.50, "Annual Radiological Environmental Operating Report"); this report is sent to Records per Entergy Procedure EN-AD-103, "Document Control and Records Management Program." Attachment 3, "Sample Shipment Identification," Attachment 5, "Environmental Air Sample Data Sheet," and Attachment 6, "REMP Sample Collection Checklist," are considered guidelines and are not considered to be Plant Records. Sample activities/schedules are listed in Chemistry Database Management System (NuclearIQ) in accordance with CH 1.5, "Chemistry Logs, Records, and Data Management." NuclearIQ Reports will be generated for submittals in accordance with Entergy Procedure EN-AD-103, "Document Control and Records Management Programs"

7.0 SPECIAL REVIEWS

None

ENVIRONMENTAL SAMPLE COLLECTION SCHEDULE

Sample	Number of Samples and Locations	Sample Type	Collection/Analysis Frequency
Airborne Particulates and Iodines	5 within a 10 km radius 1 at 25 - 82 km distant	Continuous at approximately 1 cfm	Weekly
Drinking Water	1 - South Haven Municipal - Raw	Daily 150 sample collection to obtain a one-gallon composite	Monthly
Drinking Water	1 - Plant drinking water	Daily 500 sample collection to obtain a one-gallon composite	Monthly
Lake Surface	1 - Lake In, Screen-house downstream of "bio-box"	Daily 500 sample collection to obtain a one-gallon composite	Monthly
Lake Surface	1 - Control at Ludington	Daily composite to obtain one-gallon sample	Monthly
Sediment	1- ½ mile north of plant	One-liter grab	Semi-annually
Sediment	1- South site boundary	One-liter grab	Semi-annually
Food Products	1 sample each of blueberries and apples	1 kg grab sample	During growing season

ENVIRONMENTAL SAMPLE COLLECTION SCHEDULE

Sample	Number of Samples and Locations	Sample Type	Collection/Analysis Frequency
Food Products	1 sample each of three different kinds of broadleaf vegetation in two sectors near plant boundary 1 - sample of each of similar broadleaf vegetation 15 - 30 km distant (9 to 18 miles)	1 kg grab samples	Monthly during growing season
Fish	2 - location in vicinity of plant discharge 2 - Ludington Control	One-liter of fish flesh from two different species. Obtain same species from control location (if available)	Sample in season or semiannually if they are not seasonal
TLD	11 - General vicinity of Site Boundary 9 - Within 12 km radius 3 - Control Stations	Continuous	Quarterly
Waste Water	1 - Septic system	1 liter grab	Quarterly
Plant Air	3 - T-8A, B & C	1 liter grab	Quarterly
Ground Water	1-Palisades Park Community Well 1-Palisades Park Commercial Well	1 Gallon Carboy from each well	Monthly while wells are in Service

REMP SAMPLE LOCATIONS

Station	Code*		Location*	Air Part and Iodine	Lake Water	Milk	Food Products	Sediment	TLD	Fish	Ground Water
1	ST	Palisades Nuclear Plant	Onsite, on tree near NW corner of bag crew bldg.		X				X		
1	ST	Palisades Nuclear Plant	Plant discharge area.							X	
2	TH	RR 3 Coloma, MI 5.6 miles S	TLD located on Becht Road, west side on post, 50 yards south of 48th Ave.						X		
3	HS	76182 48th Ave Covert, MI 5.8 miles SSE	Along 48th Ave, 1/4 mile west of 76th St. In barnyard 50 yds. off north side of road.						X		
4	JS	36197 M-140 Hwy Covert, MI 3-1/2 miles SE	Just north of Arellanos fruit stand, in grape arbor.				X		X		
4	JS	36th Avenue, ½ miles east of M-140	South side of road.	X							
5	PR	72723 CR 378 Covert, MI 3-1/2 miles ESE	Along CR 378, 3/4 mile east of M-140, 30 ft off north side of road. TLD located at Paul Rood residence; on tree in back yard just past driveway.	X					X		
6	RB	RR 3 South Haven, MI 4-1/2 miles NE	Along 12th Ave (CR 384), turn NW past maple grove, go 1/4 mile located in orchard on north side of road.						X		
7	SN21	Emergency Siren 21 4.1 miles NNE	On Monroe Blvd, at corner of 76th and 11th Street.						X		

*Distances listed in Code/Location are approximates, and actual are listed in Attachment 8.

REMP SAMPLE LOCATIONS

Station	Code*		Location*	Air Part and Iodine	Lake Water	Milk	Food Products	Sediment	TLD	Fish	Ground Water
8	SP	State Park 1 mile N	Onsite along the dump road, north of Plant. One mile from main gate. Near State Park boundary, on side of road as road turns west.	X					X		
9	TP	Covert Township Park 1.5 miles SSW	Along 32nd Ave, 1/4 mile west of Blue Star Hwy. 5 ft off south side of road. TLD located at end of road, at entrance to residence on beach, attached to emergency siren SN38.	X					X		
10	GR	Grand Rapids, MI 55 miles NNE	Grand Rapids Service Center, in storage area. Air sample on west side near shed. Control TLD 100 feet north of air sample station.	X					X		
11	KZ	Kalamazoo, MI 35 miles E	Kalamazoo Service Center, in parking area on post in SE corner Control TLD.						X		
12	DG	58399 Wilbur Road, Dowagiac, MI 30 miles SSE	TLD located on pole approx 20 yards from road, NE of house.						X		
13	ST	Perimeter of Palisades NNE	Past #8 along dirt road. Proceed west up dune path at right of containment test structure. At first crest, turn north and proceed up adjacent hill to #13 at top (approx. 50 yds. from crest). Near State Park fence line.						X		
14	ST	Perimeter of Palisades NE	25 yards of east of Station #34 between State Park and DFS Building.						X		
15	ST	Perimeter of Palisades E	North along Blue Star Hwy, 0.75 miles from access road, 10 ft off west side of road.						X		

*Distances listed in Code/Location are approximates, and actual are listed in Attachment 8.

REMP SAMPLE LOCATIONS

Station	Code*		Location*	Air Part and Iodine	Lake Water	Milk	Food Products	Sediment	TLD	Fish	Ground Water
16	ST	Perimeter of Palisades E	North along Blue Star Hwy, 0.4 miles from access road, 50 ft off west side of road.						X		
17	ST	Perimeter of Palisades ESE	Along access road, 25 yds. south of southern power line, 15 yds. off east side of road.						X		
18	ST	Perimeter of Palisades SE	20 yds. from access road along south road. 40 yds. off south road.						X		
19	ST	Perimeter of Palisades SSE	0.2 miles along south road from access road, 30 ft off north side of road. TLD 30 ft off south side of road	X					X		
20	ST	Perimeter of Palisades S	0.4 miles along south road from access road, 20 ft off south side of road.						X		
21	ST	Perimeter of Palisades SSW	0.7 miles along south road from access road, just past top of hill. Near Lake Michigan Bluff.						X		
22	PW	Palisades Warehouse	Control TLD in lead cave.						X		
23	SN19	Emergency Siren 19 3 miles ENE	On CR 380.						X		
24	SN26	Emergency Siren 26 6 miles E	On 67th Street.						X		
25	SH	South Haven, MI 5-1/2 miles NNE	South Haven Water Treatment Plant.		X						
30	STN	1/2 mile N of discharge						X			

*Distances listed in Code/Location are approximates, and actual are listed in Attachment 8.

REMP SAMPLE LOCATIONS

Station	Code*		Location*	Air Part and Iodine	Lake Water	Milk	Food Products	Sediment	TLD	Fish	Ground Water
31	STS	South site boundary	Beach at the south site boundary					X			
32	LP	Ludington Pumped Storage 125 Miles N			X					X	
46	PP	Palisades Park - Community Well	South of Plant.								X
47	PP	Palisades Park - Commercial Well	South of Plant.								X

*Distances listed in Code/Location are approximates, and actual are listed in Attachment 8.

SAMPLE SHIPMENT IDENTIFICATION

Palisades

Location	Type	Date	Amount	Remarks
South Haven	Raw Water	Monthly Composite -	1 Gallon	
Lake In	Lake Water	Monthly Composite -	1 Gallon	
Plant Drinking Water	Domestic Water	Monthly Composite -	1 Gallon	
Ludington - Lake	Control Sample	Monthly Composite -	1 Gallon	
½ mile N of Plant	Sediment	Semi-annually	1 Liter	
South site boundary	Sediment	Semi-annually	1 Liter	
Palisades Perimeter	Vegetation	Monthly during growing season	6 kg	
Control	Vegetation	Monthly during growing season	3 kg	
Arellanos Market	Blueberries	Annually	1 kg	
Arellanos Market	Apples	Annually	1 kg	
Palisades	Fish	Semi-annually	1 kg	
Control	Fish	Semi-annually	1 kg	
Palisades Park - Community Well	Drinking Water	Monthly during open season	1 Gallon	
Palisades Park - Commercial Well	Drinking Water	Monthly during open season	1 Gallon	
Sanitary Wastewater	Wastewater	Quarterly	1 Liter	

This form is not required to be retained as a quality record.

SAMPLE PACKAGING AND SHIPMENT

1. Label samples clearly as to their contents.

2. Seal liquid sample containers with tape to prevent leakage.

3. Use sufficient packing material to avoid sample container damage during shipment.

4. Package air filters in glassine or plastic envelopes.

5. For TLD shipments, ensure that vendor's shipment instructions are followed. The address to ship TLD's is as follows:

   Jim Giard
   Environmental Dosimetry Company
   10 Ashton Lane
   Sterling, MA 01564

6. Ship samples to vendor laboratory with minimal delay after collection so as to avoid elevated analytical levels of detection.

ENVIRONMENTAL AIR SAMPLE DATA SHEET

PALISADES

A/S Station	As Found Leakage (Y / N)	As Left Leakage (Y / N)	Removed Date	Removed Time	Flow Meter Reading (ft^3)	Flow Meter Cal Due Date	Pump Replacement Date
8SP							
9TP							
4JS							
5PR							
GR10							
19ST							

Comments _____

_____

_____

Completed By _____ Date _____

Reviewed By _____ Date _____

This form is not required to be retained as a quality record.

REMP SAMPLE COLLECTION CHECKLIST

Month _____ Year _____

	Collected	Shipped
WEEKLY Air Samples		
Week 1	_____	_____
Week 2	_____	_____
Week 3	_____	_____
Week 4	_____	_____
Week 5	_____	_____
MONTHLY Broadleaf Veg	_____	_____
Lake In	_____	_____
Drinking Water	_____	_____
SHRAW	_____	_____
Ludington Ctrl	_____	_____
Palisades Park	_____	_____

This form is not required to be retained as a quality record.

REMP SAMPLE COLLECTION CHECKLIST

Year _____

	Collected	Shipped
QUARTERLY		
TLDs		
1Q	_____	_____
2Q	_____	_____
3Q	_____	_____
4Q	_____	_____
Sanitary Wastewater		
1Q	_____	_____
2Q	_____	_____
3Q	_____	_____
4Q	_____	_____
Plant Air		
1Q	_____	
2Q	_____	
3Q	_____	
4Q	_____	
SEMI-ANNUAL		
Sediment		
1	_____	_____
2	_____	_____
Fish - Indicator		
1	_____	_____
2	_____	_____
Fish - Control		
1	_____	_____
2	_____	_____
ANNUAL		
Blueberries	_____	_____
Apples	_____	_____

This form is not required to be retained as a quality record.

REMP ANALYTICAL REQUIREMENTS

Media	Sampling Interval	Required Analysis	LLD	NRC[f] Reporting Levels	Unusual Results[h]	
					Action Level	Action Required
Direct by TLD	Quarterly	Gamma Dose	10 mR			
Environmental Air	Quarterly	Gamma[j] Cs-134 Cs-137	 0.05 pCi/m^3 0.06 pCi/m^3	 10 pCi/m^3 20 pCi/m^3	 5 pCi/m^3 5 pCi/m^3	Notify and perform gamma isotopic.
Environmental Air	Weekly	Gross Beta I-131	0.01 pCi/m^3 0.07 pCi/m^3	 0.9 pCi/m^3	See note g 0.2 pCi/m^3	Notify and perform gamma isotopic. Notify
Water Surface Drinking	Monthly	H-3[i] Gross Beta Gamma[a,j] Mn-54 Fe-59 Co-58 Co-60 Zn-65 Zr-95 Nb-95 Cs-134 Cs-137 Ba-140 La-140 I-131	2000 pCi/L 4 pCi/L 15 pCi/L 30 pCi/L 15 pCi/L 15 pCi/L 30 pCi/L 30 pCi/L 15 pCi/L 15 pCi/L 18 pCi/L 60 pCi/L 15 pCi/L 1 pCi/L	20,000 pCi/L 1000 pCi/L 400 pCi/L 1000 pCi/L 300 pCi/L 300 pCi/L 400 pCi/L 400 pCi/L 30 pCi/L 50 pCi/L 200 pCi/L 200 pCi/L 2 pCi/L	1000 pCi/L 10 pCi/L Any gamma ≥ 30 pCi/L 2 pCi/L	Notify Notify within 24 h if beta ≥10 pCi/L. Perform gamma analysis. Notify Notify
Sediment	Semiannual	Gamma[j] Cs-134 Cs-137	 150 pCi/g 180 pCi/g		Any gamma ≥ 1 pCi/g	Notify

*Acceptance is < Average Background concentration plus 1 Standard Deviation. Current Values Documented in WT-WTPLP-2013-00125

REMP ANALYTICAL REQUIREMENTS

Media	Sampling Interval	Required Analysis	LLD	NRC[f] Reporting Levels	Unusual Results[h]	
					Action Level	Action Required
Fish	Semiannual	Gamma[j]			Any gamma	Notify
		Mn-54	0.13 pCi/g	30 pCi/g	≥ 1 pCi/g	
		Fe-59	0.26 pCi/g	10 pCi/g		
		Co-58	0.13 pCi/g	30 pCi/g		
		Co-60	0.13 pCi/g	10 pCi/g		
		Zn-65	0.26 pCi/g	20 pCi/g		
		Cs-134	0.13 pCi/g	1 pCi/g		
		Cs-137	0.15 pCi/g	2 pCi/g		
Broad Leaf Vegetation	Monthly when available	I-131	0.06 pCi/g	0.1 pCi/g	0.1 pCi/g	Notify
		Gamma[j]			Any gamma	Notify
		Cs-134	0.06 pCi/g	1 pCi/g	≥ 1 pCi/g	
		Cs-137	0.08 pCi/g	2 pCi/g	> 146 pCi/g*	
Food Products	At time of harvest	Gamma[j]			Any gamma	Notify
		Cs-134	0.06 pCi/g	1 pCi/g	≥ 1 pCi/g	
		Cs-137	0.08 pCi/g	2 pCi/g		
		I-131	0.06 pCi/g	0.1 pCi/g	0.1 pCi/g	Notify
Palisades Park	Monthly while wells are in operation	H-3[i]	2000 pCi/L	20,000 pCi/L	1000 pCi/L	Notify
		Gross Beta	4 pCi/L		10 pCi/L	Notify within 24 h if beta ≥ 10 pCi/L.
		Gamma[a,j]				Perform gamma analysis.
		Mn-54	15 pCi/L	1000 pCi/L		
		Fe-59	30 pCi/L	400 pCi/L		
		Co-58	15 pCi/L	1000 pCi/L		
		Co-60	15 pCi/L	300 pCi/L		
		Zn-65	30 pCi/L	300 pCi/L	Any gamma	Notify
		Zr-95	30 pCi/L	400 pCi/L	≥ 30 pCi/L	
		Nb-95	15 pCi/L	400 pCi/L		
		Cs-134	15 pCi/L	30 pCi/L		
		Cs-137	18 pCi/L	50 pCi/L		
		Ba-140	60 pCi/L	200 pCi/L		
		La-140	15 pCi/L	200 pCi/L		
		I-131	1 pCi/L	2 pCi/L	2 pCi/L	Notify

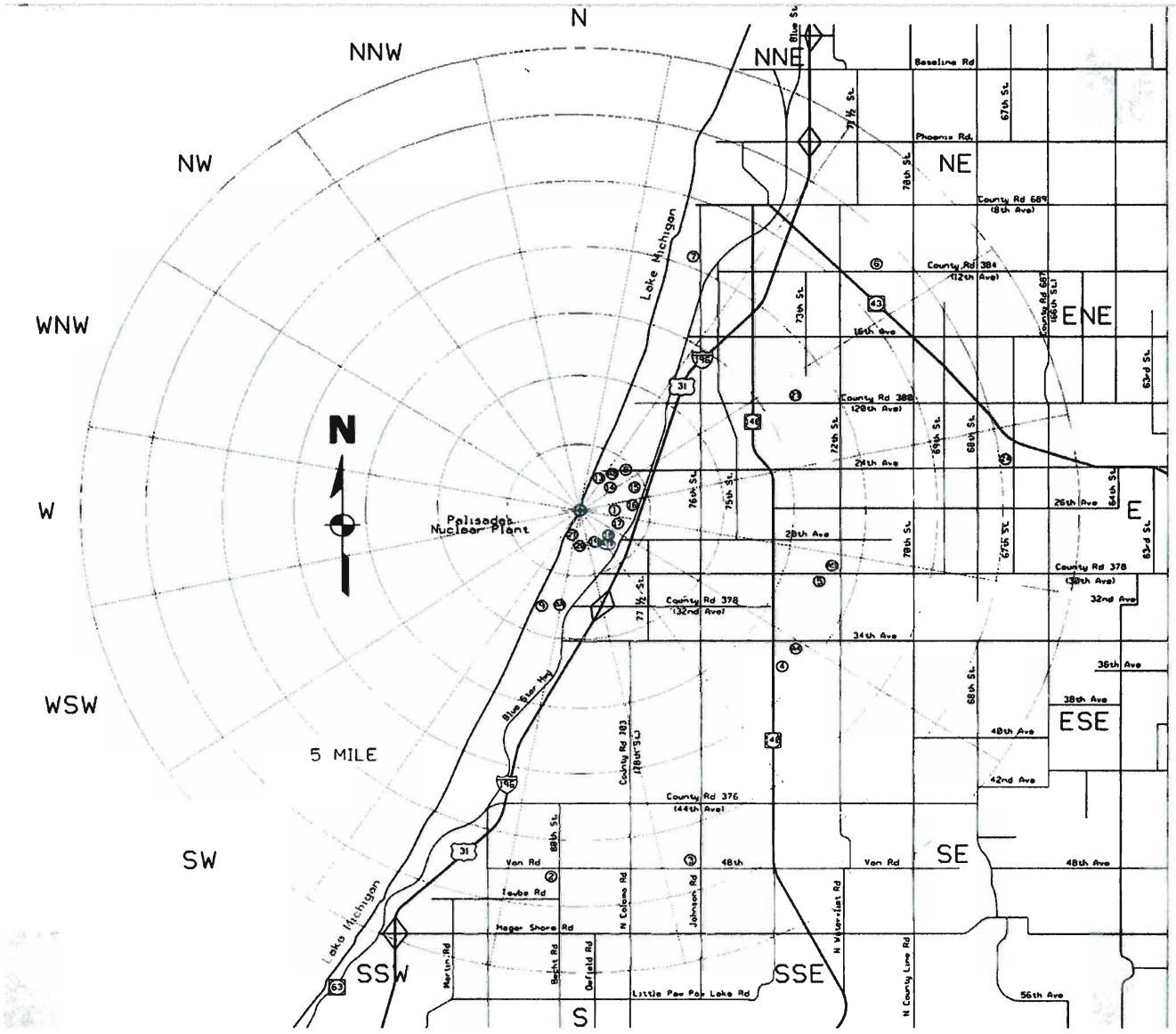
*Acceptance is < Average Background concentration plus 1 Standard Deviation. Current Values Documented in WT-WTPLP-2013-00125

REMP ANALYTICAL REQUIREMENTS

[d]Radioactivity levels may cause LLD levels to be exceeded.
[e]Monthly composite of weekly filters.
[f]Reporting levels per ODCM, Section 1.4 and Table 1-8.
[g]If gross beta activity is greater than or equal to 1 pCi/m^3 or greater than or equal to ten times last year's mean of control samples, perform gamma analysis on the individual samples.
[h]Whenever the Unusual Results Action Level is reached or exceeded, the word "Notify" under the Action Required column signifies that the Contract Laboratory performing the analysis is required to notify Palisades.
[i]Not required for South Haven raw water sample.
[j]Gamma isotopic analysis means the identification and quantification of gamma emitting radionuclides that may be attributable to the effluents from the facility.

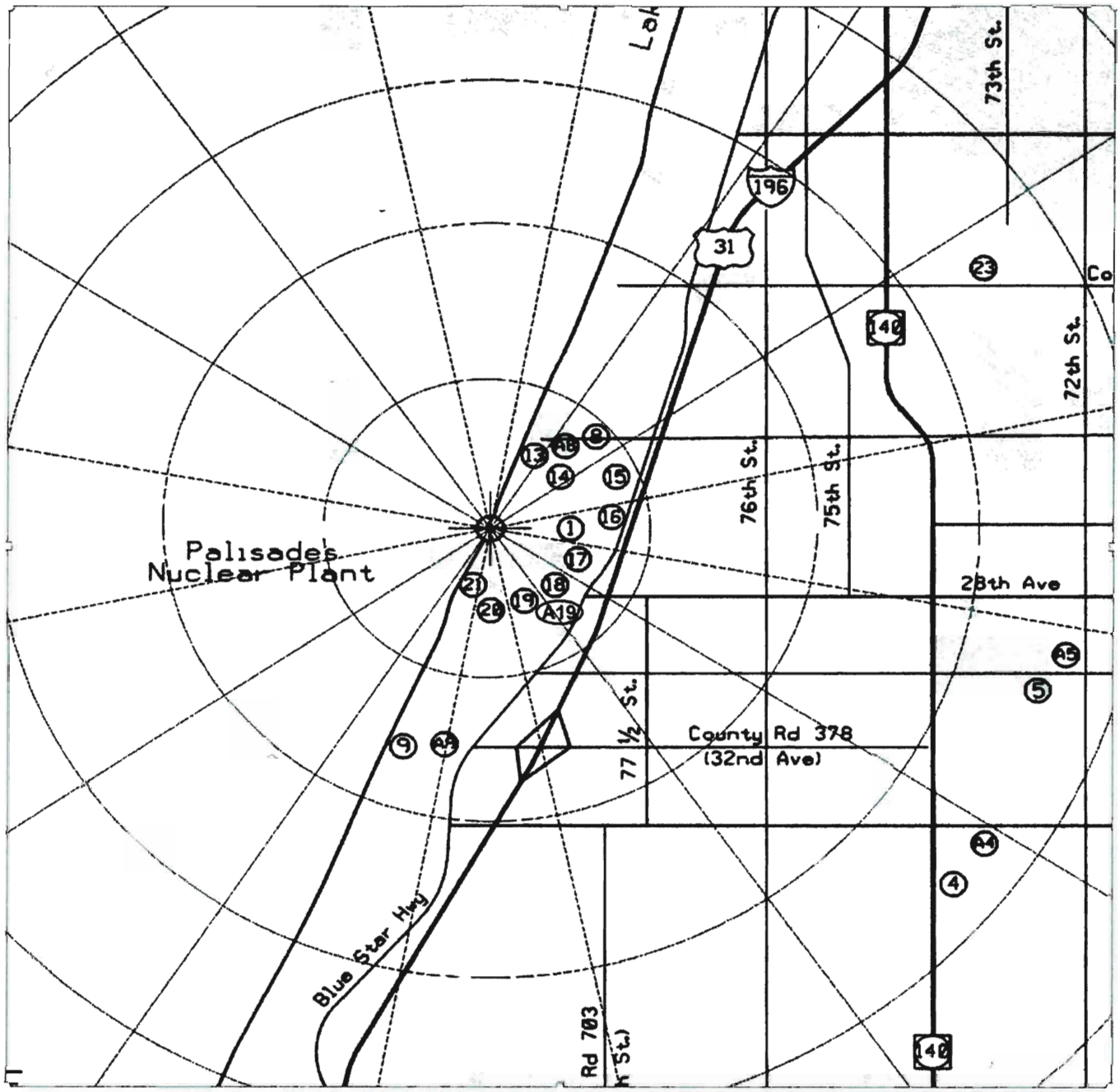
*Acceptance is < Average Background concentration plus 1 Standard Deviation. Current Values Documented in WT-WTPLP-2013-00125

ENVIRONMENTAL MONITORING LOCATIONS



Google Earth/MAP were used to update coordinates and distances between stack and location.

ENVIRONMENTAL MONITORING LOCATIONS



Google Earth/MAP were used to update coordinates and distances between stack and location.

ENVIRONMENTAL MONITORING LOCATIONS

Google Earth/MAP were used to update coordinates and distances between stack and location.

ENVIRONMENTAL MONITORING LOCATIONS

TLDs

Location	Coordinates	Distance (mi)	Degrees	Sector
Stack	N 42 19 22.5 W 86 18 50.8			
1	N 42 19 20.5 W 86 18 36.1	0.213	100.36	E
Inner Ring				
13	N 42 19 47.2 W 86 18 34.1	0.530	26.56	NNE
8	N 42 19 46.8 W 86 18 24.0	0.602	39.19	NE
14	N 42 19 41.1 W 86 18 21.2	0.551	49.64	NE
15	N 42 19 41.7 W 86 17 58.1	0.834	63.76	ENE
16	N 42 19 28.0 W 86 17 54.6	0.804	82.45	E
17	N 42 19 10.5 W 86 18 13.9	0.572	113.74	ESE
18	N 42 19 4.2 W 86 18 28.9	0.469	138.49	SE
19	N 42 19 05 W 86 18 40	0.443	159.19	SSE
20	N 42 19 1.1 W 86 18 48.8	0.412	176.05	S
21	N 42 19 3.4 W 86 18 58.4	0.382	196.40	SSW
Outer Ring				
7	N 42 22 40.8 W 86 17 0.4	4.115	22.35	NNE
6	N 42 22 30.6 W 86 14 15.9	5.314	47.18	NE
23	N 42 20 44.6 W 86 15 35.4	3.189	60.37	ENE
24	N 42 19 59.5 W 86 11 49.4	6.021	83.19	E
5	N 42 18 27.6 W 86 14 57.5	3.475	107.63	ESE

ENVIRONMENTAL MONITORING LOCATIONS

Location	Coordinates	Distance (mi)	Degrees	Sector
4	N 42 17 10.8 W 86 15 43.5	3.668	133.54	SE
3	N 42 14 37.9 W 86 16 00	5.684	163.92	SSE
2	N 42 14 33.4 W 86 19 16.4	5.560	183.75	S
9	N 42 18 1.73 W 86 19 34.6	1.670	201.86	SSW
Control TLDs				
10	N 42 53 16.7 W 85 40 35.9	50.746	39.49	NE
11	N 42 15 24.5 W 85 32 49.3	39.472	96.39	E
12	N 41 56 54.3 W 86 6 24.5	27.971	157.61	SSE

TLD # 10 is located within the Consumers Energy Grand Rapids service facility attached to a pole located adjacent to the south fence.

TLD # 11 is located within the Consumers Energy Kalamazoo service facility attached to a pole in the far NE corner of the facility - past the employee parking lot.

TLD # 12 is located approximately 30 yards from the road, NE and next to a private residence located at 58399 Wilbur Road, Dowagiac, MI.

ENVIRONMENTAL MONITORING LOCATIONS

Air Sample Stations

Location	Coordinates	Distance (mi)	Degrees	Sector
A8 (State Park)	N 42 19 46.8 W 86 18 24.8	0.595	38.34	NE
A9 (Township Park)	N 42 18 4.6 W 86 19 12.0	1.525	191.38	SSW
A4 (Covert)	N 42 17 12.1 W 86 15 21.7	3.882	130.12	SE
A5 (Rood)	N 42 18 30.5 W 86 14 47.8	3.590	106.12	ESE
A10 (Grand Rapids)	N 42 53 16.7 W 85 40 33.8	50.765	39.52	NE
A19 (Walking Trail)	N 42 19 3.65 W 86 18 35.30	0.423	148.70	SSE

Air Sample Station # 10 is located within the Consumers Energy Grand Rapids service facility, south side, next to a small service building and due East of TLD # 10.

Control fish and water samples are normally obtained from the Consumers Energy Pump Storage Facility located in Ludington, MI, or another location not influenced by Palisades Plant Discharge.

Palisades Park Wells

Location	Coordinates	Distance (mi)	Degrees	Sector
Community Well	N 42 18 47.5 W 86 19 11.4	.729	203.63	SSW
Commercial Well	N 42 18 48.5 W 86 18 46.8	.652	175.06	S

The Community Well services the community residents with well water to their homes; the Commercial Well services the community garden and drinking fountains on the east side of the property.

SHIPPING CHECKLIST

1.0 Prior to shipping, **VERIFY** all reactor product nuclides are less than environmental LLD's.

Weekly Shipment to Vendor

SAMPLE	QUANTITY	ANALYSIS
Environmental air samples[1]	1 filter AND 1 cartridge	Gross Beta AND I-131

Monthly Shipment to Vendor

SAMPLE	QUANTITY	ANALYSIS
Lake IN	1 gallon	Gamma, Tritium, Gross BETA
Drinking Water	1 gallon	Gamma, Tritium, Gross BETA
SHRAW	1 gallon	Gamma, Tritium, Gross BETA
Ludington Ctrl	1 gallon	Gamma, Tritium, Gross BETA
Palisades Park community well[2]	1 gallon	Gamma, Tritium, Gross BETA
Palisades Park commercial well[2]	1 gallon	Gamma, Tritium, Gross BETA
Broadleaf BV-1[2]	1 kg	Gamma, I-131
Broadleaf BV-2[2]	1 kg	Gamma, I-131
Broadleaf Control[2]	1 kg	Gamma, I-131

(2) Sample when in season only.
(1) Add note for vendor to retain sample for quarterly gamma analysis.

Quarterly Shipment to Vendor

SAMPLE	QUANTITY	ANALYSIS
TLD	All field TLD's	Gamma dose
Septic Sample	1 liter	Gamma, Tritium

Semiannual Shipment to Vendor

SAMPLE	QUANTITY	ANALYSIS
Sediment (North of plant)	1 liter	Gamma
Sediment (South of plant)	1 liter	Gamma
Fish (indicator)	1 kg	Gamma
Fish (control)	1 kg	Gamma

Annual Shipment to Vendor

SAMPLE	QUANTITY	ANALYSIS
Blueberries	1 kg	Gamma, I-131
Apples	1 kg	Gamma, I-131

FISH COLLECTION

NOTE: To perform fish collection one must have their name on the scientific collectors permit from the Department of Natural Resources of the State of Michigan.

1.0 **COLLECT** samples twice during the season of greatest abundance (typically May through October) as follows:

a. **COLLECT** at least two species (1kg each) of commercially and/or recreationally important fish in the vicinity of the Plant discharge area and the same species in an area not influenced by the Plant discharge (eg, Ludington Pump Storage Plant). One liter of flesh should be collected for each species caught for analysis accuracy.

b. Normally fish will be collected first from the vicinity of the discharge, then the same or similar species at Ludington Pump Storage or other area not influenced by Palisades Plant effluents.

1.1 IF performing fish collection within two weeks, THEN **ENSURE** the following are true.

a. Permit is valid for the sampling period.

b. Permit is valid for personnel collecting the fish.

c. Permit is valid for method by which fish will be collected.

d. **CONTACT** the local fish biologist OR fisheries division supervisor of the management unit AND local DNR representative at least 48 hours before sampling.

NOTE: Gillnets may only be used after consultation with Southern Lake Michigan Management Unit for work in waters off Van Buren County.

Contact information: Both contacts in Step 1.1d of Attachment 10 can be made by calling Operational Service Center at,

Southern Lake Michigan Management Unit
621 N. 10th St.
Plainwell MI 49080
269-685-6851

FISH COLLECTION

1.2 IF performing fish collection NOT on Palisades' property, THEN **ENSURE** the following are true.

a. A permit to use land has been obtained and is on record IF required for the area.

b. **NOTIFY** district law supervisor for the county 48 hours before collection.

c. Step 1.1 of Attachment 10 is satisfied.

1.3 During Fish collection, **ENSURE** the following are true.

a. A copy of the permit must be in hand during the collection.

b. IF an endangered or threatened fish is collected, THEN **RELEASE** it immediately.

c. IF an Asian Carp is collected THEN do not release AND **REPORT** it.

d. **CLEAN** fish AND SEND fillets to vendor for analysis on ice per Attachment 9.

2.0 At the end of the calendar year, perform the following.

a. **ENSURE** a copy of "all reports and scientific papers" (ie, lab results AND applicable AREOR section) to the DNR.

b. **PROVIDE** a collectors report form to the DNR.

c. **APPLY** for a new scientific collectors permit for the following year.

TLD Driving Directions

Number	Location
	1
8	Between A/S station number 8 and guard shack by State parking lot.
13	Uphill past old CTMT mockup.
14	South of state park fence, between State Park and DFS Building, 25 yards from road.
	2
17	Onsite, east side of access road close to orange topped buried optic cable pole, 15 yards from road.
18	Trail south of Plant, 0.2 miles in, north side (right of trail) back side of tree, directly opposite the double tree.
19	0.4 miles in on trail, south (left) side, near old Consumers sign.
20	0.5 miles in on trail, left side of trail atop small hill.
21	0.7 miles in, just past top of hill south side on tree.
	3
9	Siren pole next to old Sarno residence on road to Covert Township Park.
2	Blue Star to 376, 376 east over I-196, take right (South) on 80th, right on 48, immediate south on Becht, 30 yards in on west side of road on pole.
3	East on 48th (dirt road) cross paved road (CR 703) on left side by white house with many pine trees in front, house # 76182, just before 76th street.
4	East on 48th, North on M140 heading into Covert, Arellannos fruit stand on right, in grape arbor.
5	Continue north on M140, right on Bangor Covert Road, CR378 E, Paul Rood residence on right, past house in tree.
23	North on M140, right on airport road (CR380) north side by airport building on siren pole.
24	Continue east on CR380, right on M43, continue south, take right on 67th (just past curve in road, Snapper Lawnmower sign). 1/2 mile in on right on siren pole.
6	Back north on M43, right on CR384 (south fork) by Maple Grove party store,1/2 mile on left, in orchard on pole, follow power line to shed. Flashing yellow light marks intersection.
	4
7	Back on M43, continue into South Haven, through stoplight, left on Aylworth, past High School fields, left on Monroe, just past First Baptist Church, 76th and 11th, right side of road, NW corner of intersection.
15	South of Welcome to Covert sign 10 yards in from first Deadly Force sign.
16	Between arrow and > sign that are read when traveling north. North of the cut grassy hillside, south of the Met tower.
1	Onsite on tree next to BAG crew building.
	5
10	Grand Rapids Service Center, 4000 Clay Ave, Grand Rapids MI 49501 – contact is Chris Walters 616-437-8126 or Bob Haasjes 616-437-8118.
11	KZ service center, 2500 East Cork Street, Kalamazoo MI – contact is Brian Long, cell = 269-207-8304; office = 269-337-2407 (try cell first).
12	Dowagiac - 58399 Wilbur Hill Road.
22	Cave located in warehouse

TLD Driving Directions

Number	Location
Spare 1, 2, & 3	Cave located in warehouse
Shield 1, 2, & 3	On the shelf above the Cave located in warehouse
Controls 1 & 2	Cave located in warehouse

Directions to Dowagiac TLD
From Kalamazoo – take 94 West, take exit 56 - Decatur and Dowagiac. Take 51 south past Decatur and straight through downtown Dowagiac on South Front Street. Left on East High Street, street curves right and becomes Cass Street. Continue south; Cass becomes Wilbur. In about 2-3 miles is 58399 Wilbur Road on left (east) side of street. Turn in driveway. Straight ahead is pole with TLD holder (faded green conical hat) maybe 30 yards from the street to the left of the house.

From Palisades – from Covert, go south on M-140 until M-62. Go east on M-62 until you reach Dowagiac. Take right on Main Street then right on South Front Street. Left on East High Street, street curves right and becomes Cass Street. Continue south; Cass becomes Wilbur. In about 2-3 miles is 58399 Wilbur Road on left (east) side of street. Turn in driveway. Straight ahead is pole with TLD holder (faded green conical hat) maybe 30 yards from the street to the left of the house.

Directions to Kalamazoo TLD
Go east on I-94 past 131 and exit on Sprinkle Road. Go left on Sprinkle road and take left on E. Cork Street. Go past railroad tracks and on left is Consumers Energy. TLD is in far corner of employee parking lot attached to siren pole.

Directions to Grand Rapids
North on 131 to 44th street exit, go east and take first left at light – Clay Avenue. About a block on the right is Consumers Energy. TLD is on a pole by south fence of service compound – about 20 yards west of the air sample station.

ATTACHMENT D
Year-End Report for Palisades
Radiological Environmental Monitoring Progam (REMP)
As Provided by Teledyne Brown Engineering Environmental Services

46 Pages Follow

4JS

AIR PARTICULATE

LAB ID	STATION	COLLECT START	COLLECT STOP	NUCLIDE	REPORTABLE	ACTIVITY	ERROR	MDC	LLD	UNITS
L66380-3	4JS	12/28/15	01/04/16	GR-B	2.24E-02	2.24E-02	3.62E-03	2.93E-03	1.00E-02	pCi/cu m
L66484-3	4JS	01/04/16	01/11/16	GR-B	1.79E-02	1.79E-02	3.50E-03	3.23E-03	1.00E-02	pCi/cu m
L66586-3	4JS	01/11/16	01/18/16	GR-B	3.10E-02	3.10E-02	4.10E-03	2.67E-03	1.00E-02	pCi/cu m
L66674-3	4JS	01/18/16	01/25/16	GR-B	2.18E-02	2.18E-02	3.50E-03	2.58E-03	1.00E-02	pCi/cu m
L66746-3	4JS	01/25/16	02/01/16	GR-B	2.29E-02	2.29E-02	3.65E-03	2.83E-03	1.00E-02	pCi/cu m
L66862-3	4JS	02/01/16	02/08/16	GR-B	2.12E-02	2.12E-02	3.61E-03	2.92E-03	1.00E-02	pCi/cu m
L66938-3	4JS	02/08/16	02/16/16	GR-B	1.63E-02	1.63E-02	3.15E-03	3.01E-03	1.00E-02	pCi/cu m
L67019-3	4JS	02/16/16	02/22/16	GR-B	1.39E-02	1.39E-02	3.46E-03	3.49E-03	1.00E-02	pCi/cu m
L67073-3	4JS	02/22/16	02/29/16	GR-B	2.18E-02	2.18E-02	3.43E-03	2.33E-03	1.00E-02	pCi/cu m
L67178-3	4JS	02/29/16	03/07/16	GR-B	1.55E-02	1.55E-02	3.26E-03	3.16E-03	1.00E-02	pCi/cu m
L67315-3	4JS	03/07/16	03/14/16	GR-B	1.68E-02	1.68E-02	3.34E-03	3.05E-03	1.00E-02	pCi/cu m
L67316-3	4JS	03/14/16	03/21/16	GR-B	1.27E-02	1.27E-02	3.17E-03	3.30E-03	1.00E-02	pCi/cu m
L67391-3	4JS	03/21/16	03/28/16	GR-B	1.60E-02	1.60E-02	3.28E-03	2.98E-03	1.00E-02	pCi/cu m
L67500-3	4JS	03/28/16	04/04/16	GR-B	1.81E-02	1.81E-02	3.57E-03	3.43E-03	1.00E-02	pCi/cu m
L67590-3	4JS	04/04/16	04/11/16	GR-B	1.40E-02	1.40E-02	2.92E-03	2.49E-03	1.00E-02	pCi/cu m
L67702-3	4JS	04/11/16	04/18/16	GR-B	1.83E-02	1.83E-02	3.43E-03	2.89E-03	1.00E-02	pCi/cu m
L67805-3	4JS	04/18/16	04/25/16	GR-B	2.22E-02	2.22E-02	3.76E-03	3.00E-03	1.00E-02	pCi/cu m
L67934-3	4JS	04/25/16	05/02/16	GR-B	1.86E-02	1.86E-02	3.38E-03	2.66E-03	1.00E-02	pCi/cu m
L68038-3	4JS	05/02/16	05/09/16	GR-B	1.40E-02	1.40E-02	3.24E-03	3.11E-03	1.00E-02	pCi/cu m
L68134-3	4JS	05/09/16	05/16/16	GR-B	1.73E-02	1.73E-02	3.49E-03	3.05E-03	1.00E-02	pCi/cu m
L68250-3	4JS	05/16/16	05/23/16	GR-B	1.82E-02	1.82E-02	3.41E-03	2.92E-03	1.00E-02	pCi/cu m
L68348-3	4JS	05/23/16	05/31/16	GR-B	1.98E-02	1.98E-02	3.40E-03	2.77E-03	1.00E-02	pCi/cu m
L68446-3	4JS	05/31/16	06/06/16	GR-B	2.17E-02	2.17E-02	4.15E-03	3.49E-03	1.00E-02	pCi/cu m
L68497-3	4JS	06/06/16	06/13/16	GR-B	1.53E-02	1.53E-02	3.01E-03	2.01E-03	1.00E-02	pCi/cu m
L68575-3	4JS	06/13/16	06/20/16	GR-B	1.67E-02	1.67E-02	3.63E-03	3.72E-03	1.00E-02	pCi/cu m
L68708-3	4JS	06/20/16	06/27/16	GR-B	1.79E-02	1.79E-02	3.52E-03	3.04E-03	1.00E-02	pCi/cu m
L68870-3	4JS	06/27/16	07/05/16	GR-B	1.43E-02	1.43E-02	2.94E-03	2.71E-03	1.00E-02	pCi/cu m
L68843-3	4JS	07/05/16	07/11/16	GR-B	1.77E-02	1.77E-02	3.92E-03	3.80E-03	1.00E-02	pCi/cu m
L68983-3	4JS	07/11/16	07/18/16	GR-B	1.70E-02	1.70E-02	3.32E-03	2.79E-03	1.00E-02	pCi/cu m
L69068-3	4JS	07/18/16	07/25/16	GR-B	2.15E-02	2.15E-02	3.84E-03	3.41E-03	1.00E-02	pCi/cu m
L69192-3	4JS	07/25/16	08/01/16	GR-B	1.67E-02	1.67E-02	3.47E-03	3.28E-03	1.00E-02	pCi/cu m
L69350-3	4JS	08/01/16	08/09/16	GR-B	1.95E-02	1.95E-02	3.45E-03	3.02E-03	1.00E-02	pCi/cu m
L69395-3	4JS	08/09/16	08/16/16	GR-B	1.93E-02	1.93E-02	3.64E-03	3.30E-03	1.00E-02	pCi/cu m
L69486-3	4JS	08/16/16	08/23/16	GR-B	1.55E-02	1.55E-02	3.35E-03	3.15E-03	1.00E-02	pCi/cu m
L69538-3	4JS	08/23/16	08/29/16	GR-B	1.93E-02	1.93E-02	3.90E-03	3.55E-03	1.00E-02	pCi/cu m

L69664-3	4JS	08/29/16	09/06/16	GR-B	1.99E-02	1.99E-02	3.33E-03	2.41E-03	1.00E-02	pCi/cu m
L69763-3	4JS	09/06/16	09/12/16	GR-B	1.43E-02	1.43E-02	3.71E-03	3.91E-03	1.00E-02	pCi/cu m
L69825-3	4JS	09/12/16	09/19/16	GR-B	2.09E-02	2.09E-02	3.54E-03	2.62E-03	1.00E-02	pCi/cu m
L69950-3	4JS	09/19/16	09/26/16	GR-B	2.51E-02	2.51E-02	4.01E-03	3.21E-03	1.00E-02	pCi/cu m
L70049-3	4JS	09/26/16	10/03/16	GR-B	1.31E-02	1.31E-02	3.00E-03	2.71E-03	1.00E-02	pCi/cu m
L70217-3	4JS	10/03/16	10/11/16	GR-B	2.48E-02	2.48E-02	3.44E-03	2.17E-03	1.00E-02	pCi/cu m
L70295-3	4JS	10/11/16	10/17/16	GR-B	2.72E-02	2.72E-02	4.30E-03	2.99E-03	1.00E-02	pCi/cu m
L70397-3	4JS	10/17/16	10/24/16	GR-B	1.69E-02	1.69E-02	3.86E-03	4.18E-03	1.00E-02	pCi/cu m
L70499-3	4JS	10/24/16	10/31/16	GR-B	2.06E-02	2.06E-02	3.57E-03	2.76E-03	1.00E-02	pCi/cu m
L70607-3	4JS	10/31/16	11/07/16	GR-B	3.06E-02	3.06E-02	4.47E-03	3.58E-03	1.00E-02	pCi/cu m
L70674-3	4JS	11/07/16	11/14/16	GR-B	1.98E-02	1.98E-02	3.83E-03	3.66E-03	1.00E-02	pCi/cu m
L70750-3C	4JS	11/14/16	11/21/16	GR-B	4.09E-02	4.09E-02	4.90E-03	3.60E-03	1.00E-02	pCi/cu m
L70820-3	4JS	11/21/16	11/28/16	GR-B	2.02E-02	2.02E-02	3.77E-03	3.62E-03	1.00E-02	pCi/cu m
L70890-3	4JS	11/28/16	12/05/16	GR-B	1.85E-02	1.85E-02	3.45E-03	3.09E-03	1.00E-02	pCi/cu m
L70965-3	4JS	12/05/16	12/12/16	GR-B	2.26E-02	2.26E-02	3.54E-03	2.10E-03	1.00E-02	pCi/cu m
L71049-3	4JS	12/12/16	12/19/16	GR-B	2.07E-02	2.07E-02	3.50E-03	2.86E-03	1.00E-02	pCi/cu m
L71115-3	4JS	12/19/16	12/27/16	GR-B	2.30E-02	2.30E-02	3.68E-03	3.27E-03	1.00E-02	pCi/cu m
L71192-3	4JS	12/27/16	01/03/17	GR-B	1.81E-02	1.81E-02	3.40E-03	3.04E-03	1.00E-02	pCi/cu m
L67700-3	4JS	12/28/15	03/28/16	BE-7	8.87E-02	8.87E-02	2.70E-02	1.66E-02		pCi/cu m
L68993-3	4JS	03/28/16	06/27/16	BE-7	2.13E-01	2.13E-01	6.09E-02	4.52E-02		pCi/cu m
L70489-3	4JS	06/27/16	10/03/16	BE-7	1.09E-01	1.09E-01	3.88E-02	4.24E-02		pCi/cu m
L71380-3	4JS	10/03/16	01/03/17	BE-7	9.40E-02	9.40E-02	3.10E-02	2.62E-02		pCi/cu m
L67700-3	4JS	12/28/15	03/28/16	CS-134	< 1.00E-03	-5.45E-04	6.91E-04	1.00E-03	5.00E-02	pCi/cu m
L68993-3	4JS	03/28/16	06/27/16	CS-134	< 3.72E-03	2.00E-03	2.25E-03	3.72E-03	5.00E-02	pCi/cu m
L70489-3	4JS	06/27/16	10/03/16	CS-134	< 1.94E-03	1.28E-03	1.02E-03	1.94E-03	5.00E-02	pCi/cu m
L71380-3	4JS	10/03/16	01/03/17	CS-134	< 1.61E-03	1.94E-04	9.49E-04	1.61E-03	5.00E-02	pCi/cu m
L67700-3	4JS	12/28/15	03/28/16	CS-137	< 1.03E-03	4.59E-04	5.14E-04	1.03E-03	6.00E-02	pCi/cu m
L68993-3	4JS	03/28/16	06/27/16	CS-137	< 3.47E-03	1.00E-03	1.95E-03	3.47E-03	6.00E-02	pCi/cu m
L70489-3	4JS	06/27/16	10/03/16	CS-137	< 1.72E-03	-2.10E-04	1.07E-03	1.72E-03	6.00E-02	pCi/cu m
L71380-3	4JS	10/03/16	01/03/17	CS-137	< 1.65E-03	2.20E-05	1.00E-03	1.65E-03	6.00E-02	pCi/cu m
L68993-3	4JS	03/28/16	06/27/16	K-40	5.71E-02	5.71E-02	3.05E-02	3.80E-02		pCi/cu m

5PR
AIR PARTICULATE

LAB ID	STATION	COLLECT START	COLLECT STOP	NUCLIDE	REPORTABLE	ACTIVITY	ERROR	MDC	LLD	UNITS
L66380-4	5PR	12/28/15	01/04/16	GR-B	2.15E-02	2.15E-02	3.66E-03	3.05E-03	1.00E-02	pCi/cu m
L66484-4	5PR	01/04/16	01/11/16	GR-B	1.95E-02	1.95E-02	4.37E-03	4.33E-03	1.00E-02	pCi/cu m
L66586-4	5PR	01/11/16	01/18/16	GR-B	8.79E-02	8.79E-02	2.00E-02	1.83E-02	1.00E-02	pCi/cu m
L66674-4	5PR	01/18/16	01/25/16	GR-B	2.36E-02	2.36E-02	4.31E-03	3.44E-03	1.00E-02	pCi/cu m

L66746-4	5PR	01/25/16	02/01/16	GR-B	2.13E-02	2.13E-02	3.56E-03	2.86E-03	1.00E-02	pCi/cu m
L66862-4	5PR	02/01/16	02/08/16	GR-B	2.15E-02	2.15E-02	4.34E-03	3.88E-03	1.00E-02	pCi/cu m
L66938-4	5PR	02/08/16	02/16/16	GR-B	1.79E-02	1.79E-02	3.29E-03	3.07E-03	1.00E-02	pCi/cu m
L67019-4	5PR	02/16/16	02/22/16	GR-B	1.83E-02	1.83E-02	4.56E-03	4.61E-03	1.00E-02	pCi/cu m
L67073-4	5PR	02/22/16	02/29/16	GR-B	1.95E-02	1.95E-02	3.30E-03	2.36E-03	1.00E-02	pCi/cu m
L67178-4	5PR	02/29/16	03/07/16	GR-B	1.57E-02	1.57E-02	3.95E-03	4.14E-03	1.00E-02	pCi/cu m
L67315-4	5PR	03/07/16	03/14/16	GR-B	2.22E-02	2.22E-02	3.73E-03	3.09E-03	1.00E-02	pCi/cu m
L67316-4	5PR	03/14/16	03/21/16	GR-B	1.61E-02	1.61E-02	4.13E-03	4.37E-03	1.00E-02	pCi/cu m
L67391-4	5PR	03/21/16	03/28/16	GR-B	1.67E-02	1.67E-02	3.36E-03	3.02E-03	1.00E-02	pCi/cu m
L67500-4	5PR	03/28/16	04/04/16	GR-B	1.52E-02	1.52E-02	4.12E-03	4.54E-03	1.00E-02	pCi/cu m
L67590-4	5PR	04/04/16	04/11/16	GR-B	1.84E-02	1.84E-02	3.26E-03	2.52E-03	1.00E-02	pCi/cu m
L67702-4	5PR	04/11/16	04/18/16	GR-B	2.11E-02	2.11E-02	4.26E-03	3.73E-03	1.00E-02	pCi/cu m
L67805-4	5PR	04/18/16	04/25/16	GR-B	2.31E-02	2.31E-02	3.85E-03	3.04E-03	1.00E-02	pCi/cu m
L67934-4	5PR	04/25/16	05/02/16	GR-B	2.03E-02	2.03E-02	4.14E-03	3.49E-03	1.00E-02	pCi/cu m
L68038-4	5PR	05/02/16	05/09/16	GR-B	1.48E-02	1.48E-02	3.32E-03	3.14E-03	1.00E-02	pCi/cu m
L68134-4	5PR	05/09/16	05/16/16	GR-B	2.01E-02	2.01E-02	4.37E-03	3.98E-03	1.00E-02	pCi/cu m
L68250-4	5PR	05/16/16	05/23/16	GR-B	1.70E-02	1.70E-02	3.37E-03	2.99E-03	1.00E-02	pCi/cu m
L68348-4	5PR	05/23/16	05/31/16	GR-B	2.09E-02	2.09E-02	4.10E-03	3.61E-03	1.00E-02	pCi/cu m
L68446-4	5PR	05/31/16	06/06/16	GR-B	1.93E-02	1.93E-02	4.00E-03	3.52E-03	1.00E-02	pCi/cu m
L68497-4	5PR	06/06/16	06/13/16	GR-B	2.22E-02	2.22E-02	4.09E-03	2.59E-03	1.00E-02	pCi/cu m
L68575-4	5PR	06/13/16	06/20/16	GR-B	1.51E-02	1.51E-02	3.64E-03	3.91E-03	1.00E-02	pCi/cu m
L68708-4	5PR	06/20/16	06/27/16	GR-B	2.10E-02	2.10E-02	4.46E-03	4.01E-03	1.00E-02	pCi/cu m
L68870-4	5PR	06/27/16	07/05/16	GR-B	1.34E-02	1.34E-02	2.93E-03	2.78E-03	1.00E-02	pCi/cu m
L68843-4	5PR	07/05/16	07/11/16	GR-B	1.72E-02	1.72E-02	4.89E-03	5.29E-03	1.00E-02	pCi/cu m
L68983-4	5PR	07/11/16	07/18/16	GR-B	1.72E-02	1.72E-02	3.48E-03	2.99E-03	1.00E-02	pCi/cu m
L69068-4	5PR	07/18/16	07/25/16	GR-B	2.40E-02	2.40E-02	4.97E-03	4.76E-03	1.00E-02	pCi/cu m
L69192-4	5PR	07/25/16	08/01/16	GR-B	1.77E-02	1.77E-02	3.68E-03	3.48E-03	1.00E-02	pCi/cu m
L69350-4	5PR	08/01/16	08/09/16	GR-B	1.77E-02	1.77E-02	4.08E-03	4.10E-03	1.00E-02	pCi/cu m
L69395-4	5PR	08/09/16	08/16/16	GR-B	1.97E-02	1.97E-02	3.85E-03	3.56E-03	1.00E-02	pCi/cu m
L69486-4	5PR	08/16/16	08/23/16	GR-B	1.72E-02	1.72E-02	4.23E-03	4.25E-03	1.00E-02	pCi/cu m
L69538-4	5PR	08/23/16	08/29/16	GR-B	2.42E-02	2.42E-02	4.41E-03	3.80E-03	1.00E-02	pCi/cu m
L69664-4	5PR	08/29/16	09/06/16	GR-B	2.35E-02	2.35E-02	4.22E-03	3.20E-03	1.00E-02	pCi/cu m
L69763-4	5PR	09/06/16	09/12/16	GR-B	1.84E-02	1.84E-02	4.16E-03	4.12E-03	1.00E-02	pCi/cu m
L69825-4	5PR	09/12/16	09/19/16	GR-B	2.10E-02	2.10E-02	4.26E-03	3.53E-03	1.00E-02	pCi/cu m
L69950-4	5PR	09/19/16	09/26/16	GR-B	2.90E-02	2.90E-02	4.34E-03	3.35E-03	1.00E-02	pCi/cu m
L70049-4	5PR	09/26/16	10/03/16	GR-B	1.55E-02	1.55E-02	3.82E-03	3.57E-03	1.00E-02	pCi/cu m
L70217-4	5PR	10/03/16	10/11/16	GR-B	2.24E-02	2.24E-02	3.38E-03	2.27E-03	1.00E-02	pCi/cu m
L70295-4	5PR	10/11/16	10/17/16	GR-B	2.73E-02	2.73E-02	5.13E-03	3.99E-03	1.00E-02	pCi/cu m

L70397-4	5PR	10/17/16	10/24/16	GR-B	1.63E-02	1.63E-02	3.96E-03	4.39E-03	1.00E-02	pCi/cu m
L70499-4	5PR	10/24/16	10/31/16	GR-B	2.34E-02	2.34E-02	4.40E-03	3.57E-03	1.00E-02	pCi/cu m
L70607-4	5PR	10/31/16	11/07/16	GR-B	2.67E-02	2.67E-02	4.35E-03	3.72E-03	1.00E-02	pCi/cu m
L70674-4	5PR	11/07/16	11/14/16	GR-B	2.59E-02	2.59E-02	5.18E-03	5.04E-03	1.00E-02	pCi/cu m
L70750-4C	5PR	11/14/16	11/21/16	GR-B	3.72E-02	3.72E-02	4.84E-03	3.75E-03	1.00E-02	pCi/cu m
L70820-4	5PR	11/21/16	11/28/16	GR-B	1.91E-02	1.91E-02	4.64E-03	5.02E-03	1.00E-02	pCi/cu m
L70890-4	5PR	11/28/16	12/05/16	GR-B	1.68E-02	1.68E-02	3.44E-03	3.23E-03	1.00E-02	pCi/cu m
L70965-4	5PR	12/05/16	12/12/16	GR-B	2.50E-02	2.50E-02	4.44E-03	2.90E-03	1.00E-02	pCi/cu m
L71049-4	5PR	12/12/16	12/19/16	GR-B	2.06E-02	2.06E-02	3.60E-03	2.99E-03	1.00E-02	pCi/cu m
L71115-4	5PR	12/19/16	12/27/16	GR-B	2.61E-02	2.61E-02	4.77E-03	4.54E-03	1.00E-02	pCi/cu m
L71192-4	5PR	12/27/16	01/03/17	GR-B	2.12E-02	2.12E-02	3.68E-03	3.16E-03	1.00E-02	pCi/cu m
L67700-4	5PR	12/28/15	03/28/16	BE-7	1.24E-01	1.24E-01	3.07E-02	3.60E-02		pCi/cu m
L68993-4	5PR	03/28/16	06/27/16	BE-7	1.37E-01	1.37E-01	4.51E-02	4.65E-02		pCi/cu m
L70489-4	5PR	06/27/16	10/03/16	BE-7	1.17E-01	1.17E-01	7.57E-02	8.26E-02		pCi/cu m
L71380-4	5PR	10/03/16	01/03/17	BE-7	8.11E-02	8.11E-02	2.78E-02	3.42E-02		pCi/cu m
L67700-4	5PR	12/28/15	03/28/16	CS-134	< 2.26E-03	1.38E-03	1.21E-03	2.26E-03	5.00E-02	pCi/cu m
L68993-4	5PR	03/28/16	06/27/16	CS-134	< 2.31E-03	-5.45E-05	1.40E-03	2.31E-03	5.00E-02	pCi/cu m
L70489-4	5PR	06/27/16	10/03/16	CS-134	< 3.55E-03	1.22E-03	2.00E-03	3.55E-03	5.00E-02	pCi/cu m
L71380-4	5PR	10/03/16	01/03/17	CS-134	< 2.40E-03	1.72E-04	1.45E-03	2.40E-03	5.00E-02	pCi/cu m
L67700-4	5PR	12/28/15	03/28/16	CS-137	< 1.76E-03	-4.34E-04	1.13E-03	1.76E-03	6.00E-02	pCi/cu m
L68993-4	5PR	03/28/16	06/27/16	CS-137	< 2.22E-03	-8.65E-04	1.53E-03	2.22E-03	6.00E-02	pCi/cu m
L70489-4	5PR	06/27/16	10/03/16	CS-137	< 3.48E-03	-2.63E-05	2.14E-03	3.48E-03	6.00E-02	pCi/cu m
L71380-4	5PR	10/03/16	01/03/17	CS-137	< 1.93E-03	-4.96E-04	1.25E-03	1.93E-03	6.00E-02	pCi/cu m
L71380-4	5PR	10/03/16	01/03/17	K-40	3.79E-02	3.79E-02	2.41E-02	2.79E-02		pCi/cu m

8SP
AIR PARTICULATE

LAB ID	STATION	COLLECT START	COLLECT STOP	NUCLIDE	REPORTABLE	ACTIVITY	ERROR	MDC	LLD	UNITS
L66380-1	8SP	12/28/15	01/04/16	GR-B	2.67E-02	2.67E-02	3.97E-03	3.05E-03	1.00E-02	pCi/cu m
L66484-1	8SP	01/04/16	01/11/16	GR-B	1.84E-02	1.84E-02	3.60E-03	3.33E-03	1.00E-02	pCi/cu m
L66586-1	8SP	01/11/16	01/18/16	GR-B	2.79E-02	2.79E-02	4.03E-03	2.79E-03	1.00E-02	pCi/cu m
L66674-1	8SP	01/18/16	01/25/16	GR-B	2.17E-02	2.17E-02	3.58E-03	2.68E-03	1.00E-02	pCi/cu m
L66746-1	8SP	01/25/16	02/01/16	GR-B	2.56E-02	2.56E-02	3.88E-03	2.92E-03	1.00E-02	pCi/cu m
L66862-1	8SP	02/01/16	02/08/16	GR-B	2.11E-02	2.11E-02	3.69E-03	3.04E-03	1.00E-02	pCi/cu m
L66938-1	8SP	02/08/16	02/16/16	GR-B	1.94E-02	1.94E-02	3.41E-03	3.11E-03	1.00E-02	pCi/cu m
L67019-1	8SP	02/16/16	02/22/16	GR-B	1.72E-02	1.72E-02	3.82E-03	3.65E-03	1.00E-02	pCi/cu m
L67073-1	8SP	02/22/16	02/29/16	GR-B	2.14E-02	2.14E-02	3.47E-03	2.40E-03	1.00E-02	pCi/cu m
L67178-1	8SP	02/29/16	03/07/16	GR-B	1.56E-02	1.56E-02	3.36E-03	3.28E-03	1.00E-02	pCi/cu m
L67315-1	8SP	03/07/16	03/14/16	GR-B	2.25E-02	2.25E-02	3.77E-03	3.12E-03	1.00E-02	pCi/cu m

L67316-1	8SP	03/14/16	03/21/16	GR-B	1.43E-02	1.43E-02	3.36E-03	3.41E-03	1.00E-02	pCi/cu m
L67391-1	8SP	03/21/16	03/28/16	GR-B	1.76E-02	1.76E-02	3.45E-03	3.07E-03	1.00E-02	pCi/cu m
L67500-1	8SP	03/28/16	04/04/16	GR-B	1.26E-02	1.26E-02	3.98E-03	4.64E-03	1.00E-02	pCi/cu m
L67590-1	8SP	04/04/16	04/11/16	GR-B	1.99E-02	1.99E-02	3.46E-03	2.64E-03	1.00E-02	pCi/cu m
L67702-1	8SP	04/11/16	04/18/16	GR-B	1.85E-02	1.85E-02	3.48E-03	2.93E-03	1.00E-02	pCi/cu m
L67805-1	8SP	04/18/16	04/25/16	GR-B	1.95E-02	1.95E-02	3.63E-03	3.07E-03	1.00E-02	pCi/cu m
L67934-1	8SP	04/25/16	05/02/16	GR-B	1.33E-01	1.33E-01	4.05E-02	4.18E-02	1.00E-02	pCi/cu m
L68038-1	8SP	05/02/16	05/09/16	GR-B	1.91E-02	1.91E-02	5.01E-03	5.09E-03	1.00E-02	pCi/cu m
L68134-1	8SP	05/09/16	05/16/16	GR-B	2.16E-02	2.16E-02	4.98E-03	4.68E-03	1.00E-02	pCi/cu m
L68250-1	8SP	05/16/16	05/23/16	GR-B	2.58E-02	2.58E-02	5.21E-03	4.66E-03	1.00E-02	pCi/cu m
L68348-1	8SP	05/23/16	05/31/16	GR-B	2.90E-02	2.90E-02	5.46E-03	4.70E-03	1.00E-02	pCi/cu m
L68446-1	8SP	05/31/16	06/06/16	GR-B	2.91E-02	2.91E-02	7.07E-03	6.77E-03	1.00E-02	pCi/cu m
L68497-1	8SP	06/06/16	06/13/16	GR-B	2.09E-02	2.09E-02	4.53E-03	3.22E-03	1.00E-02	pCi/cu m
L68575-1	8SP	06/13/16	06/20/16	GR-B	1.47E-02	1.47E-02	4.96E-03	5.99E-03	1.00E-02	pCi/cu m
L68708-1	8SP	06/20/16	06/27/16	GR-B	1.85E-02	1.85E-02	4.83E-03	4.83E-03	1.00E-02	pCi/cu m
L68870-1	8SP	06/27/16	07/05/16	GR-B	1.73E-02	1.73E-02	4.31E-03	4.35E-03	1.00E-02	pCi/cu m
L68843-1	8SP	07/05/16	07/11/16	GR-B	2.46E-02	2.46E-02	6.00E-03	6.09E-03	1.00E-02	pCi/cu m
L68983-1	8SP	07/11/16	07/18/16	GR-B	2.17E-02	2.17E-02	4.99E-03	4.60E-03	1.00E-02	pCi/cu m
L69068-1	8SP	07/18/16	07/25/16	GR-B	2.07E-02	2.07E-02	5.62E-03	6.08E-03	1.00E-02	pCi/cu m
L69192-1	8SP	07/25/16	08/01/16	GR-B	2.40E-02	2.40E-02	5.85E-03	5.97E-03	1.00E-02	pCi/cu m
L69350-1	8SP	08/01/16	08/09/16	GR-B	2.79E-02	2.79E-02	5.69E-03	5.37E-03	1.00E-02	pCi/cu m
L69395-1	8SP	08/09/16	08/16/16	GR-B	2.52E-02	2.52E-02	5.93E-03	6.00E-03	1.00E-02	pCi/cu m
L69486-1	8SP	08/16/16	08/23/16	GR-B	2.02E-02	2.02E-02	5.50E-03	5.77E-03	1.00E-02	pCi/cu m
L69538-1	8SP	08/23/16	08/29/16	GR-B	2.73E-02	2.73E-02	6.56E-03	6.51E-03	1.00E-02	pCi/cu m
L69664-1	8SP	08/29/16	09/06/16	GR-B	2.75E-02	2.75E-02	5.47E-03	4.41E-03	1.00E-02	pCi/cu m
L69763-1	8SP	09/06/16	09/12/16	GR-B	2.29E-02	2.29E-02	6.54E-03	7.17E-03	1.00E-02	pCi/cu m
L69825-1	8SP	09/12/16	09/19/16	GR-B	2.66E-02	2.66E-02	5.61E-03	4.76E-03	1.00E-02	pCi/cu m
L69950-1	8SP	09/19/16	09/26/16	GR-B	3.55E-02	3.55E-02	6.67E-03	5.89E-03	1.00E-02	pCi/cu m
L70049-1	8SP	09/26/16	10/03/16	GR-B	1.67E-02	1.67E-02	4.86E-03	4.92E-03	1.00E-02	pCi/cu m
L70217-1	8SP	10/03/16	10/11/16	GR-B	3.06E-02	3.06E-02	5.32E-03	3.94E-03	1.00E-02	pCi/cu m
L70295-1	8SP	10/11/16	10/17/16	GR-B	3.10E-02	3.10E-02	6.59E-03	5.52E-03	1.00E-02	pCi/cu m
L70397-1	8SP	10/17/16	10/24/16	GR-B	1.98E-02	1.98E-02	6.30E-03	7.66E-03	1.00E-02	pCi/cu m
L70499-1	8SP	10/24/16	10/31/16	GR-B	2.55E-02	2.55E-02	5.60E-03	4.97E-03	1.00E-02	pCi/cu m
L70607-1	8SP	10/31/16	11/07/16	GR-B	3.67E-02	3.67E-02	6.88E-03	6.35E-03	1.00E-02	pCi/cu m
L70674-1	8SP	11/07/16	11/14/16	GR-B	2.79E-02	2.79E-02	6.25E-03	6.41E-03	1.00E-02	pCi/cu m
L70750-1C	8SP	11/14/16	11/21/16	GR-B	4.24E-02	4.24E-02	7.08E-03	6.35E-03	1.00E-02	pCi/cu m
L70820-1	8SP	11/21/16	11/28/16	GR-B	2.71E-02	2.71E-02	6.36E-03	6.78E-03	1.00E-02	pCi/cu m
L70890-1	8SP	11/28/16	12/05/16	GR-B	1.72E-02	1.72E-02	5.28E-03	5.92E-03	1.00E-02	pCi/cu m

L70965-1	8SP	12/05/16	12/12/16	GR-B	3.09E-02	3.09E-02	5.81E-03	3.96E-03	1.00E-02	pCi/cu m
L71049-1	8SP	12/12/16	12/19/16	GR-B	2.43E-02	2.43E-02	5.53E-03	5.31E-03	1.00E-02	pCi/cu m
L71115-1	8SP	12/19/16	12/27/16	GR-B	3.04E-02	3.04E-02	6.19E-03	6.20E-03	1.00E-02	pCi/cu m
L71192-1	8SP	12/27/16	01/03/17	GR-B	2.28E-02	2.28E-02	5.61E-03	5.75E-03	1.00E-02	pCi/cu m
L67700-1	8SP	12/28/15	03/28/16	BE-7	6.49E-02	6.49E-02	2.54E-02	3.04E-02		pCi/cu m
L68993-1	8SP	03/28/16	06/27/16	BE-7	1.41E-01	1.41E-01	5.17E-02	5.26E-02		pCi/cu m
L70489-1	8SP	06/27/16	10/03/16	BE-7	1.06E-01	1.06E-01	3.51E-02	5.03E-02		pCi/cu m
L71380-1	8SP	10/03/16	01/03/17	BE-7	8.30E-02	8.30E-02	3.55E-02	6.08E-02		pCi/cu m
L67700-1	8SP	12/28/15	03/28/16	CS-134	< 1.64E-03	2.52E-05	1.01E-03	1.64E-03	5.00E-02	pCi/cu m
L68993-1	8SP	03/28/16	06/27/16	CS-134	< 3.18E-03	4.86E-04	1.84E-03	3.18E-03	5.00E-02	pCi/cu m
L70489-1	8SP	06/27/16	10/03/16	CS-134	< 2.66E-03	1.73E-05	1.89E-03	2.66E-03	5.00E-02	pCi/cu m
L71380-1	8SP	10/03/16	01/03/17	CS-134	< 3.83E-03	2.02E-03	2.05E-03	3.83E-03	5.00E-02	pCi/cu m
L67700-1	8SP	12/28/15	03/28/16	CS-137	< 1.47E-03	-2.00E-04	8.90E-04	1.47E-03	6.00E-02	pCi/cu m
L68993-1	8SP	03/28/16	06/27/16	CS-137	< 1.77E-03	-1.08E-03	1.36E-03	1.77E-03	6.00E-02	pCi/cu m
L70489-1	8SP	06/27/16	10/03/16	CS-137	< 2.97E-03	2.04E-03	1.50E-03	2.97E-03	6.00E-02	pCi/cu m
L71380-1	8SP	10/03/16	01/03/17	CS-137	< 3.56E-03	1.32E-03	1.90E-03	3.56E-03	6.00E-02	pCi/cu m

9TP
AIR PARTICULATE

LAB ID	STATION	COLLECT START	COLLECT STOP	NUCLIDE	REPORTABLE	ACTIVITY	ERROR	MDC	LLD	UNITS
L66380-2	9TP	12/28/15	01/04/16	GR-B	2.42E-02	2.42E-02	3.85E-03	3.09E-03	1.00E-02	pCi/cu m
L66484-2	9TP	01/04/16	01/11/16	GR-B	2.15E-02	2.15E-02	3.81E-03	3.33E-03	1.00E-02	pCi/cu m
L66586-2	9TP	01/11/16	01/18/16	GR-B	2.87E-02	2.87E-02	4.10E-03	2.81E-03	1.00E-02	pCi/cu m
L66674-2	9TP	01/18/16	01/25/16	GR-B	2.19E-02	2.19E-02	3.60E-03	2.68E-03	1.00E-02	pCi/cu m
L66746-2	9TP	01/25/16	02/01/16	GR-B	2.34E-02	2.34E-02	3.78E-03	2.97E-03	1.00E-02	pCi/cu m
L66862-2	9TP	02/01/16	02/08/16	GR-B	2.20E-02	2.20E-02	3.75E-03	3.04E-03	1.00E-02	pCi/cu m
L66938-2	9TP	02/08/16	02/16/16	GR-B	1.49E-02	1.49E-02	3.15E-03	3.15E-03	1.00E-02	pCi/cu m
L67019-2	9TP	02/16/16	02/22/16	GR-B	1.87E-02	1.87E-02	3.93E-03	3.65E-03	1.00E-02	pCi/cu m
L67073-2	9TP	02/22/16	02/29/16	GR-B	1.99E-02	1.99E-02	3.40E-03	2.44E-03	1.00E-02	pCi/cu m
L67178-2	9TP	02/29/16	03/07/16	GR-B	1.61E-02	1.61E-02	3.36E-03	3.23E-03	1.00E-02	pCi/cu m
L67315-2	9TP	03/07/16	03/14/16	GR-B	1.90E-02	1.90E-02	3.59E-03	3.17E-03	1.00E-02	pCi/cu m
L67316-2	9TP	03/14/16	03/21/16	GR-B	1.15E-02	1.15E-02	3.15E-03	3.41E-03	1.00E-02	pCi/cu m
L67391-2	9TP	03/21/16	03/28/16	GR-B	1.43E-02	1.43E-02	3.25E-03	3.12E-03	1.00E-02	pCi/cu m
L67500-2	9TP	03/28/16	04/04/16	GR-B	1.59E-02	1.59E-02	3.48E-03	3.52E-03	1.00E-02	pCi/cu m
L67590-2	9TP	04/04/16	04/11/16	GR-B	1.69E-02	1.69E-02	3.22E-03	2.60E-03	1.00E-02	pCi/cu m
L67702-2	9TP	04/11/16	04/18/16	GR-B	1.99E-02	1.99E-02	3.60E-03	2.96E-03	1.00E-02	pCi/cu m
L67805-2	9TP	04/18/16	04/25/16	GR-B	2.35E-02	2.35E-02	4.02E-03	3.22E-03	1.00E-02	pCi/cu m
L67934-2	9TP	04/25/16	05/02/16	GR-B	1.82E-02	1.82E-02	3.42E-03	2.74E-03	1.00E-02	pCi/cu m
L68038-2	9TP	05/02/16	05/09/16	GR-B	1.48E-02	1.48E-02	3.53E-03	3.44E-03	1.00E-02	pCi/cu m

L68134-2	9TP	05/09/16	05/16/16	GR-B	1.87E-02	1.87E-02	3.80E-03	3.35E-03	1.00E-02	pCi/cu m
L68250-2	9TP	05/16/16	05/23/16	GR-B	1.64E-02	1.64E-02	3.51E-03	3.24E-03	1.00E-02	pCi/cu m
L68348-2	9TP	05/23/16	05/31/16	GR-B	2.09E-02	2.09E-02	3.85E-03	3.27E-03	1.00E-02	pCi/cu m
L68446-2	9TP	05/31/16	06/06/16	GR-B	2.41E-02	2.41E-02	4.80E-03	4.14E-03	1.00E-02	pCi/cu m
L68497-2	9TP	06/06/16	06/13/16	GR-B	2.02E-02	2.02E-02	3.75E-03	2.38E-03	1.00E-02	pCi/cu m
L68575-2	9TP	06/13/16	06/20/16	GR-B	1.42E-02	1.42E-02	3.95E-03	4.47E-03	1.00E-02	pCi/cu m
L68708-2	9TP	06/20/16	06/27/16	GR-B	1.75E-02	1.75E-02	3.93E-03	3.65E-03	1.00E-02	pCi/cu m
L68870-2	9TP	06/27/16	07/05/16	GR-B	1.35E-02	1.35E-02	3.31E-03	3.31E-03	1.00E-02	pCi/cu m
L68843-2	9TP	07/05/16	07/11/16	GR-B	2.12E-02	2.12E-02	4.76E-03	4.65E-03	1.00E-02	pCi/cu m
L68983-2	9TP	07/11/16	07/18/16	GR-B	1.93E-02	1.93E-02	4.01E-03	3.49E-03	1.00E-02	pCi/cu m
L69068-2	9TP	07/18/16	07/25/16	GR-B	2.34E-02	2.34E-02	4.53E-03	4.19E-03	1.00E-02	pCi/cu m
L69192-2	9TP	07/25/16	08/01/16	GR-B	2.15E-02	2.15E-02	4.41E-03	4.15E-03	1.00E-02	pCi/cu m
L69350-2	9TP	08/01/16	08/09/16	GR-B	1.85E-02	1.85E-02	3.89E-03	3.73E-03	1.00E-02	pCi/cu m
L69395-2	9TP	08/09/16	08/16/16	GR-B	2.26E-02	2.26E-02	4.46E-03	4.13E-03	1.00E-02	pCi/cu m
L69486-2	9TP	08/16/16	08/23/16	GR-B	1.44E-02	1.44E-02	3.81E-03	3.94E-03	1.00E-02	pCi/cu m
L69538-2	9TP	08/23/16	08/29/16	GR-B	1.86E-02	1.86E-02	4.52E-03	4.51E-03	1.00E-02	pCi/cu m
L69664-2	9TP	08/29/16	09/06/16	GR-B	2.38E-02	2.38E-02	4.05E-03	2.97E-03	1.00E-02	pCi/cu m
L69763-2	9TP	09/06/16	09/12/16	GR-B	1.90E-02	1.90E-02	4.78E-03	4.98E-03	1.00E-02	pCi/cu m
L69825-2	9TP	09/12/16	09/19/16	GR-B	2.14E-02	2.14E-02	4.07E-03	3.25E-03	1.00E-02	pCi/cu m
L69950-2	9TP	09/19/16	09/26/16	GR-B	3.10E-02	3.10E-02	4.99E-03	4.02E-03	1.00E-02	pCi/cu m
L70049-2	9TP	09/26/16	10/03/16	GR-B	1.43E-02	1.43E-02	3.54E-03	3.32E-03	1.00E-02	pCi/cu m
L70217-2	9TP	10/03/16	10/11/16	GR-B	2.39E-02	2.39E-02	3.90E-03	2.77E-03	1.00E-02	pCi/cu m
L70295-2	9TP	10/11/16	10/17/16	GR-B	2.35E-02	2.35E-02	4.60E-03	3.68E-03	1.00E-02	pCi/cu m
L70397-2	9TP	10/17/16	10/24/16	GR-B	1.99E-02	1.99E-02	4.77E-03	5.28E-03	1.00E-02	pCi/cu m
L70499-2	9TP	10/24/16	10/31/16	GR-B	2.15E-02	2.15E-02	4.07E-03	3.32E-03	1.00E-02	pCi/cu m
L70607-2	9TP	10/31/16	11/07/16	GR-B	3.05E-02	3.05E-02	4.98E-03	4.26E-03	1.00E-02	pCi/cu m
L70674-2	9TP	11/07/16	11/14/16	GR-B	2.65E-02	2.65E-02	4.69E-03	4.29E-03	1.00E-02	pCi/cu m
L70750-2C	9TP	11/14/16	11/21/16	GR-B	4.04E-02	4.04E-02	5.46E-03	4.32E-03	1.00E-02	pCi/cu m
L70820-2	9TP	11/21/16	11/28/16	GR-B	1.99E-02	1.99E-02	4.14E-03	4.20E-03	1.00E-02	pCi/cu m
L70890-2	9TP	11/28/16	12/05/16	GR-B	2.08E-02	2.08E-02	4.05E-03	3.70E-03	1.00E-02	pCi/cu m
L70965-2	9TP	12/05/16	12/12/16	GR-B	2.57E-02	2.57E-02	4.09E-03	2.46E-03	1.00E-02	pCi/cu m
L71049-2	9TP	12/12/16	12/19/16	GR-B	2.04E-02	2.04E-02	3.88E-03	3.38E-03	1.00E-02	pCi/cu m
L71115-2	9TP	12/19/16	12/27/16	GR-B	2.84E-02	2.84E-02	4.38E-03	3.81E-03	1.00E-02	pCi/cu m
L71192-2	9TP	12/27/16	01/03/17	GR-B	2.03E-02	2.03E-02	3.96E-03	3.62E-03	1.00E-02	pCi/cu m
L67700-2	9TP	12/28/15	03/28/16	BE-7	9.94E-02	9.94E-02	3.57E-02	5.61E-02		pCi/cu m
L68993-2	9TP	03/28/16	06/27/16	BE-7	1.58E-01	1.58E-01	4.09E-02	3.87E-02		pCi/cu m
L70489-2	9TP	06/27/16	10/03/16	BE-7	1.18E-01	1.18E-01	3.58E-02	5.05E-02		pCi/cu m
L71380-2	9TP	10/03/16	01/03/17	BE-7	1.11E-01	1.11E-01	3.13E-02	3.49E-02		pCi/cu m

L67700-2	9TP	12/28/15	03/28/16	CS-134	< 2.53E-03	1.77E-03	1.34E-03	2.53E-03	5.00E-02	pCi/cu m
L68993-2	9TP	03/28/16	06/27/16	CS-134	< 1.84E-03	-4.67E-05	1.12E-03	1.84E-03	5.00E-02	pCi/cu m
L70489-2	9TP	06/27/16	10/03/16	CS-134	< 2.14E-03	-1.27E-03	1.47E-03	2.14E-03	5.00E-02	pCi/cu m
L71380-2	9TP	10/03/16	01/03/17	CS-134	< 2.10E-03	-1.79E-06	1.28E-03	2.10E-03	5.00E-02	pCi/cu m
L67700-2	9TP	12/28/15	03/28/16	CS-137	< 2.43E-03	2.02E-03	1.21E-03	2.43E-03	6.00E-02	pCi/cu m
L68993-2	9TP	03/28/16	06/27/16	CS-137	< 2.07E-03	6.70E-04	1.12E-03	2.07E-03	6.00E-02	pCi/cu m
L70489-2	9TP	06/27/16	10/03/16	CS-137	< 1.75E-03	-4.16E-04	1.15E-03	1.75E-03	6.00E-02	pCi/cu m
L71380-2	9TP	10/03/16	01/03/17	CS-137	< 2.30E-03	-5.61E-04	1.51E-03	2.30E-03	6.00E-02	pCi/cu m

GR10/10GR
AIR PARTICULATE

LAB ID	STATION	COLLECT START	COLLECT STOP	NUCLIDE	REPORTABLE	ACTIVITY	ERROR	MDC	LLD	UNITS
L66484-5	10GR	12/28/15	01/04/16	GR-B	2.83E-02	2.83E-02	4.26E-03	3.39E-03	1.00E-02	pCi/cu m
L66586-5	10GR	01/04/16	01/11/16	GR-B	2.34E-02	2.34E-02	3.88E-03	2.95E-03	1.00E-02	pCi/cu m
L66674-5	10GR	01/11/16	01/18/16	GR-B	2.53E-02	2.53E-02	3.81E-03	2.68E-03	1.00E-02	pCi/cu m
L66746-5	10GR	01/18/16	01/25/16	GR-B	2.24E-02	2.24E-02	3.85E-03	3.13E-03	1.00E-02	pCi/cu m
L66862-5	10GR	01/25/16	02/01/16	GR-B	2.00E-02	2.00E-02	3.60E-03	3.01E-03	1.00E-02	pCi/cu m
L66938-5	10GR	02/01/16	02/08/16	GR-B	2.49E-02	2.49E-02	4.30E-03	3.88E-03	1.00E-02	pCi/cu m
L67019-5	10GR	02/09/16	02/15/16	GR-B	1.42E-02	1.42E-02	3.19E-03	3.07E-03	1.00E-02	pCi/cu m
L67073-5	10GR	02/15/16	02/22/16	GR-B	1.70E-02	1.70E-02	3.28E-03	2.56E-03	1.00E-02	pCi/cu m
L67178-5	10GR	02/22/16	02/29/16	GR-B	2.10E-02	2.10E-02	3.72E-03	3.28E-03	1.00E-02	pCi/cu m
L67315-5	10GR	02/29/16	03/07/16	GR-B	1.85E-02	1.85E-02	3.57E-03	3.19E-03	1.00E-02	pCi/cu m
L67316-5	10GR	03/07/16	03/14/16	GR-B	2.07E-02	2.07E-02	3.92E-03	3.59E-03	1.00E-02	pCi/cu m
L67391-5	10GR	03/14/16	03/21/16	GR-B	1.49E-02	1.49E-02	3.33E-03	3.17E-03	1.00E-02	pCi/cu m
L67500-5	10GR	03/21/16	03/28/16	GR-B	1.70E-02	1.70E-02	3.61E-03	3.60E-03	1.00E-02	pCi/cu m
L67590-5	10GR	03/28/16	04/04/16	GR-B	2.09E-02	2.09E-02	3.56E-03	2.68E-03	1.00E-02	pCi/cu m
L67702-5	10GR	04/04/16	04/11/16	GR-B	1.84E-02	1.84E-02	3.55E-03	3.04E-03	1.00E-02	pCi/cu m
L67805-5	10GR	04/11/16	04/18/16	GR-B	2.14E-02	2.14E-02	3.92E-03	3.28E-03	1.00E-02	pCi/cu m
L67934-5	10GR	04/18/16	04/25/16	GR-B	2.27E-02	2.27E-02	3.83E-03	2.87E-03	1.00E-02	pCi/cu m
L68038-5	10GR	04/25/16	05/02/16	GR-B	1.82E-02	1.82E-02	3.70E-03	3.33E-03	1.00E-02	pCi/cu m
L68134-5	10GR	05/02/16	05/09/16	GR-B	1.71E-02	1.71E-02	3.56E-03	3.18E-03	1.00E-02	pCi/cu m
L68250-5	10GR	05/09/16	05/16/16	GR-B	1.62E-02	1.62E-02	3.46E-03	3.19E-03	1.00E-02	pCi/cu m
L68348-5	10GR	05/16/16	05/23/16	GR-B	2.19E-02	2.19E-02	3.88E-03	3.22E-03	1.00E-02	pCi/cu m
L68446-5	10GR	05/23/16	05/31/16	GR-B	2.10E-02	2.10E-02	3.72E-03	3.34E-03	1.00E-02	pCi/cu m
L68497-5	10GR	05/31/16	06/06/16	GR-B	2.10E-02	2.10E-02	3.90E-03	2.48E-03	1.00E-02	pCi/cu m
L68575-5	10GR	06/06/16	06/13/16	GR-B	1.46E-02	1.46E-02	3.65E-03	3.97E-03	1.00E-02	pCi/cu m
L68708-5	10GR	06/13/16	06/20/16	GR-B	1.96E-02	1.96E-02	3.78E-03	3.23E-03	1.00E-02	pCi/cu m
L68870-5	10GR	06/20/16	06/27/16	GR-B	1.74E-02	1.74E-02	3.63E-03	3.36E-03	1.00E-02	pCi/cu m

L68843-5	GR10	06/27/16	07/06/16	GR-B	2.26E-01	2.26E-01	8.35E-02	9.92E-02	1.00E-02	pCi/cu m
L68983-5	GR10	07/06/16	07/11/16	GR-B	2.11E-02	2.11E-02	4.34E-03	3.76E-03	1.00E-02	pCi/cu m
L69068-5	GR10	07/11/16	07/18/16	GR-B	1.72E-02	1.72E-02	3.74E-03	3.67E-03	1.00E-02	pCi/cu m
L69192-5	GR10	07/18/16	07/26/16	GR-B	2.03E-02	2.03E-02	3.57E-03	3.08E-03	1.00E-02	pCi/cu m
L69350-5	GR10	07/26/16	08/01/16	GR-B	2.52E-02	2.52E-02	4.51E-03	3.97E-03	1.00E-02	pCi/cu m
L69395-5	GR10	08/01/16	08/08/16	GR-B	2.19E-02	2.19E-02	4.04E-03	3.62E-03	1.00E-02	pCi/cu m
L69486-5	GR10	08/08/16	08/15/16	GR-B	1.85E-02	1.85E-02	3.65E-03	3.28E-03	1.00E-02	pCi/cu m
L69538-5	GR10	08/15/16	08/22/16	GR-B	2.18E-02	2.18E-02	3.85E-03	3.25E-03	1.00E-02	pCi/cu m
L69664-5	GR10	08/22/16	08/29/16	GR-B	2.52E-02	2.52E-02	3.96E-03	2.74E-03	1.00E-02	pCi/cu m
L69763-5	GR10	08/29/16	09/06/16	GR-B	2.36E-02	2.36E-02	3.70E-03	3.02E-03	1.00E-02	pCi/cu m
L69825-5	GR10	09/06/16	09/12/16	GR-B	2.08E-02	2.08E-02	3.98E-03	3.18E-03	1.00E-02	pCi/cu m
L69950-5	GR10	09/12/16	09/19/16	GR-B	2.49E-02	2.49E-02	4.10E-03	3.35E-03	1.00E-02	pCi/cu m
L70049-5	GR10	09/19/16	09/26/16	GR-B	2.84E-02	2.84E-02	4.11E-03	2.77E-03	1.00E-02	pCi/cu m
L70217-5	GR10	09/26/16	10/03/16	GR-B	1.88E-02	1.88E-02	3.42E-03	2.61E-03	1.00E-02	pCi/cu m
L70295-5	GR10	10/03/16	10/10/16	GR-B	2.55E-02	2.55E-02	3.90E-03	2.64E-03	1.00E-02	pCi/cu m
L70397-5	GR10	10/10/16	10/17/16	GR-B	2.64E-02	2.64E-02	4.55E-03	4.35E-03	1.00E-02	pCi/cu m
L70499-5	GR10	10/17/16	10/24/16	GR-B	1.78E-02	1.78E-02	3.43E-03	2.83E-03	1.00E-02	pCi/cu m
L70607-5	GR10	10/24/16	10/31/16	GR-B	2.01E-02	2.01E-02	3.88E-03	3.64E-03	1.00E-02	pCi/cu m
L70674-5	GR10	10/31/16	11/07/16	GR-B	3.96E-02	3.96E-02	4.98E-03	3.71E-03	1.00E-02	pCi/cu m
L70750-5C	GR10	11/07/16	11/14/16	GR-B	1.87E-02	1.87E-02	3.83E-03	3.81E-03	1.00E-02	pCi/cu m
L70820-5	GR10	11/14/16	11/21/16	GR-B	3.66E-02	3.66E-02	4.73E-03	3.70E-03	1.00E-02	pCi/cu m
L70890-5	GR10	11/21/16	11/28/16	GR-B	2.15E-02	2.15E-02	3.81E-03	3.32E-03	1.00E-02	pCi/cu m
L70965-5	GR10	11/28/16	12/05/16	GR-B	2.58E-02	2.58E-02	3.81E-03	2.16E-03	1.00E-02	pCi/cu m
L71049-5	GR10	12/05/16	12/12/16	GR-B	1.74E-02	1.74E-02	3.45E-03	3.09E-03	1.00E-02	pCi/cu m
L71115-5	GR10	12/12/16	12/19/16	GR-B	2.59E-02	2.59E-02	4.30E-03	3.89E-03	1.00E-02	pCi/cu m
L71192-5	GR10	12/19/16	12/27/16	GR-B	2.02E-02	2.02E-02	3.34E-03	2.79E-03	1.00E-02	pCi/cu m
L71261-5	GR10	12/27/16	01/03/17	GR-B	2.20E-02	2.20E-02	3.73E-03	3.16E-03	1.00E-02	pCi/cu m
L67700-5	10GR	12/28/15	03/28/16	BE-7	9.86E-02	9.86E-02	3.19E-02	3.60E-02		pCi/cu m
L68993-5	10GR	03/28/16	06/27/16	BE-7	1.76E-01	1.76E-01	5.38E-02	6.97E-02		pCi/cu m
L70489-5	GR10	06/27/16	10/03/16	BE-7	1.48E-01	1.48E-01	4.57E-02	4.38E-02		pCi/cu m
L71380-5	GR10	10/03/16	01/03/17	BE-7	9.38E-02	9.38E-02	2.87E-02	3.48E-02		pCi/cu m
L67700-5	10GR	12/28/15	03/28/16	CS-134	< 1.38E-03	-1.15E-03	1.05E-03	1.38E-03	5.00E-02	pCi/cu m
L68993-5	10GR	03/28/16	06/27/16	CS-134	< 3.57E-03	9.65E-04	2.00E-03	3.57E-03	5.00E-02	pCi/cu m
L70489-5	GR10	06/27/16	10/03/16	CS-134	< 2.41E-03	7.56E-04	1.37E-03	2.41E-03	5.00E-02	pCi/cu m
L71380-5	GR10	10/03/16	01/03/17	CS-134	< 2.86E-03	3.42E-04	1.71E-03	2.86E-03	5.00E-02	pCi/cu m
L67700-5	10GR	12/28/15	03/28/16	CS-137	< 1.12E-03	-5.08E-04	8.20E-04	1.12E-03	6.00E-02	pCi/cu m
L68993-5	10GR	03/28/16	06/27/16	CS-137	< 2.99E-03	2.09E-05	1.80E-03	2.99E-03	6.00E-02	pCi/cu m
L70489-5	GR10	06/27/16	10/03/16	CS-137	< 2.12E-03	-5.36E-04	1.37E-03	2.12E-03	6.00E-02	pCi/cu m

L71380-5	GR10	10/03/16	01/03/17	CS-137	< 2.86E-03	5.92E-04	1.64E-03	2.86E-03	6.00E-02	pCi/cu m

19ST
AIR PARTICULATE

LAB ID	STATION	COLLECT START	COLLECT STOP	NUCLIDE	REPORTABLE	ACTIVITY	ERROR	MDC	LLD	UNITS
L66380-6	19ST	12/28/15	01/04/16	GR-B	2.88E-02	2.88E-02	4.91E-03	4.10E-03	1.00E-02	pCi/cu m
L66484-6	19ST	01/04/16	01/11/16	GR-B	1.82E-02	1.82E-02	4.23E-03	4.25E-03	1.00E-02	pCi/cu m
L66586-6	19ST	01/11/16	01/18/16	GR-B	3.94E-02	3.94E-02	5.57E-03	3.81E-03	1.00E-02	pCi/cu m
L66674-6	19ST	01/18/16	01/25/16	GR-B	2.64E-02	2.64E-02	4.42E-03	3.34E-03	1.00E-02	pCi/cu m
L66746-6	19ST	01/25/16	02/01/16	GR-B	2.97E-02	2.97E-02	4.85E-03	3.83E-03	1.00E-02	pCi/cu m
L66862-6	19ST	02/01/16	02/08/16	GR-B	2.34E-02	2.34E-02	4.51E-03	3.92E-03	1.00E-02	pCi/cu m
L66938-6	19ST	02/08/16	02/16/16	GR-B	2.06E-02	2.06E-02	4.27E-03	4.23E-03	1.00E-02	pCi/cu m
L67019-6	19ST	02/16/16	02/22/16	GR-B	2.20E-02	2.20E-02	5.09E-03	4.96E-03	1.00E-02	pCi/cu m
L67073-6	19ST	02/22/16	02/29/16	GR-B	2.67E-02	2.67E-02	4.64E-03	3.39E-03	1.00E-02	pCi/cu m
L67178-6	19ST	02/29/16	03/07/16	GR-B	2.33E-02	2.33E-02	4.64E-03	4.35E-03	1.00E-02	pCi/cu m
L67315-6	19ST	03/07/16	03/14/16	GR-B	2.31E-02	2.31E-02	4.81E-03	4.49E-03	1.00E-02	pCi/cu m
L67316-6	19ST	03/14/16	03/21/16	GR-B	1.64E-02	1.64E-02	4.38E-03	4.71E-03	1.00E-02	pCi/cu m
L67391-6	19ST	03/21/16	03/28/16	GR-B	2.34E-02	2.34E-02	4.84E-03	4.42E-03	1.00E-02	pCi/cu m
L67500-6	19ST	03/28/16	04/04/16	GR-B	1.99E-02	1.99E-02	4.70E-03	4.90E-03	1.00E-02	pCi/cu m
L67590-6	19ST	04/04/16	04/11/16	GR-B	2.39E-02	2.39E-02	4.55E-03	3.68E-03	1.00E-02	pCi/cu m
L67702-6	19ST	04/11/16	04/18/16	GR-B	2.64E-02	2.64E-02	4.89E-03	4.07E-03	1.00E-02	pCi/cu m
L67805-6	19ST	04/18/16	04/25/16	GR-B	2.95E-02	2.95E-02	4.73E-03	3.65E-03	1.00E-02	pCi/cu m
L67934-6	19ST	04/25/16	05/02/16	GR-B	2.22E-02	2.22E-02	4.07E-03	3.22E-03	1.00E-02	pCi/cu m
L68038-6	19ST	05/02/16	05/09/16	GR-B	1.63E-02	1.63E-02	3.98E-03	3.92E-03	1.00E-02	pCi/cu m
L68134-6	19ST	05/09/16	05/16/16	GR-B	1.80E-02	1.80E-02	4.07E-03	3.79E-03	1.00E-02	pCi/cu m
L68250-6	19ST	05/16/16	05/23/16	GR-B	2.32E-02	2.32E-02	4.65E-03	4.13E-03	1.00E-02	pCi/cu m
L68348-6	19ST	05/23/16	05/31/16	GR-B	2.45E-02	2.45E-02	4.30E-03	3.55E-03	1.00E-02	pCi/cu m
L68446-6	19ST	05/31/16	06/06/16	GR-B	2.27E-02	2.27E-02	4.43E-03	3.77E-03	1.00E-02	pCi/cu m
L68497-6	19ST	06/06/16	06/13/16	GR-B	2.88E-02	2.88E-02	7.64E-03	6.20E-03	1.00E-02	pCi/cu m
L68575-6	19ST	06/15/16	06/20/16	GR-B	1.49E-02	1.49E-02	4.75E-03	5.63E-03	1.00E-02	pCi/cu m
L68708-6	19ST	06/20/16	06/27/16	GR-B	1.94E-02	1.94E-02	3.66E-03	3.09E-03	1.00E-02	pCi/cu m
L68870-6	19ST	06/27/16	07/05/16	GR-B	1.29E-02	1.29E-02	3.01E-03	2.95E-03	1.00E-02	pCi/cu m
L68843-6	19ST	07/05/16	07/11/16	GR-B	1.96E-02	1.96E-02	4.14E-03	3.92E-03	1.00E-02	pCi/cu m
L68983-6	19ST	07/11/16	07/18/16	GR-B	1.83E-02	1.83E-02	3.61E-03	3.06E-03	1.00E-02	pCi/cu m
L69068-6	19ST	07/18/16	07/25/16	GR-B	2.01E-02	2.01E-02	3.88E-03	3.58E-03	1.00E-02	pCi/cu m
L69192-6	19ST	07/25/16	08/01/16	GR-B	2.11E-02	2.11E-02	4.02E-03	3.64E-03	1.00E-02	pCi/cu m
L69350-6	19ST	08/01/16	08/09/16	GR-B	1.44E-02	1.44E-02	3.17E-03	3.11E-03	1.00E-02	pCi/cu m
L69395-6	19ST	08/09/16	08/16/16	GR-B	1.99E-02	1.99E-02	3.80E-03	3.47E-03	1.00E-02	pCi/cu m

L69486-6	19ST	08/16/16	08/23/16	GR-B	1.58E-02	1.58E-02	3.49E-03	3.33E-03	1.00E-02	pCi/cu m
L69538-6	19ST	08/23/16	08/29/16	GR-B	1.87E-02	1.87E-02	4.09E-03	3.88E-03	1.00E-02	pCi/cu m
L69664-6	19ST	08/29/16	09/06/16	GR-B	2.04E-02	2.04E-02	3.48E-03	2.54E-03	1.00E-02	pCi/cu m
L69763-6	19ST	09/06/16	09/12/16	GR-B	1.68E-02	1.68E-02	4.15E-03	4.29E-03	1.00E-02	pCi/cu m
L69825-6	19ST	09/12/16	09/19/16	GR-B	2.02E-02	2.02E-02	3.60E-03	2.76E-03	1.00E-02	pCi/cu m
L69950-6	19ST	09/19/16	09/26/16	GR-B	2.51E-02	2.51E-02	4.22E-03	3.49E-03	1.00E-02	pCi/cu m
L70049-6	19ST	09/26/16	10/03/16	GR-B	1.54E-02	1.54E-02	3.46E-03	3.07E-03	1.00E-02	pCi/cu m
L70217-6	19ST	10/03/16	10/11/16	GR-B	2.37E-02	2.37E-02	3.58E-03	2.41E-03	1.00E-02	pCi/cu m
L70295-6	19ST	10/11/16	10/17/16	GR-B	2.63E-02	2.63E-02	4.34E-03	3.10E-03	1.00E-02	pCi/cu m
L70397-6	19ST	10/17/16	10/24/16	GR-B	1.95E-02	1.95E-02	4.25E-03	4.54E-03	1.00E-02	pCi/cu m
L70499-6	19ST	10/24/16	10/31/16	GR-B	2.09E-02	2.09E-02	3.65E-03	2.83E-03	1.00E-02	pCi/cu m
L70607-6	19ST	10/31/16	11/07/16	GR-B	2.94E-02	2.94E-02	4.61E-03	3.86E-03	1.00E-02	pCi/cu m
L70674-6	19ST	11/07/16	11/14/16	GR-B	1.90E-02	1.90E-02	3.88E-03	3.81E-03	1.00E-02	pCi/cu m
L70750-6C	19ST	11/14/16	11/21/16	GR-B	4.06E-02	4.06E-02	5.12E-03	3.88E-03	1.00E-02	pCi/cu m
L70820-6	19ST	11/21/16	11/28/16	GR-B	2.11E-02	2.11E-02	3.92E-03	3.76E-03	1.00E-02	pCi/cu m
L70890-6	19ST	11/28/16	12/05/16	GR-B	1.96E-02	1.96E-02	3.71E-03	3.34E-03	1.00E-02	pCi/cu m
L70965-6	19ST	12/05/16	12/12/16	GR-B	2.06E-02	2.06E-02	3.47E-03	2.18E-03	1.00E-02	pCi/cu m
L71049-6	19ST	12/12/16	12/19/16	GR-B	2.38E-02	2.38E-02	3.89E-03	3.11E-03	1.00E-02	pCi/cu m
L71115-6	19ST	12/19/16	12/27/16	GR-B	2.05E-02	2.05E-02	3.62E-03	3.38E-03	1.00E-02	pCi/cu m
L71192-6	19ST	12/27/16	01/03/17	GR-B	1.93E-02	1.93E-02	3.60E-03	3.21E-03	1.00E-02	pCi/cu m
L67700-6	19ST	12/28/15	03/28/16	BE-7	1.44E-01	1.44E-01	4.16E-02	5.00E-02		pCi/cu m
L68993-6	19ST	03/28/16	06/27/16	BE-7	1.99E-01	1.99E-01	4.80E-02	3.31E-02		pCi/cu m
L70489-6	19ST	06/27/16	10/03/16	BE-7	9.70E-02	9.70E-02	3.86E-02	3.39E-02		pCi/cu m
L71380-6	19ST	10/03/16	01/03/17	BE-7	9.69E-02	9.69E-02	2.56E-02	3.28E-02		pCi/cu m
L67700-6	19ST	12/28/15	03/28/16	CS-134	< 2.44E-03	-5.90E-04	1.60E-03	2.44E-03	5.00E-02	pCi/cu m
L68993-6	19ST	03/28/16	06/27/16	CS-134	< 2.61E-03	7.13E-04	1.46E-03	2.61E-03	5.00E-02	pCi/cu m
L70489-6	19ST	06/27/16	10/03/16	CS-134	< 2.02E-03	-5.36E-04	1.31E-03	2.02E-03	5.00E-02	pCi/cu m
L71380-6	19ST	10/03/16	01/03/17	CS-134	< 2.53E-03	1.35E-03	1.55E-03	2.53E-03	5.00E-02	pCi/cu m
L67700-6	19ST	12/28/15	03/28/16	CS-137	< 2.24E-03	-3.75E-04	1.42E-03	2.24E-03	6.00E-02	pCi/cu m
L68993-6	19ST	03/28/16	06/27/16	CS-137	< 2.84E-03	2.37E-04	1.68E-03	2.84E-03	6.00E-02	pCi/cu m
L70489-6	19ST	06/27/16	10/03/16	CS-137	< 2.12E-03	1.05E-03	1.11E-03	2.12E-03	6.00E-02	pCi/cu m
L71380-6	19ST	10/03/16	01/03/17	CS-137	< 2.26E-03	-4.42E-04	1.46E-03	2.26E-03	6.00E-02	pCi/cu m
L70489-6	19ST	06/27/16	10/03/16	K-40	3.80E-02	3.80E-02	2.24E-02	1.59E-02		pCi/cu m

4JS
CHARCOAL FILTER

LAB ID	STATION	COLLECT START	COLLECT STOP	NUCLIDE	REPORTABLE	ACTIVITY	ERROR	MDC	LLD	UNITS
L66380-9	4JS	12/28/15	01/04/16	I-131	< 4.63E-02	2.11E-03	2.85E-02	4.63E-02	7.00E-02	pCi/cu m
L66484-9	4JS	01/04/16	01/11/16	I-131	< 2.45E-02	-2.30E-03	1.46E-02	2.45E-02	7.00E-02	pCi/cu m

L66586-9	4JS	01/11/16	01/18/16	I-131	< 6.12E-02	-1.18E-02	3.82E-02	6.12E-02	7.00E-02	pCi/cu m
L66674-9	4JS	01/18/16	01/25/16	I-131	< 4.69E-02	1.16E-02	2.51E-02	4.69E-02	7.00E-02	pCi/cu m
L66746-9	4JS	01/25/16	02/01/16	I-131	< 2.83E-02	1.20E-02	1.57E-02	2.83E-02	7.00E-02	pCi/cu m
L66862-9	4JS	02/01/16	02/08/16	I-131	< 1.26E-02	2.24E-03	7.82E-03	1.26E-02	7.00E-02	pCi/cu m
L66938-9	4JS	02/08/16	02/16/16	I-131	< 9.22E-03	-3.30E-03	5.94E-03	9.22E-03	7.00E-02	pCi/cu m
L67019-9	4JS	02/16/16	02/22/16	I-131	< 1.10E-02	-5.82E-04	6.98E-03	1.10E-02	7.00E-02	pCi/cu m
L67073-9	4JS	02/22/16	02/29/16	I-131	< 8.78E-03	-1.40E-03	5.38E-03	8.78E-03	7.00E-02	pCi/cu m
L67178-9	4JS	02/29/16	03/07/16	I-131	< 2.79E-02	4.09E-03	1.66E-02	2.79E-02	7.00E-02	pCi/cu m
L67315-9	4JS	03/07/16	03/14/16	I-131	< 6.48E-02	-3.38E-02	4.38E-02	6.48E-02	7.00E-02	pCi/cu m
L67316-9	4JS	03/14/16	03/21/16	I-131	< 5.09E-02	3.10E-02	2.86E-02	5.09E-02	7.00E-02	pCi/cu m
L67391-9	4JS	03/21/16	03/28/16	I-131	< 2.14E-02	-1.23E-02	1.53E-02	2.14E-02	7.00E-02	pCi/cu m
L67500-9	4JS	03/28/16	04/04/16	I-131	< 2.77E-02	4.18E-03	1.63E-02	2.77E-02	7.00E-02	pCi/cu m
L67590-9	4JS	04/04/16	04/11/16	I-131	< 1.87E-02	-3.20E-03	1.21E-02	1.87E-02	7.00E-02	pCi/cu m
L67702-9	4JS	04/11/16	04/18/16	I-131	< 3.97E-02	-7.07E-03	2.54E-02	3.97E-02	7.00E-02	pCi/cu m
L67805-9	4JS	04/18/16	04/25/16	I-131	< 1.12E-02	1.64E-03	6.85E-03	1.12E-02	7.00E-02	pCi/cu m
L67934-9	4JS	04/25/16	05/02/16	I-131	< 2.14E-02	1.32E-04	1.27E-02	2.14E-02	7.00E-02	pCi/cu m
L68038-9	4JS	05/02/16	05/09/16	I-131	< 1.27E-02	4.07E-03	7.57E-03	1.27E-02	7.00E-02	pCi/cu m
L68134-9	4JS	05/09/16	05/16/16	I-131	< 2.12E-02	-8.33E-03	1.33E-02	2.12E-02	7.00E-02	pCi/cu m
L68250-9	4JS	05/16/16	05/23/16	I-131	< 4.68E-02	-1.76E-02	3.21E-02	4.68E-02	7.00E-02	pCi/cu m
L68348-9	4JS	05/23/16	05/31/16	I-131	< 3.66E-02	-2.98E-03	2.25E-02	3.66E-02	7.00E-02	pCi/cu m
L68446-9	4JS	05/31/16	06/06/16	I-131	< 2.63E-02	-1.09E-02	1.66E-02	2.63E-02	7.00E-02	pCi/cu m
L68497-9	4JS	06/06/16	06/13/16	I-131	< 1.78E-02	3.29E-03	1.08E-02	1.78E-02	7.00E-02	pCi/cu m
L68575-9	4JS	06/13/16	06/20/16	I-131	< 2.12E-02	-5.13E-03	1.40E-02	2.12E-02	7.00E-02	pCi/cu m
L68708-9	4JS	06/20/16	06/27/16	I-131	< 3.51E-02	5.75E-03	2.10E-02	3.51E-02	7.00E-02	pCi/cu m
L68870-9	4JS	06/27/16	07/05/16	I-131	< 4.29E-02	8.60E-03	2.58E-02	4.29E-02	7.00E-02	pCi/cu m
L68843-9	4JS	07/05/16	07/11/16	I-131	< 3.84E-02	-1.31E-02	2.38E-02	3.84E-02	7.00E-02	pCi/cu m
L68983-9	4JS	07/11/16	07/18/16	I-131	< 2.14E-02	-3.85E-03	1.29E-02	2.14E-02	7.00E-02	pCi/cu m
L69068-9	4JS	07/18/16	07/25/16	I-131	< 5.31E-03	1.61E-03	3.27E-03	5.31E-03	7.00E-02	pCi/cu m
L69192-9	4JS	07/25/16	08/01/16	I-131	< 1.61E-02	-6.95E-03	1.01E-02	1.61E-02	7.00E-02	pCi/cu m
L69350-9	4JS	08/01/16	08/09/16	I-131	< 1.60E-02	-2.11E-03	9.78E-03	1.60E-02	7.00E-02	pCi/cu m
L69395-9	4JS	08/09/16	08/16/16	I-131	< 2.73E-02	1.37E-03	1.67E-02	2.73E-02	7.00E-02	pCi/cu m
L69486-9	4JS	08/16/16	08/23/16	I-131	< 3.80E-02	-1.75E-03	2.35E-02	3.80E-02	7.00E-02	pCi/cu m
L69538-9	4JS	08/23/16	08/29/16	I-131	< 3.34E-02	-1.43E-02	2.22E-02	3.34E-02	7.00E-02	pCi/cu m
L69664-9	4JS	08/29/16	09/06/16	I-131	< 3.60E-02	-1.30E-02	2.30E-02	3.60E-02	7.00E-02	pCi/cu m
L69763-9	4JS	09/06/16	09/12/16	I-131	< 3.66E-02	-5.15E-03	2.24E-02	3.66E-02	7.00E-02	pCi/cu m
L69825-9	4JS	09/12/16	09/19/16	I-131	< 3.69E-02	8.71E-03	2.12E-02	3.69E-02	7.00E-02	pCi/cu m
L69950-9	4JS	09/19/16	09/26/16	I-131	< 8.38E-03	1.54E-03	4.93E-03	8.38E-03	7.00E-02	pCi/cu m
L70049-9	4JS	09/26/16	10/03/16	I-131	< 1.54E-02	2.92E-03	9.06E-03	1.54E-02	7.00E-02	pCi/cu m

L70217-9	4JS	10/03/16	10/11/16	I-131	< 1.64E-02	-9.92E-03	9.95E-03	1.64E-02	7.00E-02	pCi/cu m
L70295-9	4JS	10/11/16	10/17/16	I-131	< 2.28E-02	-7.99E-05	1.37E-02	2.28E-02	7.00E-02	pCi/cu m
L70397-9	4JS	10/17/16	10/24/16	I-131	< 2.15E-02	5.62E-03	1.26E-02	2.15E-02	7.00E-02	pCi/cu m
L70499-9	4JS	10/24/16	10/31/16	I-131	< 2.16E-02	-3.48E-03	1.31E-02	2.16E-02	7.00E-02	pCi/cu m
L70607-9	4JS	10/31/16	11/07/16	I-131	< 5.29E-02	6.19E-03	3.06E-02	5.29E-02	7.00E-02	pCi/cu m
L70674-9	4JS	11/07/16	11/14/16	I-131	< 2.68E-02	-1.84E-02	1.79E-02	2.68E-02	7.00E-02	pCi/cu m
L70750-9	4JS	11/14/16	11/21/16	I-131	< 2.04E-02	2.25E-03	1.23E-02	2.04E-02	7.00E-02	pCi/cu m
L70820-9	4JS	11/21/16	11/28/16	I-131	< 1.87E-02	-2.01E-02	1.24E-02	1.87E-02	7.00E-02	pCi/cu m
L70890-9	4JS	11/28/16	12/05/16	I-131	< 1.20E-02	-4.53E-03	7.51E-03	1.20E-02	7.00E-02	pCi/cu m
L70965-9	4JS	12/05/16	12/12/16	I-131	< 1.25E-02	2.21E-03	7.44E-03	1.25E-02	7.00E-02	pCi/cu m
L71049-9	4JS	12/12/16	12/19/16	I-131	< 4.34E-02	6.86E-03	2.56E-02	4.34E-02	7.00E-02	pCi/cu m
L71115-9	4JS	12/19/16	12/27/16	I-131	< 3.36E-02	-3.36E-03	2.06E-02	3.36E-02	7.00E-02	pCi/cu m
L71192-9	4JS	12/27/16	01/03/17	I-131	< 3.54E-02	-1.56E-02	2.35E-02	3.54E-02	7.00E-02	pCi/cu m

5PR
CHARCOAL FILTER

LAB ID	STATION	COLLECT START	COLLECT STOP	NUCLIDE	REPORTABLE	ACTIVITY	ERROR	MDC	LLD	UNITS
L66380-10	5PR	12/28/15	01/04/16	I-131	< 3.37E-02	3.20E-03	2.12E-02	3.37E-02	7.00E-02	pCi/cu m
L66484-10	5PR	01/04/16	01/11/16	I-131	< 1.91E-02	5.22E-03	1.09E-02	1.91E-02	7.00E-02	pCi/cu m
L66586-10	5PR	01/11/16	01/18/16	I-131	< 1.51E-01	2.27E-02	8.90E-02	1.51E-01	7.00E-02	pCi/cu m
L66674-10	5PR	01/18/16	01/25/16	I-131	< 6.27E-02	1.54E-02	3.35E-02	6.27E-02	7.00E-02	pCi/cu m
L66746-10	5PR	01/25/16	02/01/16	I-131	< 2.86E-02	1.21E-02	1.58E-02	2.86E-02	7.00E-02	pCi/cu m
L66862-10	5PR	02/01/16	02/08/16	I-131	< 4.32E-02	7.66E-03	2.68E-02	4.32E-02	7.00E-02	pCi/cu m
L66938-10	5PR	02/08/16	02/16/16	I-131	< 2.42E-02	-8.66E-03	1.56E-02	2.42E-02	7.00E-02	pCi/cu m
L67019-10	5PR	02/16/16	02/22/16	I-131	< 3.72E-02	-1.98E-03	2.37E-02	3.72E-02	7.00E-02	pCi/cu m
L67073-10	5PR	02/22/16	02/29/16	I-131	< 2.29E-02	-3.65E-03	1.41E-02	2.29E-02	7.00E-02	pCi/cu m
L67178-10	5PR	02/29/16	03/07/16	I-131	< 3.65E-02	5.36E-03	2.18E-02	3.65E-02	7.00E-02	pCi/cu m
L67315-10	5PR	03/07/16	03/14/16	I-131	< 3.13E-02	-1.19E-02	2.05E-02	3.13E-02	7.00E-02	pCi/cu m
L67316-10	5PR	03/14/16	03/21/16	I-131	< 2.64E-02	-5.38E-03	1.65E-02	2.64E-02	7.00E-02	pCi/cu m
L67391-10	5PR	03/21/16	03/28/16	I-131	< 1.68E-02	-4.91E-03	1.06E-02	1.68E-02	7.00E-02	pCi/cu m
L67500-10	5PR	03/28/16	04/04/16	I-131	< 3.66E-02	5.52E-03	2.15E-02	3.66E-02	7.00E-02	pCi/cu m
L67590-10	5PR	04/04/16	04/11/16	I-131	< 3.29E-02	1.63E-03	2.02E-02	3.29E-02	7.00E-02	pCi/cu m
L67702-10	5PR	04/11/16	04/18/16	I-131	< 5.13E-02	-9.13E-03	3.28E-02	5.13E-02	7.00E-02	pCi/cu m
L67805-10	5PR	04/18/16	04/25/16	I-131	< 1.41E-02	6.82E-04	8.43E-03	1.41E-02	7.00E-02	pCi/cu m
L67934-10	5PR	04/25/16	05/02/16	I-131	< 4.06E-02	-7.32E-03	2.56E-02	4.06E-02	7.00E-02	pCi/cu m
L68038-10	5PR	05/02/16	05/09/16	I-131	< 1.64E-02	-2.38E-03	1.01E-02	1.64E-02	7.00E-02	pCi/cu m
L68134-10	5PR	05/09/16	05/16/16	I-131	< 2.41E-02	1.04E-02	1.46E-02	2.41E-02	7.00E-02	pCi/cu m
L68250-10	5PR	05/16/16	05/23/16	I-131	< 4.79E-02	-1.80E-02	3.28E-02	4.79E-02	7.00E-02	pCi/cu m
L68348-10	5PR	05/23/16	05/31/16	I-131	< 3.84E-02	5.70E-03	2.53E-02	3.84E-02	7.00E-02	pCi/cu m

L68446-10 5PR	05/31/16	06/06/16	I-131	< 2.66E-02	-1.10E-02	1.68E-02	2.66E-02	7.00E-02	pCi/cu m
L68497-10 5PR	06/06/16	06/13/16	I-131	< 2.75E-02	8.40E-03	1.63E-02	2.75E-02	7.00E-02	pCi/cu m
L68575-10 5PR	06/13/16	06/20/16	I-131	< 5.19E-02	2.81E-04	3.10E-02	5.19E-02	7.00E-02	pCi/cu m
L68708-10 5PR	06/20/16	06/27/16	I-131	< 1.80E-02	2.95E-03	1.08E-02	1.80E-02	7.00E-02	pCi/cu m
L68870-10 5PR	06/27/16	07/05/16	I-131	< 2.87E-02	5.16E-03	1.61E-02	2.87E-02	7.00E-02	pCi/cu m
L68843-10 5PR	07/05/16	07/11/16	I-131	< 5.47E-03	2.84E-03	3.04E-03	5.47E-03	7.00E-02	pCi/cu m
L68983-10 5PR	07/11/16	07/18/16	I-131	< 2.17E-02	-2.64E-04	1.36E-02	2.17E-02	7.00E-02	pCi/cu m
L69068-10 5PR	07/18/16	07/25/16	I-131	< 1.91E-02	5.81E-03	1.18E-02	1.91E-02	7.00E-02	pCi/cu m
L69192-10 5PR	07/25/16	08/01/16	I-131	< 1.71E-02	-7.36E-03	1.07E-02	1.71E-02	7.00E-02	pCi/cu m
L69350-10 5PR	08/01/16	08/09/16	I-131	< 2.17E-02	-2.86E-03	1.33E-02	2.17E-02	7.00E-02	pCi/cu m
L69395-10 5PR	08/09/16	08/16/16	I-131	< 2.26E-02	2.16E-04	1.41E-02	2.26E-02	7.00E-02	pCi/cu m
L69486-10 5PR	08/16/16	08/23/16	I-131	< 5.13E-02	-2.37E-03	3.18E-02	5.13E-02	7.00E-02	pCi/cu m
L69538-10 5PR	08/23/16	08/29/16	I-131	< 3.57E-02	-1.53E-02	2.37E-02	3.57E-02	7.00E-02	pCi/cu m
L69664-10 5PR	08/29/16	09/06/16	I-131	< 3.71E-02	-2.02E-03	2.34E-02	3.71E-02	7.00E-02	pCi/cu m
L69763-10 5PR	09/06/16	09/12/16	I-131	< 5.43E-02	-3.35E-02	3.95E-02	5.43E-02	7.00E-02	pCi/cu m
L69825-10 5PR	09/12/16	09/19/16	I-131	< 3.80E-02	4.62E-03	2.23E-02	3.80E-02	7.00E-02	pCi/cu m
L69950-10 5PR	09/19/16	09/26/16	I-131	< 2.25E-02	4.14E-03	1.32E-02	2.25E-02	7.00E-02	pCi/cu m
L70049-10 5PR	09/26/16	10/03/16	I-131	< 2.03E-02	3.85E-03	1.20E-02	2.03E-02	7.00E-02	pCi/cu m
L70217-10 5PR	10/03/16	10/11/16	I-131	< 1.72E-02	-1.04E-02	1.05E-02	1.72E-02	7.00E-02	pCi/cu m
L70295-10 5PR	10/11/16	10/17/16	I-131	< 3.04E-02	-1.07E-04	1.83E-02	3.04E-02	7.00E-02	pCi/cu m
L70397-10 5PR	10/17/16	10/24/16	I-131	< 2.09E-02	5.12E-03	1.23E-02	2.09E-02	7.00E-02	pCi/cu m
L70499-10 5PR	10/24/16	10/31/16	I-131	< 2.79E-02	-4.49E-03	1.69E-02	2.79E-02	7.00E-02	pCi/cu m
L70607-10 5PR	10/31/16	11/07/16	I-131	< 4.77E-02	-1.81E-02	3.11E-02	4.77E-02	7.00E-02	pCi/cu m
L70674-10 5PR	11/07/16	11/14/16	I-131	< 3.87E-02	-6.08E-03	2.36E-02	3.87E-02	7.00E-02	pCi/cu m
L70750-10 5PR	11/14/16	11/21/16	I-131	< 2.12E-02	2.34E-03	1.28E-02	2.12E-02	7.00E-02	pCi/cu m
L70820-10 5PR	11/21/16	11/28/16	I-131	< 2.60E-02	-2.80E-02	1.73E-02	2.60E-02	7.00E-02	pCi/cu m
L70890-10 5PR	11/28/16	12/05/16	I-131	< 1.25E-02	-4.75E-03	7.87E-03	1.25E-02	7.00E-02	pCi/cu m
L70965-10 5PR	12/05/16	12/12/16	I-131	< 1.73E-02	3.05E-03	1.03E-02	1.73E-02	7.00E-02	pCi/cu m
L71049-10 5PR	12/12/16	12/19/16	I-131	< 5.24E-02	-7.89E-03	3.19E-02	5.24E-02	7.00E-02	pCi/cu m
L71115-10 5PR	12/19/16	12/27/16	I-131	< 4.22E-02	1.12E-02	2.55E-02	4.22E-02	7.00E-02	pCi/cu m
L71192-10 5PR	12/27/16	01/03/17	I-131	< 2.88E-02	-6.96E-03	1.90E-02	2.88E-02	7.00E-02	pCi/cu m

8SP
CHARCOAL FILTER

LAB ID	STATION	COLLECT START	COLLECT STOP	NUCLIDE	REPORTABLE	ACTIVITY	ERROR	MDC	LLD	UNITS
L66380-7	8SP	12/28/15	01/04/16	I-131	< 4.83E-02	2.20E-03	2.97E-02	4.83E-02	7.00E-02	pCi/cu m
L66484-7	8SP	01/04/16	01/11/16	I-131	< 2.54E-02	-2.38E-03	1.51E-02	2.54E-02	7.00E-02	pCi/cu m
L66586-7	8SP	01/11/16	01/18/16	I-131	< 6.41E-02	-1.23E-02	4.00E-02	6.41E-02	7.00E-02	pCi/cu m
L66674-7	8SP	01/18/16	01/25/16	I-131	< 4.89E-02	1.20E-02	2.61E-02	4.89E-02	7.00E-02	pCi/cu m

L66746-7	8SP	01/25/16	02/01/16	I-131	< 1.59E-02	6.70E-03	8.76E-03	1.59E-02	7.00E-02	pCi/cu m
L66862-7	8SP	02/01/16	02/08/16	I-131	< 3.39E-02	6.00E-03	2.10E-02	3.39E-02	7.00E-02	pCi/cu m
L66938-7	8SP	02/08/16	02/16/16	I-131	< 2.46E-02	-8.81E-03	1.58E-02	2.46E-02	7.00E-02	pCi/cu m
L67019-7	8SP	02/16/16	02/22/16	I-131	< 2.96E-02	-1.57E-03	1.89E-02	2.96E-02	7.00E-02	pCi/cu m
L67073-7	8SP	02/22/16	02/29/16	I-131	< 2.34E-02	-3.72E-03	1.43E-02	2.34E-02	7.00E-02	pCi/cu m
L67178-7	8SP	02/29/16	03/07/16	I-131	< 2.91E-02	4.27E-03	1.73E-02	2.91E-02	7.00E-02	pCi/cu m
L67315-7	8SP	03/07/16	03/14/16	I-131	< 6.65E-02	-3.47E-02	4.50E-02	6.65E-02	7.00E-02	pCi/cu m
L67316-7	8SP	03/14/16	03/21/16	I-131	< 5.27E-02	3.21E-02	2.96E-02	5.27E-02	7.00E-02	pCi/cu m
L67391-7	8SP	03/21/16	03/28/16	I-131	< 5.71E-02	-3.28E-02	4.08E-02	5.71E-02	7.00E-02	pCi/cu m
L67500-7	8SP	03/28/16	04/04/16	I-131	< 3.74E-02	5.65E-03	2.20E-02	3.74E-02	7.00E-02	pCi/cu m
L67590-7	8SP	04/04/16	04/11/16	I-131	< 4.75E-02	-8.14E-03	3.07E-02	4.75E-02	7.00E-02	pCi/cu m
L67702-7	8SP	04/11/16	04/18/16	I-131	< 4.05E-02	-7.21E-03	2.59E-02	4.05E-02	7.00E-02	pCi/cu m
L67805-7	8SP	04/18/16	04/25/16	I-131	< 1.15E-02	1.68E-03	7.03E-03	1.15E-02	7.00E-02	pCi/cu m
L67934-7	8SP	04/25/16	05/02/16	I-131	< 3.37E-01	2.08E-03	2.01E-01	3.37E-01	7.00E-02	pCi/cu m
L68038-7	8SP	05/02/16	05/09/16	I-131	< 2.08E-02	6.69E-03	1.24E-02	2.08E-02	7.00E-02	pCi/cu m
L68134-7	8SP	05/09/16	05/16/16	I-131	< 3.25E-02	-1.28E-02	2.04E-02	3.25E-02	7.00E-02	pCi/cu m
L68250-7	8SP	05/16/16	05/23/16	I-131	< 2.91E-02	-1.09E-02	2.00E-02	2.91E-02	7.00E-02	pCi/cu m
L68348-7	8SP	05/23/16	05/31/16	I-131	< 6.26E-02	-5.11E-03	3.86E-02	6.26E-02	7.00E-02	pCi/cu m
L68446-7	8SP	05/31/16	06/06/16	I-131	< 5.15E-02	-2.13E-02	3.25E-02	5.15E-02	7.00E-02	pCi/cu m
L68497-7	8SP	06/06/16	06/13/16	I-131	< 6.81E-02	1.26E-02	4.13E-02	6.81E-02	7.00E-02	pCi/cu m
L68575-7	8SP	06/13/16	06/20/16	I-131	< 6.62E-02	-1.61E-02	4.37E-02	6.62E-02	7.00E-02	pCi/cu m
L68708-7	8SP	06/20/16	06/27/16	I-131	< 5.58E-02	9.15E-03	3.34E-02	5.58E-02	7.00E-02	pCi/cu m
L68870-7	8SP	06/27/16	07/05/16	I-131	< 6.91E-02	1.39E-02	4.16E-02	6.91E-02	7.00E-02	pCi/cu m
L68843-7	8SP	07/05/16	07/11/16	I-131	< 6.17E-02	-2.10E-02	3.82E-02	6.17E-02	7.00E-02	pCi/cu m
L68983-7	8SP	07/11/16	07/18/16	I-131	< 3.54E-02	-6.37E-03	2.14E-02	3.54E-02	7.00E-02	pCi/cu m
L69068-7	8SP	07/18/16	07/25/16	I-131	< 2.45E-02	7.44E-03	1.51E-02	2.45E-02	7.00E-02	pCi/cu m
L69192-7	8SP	07/25/16	08/01/16	I-131	< 2.95E-02	-1.27E-02	1.84E-02	2.95E-02	7.00E-02	pCi/cu m
L69350-7	8SP	08/01/16	08/09/16	I-131	< 1.11E-02	-1.46E-03	6.77E-03	1.11E-02	7.00E-02	pCi/cu m
L69395-7	8SP	08/09/16	08/16/16	I-131	< 4.95E-02	2.48E-03	3.04E-02	4.95E-02	7.00E-02	pCi/cu m
L69486-7	8SP	08/16/16	08/23/16	I-131	< 6.99E-02	-3.22E-03	4.33E-02	6.99E-02	7.00E-02	pCi/cu m
L69538-7	8SP	08/23/16	08/29/16	I-131	< 6.12E-02	-2.63E-02	4.07E-02	6.12E-02	7.00E-02	pCi/cu m
L69664-7	8SP	08/29/16	09/06/16	I-131	< 6.61E-02	-2.38E-02	4.22E-02	6.61E-02	7.00E-02	pCi/cu m
L69763-7	8SP	09/06/16	09/12/16	I-131	< 6.69E-02	-9.42E-03	4.10E-02	6.69E-02	7.00E-02	pCi/cu m
L69825-7	8SP	09/12/16	09/19/16	I-131	< 6.71E-02	1.58E-02	3.86E-02	6.71E-02	7.00E-02	pCi/cu m
L69950-7	8SP	09/19/16	09/26/16	I-131	< 3.98E-02	7.31E-03	2.34E-02	3.98E-02	7.00E-02	pCi/cu m
L70049-7	8SP	09/26/16	10/03/16	I-131	< 2.81E-02	5.34E-03	1.66E-02	2.81E-02	7.00E-02	pCi/cu m
L70217-7	8SP	10/03/16	10/11/16	I-131	< 1.62E-02	-9.84E-03	9.87E-03	1.62E-02	7.00E-02	pCi/cu m
L70295-7	8SP	10/11/16	10/17/16	I-131	< 1.77E-02	-6.20E-05	1.06E-02	1.77E-02	7.00E-02	pCi/cu m

L70397-7	8SP	10/17/16	10/24/16	I-131	< 3.93E-02	1.03E-02	2.31E-02	3.93E-02	7.00E-02	pCi/cu m
L70499-7	8SP	10/24/16	10/31/16	I-131	< 1.51E-02	-2.43E-03	9.15E-03	1.51E-02	7.00E-02	pCi/cu m
L70607-7	8SP	10/31/16	11/07/16	I-131	< 3.95E-02	4.62E-03	2.29E-02	3.95E-02	7.00E-02	pCi/cu m
L70674-7	8SP	11/07/16	11/14/16	I-131	< 2.59E-02	-1.78E-02	1.73E-02	2.59E-02	7.00E-02	pCi/cu m
L70750-7	8SP	11/14/16	11/21/16	I-131	< 1.51E-02	1.67E-03	9.14E-03	1.51E-02	7.00E-02	pCi/cu m
L70820-7	8SP	11/21/16	11/28/16	I-131	< 1.48E-02	-1.59E-02	9.82E-03	1.48E-02	7.00E-02	pCi/cu m
L70890-7	8SP	11/28/16	12/05/16	I-131	< 9.61E-03	-3.65E-03	6.04E-03	9.61E-03	7.00E-02	pCi/cu m
L70965-7	8SP	12/05/16	12/12/16	I-131	< 9.94E-03	1.75E-03	5.90E-03	9.94E-03	7.00E-02	pCi/cu m
L71049-7	8SP	12/12/16	12/19/16	I-131	< 3.60E-02	5.69E-03	2.12E-02	3.60E-02	7.00E-02	pCi/cu m
L71115-7	8SP	12/19/16	12/27/16	I-131	< 2.69E-02	-2.68E-03	1.65E-02	2.69E-02	7.00E-02	pCi/cu m
L71192-7	8SP	12/27/16	01/03/17	I-131	< 2.81E-02	-1.24E-02	1.86E-02	2.81E-02	7.00E-02	pCi/cu m

9TP
CHARCOAL FILTER

LAB ID	STATION	COLLECT START	COLLECT STOP	NUCLIDE	REPORTABLE	ACTIVITY	ERROR	MDC	LLD	UNITS
L66380-8	9TP	12/28/15	01/04/16	I-131	< 4.89E-02	2.23E-03	3.01E-02	4.89E-02	7.00E-02	pCi/cu m
L66484-8	9TP	01/04/16	01/11/16	I-131	< 2.53E-02	-2.38E-03	1.50E-02	2.53E-02	7.00E-02	pCi/cu m
L66586-8	9TP	01/11/16	01/18/16	I-131	< 6.45E-02	-1.24E-02	4.03E-02	6.45E-02	7.00E-02	pCi/cu m
L66674-8	9TP	01/18/16	01/25/16	I-131	< 4.88E-02	1.20E-02	2.61E-02	4.88E-02	7.00E-02	pCi/cu m
L66746-8	9TP	01/25/16	02/01/16	I-131	< 2.97E-02	1.26E-02	1.64E-02	2.97E-02	7.00E-02	pCi/cu m
L66862-8	9TP	02/01/16	02/08/16	I-131	< 3.39E-02	6.00E-03	2.10E-02	3.39E-02	7.00E-02	pCi/cu m
L66938-8	9TP	02/08/16	02/16/16	I-131	< 2.49E-02	-8.91E-03	1.60E-02	2.49E-02	7.00E-02	pCi/cu m
L67019-8	9TP	02/16/16	02/22/16	I-131	< 2.96E-02	-1.57E-03	1.88E-02	2.96E-02	7.00E-02	pCi/cu m
L67073-8	9TP	02/22/16	02/29/16	I-131	< 2.37E-02	-3.77E-03	1.45E-02	2.37E-02	7.00E-02	pCi/cu m
L67178-8	9TP	02/29/16	03/07/16	I-131	< 2.86E-02	4.19E-03	1.70E-02	2.86E-02	7.00E-02	pCi/cu m
L67315-8	9TP	03/07/16	03/14/16	I-131	< 6.75E-02	-3.52E-02	4.56E-02	6.75E-02	7.00E-02	pCi/cu m
L67316-8	9TP	03/14/16	03/21/16	I-131	< 5.26E-02	3.20E-02	2.95E-02	5.26E-02	7.00E-02	pCi/cu m
L67391-8	9TP	03/21/16	03/28/16	I-131	< 5.79E-02	-3.33E-02	4.13E-02	5.79E-02	7.00E-02	pCi/cu m
L67500-8	9TP	03/28/16	04/04/16	I-131	< 2.83E-02	4.28E-03	1.67E-02	2.83E-02	7.00E-02	pCi/cu m
L67590-8	9TP	04/04/16	04/11/16	I-131	< 4.66E-02	-8.00E-03	3.02E-02	4.66E-02	7.00E-02	pCi/cu m
L67702-8	9TP	04/11/16	04/18/16	I-131	< 4.07E-02	-7.26E-03	2.60E-02	4.07E-02	7.00E-02	pCi/cu m
L67805-8	9TP	04/18/16	04/25/16	I-131	< 1.20E-02	1.76E-03	7.37E-03	1.20E-02	7.00E-02	pCi/cu m
L67934-8	9TP	04/25/16	05/02/16	I-131	< 2.21E-02	1.36E-04	1.32E-02	2.21E-02	7.00E-02	pCi/cu m
L68038-8	9TP	05/02/16	05/09/16	I-131	< 1.40E-02	4.51E-03	8.38E-03	1.40E-02	7.00E-02	pCi/cu m
L68134-8	9TP	05/09/16	05/16/16	I-131	< 2.33E-02	-9.14E-03	1.46E-02	2.33E-02	7.00E-02	pCi/cu m
L68250-8	9TP	05/16/16	05/23/16	I-131	< 5.21E-02	-1.96E-02	3.57E-02	5.21E-02	7.00E-02	pCi/cu m
L68348-8	9TP	05/23/16	05/31/16	I-131	< 4.34E-02	-3.54E-03	2.67E-02	4.34E-02	7.00E-02	pCi/cu m
L68446-8	9TP	05/31/16	06/06/16	I-131	< 1.22E-02	-5.04E-03	7.70E-03	1.22E-02	7.00E-02	pCi/cu m
L68497-8	9TP	06/06/16	06/13/16	I-131	< 5.04E-02	9.33E-03	3.06E-02	5.04E-02	7.00E-02	pCi/cu m

L68575-8	9TP	06/13/16	06/20/16	I-131	< 4.93E-02	-1.20E-02	3.26E-02	4.93E-02	7.00E-02	pCi/cu m
L68708-8	9TP	06/20/16	06/27/16	I-131	< 4.22E-02	6.92E-03	2.52E-02	4.22E-02	7.00E-02	pCi/cu m
L68870-8	9TP	06/27/16	07/05/16	I-131	< 5.25E-02	1.05E-02	3.16E-02	5.25E-02	7.00E-02	pCi/cu m
L68843-8	9TP	07/05/16	07/11/16	I-131	< 4.70E-02	-1.60E-02	2.92E-02	4.70E-02	7.00E-02	pCi/cu m
L68983-8	9TP	07/11/16	07/18/16	I-131	< 2.68E-02	-4.82E-03	1.62E-02	2.68E-02	7.00E-02	pCi/cu m
L69068-8	9TP	07/18/16	07/25/16	I-131	< 1.68E-02	5.12E-03	1.04E-02	1.68E-02	7.00E-02	pCi/cu m
L69192-8	9TP	07/25/16	08/01/16	I-131	< 2.04E-02	-8.79E-03	1.27E-02	2.04E-02	7.00E-02	pCi/cu m
L69350-8	9TP	08/01/16	08/09/16	I-131	< 1.97E-02	-2.61E-03	1.21E-02	1.97E-02	7.00E-02	pCi/cu m
L69395-8	9TP	08/09/16	08/16/16	I-131	< 3.41E-02	1.71E-03	2.09E-02	3.41E-02	7.00E-02	pCi/cu m
L69486-8	9TP	08/16/16	08/23/16	I-131	< 4.77E-02	-2.20E-03	2.96E-02	4.77E-02	7.00E-02	pCi/cu m
L69538-8	9TP	08/23/16	08/29/16	I-131	< 4.24E-02	-1.82E-02	2.82E-02	4.24E-02	7.00E-02	pCi/cu m
L69664-8	9TP	08/29/16	09/06/16	I-131	< 4.43E-02	-1.60E-02	2.83E-02	4.43E-02	7.00E-02	pCi/cu m
L69763-8	9TP	09/06/16	09/12/16	I-131	< 4.63E-02	-6.52E-03	2.84E-02	4.63E-02	7.00E-02	pCi/cu m
L69825-8	9TP	09/12/16	09/19/16	I-131	< 4.58E-02	1.08E-02	2.63E-02	4.58E-02	7.00E-02	pCi/cu m
L69950-8	9TP	09/19/16	09/26/16	I-131	< 2.71E-02	4.99E-03	1.60E-02	2.71E-02	7.00E-02	pCi/cu m
L70049-8	9TP	09/26/16	10/03/16	I-131	< 7.34E-03	1.39E-03	4.33E-03	7.34E-03	7.00E-02	pCi/cu m
L70217-8	9TP	10/03/16	10/11/16	I-131	< 2.10E-02	-1.27E-02	1.28E-02	2.10E-02	7.00E-02	pCi/cu m
L70295-8	9TP	10/11/16	10/17/16	I-131	< 2.80E-02	-9.84E-05	1.69E-02	2.80E-02	7.00E-02	pCi/cu m
L70397-8	9TP	10/17/16	10/24/16	I-131	< 2.71E-02	7.09E-03	1.59E-02	2.71E-02	7.00E-02	pCi/cu m
L70499-8	9TP	10/24/16	10/31/16	I-131	< 2.61E-02	-4.19E-03	1.58E-02	2.61E-02	7.00E-02	pCi/cu m
L70607-8	9TP	10/31/16	11/07/16	I-131	< 6.30E-02	7.36E-03	3.64E-02	6.30E-02	7.00E-02	pCi/cu m
L70674-8	9TP	11/07/16	11/14/16	I-131	< 3.15E-02	-2.16E-02	2.10E-02	3.15E-02	7.00E-02	pCi/cu m
L70750-8	9TP	11/14/16	11/21/16	I-131	< 2.45E-02	2.69E-03	1.48E-02	2.45E-02	7.00E-02	pCi/cu m
L70820-8	9TP	11/21/16	11/28/16	I-131	< 2.17E-02	-2.34E-02	1.44E-02	2.17E-02	7.00E-02	pCi/cu m
L70890-8	9TP	11/28/16	12/05/16	I-131	< 1.44E-02	-5.44E-03	9.02E-03	1.44E-02	7.00E-02	pCi/cu m
L70965-8	9TP	12/05/16	12/12/16	I-131	< 1.47E-02	2.59E-03	8.72E-03	1.47E-02	7.00E-02	pCi/cu m
L71049-8	9TP	12/12/16	12/19/16	I-131	< 5.15E-02	8.14E-03	3.03E-02	5.15E-02	7.00E-02	pCi/cu m
L71115-8	9TP	12/19/16	12/27/16	I-131	< 3.91E-02	-3.90E-03	2.40E-02	3.91E-02	7.00E-02	pCi/cu m
L71192-8	9TP	12/27/16	01/03/17	I-131	< 4.21E-02	-1.86E-02	2.79E-02	4.21E-02	7.00E-02	pCi/cu m

10GR/GR10
CHARCOAL FILTER

LAB ID	STATION	COLLECT START	COLLECT STOP	NUCLIDE	REPORTABLE	ACTIVITY	ERROR	MDC	LLD	UNITS
L66484-11	10GR	12/28/15	01/04/16	I-131	< 2.76E-02	7.53E-03	1.58E-02	2.76E-02	7.00E-02	pCi/cu m
L66586-11	10GR	01/04/16	01/11/16	I-131	< 4.47E-02	6.75E-03	2.64E-02	4.47E-02	7.00E-02	pCi/cu m
L66674-11	10GR	01/11/16	01/18/16	I-131	< 4.83E-02	1.19E-02	2.58E-02	4.83E-02	7.00E-02	pCi/cu m
L66746-11	10GR	01/18/16	01/25/16	I-131	< 5.76E-02	2.44E-02	3.19E-02	5.76E-02	7.00E-02	pCi/cu m
L66862-11	10GR	01/25/16	02/01/16	I-131	< 6.13E-02	1.09E-02	3.79E-02	6.13E-02	7.00E-02	pCi/cu m
L66938-11	10GR	02/01/16	02/08/16	I-131	< 5.87E-02	-2.10E-02	3.78E-02	5.87E-02	7.00E-02	pCi/cu m

L67019-11 10GR	02/09/16	02/15/16	I-131	< 4.55E-02	-2.42E-03	2.90E-02	4.55E-02	7.00E-02	pCi/cu m
L67073-11 10GR	02/15/16	02/22/16	I-131	< 4.55E-02	-7.24E-03	2.79E-02	4.55E-02	7.00E-02	pCi/cu m
L67178-11 10GR	02/22/16	02/29/16	I-131	< 2.06E-02	3.02E-03	1.23E-02	2.06E-02	7.00E-02	pCi/cu m
L67315-11 10GR	02/29/16	03/07/16	I-131	< 5.89E-02	-2.24E-02	3.86E-02	5.89E-02	7.00E-02	pCi/cu m
L67316-11 10GR	03/07/16	03/14/16	I-131	< 3.97E-02	-8.11E-03	2.49E-02	3.97E-02	7.00E-02	pCi/cu m
L67391-11 10GR	03/14/16	03/21/16	I-131	< 3.23E-02	-9.46E-03	2.04E-02	3.23E-02	7.00E-02	pCi/cu m
L67500-11 10GR	03/21/16	03/28/16	I-131	< 5.13E-02	-1.09E-02	3.14E-02	5.13E-02	7.00E-02	pCi/cu m
L67590-11 10GR	03/28/16	04/04/16	I-131	< 6.37E-02	3.15E-03	3.91E-02	6.37E-02	7.00E-02	pCi/cu m
L67702-11 10GR	04/04/16	04/11/16	I-131	< 2.55E-02	5.01E-03	1.54E-02	2.55E-02	7.00E-02	pCi/cu m
L67805-11 10GR	04/11/16	04/18/16	I-131	< 2.79E-02	1.35E-03	1.67E-02	2.79E-02	7.00E-02	pCi/cu m
L67934-11 10GR	04/18/16	04/25/16	I-131	< 6.16E-02	-1.11E-02	3.88E-02	6.16E-02	7.00E-02	pCi/cu m
L68038-11 10GR	04/25/16	05/02/16	I-131	< 3.21E-02	-4.65E-03	1.97E-02	3.21E-02	7.00E-02	pCi/cu m
L68134-11 10GR	05/02/16	05/09/16	I-131	< 1.37E-02	5.91E-03	8.32E-03	1.37E-02	7.00E-02	pCi/cu m
L68250-11 10GR	05/09/16	05/16/16	I-131	< 6.77E-02	-7.00E-03	4.66E-02	6.77E-02	7.00E-02	pCi/cu m
L68348-11 10GR	05/16/16	05/23/16	I-131	< 6.54E-02	9.69E-03	4.30E-02	6.54E-02	7.00E-02	pCi/cu m
L68446-11 10GR	05/23/16	05/31/16	I-131	< 6.75E-02	7.88E-03	4.03E-02	6.75E-02	7.00E-02	pCi/cu m
L68497-11 10GR	05/31/16	06/06/16	I-131	< 1.81E-02	5.52E-03	1.07E-02	1.81E-02	7.00E-02	pCi/cu m
L68575-11 10GR	06/06/16	06/13/16	I-131	< 3.42E-02	1.85E-04	2.04E-02	3.42E-02	7.00E-02	pCi/cu m
L68708-11 10GR	06/13/16	06/20/16	I-131	< 6.84E-02	1.12E-02	4.09E-02	6.84E-02	7.00E-02	pCi/cu m
L68870-11 10GR	06/20/16	06/27/16	I-131	< 6.66E-02	1.20E-02	3.74E-02	6.66E-02	7.00E-02	pCi/cu m
L68843-11 GR10	06/27/16	07/06/16	I-131	< 1.80E-01	9.38E-02	1.00E-01	1.80E-01	7.00E-02	pCi/cu m
L68983-11 GR10	07/06/16	07/11/16	I-131	< 4.61E-02	-5.60E-04	2.89E-02	4.61E-02	7.00E-02	pCi/cu m
L69068-11 GR10	07/11/16	07/18/16	I-131	< 2.72E-02	8.28E-03	1.68E-02	2.72E-02	7.00E-02	pCi/cu m
L69192-11 GR10	07/18/16	07/26/16	I-131	< 1.04E-02	-4.48E-03	6.48E-03	1.04E-02	7.00E-02	pCi/cu m
L69350-11 GR10	07/26/16	08/01/16	I-131	< 3.83E-02	-5.06E-03	2.34E-02	3.83E-02	7.00E-02	pCi/cu m
L69395-11 GR10	08/01/16	08/08/16	I-131	< 4.57E-02	4.38E-04	2.85E-02	4.57E-02	7.00E-02	pCi/cu m
L69486-11 GR10	08/08/16	08/15/16	I-131	< 3.35E-02	-1.54E-03	2.08E-02	3.35E-02	7.00E-02	pCi/cu m
L69538-11 GR10	08/15/16	08/22/16	I-131	< 5.91E-02	-2.54E-02	3.93E-02	5.91E-02	7.00E-02	pCi/cu m
L69664-11 GR10	08/22/16	08/29/16	I-131	< 6.16E-02	-3.35E-03	3.89E-02	6.16E-02	7.00E-02	pCi/cu m
L69763-11 GR10	08/29/16	09/06/16	I-131	< 2.84E-02	-1.75E-02	2.07E-02	2.84E-02	7.00E-02	pCi/cu m
L69825-11 GR10	09/06/16	09/12/16	I-131	< 6.02E-02	7.31E-03	3.54E-02	6.02E-02	7.00E-02	pCi/cu m
L69950-11 GR10	09/12/16	09/19/16	I-131	< 4.14E-02	7.61E-03	2.43E-02	4.14E-02	7.00E-02	pCi/cu m
L70049-11 GR10	09/19/16	09/26/16	I-131	< 2.89E-02	5.50E-03	1.71E-02	2.89E-02	7.00E-02	pCi/cu m
L70217-11 GR10	09/26/16	10/03/16	I-131	< 3.79E-02	-2.30E-02	2.31E-02	3.79E-02	7.00E-02	pCi/cu m
L70295-11 GR10	10/03/16	10/10/16	I-131	< 3.87E-02	-1.36E-04	2.33E-02	3.87E-02	7.00E-02	pCi/cu m
L70397-11 GR10	10/10/16	10/17/16	I-131	< 3.81E-02	9.35E-03	2.24E-02	3.81E-02	7.00E-02	pCi/cu m
L70499-11 GR10	10/17/16	10/24/16	I-131	< 4.08E-02	-6.55E-03	2.46E-02	4.08E-02	7.00E-02	pCi/cu m
L70607-11 GR10	10/24/16	10/31/16	I-131	< 3.32E-02	-1.26E-02	2.17E-02	3.32E-02	7.00E-02	pCi/cu m

L70674-11 GR10	10/31/16	11/07/16	I-131	< 2.02E-02	-3.19E-03	1.24E-02	2.02E-02	7.00E-02	pCi/cu m
L70750-11 GR10	11/07/16	11/14/16	I-131	< 3.95E-02	4.35E-03	2.39E-02	3.95E-02	7.00E-02	pCi/cu m
L70820-11 GR10	11/14/16	11/21/16	I-131	< 3.50E-02	-3.77E-02	2.32E-02	3.50E-02	7.00E-02	pCi/cu m
L70890-11 GR10	11/21/16	11/28/16	I-131	< 2.35E-02	-8.91E-03	1.48E-02	2.35E-02	7.00E-02	pCi/cu m
L70965-11 GR10	11/28/16	12/05/16	I-131	< 2.36E-02	4.16E-03	1.40E-02	2.36E-02	7.00E-02	pCi/cu m
L71049-11 GR10	12/05/16	12/12/16	I-131	< 5.07E-02	-7.64E-03	3.09E-02	5.07E-02	7.00E-02	pCi/cu m
L71115-11 GR10	12/12/16	12/19/16	I-131	< 2.70E-02	7.16E-03	1.63E-02	2.70E-02	7.00E-02	pCi/cu m
L71192-11 GR10	12/19/16	12/27/16	I-131	< 1.91E-02	-4.60E-03	1.26E-02	1.91E-02	7.00E-02	pCi/cu m
L71261-11 GR10	12/27/16	01/03/17	I-131	< 1.58E-02	-4.22E-03	9.94E-03	1.58E-02	7.00E-02	pCi/cu m

19ST
CHARCOAL FILTER

LAB ID	STATION	COLLECT START	COLLECT STOP	NUCLIDE	REPORTABLE	ACTIVITY	ERROR	MDC	LLD	UNITS
L66380-12	19ST	12/28/15	01/04/16	I-131	< 4.54E-02	4.32E-03	2.85E-02	4.54E-02	7.00E-02	pCi/cu m
L66484-12	19ST	01/04/16	01/11/16	I-131	< 1.87E-02	5.11E-03	1.07E-02	1.87E-02	7.00E-02	pCi/cu m
L66586-12	19ST	01/11/16	01/18/16	I-131	< 3.13E-02	4.73E-03	1.85E-02	3.13E-02	7.00E-02	pCi/cu m
L66674-12	19ST	01/18/16	01/25/16	I-131	< 6.08E-02	1.50E-02	3.25E-02	6.08E-02	7.00E-02	pCi/cu m
L66746-12	19ST	01/25/16	02/01/16	I-131	< 3.83E-02	1.62E-02	2.11E-02	3.83E-02	7.00E-02	pCi/cu m
L66862-12	19ST	02/01/16	02/08/16	I-131	< 4.37E-02	7.74E-03	2.71E-02	4.37E-02	7.00E-02	pCi/cu m
L66938-12	19ST	02/08/16	02/16/16	I-131	< 3.35E-02	-1.20E-02	2.16E-02	3.35E-02	7.00E-02	pCi/cu m
L67019-12	19ST	02/16/16	02/22/16	I-131	< 4.02E-02	-2.14E-03	2.56E-02	4.02E-02	7.00E-02	pCi/cu m
L67073-12	19ST	02/22/16	02/29/16	I-131	< 3.30E-02	-5.25E-03	2.02E-02	3.30E-02	7.00E-02	pCi/cu m
L67178-12	19ST	02/29/16	03/07/16	I-131	< 3.86E-02	5.65E-03	2.30E-02	3.86E-02	7.00E-02	pCi/cu m
L67315-12	19ST	03/07/16	03/14/16	I-131	< 4.54E-02	-1.72E-02	2.98E-02	4.54E-02	7.00E-02	pCi/cu m
L67316-12	19ST	03/14/16	03/21/16	I-131	< 2.85E-02	-5.82E-03	1.79E-02	2.85E-02	7.00E-02	pCi/cu m
L67391-12	19ST	03/21/16	03/28/16	I-131	< 2.46E-02	-7.22E-03	1.55E-02	2.46E-02	7.00E-02	pCi/cu m
L67500-12	19ST	03/28/16	04/04/16	I-131	< 3.82E-02	-8.13E-03	2.33E-02	3.82E-02	7.00E-02	pCi/cu m
L67590-12	19ST	04/04/16	04/11/16	I-131	< 4.82E-02	2.38E-03	2.96E-02	4.82E-02	7.00E-02	pCi/cu m
L67702-12	19ST	04/11/16	04/18/16	I-131	< 1.88E-02	3.70E-03	1.13E-02	1.88E-02	7.00E-02	pCi/cu m
L67805-12	19ST	04/18/16	04/25/16	I-131	< 1.69E-02	8.18E-04	1.01E-02	1.69E-02	7.00E-02	pCi/cu m
L67934-12	19ST	04/25/16	05/02/16	I-131	< 3.76E-02	-6.78E-03	2.37E-02	3.76E-02	7.00E-02	pCi/cu m
L68038-12	19ST	05/02/16	05/09/16	I-131	< 2.06E-02	-2.98E-03	1.26E-02	2.06E-02	7.00E-02	pCi/cu m
L68134-12	19ST	05/09/16	05/16/16	I-131	< 2.30E-02	9.89E-03	1.39E-02	2.30E-02	7.00E-02	pCi/cu m
L68250-12	19ST	05/16/16	05/23/16	I-131	< 6.66E-02	-2.50E-02	4.57E-02	6.66E-02	7.00E-02	pCi/cu m
L68348-12	19ST	05/23/16	05/31/16	I-131	< 3.80E-02	5.63E-03	2.50E-02	3.80E-02	7.00E-02	pCi/cu m
L68446-12	19ST	05/31/16	06/06/16	I-131	< 2.86E-02	-1.18E-02	1.80E-02	2.86E-02	7.00E-02	pCi/cu m
L68497-12	19ST	06/06/16	06/13/16	I-131	< 6.58E-02	2.01E-02	3.90E-02	6.58E-02	7.00E-02	pCi/cu m
L68575-12	19ST	06/15/16	06/20/16	I-131	< 6.85E-02	3.71E-04	4.09E-02	6.85E-02	7.00E-02	pCi/cu m
L68708-12	19ST	06/20/16	06/27/16	I-131	< 3.57E-02	5.86E-03	2.14E-02	3.57E-02	7.00E-02	pCi/cu m

L68870-12 19ST	06/27/16	07/05/16	I-131	< 3.06E-02	5.49E-03	1.72E-02	3.06E-02	7.00E-02	pCi/cu m
L68843-12 19ST	07/05/16	07/11/16	I-131	< 4.07E-03	2.12E-03	2.26E-03	4.07E-03	7.00E-02	pCi/cu m
L68983-12 19ST	07/11/16	07/18/16	I-131	< 2.24E-02	-2.72E-04	1.40E-02	2.24E-02	7.00E-02	pCi/cu m
L69068-12 19ST	07/18/16	07/25/16	I-131	< 1.44E-02	4.38E-03	8.87E-03	1.44E-02	7.00E-02	pCi/cu m
L69192-12 19ST	07/25/16	08/01/16	I-131	< 1.79E-02	-7.70E-03	1.11E-02	1.79E-02	7.00E-02	pCi/cu m
L69350-12 19ST	08/01/16	08/09/16	I-131	< 1.65E-02	-2.18E-03	1.01E-02	1.65E-02	7.00E-02	pCi/cu m
L69395-12 19ST	08/09/16	08/16/16	I-131	< 2.20E-02	2.11E-04	1.38E-02	2.20E-02	7.00E-02	pCi/cu m
L69486-12 19ST	08/16/16	08/23/16	I-131	< 4.03E-02	-1.86E-03	2.50E-02	4.03E-02	7.00E-02	pCi/cu m
L69538-12 19ST	08/23/16	08/29/16	I-131	< 1.42E-02	-6.08E-03	9.41E-03	1.42E-02	7.00E-02	pCi/cu m
L69664-12 19ST	08/29/16	09/06/16	I-131	< 2.96E-02	-1.61E-03	1.87E-02	2.96E-02	7.00E-02	pCi/cu m
L69763-12 19ST	09/06/16	09/12/16	I-131	< 5.67E-02	-3.50E-02	4.13E-02	5.67E-02	7.00E-02	pCi/cu m
L69825-12 19ST	09/12/16	09/19/16	I-131	< 2.98E-02	3.62E-03	1.75E-02	2.98E-02	7.00E-02	pCi/cu m
L69950-12 19ST	09/19/16	09/26/16	I-131	< 2.36E-02	4.33E-03	1.39E-02	2.36E-02	7.00E-02	pCi/cu m
L70049-12 19ST	09/26/16	10/03/16	I-131	< 1.75E-02	3.33E-03	1.03E-02	1.75E-02	7.00E-02	pCi/cu m
L70217-12 19ST	10/03/16	10/11/16	I-131	< 1.83E-02	-1.11E-02	1.11E-02	1.83E-02	7.00E-02	pCi/cu m
L70295-12 19ST	10/11/16	10/17/16	I-131	< 2.37E-02	-8.32E-05	1.43E-02	2.37E-02	7.00E-02	pCi/cu m
L70397-12 19ST	10/17/16	10/24/16	I-131	< 2.16E-02	5.31E-03	1.27E-02	2.16E-02	7.00E-02	pCi/cu m
L70499-12 19ST	10/24/16	10/31/16	I-131	< 2.22E-02	-3.57E-03	1.34E-02	2.22E-02	7.00E-02	pCi/cu m
L70607-12 19ST	10/31/16	11/07/16	I-131	< 4.94E-02	-1.88E-02	3.22E-02	4.94E-02	7.00E-02	pCi/cu m
L70674-12 19ST	11/07/16	11/14/16	I-131	< 2.93E-02	-4.61E-03	1.79E-02	2.93E-02	7.00E-02	pCi/cu m
L70750-12 19ST	11/14/16	11/21/16	I-131	< 2.20E-02	2.42E-03	1.33E-02	2.20E-02	7.00E-02	pCi/cu m
L70820-12 19ST	11/21/16	11/28/16	I-131	< 1.95E-02	-2.10E-02	1.29E-02	1.95E-02	7.00E-02	pCi/cu m
L70890-12 19ST	11/28/16	12/05/16	I-131	< 1.30E-02	-4.91E-03	8.14E-03	1.30E-02	7.00E-02	pCi/cu m
L70965-12 19ST	12/05/16	12/12/16	I-131	< 1.31E-02	2.30E-03	7.75E-03	1.31E-02	7.00E-02	pCi/cu m
L71049-12 19ST	12/12/16	12/19/16	I-131	< 5.47E-02	-8.23E-03	3.32E-02	5.47E-02	7.00E-02	pCi/cu m
L71115-12 19ST	12/19/16	12/27/16	I-131	< 3.15E-02	8.37E-03	1.90E-02	3.15E-02	7.00E-02	pCi/cu m
L71192-12 19ST	12/27/16	01/03/17	I-131	< 2.93E-02	-7.09E-03	1.94E-02	2.93E-02	7.00E-02	pCi/cu m

BLUEBERRIES
FRUIT

LAB ID	STATION	COLLECT START	COLLECT STOP	NUCLIDE	REPORTABLE	ACTIVITY	ERROR	MDC	LLD	UNITS
L69127-1	FRUIT	07/21/16		CS-134	< 6.65E+00	1.99E+00	3.98E+00	6.65E+00	6.00E+01	pCi/kg Wet
L69127-1	FRUIT	07/21/16		CS-137	< 6.47E+00	-1.85E+00	3.94E+00	6.47E+00	8.00E+01	pCi/kg Wet
L69127-1	FRUIT	07/21/16		I-131	< 2.08E+01	-9.05E+00	1.26E+01	2.08E+01	6.00E+01	pCi/kg Wet
L69127-1	FRUIT	07/21/16		K-40	9.68E+02	9.68E+02	9.96E+01	4.38E+01		pCi/kg Wet

APPLES
FRUIT

LAB ID	STATION	COLLECT START	COLLECT STOP	NUCLIDE	REPORTABLE	ACTIVITY	ERROR	MDC	LLD	UNITS

L69859-1	FRUIT	09/19/16		CS-134	< 1.90E+01	-2.66E+00	1.40E+01	1.90E+01	6.00E+01	pCi/Kg Wet
L69859-1	FRUIT	09/19/16		CS-137	< 1.86E+01	1.92E+00	1.08E+01	1.86E+01	8.00E+01	pCi/Kg Wet
L69859-1	FRUIT	09/19/16		I-131	< 3.32E+01	-1.09E+01	2.11E+01	3.32E+01	6.00E+01	pCi/Kg Wet
L69859-1	FRUIT	09/19/16		K-40	1.09E+03	1.09E+03	3.28E+02	1.18E+02		pCi/Kg Wet

BVC
BROADLEAF VEGETATION

LAB ID	STATION	COLLECT START	COLLECT STOP	NUCLIDE	REPORTABLE	ACTIVITY	ERROR	MDC	LLD	UNITS
L68241-1	BVC	05/23/16		BE-7	7.23E+02	7.23E+02	1.83E+02	1.83E+02		pCi/kg Wet
L68606-1	BVC	06/21/16		BE-7	7.41E+02	7.41E+02	2.78E+02	2.04E+02		pCi/kg Wet
L69123-1	BVC	07/26/16		BE-7	9.28E+02	9.28E+02	3.12E+02	2.28E+02		pCi/kg Wet
L69574-1	BVC	08/30/16		BE-7	1.43E+03	1.43E+03	3.47E+02	2.57E+02		pCi/kg Wet
L69990-1	BVC	09/27/16		BE-7	2.51E+03	2.51E+03	3.87E+02	2.21E+02		pCi/Kg Wet
L68241-1	BVC	05/23/16		CS-134	< 2.17E+01	9.80E+00	1.30E+01	2.17E+01	6.00E+01	pCi/kg Wet
L68606-1	BVC	06/21/16		CS-134	< 2.42E+01	-3.79E+00	1.77E+01	2.42E+01	6.00E+01	pCi/kg Wet
L69123-1	BVC	07/26/16		CS-134	< 2.26E+01	4.72E+00	1.51E+01	2.26E+01	6.00E+01	pCi/kg Wet
L69574-1	BVC	08/30/16		CS-134	< 2.58E+01	8.01E+00	1.62E+01	2.58E+01	6.00E+01	pCi/kg Wet
L69990-1	BVC	09/27/16		CS-134	< 2.69E+01	1.47E+01	1.53E+01	2.69E+01	6.00E+01	pCi/Kg Wet
L68241-1	BVC	05/23/16		CS-137	< 2.20E+01	1.41E+00	1.24E+01	2.20E+01	8.00E+01	pCi/kg Wet
L68606-1	BVC	06/21/16		CS-137	< 2.76E+01	8.47E+00	1.58E+01	2.76E+01	8.00E+01	pCi/kg Wet
L69123-1	BVC	07/26/16		CS-137	< 2.68E+01	-2.78E+00	1.68E+01	2.68E+01	8.00E+01	pCi/kg Wet
L69574-1	BVC	08/30/16		CS-137	< 2.72E+01	5.65E+00	1.55E+01	2.72E+01	8.00E+01	pCi/kg Wet
L69990-1	BVC	09/27/16		CS-137	< 3.23E+01	2.67E+00	1.92E+01	3.23E+01	8.00E+01	pCi/Kg Wet
L68241-1	BVC	05/23/16		I-131	< 4.18E+01	-2.41E-01	2.38E+01	4.18E+01	6.00E+01	pCi/kg Wet
L68606-1	BVC	06/21/16		I-131	< 5.02E+01	1.52E+01	2.95E+01	5.02E+01	6.00E+01	pCi/kg Wet
L69123-1	BVC	07/26/16		I-131	< 4.99E+01	-8.81E+00	3.04E+01	4.99E+01	6.00E+01	pCi/kg Wet
L69574-1	BVC	08/30/16		I-131	< 5.63E+01	4.39E+00	3.38E+01	5.63E+01	6.00E+01	pCi/kg Wet
L69990-1	BVC	09/27/16		I-131	< 4.65E+01	-6.59E+00	2.93E+01	4.65E+01	6.00E+01	pCi/Kg Wet
L68241-1	BVC	05/23/16		K-40	3.83E+03	3.83E+03	4.54E+02	1.51E+02		pCi/kg Wet
L68606-1	BVC	06/21/16		K-40	3.97E+03	3.97E+03	4.46E+02	1.80E+02		pCi/kg Wet
L69123-1	BVC	07/26/16		K-40	4.21E+03	4.21E+03	5.83E+02	2.38E+02		pCi/kg Wet
L69574-1	BVC	08/30/16		K-40	3.56E+03	3.56E+03	5.93E+02	2.73E+02		pCi/kg Wet
L69990-1	BVC	09/27/16		K-40	3.46E+03	3.46E+03	5.52E+02	2.32E+02		pCi/Kg Wet
L68241-1	BVC	05/23/16		TH-228	5.55E+01	5.55E+01	3.07E+01	3.71E+01		pCi/kg Wet
L69123-1	BVC	07/26/16		TH-228	1.04E+02	1.04E+02	7.67E+01	4.23E+01		pCi/kg Wet
L68606-1	BVC	06/21/16		TH-232	1.03E+02	1.03E+02	6.05E+01	8.04E+01		pCi/kg Wet

BV1
BROADLEAF VEGETATION

LAB ID	STATION	COLLECT START	COLLECT STOP	NUCLIDE	REPORTABLE	ACTIVITY	ERROR	MDC	LLD	UNITS
L68241-2	BV1	05/23/16		BE-7	7.18E+02	7.18E+02	2.69E+02	2.02E+02		pCi/kg Wet
L68606-2	BV1	06/21/16		BE-7	2.09E+03	2.09E+03	3.32E+02	2.55E+02		pCi/kg Wet
L69123-2	BV1	07/26/16		BE-7	3.16E+03	3.16E+03	4.04E+02	2.63E+02		pCi/kg Wet
L69574-2	BV1	08/30/16		BE-7	3.99E+03	3.99E+03	4.77E+02	2.24E+02		pCi/kg Wet
L69990-2	BV1	09/27/16		BE-7	3.45E+03	3.45E+03	4.35E+02	2.90E+02		pCi/Kg Wet
L68241-2	BV1	05/23/16		CS-134	< 2.24E+01	6.67E+00	1.47E+01	2.24E+01	6.00E+01	pCi/kg Wet
L68606-2	BV1	06/21/16		CS-134	< 3.02E+01	-3.82E+01	2.19E+01	3.02E+01	6.00E+01	pCi/kg Wet
L69123-2	BV1	07/26/16		CS-134	< 2.58E+01	1.09E+00	1.77E+01	2.58E+01	6.00E+01	pCi/kg Wet
L69574-2	BV1	08/30/16		CS-134	< 2.35E+01	-2.56E+00	1.74E+01	2.35E+01	6.00E+01	pCi/kg Wet
L69990-2	BV1	09/27/16		CS-134	< 3.07E+01	8.19E+00	2.05E+01	3.07E+01	6.00E+01	pCi/Kg Wet
L68241-2	BV1	05/23/16		CS-137	7.29E+01	7.29E+01	2.67E+01	2.03E+01	8.00E+01	pCi/kg Wet
L68606-2	BV1	06/21/16		CS-137	6.86E+01	6.86E+01	3.38E+01	3.12E+01	8.00E+01	pCi/kg Wet
L69123-2	BV1	07/26/16		CS-137	4.49E+01	4.49E+01	2.62E+01	2.57E+01	8.00E+01	pCi/kg Wet
L69990-2	BV1	09/27/16		CS-137	6.37E+01	6.37E+01	3.37E+01	3.24E+01	8.00E+01	pCi/Kg Wet
L69574-2	BV1	08/30/16		CS-137	< 3.00E+01	2.86E+01	2.68E+01	3.00E+01	8.00E+01	pCi/kg Wet
L68241-2	BV1	05/23/16		I-131	< 4.45E+01	7.81E+00	2.57E+01	4.45E+01	6.00E+01	pCi/kg Wet
L68606-2	BV1	06/21/16		I-131	< 5.84E+01	1.97E+01	3.39E+01	5.84E+01	6.00E+01	pCi/kg Wet
L69123-2	BV1	07/26/16		I-131	< 5.73E+01	4.38E+00	3.39E+01	5.73E+01	6.00E+01	pCi/kg Wet
L69574-2	BV1	08/30/16		I-131	< 5.86E+01	-2.08E+01	3.74E+01	5.86E+01	6.00E+01	pCi/kg Wet
L69990-2	BV1	09/27/16		I-131	< 5.01E+01	-2.15E+01	3.25E+01	5.01E+01	6.00E+01	pCi/Kg Wet
L68241-2	BV1	05/23/16		K-40	2.28E+03	2.28E+03	4.04E+02	1.61E+02		pCi/kg Wet
L68606-2	BV1	06/21/16		K-40	1.57E+03	1.57E+03	4.06E+02	2.18E+02		pCi/kg Wet
L69123-2	BV1	07/26/16		K-40	1.83E+03	1.83E+03	4.80E+02	2.50E+02		pCi/kg Wet
L69574-2	BV1	08/30/16		K-40	1.51E+03	1.51E+03	4.32E+02	2.22E+02		pCi/kg Wet
L69990-2	BV1	09/27/16		K-40	2.17E+03	2.17E+03	5.62E+02	2.96E+02		pCi/Kg Wet
L68241-2	BV1	05/23/16		TH-228	4.13E+01	4.13E+01	4.08E+01	4.09E+01		pCi/kg Wet
L69574-2	BV1	08/30/16		TH-228	1.02E+02	1.02E+02	6.81E+01	5.09E+01		pCi/kg Wet

BV2

BROADLEAF VEGETATION

LAB ID	STATION	COLLECT START	COLLECT STOP	NUCLIDE	REPORTABLE	ACTIVITY	ERROR	MDC	LLD	UNITS
L68241-3	BV2	05/23/16		BE-7	6.99E+02	6.99E+02	1.85E+02	1.25E+02		pCi/kg Wet
L68606-3	BV2	06/21/16		BE-7	4.04E+02	4.04E+02	1.42E+02	1.48E+02		pCi/kg Wet
L69123-3	BV2	07/26/16		BE-7	1.15E+03	1.15E+03	2.36E+02	1.56E+02		pCi/kg Wet
L69574-3	BV2	08/30/16		BE-7	1.20E+03	1.20E+03	2.56E+02	2.33E+02		pCi/kg Wet
L69990-3	BV2	09/27/16		BE-7	1.28E+03	1.28E+03	3.56E+02	2.51E+02		pCi/Kg Wet
L68241-3	BV2	05/23/16		CS-134	< 1.40E+01	1.80E+00	9.43E+00	1.40E+01	6.00E+01	pCi/kg Wet

L68606-3	BV2	06/21/16		CS-134	< 1.86E+01	-2.89E+00	1.19E+01	1.86E+01	6.00E+01	pCi/kg Wet
L69123-3	BV2	07/26/16		CS-134	< 1.90E+01	-3.27E+00	1.38E+01	1.90E+01	6.00E+01	pCi/kg Wet
L69574-3	BV2	08/30/16		CS-134	< 3.00E+01	2.17E+01	1.90E+01	3.00E+01	6.00E+01	pCi/kg Wet
L69990-3	BV2	09/27/16		CS-134	< 2.73E+01	8.48E-01	1.90E+01	2.73E+01	6.00E+01	pCi/Kg Wet
L68241-3	BV2	05/23/16		CS-137	< 1.78E+01	1.04E+01	9.58E+00	1.78E+01	8.00E+01	pCi/kg Wet
L68606-3	BV2	06/21/16		CS-137	< 2.01E+01	1.99E+00	1.17E+01	2.01E+01	8.00E+01	pCi/kg Wet
L69123-3	BV2	07/26/16		CS-137	< 2.46E+01	1.93E+01	1.21E+01	2.46E+01	8.00E+01	pCi/kg Wet
L69574-3	BV2	08/30/16		CS-137	< 2.76E+01	2.93E+00	1.57E+01	2.76E+01	8.00E+01	pCi/kg Wet
L69990-3	BV2	09/27/16		CS-137	< 2.41E+01	-1.40E+01	1.67E+01	2.41E+01	8.00E+01	pCi/Kg Wet
L68241-3	BV2	05/23/16		I-131	< 2.96E+01	6.14E+00	1.73E+01	2.96E+01	6.00E+01	pCi/kg Wet
L68606-3	BV2	06/21/16		I-131	< 3.35E+01	7.22E+00	1.97E+01	3.35E+01	6.00E+01	pCi/kg Wet
L69123-3	BV2	07/26/16		I-131	< 3.99E+01	7.73E+00	2.36E+01	3.99E+01	6.00E+01	pCi/kg Wet
L69574-3	BV2	08/30/16		I-131	< 5.62E+01	1.14E+01	3.52E+01	5.62E+01	6.00E+01	pCi/kg Wet
L69990-3	BV2	09/27/16		I-131	< 4.40E+01	-6.73E+00	2.79E+01	4.40E+01	6.00E+01	pCi/Kg Wet
L68241-3	BV2	05/23/16		K-40	3.51E+03	3.51E+03	4.33E+02	1.32E+02		pCi/kg Wet
L68606-3	BV2	06/21/16		K-40	3.19E+03	3.19E+03	4.20E+02	1.54E+02		pCi/kg Wet
L69123-3	BV2	07/26/16		K-40	3.08E+03	3.08E+03	4.69E+02	1.62E+02		pCi/kg Wet
L69574-3	BV2	08/30/16		K-40	2.23E+03	2.23E+03	3.89E+02	1.86E+02		pCi/kg Wet
L69990-3	BV2	09/27/16		K-40	2.41E+03	2.41E+03	4.54E+02	1.76E+02		pCi/Kg Wet

BV3
BROADLEAF VEGETATION

LAB ID	STATION	COLLECT START	COLLECT STOP	NUCLIDE	REPORTABLE	ACTIVITY	ERROR	MDC	LLD	UNITS
L69123-4	BV3	07/27/16		BE-7	3.62E+03	3.62E+03	4.87E+02	2.59E+02		pCi/kg Wet
L69574-4	BV3	08/31/16		BE-7	4.20E+03	4.20E+03	4.59E+02	2.82E+02		pCi/kg Wet
L69990-4	BV3	09/27/16		BE-7	5.15E+03	5.15E+03	4.57E+02	2.77E+02		pCi/Kg Wet
L69123-4	BV3	07/27/16		CS-134	< 3.20E+01	9.92E+00	2.11E+01	3.20E+01	6.00E+01	pCi/kg Wet
L69574-4	BV3	08/31/16		CS-134	< 2.99E+01	-1.04E+00	2.08E+01	2.99E+01	6.00E+01	pCi/kg Wet
L69990-4	BV3	09/27/16		CS-134	< 2.88E+01	5.19E+00	1.93E+01	2.88E+01	6.00E+01	pCi/Kg Wet
L69123-4	BV3	07/27/16		CS-137	1.43E+02	1.43E+02	3.70E+01	3.51E+01	8.00E+01	pCi/kg Wet
L69123-4R	BV3	07/27/16		CS-137	1.49E+02	1.49E+02	1.29E+01	1.00E+01	8.00E+01	pCi/kg Wet
L69574-4	BV3	08/31/16		CS-137	2.13E+02	2.13E+02	4.02E+01	3.22E+01	8.00E+01	pCi/kg Wet
L69574-4R	BV3	08/31/16		CS-137	2.31E+02	2.31E+02	5.20E+01	4.88E+01	8.00E+01	pCi/Kg Wet
L69990-4	BV3	09/27/16		CS-137	1.24E+02	1.24E+02	4.08E+01	3.12E+01	8.00E+01	pCi/Kg Wet
L69123-4	BV3	07/27/16		I-131	< 4.87E+01	-2.24E+01	3.20E+01	4.87E+01	6.00E+01	pCi/kg Wet
L69574-4	BV3	08/31/16		I-131	< 5.99E+01	1.14E+01	3.51E+01	5.99E+01	6.00E+01	pCi/kg Wet
L69990-4	BV3	09/27/16		I-131	< 5.42E+01	4.89E+00	3.21E+01	5.42E+01	6.00E+01	pCi/Kg Wet
L69123-4	BV3	07/27/16		K-40	2.49E+03	2.49E+03	5.20E+02	2.68E+02		pCi/kg Wet

L69574-4	BV3	08/31/16	K-40	2.23E+03	2.23E+03	4.27E+02	2.56E+02		pCi/kg Wet
L69990-4	BV3	09/27/16	K-40	3.21E+03	3.21E+03	5.46E+02	1.70E+02		pCi/Kg Wet

DOMESTIC WATER
DRINKING WATER

LAB ID	STATION	COLLECT START	COLLECT STOP	NUCLIDE		REPORTABLE	ACTIVITY	ERROR	MDC	LLD	UNITS
L66747-2	DOMESTIC WATER	01/01/16	01/31/16	BA-LA-140	<	6.15E+00	-2.14E-02	3.70E+00	6.15E+00	1.50E+01	pCi/L
L67128-2	DOMESTIC WATER	02/01/16	03/01/16	BA-LA-140	<	1.28E+01	2.98E+00	7.52E+00	1.28E+01	1.50E+01	pCi/L
L67505-1	DOMESTIC WATER	03/01/16	03/31/16	BA-LA-140	<	4.48E+00	6.61E-01	2.65E+00	4.48E+00	1.50E+01	pCi/L
L67935-2	DOMESTIC WATER	04/01/16	04/30/16	BA-LA-140	<	6.23E+00	3.43E-01	3.67E+00	6.23E+00	1.50E+01	pCi/L
L68365-2	DOMESTIC WATER	05/01/16	05/31/16	BA-LA-140	<	8.72E+00	-8.25E-01	5.12E+00	8.72E+00	1.50E+01	pCi/L
L68716-2	DOMESTIC WATER	06/01/16	06/30/16	BA-LA-140	<	1.18E+01	9.81E+00	6.53E+00	1.18E+01	1.50E+01	pCi/L
L69249-1	DOMESTIC WATER	07/01/16	07/31/16	BA-LA-140	<	5.63E+00	-1.84E+00	3.48E+00	5.63E+00	1.50E+01	pCi/L
L69591-2	DOMESTIC WATER	08/01/16	08/31/16	BA-LA-140	<	1.07E+01	9.13E-01	6.42E+00	1.07E+01	1.50E+01	pCi/L
L70066-1	DOMESTIC WATER	09/01/16	09/30/16	BA-LA-140	<	7.60E+00	-2.67E+00	4.82E+00	7.60E+00	1.50E+01	pCi/L
L70516-1	DOMESTIC WATER	10/01/16	10/31/16	BA-LA-140	<	7.76E+00	3.03E+00	4.50E+00	7.76E+00	1.50E+01	pCi/L
L70871-2	DOMESTIC WATER	11/01/16	11/30/16	BA-LA-140	<	1.07E+01	3.12E+00	6.11E+00	1.07E+01	1.50E+01	pCi/L
L71253-1	DOMESTIC WATER	12/01/16	12/31/16	BA-LA-140	<	8.91E+00	2.78E+00	5.25E+00	8.91E+00	1.50E+01	pCi/L
L66747-2	DOMESTIC WATER	01/01/16	01/31/16	CO-58	<	1.70E+00	-1.32E+00	1.09E+00	1.70E+00	1.50E+01	pCi/L
L67128-2	DOMESTIC WATER	02/01/16	03/01/16	CO-58	<	4.56E+00	2.86E-01	2.77E+00	4.56E+00	1.50E+01	pCi/L
L67505-1	DOMESTIC WATER	03/01/16	03/31/16	CO-58	<	1.16E+00	4.78E-01	6.83E-01	1.16E+00	1.50E+01	pCi/L
L67935-2	DOMESTIC WATER	04/01/16	04/30/16	CO-58	<	1.63E+00	-3.31E-01	1.01E+00	1.63E+00	1.50E+01	pCi/L
L68365-2	DOMESTIC WATER	05/01/16	05/31/16	CO-58	<	2.45E+00	3.14E-01	1.40E+00	2.45E+00	1.50E+01	pCi/L
L68716-2	DOMESTIC WATER	06/01/16	06/30/16	CO-58	<	2.81E+00	1.19E-01	1.71E+00	2.81E+00	1.50E+01	pCi/L
L69249-1	DOMESTIC WATER	07/01/16	07/31/16	CO-58	<	1.65E+00	3.11E-01	9.98E-01	1.65E+00	1.50E+01	pCi/L
L69591-2	DOMESTIC WATER	08/01/16	08/31/16	CO-58	<	2.21E+00	-4.71E-01	1.36E+00	2.21E+00	1.50E+01	pCi/L
L70066-1	DOMESTIC WATER	09/01/16	09/30/16	CO-58	<	2.13E+00	6.61E-01	1.25E+00	2.13E+00	1.50E+01	pCi/L
L70516-1	DOMESTIC WATER	10/01/16	10/31/16	CO-58	<	1.70E+00	-5.34E-01	1.10E+00	1.70E+00	1.50E+01	pCi/L
L70871-2	DOMESTIC WATER	11/01/16	11/30/16	CO-58	<	2.99E+00	-1.20E+00	1.94E+00	2.99E+00	1.50E+01	pCi/L
L71253-1	DOMESTIC WATER	12/01/16	12/31/16	CO-58	<	2.19E+00	6.21E-01	1.30E+00	2.19E+00	1.50E+01	pCi/L
L66747-2	DOMESTIC WATER	01/01/16	01/31/16	CO-60	<	1.49E+00	-2.24E-01	9.25E-01	1.49E+00	1.50E+01	pCi/L
L67128-2	DOMESTIC WATER	02/01/16	03/01/16	CO-60	<	3.32E+00	4.72E-01	1.99E+00	3.32E+00	1.50E+01	pCi/L
L67505-1	DOMESTIC WATER	03/01/16	03/31/16	CO-60	<	9.94E-01	2.78E-01	6.02E-01	9.94E-01	1.50E+01	pCi/L
L67935-2	DOMESTIC WATER	04/01/16	04/30/16	CO-60	<	1.69E+00	5.97E-01	1.01E+00	1.69E+00	1.50E+01	pCi/L
L68365-2	DOMESTIC WATER	05/01/16	05/31/16	CO-60	<	1.99E+00	-9.10E-01	1.22E+00	1.99E+00	1.50E+01	pCi/L
L68716-2	DOMESTIC WATER	06/01/16	06/30/16	CO-60	<	2.42E+00	3.30E-01	1.44E+00	2.42E+00	1.50E+01	pCi/L
L69249-1	DOMESTIC WATER	07/01/16	07/31/16	CO-60	<	1.41E+00	1.25E-01	8.56E-01	1.41E+00	1.50E+01	pCi/L
L69591-2	DOMESTIC WATER	08/01/16	08/31/16	CO-60	<	1.88E+00	-1.66E-01	1.14E+00	1.88E+00	1.50E+01	pCi/L
L70066-1	DOMESTIC WATER	09/01/16	09/30/16	CO-60	<	1.97E+00	3.35E-01	1.16E+00	1.97E+00	1.50E+01	pCi/L

L70516-1	DOMESTIC WATER	10/01/16	10/31/16	CO-60	< 1.71E+00	5.82E-01	9.94E-01	1.71E+00	1.50E+01	pCi/L
L70871-2	DOMESTIC WATER	11/01/16	11/30/16	CO-60	< 2.87E+00	1.58E+00	1.55E+00	2.87E+00	1.50E+01	pCi/L
L71253-1	DOMESTIC WATER	12/01/16	12/31/16	CO-60	< 2.02E+00	1.42E-02	1.44E+00	2.02E+00	1.50E+01	pCi/L
L66747-2	DOMESTIC WATER	01/01/16	01/31/16	CS-134	< 1.47E+00	-4.40E+00	1.07E+00	1.47E+00	1.50E+01	pCi/L
L67128-2	DOMESTIC WATER	02/01/16	03/01/16	CS-134	< 3.78E+00	5.30E-01	2.62E+00	3.78E+00	1.50E+01	pCi/L
L67505-1	DOMESTIC WATER	03/01/16	03/31/16	CS-134	< 9.86E-01	-2.48E+00	6.52E-01	9.86E-01	1.50E+01	pCi/L
L67935-2	DOMESTIC WATER	04/01/16	04/30/16	CS-134	< 1.43E+00	-6.20E-01	8.88E-01	1.43E+00	1.50E+01	pCi/L
L68365-2	DOMESTIC WATER	05/01/16	05/31/16	CS-134	< 2.00E+00	3.16E-01	1.59E+00	2.00E+00	1.50E+01	pCi/L
L68716-2	DOMESTIC WATER	06/01/16	06/30/16	CS-134	< 2.08E+00	-3.73E+00	1.38E+00	2.08E+00	1.50E+01	pCi/L
L69249-1	DOMESTIC WATER	07/01/16	07/31/16	CS-134	< 1.24E+00	-8.28E-01	9.07E-01	1.24E+00	1.50E+01	pCi/L
L69591-2	DOMESTIC WATER	08/01/16	08/31/16	CS-134	< 1.86E+00	-2.69E-01	1.28E+00	1.86E+00	1.50E+01	pCi/L
L70066-1	DOMESTIC WATER	09/01/16	09/30/16	CS-134	< 1.62E+00	-4.06E-01	1.42E+00	1.62E+00	1.50E+01	pCi/L
L70516-1	DOMESTIC WATER	10/01/16	10/31/16	CS-134	< 1.51E+00	-4.12E+00	1.10E+00	1.51E+00	1.50E+01	pCi/L
L70871-2	DOMESTIC WATER	11/01/16	11/30/16	CS-134	< 2.76E+00	8.96E-01	1.81E+00	2.76E+00	1.50E+01	pCi/L
L71253-1	DOMESTIC WATER	12/01/16	12/31/16	CS-134	< 1.78E+00	-4.48E-01	1.28E+00	1.78E+00	1.50E+01	pCi/L
L66747-2	DOMESTIC WATER	01/01/16	01/31/16	CS-137	< 1.58E+00	-2.52E-01	9.63E-01	1.58E+00	1.80E+01	pCi/L
L67128-2	DOMESTIC WATER	02/01/16	03/01/16	CS-137	< 3.40E+00	-1.23E+00	2.18E+00	3.40E+00	1.80E+01	pCi/L
L67505-1	DOMESTIC WATER	03/01/16	03/31/16	CS-137	< 1.04E+00	-1.03E-01	6.24E-01	1.04E+00	1.80E+01	pCi/L
L67935-2	DOMESTIC WATER	04/01/16	04/30/16	CS-137	< 1.61E+00	-3.10E-01	9.86E-01	1.61E+00	1.80E+01	pCi/L
L68365-2	DOMESTIC WATER	05/01/16	05/31/16	CS-137	< 2.06E+00	-7.42E-01	1.22E+00	2.06E+00	1.80E+01	pCi/L
L68716-2	DOMESTIC WATER	06/01/16	06/30/16	CS-137	< 2.44E+00	6.35E-01	1.44E+00	2.44E+00	1.80E+01	pCi/L
L69249-1	DOMESTIC WATER	07/01/16	07/31/16	CS-137	< 1.44E+00	2.53E-01	8.61E-01	1.44E+00	1.80E+01	pCi/L
L69591-2	DOMESTIC WATER	08/01/16	08/31/16	CS-137	< 2.07E+00	8.13E-02	1.23E+00	2.07E+00	1.80E+01	pCi/L
L70066-1	DOMESTIC WATER	09/01/16	09/30/16	CS-137	< 1.84E+00	1.62E-01	1.09E+00	1.84E+00	1.80E+01	pCi/L
L70516-1	DOMESTIC WATER	10/01/16	10/31/16	CS-137	< 1.65E+00	-2.02E-01	1.03E+00	1.65E+00	1.80E+01	pCi/L
L70871-2	DOMESTIC WATER	11/01/16	11/30/16	CS-137	< 2.72E+00	-2.39E+00	1.83E+00	2.72E+00	1.80E+01	pCi/L
L71253-1	DOMESTIC WATER	12/01/16	12/31/16	CS-137	< 2.04E+00	6.01E-01	1.22E+00	2.04E+00	1.80E+01	pCi/L
L66747-2	DOMESTIC WATER	01/01/16	01/31/16	FE-59	< 4.40E+00	1.93E+00	2.58E+00	4.40E+00	3.00E+01	pCi/L
L67128-2	DOMESTIC WATER	02/01/16	03/01/16	FE-59	< 9.50E+00	7.26E-01	5.79E+00	9.50E+00	3.00E+01	pCi/L
L67505-1	DOMESTIC WATER	03/01/16	03/31/16	FE-59	< 2.66E+00	1.05E-01	1.63E+00	2.66E+00	3.00E+01	pCi/L
L67935-2	DOMESTIC WATER	04/01/16	04/30/16	FE-59	< 3.53E+00	-1.66E+00	2.33E+00	3.53E+00	3.00E+01	pCi/L
L68365-2	DOMESTIC WATER	05/01/16	05/31/16	FE-59	< 5.42E+00	7.60E-01	3.10E+00	5.42E+00	3.00E+01	pCi/L
L68716-2	DOMESTIC WATER	06/01/16	06/30/16	FE-59	< 6.73E+00	2.88E+00	4.63E+00	6.73E+00	3.00E+01	pCi/L
L69249-1	DOMESTIC WATER	07/01/16	07/31/16	FE-59	< 3.82E+00	1.26E+00	2.24E+00	3.82E+00	3.00E+01	pCi/L
L69591-2	DOMESTIC WATER	08/01/16	08/31/16	FE-59	< 5.24E+00	-1.39E+00	3.33E+00	5.24E+00	3.00E+01	pCi/L
L70066-1	DOMESTIC WATER	09/01/16	09/30/16	FE-59	< 5.12E+00	6.10E-01	3.13E+00	5.12E+00	3.00E+01	pCi/L
L70516-1	DOMESTIC WATER	10/01/16	10/31/16	FE-59	< 4.35E+00	-3.05E-01	2.62E+00	4.35E+00	3.00E+01	pCi/L
L70871-2	DOMESTIC WATER	11/01/16	11/30/16	FE-59	< 6.76E+00	4.63E-01	4.18E+00	6.76E+00	3.00E+01	pCi/L

L71253-1	DOMESTIC WATER	12/01/16	12/31/16	FE-59	< 5.25E+00	-2.12E-01	3.24E+00	5.25E+00	3.00E+01	pCi/L
L66747-2	DOMESTIC WATER	01/01/16	01/31/16	GR-B	2.87E+00	2.87E+00	1.46E+00	2.02E+00	4.00E+00	pCi/L
L67128-2	DOMESTIC WATER	02/01/16	03/01/16	GR-B	3.02E+00	3.02E+00	1.41E+00	1.84E+00	4.00E+00	pCi/L
L67505-1	DOMESTIC WATER	03/01/16	03/31/16	GR-B	< 2.24E+00	1.41E+00	1.48E+00	2.24E+00	4.00E+00	pCi/L
L67935-2	DOMESTIC WATER	04/01/16	04/30/16	GR-B	< 2.32E+00	8.44E-01	1.48E+00	2.32E+00	4.00E+00	pCi/L
L68365-2	DOMESTIC WATER	05/01/16	05/31/16	GR-B	2.38E+00	2.38E+00	1.46E+00	2.05E+00	4.00E+00	pCi/L
L68716-2	DOMESTIC WATER	06/01/16	06/30/16	GR-B	3.14E+00	3.14E+00	1.50E+00	2.01E+00	4.00E+00	pCi/L
L69249-1	DOMESTIC WATER	07/01/16	07/31/16	GR-B	< 2.22E+00	1.87E+00	1.50E+00	2.22E+00	4.00E+00	pCi/L
L69591-2	DOMESTIC WATER	08/01/16	08/31/16	GR-B	3.17E+00	3.17E+00	1.49E+00	1.99E+00	4.00E+00	pCi/L
L70066-1	DOMESTIC WATER	09/01/16	09/30/16	GR-B	< 2.07E+00	1.74E+00	1.41E+00	2.07E+00	4.00E+00	pCi/L
L70516-1	DOMESTIC WATER	10/01/16	10/31/16	GR-B	2.35E+00	2.35E+00	1.49E+00	2.14E+00	4.00E+00	pCi/L
L70871-2	DOMESTIC WATER	11/01/16	11/30/16	GR-B	3.02E+00	3.02E+00	1.65E+00	2.31E+00	4.00E+00	pCi/L
L71253-1	DOMESTIC WATER	12/01/16	12/31/16	GR-B	2.15E+00	2.15E+00	1.48E+00	2.12E+00	4.00E+00	pCi/L
L66747-2	DOMESTIC WATER	01/01/16	01/31/16	H-3 (DIST)	< 5.11E+02	1.24E+02	3.42E+02	5.11E+02	2.00E+03	pCi/L
L67128-2	DOMESTIC WATER	02/01/16	03/01/16	H-3 (DIST)	< 5.70E+02	-5.31E+01	3.39E+02	5.70E+02	2.00E+03	pCi/L
L67505-1	DOMESTIC WATER	03/01/16	03/31/16	H-3 (DIST)	< 4.63E+02	2.42E+02	3.13E+02	4.63E+02	2.00E+03	pCi/L
L67935-2	DOMESTIC WATER	04/01/16	04/30/16	H-3 (DIST)	< 4.46E+02	6.85E+01	2.78E+02	4.46E+02	2.00E+03	pCi/L
L68365-2	DOMESTIC WATER	05/01/16	05/31/16	H-3 (DIST)	< 5.13E+02	-1.68E+02	2.88E+02	5.13E+02	2.00E+03	pCi/L
L68716-2	DOMESTIC WATER	06/01/16	06/30/16	H-3 (DIST)	< 4.76E+02	1.24E+02	3.06E+02	4.76E+02	2.00E+03	pCi/L
L69249-1	DOMESTIC WATER	07/01/16	07/31/16	H-3 (DIST)	< 6.45E+02	7.84E+01	4.08E+02	6.45E+02	2.00E+03	pCi/L
L69591-2	DOMESTIC WATER	08/01/16	08/31/16	H-3 (DIST)	< 6.15E+02	-8.13E+01	3.57E+02	6.15E+02	2.00E+03	pCi/L
L70066-1	DOMESTIC WATER	09/01/16	09/30/16	H-3 (DIST)	< 4.50E+02	7.00E+01	2.83E+02	4.50E+02	2.00E+03	pCi/L
L70516-1	DOMESTIC WATER	10/01/16	10/31/16	H-3 (DIST)	< 6.18E+02	1.84E+02	4.14E+02	6.18E+02	2.00E+03	pCi/L
L70871-2	DOMESTIC WATER	11/01/16	11/30/16	H-3 (DIST)	< 6.58E+02	8.15E+00	4.01E+02	6.58E+02	2.00E+03	pCi/L
L71253-1	DOMESTIC WATER	12/01/16	12/31/16	H-3 (DIST)	< 4.83E+02	4.62E+01	3.00E+02	4.83E+02	2.00E+03	pCi/L
L66747-2	DOMESTIC WATER	01/01/16	01/31/16	K-40	2.98E+01	2.98E+01	2.01E+01	1.41E+01		pCi/L
L66747-2	DOMESTIC WATER	01/01/16	01/31/16	MN-54	< 1.52E+00	-1.41E-01	9.42E-01	1.52E+00	1.50E+01	pCi/L
L67128-2	DOMESTIC WATER	02/01/16	03/01/16	MN-54	< 3.31E+00	-1.34E+00	2.15E+00	3.31E+00	1.50E+01	pCi/L
L67505-1	DOMESTIC WATER	03/01/16	03/31/16	MN-54	< 9.53E-01	-6.51E-01	6.00E-01	9.53E-01	1.50E+01	pCi/L
L67935-2	DOMESTIC WATER	04/01/16	04/30/16	MN-54	< 1.44E+00	-4.35E-01	9.10E-01	1.44E+00	1.50E+01	pCi/L
L68365-2	DOMESTIC WATER	05/01/16	05/31/16	MN-54	< 2.00E+00	-1.23E+00	1.22E+00	2.00E+00	1.50E+01	pCi/L
L68716-2	DOMESTIC WATER	06/01/16	06/30/16	MN-54	< 2.32E+00	-3.00E-01	1.44E+00	2.32E+00	1.50E+01	pCi/L
L69249-1	DOMESTIC WATER	07/01/16	07/31/16	MN-54	< 1.35E+00	9.81E-02	8.24E-01	1.35E+00	1.50E+01	pCi/L
L69591-2	DOMESTIC WATER	08/01/16	08/31/16	MN-54	< 1.94E+00	-1.15E+00	1.23E+00	1.94E+00	1.50E+01	pCi/L
L70066-1	DOMESTIC WATER	09/01/16	09/30/16	MN-54	< 1.73E+00	-7.16E-01	1.08E+00	1.73E+00	1.50E+01	pCi/L
L70516-1	DOMESTIC WATER	10/01/16	10/31/16	MN-54	< 1.56E+00	-1.38E-01	9.33E-01	1.56E+00	1.50E+01	pCi/L
L70871-2	DOMESTIC WATER	11/01/16	11/30/16	MN-54	< 2.91E+00	-6.76E-02	1.80E+00	2.91E+00	1.50E+01	pCi/L
L71253-1	DOMESTIC WATER	12/01/16	12/31/16	MN-54	< 1.84E+00	-2.65E-02	1.13E+00	1.84E+00	1.50E+01	pCi/L

L66747-2	DOMESTIC WATER	01/01/16	01/31/16	NB-95	< 1.92E+00	1.14E+00	1.14E+00	1.92E+00	1.50E+01	pCi/L
L67128-2	DOMESTIC WATER	02/01/16	03/01/16	NB-95	< 4.46E+00	1.96E+00	2.56E+00	4.46E+00	1.50E+01	pCi/L
L67505-1	DOMESTIC WATER	03/01/16	03/31/16	NB-95	< 1.25E+00	2.20E-01	7.43E-01	1.25E+00	1.50E+01	pCi/L
L67935-2	DOMESTIC WATER	04/01/16	04/30/16	NB-95	< 1.81E+00	-4.06E-01	1.12E+00	1.81E+00	1.50E+01	pCi/L
L68365-2	DOMESTIC WATER	05/01/16	05/31/16	NB-95	< 2.56E+00	6.09E-02	1.48E+00	2.56E+00	1.50E+01	pCi/L
L68716-2	DOMESTIC WATER	06/01/16	06/30/16	NB-95	< 2.90E+00	-1.84E-01	1.77E+00	2.90E+00	1.50E+01	pCi/L
L69249-1	DOMESTIC WATER	07/01/16	07/31/16	NB-95	< 1.76E+00	9.49E-01	1.04E+00	1.76E+00	1.50E+01	pCi/L
L69591-2	DOMESTIC WATER	08/01/16	08/31/16	NB-95	< 2.32E+00	-4.29E-01	1.42E+00	2.32E+00	1.50E+01	pCi/L
L70066-1	DOMESTIC WATER	09/01/16	09/30/16	NB-95	< 2.19E+00	-3.33E-01	1.33E+00	2.19E+00	1.50E+01	pCi/L
L70516-1	DOMESTIC WATER	10/01/16	10/31/16	NB-95	< 1.92E+00	-1.56E-02	1.20E+00	1.92E+00	1.50E+01	pCi/L
L70871-2	DOMESTIC WATER	11/01/16	11/30/16	NB-95	< 4.08E+00	3.78E+00	2.49E+00	4.08E+00	1.50E+01	pCi/L
L71253-1	DOMESTIC WATER	12/01/16	12/31/16	NB-95	< 2.25E+00	1.01E-01	1.37E+00	2.25E+00	1.50E+01	pCi/L
L66747-2	DOMESTIC WATER	01/01/16	01/31/16	ZN-65	< 3.29E+00	-2.51E+00	2.09E+00	3.29E+00	3.00E+01	pCi/L
L67128-2	DOMESTIC WATER	02/01/16	03/01/16	ZN-65	< 6.88E+00	-5.82E+00	4.87E+00	6.88E+00	3.00E+01	pCi/L
L67505-1	DOMESTIC WATER	03/01/16	03/31/16	ZN-65	< 1.93E+00	-7.18E-01	1.42E+00	1.93E+00	3.00E+01	pCi/L
L67935-2	DOMESTIC WATER	04/01/16	04/30/16	ZN-65	< 3.18E+00	5.62E-01	1.94E+00	3.18E+00	3.00E+01	pCi/L
L68365-2	DOMESTIC WATER	05/01/16	05/31/16	ZN-65	< 4.46E+00	-1.96E+00	2.71E+00	4.46E+00	3.00E+01	pCi/L
L68716-2	DOMESTIC WATER	06/01/16	06/30/16	ZN-65	< 4.88E+00	-6.75E-01	3.43E+00	4.88E+00	3.00E+01	pCi/L
L69249-1	DOMESTIC WATER	07/01/16	07/31/16	ZN-65	< 2.87E+00	-7.17E-02	2.02E+00	2.87E+00	3.00E+01	pCi/L
L69591-2	DOMESTIC WATER	08/01/16	08/31/16	ZN-65	< 4.19E+00	-5.95E+00	2.94E+00	4.19E+00	3.00E+01	pCi/L
L70066-1	DOMESTIC WATER	09/01/16	09/30/16	ZN-65	< 3.81E+00	2.37E+00	2.52E+00	3.81E+00	3.00E+01	pCi/L
L70516-1	DOMESTIC WATER	10/01/16	10/31/16	ZN-65	< 3.05E+00	-4.96E+00	2.11E+00	3.05E+00	3.00E+01	pCi/L
L70871-2	DOMESTIC WATER	11/01/16	11/30/16	ZN-65	< 5.58E+00	1.23E+00	3.63E+00	5.58E+00	3.00E+01	pCi/L
L71253-1	DOMESTIC WATER	12/01/16	12/31/16	ZN-65	< 3.48E+00	-7.12E-01	2.56E+00	3.48E+00	3.00E+01	pCi/L
L66747-2	DOMESTIC WATER	01/01/16	01/31/16	ZR-95	< 3.31E+00	-3.91E-01	2.04E+00	3.31E+00	3.00E+01	pCi/L
L67128-2	DOMESTIC WATER	02/01/16	03/01/16	ZR-95	< 8.11E+00	3.83E+00	4.64E+00	8.11E+00	3.00E+01	pCi/L
L67505-1	DOMESTIC WATER	03/01/16	03/31/16	ZR-95	< 2.18E+00	1.17E+00	1.27E+00	2.18E+00	3.00E+01	pCi/L
L67935-2	DOMESTIC WATER	04/01/16	04/30/16	ZR-95	< 3.11E+00	-1.30E+00	1.97E+00	3.11E+00	3.00E+01	pCi/L
L68365-2	DOMESTIC WATER	05/01/16	05/31/16	ZR-95	< 4.26E+00	-7.67E-01	2.50E+00	4.26E+00	3.00E+01	pCi/L
L68716-2	DOMESTIC WATER	06/01/16	06/30/16	ZR-95	< 4.80E+00	-1.43E+00	2.99E+00	4.80E+00	3.00E+01	pCi/L
L69249-1	DOMESTIC WATER	07/01/16	07/31/16	ZR-95	< 2.92E+00	-9.13E-01	1.83E+00	2.92E+00	3.00E+01	pCi/L
L69591-2	DOMESTIC WATER	08/01/16	08/31/16	ZR-95	< 4.25E+00	-3.19E-01	2.58E+00	4.25E+00	3.00E+01	pCi/L
L70066-1	DOMESTIC WATER	09/01/16	09/30/16	ZR-95	< 3.77E+00	-2.49E-01	2.27E+00	3.77E+00	3.00E+01	pCi/L
L70516-1	DOMESTIC WATER	10/01/16	10/31/16	ZR-95	< 3.43E+00	-3.04E-01	2.16E+00	3.43E+00	3.00E+01	pCi/L
L70871-2	DOMESTIC WATER	11/01/16	11/30/16	ZR-95	< 5.06E+00	-7.43E-01	3.17E+00	5.06E+00	3.00E+01	pCi/L
L71253-1	DOMESTIC WATER	12/01/16	12/31/16	ZR-95	< 3.92E+00	1.19E+00	2.33E+00	3.92E+00	3.00E+01	pCi/L

LUDINGTON
BROWN TROUT

LAB ID	STATION	COLLECT START	COLLECT STOP	NUCLIDE	REPORTABLE	ACTIVITY	ERROR	MDC	LLD	UNITS
L68422-2	LUDINGTON	05/30/16		CO-58	< 4.89E+01	-5.80E+00	3.17E+01	4.89E+01	1.30E+02	pCi/kg Wet
L68422-2	LUDINGTON	05/30/16		CO-60	< 6.01E+01	5.11E+00	3.56E+01	6.01E+01	1.30E+02	pCi/kg Wet
L68422-2	LUDINGTON	05/30/16		CS-134	< 5.68E+01	1.33E+00	3.99E+01	5.68E+01	1.30E+02	pCi/kg Wet
L68422-2	LUDINGTON	05/30/16		CS-137	< 7.30E+01	5.77E+00	4.42E+01	7.30E+01	1.50E+02	pCi/kg Wet
L68422-2	LUDINGTON	05/30/16		FE-59	< 1.42E+02	1.21E+01	8.47E+01	1.42E+02	2.60E+02	pCi/kg Wet
L68422-2	LUDINGTON	05/30/16		K-40	3.73E+03	3.73E+03	9.61E+02	3.92E+02		pCi/kg Wet
L68422-2	LUDINGTON	05/30/16		MN-54	< 5.92E+01	1.65E+01	3.32E+01	5.92E+01	1.30E+02	pCi/kg Wet
L68422-2	LUDINGTON	05/30/16		ZN-65	< 8.19E+01	-8.85E+01	7.57E+01	8.19E+01	2.60E+02	pCi/kg Wet

LUDINGTON
CARP

LAB ID	STATION	COLLECT START	COLLECT STOP	NUCLIDE	REPORTABLE	ACTIVITY	ERROR	MDC	LLD	UNITS
L68422-4	LUDINGTON	05/30/16		CO-58	< 5.38E+01	4.85E+00	3.25E+01	5.38E+01	1.30E+02	pCi/kg Wet
L68422-4	LUDINGTON	05/30/16		CO-60	< 6.77E+01	1.95E+01	3.76E+01	6.77E+01	1.30E+02	pCi/kg Wet
L68422-4	LUDINGTON	05/30/16		CS-134	< 5.00E+01	-6.78E+00	3.67E+01	5.00E+01	1.30E+02	pCi/kg Wet
L68422-4	LUDINGTON	05/30/16		CS-137	< 5.18E+01	-2.09E+01	3.52E+01	5.18E+01	1.50E+02	pCi/kg Wet
L68422-4	LUDINGTON	05/30/16		FE-59	< 1.13E+02	-1.62E+01	7.19E+01	1.13E+02	2.60E+02	pCi/kg Wet
L68422-4	LUDINGTON	05/30/16		K-40	3.77E+03	3.77E+03	8.35E+02	4.12E+02		pCi/kg Wet
L68422-4	LUDINGTON	05/30/16		MN-54	< 5.51E+01	1.22E+01	3.09E+01	5.51E+01	1.30E+02	pCi/kg Wet
L68422-4	LUDINGTON	05/30/16		ZN-65	< 9.50E+01	-1.14E+02	7.98E+01	9.50E+01	2.60E+02	pCi/kg Wet

LUDINGTON
COHO SALMON

LAB ID	STATION	COLLECT START	COLLECT STOP	NUCLIDE	REPORTABLE	ACTIVITY	ERROR	MDC	LLD	UNITS
L70319-3	LUDINGTON	09/23/16		CO-58	< 5.48E+01	-5.16E+01	4.31E+01	5.48E+01	1.30E+02	pCi/Kg Wet
L70319-3	LUDINGTON	09/23/16		CO-60	< 7.62E+01	9.49E-01	4.55E+01	7.62E+01	1.30E+02	pCi/Kg Wet
L70319-3	LUDINGTON	09/23/16		CS-134	< 5.57E+01	9.68E+00	3.62E+01	5.57E+01	1.30E+02	pCi/Kg Wet
L70319-3	LUDINGTON	09/23/16		CS-137	< 5.97E+01	-9.08E+00	3.69E+01	5.97E+01	1.50E+02	pCi/Kg Wet
L70319-3	LUDINGTON	09/23/16		FE-59	< 2.19E+02	1.04E+02	1.17E+02	2.19E+02	2.60E+02	pCi/Kg Wet
L70319-3	LUDINGTON	09/23/16		K-40	3.03E+03	3.03E+03	9.41E+02	5.41E+02		pCi/Kg Wet
L70319-3	LUDINGTON	09/23/16		MN-54	< 7.06E+01	2.35E+01	3.94E+01	7.06E+01	1.30E+02	pCi/Kg Wet
L70319-3	LUDINGTON	09/23/16		ZN-65	< 1.15E+02	2.37E+01	7.40E+01	1.15E+02	2.60E+02	pCi/Kg Wet

LUDINGTON
FRESHWATER DRUM

LAB ID	STATION	COLLECT START	COLLECT STOP	NUCLIDE	REPORTABLE	ACTIVITY	ERROR	MDC	LLD	UNITS
L68422-3	LUDINGTON	05/30/16		CO-58	< 3.83E+01	-1.83E+01	2.93E+01	3.83E+01	1.30E+02	pCi/kg Wet
L70319-2	LUDINGTON	10/03/16		CO-58	< 5.90E+01	-1.01E+01	3.76E+01	5.90E+01	1.30E+02	pCi/Kg Wet

L68422-3	LUDINGTON	05/30/16	CO-60	<	4.77E+01	1.40E+01	2.41E+01	4.77E+01	1.30E+02	pCi/kg Wet
L70319-2	LUDINGTON	10/03/16	CO-60	<	5.87E+01	1.80E+01	3.27E+01	5.87E+01	1.30E+02	pCi/Kg Wet
L68422-3	LUDINGTON	05/30/16	CS-134	<	3.40E+01	-5.25E+00	2.55E+01	3.40E+01	1.30E+02	pCi/kg Wet
L70319-2	LUDINGTON	10/03/16	CS-134	<	6.07E+01	3.63E+00	4.21E+01	6.07E+01	1.30E+02	pCi/Kg Wet
L68422-3	LUDINGTON	05/30/16	CS-137	<	5.53E+01	1.30E+01	3.03E+01	5.53E+01	1.50E+02	pCi/kg Wet
L70319-2	LUDINGTON	10/03/16	CS-137	<	6.75E+01	1.56E+01	3.94E+01	6.75E+01	1.50E+02	pCi/Kg Wet
L68422-3	LUDINGTON	05/30/16	FE-59	<	9.78E+01	2.01E+01	5.34E+01	9.78E+01	2.60E+02	pCi/kg Wet
L70319-2	LUDINGTON	10/03/16	FE-59	<	1.46E+02	1.82E+01	8.56E+01	1.46E+02	2.60E+02	pCi/Kg Wet
L68422-3	LUDINGTON	05/30/16	K-40		2.76E+03	2.76E+03	8.48E+02	3.06E+02		pCi/kg Wet
L70319-2	LUDINGTON	10/03/16	K-40		3.22E+03	3.22E+03	7.77E+02	4.85E+02		pCi/Kg Wet
L68422-3	LUDINGTON	05/30/16	MN-54	<	4.92E+01	2.95E+01	2.24E+01	4.92E+01	1.30E+02	pCi/kg Wet
L70319-2	LUDINGTON	10/03/16	MN-54	<	5.30E+01	-1.24E+01	3.42E+01	5.30E+01	1.30E+02	pCi/Kg Wet
L68422-3	LUDINGTON	05/30/16	ZN-65	<	8.12E+01	-1.57E+01	5.53E+01	8.12E+01	2.60E+02	pCi/kg Wet
L70319-2	LUDINGTON	10/03/16	ZN-65	<	1.16E+02	-1.13E+02	8.45E+01	1.16E+02	2.60E+02	pCi/Kg Wet

LUDINGTON
GIZZARD SHAD

LAB ID	STATION	COLLECT START	COLLECT STOP	NUCLIDE		REPORTABLE	ACTIVITY	ERROR	MDC	LLD	UNITS
L70319-1	LUDINGTON	09/23/16		CO-58	<	3.55E+01	-1.29E+01	2.42E+01	3.55E+01	1.30E+02	pCi/Kg Wet
L70319-1	LUDINGTON	09/23/16		CO-60	<	2.20E+01	-5.52E+00	1.52E+01	2.20E+01	1.30E+02	pCi/Kg Wet
L70319-1	LUDINGTON	09/23/16		CS-134	<	3.63E+01	2.77E+00	2.47E+01	3.63E+01	1.30E+02	pCi/Kg Wet
L70319-1	LUDINGTON	09/23/16		CS-137	<	2.64E+01	-1.38E+01	1.83E+01	2.64E+01	1.50E+02	pCi/Kg Wet
L70319-1	LUDINGTON	09/23/16		FE-59	<	8.21E+01	-1.87E-01	4.95E+01	8.21E+01	2.60E+02	pCi/Kg Wet
L70319-1	LUDINGTON	09/23/16		K-40		1.62E+03	1.62E+03	6.73E+02	4.10E+02		pCi/Kg Wet
L70319-1	LUDINGTON	09/23/16		MN-54	<	3.72E+01	8.04E+00	2.17E+01	3.72E+01	1.30E+02	pCi/Kg Wet
L70319-1	LUDINGTON	09/23/16		ZN-65	<	7.36E+01	-5.19E+01	5.27E+01	7.36E+01	2.60E+02	pCi/Kg Wet

LUDINGTON
SUCKER

LAB ID	STATION	COLLECT START	COLLECT STOP	NUCLIDE		REPORTABLE	ACTIVITY	ERROR	MDC	LLD	UNITS
L68422-1	LUDINGTON	05/10/16		CO-58	<	1.06E+02	3.02E+01	5.92E+01	1.06E+02	1.30E+02	pCi/kg Wet
L68422-1	LUDINGTON	05/10/16		CO-60	<	7.04E+01	-2.99E+01	4.96E+01	7.04E+01	1.30E+02	pCi/kg Wet
L68422-1	LUDINGTON	05/10/16		CS-134	<	8.37E+01	-2.37E+01	5.30E+01	8.37E+01	1.30E+02	pCi/kg Wet
L68422-1	LUDINGTON	05/10/16		CS-137	<	7.55E+01	4.88E+00	4.47E+01	7.55E+01	1.50E+02	pCi/kg Wet
L68422-1	LUDINGTON	05/10/16		FE-59	<	2.06E+02	-1.67E+02	1.67E+02	2.06E+02	2.60E+02	pCi/kg Wet
L68422-1	LUDINGTON	05/10/16		K-40		3.79E+03	3.79E+03	1.14E+03	6.20E+02		pCi/kg Wet
L68422-1	LUDINGTON	05/10/16		MN-54	<	6.62E+01	-2.43E+01	4.54E+01	6.62E+01	1.30E+02	pCi/kg Wet
L68422-1	LUDINGTON	05/10/16		ZN-65	<	1.47E+02	-2.39E+02	1.41E+02	1.47E+02	2.60E+02	pCi/kg Wet

PALISADES
CARP

LAB ID	STATION	COLLECT START	COLLECT STOP	NUCLIDE	REPORTABLE	ACTIVITY	ERROR	MDC	LLD	UNITS
L68218-1	PALISADES	05/10/16		CO-58	< 4.99E+01	2.52E+01	2.69E+01	4.99E+01	1.30E+02	pCi/kg Wet
L70275-2	PALISADES	10/12/16		CO-58	< 7.44E+01	-1.95E+01	4.91E+01	7.44E+01	1.30E+02	pCi/Kg Wet
L68218-1	PALISADES	05/10/16		CO-60	< 3.06E+01	-1.44E+01	2.26E+01	3.06E+01	1.30E+02	pCi/kg Wet
L70275-2	PALISADES	10/12/16		CO-60	< 8.22E+01	6.26E+00	4.83E+01	8.22E+01	1.30E+02	pCi/Kg Wet
L68218-1	PALISADES	05/10/16		CS-134	< 3.84E+01	-3.57E-01	2.35E+01	3.84E+01	1.30E+02	pCi/kg Wet
L70275-2	PALISADES	10/12/16		CS-134	< 7.96E+01	-1.61E+01	5.83E+01	7.96E+01	1.30E+02	pCi/Kg Wet
L68218-1	PALISADES	05/10/16		CS-137	< 4.86E+01	2.15E+01	2.72E+01	4.86E+01	1.50E+02	pCi/kg Wet
L70275-2	PALISADES	10/12/16		CS-137	< 6.66E+01	-2.43E+01	4.45E+01	6.66E+01	1.50E+02	pCi/Kg Wet
L68218-1	PALISADES	05/10/16		FE-59	< 1.04E+02	2.30E+00	6.23E+01	1.04E+02	2.60E+02	pCi/kg Wet
L70275-2	PALISADES	10/12/16		FE-59	< 1.78E+02	4.41E+01	9.90E+01	1.78E+02	2.60E+02	pCi/Kg Wet
L68218-1	PALISADES	05/10/16		K-40	3.65E+03	3.65E+03	7.23E+02	3.42E+02		pCi/kg Wet
L70275-2	PALISADES	10/12/16		K-40	2.82E+03	2.82E+03	1.26E+03	7.49E+02		pCi/Kg Wet
L68218-1	PALISADES	05/10/16		MN-54	< 3.32E+01	-3.58E-01	2.09E+01	3.32E+01	1.30E+02	pCi/kg Wet
L70275-2	PALISADES	10/12/16		MN-54	< 6.53E+01	3.00E+00	3.97E+01	6.53E+01	1.30E+02	pCi/Kg Wet
L68218-1	PALISADES	05/10/16		ZN-65	< 7.95E+01	-4.79E+01	5.67E+01	7.95E+01	2.60E+02	pCi/kg Wet
L70275-2	PALISADES	10/12/16		ZN-65	< 1.54E+02	-1.63E+02	1.19E+02	1.54E+02	2.60E+02	pCi/Kg Wet

PALISADES
CATFISH

LAB ID	STATION	COLLECT START	COLLECT STOP	NUCLIDE	REPORTABLE	ACTIVITY	ERROR	MDC	LLD	UNITS
L70275-1	PALISADES	09/30/16		CO-58	< 4.26E+01	-6.78E+00	2.73E+01	4.26E+01	1.30E+02	pCi/Kg Wet
L70275-1	PALISADES	09/30/16		CO-60	< 3.08E+01	-1.33E+01	2.22E+01	3.08E+01	1.30E+02	pCi/Kg Wet
L70275-1	PALISADES	09/30/16		CS-134	< 3.57E+01	7.03E+00	2.35E+01	3.57E+01	1.30E+02	pCi/Kg Wet
L70275-1	PALISADES	09/30/16		CS-137	< 4.28E+01	2.11E+01	2.31E+01	4.28E+01	1.50E+02	pCi/Kg Wet
L70275-1	PALISADES	09/30/16		FE-59	< 8.49E+01	-2.23E+01	5.53E+01	8.49E+01	2.60E+02	pCi/Kg Wet
L70275-1	PALISADES	09/30/16		K-40	1.87E+03	1.87E+03	6.54E+02	4.93E+02		pCi/Kg Wet
L70275-1	PALISADES	09/30/16		MN-54	< 4.10E+01	2.22E+00	2.50E+01	4.10E+01	1.30E+02	pCi/Kg Wet
L70275-1	PALISADES	09/30/16		ZN-65	< 8.38E+01	-6.28E+01	6.03E+01	8.38E+01	2.60E+02	pCi/Kg Wet

PALISADES
FRESHWATER DRUM

LAB ID	STATION	COLLECT START	COLLECT STOP	NUCLIDE	REPORTABLE	ACTIVITY	ERROR	MDC	LLD	UNITS
L68218-2	PALISADES	05/10/16		CO-58	< 4.80E+01	-6.22E-01	2.95E+01	4.80E+01	1.30E+02	pCi/kg Wet
L68218-2	PALISADES	05/10/16		CO-60	< 4.18E+01	3.56E+00	2.52E+01	4.18E+01	1.30E+02	pCi/kg Wet
L68218-2	PALISADES	05/10/16		CS-134	< 4.41E+01	-5.23E+01	3.04E+01	4.41E+01	1.30E+02	pCi/kg Wet
L68218-2	PALISADES	05/10/16		CS-137	< 4.90E+01	1.98E+01	2.78E+01	4.90E+01	1.50E+02	pCi/kg Wet

L68218-2	PALISADES	05/10/16		FE-59	< 1.07E+02	1.02E+01	6.32E+01	1.07E+02	2.60E+02	pCi/kg Wet
L68218-2	PALISADES	05/10/16		K-40	2.64E+03	2.64E+03	6.35E+02	3.98E+02		pCi/kg Wet
L68218-2	PALISADES	05/10/16		MN-54	< 4.53E+01	1.42E+01	2.62E+01	4.53E+01	1.30E+02	pCi/kg Wet
L68218-2	PALISADES	05/10/16		ZN-65	< 1.11E+02	-1.35E+00	6.73E+01	1.11E+02	2.60E+02	pCi/kg Wet

PALISADES
GIZZARD SHAD

LAB ID	STATION	COLLECT START	COLLECT STOP	NUCLIDE	REPORTABLE	ACTIVITY	ERROR	MDC	LLD	UNITS
L68218-4	PALISADES	05/10/16		CO-58	< 4.04E+01	-1.22E+01	2.62E+01	4.04E+01	1.30E+02	pCi/kg Wet
L68218-4	PALISADES	05/10/16		CO-60	< 3.37E+01	-1.47E-01	2.08E+01	3.37E+01	1.30E+02	pCi/kg Wet
L68218-4	PALISADES	05/10/16		CS-134	< 3.35E+01	-9.03E+00	2.56E+01	3.35E+01	1.30E+02	pCi/kg Wet
L68218-4	PALISADES	05/10/16		CS-137	< 4.42E+01	2.23E+01	2.37E+01	4.42E+01	1.50E+02	pCi/kg Wet
L68218-4	PALISADES	05/10/16		FE-59	< 1.09E+02	8.05E-01	6.60E+01	1.09E+02	2.60E+02	pCi/kg Wet
L68218-4	PALISADES	05/10/16		K-40	2.65E+03	2.65E+03	7.58E+02	6.30E+02		pCi/kg Wet
L68218-4	PALISADES	05/10/16		MN-54	< 3.75E+01	-1.41E+01	2.47E+01	3.75E+01	1.30E+02	pCi/kg Wet
L68218-4	PALISADES	05/10/16		ZN-65	< 8.33E+01	-2.79E+01	5.65E+01	8.33E+01	2.60E+02	pCi/kg Wet

PALISADES
SUCKER

LAB ID	STATION	COLLECT START	COLLECT STOP	NUCLIDE	REPORTABLE	ACTIVITY	ERROR	MDC	LLD	UNITS
L68218-3	PALISADES	05/10/16		CO-58	< 4.68E+01	-2.12E+01	3.14E+01	4.68E+01	1.30E+02	pCi/kg Wet
L68218-3	PALISADES	05/10/16		CO-60	< 2.98E+01	-3.48E+00	1.95E+01	2.98E+01	1.30E+02	pCi/kg Wet
L68218-3	PALISADES	05/10/16		CS-134	< 4.50E+01	5.11E+00	2.73E+01	4.50E+01	1.30E+02	pCi/kg Wet
L68218-3	PALISADES	05/10/16		CS-137	< 4.33E+01	-2.23E+00	2.74E+01	4.33E+01	1.50E+02	pCi/kg Wet
L68218-3	PALISADES	05/10/16		FE-59	< 1.29E+02	-1.48E+00	7.86E+01	1.29E+02	2.60E+02	pCi/kg Wet
L68218-3	PALISADES	05/10/16		K-40	4.92E+03	4.92E+03	9.82E+02	4.29E+02		pCi/kg Wet
L68218-3	PALISADES	05/10/16		MN-54	< 5.56E+01	4.57E+00	3.27E+01	5.56E+01	1.30E+02	pCi/kg Wet
L68218-3	PALISADES	05/10/16		ZN-65	< 1.18E+02	-1.12E+01	7.35E+01	1.18E+02	2.60E+02	pCi/kg Wet

LAKE IN
SURFACE WATER

LAB ID	STATION	COLLECT START	COLLECT STOP	NUCLIDE	REPORTABLE	ACTIVITY	ERROR	MDC	LLD	UNITS
L66747-3	LAKE IN	01/01/16	01/31/16	BA-LA-140	< 6.53E+00	2.01E+00	3.93E+00	6.53E+00	1.50E+01	pCi/L
L67128-3	LAKE IN	02/01/16	03/01/16	BA-LA-140	< 1.36E+01	-3.07E+00	8.82E+00	1.36E+01	1.50E+01	pCi/L
L67505-2	LAKE IN	03/01/16	03/31/16	BA-LA-140	< 4.52E+00	-2.89E+00	2.92E+00	4.52E+00	1.50E+01	pCi/L
L67935-3	LAKE IN	04/01/16	04/30/16	BA-LA-140	< 5.84E+00	1.03E+00	3.48E+00	5.84E+00	1.50E+01	pCi/L
L68365-3	LAKE IN	05/01/16	05/31/16	BA-LA-140	< 9.64E+00	-4.85E+00	6.13E+00	9.64E+00	1.50E+01	pCi/L
L68716-3	LAKE IN	06/01/16	06/30/16	BA-LA-140	< 6.92E+00	-1.27E+00	4.28E+00	6.92E+00	1.50E+01	pCi/L
L69249-2	LAKE IN	07/01/16	07/31/16	BA-LA-140	< 7.48E+00	-1.63E-01	4.57E+00	7.48E+00	1.50E+01	pCi/L

L69591-3	LAKE IN	08/01/16	08/31/16	BA-LA-140	<	8.71E+00	1.94E+00	5.16E+00	8.71E+00	1.50E+01	pCi/L
L70066-2	LAKE IN	09/01/16	09/30/16	BA-LA-140	<	7.58E+00	-3.48E+00	4.83E+00	7.58E+00	1.50E+01	pCi/L
L70516-2	LAKE IN	10/01/16	10/31/16	BA-LA-140	<	6.15E+00	-4.80E+00	4.07E+00	6.15E+00	1.50E+01	pCi/L
L70871-3	LAKE IN	11/01/16	11/30/16	BA-LA-140	<	1.16E+01	-1.16E+00	7.20E+00	1.16E+01	1.50E+01	pCi/L
L71253-2	LAKE IN	12/01/16	12/31/16	BA-LA-140	<	9.79E+00	-2.74E+00	6.16E+00	9.79E+00	1.50E+01	pCi/L
L66747-3	LAKE IN	01/01/16	01/31/16	CO-58	<	1.76E+00	-8.76E-01	1.13E+00	1.76E+00	1.50E+01	pCi/L
L67128-3	LAKE IN	02/01/16	03/01/16	CO-58	<	4.61E+00	7.62E-01	2.69E+00	4.61E+00	1.50E+01	pCi/L
L67505-2	LAKE IN	03/01/16	03/31/16	CO-58	<	1.27E+00	-9.86E-02	7.59E-01	1.27E+00	1.50E+01	pCi/L
L67935-3	LAKE IN	04/01/16	04/30/16	CO-58	<	1.74E+00	-4.18E-01	1.08E+00	1.74E+00	1.50E+01	pCi/L
L68365-3	LAKE IN	05/01/16	05/31/16	CO-58	<	2.29E+00	5.19E-01	1.38E+00	2.29E+00	1.50E+01	pCi/L
L68716-3	LAKE IN	06/01/16	06/30/16	CO-58	<	1.91E+00	6.76E-02	1.15E+00	1.91E+00	1.50E+01	pCi/L
L69249-2	LAKE IN	07/01/16	07/31/16	CO-58	<	2.00E+00	-1.01E+00	1.32E+00	2.00E+00	1.50E+01	pCi/L
L69591-3	LAKE IN	08/01/16	08/31/16	CO-58	<	2.11E+00	-9.56E-01	1.32E+00	2.11E+00	1.50E+01	pCi/L
L70066-2	LAKE IN	09/01/16	09/30/16	CO-58	<	2.18E+00	-8.93E-02	1.31E+00	2.18E+00	1.50E+01	pCi/L
L70516-2	LAKE IN	10/01/16	10/31/16	CO-58	<	1.72E+00	2.08E-01	1.05E+00	1.72E+00	1.50E+01	pCi/L
L70871-3	LAKE IN	11/01/16	11/30/16	CO-58	<	3.43E+00	-2.85E+00	2.29E+00	3.43E+00	1.50E+01	pCi/L
L71253-2	LAKE IN	12/01/16	12/31/16	CO-58	<	2.38E+00	-1.09E+00	1.51E+00	2.38E+00	1.50E+01	pCi/L
L66747-3	LAKE IN	01/01/16	01/31/16	CO-60	<	1.63E+00	9.52E-01	9.51E-01	1.63E+00	1.50E+01	pCi/L
L67128-3	LAKE IN	02/01/16	03/01/16	CO-60	<	3.39E+00	-1.51E+00	2.27E+00	3.39E+00	1.50E+01	pCi/L
L67505-2	LAKE IN	03/01/16	03/31/16	CO-60	<	1.12E+00	7.05E-01	6.44E-01	1.12E+00	1.50E+01	pCi/L
L67935-3	LAKE IN	04/01/16	04/30/16	CO-60	<	1.48E+00	-2.04E-02	8.93E-01	1.48E+00	1.50E+01	pCi/L
L68365-3	LAKE IN	05/01/16	05/31/16	CO-60	<	2.26E+00	1.20E+00	1.31E+00	2.26E+00	1.50E+01	pCi/L
L68716-3	LAKE IN	06/01/16	06/30/16	CO-60	<	1.67E+00	2.79E-01	9.82E-01	1.67E+00	1.50E+01	pCi/L
L69249-2	LAKE IN	07/01/16	07/31/16	CO-60	<	1.90E+00	8.69E-01	1.08E+00	1.90E+00	1.50E+01	pCi/L
L69591-3	LAKE IN	08/01/16	08/31/16	CO-60	<	1.92E+00	5.61E-01	1.12E+00	1.92E+00	1.50E+01	pCi/L
L70066-2	LAKE IN	09/01/16	09/30/16	CO-60	<	1.73E+00	-3.81E-01	1.06E+00	1.73E+00	1.50E+01	pCi/L
L70516-2	LAKE IN	10/01/16	10/31/16	CO-60	<	1.42E+00	6.30E-01	8.32E-01	1.42E+00	1.50E+01	pCi/L
L70871-3	LAKE IN	11/01/16	11/30/16	CO-60	<	3.42E+00	-3.09E-01	2.08E+00	3.42E+00	1.50E+01	pCi/L
L71253-2	LAKE IN	12/01/16	12/31/16	CO-60	<	2.24E+00	9.97E-01	1.27E+00	2.24E+00	1.50E+01	pCi/L
L66747-3	LAKE IN	01/01/16	01/31/16	CS-134	<	1.48E+00	2.75E-02	1.05E+00	1.48E+00	1.50E+01	pCi/L
L67128-3	LAKE IN	02/01/16	03/01/16	CS-134	<	3.47E+00	1.13E+00	2.45E+00	3.47E+00	1.50E+01	pCi/L
L67505-2	LAKE IN	03/01/16	03/31/16	CS-134	<	1.05E+00	-2.33E+00	7.26E-01	1.05E+00	1.50E+01	pCi/L
L67935-3	LAKE IN	04/01/16	04/30/16	CS-134	<	1.49E+00	-4.02E+00	1.01E+00	1.49E+00	1.50E+01	pCi/L
L68365-3	LAKE IN	05/01/16	05/31/16	CS-134	<	1.72E+00	-6.39E+00	1.27E+00	1.72E+00	1.50E+01	pCi/L
L68716-3	LAKE IN	06/01/16	06/30/16	CS-134	<	1.49E+00	-1.12E+00	9.69E-01	1.49E+00	1.50E+01	pCi/L
L69249-2	LAKE IN	07/01/16	07/31/16	CS-134	<	1.75E+00	-2.45E+00	1.20E+00	1.75E+00	1.50E+01	pCi/L
L69591-3	LAKE IN	08/01/16	08/31/16	CS-134	<	1.73E+00	-8.59E-01	1.29E+00	1.73E+00	1.50E+01	pCi/L
L70066-2	LAKE IN	09/01/16	09/30/16	CS-134	<	1.74E+00	5.75E-01	1.21E+00	1.74E+00	1.50E+01	pCi/L

L70516-2	LAKE IN	10/01/16	10/31/16	CS-134	< 1.40E+00	-6.45E+00	1.12E+00	1.40E+00	1.50E+01	pCi/L
L70871-3	LAKE IN	11/01/16	11/30/16	CS-134	< 2.77E+00	-1.07E+00	2.09E+00	2.77E+00	1.50E+01	pCi/L
L71253-2	LAKE IN	12/01/16	12/31/16	CS-134	< 1.96E+00	-3.85E+00	1.33E+00	1.96E+00	1.50E+01	pCi/L
L66747-3	LAKE IN	01/01/16	01/31/16	CS-137	< 1.80E+00	-1.21E-01	1.27E+00	1.80E+00	1.80E+01	pCi/L
L67128-3	LAKE IN	02/01/16	03/01/16	CS-137	< 3.58E+00	-1.14E+00	2.34E+00	3.58E+00	1.80E+01	pCi/L
L67505-2	LAKE IN	03/01/16	03/31/16	CS-137	< 1.15E+00	-9.23E-02	7.23E-01	1.15E+00	1.80E+01	pCi/L
L67935-3	LAKE IN	04/01/16	04/30/16	CS-137	< 1.61E+00	3.56E-01	9.61E-01	1.61E+00	1.80E+01	pCi/L
L68365-3	LAKE IN	05/01/16	05/31/16	CS-137	< 1.86E+00	-4.22E-01	1.14E+00	1.86E+00	1.80E+01	pCi/L
L68716-3	LAKE IN	06/01/16	06/30/16	CS-137	< 1.70E+00	-2.93E-01	1.02E+00	1.70E+00	1.80E+01	pCi/L
L69249-2	LAKE IN	07/01/16	07/31/16	CS-137	< 1.90E+00	6.18E-01	1.15E+00	1.90E+00	1.80E+01	pCi/L
L69591-3	LAKE IN	08/01/16	08/31/16	CS-137	< 1.93E+00	1.56E-01	1.14E+00	1.93E+00	1.80E+01	pCi/L
L70066-2	LAKE IN	09/01/16	09/30/16	CS-137	< 1.97E+00	8.91E-01	1.13E+00	1.97E+00	1.80E+01	pCi/L
L70516-2	LAKE IN	10/01/16	10/31/16	CS-137	< 1.44E+00	-4.24E-01	8.89E-01	1.44E+00	1.80E+01	pCi/L
L70871-3	LAKE IN	11/01/16	11/30/16	CS-137	< 3.13E+00	-5.59E-01	1.90E+00	3.13E+00	1.80E+01	pCi/L
L71253-2	LAKE IN	12/01/16	12/31/16	CS-137	< 2.37E+00	1.78E+00	1.35E+00	2.37E+00	1.80E+01	pCi/L
L66747-3	LAKE IN	01/01/16	01/31/16	FE-59	< 4.57E+00	3.50E+00	2.63E+00	4.57E+00	3.00E+01	pCi/L
L67128-3	LAKE IN	02/01/16	03/01/16	FE-59	< 1.16E+01	6.54E+00	6.32E+00	1.16E+01	3.00E+01	pCi/L
L67505-2	LAKE IN	03/01/16	03/31/16	FE-59	< 3.03E+00	6.36E-01	1.80E+00	3.03E+00	3.00E+01	pCi/L
L67935-3	LAKE IN	04/01/16	04/30/16	FE-59	< 4.11E+00	2.62E+00	2.43E+00	4.11E+00	3.00E+01	pCi/L
L68365-3	LAKE IN	05/01/16	05/31/16	FE-59	< 5.40E+00	2.05E+00	3.60E+00	5.40E+00	3.00E+01	pCi/L
L68716-3	LAKE IN	06/01/16	06/30/16	FE-59	< 4.36E+00	-1.90E+00	2.78E+00	4.36E+00	3.00E+01	pCi/L
L69249-2	LAKE IN	07/01/16	07/31/16	FE-59	< 5.37E+00	2.48E+00	3.08E+00	5.37E+00	3.00E+01	pCi/L
L69591-3	LAKE IN	08/01/16	08/31/16	FE-59	< 5.41E+00	3.72E-01	3.32E+00	5.41E+00	3.00E+01	pCi/L
L70066-2	LAKE IN	09/01/16	09/30/16	FE-59	< 4.92E+00	-1.29E+00	3.09E+00	4.92E+00	3.00E+01	pCi/L
L70516-2	LAKE IN	10/01/16	10/31/16	FE-59	< 4.12E+00	2.22E+00	2.40E+00	4.12E+00	3.00E+01	pCi/L
L70871-3	LAKE IN	11/01/16	11/30/16	FE-59	< 7.42E+00	-2.74E+00	4.85E+00	7.42E+00	3.00E+01	pCi/L
L71253-2	LAKE IN	12/01/16	12/31/16	FE-59	< 5.98E+00	3.26E+00	3.49E+00	5.98E+00	3.00E+01	pCi/L
L66747-3	LAKE IN	01/01/16	01/31/16	GR-B	3.27E+00	3.27E+00	1.48E+00	2.00E+00	4.00E+00	pCi/L
L67128-3	LAKE IN	02/01/16	03/01/16	GR-B	3.41E+00	3.41E+00	1.45E+00	1.85E+00	4.00E+00	pCi/L
L67505-2	LAKE IN	03/01/16	03/31/16	GR-B	< 2.22E+00	1.52E+00	1.48E+00	2.22E+00	4.00E+00	pCi/L
L67935-3	LAKE IN	04/01/16	04/30/16	GR-B	< 2.31E+00	1.80E+00	1.55E+00	2.31E+00	4.00E+00	pCi/L
L68365-3	LAKE IN	05/01/16	05/31/16	GR-B	2.44E+00	2.44E+00	1.46E+00	2.05E+00	4.00E+00	pCi/L
L68716-3	LAKE IN	06/01/16	06/30/16	GR-B	2.09E+00	2.09E+00	1.45E+00	2.06E+00	4.00E+00	pCi/L
L69249-2	LAKE IN	07/01/16	07/31/16	GR-B	< 2.19E+00	7.18E-01	1.39E+00	2.19E+00	4.00E+00	pCi/L
L69591-3	LAKE IN	08/01/16	08/31/16	GR-B	2.74E+00	2.74E+00	1.44E+00	1.98E+00	4.00E+00	pCi/L
L70066-2	LAKE IN	09/01/16	09/30/16	GR-B	2.27E+00	2.27E+00	1.45E+00	2.06E+00	4.00E+00	pCi/L
L70516-2	LAKE IN	10/01/16	10/31/16	GR-B	2.42E+00	2.42E+00	1.44E+00	2.05E+00	4.00E+00	pCi/L
L70871-3	LAKE IN	11/01/16	11/30/16	GR-B	< 2.15E+00	1.83E+00	1.46E+00	2.15E+00	4.00E+00	pCi/L

L71253-2	LAKE IN	12/01/16	12/31/16	GR-B		2.16E+00	2.16E+00	1.45E+00	2.07E+00	4.00E+00	pCi/L
L66747-3	LAKE IN	01/01/16	01/31/16	H-3 (DIST)	<	5.12E+02	5.20E+01	3.25E+02	5.12E+02	2.00E+03	pCi/L
L67128-3	LAKE IN	02/01/16	03/01/16	H-3 (DIST)	<	5.66E+02	1.06E+01	3.45E+02	5.66E+02	2.00E+03	pCi/L
L67505-2	LAKE IN	03/01/16	03/31/16	H-3 (DIST)	<	4.63E+02	1.31E+02	2.99E+02	4.63E+02	2.00E+03	pCi/L
L67935-3	LAKE IN	04/01/16	04/30/16	H-3 (DIST)	<	4.48E+02	4.30E+00	2.72E+02	4.48E+02	2.00E+03	pCi/L
L68365-3	LAKE IN	05/01/16	05/31/16	H-3 (DIST)	<	5.13E+02	-5.80E+01	3.03E+02	5.13E+02	2.00E+03	pCi/L
L68716-3	LAKE IN	06/01/16	06/30/16	H-3 (DIST)	<	4.80E+02	1.93E+02	3.18E+02	4.80E+02	2.00E+03	pCi/L
L69249-2	LAKE IN	07/01/16	07/31/16	H-3 (DIST)	<	6.48E+02	7.25E+01	4.08E+02	6.48E+02	2.00E+03	pCi/L
L69591-3	LAKE IN	08/01/16	08/31/16	H-3 (DIST)	<	6.12E+02	1.08E+02	3.92E+02	6.12E+02	2.00E+03	pCi/L
L70066-2	LAKE IN	09/01/16	09/30/16	H-3 (DIST)	<	4.46E+02	7.96E+01	2.82E+02	4.46E+02	2.00E+03	pCi/L
L70516-2	LAKE IN	10/01/16	10/31/16	H-3 (DIST)	<	6.18E+02	8.60E+01	3.94E+02	6.18E+02	2.00E+03	pCi/L
L70871-3	LAKE IN	11/01/16	11/30/16	H-3 (DIST)	<	6.60E+02	1.23E+02	4.25E+02	6.60E+02	2.00E+03	pCi/L
L71253-2	LAKE IN	12/01/16	12/31/16	H-3 (DIST)	<	4.80E+02	2.92E+01	2.96E+02	4.80E+02	2.00E+03	pCi/L
L66747-3	LAKE IN	01/01/16	01/31/16	MN-54	<	1.59E+00	4.12E-01	9.34E-01	1.59E+00	1.50E+01	pCi/L
L67128-3	LAKE IN	02/01/16	03/01/16	MN-54	<	3.24E+00	-2.00E+00	2.18E+00	3.24E+00	1.50E+01	pCi/L
L67505-2	LAKE IN	03/01/16	03/31/16	MN-54	<	1.10E+00	2.18E-01	6.47E-01	1.10E+00	1.50E+01	pCi/L
L67935-3	LAKE IN	04/01/16	04/30/16	MN-54	<	1.55E+00	-3.28E-01	9.57E-01	1.55E+00	1.50E+01	pCi/L
L68365-3	LAKE IN	05/01/16	05/31/16	MN-54	<	1.78E+00	-5.24E-01	1.12E+00	1.78E+00	1.50E+01	pCi/L
L68716-3	LAKE IN	06/01/16	06/30/16	MN-54	<	1.57E+00	-1.66E-01	9.54E-01	1.57E+00	1.50E+01	pCi/L
L69249-2	LAKE IN	07/01/16	07/31/16	MN-54	<	1.67E+00	-1.25E+00	1.06E+00	1.67E+00	1.50E+01	pCi/L
L69591-3	LAKE IN	08/01/16	08/31/16	MN-54	<	1.86E+00	2.71E-01	1.11E+00	1.86E+00	1.50E+01	pCi/L
L70066-2	LAKE IN	09/01/16	09/30/16	MN-54	<	1.80E+00	1.34E-01	1.08E+00	1.80E+00	1.50E+01	pCi/L
L70516-2	LAKE IN	10/01/16	10/31/16	MN-54	<	1.46E+00	-2.15E-01	9.04E-01	1.46E+00	1.50E+01	pCi/L
L70871-3	LAKE IN	11/01/16	11/30/16	MN-54	<	3.32E+00	-3.55E-01	2.03E+00	3.32E+00	1.50E+01	pCi/L
L71253-2	LAKE IN	12/01/16	12/31/16	MN-54	<	2.08E+00	-7.86E-01	1.31E+00	2.08E+00	1.50E+01	pCi/L
L66747-3	LAKE IN	01/01/16	01/31/16	NB-95	<	1.99E+00	1.17E+00	1.19E+00	1.99E+00	1.50E+01	pCi/L
L67128-3	LAKE IN	02/01/16	03/01/16	NB-95	<	4.62E+00	-5.41E-01	2.81E+00	4.62E+00	1.50E+01	pCi/L
L67505-2	LAKE IN	03/01/16	03/31/16	NB-95	<	1.38E+00	3.59E-01	8.08E-01	1.38E+00	1.50E+01	pCi/L
L67935-3	LAKE IN	04/01/16	04/30/16	NB-95	<	1.91E+00	1.15E+00	1.13E+00	1.91E+00	1.50E+01	pCi/L
L68365-3	LAKE IN	05/01/16	05/31/16	NB-95	<	2.36E+00	1.03E+00	1.39E+00	2.36E+00	1.50E+01	pCi/L
L68716-3	LAKE IN	06/01/16	06/30/16	NB-95	<	2.03E+00	-3.92E-01	1.23E+00	2.03E+00	1.50E+01	pCi/L
L69249-2	LAKE IN	07/01/16	07/31/16	NB-95	<	2.23E+00	6.70E-01	1.35E+00	2.23E+00	1.50E+01	pCi/L
L69591-3	LAKE IN	08/01/16	08/31/16	NB-95	<	2.33E+00	4.29E-01	1.38E+00	2.33E+00	1.50E+01	pCi/L
L70066-2	LAKE IN	09/01/16	09/30/16	NB-95	<	2.45E+00	1.69E+00	1.60E+00	2.45E+00	1.50E+01	pCi/L
L70516-2	LAKE IN	10/01/16	10/31/16	NB-95	<	1.80E+00	5.41E-01	1.09E+00	1.80E+00	1.50E+01	pCi/L
L70871-3	LAKE IN	11/01/16	11/30/16	NB-95	<	4.04E+00	-2.43E-01	2.44E+00	4.04E+00	1.50E+01	pCi/L
L71253-2	LAKE IN	12/01/16	12/31/16	NB-95	<	2.71E+00	3.92E-01	1.62E+00	2.71E+00	1.50E+01	pCi/L
L68716-3	LAKE IN	06/01/16	06/30/16	TH-228		3.30E+00	3.30E+00	2.86E+00	2.79E+00		pCi/L

L69591-3	LAKE IN	08/01/16	08/31/16	TH-228	3.95E+00	3.95E+00	2.96E+00	3.21E+00		pCi/L
L70066-2	LAKE IN	09/01/16	09/30/16	TH-228	5.44E+00	5.44E+00	2.90E+00	3.01E+00		pCi/L
L66747-3	LAKE IN	01/01/16	01/31/16	ZN-65	< 3.18E+00	-6.84E+00	2.22E+00	3.18E+00	3.00E+01	pCi/L
L67128-3	LAKE IN	02/01/16	03/01/16	ZN-65	< 8.08E+00	-3.18E+00	5.37E+00	8.08E+00	3.00E+01	pCi/L
L67505-2	LAKE IN	03/01/16	03/31/16	ZN-65	< 2.20E+00	-1.87E+00	1.40E+00	2.20E+00	3.00E+01	pCi/L
L67935-3	LAKE IN	04/01/16	04/30/16	ZN-65	< 3.23E+00	-5.07E+00	2.22E+00	3.23E+00	3.00E+01	pCi/L
L68365-3	LAKE IN	05/01/16	05/31/16	ZN-65	< 4.24E+00	-2.72E+00	2.71E+00	4.24E+00	3.00E+01	pCi/L
L68716-3	LAKE IN	06/01/16	06/30/16	ZN-65	< 3.27E+00	4.67E-01	2.30E+00	3.27E+00	3.00E+01	pCi/L
L69249-2	LAKE IN	07/01/16	07/31/16	ZN-65	< 3.54E+00	-2.82E+00	2.31E+00	3.54E+00	3.00E+01	pCi/L
L69591-3	LAKE IN	08/01/16	08/31/16	ZN-65	< 3.85E+00	-1.35E-01	2.78E+00	3.85E+00	3.00E+01	pCi/L
L70066-2	LAKE IN	09/01/16	09/30/16	ZN-65	< 3.86E+00	6.75E-01	2.71E+00	3.86E+00	3.00E+01	pCi/L
L70516-2	LAKE IN	10/01/16	10/31/16	ZN-65	< 3.03E+00	-3.74E+00	1.98E+00	3.03E+00	3.00E+01	pCi/L
L70871-3	LAKE IN	11/01/16	11/30/16	ZN-65	< 5.80E+00	-2.83E+00	4.58E+00	5.80E+00	3.00E+01	pCi/L
L71253-2	LAKE IN	12/01/16	12/31/16	ZN-65	< 4.42E+00	-4.72E+00	3.04E+00	4.42E+00	3.00E+01	pCi/L
L66747-3	LAKE IN	01/01/16	01/31/16	ZR-95	< 3.39E+00	-1.16E-01	2.11E+00	3.39E+00	3.00E+01	pCi/L
L67128-3	LAKE IN	02/01/16	03/01/16	ZR-95	< 8.34E+00	1.51E+00	4.84E+00	8.34E+00	3.00E+01	pCi/L
L67505-2	LAKE IN	03/01/16	03/31/16	ZR-95	< 2.41E+00	1.33E+00	1.39E+00	2.41E+00	3.00E+01	pCi/L
L67935-3	LAKE IN	04/01/16	04/30/16	ZR-95	< 3.24E+00	1.04E+00	1.93E+00	3.24E+00	3.00E+01	pCi/L
L68365-3	LAKE IN	05/01/16	05/31/16	ZR-95	< 3.81E+00	-1.12E+00	2.38E+00	3.81E+00	3.00E+01	pCi/L
L68716-3	LAKE IN	06/01/16	06/30/16	ZR-95	< 3.53E+00	2.69E+00	2.01E+00	3.53E+00	3.00E+01	pCi/L
L69249-2	LAKE IN	07/01/16	07/31/16	ZR-95	< 3.63E+00	-1.36E+00	2.35E+00	3.63E+00	3.00E+01	pCi/L
L69591-3	LAKE IN	08/01/16	08/31/16	ZR-95	< 3.91E+00	-8.75E-01	2.39E+00	3.91E+00	3.00E+01	pCi/L
L70066-2	LAKE IN	09/01/16	09/30/16	ZR-95	< 3.75E+00	2.50E-02	2.25E+00	3.75E+00	3.00E+01	pCi/L
L70516-2	LAKE IN	10/01/16	10/31/16	ZR-95	< 3.13E+00	-4.30E-01	1.93E+00	3.13E+00	3.00E+01	pCi/L
L70871-3	LAKE IN	11/01/16	11/30/16	ZR-95	< 6.67E+00	-4.38E-01	4.02E+00	6.67E+00	3.00E+01	pCi/L
L71253-2	LAKE IN	12/01/16	12/31/16	ZR-95	< 4.56E+00	-7.60E-01	2.80E+00	4.56E+00	3.00E+01	pCi/L

NORTH SEDIMENT
SEDIMENT

LAB ID	STATION	COLLECT START	COLLECT STOP	NUCLIDE	REPORTABLE	ACTIVITY	ERROR	MDC	LLD	UNITS
L68574-1	NORTH SEDIMENT	06/20/16		CS-134	< 3.35E+01	-5.27E+00	2.48E+01	3.35E+01	1.50E+02	pCi/kg Dry
L70453-2	NORTH SEDIMENT	10/27/16		CS-134	< 3.31E+01	-1.04E+01	2.47E+01	3.31E+01	1.50E+02	pCi/kg Dry
L68574-1	NORTH SEDIMENT	06/20/16		CS-137	< 3.00E+01	-1.35E+01	1.95E+01	3.00E+01	1.80E+02	pCi/kg Dry
L70453-2	NORTH SEDIMENT	10/27/16		CS-137	< 4.08E+01	1.52E+01	2.24E+01	4.08E+01	1.80E+02	pCi/kg Dry
L68574-1	NORTH SEDIMENT	06/20/16		K-40	4.82E+03	4.82E+03	6.79E+02	2.18E+02		pCi/kg Dry
L70453-2	NORTH SEDIMENT	10/27/16		K-40	5.09E+03	5.09E+03	8.46E+02	3.11E+02		pCi/kg Dry
L68574-1	NORTH SEDIMENT	06/20/16		TH-228	7.11E+01	7.11E+01	6.65E+01	5.50E+01		pCi/kg Dry
L70453-2	NORTH SEDIMENT	10/27/16		TH-228	1.19E+02	1.19E+02	5.27E+01	5.43E+01		pCi/kg Dry

PALISADES PARK COMMERCIAL
DRINKING WATER

LAB ID	STATION	COLLECT START	COLLECT STOP	NUCLIDE		REPORTABLE	ACTIVITY	ERROR	MDC	LLD	UNITS
L67848-2	PALISADES PARK COMMERCIAL	04/27/16		BA-LA-140	<	9.73E+00	-1.02E+00	6.39E+00	9.73E+00	1.50E+01	pCi/L
L68251-2	PALISADES PARK COMMERCIAL	05/25/16		BA-LA-140	<	1.10E+01	-1.69E+00	7.02E+00	1.10E+01	1.50E+01	pCi/L
L68605-2	PALISADES PARK COMMERCIAL	06/21/16		BA-LA-140	<	8.63E+00	-6.30E-01	5.36E+00	8.63E+00	1.50E+01	pCi/L
L69124-2	PALISADES PARK COMMERCIAL	07/26/16		BA-LA-140	<	7.64E+00	1.52E+00	3.99E+00	7.64E+00	1.50E+01	pCi/L
L69573-2	PALISADES PARK COMMERCIAL	08/30/16		BA-LA-140	<	1.30E+01	1.07E+00	6.48E+00	1.30E+01	1.50E+01	pCi/L
L69991-2	PALISADES PARK COMMERCIAL	09/27/16		BA-LA-140	<	8.59E+00	-1.28E+00	4.78E+00	8.59E+00	1.50E+01	pCi/L
L70270-2	PALISADES PARK COMMERCIAL	10/13/16		BA-LA-140	<	7.20E+00	-2.01E+00	4.98E+00	7.20E+00	1.50E+01	pCi/L
L67848-2	PALISADES PARK COMMERCIAL	04/27/16		CO-58	<	7.56E+00	-3.19E-01	4.68E+00	7.56E+00	1.50E+01	pCi/L
L68251-2	PALISADES PARK COMMERCIAL	05/25/16		CO-58	<	6.18E+00	-1.81E+00	3.98E+00	6.18E+00	1.50E+01	pCi/L
L68605-2	PALISADES PARK COMMERCIAL	06/21/16		CO-58	<	6.84E+00	6.06E-01	4.08E+00	6.84E+00	1.50E+01	pCi/L
L69124-2	PALISADES PARK COMMERCIAL	07/26/16		CO-58	<	4.90E+00	-3.02E-01	3.09E+00	4.90E+00	1.50E+01	pCi/L
L69573-2	PALISADES PARK COMMERCIAL	08/30/16		CO-58	<	8.55E+00	2.67E-02	4.73E+00	8.55E+00	1.50E+01	pCi/L
L69991-2	PALISADES PARK COMMERCIAL	09/27/16		CO-58	<	7.51E+00	6.77E-01	4.18E+00	7.51E+00	1.50E+01	pCi/L
L70270-2	PALISADES PARK COMMERCIAL	10/13/16		CO-58	<	6.95E+00	7.47E-01	4.08E+00	6.95E+00	1.50E+01	pCi/L
L67848-2	PALISADES PARK COMMERCIAL	04/27/16		CO-60	<	1.10E+01	5.56E+00	5.32E+00	1.10E+01	1.50E+01	pCi/L
L68251-2	PALISADES PARK COMMERCIAL	05/25/16		CO-60	<	6.75E+00	1.39E+00	3.87E+00	6.75E+00	1.50E+01	pCi/L
L68605-2	PALISADES PARK COMMERCIAL	06/21/16		CO-60	<	4.84E+00	-1.61E+00	3.54E+00	4.84E+00	1.50E+01	pCi/L
L69124-2	PALISADES PARK COMMERCIAL	07/26/16		CO-60	<	6.25E+00	-2.45E+00	4.39E+00	6.25E+00	1.50E+01	pCi/L
L69573-2	PALISADES PARK COMMERCIAL	08/30/16		CO-60	<	7.80E+00	1.34E+00	3.81E+00	7.80E+00	1.50E+01	pCi/L
L69991-2	PALISADES PARK COMMERCIAL	09/27/16		CO-60	<	6.48E+00	6.66E-01	3.36E+00	6.48E+00	1.50E+01	pCi/L
L70270-2	PALISADES PARK COMMERCIAL	10/13/16		CO-60	<	6.64E+00	1.44E+00	3.69E+00	6.64E+00	1.50E+01	pCi/L
L67848-2	PALISADES PARK COMMERCIAL	04/27/16		CS-134	<	6.75E+00	-4.61E+00	4.78E+00	6.75E+00	1.50E+01	pCi/L
L68251-2	PALISADES PARK COMMERCIAL	05/25/16		CS-134	<	6.11E+00	-1.53E+00	4.44E+00	6.11E+00	1.50E+01	pCi/L
L68605-2	PALISADES PARK COMMERCIAL	06/21/16		CS-134	<	5.87E+00	-1.18E+00	4.37E+00	5.87E+00	1.50E+01	pCi/L
L69124-2	PALISADES PARK COMMERCIAL	07/26/16		CS-134	<	4.82E+00	-2.81E+00	3.38E+00	4.82E+00	1.50E+01	pCi/L
L69573-2	PALISADES PARK COMMERCIAL	08/30/16		CS-134	<	1.11E+01	2.84E+00	7.37E+00	1.11E+01	1.50E+01	pCi/L
L69991-2	PALISADES PARK COMMERCIAL	09/27/16		CS-134	<	8.58E+00	1.19E-01	5.95E+00	8.58E+00	1.50E+01	pCi/L
L70270-2	PALISADES PARK COMMERCIAL	10/13/16		CS-134	<	6.23E+00	1.59E+00	4.16E+00	6.23E+00	1.50E+01	pCi/L
L67848-2	PALISADES PARK COMMERCIAL	04/27/16		CS-137	<	6.61E+00	-2.46E-01	4.03E+00	6.61E+00	1.80E+01	pCi/L
L68251-2	PALISADES PARK COMMERCIAL	05/25/16		CS-137	<	6.56E+00	-2.90E-01	3.98E+00	6.56E+00	1.80E+01	pCi/L
L68605-2	PALISADES PARK COMMERCIAL	06/21/16		CS-137	<	8.66E+00	4.89E+00	4.43E+00	8.66E+00	1.80E+01	pCi/L
L69124-2	PALISADES PARK COMMERCIAL	07/26/16		CS-137	<	6.88E+00	2.04E-01	4.13E+00	6.88E+00	1.80E+01	pCi/L
L69573-2	PALISADES PARK COMMERCIAL	08/30/16		CS-137	<	9.36E+00	1.49E+00	5.13E+00	9.36E+00	1.80E+01	pCi/L
L69991-2	PALISADES PARK COMMERCIAL	09/27/16		CS-137	<	8.10E+00	2.19E+00	4.46E+00	8.10E+00	1.80E+01	pCi/L
L70270-2	PALISADES PARK COMMERCIAL	10/13/16		CS-137	<	6.87E+00	-5.39E-01	4.15E+00	6.87E+00	1.80E+01	pCi/L

L67848-2	PALISADES PARK COMMERCIAL	04/27/16	FE-59	<	1.26E+01	1.91E+00	6.95E+00	1.26E+01	3.00E+01	pCi/L
L68251-2	PALISADES PARK COMMERCIAL	05/25/16	FE-59	<	1.51E+01	3.38E+00	8.65E+00	1.51E+01	3.00E+01	pCi/L
L68605-2	PALISADES PARK COMMERCIAL	06/21/16	FE-59	<	1.35E+01	4.02E+00	7.12E+00	1.35E+01	3.00E+01	pCi/L
L69124-2	PALISADES PARK COMMERCIAL	07/26/16	FE-59	<	1.23E+01	2.08E+00	6.92E+00	1.23E+01	3.00E+01	pCi/L
L69573-2	PALISADES PARK COMMERCIAL	08/30/16	FE-59	<	1.61E+01	-2.71E+00	9.05E+00	1.61E+01	3.00E+01	pCi/L
L69991-2	PALISADES PARK COMMERCIAL	09/27/16	FE-59	<	1.38E+01	-7.59E-01	7.68E+00	1.38E+01	3.00E+01	pCi/L
L70270-2	PALISADES PARK COMMERCIAL	10/13/16	FE-59	<	9.45E+00	-5.06E+00	7.00E+00	9.45E+00	3.00E+01	pCi/L
L67848-2C	PALISADES PARK COMMERCIAL	04/27/16	GR-B	<	3.20E+00	1.67E+00	2.08E+00	3.20E+00	4.00E+00	pCi/L
L68251-2	PALISADES PARK COMMERCIAL	05/25/16	GR-B		4.05E+00	4.05E+00	2.06E+00	2.81E+00	4.00E+00	pCi/L
L68605-2	PALISADES PARK COMMERCIAL	06/21/16	GR-B		3.85E+00	3.85E+00	1.88E+00	2.50E+00	4.00E+00	pCi/L
L69124-2	PALISADES PARK COMMERCIAL	07/26/16	GR-B	<	3.08E+00	1.72E+00	2.00E+00	3.08E+00	4.00E+00	pCi/L
L69573-2	PALISADES PARK COMMERCIAL	08/30/16	GR-B		3.95E+00	3.95E+00	1.83E+00	2.39E+00	4.00E+00	pCi/L
L69991-2	PALISADES PARK COMMERCIAL	09/27/16	GR-B		2.80E+00	2.80E+00	1.82E+00	2.56E+00	4.00E+00	pCi/L
L70270-2	PALISADES PARK COMMERCIAL	10/13/16	GR-B	<	2.73E+00	2.57E+00	1.90E+00	2.73E+00	4.00E+00	pCi/L
L67848-2	PALISADES PARK COMMERCIAL	04/27/16	H-3 (DIST)	<	4.72E+02	-1.58E+02	2.62E+02	4.72E+02	2.00E+03	pCi/L
L68251-2	PALISADES PARK COMMERCIAL	05/25/16	H-3 (DIST)	<	6.37E+02	1.55E+02	4.18E+02	6.37E+02	2.00E+03	pCi/L
L68605-2	PALISADES PARK COMMERCIAL	06/21/16	H-3 (DIST)	<	5.35E+02	1.25E+02	3.40E+02	5.35E+02	2.00E+03	pCi/L
L69124-2	PALISADES PARK COMMERCIAL	07/26/16	H-3 (DIST)	<	7.04E+02	-2.53E+02	3.75E+02	7.04E+02	2.00E+03	pCi/L
L69573-2	PALISADES PARK COMMERCIAL	08/30/16	H-3 (DIST)	<	6.14E+02	2.76E+02	4.23E+02	6.14E+02	2.00E+03	pCi/L
L69991-2	PALISADES PARK COMMERCIAL	09/27/16	H-3 (DIST)	<	4.49E+02	6.16E+00	2.73E+02	4.49E+02	2.00E+03	pCi/L
L70270-2	PALISADES PARK COMMERCIAL	10/13/16	H-3 (DIST)	<	4.66E+02	-7.71E+01	2.72E+02	4.66E+02	2.00E+03	pCi/L
L69573-2	PALISADES PARK COMMERCIAL	08/30/16	K-40		1.11E+02	1.11E+02	9.51E+01	7.25E+01		pCi/L
L67848-2	PALISADES PARK COMMERCIAL	04/27/16	MN-54	<	7.31E+00	-5.02E-01	4.58E+00	7.31E+00	1.50E+01	pCi/L
L68251-2	PALISADES PARK COMMERCIAL	05/25/16	MN-54	<	6.48E+00	6.33E-02	3.95E+00	6.48E+00	1.50E+01	pCi/L
L68605-2	PALISADES PARK COMMERCIAL	06/21/16	MN-54	<	7.08E+00	7.98E-01	4.20E+00	7.08E+00	1.50E+01	pCi/L
L69124-2	PALISADES PARK COMMERCIAL	07/26/16	MN-54	<	5.78E+00	1.24E+00	3.30E+00	5.78E+00	1.50E+01	pCi/L
L69573-2	PALISADES PARK COMMERCIAL	08/30/16	MN-54	<	8.42E+00	-1.20E+00	4.83E+00	8.42E+00	1.50E+01	pCi/L
L69991-2	PALISADES PARK COMMERCIAL	09/27/16	MN-54	<	6.48E+00	-1.30E+00	3.78E+00	6.48E+00	1.50E+01	pCi/L
L70270-2	PALISADES PARK COMMERCIAL	10/13/16	MN-54	<	5.64E+00	-3.53E-01	3.47E+00	5.64E+00	1.50E+01	pCi/L
L67848-2	PALISADES PARK COMMERCIAL	04/27/16	NB-95	<	9.60E+00	4.58E+00	5.02E+00	9.60E+00	1.50E+01	pCi/L
L68251-2	PALISADES PARK COMMERCIAL	05/25/16	NB-95	<	7.19E+00	3.43E+00	4.01E+00	7.19E+00	1.50E+01	pCi/L
L68605-2	PALISADES PARK COMMERCIAL	06/21/16	NB-95	<	8.88E+00	3.81E+00	4.81E+00	8.88E+00	1.50E+01	pCi/L
L69124-2	PALISADES PARK COMMERCIAL	07/26/16	NB-95	<	7.08E+00	4.18E+00	3.58E+00	7.08E+00	1.50E+01	pCi/L
L69573-2	PALISADES PARK COMMERCIAL	08/30/16	NB-95	<	1.04E+01	-1.43E+00	6.06E+00	1.04E+01	1.50E+01	pCi/L
L69991-2	PALISADES PARK COMMERCIAL	09/27/16	NB-95	<	6.94E+00	-6.50E-02	3.93E+00	6.94E+00	1.50E+01	pCi/L
L70270-2	PALISADES PARK COMMERCIAL	10/13/16	NB-95	<	7.21E+00	2.32E+00	4.03E+00	7.21E+00	1.50E+01	pCi/L
L67848-2	PALISADES PARK COMMERCIAL	04/27/16	ZN-65	<	1.31E+01	6.39E-01	7.64E+00	1.31E+01	3.00E+01	pCi/L
L68251-2	PALISADES PARK COMMERCIAL	05/25/16	ZN-65	<	1.42E+01	-2.04E+00	8.73E+00	1.42E+01	3.00E+01	pCi/L

L68605-2	PALISADES PARK COMMERCIAL	06/21/16	ZN-65	<	9.35E+00	-7.66E+00	7.85E+00	9.35E+00	3.00E+01	pCi/L
L69124-2	PALISADES PARK COMMERCIAL	07/26/16	ZN-65	<	9.51E+00	-5.50E+00	7.12E+00	9.51E+00	3.00E+01	pCi/L
L69573-2	PALISADES PARK COMMERCIAL	08/30/16	ZN-65	<	2.09E+01	2.56E+00	1.13E+01	2.09E+01	3.00E+01	pCi/L
L69991-2	PALISADES PARK COMMERCIAL	09/27/16	ZN-65	<	1.21E+01	-7.79E+00	7.59E+00	1.21E+01	3.00E+01	pCi/L
L70270-2	PALISADES PARK COMMERCIAL	10/13/16	ZN-65	<	1.08E+01	-1.41E+01	9.38E+00	1.08E+01	3.00E+01	pCi/L
L67848-2	PALISADES PARK COMMERCIAL	04/27/16	ZR-95	<	1.64E+01	5.95E+00	8.86E+00	1.64E+01	3.00E+01	pCi/L
L68251-2	PALISADES PARK COMMERCIAL	05/25/16	ZR-95	<	1.05E+01	-2.64E+00	6.70E+00	1.05E+01	3.00E+01	pCi/L
L68605-2	PALISADES PARK COMMERCIAL	06/21/16	ZR-95	<	1.23E+01	5.79E+00	6.27E+00	1.23E+01	3.00E+01	pCi/L
L69124-2	PALISADES PARK COMMERCIAL	07/26/16	ZR-95	<	8.79E+00	-3.81E+00	6.22E+00	8.79E+00	3.00E+01	pCi/L
L69573-2	PALISADES PARK COMMERCIAL	08/30/16	ZR-95	<	1.67E+01	-7.86E+00	1.02E+01	1.67E+01	3.00E+01	pCi/L
L69991-2	PALISADES PARK COMMERCIAL	09/27/16	ZR-95	<	1.20E+01	4.16E+00	6.31E+00	1.20E+01	3.00E+01	pCi/L
L70270-2	PALISADES PARK COMMERCIAL	10/13/16	ZR-95	<	9.68E+00	1.06E-01	5.79E+00	9.68E+00	3.00E+01	pCi/L

PALISADES PARK COMMUNITY
DRINKING WATER

LAB ID	STATION	COLLECT START	COLLECT STOP	NUCLIDE	REPORTABLE	ACTIVITY	ERROR	MDC	LLD	UNITS
L67848-1	PALISADES PARK COMMUNITY	04/27/16		BA-LA-140	< 6.82E+00	-2.00E+00	4.74E+00	6.82E+00	1.50E+01	pCi/L
L68251-1	PALISADES PARK COMMUNITY	05/25/16		BA-LA-140	< 9.07E+00	3.16E+00	5.09E+00	9.07E+00	1.50E+01	pCi/L
L68605-1	PALISADES PARK COMMUNITY	06/21/16		BA-LA-140	< 7.57E+00	-3.40E+00	6.05E+00	7.57E+00	1.50E+01	pCi/L
L69124-1	PALISADES PARK COMMUNITY	07/26/16		BA-LA-140	< 7.85E+00	-2.57E+00	5.52E+00	7.85E+00	1.50E+01	pCi/L
L69573-1	PALISADES PARK COMMUNITY	08/30/16		BA-LA-140	< 1.31E+01	-2.06E+00	8.46E+00	1.31E+01	1.50E+01	pCi/L
L69991-1	PALISADES PARK COMMUNITY	09/27/16		BA-LA-140	< 9.36E+00	-2.40E+00	6.34E+00	9.36E+00	1.50E+01	pCi/L
L70270-1	PALISADES PARK COMMUNITY	10/13/16		BA-LA-140	< 1.02E+01	-2.02E+00	6.55E+00	1.02E+01	1.50E+01	pCi/L
L67848-1	PALISADES PARK COMMUNITY	04/27/16		CO-58	< 3.88E+00	5.65E-01	2.23E+00	3.88E+00	1.50E+01	pCi/L
L68251-1	PALISADES PARK COMMUNITY	05/25/16		CO-58	< 4.38E+00	-2.31E+00	2.86E+00	4.38E+00	1.50E+01	pCi/L
L68605-1	PALISADES PARK COMMUNITY	06/21/16		CO-58	< 6.67E+00	-3.79E+00	4.85E+00	6.67E+00	1.50E+01	pCi/L
L69124-1	PALISADES PARK COMMUNITY	07/26/16		CO-58	< 6.08E+00	7.38E-01	3.58E+00	6.08E+00	1.50E+01	pCi/L
L69573-1	PALISADES PARK COMMUNITY	08/30/16		CO-58	< 7.48E+00	1.02E-01	4.50E+00	7.48E+00	1.50E+01	pCi/L
L69991-1	PALISADES PARK COMMUNITY	09/27/16		CO-58	< 6.96E+00	-4.53E-01	4.28E+00	6.96E+00	1.50E+01	pCi/L
L70270-1	PALISADES PARK COMMUNITY	10/13/16		CO-58	< 5.92E+00	-3.72E+00	3.98E+00	5.92E+00	1.50E+01	pCi/L
L67848-1	PALISADES PARK COMMUNITY	04/27/16		CO-60	< 6.84E+00	2.02E+00	3.64E+00	6.84E+00	1.50E+01	pCi/L
L68251-1	PALISADES PARK COMMUNITY	05/25/16		CO-60	< 4.99E+00	1.59E+00	2.80E+00	4.99E+00	1.50E+01	pCi/L
L68605-1	PALISADES PARK COMMUNITY	06/21/16		CO-60	< 6.38E+00	-1.83E+00	4.39E+00	6.38E+00	1.50E+01	pCi/L
L69124-1	PALISADES PARK COMMUNITY	07/26/16		CO-60	< 6.76E+00	1.87E+00	3.65E+00	6.76E+00	1.50E+01	pCi/L
L69573-1	PALISADES PARK COMMUNITY	08/30/16		CO-60	< 7.90E+00	1.29E+00	4.47E+00	7.90E+00	1.50E+01	pCi/L
L69991-1	PALISADES PARK COMMUNITY	09/27/16		CO-60	< 5.11E+00	-3.52E+00	3.90E+00	5.11E+00	1.50E+01	pCi/L
L70270-1	PALISADES PARK COMMUNITY	10/13/16		CO-60	< 6.69E+00	-1.92E+00	4.27E+00	6.69E+00	1.50E+01	pCi/L
L67848-1	PALISADES PARK COMMUNITY	04/27/16		CS-134	< 5.68E+00	-9.04E+00	4.76E+00	5.68E+00	1.50E+01	pCi/L
L68251-1	PALISADES PARK COMMUNITY	05/25/16		CS-134	< 4.35E+00	1.91E-01	3.09E+00	4.35E+00	1.50E+01	pCi/L

L68605-1	PALISADES PARK COMMUNITY	06/21/16	CS-134	<	9.37E+00	2.52E+00	6.14E+00	9.37E+00	1.50E+01	pCi/L
L69124-1	PALISADES PARK COMMUNITY	07/26/16	CS-134	<	5.18E+00	-7.01E-01	3.77E+00	5.18E+00	1.50E+01	pCi/L
L69573-1	PALISADES PARK COMMUNITY	08/30/16	CS-134	<	7.15E+00	-4.63E-01	5.21E+00	7.15E+00	1.50E+01	pCi/L
L69991-1	PALISADES PARK COMMUNITY	09/27/16	CS-134	<	6.55E+00	1.57E+00	4.20E+00	6.55E+00	1.50E+01	pCi/L
L70270-1	PALISADES PARK COMMUNITY	10/13/16	CS-134	<	6.21E+00	1.13E+00	4.09E+00	6.21E+00	1.50E+01	pCi/L
L67848-1	PALISADES PARK COMMUNITY	04/27/16	CS-137	<	6.03E+00	-3.62E+00	4.36E+00	6.03E+00	1.80E+01	pCi/L
L68251-1	PALISADES PARK COMMUNITY	05/25/16	CS-137	<	4.20E+00	-4.47E+00	2.87E+00	4.20E+00	1.80E+01	pCi/L
L68605-1	PALISADES PARK COMMUNITY	06/21/16	CS-137	<	9.20E+00	1.54E+00	5.21E+00	9.20E+00	1.80E+01	pCi/L
L69124-1	PALISADES PARK COMMUNITY	07/26/16	CS-137	<	6.94E+00	3.36E+00	3.62E+00	6.94E+00	1.80E+01	pCi/L
L69573-1	PALISADES PARK COMMUNITY	08/30/16	CS-137	<	6.14E+00	-4.59E+00	4.38E+00	6.14E+00	1.80E+01	pCi/L
L69991-1	PALISADES PARK COMMUNITY	09/27/16	CS-137	<	5.49E+00	-4.00E+00	3.89E+00	5.49E+00	1.80E+01	pCi/L
L70270-1	PALISADES PARK COMMUNITY	10/13/16	CS-137	<	6.13E+00	-4.34E+00	4.07E+00	6.13E+00	1.80E+01	pCi/L
L67848-1	PALISADES PARK COMMUNITY	04/27/16	FE-59	<	1.09E+01	-2.19E+00	6.97E+00	1.09E+01	3.00E+01	pCi/L
L68251-1	PALISADES PARK COMMUNITY	05/25/16	FE-59	<	1.10E+01	3.58E+00	6.42E+00	1.10E+01	3.00E+01	pCi/L
L68605-1	PALISADES PARK COMMUNITY	06/21/16	FE-59	<	1.58E+01	1.28E+00	9.40E+00	1.58E+01	3.00E+01	pCi/L
L69124-1	PALISADES PARK COMMUNITY	07/26/16	FE-59	<	1.27E+01	-2.37E-01	7.68E+00	1.27E+01	3.00E+01	pCi/L
L69573-1	PALISADES PARK COMMUNITY	08/30/16	FE-59	<	1.54E+01	-2.08E+00	9.92E+00	1.54E+01	3.00E+01	pCi/L
L69991-1	PALISADES PARK COMMUNITY	09/27/16	FE-59	<	1.38E+01	-3.33E-01	8.61E+00	1.38E+01	3.00E+01	pCi/L
L70270-1	PALISADES PARK COMMUNITY	10/13/16	FE-59	<	1.38E+01	5.99E+00	7.78E+00	1.38E+01	3.00E+01	pCi/L
L67848-1	PALISADES PARK COMMUNITY	04/27/16	GR-B	<	3.91E+00	-3.11E-01	2.33E+00	3.91E+00	4.00E+00	pCi/L
L68251-1	PALISADES PARK COMMUNITY	05/25/16	GR-B	<	2.80E+00	2.23E+00	1.90E+00	2.80E+00	4.00E+00	pCi/L
L68605-1	PALISADES PARK COMMUNITY	06/21/16	GR-B	<	2.29E+00	2.27E+00	1.61E+00	2.29E+00	4.00E+00	pCi/L
L69124-1	PALISADES PARK COMMUNITY	07/26/16	GR-B	<	2.88E+00	0.00E+00	1.75E+00	2.88E+00	4.00E+00	pCi/L
L69573-1	PALISADES PARK COMMUNITY	08/30/16	GR-B	<	2.82E+00	1.03E+00	1.80E+00	2.82E+00	4.00E+00	pCi/L
L69991-1	PALISADES PARK COMMUNITY	09/27/16	GR-B	<	2.35E+00	2.28E+00	1.65E+00	2.35E+00	4.00E+00	pCi/L
L70270-1	PALISADES PARK COMMUNITY	10/13/16	GR-B	<	2.21E+00	1.94E+00	1.52E+00	2.21E+00	4.00E+00	pCi/L
L67848-1	PALISADES PARK COMMUNITY	04/27/16	H-3 (DIST)	<	4.83E+02	8.20E+01	3.05E+02	4.83E+02	2.00E+03	pCi/L
L68251-1	PALISADES PARK COMMUNITY	05/25/16	H-3 (DIST)	<	6.34E+02	-1.14E+02	3.60E+02	6.34E+02	2.00E+03	pCi/L
L68605-1	PALISADES PARK COMMUNITY	06/21/16	H-3 (DIST)	<	5.35E+02	4.65E+01	3.31E+02	5.35E+02	2.00E+03	pCi/L
L69124-1	PALISADES PARK COMMUNITY	07/26/16	H-3 (DIST)	<	6.94E+02	1.27E+02	4.45E+02	6.94E+02	2.00E+03	pCi/L
L69573-1	PALISADES PARK COMMUNITY	08/30/16	H-3 (DIST)	<	6.12E+02	-3.59E+00	3.71E+02	6.12E+02	2.00E+03	pCi/L
L69991-1	PALISADES PARK COMMUNITY	09/27/16	H-3 (DIST)	<	4.55E+02	-5.62E+01	2.67E+02	4.55E+02	2.00E+03	pCi/L
L70270-1	PALISADES PARK COMMUNITY	10/13/16	H-3 (DIST)	<	4.56E+02	1.14E+02	2.91E+02	4.56E+02	2.00E+03	pCi/L
L67848-1	PALISADES PARK COMMUNITY	04/27/16	I-131	<	1.05E+01	1.84E+00	6.24E+00	1.05E+01		pCi/L
L68251-1	PALISADES PARK COMMUNITY	05/25/16	I-131	<	1.03E+01	6.48E+00	5.80E+00	1.03E+01		pCi/L
L68605-1	PALISADES PARK COMMUNITY	06/21/16	I-131	<	1.42E+01	7.46E+00	7.52E+00	1.42E+01		pCi/L
L69124-1	PALISADES PARK COMMUNITY	07/26/16	I-131	<	1.16E+01	-3.14E+00	7.55E+00	1.16E+01		pCi/L
L69573-1	PALISADES PARK COMMUNITY	08/30/16	I-131	<	1.45E+01	8.94E-01	8.63E+00	1.45E+01		pCi/L

L69991-1	PALISADES PARK COMMUNITY	09/27/16	I-131	<	1.27E+01	-2.00E+00	7.91E+00	1.27E+01		pCi/L
L70270-1	PALISADES PARK COMMUNITY	10/13/16	I-131	<	1.17E+01	4.04E+00	6.85E+00	1.17E+01		pCi/L
L68251-1	PALISADES PARK COMMUNITY	05/25/16	K-40		5.41E+01	5.41E+01	5.10E+01	4.94E+01		pCi/L
L67848-1	PALISADES PARK COMMUNITY	04/27/16	MN-54	<	4.92E+00	-6.21E-01	3.20E+00	4.92E+00	1.50E+01	pCi/L
L68251-1	PALISADES PARK COMMUNITY	05/25/16	MN-54	<	4.24E+00	-2.85E+00	2.82E+00	4.24E+00	1.50E+01	pCi/L
L68605-1	PALISADES PARK COMMUNITY	06/21/16	MN-54	<	8.83E+00	-3.90E-01	5.39E+00	8.83E+00	1.50E+01	pCi/L
L69124-1	PALISADES PARK COMMUNITY	07/26/16	MN-54	<	6.27E+00	-1.21E+00	4.09E+00	6.27E+00	1.50E+01	pCi/L
L69573-1	PALISADES PARK COMMUNITY	08/30/16	MN-54	<	6.44E+00	-1.46E+00	4.15E+00	6.44E+00	1.50E+01	pCi/L
L69991-1	PALISADES PARK COMMUNITY	09/27/16	MN-54	<	6.38E+00	-2.03E+00	4.17E+00	6.38E+00	1.50E+01	pCi/L
L70270-1	PALISADES PARK COMMUNITY	10/13/16	MN-54	<	5.97E+00	-3.28E+00	3.96E+00	5.97E+00	1.50E+01	pCi/L
L67848-1	PALISADES PARK COMMUNITY	04/27/16	NB-95	<	6.83E+00	1.63E+00	3.95E+00	6.83E+00	1.50E+01	pCi/L
L68251-1	PALISADES PARK COMMUNITY	05/25/16	NB-95	<	5.60E+00	5.46E+00	3.24E+00	5.60E+00	1.50E+01	pCi/L
L68605-1	PALISADES PARK COMMUNITY	06/21/16	NB-95	<	8.60E+00	2.81E+00	4.62E+00	8.60E+00	1.50E+01	pCi/L
L69124-1	PALISADES PARK COMMUNITY	07/26/16	NB-95	<	7.88E+00	2.53E+00	4.42E+00	7.88E+00	1.50E+01	pCi/L
L69573-1	PALISADES PARK COMMUNITY	08/30/16	NB-95	<	6.88E+00	-2.45E+00	4.53E+00	6.88E+00	1.50E+01	pCi/L
L69991-1	PALISADES PARK COMMUNITY	09/27/16	NB-95	<	8.08E+00	3.96E+00	4.37E+00	8.08E+00	1.50E+01	pCi/L
L70270-1	PALISADES PARK COMMUNITY	10/13/16	NB-95	<	7.93E+00	6.94E+00	4.63E+00	7.93E+00	1.50E+01	pCi/L
L69991-1	PALISADES PARK COMMUNITY	09/27/16	RA-226		1.79E+02	1.79E+02	1.68E+02	1.44E+02		pCi/L
L68251-1	PALISADES PARK COMMUNITY	05/25/16	TH-228		1.25E+01	1.25E+01	7.72E+00	7.79E+00		pCi/L
L67848-1	PALISADES PARK COMMUNITY	04/27/16	ZN-65	<	1.69E+01	1.92E+00	9.81E+00	1.69E+01	3.00E+01	pCi/L
L68251-1	PALISADES PARK COMMUNITY	05/25/16	ZN-65	<	8.08E+00	-2.41E+00	6.22E+00	8.08E+00	3.00E+01	pCi/L
L68605-1	PALISADES PARK COMMUNITY	06/21/16	ZN-65	<	1.40E+01	-4.13E+00	9.79E+00	1.40E+01	3.00E+01	pCi/L
L69124-1	PALISADES PARK COMMUNITY	07/26/16	ZN-65	<	8.94E+00	-5.69E+00	6.92E+00	8.94E+00	3.00E+01	pCi/L
L69573-1	PALISADES PARK COMMUNITY	08/30/16	ZN-65	<	1.30E+01	-2.55E+00	1.02E+01	1.30E+01	3.00E+01	pCi/L
L69991-1	PALISADES PARK COMMUNITY	09/27/16	ZN-65	<	1.23E+01	-5.15E+00	8.65E+00	1.23E+01	3.00E+01	pCi/L
L70270-1	PALISADES PARK COMMUNITY	10/13/16	ZN-65	<	1.08E+01	-9.08E+00	9.60E+00	1.08E+01	3.00E+01	pCi/L
L67848-1	PALISADES PARK COMMUNITY	04/27/16	ZR-95	<	8.52E+00	-2.50E+00	5.85E+00	8.52E+00	3.00E+01	pCi/L
L68251-1	PALISADES PARK COMMUNITY	05/25/16	ZR-95	<	8.58E+00	9.17E-01	5.07E+00	8.58E+00	3.00E+01	pCi/L
L68605-1	PALISADES PARK COMMUNITY	06/21/16	ZR-95	<	1.72E+01	5.70E+00	9.34E+00	1.72E+01	3.00E+01	pCi/L
L69124-1	PALISADES PARK COMMUNITY	07/26/16	ZR-95	<	1.21E+01	3.44E+00	6.79E+00	1.21E+01	3.00E+01	pCi/L
L69573-1	PALISADES PARK COMMUNITY	08/30/16	ZR-95	<	1.02E+01	-5.16E+00	7.10E+00	1.02E+01	3.00E+01	pCi/L
L69991-1	PALISADES PARK COMMUNITY	09/27/16	ZR-95	<	1.36E+01	1.33E+00	7.99E+00	1.36E+01	3.00E+01	pCi/L
L70270-1	PALISADES PARK COMMUNITY	10/13/16	ZR-95	<	1.07E+01	1.87E+00	6.24E+00	1.07E+01	3.00E+01	pCi/L

SEPTIC SYSTEM

SEWAGE

LAB ID	STATION	COLLECT START	COLLECT STOP	NUCLIDE		REPORTABLE	ACTIVITY	ERROR	MDC	LLD	UNITS
L66877-1	SEPTIC SYSTEM	02/11/16	02/11/16	BA-LA-140	<	5.90E+00	-1.93E+00	3.79E+00	5.90E+00	1.50E+01	pCi/L
L68135-1	SEPTIC SYSTEM	05/12/16	05/12/16	BA-LA-140	<	1.48E+01	-1.73E+00	9.18E+00	1.48E+01	1.50E+01	pCi/L

L69369-1	SEPTIC SYSTEM	07/01/16	08/11/16	BA-LA-140	<	1.48E+01	-3.60E+00	9.91E+00	1.48E+01	1.50E+01	pCi/L
L70610-2	SEPTIC SYSTEM	11/08/16	11/08/16	BA-LA-140	<	1.14E+01	-4.94E-01	7.00E+00	1.14E+01	1.50E+01	pCi/L
L66877-1	SEPTIC SYSTEM	02/11/16	02/11/16	CO-58	<	3.16E+00	-6.78E-01	1.96E+00	3.16E+00	1.50E+01	pCi/L
L68135-1	SEPTIC SYSTEM	05/12/16	05/12/16	CO-58	<	7.87E+00	-1.33E+00	4.84E+00	7.87E+00	1.50E+01	pCi/L
L69369-1	SEPTIC SYSTEM	07/01/16	08/11/16	CO-58	<	1.17E+01	4.33E+00	6.62E+00	1.17E+01	1.50E+01	pCi/L
L70610-2	SEPTIC SYSTEM	11/08/16	11/08/16	CO-58	<	7.81E+00	2.69E+00	4.53E+00	7.81E+00	1.50E+01	pCi/L
L66877-1	SEPTIC SYSTEM	02/11/16	02/11/16	CO-60	<	3.27E+00	1.01E+00	1.92E+00	3.27E+00	1.50E+01	pCi/L
L68135-1	SEPTIC SYSTEM	05/12/16	05/12/16	CO-60	<	7.88E+00	5.85E-01	4.57E+00	7.88E+00	1.50E+01	pCi/L
L69369-1	SEPTIC SYSTEM	07/01/16	08/11/16	CO-60	<	7.25E+00	-3.51E+00	5.31E+00	7.25E+00	1.50E+01	pCi/L
L70610-2	SEPTIC SYSTEM	11/08/16	11/08/16	CO-60	<	7.80E+00	9.93E-01	4.59E+00	7.80E+00	1.50E+01	pCi/L
L66877-1	SEPTIC SYSTEM	02/11/16	02/11/16	CS-134	<	3.11E+00	-8.72E-01	2.16E+00	3.11E+00	1.50E+01	pCi/L
L68135-1	SEPTIC SYSTEM	05/12/16	05/12/16	CS-134	<	6.76E+00	3.68E+00	4.31E+00	6.76E+00	1.50E+01	pCi/L
L69369-1	SEPTIC SYSTEM	07/01/16	08/11/16	CS-134	<	1.18E+01	-1.30E+01	8.61E+00	1.18E+01	1.50E+01	pCi/L
L70610-2	SEPTIC SYSTEM	11/08/16	11/08/16	CS-134	<	7.92E+00	3.31E+00	5.41E+00	7.92E+00	1.50E+01	pCi/L
L66877-1	SEPTIC SYSTEM	02/11/16	02/11/16	CS-137	<	3.34E+00	1.09E+00	1.96E+00	3.34E+00	1.80E+01	pCi/L
L68135-1	SEPTIC SYSTEM	05/12/16	05/12/16	CS-137	<	8.12E+00	1.08E+00	4.97E+00	8.12E+00	1.80E+01	pCi/L
L69369-1	SEPTIC SYSTEM	07/01/16	08/11/16	CS-137	<	1.02E+01	-7.81E+00	7.46E+00	1.02E+01	1.80E+01	pCi/L
L70610-2	SEPTIC SYSTEM	11/08/16	11/08/16	CS-137	<	7.48E+00	-2.01E-01	4.46E+00	7.48E+00	1.80E+01	pCi/L
L66877-1	SEPTIC SYSTEM	02/11/16	02/11/16	FE-59	<	6.97E+00	2.36E+00	4.05E+00	6.97E+00	3.00E+01	pCi/L
L68135-1	SEPTIC SYSTEM	05/12/16	05/12/16	FE-59	<	1.48E+01	-1.52E+00	9.27E+00	1.48E+01	3.00E+01	pCi/L
L69369-1	SEPTIC SYSTEM	07/01/16	08/11/16	FE-59	<	2.41E+01	5.76E+00	1.36E+01	2.41E+01	3.00E+01	pCi/L
L70610-2	SEPTIC SYSTEM	11/08/16	11/08/16	FE-59	<	1.42E+01	-1.98E+00	8.96E+00	1.42E+01	3.00E+01	pCi/L
L66877-1	SEPTIC SYSTEM	02/11/16	02/11/16	H-3 (DIST)	<	3.98E+02	2.25E+02	2.67E+02	3.98E+02	2.00E+03	pCi/L
L68135-1	SEPTIC SYSTEM	05/12/16	05/12/16	H-3 (DIST)	<	5.00E+02	8.24E+00	3.05E+02	5.00E+02	2.00E+03	pCi/L
L69369-1	SEPTIC SYSTEM	07/01/16	08/11/16	H-3 (DIST)	<	7.06E+02	2.09E+02	4.67E+02	7.06E+02	2.00E+03	pCi/L
L70610-2	SEPTIC SYSTEM	11/08/16	11/08/16	H-3 (DIST)	<	5.99E+02	1.12E+02	3.85E+02	5.99E+02	2.00E+03	pCi/L
L66877-1	SEPTIC SYSTEM	02/11/16	02/11/16	MN-54	<	3.19E+00	-1.48E-01	1.95E+00	3.19E+00	1.50E+01	pCi/L
L68135-1	SEPTIC SYSTEM	05/12/16	05/12/16	MN-54	<	6.87E+00	1.13E+00	4.00E+00	6.87E+00	1.50E+01	pCi/L
L69369-1	SEPTIC SYSTEM	07/01/16	08/11/16	MN-54	<	1.17E+01	1.19E+00	6.77E+00	1.17E+01	1.50E+01	pCi/L
L70610-2	SEPTIC SYSTEM	11/08/16	11/08/16	MN-54	<	7.40E+00	-1.14E+00	4.55E+00	7.40E+00	1.50E+01	pCi/L
L66877-1	SEPTIC SYSTEM	02/11/16	02/11/16	NB-95	<	3.57E+00	2.85E+00	2.04E+00	3.57E+00	1.50E+01	pCi/L
L68135-1	SEPTIC SYSTEM	05/12/16	05/12/16	NB-95	<	8.05E+00	3.93E-01	4.76E+00	8.05E+00	1.50E+01	pCi/L
L69369-1	SEPTIC SYSTEM	07/01/16	08/11/16	NB-95	<	1.16E+01	1.32E+00	7.03E+00	1.16E+01	1.50E+01	pCi/L
L70610-2	SEPTIC SYSTEM	11/08/16	11/08/16	NB-95	<	8.79E+00	6.34E+00	4.93E+00	8.79E+00	1.50E+01	pCi/L
L66877-1	SEPTIC SYSTEM	02/11/16	02/11/16	ZN-65	<	6.59E+00	2.96E+00	4.35E+00	6.59E+00	3.00E+01	pCi/L
L68135-1	SEPTIC SYSTEM	05/12/16	05/12/16	ZN-65	<	1.48E+01	-4.48E-01	9.11E+00	1.48E+01	3.00E+01	pCi/L
L69369-1	SEPTIC SYSTEM	07/01/16	08/11/16	ZN-65	<	2.09E+01	-9.69E+00	1.41E+01	2.09E+01	3.00E+01	pCi/L
L70610-2	SEPTIC SYSTEM	11/08/16	11/08/16	ZN-65	<	1.54E+01	3.22E+00	1.06E+01	1.54E+01	3.00E+01	pCi/L

L66877-1	SEPTIC SYSTEM	02/11/16	02/11/16	ZR-95	<	5.73E+00	2.16E+00	3.37E+00	5.73E+00	3.00E+01	pCi/L
L68135-1	SEPTIC SYSTEM	05/12/16	05/12/16	ZR-95	<	1.29E+01	-2.42E+00	7.93E+00	1.29E+01	3.00E+01	pCi/L
L69369-1	SEPTIC SYSTEM	07/01/16	08/11/16	ZR-95	<	2.03E+01	3.37E+00	1.21E+01	2.03E+01	3.00E+01	pCi/L
L70610-2	SEPTIC SYSTEM	11/08/16	11/08/16	ZR-95	<	1.36E+01	1.59E+00	8.03E+00	1.36E+01	3.00E+01	pCi/L

SOUTH HAVEN
DRINKING WATER

LAB ID	STATION	COLLECT START	COLLECT STOP	NUCLIDE		REPORTABLE	ACTIVITY	ERROR	MDC	LLD	UNITS
L66747-1	SOUTH HAVEN	01/01/16	01/31/16	BA-LA-140	<	5.49E+00	-2.17E+00	3.45E+00	5.49E+00	1.50E+01	pCi/L
L67128-1	SOUTH HAVEN	02/01/16	03/01/16	BA-LA-140	<	1.30E+01	-7.22E+00	9.24E+00	1.30E+01	1.50E+01	pCi/L
L67591-1	SOUTH HAVEN	03/01/16	03/31/16	BA-LA-140	<	9.13E+00	-4.36E+00	5.83E+00	9.13E+00	1.50E+01	pCi/L
L67935-1	SOUTH HAVEN	04/01/16	04/30/16	BA-LA-140	<	5.80E+00	1.92E+00	3.42E+00	5.80E+00	1.50E+01	pCi/L
L68365-1	SOUTH HAVEN	05/01/16	05/31/16	BA-LA-140	<	6.21E+00	-4.43E+00	4.44E+00	6.21E+00	1.50E+01	pCi/L
L68716-1	SOUTH HAVEN	06/01/16	06/30/16	BA-LA-140	<	7.80E+00	3.80E+00	4.43E+00	7.80E+00	1.50E+01	pCi/L
L69303-1	SOUTH HAVEN	07/01/16	08/01/16	BA-LA-140	<	9.07E+00	-3.13E-01	5.62E+00	9.07E+00	1.50E+01	pCi/L
L69666-1	SOUTH HAVEN	08/01/16	09/01/16	BA-LA-140	<	6.56E+00	-2.58E-01	4.04E+00	6.56E+00	1.50E+01	pCi/L
L70218-1	SOUTH HAVEN	09/01/16	10/01/16	BA-LA-140	<	1.49E+01	-8.53E+00	9.60E+00	1.49E+01	1.50E+01	pCi/L
L70610-1	SOUTH HAVEN	10/01/16	10/31/16	BA-LA-140	<	1.15E+01	-2.39E+00	7.11E+00	1.15E+01	1.50E+01	pCi/L
L70871-1	SOUTH HAVEN	11/01/16	11/30/16	BA-LA-140	<	1.26E+01	6.24E+00	6.75E+00	1.26E+01	1.50E+01	pCi/L
L71260-2	SOUTH HAVEN	12/01/16	01/01/17	BA-LA-140	<	1.44E+01	-3.01E+00	8.35E+00	1.44E+01	1.50E+01	pCi/L
L66747-1	SOUTH HAVEN	01/01/16	01/31/16	CO-58	<	1.54E+00	-5.27E-03	9.39E-01	1.54E+00	1.50E+01	pCi/L
L67128-1	SOUTH HAVEN	02/01/16	03/01/16	CO-58	<	4.67E+00	-5.11E-01	2.89E+00	4.67E+00	1.50E+01	pCi/L
L67591-1	SOUTH HAVEN	03/01/16	03/31/16	CO-58	<	2.12E+00	-4.60E-01	1.31E+00	2.12E+00	1.50E+01	pCi/L
L67935-1	SOUTH HAVEN	04/01/16	04/30/16	CO-58	<	1.77E+00	5.59E-01	1.05E+00	1.77E+00	1.50E+01	pCi/L
L68365-1	SOUTH HAVEN	05/01/16	05/31/16	CO-58	<	1.83E+00	1.20E-01	1.07E+00	1.83E+00	1.50E+01	pCi/L
L68716-1	SOUTH HAVEN	06/01/16	06/30/16	CO-58	<	1.94E+00	8.23E-02	1.19E+00	1.94E+00	1.50E+01	pCi/L
L69303-1	SOUTH HAVEN	07/01/16	08/01/16	CO-58	<	2.01E+00	-1.02E+00	1.27E+00	2.01E+00	1.50E+01	pCi/L
L69666-1	SOUTH HAVEN	08/01/16	09/01/16	CO-58	<	1.55E+00	-2.69E-02	8.97E-01	1.55E+00	1.50E+01	pCi/L
L70218-1	SOUTH HAVEN	09/01/16	10/01/16	CO-58	<	3.29E+00	-3.62E-01	1.99E+00	3.29E+00	1.50E+01	pCi/L
L70610-1	SOUTH HAVEN	10/01/16	10/31/16	CO-58	<	2.66E+00	-2.43E-02	1.60E+00	2.66E+00	1.50E+01	pCi/L
L70871-1	SOUTH HAVEN	11/01/16	11/30/16	CO-58	<	3.41E+00	1.21E+00	1.94E+00	3.41E+00	1.50E+01	pCi/L
L71260-2	SOUTH HAVEN	12/01/16	01/01/17	CO-58	<	3.30E+00	-1.67E+00	2.04E+00	3.30E+00	1.50E+01	pCi/L
L66747-1	SOUTH HAVEN	01/01/16	01/31/16	CO-60	<	1.38E+00	2.05E-02	8.52E-01	1.38E+00	1.50E+01	pCi/L
L67128-1	SOUTH HAVEN	02/01/16	03/01/16	CO-60	<	4.31E+00	5.69E-01	2.56E+00	4.31E+00	1.50E+01	pCi/L
L67591-1	SOUTH HAVEN	03/01/16	03/31/16	CO-60	<	1.74E+00	5.91E-01	1.03E+00	1.74E+00	1.50E+01	pCi/L
L67935-1	SOUTH HAVEN	04/01/16	04/30/16	CO-60	<	8.19E+00	4.04E+00	3.94E+00	8.19E+00	1.50E+01	pCi/L
L68365-1	SOUTH HAVEN	05/01/16	05/31/16	CO-60	<	2.04E+00	9.61E-01	1.16E+00	2.04E+00	1.50E+01	pCi/L
L68716-1	SOUTH HAVEN	06/01/16	06/30/16	CO-60	<	1.78E+00	1.07E+00	1.02E+00	1.78E+00	1.50E+01	pCi/L
L69303-1	SOUTH HAVEN	07/01/16	08/01/16	CO-60	<	1.67E+00	1.78E-01	1.01E+00	1.67E+00	1.50E+01	pCi/L

L69666-1	SOUTH HAVEN	08/01/16	09/01/16	CO-60	< 1.16E+00	-7.54E-01	7.92E-01	1.16E+00	1.50E+01	pCi/L
L70218-1	SOUTH HAVEN	09/01/16	10/01/16	CO-60	< 2.57E+00	-1.85E-01	1.54E+00	2.57E+00	1.50E+01	pCi/L
L70610-1	SOUTH HAVEN	10/01/16	10/31/16	CO-60	< 2.25E+00	5.75E-01	1.31E+00	2.25E+00	1.50E+01	pCi/L
L70871-1	SOUTH HAVEN	11/01/16	11/30/16	CO-60	< 3.34E+00	3.67E-01	2.06E+00	3.34E+00	1.50E+01	pCi/L
L71260-2	SOUTH HAVEN	12/01/16	01/01/17	CO-60	< 2.46E+00	2.82E-01	1.43E+00	2.46E+00	1.50E+01	pCi/L
L66747-1	SOUTH HAVEN	01/01/16	01/31/16	CS-134	< 1.27E+00	-3.79E+00	9.12E-01	1.27E+00	1.50E+01	pCi/L
L67128-1	SOUTH HAVEN	02/01/16	03/01/16	CS-134	< 4.16E+00	-8.99E+00	3.12E+00	4.16E+00	1.50E+01	pCi/L
L67591-1	SOUTH HAVEN	03/01/16	03/31/16	CS-134	< 1.66E+00	2.08E-01	1.13E+00	1.66E+00	1.50E+01	pCi/L
L67935-1	SOUTH HAVEN	04/01/16	04/30/16	CS-134	< 1.40E+00	-9.94E-01	1.02E+00	1.40E+00	1.50E+01	pCi/L
L68365-1	SOUTH HAVEN	05/01/16	05/31/16	CS-134	< 1.74E+00	3.22E-01	1.07E+00	1.74E+00	1.50E+01	pCi/L
L68716-1	SOUTH HAVEN	06/01/16	06/30/16	CS-134	< 1.60E+00	5.92E-01	1.14E+00	1.60E+00	1.50E+01	pCi/L
L69303-1	SOUTH HAVEN	07/01/16	08/01/16	CS-134	< 1.71E+00	-4.92E+00	1.17E+00	1.71E+00	1.50E+01	pCi/L
L69666-1	SOUTH HAVEN	08/01/16	09/01/16	CS-134	< 1.24E+00	1.25E-01	6.96E-01	1.24E+00	1.50E+01	pCi/L
L70218-1	SOUTH HAVEN	09/01/16	10/01/16	CS-134	< 2.52E+00	-5.15E-01	1.83E+00	2.52E+00	1.50E+01	pCi/L
L70610-1	SOUTH HAVEN	10/01/16	10/31/16	CS-134	< 2.03E+00	-7.22E-01	1.49E+00	2.03E+00	1.50E+01	pCi/L
L70871-1	SOUTH HAVEN	11/01/16	11/30/16	CS-134	< 2.73E+00	-9.33E-01	1.90E+00	2.73E+00	1.50E+01	pCi/L
L71260-2	SOUTH HAVEN	12/01/16	01/01/17	CS-134	< 2.71E+00	-1.04E+00	2.05E+00	2.71E+00	1.50E+01	pCi/L
L66747-1	SOUTH HAVEN	01/01/16	01/31/16	CS-137	< 1.40E+00	8.78E-02	8.34E-01	1.40E+00	1.80E+01	pCi/L
L67128-1	SOUTH HAVEN	02/01/16	03/01/16	CS-137	< 4.32E+00	2.94E-01	2.59E+00	4.32E+00	1.80E+01	pCi/L
L67591-1	SOUTH HAVEN	03/01/16	03/31/16	CS-137	< 1.82E+00	-8.05E-01	1.34E+00	1.82E+00	1.80E+01	pCi/L
L67935-1	SOUTH HAVEN	04/01/16	04/30/16	CS-137	< 1.52E+00	-6.45E-01	9.32E-01	1.52E+00	1.80E+01	pCi/L
L68365-1	SOUTH HAVEN	05/01/16	05/31/16	CS-137	< 1.66E+00	1.34E-01	9.67E-01	1.66E+00	1.80E+01	pCi/L
L68716-1	SOUTH HAVEN	06/01/16	06/30/16	CS-137	< 1.68E+00	9.44E-02	1.01E+00	1.68E+00	1.80E+01	pCi/L
L69303-1	SOUTH HAVEN	07/01/16	08/01/16	CS-137	< 1.82E+00	5.99E-02	1.10E+00	1.82E+00	1.80E+01	pCi/L
L69666-1	SOUTH HAVEN	08/01/16	09/01/16	CS-137	< 1.31E+00	2.48E-01	7.27E-01	1.31E+00	1.80E+01	pCi/L
L70218-1	SOUTH HAVEN	09/01/16	10/01/16	CS-137	< 2.85E+00	1.06E+00	1.65E+00	2.85E+00	1.80E+01	pCi/L
L70610-1	SOUTH HAVEN	10/01/16	10/31/16	CS-137	< 2.36E+00	2.67E-01	1.39E+00	2.36E+00	1.80E+01	pCi/L
L70871-1	SOUTH HAVEN	11/01/16	11/30/16	CS-137	< 3.02E+00	-6.16E-01	1.86E+00	3.02E+00	1.80E+01	pCi/L
L71260-2	SOUTH HAVEN	12/01/16	01/01/17	CS-137	< 2.80E+00	-4.06E-01	1.69E+00	2.80E+00	1.80E+01	pCi/L
L66747-1	SOUTH HAVEN	01/01/16	01/31/16	FE-59	< 3.66E+00	1.66E+00	2.14E+00	3.66E+00	3.00E+01	pCi/L
L67128-1	SOUTH HAVEN	02/01/16	03/01/16	FE-59	< 1.14E+01	-1.32E-01	6.99E+00	1.14E+01	3.00E+01	pCi/L
L67591-1	SOUTH HAVEN	03/01/16	03/31/16	FE-59	< 5.26E+00	7.03E-01	3.25E+00	5.26E+00	3.00E+01	pCi/L
L67935-1	SOUTH HAVEN	04/01/16	04/30/16	FE-59	< 4.13E+00	1.95E+00	2.46E+00	4.13E+00	3.00E+01	pCi/L
L68365-1	SOUTH HAVEN	05/01/16	05/31/16	FE-59	< 3.99E+00	-6.72E-01	2.48E+00	3.99E+00	3.00E+01	pCi/L
L68716-1	SOUTH HAVEN	06/01/16	06/30/16	FE-59	< 4.70E+00	2.28E+00	2.72E+00	4.70E+00	3.00E+01	pCi/L
L69303-1	SOUTH HAVEN	07/01/16	08/01/16	FE-59	< 5.04E+00	2.93E+00	2.91E+00	5.04E+00	3.00E+01	pCi/L
L69666-1	SOUTH HAVEN	08/01/16	09/01/16	FE-59	< 3.31E+00	-1.57E+00	2.13E+00	3.31E+00	3.00E+01	pCi/L
L70218-1	SOUTH HAVEN	09/01/16	10/01/16	FE-59	< 8.36E+00	3.73E+00	4.97E+00	8.36E+00	3.00E+01	pCi/L

L70610-1	SOUTH HAVEN	10/01/16	10/31/16	FE-59	< 6.44E+00	1.65E+00	3.89E+00	6.44E+00	3.00E+01	pCi/L
L70871-1	SOUTH HAVEN	11/01/16	11/30/16	FE-59	< 6.79E+00	1.27E+00	4.04E+00	6.79E+00	3.00E+01	pCi/L
L71260-2	SOUTH HAVEN	12/01/16	01/01/17	FE-59	< 7.55E+00	-7.91E-01	4.53E+00	7.55E+00	3.00E+01	pCi/L
L66747-1	SOUTH HAVEN	01/01/16	01/31/16	GR-B	< 1.99E+00	1.57E+00	1.34E+00	1.99E+00	4.00E+00	pCi/L
L67128-1	SOUTH HAVEN	02/01/16	03/01/16	GR-B	3.50E+00	3.50E+00	1.45E+00	1.83E+00	4.00E+00	pCi/L
L67591-1	SOUTH HAVEN	03/01/16	03/31/16	GR-B	< 2.30E+00	1.02E+00	1.48E+00	2.30E+00	4.00E+00	pCi/L
L67935-1	SOUTH HAVEN	04/01/16	04/30/16	GR-B	< 2.24E+00	2.21E+00	1.54E+00	2.24E+00	4.00E+00	pCi/L
L68365-1	SOUTH HAVEN	05/01/16	05/31/16	GR-B	3.29E+00	3.29E+00	1.53E+00	2.04E+00	4.00E+00	pCi/L
L68716-1	SOUTH HAVEN	06/01/16	06/30/16	GR-B	2.40E+00	2.40E+00	1.44E+00	2.00E+00	4.00E+00	pCi/L
L69303-1	SOUTH HAVEN	07/01/16	08/01/16	GR-B	< 2.23E+00	1.57E+00	1.49E+00	2.23E+00	4.00E+00	pCi/L
L69666-1	SOUTH HAVEN	08/01/16	09/01/16	GR-B	< 1.79E+00	1.08E+00	1.20E+00	1.79E+00	4.00E+00	pCi/L
L70218-1	SOUTH HAVEN	09/01/16	10/01/16	GR-B	2.91E+00	2.91E+00	1.42E+00	1.90E+00	4.00E+00	pCi/L
L70610-1	SOUTH HAVEN	10/01/16	10/31/16	GR-B	2.16E+00	2.16E+00	1.46E+00	2.11E+00	4.00E+00	pCi/L
L70871-1	SOUTH HAVEN	11/01/16	11/30/16	GR-B	< 2.17E+00	1.90E+00	1.47E+00	2.17E+00	4.00E+00	pCi/L
L71260-2	SOUTH HAVEN	12/01/16	01/01/17	GR-B	< 2.26E+00	1.00E+00	1.46E+00	2.26E+00	4.00E+00	pCi/L
L66747-1	SOUTH HAVEN	01/01/16	01/31/16	H-3 (DIST)	< 5.13E+02	4.16E+01	3.22E+02	5.13E+02	2.00E+03	pCi/L
L67128-1	SOUTH HAVEN	02/01/16	03/01/16	H-3 (DIST)	< 5.55E+02	1.20E+02	3.51E+02	5.55E+02	2.00E+03	pCi/L
L67591-1	SOUTH HAVEN	03/01/16	03/31/16	H-3 (DIST)	< 4.89E+02	-6.34E+01	2.89E+02	4.89E+02	2.00E+03	pCi/L
L67935-1	SOUTH HAVEN	04/01/16	04/30/16	H-3 (DIST)	< 4.44E+02	5.11E+01	2.75E+02	4.44E+02	2.00E+03	pCi/L
L68365-1	SOUTH HAVEN	05/01/16	05/31/16	H-3 (DIST)	< 5.08E+02	-1.48E+02	2.88E+02	5.08E+02	2.00E+03	pCi/L
L68716-1	SOUTH HAVEN	06/01/16	06/30/16	H-3 (DIST)	< 4.70E+02	2.01E+02	3.13E+02	4.70E+02	2.00E+03	pCi/L
L69303-1	SOUTH HAVEN	07/01/16	08/01/16	H-3 (DIST)	< 4.96E+02	-1.31E+02	2.84E+02	4.96E+02	2.00E+03	pCi/L
L69666-1	SOUTH HAVEN	08/01/16	09/01/16	H-3 (DIST)	< 6.33E+02	-1.26E+02	3.59E+02	6.33E+02	2.00E+03	pCi/L
L70218-1	SOUTH HAVEN	09/01/16	10/01/16	H-3 (DIST)	< 4.27E+02	-1.06E+02	2.44E+02	4.27E+02	2.00E+03	pCi/L
L70610-1	SOUTH HAVEN	10/01/16	10/31/16	H-3 (DIST)	< 6.01E+02	-3.58E+01	3.58E+02	6.01E+02	2.00E+03	pCi/L
L70871-1	SOUTH HAVEN	11/01/16	11/30/16	H-3 (DIST)	< 6.51E+02	0.00E+00	3.95E+02	6.51E+02	2.00E+03	pCi/L
L71260-2	SOUTH HAVEN	12/01/16	01/01/17	H-3 (DIST)	< 4.78E+02	2.08E+01	2.93E+02	4.78E+02	2.00E+03	pCi/L
L70871-1	SOUTH HAVEN	11/01/16	11/30/16	K-40	1.25E+02	1.25E+02	4.29E+01	2.68E+01		pCi/L
L71260-2	SOUTH HAVEN	12/01/16	01/01/17	K-40	7.49E+01	7.49E+01	4.21E+01	2.21E+01		pCi/L
L66747-1	SOUTH HAVEN	01/01/16	01/31/16	MN-54	< 1.41E+00	4.79E-01	8.44E-01	1.41E+00	1.50E+01	pCi/L
L67128-1	SOUTH HAVEN	02/01/16	03/01/16	MN-54	< 4.19E+00	1.37E+00	2.41E+00	4.19E+00	1.50E+01	pCi/L
L67591-1	SOUTH HAVEN	03/01/16	03/31/16	MN-54	< 1.73E+00	1.59E-01	1.05E+00	1.73E+00	1.50E+01	pCi/L
L67935-1	SOUTH HAVEN	04/01/16	04/30/16	MN-54	< 1.58E+00	1.03E+00	9.18E-01	1.58E+00	1.50E+01	pCi/L
L68365-1	SOUTH HAVEN	05/01/16	05/31/16	MN-54	< 1.73E+00	6.08E-01	9.82E-01	1.73E+00	1.50E+01	pCi/L
L68716-1	SOUTH HAVEN	06/01/16	06/30/16	MN-54	< 1.58E+00	-8.63E-01	1.01E+00	1.58E+00	1.50E+01	pCi/L
L69303-1	SOUTH HAVEN	07/01/16	08/01/16	MN-54	< 1.62E+00	-1.41E+00	1.06E+00	1.62E+00	1.50E+01	pCi/L
L69666-1	SOUTH HAVEN	08/01/16	09/01/16	MN-54	< 1.29E+00	2.31E-01	7.26E-01	1.29E+00	1.50E+01	pCi/L
L70218-1	SOUTH HAVEN	09/01/16	10/01/16	MN-54	< 2.67E+00	-5.94E-01	1.63E+00	2.67E+00	1.50E+01	pCi/L

L70610-1	SOUTH HAVEN	10/01/16	10/31/16	MN-54	< 2.07E+00	-1.83E+00	1.32E+00	2.07E+00	1.50E+01	pCi/L
L70871-1	SOUTH HAVEN	11/01/16	11/30/16	MN-54	< 3.21E+00	-9.28E-02	1.96E+00	3.21E+00	1.50E+01	pCi/L
L71260-2	SOUTH HAVEN	12/01/16	01/01/17	MN-54	< 2.79E+00	8.38E-01	1.63E+00	2.79E+00	1.50E+01	pCi/L
L66747-1	SOUTH HAVEN	01/01/16	01/31/16	NB-95	< 1.69E+00	1.19E+00	9.82E-01	1.69E+00	1.50E+01	pCi/L
L67128-1	SOUTH HAVEN	02/01/16	03/01/16	NB-95	< 4.62E+00	-5.12E-01	2.85E+00	4.62E+00	1.50E+01	pCi/L
L67591-1	SOUTH HAVEN	03/01/16	03/31/16	NB-95	< 2.28E+00	1.38E+00	1.34E+00	2.28E+00	1.50E+01	pCi/L
L67935-1	SOUTH HAVEN	04/01/16	04/30/16	NB-95	< 1.90E+00	1.06E+00	1.11E+00	1.90E+00	1.50E+01	pCi/L
L68365-1	SOUTH HAVEN	05/01/16	05/31/16	NB-95	< 1.99E+00	-8.32E-01	1.24E+00	1.99E+00	1.50E+01	pCi/L
L68716-1	SOUTH HAVEN	06/01/16	06/30/16	NB-95	< 2.12E+00	1.50E+00	1.24E+00	2.12E+00	1.50E+01	pCi/L
L69303-1	SOUTH HAVEN	07/01/16	08/01/16	NB-95	< 2.25E+00	6.53E-01	1.35E+00	2.25E+00	1.50E+01	pCi/L
L69666-1	SOUTH HAVEN	08/01/16	09/01/16	NB-95	< 1.48E+00	-1.34E-02	8.53E-01	1.48E+00	1.50E+01	pCi/L
L70218-1	SOUTH HAVEN	09/01/16	10/01/16	NB-95	< 3.57E+00	6.92E-01	2.42E+00	3.57E+00	1.50E+01	pCi/L
L70610-1	SOUTH HAVEN	10/01/16	10/31/16	NB-95	< 2.96E+00	1.14E+00	1.73E+00	2.96E+00	1.50E+01	pCi/L
L70871-1	SOUTH HAVEN	11/01/16	11/30/16	NB-95	< 4.31E+00	3.93E+00	2.48E+00	4.31E+00	1.50E+01	pCi/L
L71260-2	SOUTH HAVEN	12/01/16	01/01/17	NB-95	< 3.75E+00	1.44E+00	2.18E+00	3.75E+00	1.50E+01	pCi/L
L69303-1	SOUTH HAVEN	07/01/16	08/01/16	RA-226	5.74E+01	5.74E+01	4.34E+01	3.96E+01		pCi/L
L67591-1	SOUTH HAVEN	03/01/16	03/31/16	TH-228	4.01E+00	4.01E+00	3.17E+00	3.03E+00		pCi/L
L67935-1	SOUTH HAVEN	04/01/16	04/30/16	TH-228	4.15E+00	4.15E+00	2.42E+00	2.87E+00		pCi/L
L70218-1	SOUTH HAVEN	09/01/16	10/01/16	TH-228	7.47E+00	7.47E+00	5.75E+00	4.84E+00		pCi/L
L70610-1	SOUTH HAVEN	10/01/16	10/31/16	TH-228	6.39E+00	6.39E+00	3.51E+00	3.72E+00		pCi/L
L70871-1	SOUTH HAVEN	11/01/16	11/30/16	TH-228	6.59E+00	6.59E+00	5.35E+00	5.12E+00		pCi/L
L66747-1	SOUTH HAVEN	01/01/16	01/31/16	ZN-65	< 2.91E+00	-1.34E+00	1.82E+00	2.91E+00	3.00E+01	pCi/L
L67128-1	SOUTH HAVEN	02/01/16	03/01/16	ZN-65	< 6.61E+00	-7.50E+00	5.05E+00	6.61E+00	3.00E+01	pCi/L
L67591-1	SOUTH HAVEN	03/01/16	03/31/16	ZN-65	< 3.76E+00	-4.02E+00	2.51E+00	3.76E+00	3.00E+01	pCi/L
L67935-1	SOUTH HAVEN	04/01/16	04/30/16	ZN-65	< 3.16E+00	-2.35E+00	2.06E+00	3.16E+00	3.00E+01	pCi/L
L68365-1	SOUTH HAVEN	05/01/16	05/31/16	ZN-65	< 3.92E+00	1.30E+00	2.25E+00	3.92E+00	3.00E+01	pCi/L
L68716-1	SOUTH HAVEN	06/01/16	06/30/16	ZN-65	< 3.42E+00	9.15E-01	2.32E+00	3.42E+00	3.00E+01	pCi/L
L69303-1	SOUTH HAVEN	07/01/16	08/01/16	ZN-65	< 3.58E+00	-3.63E+00	2.32E+00	3.58E+00	3.00E+01	pCi/L
L69666-1	SOUTH HAVEN	08/01/16	09/01/16	ZN-65	< 2.39E+00	-1.36E+00	1.57E+00	2.39E+00	3.00E+01	pCi/L
L70218-1	SOUTH HAVEN	09/01/16	10/01/16	ZN-65	< 5.76E+00	1.30E+00	4.01E+00	5.76E+00	3.00E+01	pCi/L
L70610-1	SOUTH HAVEN	10/01/16	10/31/16	ZN-65	< 4.72E+00	2.14E-01	3.36E+00	4.72E+00	3.00E+01	pCi/L
L70871-1	SOUTH HAVEN	11/01/16	11/30/16	ZN-65	< 5.57E+00	-3.04E+00	4.42E+00	5.57E+00	3.00E+01	pCi/L
L71260-2	SOUTH HAVEN	12/01/16	01/01/17	ZN-65	< 5.65E+00	-7.63E+00	3.74E+00	5.65E+00	3.00E+01	pCi/L
L66747-1	SOUTH HAVEN	01/01/16	01/31/16	ZR-95	< 2.87E+00	1.50E-01	1.74E+00	2.87E+00	3.00E+01	pCi/L
L67128-1	SOUTH HAVEN	02/01/16	03/01/16	ZR-95	< 8.66E+00	8.96E-02	5.24E+00	8.66E+00	3.00E+01	pCi/L
L67591-1	SOUTH HAVEN	03/01/16	03/31/16	ZR-95	< 3.74E+00	-1.17E+00	2.30E+00	3.74E+00	3.00E+01	pCi/L
L67935-1	SOUTH HAVEN	04/01/16	04/30/16	ZR-95	< 3.15E+00	1.70E-02	1.90E+00	3.15E+00	3.00E+01	pCi/L
L68365-1	SOUTH HAVEN	05/01/16	05/31/16	ZR-95	< 3.64E+00	1.41E-01	2.14E+00	3.64E+00	3.00E+01	pCi/L

L68716-1	SOUTH HAVEN	06/01/16	06/30/16	ZR-95	< 3.50E+00	8.41E-02	2.13E+00	3.50E+00	3.00E+01	pCi/L
L69303-1	SOUTH HAVEN	07/01/16	08/01/16	ZR-95	< 3.81E+00	-4.24E-02	2.33E+00	3.81E+00	3.00E+01	pCi/L
L69666-1	SOUTH HAVEN	08/01/16	09/01/16	ZR-95	< 2.72E+00	-1.16E-01	1.58E+00	2.72E+00	3.00E+01	pCi/L
L70218-1	SOUTH HAVEN	09/01/16	10/01/16	ZR-95	< 5.94E+00	-1.42E+00	3.61E+00	5.94E+00	3.00E+01	pCi/L
L70610-1	SOUTH HAVEN	10/01/16	10/31/16	ZR-95	< 4.73E+00	-1.49E+00	2.89E+00	4.73E+00	3.00E+01	pCi/L
L70871-1	SOUTH HAVEN	11/01/16	11/30/16	ZR-95	< 6.14E+00	-1.58E+00	3.85E+00	6.14E+00	3.00E+01	pCi/L
L71260-2	SOUTH HAVEN	12/01/16	01/01/17	ZR-95	< 6.36E+00	3.76E-02	3.80E+00	6.36E+00	3.00E+01	pCi/L

SOUTH SEDIMENT

SEDIMENT

LAB ID	STATION	COLLECT START	COLLECT STOP	NUCLIDE	REPORTABLE	ACTIVITY	ERROR	MDC	LLD	UNITS
L68211-1	SOUTH SEDIMENT	05/18/16		CS-134	< 1.69E+01	-1.22E+01	1.27E+01	1.69E+01	1.50E+02	pCi/kg Dry
L70453-1	SOUTH SEDIMENT	10/27/16		CS-134	< 2.54E+01	4.40E+00	1.72E+01	2.54E+01	1.50E+02	pCi/kg Dry
L68211-1	SOUTH SEDIMENT	05/18/16		CS-137	< 1.89E+01	3.33E+00	1.16E+01	1.89E+01	1.80E+02	pCi/kg Dry
L70453-1	SOUTH SEDIMENT	10/27/16		CS-137	< 3.16E+01	-3.35E+00	2.01E+01	3.16E+01	1.80E+02	pCi/kg Dry
L68211-1	SOUTH SEDIMENT	05/18/16		K-40	3.87E+03	3.87E+03	3.10E+02	1.42E+02		pCi/kg Dry
L70453-1	SOUTH SEDIMENT	10/27/16		K-40	4.63E+03	4.63E+03	7.12E+02	2.77E+02		pCi/kg Dry
L68211-1	SOUTH SEDIMENT	05/18/16		MN-54	< 1.95E+01	1.26E+01	1.12E+01	1.95E+01		pCi/kg Dry
L70453-1	SOUTH SEDIMENT	10/27/16		MN-54	< 2.83E+01	-5.86E+00	1.76E+01	2.83E+01		pCi/kg Dry
L68211-1	SOUTH SEDIMENT	05/18/16		NB-95	< 2.41E+01	1.89E+01	1.56E+01	2.41E+01		pCi/kg Dry
L70453-1	SOUTH SEDIMENT	10/27/16		NB-95	< 3.34E+01	4.47E+00	1.99E+01	3.34E+01		pCi/kg Dry
L68211-1	SOUTH SEDIMENT	05/18/16		RA-226	7.61E+02	7.61E+02	3.57E+02	3.80E+02		pCi/kg Dry
L68211-1	SOUTH SEDIMENT	05/18/16		TH-228	3.54E+02	3.54E+02	2.89E+01	3.04E+01		pCi/kg Dry
L70453-1	SOUTH SEDIMENT	10/27/16		TH-228	1.17E+02	1.17E+02	3.87E+01	4.70E+01		pCi/kg Dry
L68211-1	SOUTH SEDIMENT	05/18/16		TH-232	2.75E+02	2.75E+02	5.18E+01	1.06E+02		pCi/kg Dry
L70453-1	SOUTH SEDIMENT	10/27/16		TH-232	1.77E+02	1.77E+02	6.39E+01	1.02E+02		pCi/kg Dry
L68211-1	SOUTH SEDIMENT	05/18/16		ZN-65	< 3.76E+01	-3.40E+00	2.68E+01	3.76E+01		pCi/kg Dry
L70453-1	SOUTH SEDIMENT	10/27/16		ZN-65	< 7.44E+01	3.26E+01	4.43E+01	7.44E+01		pCi/kg Dry
L68211-1	SOUTH SEDIMENT	05/18/16		ZR-95	< 4.00E+01	1.01E+01	2.34E+01	4.00E+01		pCi/kg Dry
L70453-1	SOUTH SEDIMENT	10/27/16		ZR-95	< 4.67E+01	9.49E-01	2.90E+01	4.67E+01		pCi/kg Dry

ATTACHMENT E
Teledyne Brown Engineering Environmental Services
Summary of Annual 2016 Interlaboratory Comparison Program

5 Pages Follow

APPENDIX E

INTERLABORATORY COMPARISON PROGRAM

This section presents the results of the interlaboratory comparison program for the Teledyne Brown Engineering Environmental Services and Environmental Dosimetry Company.

Program Description – Teledyne Brown Engineering Environmental Services Comparison Programs

The Teledyne Brown Engineering Environmental Services participates in several interlaboratory comparison programs. These programs include sample media for which samples are routinely collected and for which comparison samples are commercially available. Participation in these interlaboratory comparison programs ensure that independent checks on the precision and accuracy of the measurement of radioactive material in the environmental samples are performed as part of the Quality Assurance Program for environmental monitoring. To fulfill the requirement for an Interlaboratory Comparison Program, Teledyne Brown Engineering Environmental Services has engaged the following programs:

- Eckert & Ziegler Analytics Environmental Radioactivity Cross Check Program
- Department of Energy (DOE) Mixed Analyte Performance Evaluation Program (MAPEP)
- Environmental Resource Associates (ERA) Cross Check Program

These programs supply sample media as blind samples (typically spikes), which contain certified levels of radioactivity unknown to the analysis laboratory. These samples are prepared and analyzed by the Teledyne Brown Engineering Environmental Services using standard laboratory procedures. Each program issues a statistical summary report of the results. Teledyne Brown Engineering Environmental Services uses predetermined acceptance criteria methodology for evaluating its laboratory performance.

Teledyne Brown Engineering Environmental Services also analyzes laboratory blanks. The analysis of laboratory blanks provides a means to detect and measure radioactive contamination of analytical samples. The analysis of analytical blanks also provides information on the adequacy of background subtraction. Laboratory blank results are analyzed using control charts.

Acceptance Criteria

Each sample result is evaluated to determine the accuracy and precision of the laboratory's analysis result. The sample evaluation method is discussed below.

Analytics Sample Results Evaluation

Samples provided by Analytics are evaluated using what is specified as the NRC method. This method is based on the calculation of the ratio of results reported by the participating laboratory (QC result) to the Vendor Laboratory Known value (reference result).

An Environmental Laboratory analytical result is evaluated using the following calculation:

The value for the error resolution is calculated.

$$\text{Error Resolution} = \frac{\text{Reference Result}}{\text{Reference Results Error (1 sigma)}}$$

Using the appropriate row under the Error Resolution column in Tables D-3.1, D-3.2, and D-3.3, a corresponding Ratio of Agreement interval is given.

The value for the ratio is then calculated.

$$\text{Ratio of agreement} = \frac{\text{QC Result}}{\text{Reference Result}}$$

If the value falls within the agreement interval, the result is acceptable.

TABLE D-2.1 Ratio of Agreement

ERROR RESOLUTION	RATIO OF AGREEMENT
< 4	No Comparison
4 to 7	0.5-2.0
8 to 15	0.6-1.66
16 to 50	0.75-1.33
51 to 200	0.8-1.25
>200	0.85-1.18

This acceptance test is generally referred to as the "NRC" method. The acceptance criteria are contained in Procedure EN-CY-102. The NRC method generally results in an acceptance range of approximately ± 25% of the Known value when applied to sample results from the Eckert & Ziegler Analytics Interlaboratory Comparison Program. This method is used as the procedurally required assessment method and requires the generation of a deviation from QA/QC program report when results are unacceptable.

ERA and MAPEP Sample Result Evaluation

Both these programs supply an acceptance range for evaluating the results.

Program Results Summary

The Interlaboratory Comparison Program numerical results are summarized in the following tables.

ANALYTICS ENVIRONMENTAL RADIOACTIVITY CROSS CHECK PROGRAM
TELEDYNE BROWN ENGINEERING ENVIRONMENTAL SERVICES

Month/Year	Identification Number	Matrix	Nuclide	Units	Reported Value (a)	Known Value (b)	Ratio (c) TBE/Analytics	Evaluation (d)
March 2016	E11476	Milk	Sr-89	pCi/L	97	86.7	1.12	A
			Sr-90	pCi/L	15	11.4	1.32	N(2)
	E11477	Milk	I-131	pCi/L	85.9	82.2	1.05	A
			Ce-141	pCi/L	106	98.4	1.08	A
			Cr-51	pCi/L	255	243	1.05	A
			Cs-134	pCi/L	134	130	1.03	A
			Cs-137	pCi/L	174	161	1.08	A
			Co-58	pCi/L	123	117	1.05	A
			Mn-54	pCi/L	141	117	1.21	W
			Fe-59	pCi/L	152	131	1.16	A
			Zn-65	pCi/L	193	179	1.08	A
			Co-60	pCi/L	259	244	1.06	A
	E11479	AP	Ce-141	pCi	69	81.1	0.85	A
			Cr-51	pCi	242	201	1.20	W
			Cs-134	pCi	98.1	107.0	0.92	A
			Cs-137	pCi	136	133	1.02	A
			Co-58	pCi	91.9	97	0.95	A
			Mn-54	pCi	98.6	96.2	1.02	A
			Fe-59	pCi	98.8	108	0.91	A
			Zn-65	pCi	131	147	0.89	A
			Co-60	pCi	209	201	1.04	A
	E11478	Charcoal	I-131	pCi	85.3	88.3	0.97	A
	E11480	Water	Fe-55	pCi/L	1800	1666	1.08	A
June 2016	E11537	Milk	Sr-89	pCi/L	94.4	94.4	1.00	A
			Sr-90	pCi/L	13.4	15.4	0.87	A
	E11538	Milk	I-131	pCi/L	96.8	94.5	1.02	A
			Ce-141	pCi/L	129	139	0.93	A
			Cr-51	pCi/L	240	276	0.87	A
			Cs-134	pCi/L	157	174	0.90	A
			Cs-137	pCi/L	117	120	0.98	A
			Co-58	pCi/L	131	142	0.92	A
			Mn-54	pCi/L	128	125	1.02	A
			Fe-59	pCi/L	132	122	1.08	A
			Zn-65	pCi/L	235	235	1.00	A
			Co-60	pCi/L	169	173	0.98	A

(a) Teledyne Brown Engineering reported result.

(b) The Analytics known value is equal to 100% of the parameter present in the standard as determined by gravimetric and/or volumetric measurements made during standard preparation.

(c) Ratio of Teledyne Brown Engineering to Analytics results.

(d) Analytics evaluation based on TBE internal QC limits: A= Acceptable, reported result falls within ratio limits of 0.80-1.20. W-Acceptable with warning, reported result falls within 0.70-0.80 or 1.20-1.30. N = Not Acceptable, reported result falls outside the ratio limits of < 0.70 and > 1.30.

(2) NCR 16-26 was initiated

ANALYTICS ENVIRONMENTAL RADIOACTIVITY CROSS CHECK PROGRAM
TELEDYNE BROWN ENGINEERING ENVIRONMENTAL SERVICES

Month/Year	Identification Number	Matrix	Nuclide	Units	Reported Value (a)	Known Value (b)	Ratio (c) TBE/Analytics	Evaluation (d)
June 2016	E11539	Charcoal	I-131	pCi	86.1	89.4	0.96	A
	E11540	AP	Ce-141	pCi	105	99.8	1.05	A
			Cr-51	pCi	216	198.0	1.09	A
			Cs-134	pCi	113	125	0.90	A
			Cs-137	pCi	94.5	86.6	1.09	A
			Co-58	pCi	101	102	0.99	A
			Mn-54	pCi	88.8	90.2	0.98	A
			Fe-59	pCi	82	87.5	0.94	A
			Zn-65	pCi	174	169	1.03	A
			Co-60	pCi	143	124	1.15	A
	E11541	Water	Fe-55	pCi/L	164	186	0.88	A
September 2016	E11609	Milk	Sr-89	pCi/L	90	90.9	0.99	A
			Sr-90	pCi/L	13.3	13.7	0.97	A
	E11610	Milk	I-131	pCi/L	80.4	71.9	1.12	A
			Ce-141	pCi/L	81.3	93	0.87	A
			Cr-51	pCi/L	198	236	0.84	A
			Cs-134	pCi/L	122	136	0.90	A
			Cs-137	pCi/L	119	119	1.00	A
			Co-58	pCi/L	92.2	97.4	0.95	A
			Mn-54	pCi/L	156	152	1.03	A
			Fe-59	pCi/L	97.5	90.6	1.08	A
			Zn-65	pCi/L	189	179	1.06	A
			Co-60	pCi/L	131	135	0.97	A
	E11611	Charcoal	I-131	pCi	52.4	59.9	0.87	A
	E11612	AP	Ce-141	pCi	67.5	63.6	1.06	A
			Cr-51	pCi	192	161.0	1.19	A
			Cs-134	pCi	91.4	92.6	0.99	A
			Cs-137	pCi	93.9	80.8	1.16	A
			Co-58	pCi	66	66.4	0.99	A
			Mn-54	pCi	104	104	1.00	A
			Fe-59	pCi	60.5	61.8	0.98	A
			Zn-65	pCi	140	122	1.15	A
			Co-60	pCi	119	91.9	1.29	W

(a) Teledyne Brown Engineering reported result.

(b) The Analytics known value is equal to 100% of the parameter present in the standard as determined by gravimetric and/or volumetric measurements made during standard preparation.

(c) Ratio of Teledyne Brown Engineering to Analytics results.

(d) Analytics evaluation based on TBE internal QC limits: A= Acceptable, reported result falls within ratio limits of 0.80-1.20. W-Acceptable with warning, reported result falls within 0.70-0.80 or 1.20-1.30. N = Not Acceptable, reported result falls outside the ratio limits of < 0.70 and > 1.30.

ANALYTICS ENVIRONMENTAL RADIOACTIVITY CROSS CHECK PROGRAM
TELEDYNE BROWN ENGINEERING ENVIRONMENTAL SERVICES

Month/Year	Identification Number	Matrix	Nuclide	Units	Reported Value (a)	Known Value (b)	Ratio (c) TBE/Analytics	Evaluation (d)
September 2016	E11613	Water	Fe-55	pCi/L	1990	1670	1.19	A
	E11614	Soil	Ce-141	pCi/g	0.153	0.175	0.87	A
			Cr-51	pCi/g	0.482	0.441	1.09	A
			Cs-134	pCi/g	0.270	0.254	1.06	A
			Cs-137	pCi/g	0.313	0.299	1.05	A
			Co-58	pCi/g	0.177	0.182	0.97	A
			Mn-54	pCi/g	0.340	0.285	1.19	A
			Fe-59	pCi/g	0.206	0.17	1.21	W
			Zn-65	pCi/g	0.388	0.335	1.16	A
			Co-60	pCi/g	0.284	0.252	1.13	A
December 2016	E11699	Milk	Sr-89	pCi/L	95	74.2	1.28	W
			Sr-90	pCi/L	14.7	10	1.47	N(3)
	E11700	Milk	I-131	pCi/L	97.5	97.4	1.00	A
			Ce-141	pCi/L	136	143	0.95	A
			Cr-51	pCi/L	247	280	0.88	A
			Cs-134	pCi/L	164	178	0.92	A
			Cs-137	pCi/L	120	126	0.95	A
			Co-58	pCi/L	139	146	0.95	A
			Mn-54	pCi/L	126	129	0.98	A
			Fe-59	pCi/L	114	125	0.91	A
			Zn-65	pCi/L	237	244	0.97	A
			Co-60	pCi/L	168	178	0.94	A
	E11701	Charcoal	I-131	pCi	95.6	98	0.98	A
	E11702	AP	Ce-141	pCi	91.7	97.7	0.94	A
			Cr-51	pCi	210	192.0	1.09	A
			Cs-134	pCi	122	122	1.00	A
			Cs-137	pCi	93.9	86.4	1.09	A
			Co-58	pCi	92	100	0.92	A
			Mn-54	pCi	93.7	88.5	1.06	A
			Fe-59	pCi	84.9	85.4	0.99	A
			Zn-65	pCi	176	167	1.05	A
			Co-60	pCi	151	122	1.24	W
	E11730	AP	Sr-89	pCi	79.7	92	0.87	A
			Sr-90	pCi	10	12.5	0.80	A
	E11703	Water	Fe-55	pCi/L	2180	1800	1.21	W

(a) Teledyne Brown Engineering reported result.

(b) The Analytics known value is equal to 100% of the parameter present in the standard as determined by gravimetric and/or volumetric measurements made during standard preparation.

(c) Ratio of Teledyne Brown Engineering to Analytics results.

(d) Analytics evaluation based on TBE internal QC limits: A= Acceptable, reported result falls within ratio limits of 0.80-1.20. W-Acceptable with warning, reported result falls within 0.70-0.80 or 1.20-1.30. N = Not Acceptable, reported result falls outside the ratio limits of < 0.70 and > 1.30.

(3) NCR 16-35 was initiated

DOE's MIXED ANALYTE PERFORMANCE EVALUATION PROGRAM (MAPEP)
TELEDYNE BROWN ENGINEERING ENVIRONMENTAL SERVICES

Month/Year	Identification Number	Media	Nuclide	Units	Reported Value (a)	Known Value (b)	Acceptance Range	Evaluation (c)
March 2016	16-MaW34	Water	Am-241	Bq/L	0.008		(1)	A
			Ni-63	Bq/L	12.4	12.3	8.6-16.0	A
			Pu-238	Bq/L	1.4900	1.2440	0.871-1.617	A
			Pu-239/240	Bq/L	0.729	0.641	0.449-0.833	A
	16-MaS34	Soil	Ni-63	Bq/kg	1140	1250.0	875-1625	A
			Sr-90	Bq/kg	8.15		(1)	A
	16-RdF34	AP	U-234/233	Bq/sample	0.1620	0.1650	0.116-0.215	A
			U-238	Bq/sample	0.163	0.172	0.120-0.224	A
	16-GrF34	AP	Gr-A	Bq/sample	0.608	1.20	0.36-2.04	A
			Gr-B	Bq/sample	0.8060	0.79	0.40-1.19	A
	16-RdV34	Vegetation	Cs-134	Bq/sample	10.10	10.62	7.43-13.81	A
			Cs-137	Bq/sample	6.0	5.62	3.93-7.31	A
			Co-57	Bq/sample	13.3000	11.8	8.3-15.3	A
			Co-60	Bq/sample	0.013		(1)	A
			Mn-54	Bq/sample	0.0150		(1)	A
			Sr-90	Bq/sample	0.301		(1)	N(4)
			Zn-65	Bq/sample	10.500	9.6	6.7-12.5	A
September 2016	16-MaW35	Water	Am-241	Bq/L	0.626	0.814	.570-1058	W
			Ni-63	Bq/L	12.4	17.2	12.0-22.4	A
			Pu-238	Bq/L	1.23	1.13	0.79-1.47	W
			Pu-239/240	Bq/L	0.0318	0.013	(1)	A
	16-MaS35	Soil	Ni-63	Bq/kg	724	990	693-1287	A
			Sr-90	Bq/kg	747	894	626-1162	A
	16-RdF35	AP	U-234/233	Bq/sample	0.160	0.15	0.105-0.195	A
			U-238	Bq/sample	0.157	0.156	0.109-0.203	A
	16-RdV35	Vegetation	Cs-134	Bq/sample	-0.103		(1)	A
			Cs-137	Bq/sample	5.64	5.54	3.88-7.20	A
			Co-57	Bq/sample	7.38	6.81	4.77-8.85	A
			Co-60	Bq/sample	4.81	4.86	3.40-6.32	A
			Mn-54	Bq/sample	7.4	7.27	5.09-9.45	A
			Sr-90	Bq/sample	0.774	0.80	0.56-1.04	A
			Zn-65	Bq/sample	5.46	5.4	3.78-7.02	A

(1) False positive test.

(a) Teledyne Brown Engineering reported result.

(b) The MAPEP known value is equal to 100% of the parameter present in the standard as determined by gravimetric and/or volumetric measurements made during standard preparation.

(c) DOE/MAPEP evaluation: A=acceptable, W=acceptable with warning, N=not acceptable.

(4)NCR 16-14 was initiated

ERA ENVIRONMENTAL RADIOACTIVITY CROSS CHECK PROGRAM
TELEDYNE BROWN ENGINEERING ENVIRONMENTAL SERVICES

Month/Year	Identification Number	Media	Nuclide	Units	Reported Value (a)	Known Value (b)	Acceptance Limits	Evaluation (c)
May 2016	RAD-105	Water	Sr-89	pCi/L	48.9	48.2	37.8 - 55.6	A
			Sr-90	pCi/L	25.0	28.5	20.7 - 33.1	A
			Ba-133	pCi/L	53.1	58.8	48.7 - 64.9	A
			Cs-134	pCi/L	40.9	43.3	34.6 - 47.6	A
			Cs-137	pCi/L	84.8	78.4	70.6 - 88.9	A
			Co-60	pCi/L	108	102	91.8 - 114	A
			Zn-65	pCi/L	226	214	193 - 251	A
			Gr-A	pCi/L	38.9	62.7	32.9 - 77.8	A
			Gr-B	pCi/L	41.9	39.2	26.0 - 46.7	A
			I-131	pCi/L	24.1	26.6	22.1 - 31.3	A
			U-Nat	pCi/L	4.68	4.64	3.39 - 5.68	A
			H-3	pCi/L	7720	7840	6790 - 8620	A
November 2016	RAD-107	Water	Sr-89	pCi/L	43.0	43.3	33.4-50.5	A
			Sr-90	pCi/L	30.0	33.6	24.6-38.8	A
			Ba-133	pCi/L	47.8	54.9	45.4-60.7	A
			Cs-134	pCi/L	72.9	81.8	67.0-90.0	A
			Cs-137	pCi/L	189	210	189-233	A
			Co-60	pCi/L	58.4	64.5	58.0-73.4	A
			Zn-65	pCi/L	243	245	220-287	A
			Gr-A	pCi/L	37.2	68.4	35.9-84.5	A
			Gr-B	pCi/L	35.1	33.9	22.1-41.6	A
			I-131	pCi/L	23.5	26.3	21.9-31.0	A
			U-Nat	pCi/L	49.2	51.2	41.6-56.9	A
			H-3	pCi/L	918	9820	8540-10800	N(5)
	MRAD-25	AP	Gr-A	pCi/Filter	56.8	71.2	23.9-111	A

(a) Teledyne Brown Engineering reported result.

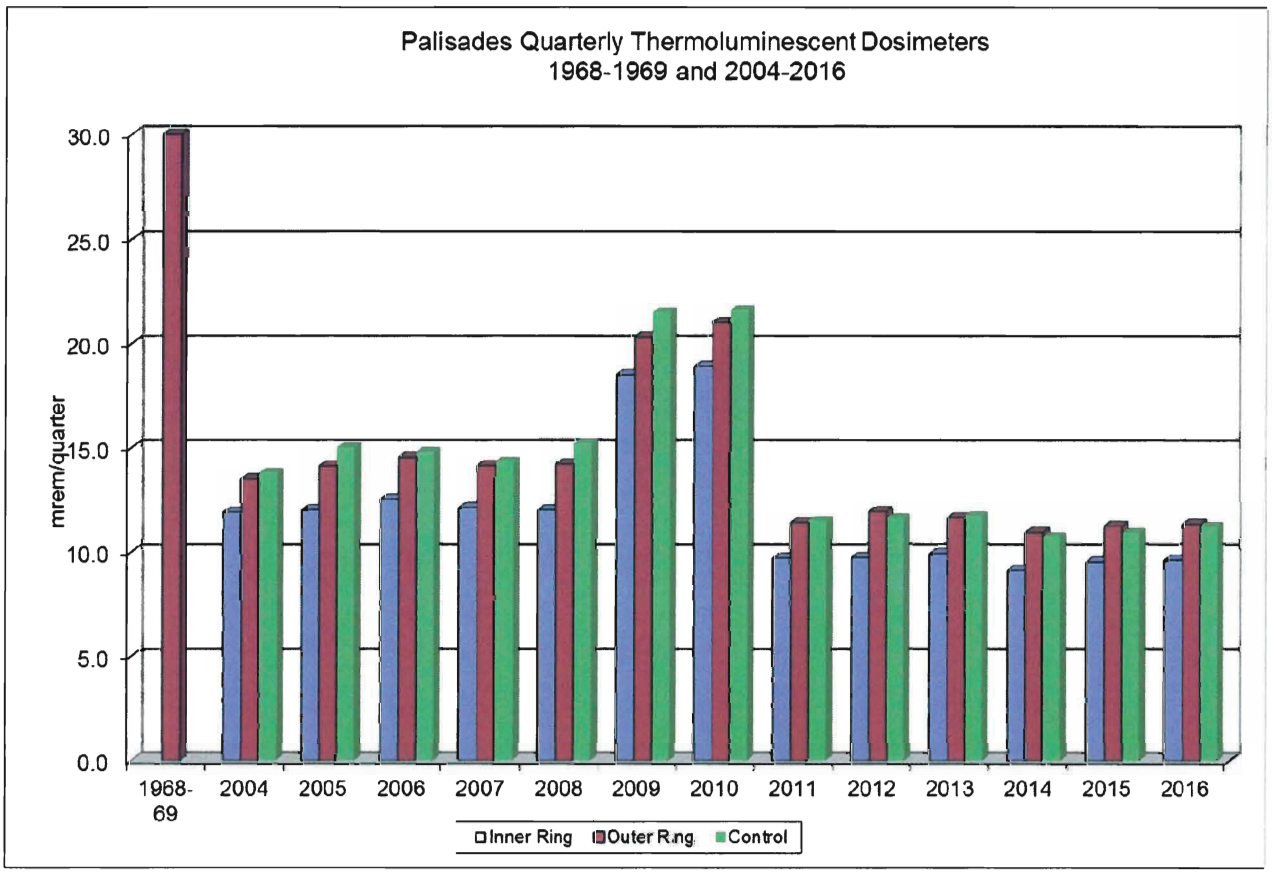
(b) The ERA known value is equal to 100% of the parameter present in the standard as determined by gravimetric and/or volumetric measurements made during standard preparation.

(c) ERA evaluation: A=acceptable. Reported result falls within the Warning Limits. N=not acceptable. Reported result falls outside of the Control Limits. CE=check for Error. Reported result falls within the Control Limits and outside of the Warning Limit.

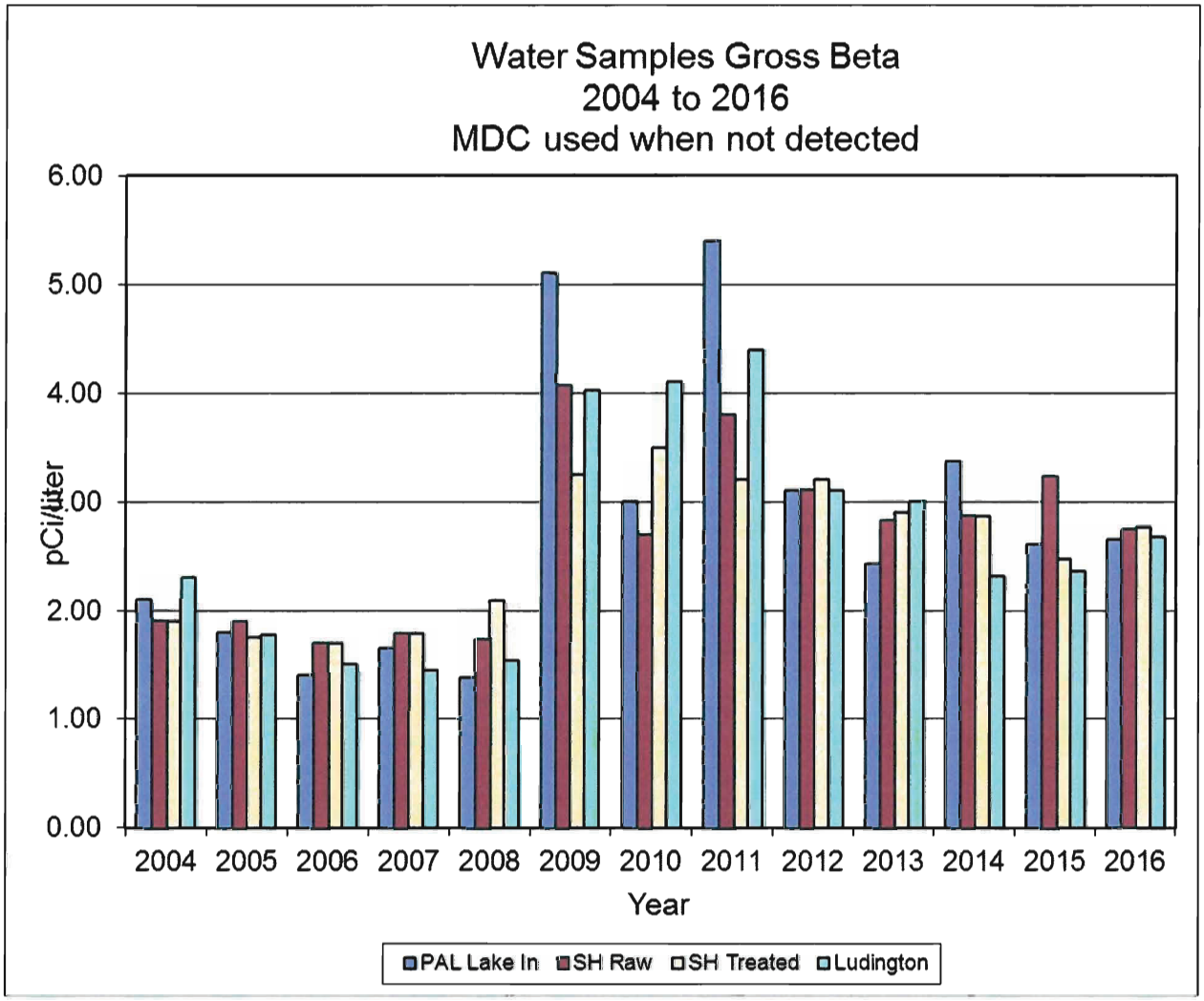
(5) *NCR 16-34 was initiated*

ATTACHMENT F
DATA GRAPHS

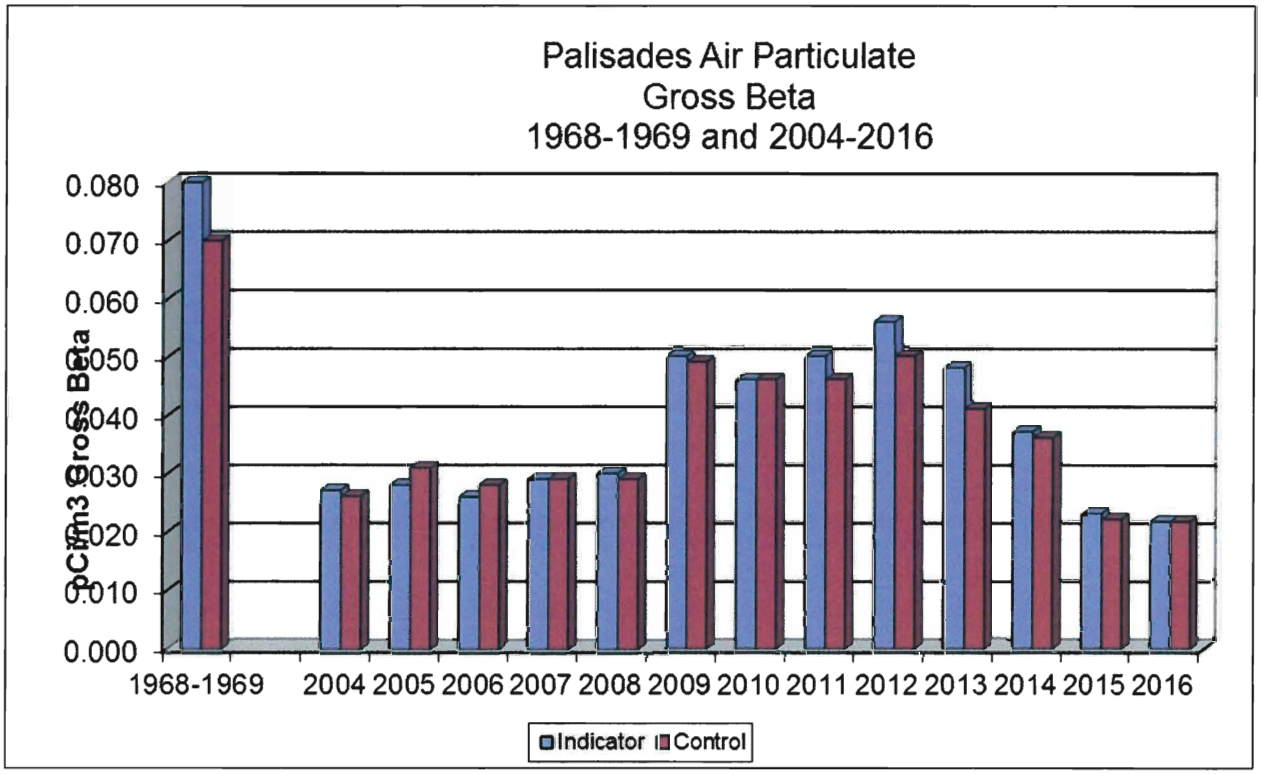
1. Palisades TLD Quarterly Palisades Operational Comparison Graph, 1968-1969 and 2004-2016.



2. Palisades Lake Water (Ludington Control vs. Intake, South Haven Treated and Raw), 2004-2016 in gross beta trending.



3. Palisades Air Particulate (gross beta), Operational Comparison Graphs, 1968-1969 (pre-op) and 2004-2016.



ATTACHMENT G

Environmental Dosimetry Company Annual Quality Assurance Status Report
January – December 2016

14 Pages Follow

ENVIRONMENTAL DOSIMETRY COMPANY

ANNUAL QUALITY ASSURANCE STATUS REPORT

January - December 2016

Prepared By: _____ Date: 3/8/17

Approved By: _____ Date: 3/8/17

Environmental Dosimetry Company
10 Ashton Lane
Sterling, MA 01564

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EXECUTIVE SUMMARY

Routine quality control (QC) testing was performed for dosimeters issued by the Environmental Dosimetry Company (EDC) .

During this annual period, 100% (72/72) of the individual dosimeters, evaluated against the EDC internal performance acceptance criteria (high-energy photons only), met the criterion for accuracy and 100% (72/72) met the criterion for precision (Table 1). In addition, 100% (12/12) of the dosimeter sets evaluated against the internal tolerance limits met EDC acceptance criteria (Table 2) and 100% (6/6) of independent testing passed the performance criteria (Table 3). Trending graphs, which evaluate performance statistic for high-energy photon irradiations and co-located stations are given in Appendix A.

One internal assessment was performed in 2016. There were no findings.

I. INTRODUCTION

The TLD systems at the Environmental Dosimetry Company (EDC) are calibrated and operated to ensure consistent and accurate evaluation of TLDs. The quality of the dosimetric results reported to EDC clients is ensured by in-house performance testing and independent performance testing by EDC clients, and both internal and client directed program assessments.

The purpose of the dosimetry quality assurance program is to provide performance documentation of the routine processing of EDC dosimeters. Performance testing provides a statistical measure of the bias and precision of dosimetry processing against a reliable standard, which in turn points out any trends or performance changes. Two programs are used:

A. QC Program

Dosimetry quality control tests are performed on EDC Panasonic 814 Environmental dosimeters. These tests include: (1) the in-house testing program coordinated by the EDC QA Officer and (2) independent test perform by EDC clients. In-house test are performed using six pairs of 814 dosimeters, a pair is reported as an individual result and six pairs are reported as the mean result. Results of these tests are described in this report.

Excluded from this report are instrumentation checks. Although instrumentation checks represent an important aspect of the quality assurance program, they are not included as process checks in this report. Instrumentation checks represent between 5-10% of the TLDs processed.

B. QA Program

An internal assessment of dosimetry activities is conducted annually by the Quality Assurance Officer (Reference 1). The purpose of the assessment is to review procedures, results, materials or components to identify opportunities to improve or enhance processes and/or services.

II. PERFORMANCE EVALUATION CRITERIA

A. Acceptance Criteria for Internal Evaluations

1. Bias

For each dosimeter tested, the measure of bias is the percent deviation of the reported result relative to the delivered exposure. The percent deviation relative to the delivered exposure is calculated as follows:

$$\frac{(H_i' - H_i)}{H_i} 100$$

where:

H_i' = the corresponding reported exposure for the i^{th} dosimeter (i.e., the reported exposure)

H_i = the exposure delivered to the i^{th} irradiated dosimeter (i.e., the delivered exposure)

2. Mean Bias

For each group of test dosimeters, the mean bias is the average percent deviation of the reported result relative to the delivered exposure. The mean percent deviation relative to the delivered exposure is calculated as follows:

$$\sum\left(\frac{(H_i' - H_i)}{H_i}\right)100\left(\frac{1}{n}\right)$$

where:

H_i' = the corresponding reported exposure for the i^{th} dosimeter (i.e., the reported exposure)

H_i = the exposure delivered to the i^{th} irradiated test dosimeter (i.e., the delivered exposure)

n = the number of dosimeters in the test group

3. Precision

For a group of test dosimeters irradiated to a given exposure, the measure of precision is the percent deviation of individual results relative to the mean reported exposure. At least two values are required for the determination of precision. The measure of precision for the i^{th} dosimeter is:

$$\left(\frac{(H_i' - \bar{H})}{\bar{H}}\right)100$$

where:

H_i' = the reported exposure for the i^{th} dosimeter (i.e., the reported exposure)

$\bar{H}$ = the mean reported exposure; i.e., $\bar{H} = \sum H_i'\left(\frac{1}{n}\right)$

n = the number of dosimeters in the test group

4. EDC Internal Tolerance Limits

All evaluation criteria are taken from the "EDC Quality System Manual," (Reference 2). These criteria are only applied to individual test dosimeters irradiated with high-energy photons (Cs-137) and are as follows for Panasonic Environmental dosimeters: ± 15% for bias and ± 12.8% for precision.

B. QC Investigation Criteria and Result Reporting

EDC Quality System Manual (Reference 2) specifies when an investigation is required due to a QC analysis that has failed the EDC bias criteria. The criteria are as follows:

1. No investigation is necessary when an individual QC result falls outside the QC performance criteria for accuracy.

2. Investigations are initiated when the mean of a QC processing batch is outside the performance criterion for bias.

C. Reporting of Environmental Dosimetry Results to EDC Customers

1. All results are to be reported in a timely fashion.

2. If the QA Officer determines that an investigation is required for a process, the results shall be issued as normal. If the QC results, prompting the investigation, have a mean bias from the known of greater than ±20%, the results shall be issued with a note indicating that they may be updated in the future, pending resolution of a QA issue.

3. Environmental dosimetry results do not require updating if the investigation has shown that the mean bias between the original results and the corrected results, based on applicable correction factors from the investigation, does not exceed ±20%.

III. DATA SUMMARY FOR ISSUANCE PERIOD JANUARY-DECEMBER 2016

A. General Discussion

Results of performance tests conducted are summarized and discussed in the following sections. Summaries of the performance tests for the reporting period are given in Tables 1 through 3 and Figures 1 through 4.

Table 1 provides a summary of individual dosimeter results evaluated against the EDC internal acceptance criteria for high-energy photons only. During this period, 100% (72/72) of the individual dosimeters, evaluated against these criteria met the tolerance limits for accuracy and 100% (72/72) met the criterion for precision. A graphical interpretation is provided in Figures 1 and 2.

Table 2 provides the Bias + Standard deviation results for each group (N=6) of dosimeters evaluated against the internal tolerance criteria. Overall,100% (12/12) of the dosimeter sets evaluated against the internal tolerance performance criteria met these criteria. A graphical interpretation is provided in Figure 3.

Table 3 presents the independent blind spike results for dosimeters processed during this annual period. All results passed the performance acceptance criterion. Figure 4 is a graphical interpretation of Seabrook Station blind co-located station results.

B. Result Trending

One of the main benefits of performing quality control tests on a routine basis is to identify trends or performance changes. The results of the Panasonic environmental dosimeter performance tests are presented in Appendix A. The results are evaluated against each of the performance criteria listed in Section II, namely: individual dosimeter accuracy, individual dosimeter precision, and mean bias.

All of the results presented in Appendix A are plotted sequentially by processing date.

IV. STATUS OF EDC CONDITION REPORTS (CR)

No condition reports were issued during this annual period.

V. STATUS OF AUDITS/ASSESSMENTS

A. Internal

EDC Internal Quality Assurance Assessment was conducted during the fourth quarter 2016. There were no findings identified.

B. External

None.

VI. PROCEDURES AND MANUALS REVISED DURING JANUARY - DECEMBER 2016

Several procedures were reissued with no changes as part of the 5 year review cycle.

VII. CONCLUSION AND RECOMMENDATIONS

The quality control evaluations continue to indicate the dosimetry processing programs at the EDC satisfy the criteria specified in the Quality System Manual. The EDC demonstrated the ability to meet all applicable acceptance criteria.

VIII. REFERENCES

1. EDC Quality Control and Audit Assessment Schedule, 2016.

2. EDC Manual 1, Quality System Manual, Rev. 3, August 1, 2012.

TABLE 1

PERCENTAGE OF INDIVIDUAL DOSIMETERS THAT PASSED EDC INTERNAL CRITERIA JANUARY – DECEMBER 2016[1], [2]

Dosimeter Type	Number Tested	% Passed Bias Criteria	% Passed Precision Criteria
Panasonic Environmental	72	100	100

[1]This table summarizes results of tests conducted by EDC.
[2]Environmental dosimeter results are free in air.

TABLE 2

MEAN DOSIMETER ANALYSES (N=6) JANUARY – DECEMBER 2016[1], [2]

Process Date	Exposure Level	Mean Bias %	Standard Deviation %	Tolerance Limit +/- 15%
4/22/2016	40	3.5	0.7	Pass
4/29/2016	80	1.8	0.7	Pass
5/10/2016	70	1.8	1.8	Pass
7/25/2016	33	2.4	1.5	Pass
8/2/2016	56	2.4	1.6	Pass
8/2/2016	123	0.7	1.4	Pass
10/25/2016	28	2.9	1.0	Pass
10/29/2016	93	3.2	1.8	Pass
11/6/2016	61	0.0	1.6	Pass
1/30/2017	39	1.4	2.5	Pass
1/31/2017	76	2.2	1.3	Pass
1/31/2017	101	-1.7	1.5	Pass

[1]This table summarizes results of tests conducted by EDC for TLDs issued in 2016.
[2]Environmental dosimeter results are free in air.

TABLE 3
SUMMARY OF INDEPENDENT DOSIMETER TESTING JANUARY – DECEMBER 2016[1], [2]

Issuance Period	Client	Mean Bias %	Standard Deviation %	Pass / Fail
1st Qtr. 2016	Millstone	-0.2	1.0	Pass
2nd Qtr.2016	Millstone	-3.4	3.0	Pass
2nd Qtr.2016	Seabrook	1.8	0.8	Pass
3rd Qtr. 2016	Millstone	3.0	2.4	Pass
4th Qtr.2016	Millstone	.0.9	3.9	Pass
4th Qtr.2016	Seabrook	-0.2	0.7	Pass

[1]Performance criteria are +/- 30%.
[2]Blind spike irradiations using Cs-137

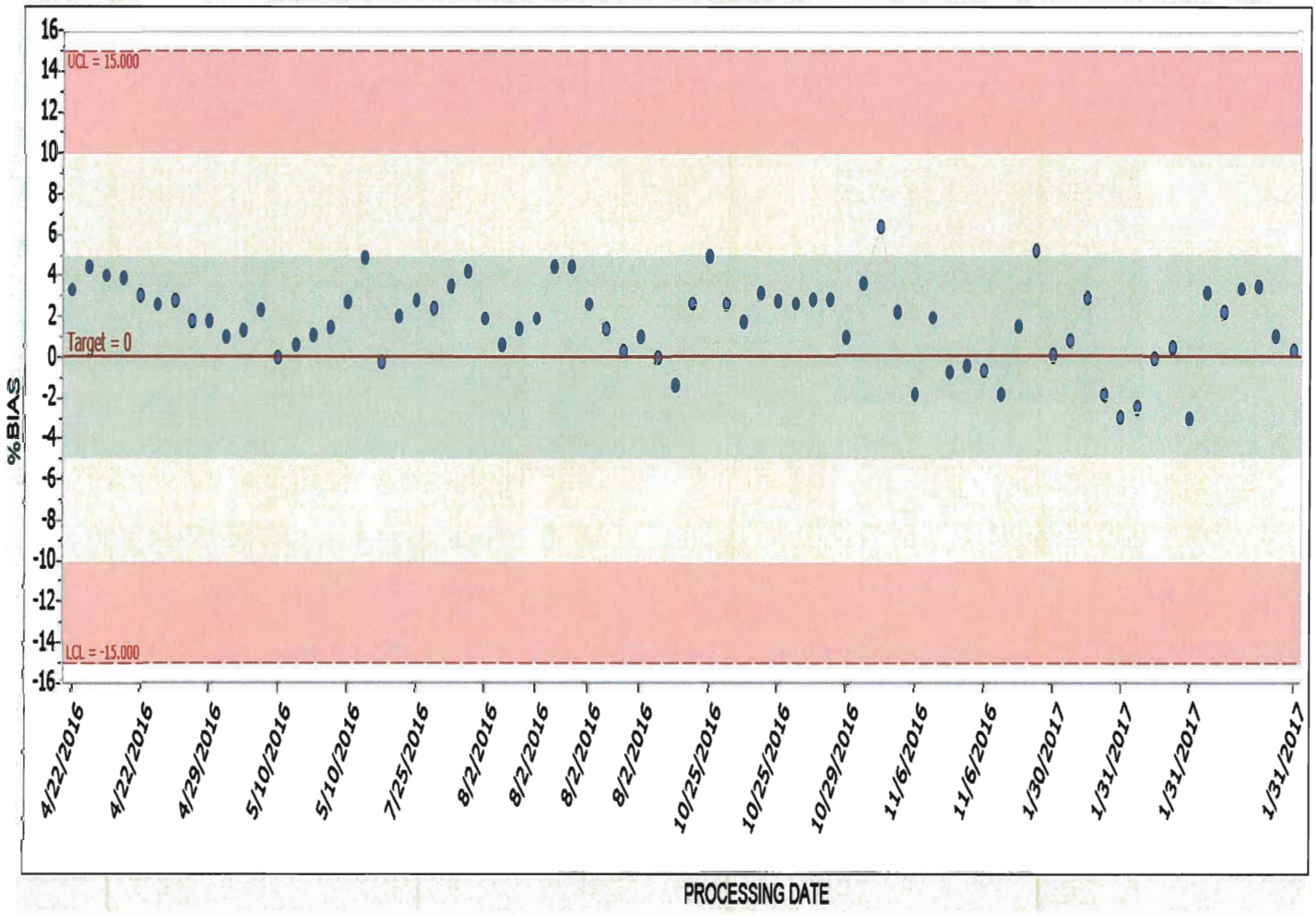
APPENDIX A

DOSIMETRY QUALITY CONTROL TRENDING GRAPHS

ISSUE PERIOD JANAURY - DECEMBER 2016

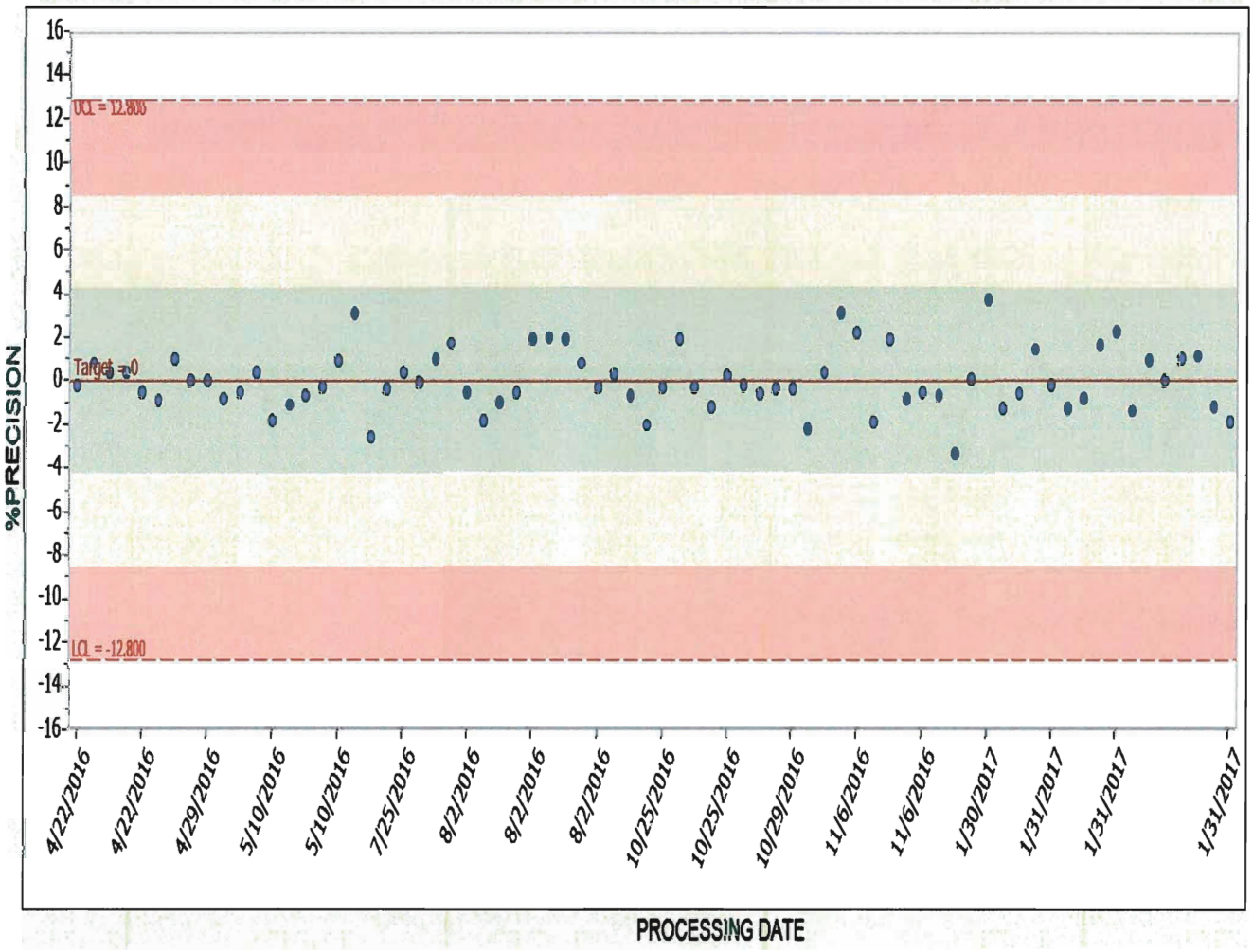
INDIVIDUAL ACCURACY ENVIRONMENTAL

FIGURE 1

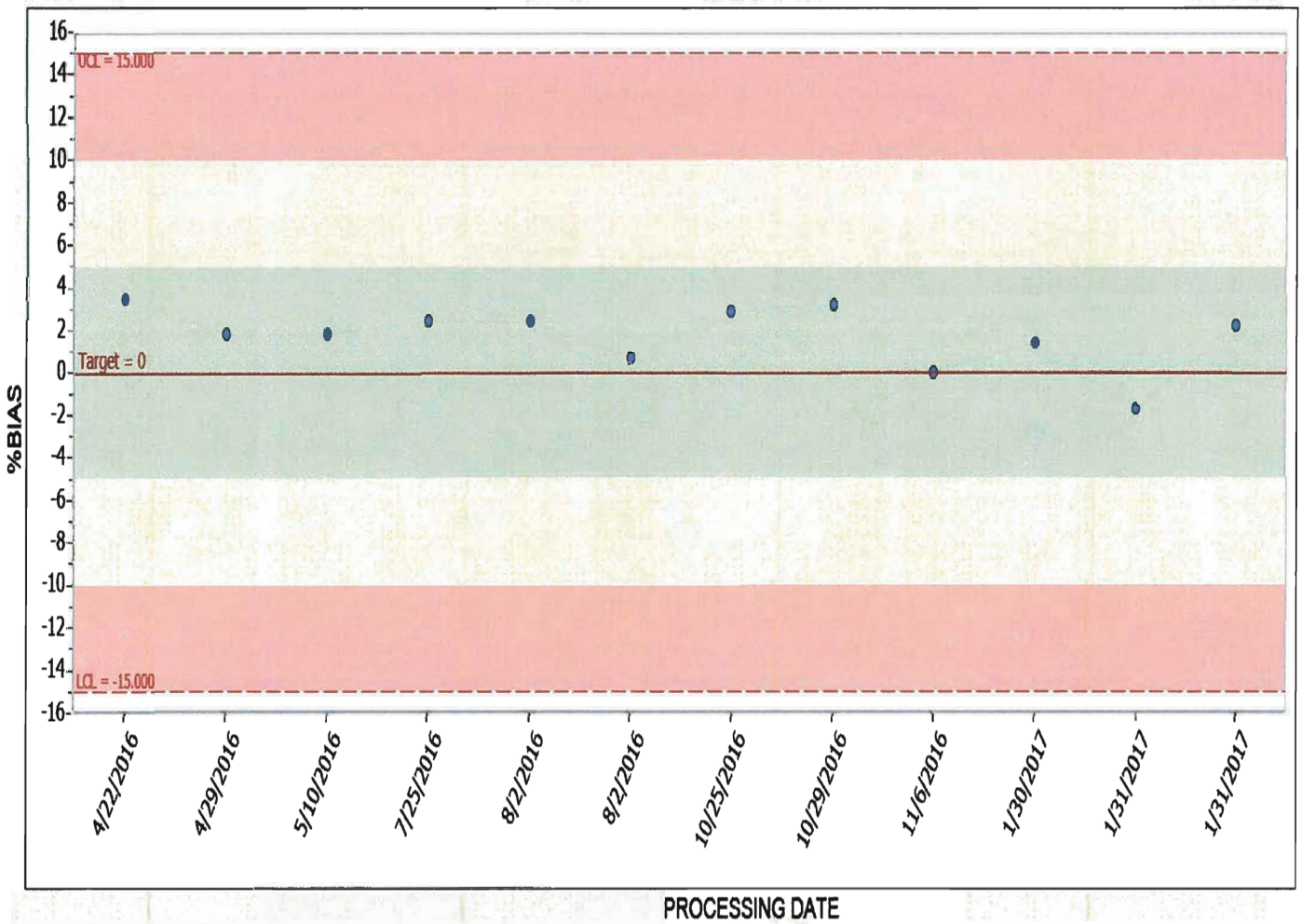


INDIVIDUAL PRECISION ENVIRONMENTAL

FIGURE 2



MEAN ACCURACY ENVIRONMENTAL
FIGURE 3



SEABROOK CO-LOCATE ACCURACY
FIGURE 4