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Licensing Manager

PNP 2013-043

May 6, 2013

10 CFR 50, Appendix I
Technical Specification 5.6.2

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

Subject: 2012 Radiological Environmental Operating Report

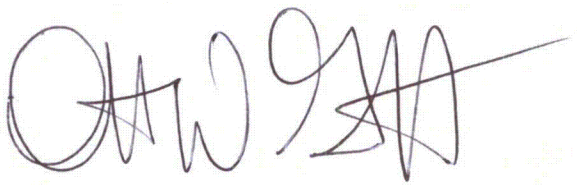
Palisades Nuclear Plant
Docket 50-255
License No. DPR-20

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 10 CFR 50, Appendix I, Sections IV.B.2, IV.B.3, IV.C, and Technical Specification 5.6.2. The period covered by the enclosed report is January 1, 2012, through December 31, 2012.

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

Sincerely,



OWG/bed

Enclosure 1: Annual Radiological Environmental Operating Report January 1, 2012, Through December 31, 2012

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

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ENCLOSURE 1

ANNUAL RADIOLOGICAL ENVIRONMENTAL OPERATING REPORT
JANUARY 1, 2012 THROUGH DECEMBER 31, 2012

TABLE OF CONTENTS

ENCLOSURE

RADIOLOGICAL ENVIRONMENTAL OPERATING REPORT
JANUARY 1, 2012, THROUGH DECEMBER 31, 2012

TABLE OF CONTENTS (CONTINUED)

ENCLOSURE

RADIOLOGICAL ENVIRONMENTAL OPERATING REPORT JANUARY 1, 2012, THROUGH DECEMBER 31, 2012

I. INTRODUCTION

The Radiological Environmental Operating Report provides a summary and data interpretation of the Palisades Nuclear Plant (PNP) Radiological Environmental Monitoring Program as conducted during the 2012 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 260 air samples collected and analyzed for gross beta and I-131. Air iodine/particulate samples are collected weekly from five 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 GEL Laboratories for analysis.

Analysis of the airborne particulate sample data, between the four near-site indicator locations and the control location, demonstrated no statistical difference. The average concentration of gross beta for both indicator and control locations were 0.056 pCi/m^3 and 0.050 pCi/m^3, respectively. The indicator location 5PR had the highest average concentration of 0.079 pCi/m^3.

All I-131 activity results were below the Minimum Detectable Concentration (MDC) levels.

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 each of Palisades Lake-In and Ludington Lake-in composites were sent to GEL Laboratories for monthly analysis for gross beta and tritium. No treatment of the water samples with preservative is required.

No statistical difference was found between the indicator and control location samples and no PNP Offsite Dose Calculation Manual (ODCM) Appendix A, reporting limits were exceeded. Gross beta and tritium were not detected in any Indicator or Control samples. Sample results remain slightly higher since 2008 due to a change in vendor performing analyses and how positive results are determined when each activity is compared to its listed minimum detectable concentration.

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 each of these composites were sent to GEL Laboratories for analysis and analyzed for gross beta and tritium. No treatment of the water samples with preservative is required.

Gross beta and tritium were not detected in any Indicator or Control sample. Sample results remain slightly higher since 2008 due to a change in vendor performing analyses and how positive results are determined when each activity is compared to its listed minimum detectable concentration.

D. Milk

There are no dairy farms meeting the sampling criteria of being within 8 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 (TLD) - Gamma Dose

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

Ninety-two TLDs were collected and analyzed during 2012. The on-site TLD is included with the inner ring (site boundary) TLDs for evaluating any dose effect that could be attributed to PNP's 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	9.7
Outer Ring	11.9
Control	11.6

The highest average reading was observed at outer ring location number 2 with a value of 15.3 mrem and a maximum reading of 16.20 mrem.

The average control dose, 11.6 mrem, plus 2 standard deviations, was 13.6 mrem. No Inner Ring reading exceeded this amount. 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.

F. Crops

Two principal area crops, apples and blueberries, are normally collected. 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.

Due to unusual meteorological conditions in the spring of 2012, the apple crop was severely reduced and pears became a principal crop for the year. CR-PLP-2012-6682 was written to document the lack of apples and the use of pears to ensure sufficient sample size.

Blueberries were collected in the vicinity of indicator station 4-JS (3.5 miles SE). Pears and apples were obtained in the vicinity of indicator station 5-PR (3.5 miles ESE). There was no activity detected in the blueberry, pear, or apple samples, except for naturally occurring K-40 and Be-7.

G. Sediment

Sediment samples are collected semi-annually from a location ½ mile north of the plant along the waterline. No treatment of the samples with a preservative is necessary prior to shipment to the vendor for analysis.

There was no activity detected in the sediment samples except for naturally occurring K-40 and Pb-212. Note: Could not locate any historical pre-operational environmental data for sediment samples.

H. Fish

Fish samples are collected semi-annually. Samples consist of species of commercially and/or recreational important species near the plant discharge area. Control samples are obtained in an area not influenced by plant discharge. Each one-liter quantity of fish sample is frozen for preservation for shipment to GEL Laboratories for analysis.

Five fish samples were collected in the vicinity of PNP, and six control samples were collected from Ludington Pumped Storage Facility. Cs-137 was detected in all five PNP samples with an average concentration of 15.1 pCi/kg and in all six Ludington samples with an average concentration of 15.2 pCi/kg. The reporting level for Cs-137 in fish is 2000 pCi/kg.

I. Broad Leaf Vegetation

Various kinds of broad leaf vegetation in the SE and SSE sectors along the site boundary were sampled monthly during the growing season. Similar broad leaf vegetation samples were obtained in the NE sector approximately 9 to 18 miles distant from the plant. Sample sizes are 1 kg per sample – three samples total per month. Samples were sent to GEL Laboratories for gamma isotopic and Iodine-131 analyses. No treatment of the samples with a preservative is necessary.

This sampling was completed for the months of June through September. Twelve samples were obtained. Cs-137 was detected in five of the eight Indicator samples. The average Cs-137 concentration was 29.3 pCi/kg. The reporting level for Cs-137 is 2000 pCi/kg. Cs-137 was detected in none of the four Control samples.

The following documentation is provided from Condition Report CR-PLP-2011-2205, Action 24, evaluating Cs-137 concentration in the environment:

Twenty samples were obtained, ten of broadleaf and ten of sediment/soil. Sediment samples were obtained from the same location as the leaves. These samples were obtained approximately 10 to 40 miles from PNP in several different sectors. The leaves of oak and/or maples were targeted in areas where the trees looked to be in the 40 to 50-year old range. The sediment samples were obtained from the topsoil (top 0.5 to 1 inch of soil). GPS coordinates were obtained at the sample locations.

The following provides this information:

1 10/31/11 at 1335 predominantly fallen and attached maple leaves, GPS coordinates are 42.41662N and 86.16771W.
2 10/31/11 at 1400 predominantly fallen and attached oak and maple leaves, GPS coordinates are 42.39303N and 86.01734W.
3 10/31/11 at 1430 predominantly fallen maple and oak leaves, GPS coordinates are 42.36990N and 85.70859W.
4 10/31/11 at 1600 predominately fallen and attached maple leaves, GPS coordinates are 42.14949N and 86.26147W.
5 10/31/11 at 1630 predominately fallen maple and oak leaves, GPS coordinates are 42.00874N and 86.20403W.
6 10/31/11 at 1700 predominately fallen maple and oak leaves, GPS coordinates are 42.06865N and 86.15239W.
7 10/31/11 at 1745 predominantly fallen oak and maple leaves, GPS coordinates are 42.01193N and 85.96369W.
8 10/31/11 at 1700 predominantly fallen oak and maple leaves, GPS coordinates are 42.48382N and 86.04583W.
9 10/31/11 at 1805 predominantly fallen oak and maple leaves, GPS coordinates are 42.62994N and 85.89885W.
10 10/31/11 at 1825 predominantly fallen oak and maple leaves, GPS coordinates are 42.58925N and 85.99632W.

These samples were submitted to GEL Laboratories for gamma spectroscopy analysis. Natural radionuclides Be-7, K-40, Tl-208, Pb-210, Pb-212, Pb-214, Bi-214, and Ac-228 were identified in various samples. Natural radionuclide results are not evaluated for this action.

The positively identified radionuclides and their concentration are as follows:

1. Sediment, Cs-137, 568 pCi/kg. Broadleaf, none detected.
2. Sediment, Cs-137, 216 pCi/kg. Broadleaf, Cs-137 23.8 pCi/kg.
3. Sediment, Cs-137, 65.5 pCi/kg. Broadleaf, none detected.
4. Sediment, Cs-137, 124 pCi/kg. Broadleaf, none detected.
5. Sediment, Cs-137, 123 pCi/kg. Broadleaf, none detected.
6. Sediment, none detected. Broadleaf, none detected.
7. Sediment, Cs-137, 174 pCi/kg. Broadleaf, none detected.
8. Sediment, Cs-137, 492 pCi/kg. Broadleaf, Cs-137, 13.9 pCi/kg.
9. Sediment, Cs-137, 394 pCi/kg. Broadleaf, Cs-137, 296 pCi/kg.
10. Sediment, Cs-137, 506 pCi/kg. Broadleaf, Cs-137, 107 pCi/kg.

In accordance with National Council of Radiation Protection (NCRP) Releases Report No. 154, Cs-137 in the Environment: Radioecology and Approaches to Assessment and Management, the primary source of Cs-137 in the biosphere is atmospheric nuclear weapons testing by the

United States and the former Soviet Union from the 1940s to the 1960s. Of the roughly 2.73E7 Curies of Cs-137 released to the biosphere, ~90% (2.45E7 Curies) was produced by atmospheric testing. Approximately 6% (1.64E6 Curies) was produced by the Chernobyl accident and roughly 4% (1.09E6 Curies) by nuclear fuel reprocessing facilities. Because of the chemical properties of cesium, it is readily transported through the environment and food chain. When in solution it can be efficiently taken up by plants and assimilated by animals because of its chemical similarity to the essential nutrient, potassium.

Cook Nuclear Plant, which is located approximately 25 miles to the south of PNP, conducted a Cs-137 soil study and determined that an 'average' background for Cs-137 was 171 pCi/kg in soil. Due to the fact that the Lower Limit of Detection (LLD) for sediment (180 pCi/kg) is larger than the LLD for food (80 pCi/kg) it is conceivable that broadleaf could be positive even while not having any indication from sediment. Positive indication of Cs-137 in broadleaf samples has occurred at Cook Nuclear Plant also. It has been attributed to uptake by the plant and deposition on the leaf surface.

Table 5.12 to NCRP Releases Report No. 154 provides a list of crops, soil types, and concentration ratios. This table indicates that there can be substantial differences in these ratios due to soil types. Since local soils typically have a combination of these, the uptake can vary, as is evidenced by the sample results provided here. The ratios of the sample data supplied here vary from 0.03 to 0.75. This could be the result from a variety of items ranging from topsoil movement through meteorological conditions or man interfacing from as far back as 30 years ago which could be unidentifiable today (e.g. fill dirt disposal).

In conclusion, there is ample documented evidence that Cs-137 exists in the environment from activities 25 to 50 plus years ago. Cs-137 has a 30.17 year half life so there is still plenty of the originally estimated 2.45E7 Curies left in the biosphere. Cesium 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 here documents the fact 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 have been deposited there from plant effluents.

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, of which there are two cross-tied sources, at the seasonal Palisades Park facility.

Tritium and beta results were less than minimum detectable activity for all samples obtained. Wells are not turned on before April 15, and are secured by October 15, of each year.

K. Gaseous and Liquid Radwaste Effluent Composite Samples

Gaseous and liquid radwaste effluent composite samples are collected and analyzed on site and by GEL Laboratories. No special sample treatment with a preservative is required prior to laboratory analysis. The monthly 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 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 are evaluated against overall environmental trending data. This evaluation is the basis for determining isotopic dispersion and deposition patterns within the surrounding environs of PNP.

IV. ASSESSMENT OF PALISADES OPERATION ENVIRONMENTAL IMPACT

In reviewing the 2012 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.

Palisades Nuclear Plant, Van Buren County, MI Docket 50-255
Annual Radiological Environmental Operating Report
January 1, 2012 to December 31, 2012
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 appx 1 cfm	Stations 4, 5, 8, 9 and 10	260	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 (treated) and South Haven Raw	24	Gross Beta, Tritium	Monthly
TLD	Continuous	Inner Ring, Outer Ring, Controls	92	Gamma dose	Quarterly
Food Products	1 kg grab	4-JS, 3.5 miles SE #5 TLD location, 3.5 miles ESE	2	Gamma isotopic and I-131	At time of harvest
Sediment	1 L grab	Discharge 1/2 mile north of Palisades	2	Gamma isotopic	Semiannually
Fish	1 L grab	Discharge and Control	4	Gamma isotopic	Semiannually
Broad leaf Vegetation	1 kg grab	Plant boundary – S and SSE sectors, Control 9 to 18 miles NNE of plant	12	Gamma isotopic and I-131	Monthly during growing season

Environmental Radiological Monitoring Program Summary
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, 2012 to Dec 31, 2012

Medium or Pathway Sampled (Unit of Measure)	Type/Total Number of Analyses Performed	Lower Limit of Detection[a] (MDC)	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 / 260	0.07	< MDC (0/208)	NA	< MDC (0/52)	< MDC (0/52)	0
	Gross beta / 260	0.01	0.056 (208/208) 0.012 - 0.229	5PR 5.8 mi ESE	0.079 (52/52) 0.036 – 0.229	0.050 (52/52) 0.026 – 0.098	0
Lake Water (pCi/L)	Gross beta / 24	4.0	< MDC (0/12)	NA	< MDC (0/12)	< MDC (0/12)	0
	Tritium / 24	2000	< MDC (0/12)	NA	< MDC (0/12)	< MDC (0/12)	0
Drinking Water (pCi/L)	Gross beta / 36	4.0	< MDC (0/24)	NA	< MDC (0/12)	< MDC (0/12)	0
	Tritium / 36	2000	< MDC (0/24)	NA	< MDC (0/12)	< MDC (0/12)	0
Inner Ring TLD (Gamma mR)	Gamma Dose / 56	Sensitivity of 3 per vendor	9.7 (44/44) 5.3 – 11.5	Station # 1 Palisades	10.7 (4/4) 10.2 – 11.5	11.6 (12/12) 10.4 – 14.0	0
Outer Ring (Gamma mR)	Gamma Dose / 48	Sensitivity of 3 per vendor	11.9 (36/36) 9.0 – 16.2	Station # 2 5.6 miles S	15.3 (4/4) 14.3 – 16.2	11.6 (12/12) 10.4 – 14.0	0
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

Environmental Radiological Monitoring Program Summary
Table 10.4-2 Sample Data Summary

Sediment (pCi/kg dry)	Cs-134 / 2	150	< MDC (0/2)	NA	< MDC (0/2)	Control sample not required	0
	Cs-137 / 2	180	< MDC (0/2)	NA	< MDC (0/2)	Control sample not required	0
Fish (pCi/kg wet)	Mn-54 / 11	130	< MDC (0/5)	NA	< MDC (0/9)	< MDC (0/4)	0
	Fe-59 / 11	260	< MDC (0/5)	NA	< MDC (0/9)	< MDC (0/4)	0
	Co-58 / 11	130	< MDC (0/5)	NA	< MDC (0/9)	< MDC (0/4)	0
	Co-60 / 11	130	< MDC (0/5)	NA	< MDC (0/9)	< MDC (0/4)	0
	Zn-65 / 11	260	< MDC (0/5)	NA	< MDC (0/9)	< MDC (0/4)	0
	Cs-134 / 11	130	< MDC (0/5)	NA	< MDC (0/9)	< MDC (0/4)	0
	Cs-137 / 11	150	15.1 (5/5) 3.0 – 26.4	Palisades	26.4 (1/1) 26.4	15.2 (6/6) 8.1 – 24.9	0
Broad Leaf Vegetation (pCi/kg wet)	I-131 / 12	60	< MDC (0/8)	NA	< MDC (0/8)	< MDC (0/4)	0
	Cs-134 / 12	60	< MDC (0/8)	NA	< MDC (0/8)	< MDC (0/4)	0
	Cs-137 / 12	80	29.3 (5/8) 20.3 – 52.7	BV1 0.5 miles SE	31.6 (4/4) 20.3 – 52.7	< MDC (0/4)	0

a Nominal Lower Limit of Detection (LLD) as defined in table notation c of ODCM Appendix A Table E-3
b Mean and range based on detectable measurements only.
f Fraction of detectable measurements at specific locations is indicated in parenthesis

Table 10.4-3 Greatest Mean Sampling Location
January 1, 2012 to December 31, 2012

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	5PR	0.229	0.036	0.079
Lake Water (pCi/L)	Gross Beta	NA	< MDC	< MDC	< MDC
	Tritium	NA	< MDC	< MDC	< MDC
Drinking Water (pCi/L)	Gross Beta	NA	< MDC	< MDC	< MDC
	Tritium	NA	< MDC	< MDC	< MDC
Inner Ring TLD (gamma mR)	Quarterly	#1 (Palisades)	11.5	10.2	10.8
Outer Ring TLD (gamma mR)	Quarterly	# 2 5.6 miles S	15.8	14.3	15.3
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	26.4	26.4	26.4
Broad leaf vegetation (pCi/kg wet)	Gamma Emitters	Site Boundary South	52.7	20.3	31.6

ATTACHMENT A

SAMPLE COLLECTION ANOMALIES

Sample Affected	Location	Date	Problem	Evaluation
Air Sample	Station 10GR	4/18/12	Pump failed	Filters were analyzed and LLD met. Pump replaced. (CR-PLP-2012-2851)
Air Sample stations	All	6/25/12	Inadequate air station markings	Plastic placard signs made and installed. (CR-PLP-2012-4687)
Air Sample	Station 9TP	8/20/12	Pump failed	Filters were analyzed and LLD met. Pump replaced. (CR-PLP-2012-5785)
Air sample results	Station 5PR	9/20/12	Co-60 identified by vendor on iodine cartridge	Unexpected results identified by vendor. Evaluation led to discovering that iodine cartridge supplier changed screen supplier of cartridges to China. Screens were contaminated with Co-60 and supports findings of vendor who counts the samples. (CR-PLP-2012-6321)
Unavailability of normal principal REMP crop.	Palisades	10/12/12	Local apple crop unavailable	Due to unusually warm March and then hard frost in April, the local apple crop was severely reduced. Pears became a principal crop for the year and supplemented the apple sample to obtain sufficient sample size. (CR-PLP-2012-6682)

ATTACHMENT B

PALISADES LAND USE CENSUS

2012 Land Use Census Report

The attached tables are the results of the Palisades Nuclear Plant (PNP) Land Use Census conducted on October 11, 2012. The first table references the distance from PNP 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 mile radius of PNP 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	1.68	1.75	> 5	> 5	> 5
NE	1.14	1.67	> 5	> 5	> 5
ENE	1.19	>5	> 5	> 5	2.62
E	1.67	2.80	> 5	> 5	> 5
ESE	0.99	1.78	> 5	> 5	> 5
SE	0.90	1.01	> 5	> 5	> 5
SSE	0.80	2.28	> 5	> 5	> 5
S	0.72	1.39	> 5	> 5	> 5
SSW	0.49	4.82	> 5	> 5	> 5

(Distance is in miles)

Locations

Sector	Location Description	Item	Distance from Plant (miles)
NNE	22514 Oak St	Residence	1.68
	SW corner of 20th and O fire lane	Garden	1.75
NE	Ruggles Road, State Park Manager	Residence	1.14
	21175 Blue Star Hwy	Garden	1.67
ENE	77198 24th Avenue	Residence	1.19
	Corner of M-140 and 24th Ave	Goat	2.62
E	25112 76th Street	Residence	1.67
	73689 28th Avenue	Garden	2.8
	71179 28th Avenue	Goat	4.25
ESE	77555 28th Ave	Residence	0.99
	28594 76th Street	Garden	1.78
SE	28563 29th Ave	Residence	0.9
	30423 77 ½ Street	Garden	1.01

SSE	78983 Ravine Way	Residence	0.8
	76890 34th Avenue	Garden	2.28
S	Ravine Way, Palisades Park	Residence	0.72
	31881 Blue Star Hwy	Garden	1.39
SSW	Shorewood Walk, Palisades Park	Residence	0.49
	Corner of 82nd and Blue Star Hwy	Garden	4.82

Critical Receptors

Sector	Item	Distance (miles)	X/Q (sec/m^3)	D/Q (1/m^2)
SSE	Site Boundary	0.48	2.41E-6	2.07E-8
SSE	Residence	0.80	1.11E-6	8.93E-9
SE	Garden	1.01	6.86E-7	5.91E-9
ENE	Goat	2.62	1.15E-7	6.25E-10

Goats identified in sectors ENE and E are on stored feed.

Several smaller gardens were noted in the NE, E and ESE sectors. These gardens were smaller than the 50 square meters required byCH 6.41.

There are no dairy cows or beef cattle within a five mile radius of PNP.

ATTACHMENT C

CHEMISTRY PROCEDURE CH 6.10
"RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM"

31 Pages Follow

Procedure No CH 6.10
Revision 5
Effective Date 10/2/12

PALISADES NUCLEAR PLANT
CHEMISTRY PROCEDURE

TITLE: RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM

Approved: DWFoster / 10/1/12
Procedure Sponsor **Date**

Process Applicability Exclusion ☒

New Procedure/Revision Summary:

Specific Changes

Revision 5

DRN-10-00772, 11-01245, 12-01846, 12-01997, 12-02294
Changed procedure type from Health Physic to Chemistry on title page.
Added new Section 5.15 to provide guidance for shipping air flow meters for calibration.
Corrected typo in Step 2.1.4.
Provided clarification that sectors need to be validated as correct D/Q sectors.
Provided enhancing guidance associated with the display of TLDs under the metal spherical cap.
Changed air station pump changeout frequency from three to two years due to failure rate.
Editorial corrections with no change of intent.

TITLE: RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM

Table of Contents

TITLE: RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM

Table of Contents

ATTACHMENTS

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-102, "Human Performance Tools."** • **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(7)

2.1.2 10CFR50, Appendix I

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, "Contamination of Nonradioactive System and Resulting Potential for Unmonitored, Uncontrolled Release of Radioactivity to Environment"

2.2 REFERENCE DOCUMENTS

2.2.1 Palisades ODCM, Appendix A, Sections III.J, IV.C, and Tables E-1 and E-2

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

2.2.3 Entergy Procedure EN-HU-102, "Human Performance Tools"

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 annually.

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 (with the exception of station 9, which has an existing canopy 50 feet above the station).

4.12 In the event that the Radiological Environmental Monitoring Programs sampling are not substantially conducted as described in Palisades ODCM Appendix A, Specification III.J, 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.

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-102, "Human Performance Tools."** • **Review the Procedure to verify segments have been completed.**

5.1 LAKE-IN WATER SAMPLE COLLECTION – DAILY 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).

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.

5.2 DRINKING WATER SAMPLE COLLECTION – DAILY

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).

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.

5.3 ENVIRONMENTAL AIR SAMPLE COLLECTION – WEEKLY

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, 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. IF volume is less than 150 m^3, THEN notify REMP/RETS analyst.

5.3.15 WHEN control air sample is obtained, THEN package and ship samples per Attachment 4.

5.4 SOUTH HAVEN RAW WATER SAMPLE COLLECTION – MONTHLY

NOTE:	Water treatment plant personnel add approximately 125 ml of raw water per day to sample containers.

5.4.1 Prepare a 1-gallon container labeled "SHRAW," "PAL," month and year.

5.4.2 Drop off container at the South Haven Municipal Water Treatment Plant.

5.4.3 Pick up previous month's container.

5.4.4 Package and ship samples per Attachment 4.

5.5 BROADLEAF VEGETATION SAMPLE COLLECTION – MONTHLY

5.5.1 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).

5.5.2 Obtain 1 kg (2.2 lbs) samples of three different kinds of broadleaf vegetation in both the SE and SSE sectors.

5.5.3 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.

5.5.4 Obtain samples monthly during growing season.

5.5.5 Package and ship samples per Attachment 4.

5.6 ENVIRONMENTAL TLD COLLECTION – QUARTERLY

5.6.1 Upon receipt of TLDs from the laboratory contractor, inventory all TLDs and place in lead cave.

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

5.6.2 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.

5.6.3 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.

5.6.4 Store collected field TLDs in lead cave along with control TLDs until ready for mailing to laboratory contractor.

5.6.5 Package and ship samples per Attachment 4.

5.7 PLANT AIR SAMPLE COLLECTION – QUARTERLY

5.7.1 Obtain 1-liter air samples from Air Receiver Tanks T-8A, 8B and 8C. CMT 0220011097

5.7.2 Count samples for 2000 seconds on MCA.

5.8 SEPTIC SYSTEM SAMPLE COLLECTION – QUARTERLY

5.8.1 Obtain a 1 liter liquid sample from sanitary system septic tank.

5.8.2 Count sample for 2000 seconds on MCA.

5.8.3 Package and ship samples per Attachment 4.

5.9 FISH SAMPLE COLLECTION – IN SEASON

5.9.1 Precautions

a. At least one individual in the collection party is required to have Michigan Department of Environmental Quality (MDEQ) Cultural and Scientific Fish Collectors Permit if gill net is used.

b. IF logistical problems prevent use of a boat to set gill nets from the lake side of Palisades, THEN the nets can be set offshore from the site boundary (by wading). Notify Security prior to using offshore wading method for beach access.

5.9.2 Notify district MDEQ Fisheries biologist prior to sample collection.

5.9.3 Collect samples twice during the season of greatest abundance (typically May through October) as follows:

a. Collect at least two species 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 species at Ludington control station.

5.9.4 Label all containers with sample type, location, and date.

5.9.5 Package and ship samples per Attachment 4.

5.10 SEDIMENT SAMPLE COLLECTION - SEMIANNUALLY

5.10.1 Collect a 1-liter sediment sample semiannually 1/2 mile north of discharge.

5.10.2 Label containers with sample type, location, and date.

5.10.3 Package and ship samples per Attachment 4.

5.11 FOOD PRODUCT SAMPLE COLLECTION – YEARLY

5.11.1 Obtain one sample each of approximately 1 kg each of blueberries and apples from the Arrellanos' store, or other local service in appropriate section.

5.11.2 Label containers with sample type, location, and date.

5.11.3 Package and ship samples per Attachment 4.

5.12 MISCELLANEOUS SAMPLES

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

5.12.2 Package and ship samples per Attachment 4.

5.13 MONTHLY SAMPLE COLLECTION VERIFICATION

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

5.13.2 Verify that the indicated number and type of samples required by the ODCM were collected.

a. Document any unusual collection conditions or missing samples.

5.13.3 Verify that a minimum of 150 m^3 of air sample volume was obtained to ensure that analytical Lower Limit of Detection (LLD) requirements are met.

a. Evaluate, correct and document any significant deviations.

5.13.4 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. 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.

5.14 REVIEW OF SAMPLE ANALYSIS RESULTS

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

5.14.2 Compare the monthly analytical results to the appropriate ODCM requirements (Attachment 7) 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.

5.15 AIR FLOW METER CALIBRATION

5.15.1 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.

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

Meter Technology Center
1975 W Parnell Road
Jackson, Mi 49201

5.15.3 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.

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

5.16 SPECIAL REPORT

5.16.1 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, Appendix A, Table E-2, 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.

5.16.2 The NRC Special Report shall be submitted if more than one (1) of the radionuclides listed in the specifications (Palisades ODCM, Appendix A, Table E-2) 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.

5.16.3 If radionuclides other than those listed in the specifications (Palisades ODCM, Appendix A, Table E-2) 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, Appendix A, III.H, III.C, and III.D). 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"

6.2 RECORDS

6.2.1 Records generated by this procedure shall be filed 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	4 within a 10 km radius 1 at 25 – 89 km distant	Continuous at approximately 1 cfm	Weekly
Drinking Water	1 – South Haven Municipal – Raw	Daily 125 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	Sediment – ½ mile north of plant	One-liter grab	Semi-annually
Food Products	1 sample each of blueberries and apples	1 kg grab sample	At time of harvest

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	9 – 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

REMP SAMPLE LOCATIONS

Station	Code		Location	Air Part and Iodine	Lake Water	Milk	Food Products	Sediment	TLD	Fish
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 Arellannos 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	
7a	SN21	Emergency Siren 21 4.1 miles NNE	On Monroe Blvd, at corner of 76th and 11th Street.						X	

REMP SAMPLE LOCATIONS

Station	Code		Location	Air Part and Iodine	Lake Water	Milk	Food Products	Sediment	TLD	Fish
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, MI35 miles E	Kalamazoo Service Center, in parking area on post in SE corner Control TLD.						X	
12	DG	58399 Wilbur Road, Dowagiac, MI30 miles SSE	TLD located on pole appx 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	
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	

REMP SAMPLE LOCATIONS

Station	Code		Location	Air Part and Iodine	Lake Water	Milk	Food Products	Sediment	TLD	Fish
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.						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		
32	LP	Ludington Pumped Storage 125 Miles N			X					X
45	CV	Alternate Control Air Sample Station	10 miles NNE of Plant	X						

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		1 Liter	
Sanitary Wastewater	Wastewater		1 liter	
Palisades Perimeter	Vegetation		6 kg	
Control	Vegetation		3 kg	
Arellannos Market	Blueberries		1 kg	
Arellannos Market	Apples		1 kg	
Palisades	Fish		1 kg	
Control	Fish		1 kg	

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.

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

7. Record sample information on Attachment 3, "Sample Shipment Identification," or Attachment 5, "Environmental Air Sample Data Sheet," or per vendor's instructions as applicable. Include applicable form with shipment.

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							

Comments _____

_____

_____

_____

Completed By _____ Date _____

Reviewed By _____ Date _____

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	_____	_____

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

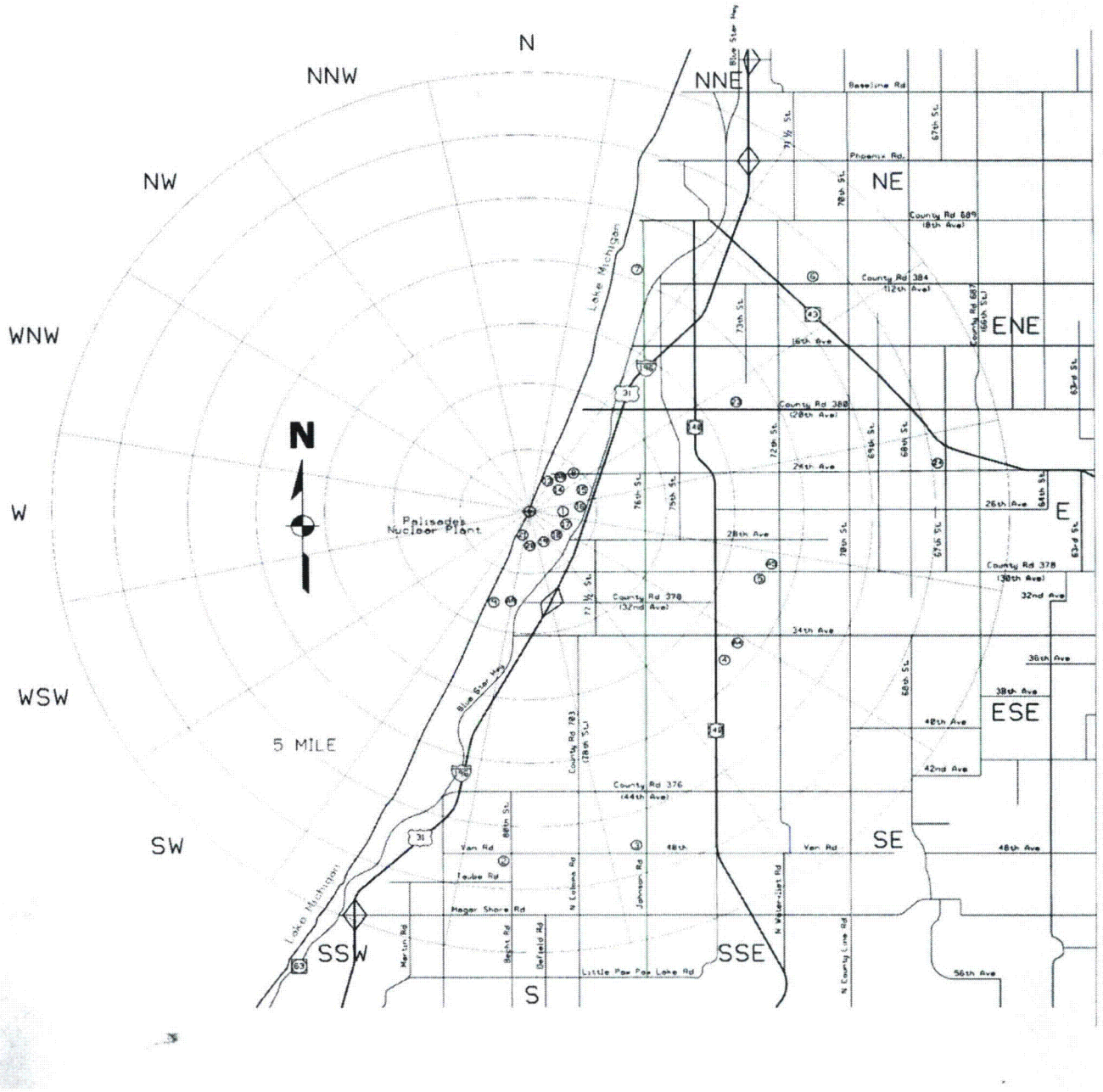
Media	Sampling Interval	Required Analysis	LLD	NRC[f] Reporting Levels	Unusual Results[h]	
					Action Level	Action Required
Direct by TLD	Quarterly	Gamma Dose	10 mR			
Air Gaseous	Weekly	I-131	0.07 pCi/m^3	0.9 pCi/m^3	0.2 pCi/m^3	Notify
Air Particulate	Weekly	Gross Beta	0.01 pCi/m^3		See note g	Notify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

REMP ANALYTICAL REQUIREMENTS

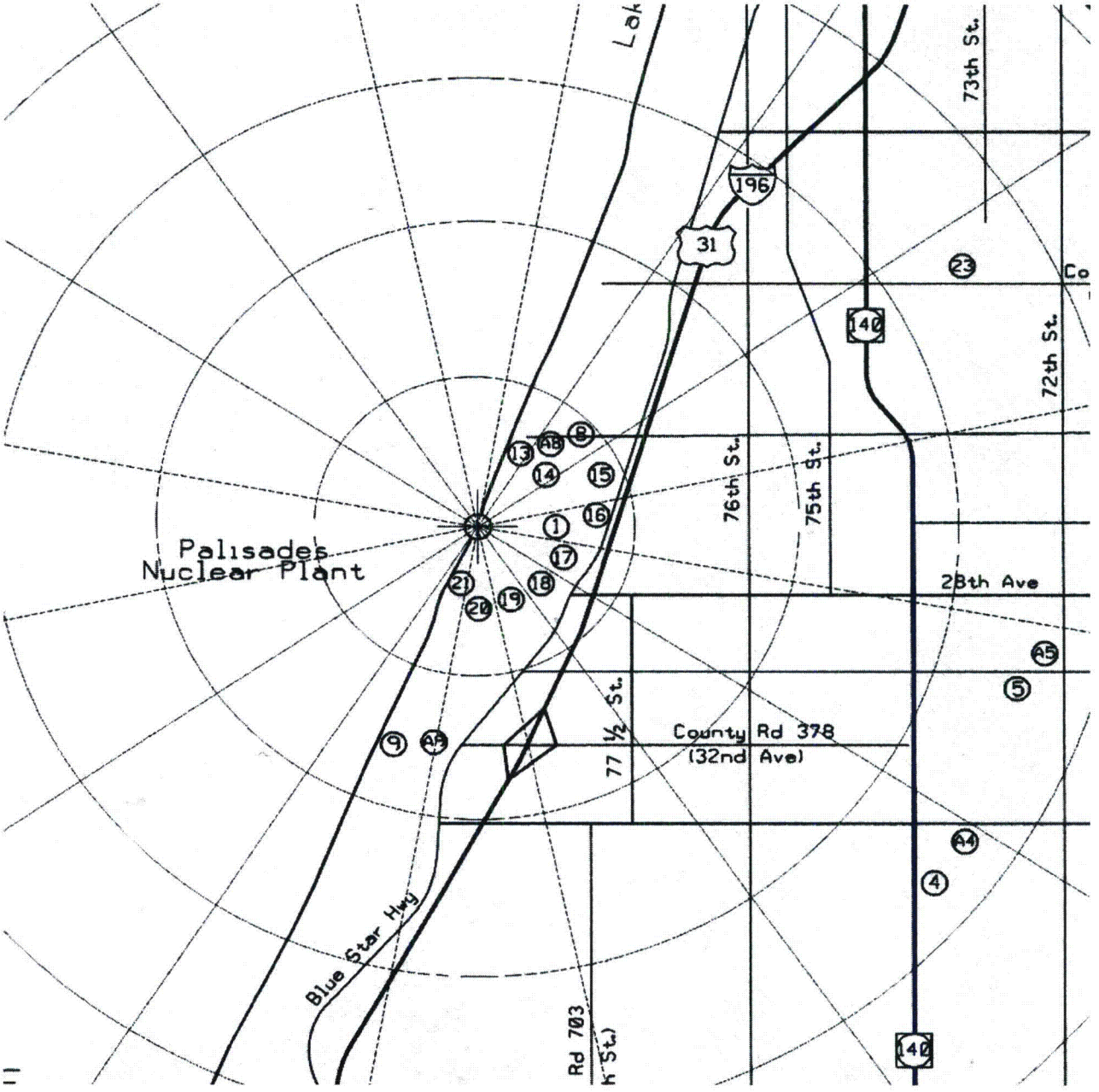
Media	Sampling Interval	Required Analysis	LLD	NRC[f] Reporting Levels	Unusual Results[h]	
					Action Level	Action Required
Fish	Semiannual	Gamma[j]			Any gamma	Notify
		Mn-54	0.13 pCi/g	30 pCi/g	≥1 pCi/g	
		Fe-59	0.26 pCi/g	10 pCi/g		
		Co-58	0.13 pCi/g	30 pCi/g		
		Co-60	0.13 pCi/g	10 pCi/g		
		Zn-65	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	0.08 pCi/g	1 pCi/g	≥1 pCi/g	
		Cs-137	0.08 pCi/g	2 pCi/g		
Food Products	At time of harvest	Gamma[j]			Any gamma	Notify
		Cs-134	0.08 pCi/g	1 pCi/g	≥1 pCi/g	
		Cs-137	0.08 pCi/g	2 pCi/g		

[a]Supplementary analysis only.
[d]Radioactivity levels may cause LLD levels to be exceeded.
[e]Monthly composite of weekly filters.
[f]Reporting levels per ODCM, Appendix A, Section III.J and Table E-2.
[g]If gross beta activity is greater than or equal to 1 pCi/m^3 or greater than or equal to ten times last years 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.

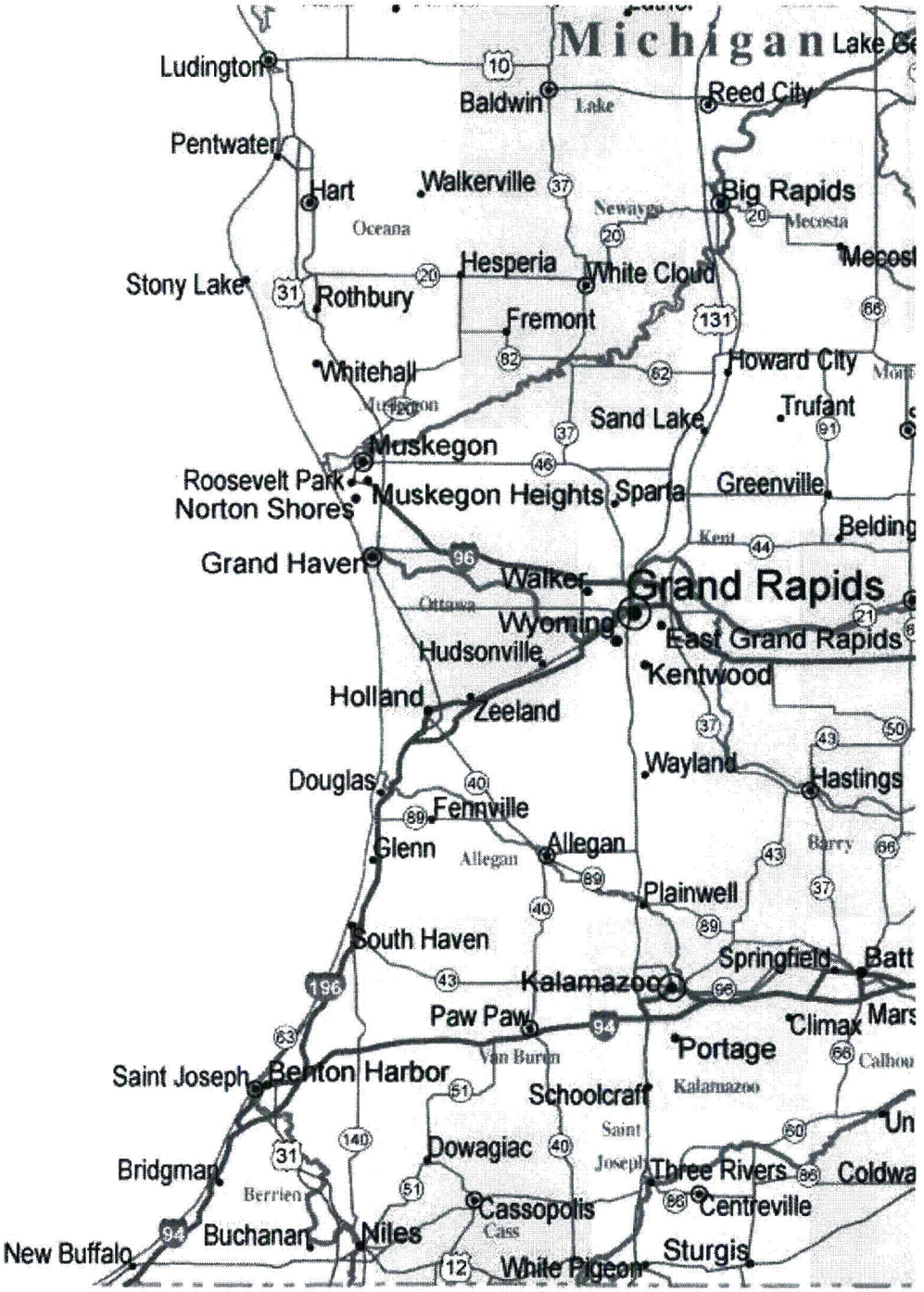
ENVIRONMENTAL MONITORING LOCATIONS



ENVIRONMENTAL MONITORING LOCATIONS



ENVIRONMENTAL MONITORING LOCATIONS



ENVIRONMENTAL MONITORING LOCATIONS

TLDs

Location	Coordinates	Distance (mi)	Degrees	Sector
Stack	N 42 19 23.5 W 86 18 51.6			
1	N 42 19 20.7 W 86 18 36.1	0.507	96.09	E
Inner Ring				
13	N 42 19 47.2 W 86 18 34.1	0.518	28.62	NNE
8	N 42 19 46.8 W 86 18 24.0	0.594	41.21	NE
14	N 42 19 41.1 W 86 18 21.2	0.548	51.93	NE
15	N 42 19 42.3 W 86 17 58.1	0.838	64.94	ENE
16	N 42 19 28.0 W 86 17 54.6	0.814	83.9	E
17	N 42 19 10.5 W 86 18 13.9	0.590	114.98	ESE
18	N 42 19 4.2 W 86 18 28.9	0.491	138.96	SE
19	N 42 19 0.9 W 86 18 39.7	0.465	158.69	SSE
20	N 42 19 1.1 W 86 18 48.8	0.432	174.42	S
21	N 42 19 3.4 W 86 18 58.4	0.397	194.02	SSW
Outer Ring				
7	N 42 22 40.8 W 86 17 0.4	4.102	22.6	NNE
6	N 42 22 30.6 W 86 14 15.9	5.309	47.42	NE
23	N 42 20 44.7 W 86 15 35.3	3.191	60.75	ENE
24	N 42 19 59.4 W 86 11 49.4	6.029	83.4	E
5	N 42 18 27.6 W 86 14 57.5	3.491	107.87	ESE
4	N 42 17 10.8 W 86 15 43.5	3.690	133.63	SE
3	N 42 14 38.0 W 86 16 59.7	5.704	163.82	SSE
2	N 42 14 33.4 W 86 19 16.4	5.578	183.62	S

ENVIRONMENTAL MONITORING LOCATIONS

9	N 42 18 1.6 W 86 19 34.6	1.686	201.22	SSW
Control TLDs				
10	N 42 53 16.5 W 85 40 36.1	50.727	39.51	NE
11	N 42 15 24.4 W 85 32 49.4	39.749	96.42	E
12	N 41 56 54.3 W 86 6 24.5	27.989	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.

Air Sample Stations

Location	Coordinates	Distance (mi)	Degrees	Sector
A8 (State Park)	N 42 19 46.8 W 86 18 24.8	0.587	40.38	NE
A9 (Township Park)	N 42 18 4.6 W 86 19 11.2	1.539	190.40	S
A4 (Covert)	N 42 17 12.1 W 86 15 21.7	3.903	130.22	SE
A5 (Rood)	N 42 18 30.5 W 86 14 47.8	5.804	106.36	ESE
A10 (Grand Rapids)	N 42 53 16.5 W 85 40 36.1	50.727	39.51	NE

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 obtained from the Consumers Energy Pump Storage Facility located in Ludington, MI.

ATTACHMENT D

YEAR-END REPORT FOR PALISADES RADIOLOGICAL ENVIRONMENTAL MONITORING PROGRAM (REMP) AS PROVIDED BY GEL LABORATORIES, LLC

39 Pages Follow

REMP Year End Report for PALI for 2012
Palisades REMP

10GR
AC

Sample Name	Date Collected	Nuclide	Result	2 Sigma Uncert	MDC	LLD	2 Sigma TPU	Units
10GR(294538010) - AC	6-Jan-12	Iodine-131	1.13E-02	2.98E-02	5.37E-02	7.00E-02	3.03E-02	pCi/m3
10GR(294921010) - AC	13-Jan-12	Iodine-131	2.59E-03	7.91E-03	1.37E-02	7.00E-02	8.00E-03	pCi/m3
10GR(295305010) - AC	20-Jan-12	Iodine-131	-8.51E-03	2.43E-02	3.91E-02	7.00E-02	2.46E-02	pCi/m3
10GR(295814010) - AC	27-Jan-12	Iodine-131	1.88E-02	2.52E-02	4.66E-02	7.00E-02	2.66E-02	pCi/m3
10GR(296278010) - AC	3-Feb-12	Iodine-131	3.06E-02	2.21E-02	4.12E-02	7.00E-02	2.61E-02	pCi/m3
10GR(296564010) - AC	10-Feb-12	Iodine-131	-3.99E-03	1.26E-02	2.03E-02	7.00E-02	1.27E-02	pCi/m3
10GR(297009010) - AC	17-Feb-12	Iodine-131	-1.29E-02	3.54E-02	5.61E-02	7.00E-02	3.59E-02	pCi/m3
10GR(297528010) - AC	24-Feb-12	Iodine-131	-2.36E-03	2.18E-02	3.60E-02	7.00E-02	2.18E-02	pCi/m3
10GR(297688010) - AC	2-Mar-12	Iodine-131	-2.49E-03	1.56E-02	2.53E-02	7.00E-02	1.57E-02	pCi/m3
10GR(298316010) - AC	9-Mar-12	Iodine-131	-4.91E-02	5.20E-02	5.31E-02	7.00E-02	5.65E-02	pCi/m3
10GR(298530010) - AC	16-Mar-12	Iodine-131	-2.17E-02	2.76E-02	3.93E-02	7.00E-02	2.93E-02	pCi/m3
10GR(301305010) - AC	22-Mar-12	Iodine-131	3.68E-03	1.92E-02	3.37E-02	7.00E-02	1.92E-02	pCi/m3
10GR(302656010) - AC	29-Mar-12	Iodine-131	1.55E-02	2.43E-02	4.59E-02	7.00E-02	2.53E-02	pCi/m3
10GR(303148010) - AC	6-Apr-12	Iodine-131	-5.36E-03	2.54E-02	4.16E-02	7.00E-02	2.55E-02	pCi/m3
10GR(303394010) - AP	14-Apr-12	Iodine-131	-2.12E-03	2.37E-02	4.01E-02	7.00E-02	2.37E-02	pCi/m3
10GR(303704010) - AC	20-Apr-12	Iodine-131	9.66E-03	3.12E-02	5.49E-02	7.00E-02	3.15E-02	pCi/m3
10GR(304259010) - AC	26-Apr-12	Iodine-131	-1.19E-03	2.86E-02	4.88E-02	7.00E-02	2.86E-02	pCi/m3
10GR(304710010) - AC	4-May-12	Iodine-131	4.06E-03	2.03E-02	3.51E-02	7.00E-02	2.04E-02	pCi/m3
10GR(305032010) - AC	11-May-12	Iodine-131	9.21E-03	2.01E-02	3.66E-02	7.00E-02	2.05E-02	pCi/m3
10GR(305329010) - AC	17-May-12	Iodine-131	5.39E-04	2.34E-02	3.90E-02	7.00E-02	2.34E-02	pCi/m3
10GR(305652010) - AC	26-May-12	Iodine-131	4.63E-03	1.38E-02	2.37E-02	7.00E-02	1.39E-02	pCi/m3
10GR(306146010) - AC	3-Jun-12	Iodine-131	1.70E-02	2.62E-02	4.65E-02	7.00E-02	2.73E-02	pCi/m3
10GR(306527010) - AC	9-Jun-12	Iodine-131	5.03E-03	3.88E-02	6.64E-02	7.00E-02	3.89E-02	pCi/m3
10GR(306795010) - AC	16-Jun-12	Iodine-131	-9.60E-03	2.24E-02	3.44E-02	7.00E-02	2.28E-02	pCi/m3
10GR(307247010) - AC	18-Jun-12	Iodine-131	-3.86E-02	3.98E-02	5.53E-02	7.00E-02	4.35E-02	pCi/m3
10GR(307880010) - AC	28-Jun-12	Iodine-131	-2.61E-03	1.99E-02	3.32E-02	7.00E-02	1.99E-02	pCi/m3
10GR(308136010) - AC	6-Jul-12	Iodine-131	6.54E-03	3.03E-02	5.26E-02	7.00E-02	3.04E-02	pCi/m3
10GR(308563010) - AC	14-Jul-12	Iodine-131	-1.18E-02	1.59E-02	2.31E-02	7.00E-02	1.67E-02	pCi/m3
10GR(308963010) - AC	20-Jul-12	Iodine-131	-4.45E-04	2.95E-02	4.92E-02	7.00E-02	2.95E-02	pCi/m3
10GR(309665010) - AC	27-Jul-12	Iodine-131	-6.83E-03	3.16E-02	5.00E-02	7.00E-02	3.17E-02	pCi/m3
10GR(309845010) - AC	3-Aug-12	Iodine-131	-5.44E-04	1.84E-02	3.13E-02	7.00E-02	1.84E-02	pCi/m3
10GR(310024010) - AC	10-Aug-12	Iodine-131	-2.38E-02	3.18E-02	4.72E-02	7.00E-02	3.36E-02	pCi/m3
10GR(310455010) - AC	17-Aug-12	Iodine-131	2.23E-02	2.46E-02	4.39E-02	7.00E-02	2.66E-02	pCi/m3
10GR(310772010) - AC	24-Aug-12	Iodine-131	4.69E-03	1.00E-02	1.78E-02	7.00E-02	1.02E-02	pCi/m3
10GR(311287010) - AC	1-Sep-12	Iodine-131	-1.40E-02	2.84E-02	4.61E-02	7.00E-02	2.91E-02	pCi/m3
10GR(311590010) - AC	8-Sep-12	Iodine-131	-8.20E-04	2.85E-02	4.85E-02	7.00E-02	2.85E-02	pCi/m3
10GR(312007010) - AC	14-Sep-12	Iodine-131	3.23E-03	2.10E-02	3.63E-02	7.00E-02	2.11E-02	pCi/m3
10GR(312520010) - AC	20-Sep-12	Iodine-131	-7.36E-03	1.83E-02	2.91E-02	7.00E-02	1.86E-02	pCi/m3
10GR(313304010) - AC	27-Sep-12	Iodine-131	1.31E-02	2.23E-02	3.97E-02	7.00E-02	2.31E-02	pCi/m3
10GR(313510010) - AC	4-Oct-12	Iodine-131	2.64E-04	2.61E-02	4.31E-02	7.00E-02	2.61E-02	pCi/m3
10GR(314081010) - AC	12-Oct-12	Iodine-131	7.70E-03	1.58E-02	2.87E-02	7.00E-02	1.61E-02	pCi/m3

10GR(314490010) - AC	19-Oct-12	Iodine-131	3.57E-03	3.68E-02	6.34E-02	7.00E-02	3.68E-02	pCi/m3
10GR(314789010) - AC	26-Oct-12	Iodine-131	-3.40E-02	3.90E-02	5.71E-02	7.00E-02	4.19E-02	pCi/m3
10GR(315478010) - AC	2-Nov-12	Iodine-131	1.46E-02	1.57E-02	2.95E-02	7.00E-02	1.71E-02	pCi/m3
10GR(315754010) - AC	9-Nov-12	Iodine-131	-1.77E-03	2.02E-02	3.29E-02	7.00E-02	2.02E-02	pCi/m3
10GR(316061010) - AC	16-Nov-12	Iodine-131	5.13E-03	2.37E-02	4.17E-02	7.00E-02	2.38E-02	pCi/m3
10GR(316466010) - AC	23-Nov-12	Iodine-131	-6.86E-04	3.42E-02	5.73E-02	7.00E-02	3.42E-02	pCi/m3
10GR(316829010) - AC	30-Nov-12	Iodine-131	-1.40E-02	1.97E-02	3.08E-02	7.00E-02	2.07E-02	pCi/m3
10GR(317131010) - AC	7-Dec-12	Iodine-131	4.39E-03	1.51E-02	2.69E-02	7.00E-02	1.52E-02	pCi/m3
10GR(317478010) - AC	15-Dec-12	Iodine-131	-7.54E-03	3.40E-02	5.61E-02	7.00E-02	3.42E-02	pCi/m3
10GR(317479010) - AC	24-Dec-12	Iodine-131	3.46E-03	2.57E-02	4.53E-02	7.00E-02	2.58E-02	pCi/m3
10GR(318103010) - AC	30-Dec-12	Iodine-131	-2.11E-02	2.60E-02	3.78E-02	7.00E-02	2.77E-02	pCi/m3

10GR
AP

Sample Name	Date Collected	Nuclide	Result	2 Sigma Uncert	MDC	LLD	2 Sigma TPU	Units
10GR(294538005) - AP	6-Jan-12	BETA	5.87E-02	9.00E-03	3.67E-03	1.00E-02	9.08E-03	pCi/m3
10GR(294921005) - AP	13-Jan-12	BETA	5.61E-02	6.91E-03	2.30E-03	1.00E-02	7.00E-03	pCi/m3
10GR(295305005) - AP	20-Jan-12	BETA	4.17E-02	6.86E-03	2.78E-03	1.00E-02	6.91E-03	pCi/m3
10GR(295814005) - AP	27-Jan-12	BETA	5.16E-02	6.15E-03	1.86E-03	1.00E-02	6.24E-03	pCi/m3
10GR(296278005) - AP	3-Feb-12	BETA	6.17E-02	9.32E-03	3.54E-03	1.00E-02	9.40E-03	pCi/m3
10GR(296564005) - AP	10-Feb-12	BETA	4.14E-02	5.93E-03	2.15E-03	1.00E-02	5.99E-03	pCi/m3
10GR(297009005) - AP	17-Feb-12	BETA	5.25E-02	7.78E-03	3.14E-03	1.00E-02	7.85E-03	pCi/m3
10GR(297528005) - AP	24-Feb-12	BETA	4.08E-02	5.92E-03	2.34E-03	1.00E-02	5.98E-03	pCi/m3
10GR(297688005) - AP	2-Mar-12	BETA	4.64E-02	7.30E-03	3.11E-03	1.00E-02	7.36E-03	pCi/m3
10GR(298316005) - AP	9-Mar-12	BETA	5.05E-02	7.24E-03	2.62E-03	1.00E-02	7.31E-03	pCi/m3
10GR(298530005) - AP	16-Mar-12	BETA	4.97E-02	8.55E-03	3.72E-03	1.00E-02	8.61E-03	pCi/m3
10GR(301305005) - AP	22-Mar-12	BETA	3.65E-02	6.12E-03	2.60E-03	1.00E-02	6.16E-03	pCi/m3
10GR(302656005) - AP	29-Mar-12	BETA	3.00E-02	5.44E-03	2.46E-03	1.00E-02	5.48E-03	pCi/m3
10GR(303148005) - AP	6-Apr-12	BETA	3.17E-02	5.42E-03	2.55E-03	1.00E-02	5.46E-03	pCi/m3
10GR(303394005) - AP	14-Apr-12	BETA	3.70E-02	6.63E-03	3.25E-03	1.00E-02	6.68E-03	pCi/m3
10GR(303704005) - AP	20-Apr-12	BETA	3.60E-02	7.29E-03	3.73E-03	1.00E-02	7.32E-03	pCi/m3
10GR(304259005) - AP	26-Apr-12	BETA	4.37E-02	6.55E-03	2.52E-03	1.00E-02	6.61E-03	pCi/m3
10GR(304710005) - AP	4-May-12	BETA	3.73E-02	5.75E-03	2.26E-03	1.00E-02	5.80E-03	pCi/m3
10GR(305032005) - AP	11-May-12	BETA	2.61E-02	5.64E-03	2.97E-03	1.00E-02	5.66E-03	pCi/m3
10GR(305329005) - AP	17-May-12	BETA	4.44E-02	6.48E-03	3.34E-03	1.00E-02	6.51E-03	pCi/m3
10GR(305652005) - AP	26-May-12	BETA	3.67E-02	4.92E-03	2.34E-03	1.00E-02	4.94E-03	pCi/m3
10GR(306146005) - AP	3-Jun-12	BETA	4.02E-02	6.66E-03	3.80E-03	1.00E-02	6.68E-03	pCi/m3
10GR(306527005) - AP	9-Jun-12	BETA	4.80E-02	7.38E-03	4.15E-03	1.00E-02	7.41E-03	pCi/m3
10GR(306795005) - AP	16-Jun-12	BETA	4.66E-02	6.30E-03	3.18E-03	1.00E-02	6.33E-03	pCi/m3
10GR(307247005) - AP	18-Jun-12	BETA	5.86E-02	9.21E-03	3.55E-03	1.00E-02	9.29E-03	pCi/m3
10GR(307880005) - AP	28-Jun-12	BETA	5.50E-02	7.40E-03	2.64E-03	1.00E-02	7.48E-03	pCi/m3
10GR(308136005) - AP	6-Jul-12	BETA	5.26E-02	6.94E-03	2.43E-03	1.00E-02	7.02E-03	pCi/m3
10GR(308563005) - AP	14-Jul-12	BETA	5.57E-02	6.97E-03	2.13E-03	1.00E-02	7.07E-03	pCi/m3
10GR(308963005) - AP	20-Jul-12	BETA	6.88E-02	9.54E-03	3.31E-03	1.00E-02	9.65E-03	pCi/m3

10GR(309665005) - AP	27-Jul-12	BETA	4.56E-02	6.42E-03	2.20E-03	1.00E-02	6.49E-03	pCi/m3
10GR(309845005) - AP	3-Aug-12	BETA	5.92E-02	8.23E-03	2.79E-03	1.00E-02	8.32E-03	pCi/m3
10GR(310024005) - AP	10-Aug-12	BETA	3.41E-02	5.49E-03	2.13E-03	1.00E-02	5.53E-03	pCi/m3
10GR(310455005) - AP	17-Aug-12	BETA	4.34E-02	7.05E-03	2.74E-03	1.00E-02	7.11E-03	pCi/m3
10GR(310772005) - AP	24-Aug-12	BETA	6.06E-02	7.24E-03	2.11E-03	1.00E-02	7.34E-03	pCi/m3
10GR(311287005) - AP	1-Sep-12	BETA	5.15E-02	6.64E-03	2.21E-03	1.00E-02	6.73E-03	pCi/m3
10GR(311590005) - AP	8-Sep-12	BETA	5.49E-02	8.12E-03	3.12E-03	1.00E-02	8.19E-03	pCi/m3
10GR(312007005) - AP	14-Sep-12	BETA	5.99E-02	8.27E-03	2.73E-03	1.00E-02	8.36E-03	pCi/m3
10GR(312520005) - AP	20-Sep-12	BETA	5.12E-02	7.04E-03	2.54E-03	1.00E-02	7.11E-03	pCi/m3
10GR(313304005) - AP	27-Sep-12	BETA	4.75E-02	6.79E-03	2.30E-03	1.00E-02	6.86E-03	pCi/m3
10GR(313510005) - AP	4-Oct-12	BETA	5.09E-02	7.00E-03	2.38E-03	1.00E-02	7.08E-03	pCi/m3
10GR(314081005) - AP	12-Oct-12	BETA	3.53E-02	5.18E-03	1.90E-03	1.00E-02	5.23E-03	pCi/m3
10GR(314490005) - AP	19-Oct-12	BETA	5.07E-02	6.87E-03	2.34E-03	1.00E-02	6.95E-03	pCi/m3
10GR(314789005) - AP	26-Oct-12	BETA	4.27E-02	6.65E-03	2.59E-03	1.00E-02	6.70E-03	pCi/m3
10GR(315478005) - AP	2-Nov-12	BETA	3.08E-02	5.20E-03	2.05E-03	1.00E-02	5.24E-03	pCi/m3
10GR(315754005) - AP	9-Nov-12	BETA	6.30E-02	7.04E-03	1.89E-03	1.00E-02	7.16E-03	pCi/m3
10GR(316061005) - AP	16-Nov-12	BETA	7.09E-02	8.51E-03	2.50E-03	1.00E-02	8.63E-03	pCi/m3
10GR(316466005) - AP	23-Nov-12	BETA	8.26E-02	7.88E-03	1.86E-03	1.00E-02	8.06E-03	pCi/m3
10GR(316829005) - AP	30-Nov-12	BETA	9.76E-02	9.94E-03	2.50E-03	1.00E-02	1.01E-02	pCi/m3
10GR(317131005) - AP	7-Dec-12	BETA	3.57E-02	5.24E-03	1.96E-03	1.00E-02	5.29E-03	pCi/m3
10GR(317478005) - AP	15-Dec-12	BETA	3.01E-02	5.44E-03	2.60E-03	1.00E-02	5.47E-03	pCi/m3
10GR(317479005) - AP	24-Dec-12	BETA	7.53E-02	1.15E-02	4.73E-03	1.00E-02	1.16E-02	pCi/m3
10GR(318103005) - AP	30-Dec-12	BETA	8.50E-02	9.97E-03	2.83E-03	1.00E-02	1.01E-02	pCi/m3
10GR(303289005) - AP	4-Feb-12	Beryllium-7	1.13E-01	2.31E-02	1.19E-02		2.33E-02	pCi/m3
10GR(308059005) - AP	4-May-12	Beryllium-7	8.40E-02	1.62E-02	9.21E-03		1.62E-02	pCi/m3
10GR(313324005) - AP	30-Jul-12	Beryllium-7	1.70E-01	2.39E-02	1.26E-02		2.41E-02	pCi/m3
10GR(318975005) - AP	3-Nov-12	Beryllium-7	5.12E-02	8.07E-03	5.24E-03		9.31E-03	pCi/m3
10GR(303289005) - AP	4-Feb-12	Cesium-134	-6.32E-05	2.99E-04	4.75E-04	5.00E-02	3.01E-04	pCi/m3
10GR(308059005) - AP	4-May-12	Cesium-134	-1.13E-04	2.64E-04	3.71E-04	5.00E-02	2.69E-04	pCi/m3
10GR(313324005) - AP	30-Jul-12	Cesium-134	1.84E-04	4.38E-04	7.85E-04	5.00E-02	4.45E-04	pCi/m3
10GR(318975005) - AP	3-Nov-12	Cesium-134	5.66E-05	2.09E-04	2.61E-04	5.00E-02	2.11E-04	pCi/m3
10GR(303289005) - AP	4-Feb-12	Cesium-137	-1.68E-04	3.84E-04	6.16E-04	6.00E-02	3.91E-04	pCi/m3
10GR(308059005) - AP	4-May-12	Cesium-137	5.40E-05	2.86E-04	4.97E-04	6.00E-02	2.87E-04	pCi/m3
10GR(313324005) - AP	30-Jul-12	Cesium-137	3.83E-04	4.42E-04	7.14E-04	6.00E-02	4.74E-04	pCi/m3
10GR(318975005) - AP	3-Nov-12	Cesium-137	1.38E-04	1.49E-04	2.82E-04	6.00E-02	1.62E-04	pCi/m3

4JS
AC

Sample Name	Date Collected	Nuclide	Result	2 Sigma Uncert	MDC	LLD	2 Sigma TPU	Units
4JS(294021008) - AC	6-Jan-12	Iodine-131	-5.64E-05	1.08E-02	1.87E-02	7.00E-02	1.08E-02	pCi/m3
4JS(294538008) - AC	13-Jan-12	Iodine-131	-4.75E-03	1.29E-02	1.95E-02	7.00E-02	1.31E-02	pCi/m3
4JS(294921008) - AC	19-Jan-12	Iodine-131	5.94E-04	4.28E-03	7.29E-03	7.00E-02	4.28E-03	pCi/m3
4JS(295305008) - AC	27-Jan-12	Iodine-131	5.66E-03	1.15E-02	2.12E-02	7.00E-02	1.18E-02	pCi/m3
4JS(295814008) - AC	3-Feb-12	Iodine-131	-2.64E-03	1.70E-02	2.79E-02	7.00E-02	1.70E-02	pCi/m3

4JS(296278008) - AC	10-Feb-12	Iodine-131	2.88E-03	1.66E-02	2.85E-02	7.00E-02	1.66E-02	pCi/m3
4JS(296564008) - AC	17-Feb-12	Iodine-131	-1.36E-03	1.17E-02	1.90E-02	7.00E-02	1.17E-02	pCi/m3
4JS(297009008) - AC	24-Feb-12	Iodine-131	1.77E-03	1.01E-02	1.71E-02	7.00E-02	1.01E-02	pCi/m3
4JS(297528008) - AC	2-Mar-12	Iodine-131	-1.94E-03	1.20E-02	2.03E-02	7.00E-02	1.20E-02	pCi/m3
4JS(297688008) - AC	9-Mar-12	Iodine-131	-2.31E-04	6.82E-03	1.15E-02	7.00E-02	6.82E-03	pCi/m3
4JS(298316008) - AC	15-Mar-12	Iodine-131	-1.52E-02	2.58E-02	3.32E-02	7.00E-02	2.67E-02	pCi/m3
4JS(298530008) - AC	22-Mar-12	Iodine-131	-1.58E-03	1.26E-02	2.04E-02	7.00E-02	1.26E-02	pCi/m3
4JS(301305008) - AC	30-Mar-12	Iodine-131	1.02E-02	1.22E-02	2.27E-02	7.00E-02	1.30E-02	pCi/m3
4JS(302656008) - AC	6-Apr-12	Iodine-131	5.84E-03	1.38E-02	2.59E-02	7.00E-02	1.41E-02	pCi/m3
4JS(303148008) - AC	13-Apr-12	Iodine-131	-4.28E-03	1.58E-02	2.62E-02	7.00E-02	1.59E-02	pCi/m3
4JS(303394008) - AP	19-Apr-12	Iodine-131	-5.81E-03	2.44E-02	4.04E-02	7.00E-02	2.46E-02	pCi/m3
4JS(303704008) - AC	27-Apr-12	Iodine-131	-1.38E-02	1.30E-02	1.77E-02	7.00E-02	1.44E-02	pCi/m3
4JS(304259008) - AC	4-May-12	Iodine-131	-7.30E-03	2.47E-02	4.08E-02	7.00E-02	2.49E-02	pCi/m3
4JS(304710008) - AC	10-May-12	Iodine-131	-6.62E-03	1.11E-02	1.68E-02	7.00E-02	1.15E-02	pCi/m3
4JS(305032008) - AC	17-May-12	Iodine-131	4.60E-03	1.08E-02	1.99E-02	7.00E-02	1.10E-02	pCi/m3
4JS(305329008) - AC	25-May-12	Iodine-131	9.11E-03	1.12E-02	2.15E-02	7.00E-02	1.19E-02	pCi/m3
4JS(305652008) - AC	1-Jun-12	Iodine-131	1.51E-02	1.66E-02	3.36E-02	7.00E-02	1.80E-02	pCi/m3
4JS(306146008) - AC	8-Jun-12	Iodine-131	-4.75E-03	1.34E-02	2.07E-02	7.00E-02	1.35E-02	pCi/m3
4JS(306527008) - AC	15-Jun-12	Iodine-131	4.35E-03	1.46E-02	2.53E-02	7.00E-02	1.47E-02	pCi/m3
4JS(306795008) - AC	22-Jun-12	Iodine-131	1.30E-03	1.75E-02	3.05E-02	7.00E-02	1.75E-02	pCi/m3
4JS(307247006) - AC	28-Jun-12	Iodine-131	-9.00E-03	1.37E-02	1.89E-02	7.00E-02	1.43E-02	pCi/m3
4JS(307880006) - AC	5-Jul-12	Iodine-131	-3.81E-03	1.23E-02	1.96E-02	7.00E-02	1.24E-02	pCi/m3
4JS(308136006) - AC	12-Jul-12	Iodine-131	-2.18E-03	1.52E-02	2.46E-02	7.00E-02	1.53E-02	pCi/m3
4JS(308563008) - AC	19-Jul-12	Iodine-131	-1.48E-02	2.02E-02	2.90E-02	7.00E-02	2.13E-02	pCi/m3
4JS(308963008) - AC	26-Jul-12	Iodine-131	1.97E-02	2.12E-02	4.29E-02	7.00E-02	2.30E-02	pCi/m3
4JS(309665008) - AC	3-Aug-12	Iodine-131	-3.33E-02	4.63E-02	6.89E-02	7.00E-02	4.87E-02	pCi/m3
4JS(309845008) - AC	10-Aug-12	Iodine-131	-3.26E-03	1.49E-02	2.39E-02	7.00E-02	1.49E-02	pCi/m3
4JS(310024008) - AC	17-Aug-12	Iodine-131	9.71E-03	2.09E-02	3.81E-02	7.00E-02	2.13E-02	pCi/m3
4JS(310455008) - AC	24-Aug-12	Iodine-131	-9.55E-03	1.57E-02	2.40E-02	7.00E-02	1.63E-02	pCi/m3
4JS(310772008) - AC	31-Aug-12	Iodine-131	-5.13E-03	1.16E-02	1.77E-02	7.00E-02	1.19E-02	pCi/m3
4JS(311287008) - AC	6-Sep-12	Iodine-131	-4.26E-03	1.69E-02	2.69E-02	7.00E-02	1.70E-02	pCi/m3
4JS(311590008) - AC	14-Sep-12	Iodine-131	-2.86E-03	2.21E-02	3.53E-02	7.00E-02	2.21E-02	pCi/m3
4JS(312007008) - AC	21-Sep-12	Iodine-131	-8.98E-03	1.91E-02	2.99E-02	7.00E-02	1.95E-02	pCi/m3
4JS(312520008) - AC	28-Sep-12	Iodine-131	8.53E-03	1.83E-02	3.34E-02	7.00E-02	1.87E-02	pCi/m3
4JS(313304008) - AC	5-Oct-12	Iodine-131	-4.74E-03	1.08E-02	1.76E-02	7.00E-02	1.10E-02	pCi/m3
4JS(313510008) - AC	12-Oct-12	Iodine-131	1.27E-02	1.48E-02	2.82E-02	7.00E-02	1.59E-02	pCi/m3
4JS(314081008) - AC	19-Oct-12	Iodine-131	1.45E-03	1.80E-02	3.12E-02	7.00E-02	1.80E-02	pCi/m3
4JS(314490008) - AC	26-Oct-12	Iodine-131	-4.17E-03	1.06E-02	1.65E-02	7.00E-02	1.07E-02	pCi/m3
4JS(314789008) - AC	2-Nov-12	Iodine-131	3.26E-03	1.10E-02	1.73E-02	7.00E-02	1.11E-02	pCi/m3
4JS(315478008) - AC	9-Nov-12	Iodine-131	-1.38E-04	8.21E-03	1.40E-02	7.00E-02	8.21E-03	pCi/m3
4JS(315754008) - AC	16-Nov-12	Iodine-131	-3.21E-03	1.48E-02	2.50E-02	7.00E-02	1.49E-02	pCi/m3
4JS(316061008) - AC	23-Nov-12	Iodine-131	3.55E-03	1.00E-02	1.75E-02	7.00E-02	1.02E-02	pCi/m3
4JS(316466008) - AC	30-Nov-12	Iodine-131	1.03E-02	2.11E-02	3.61E-02	7.00E-02	2.16E-02	pCi/m3
4JS(316829008) - AC	7-Dec-12	Iodine-131	4.88E-03	1.48E-02	2.70E-02	7.00E-02	1.50E-02	pCi/m3

4JS(317131008) - AC	14-Dec-12	Iodine-131	-1.33E-02	1.54E-02	1.91E-02	7.00E-02	1.66E-02	pCi/m3
4JS(317478008) - AC	20-Dec-12	Iodine-131	2.64E-02	2.36E-02	3.25E-02	7.00E-02	2.37E-02	pCi/m3
4JS(317479008) - AC	27-Dec-12	Iodine-131	6.48E-03	1.31E-02	2.42E-02	7.00E-02	1.35E-02	pCi/m3

4JS
AP

Sample Name	Date Collected	Nuclide	Result	2 Sigma Uncert	MDC	LLD	2 Sigma TPU	Units
4JS(294021003) - AP	6-Jan-12	BETA	3.83E-02	5.57E-03	2.16E-03	1.00E-02	5.62E-03	pCi/m3
4JS(294538003) - AP	13-Jan-12	BETA	4.59E-02	6.60E-03	2.53E-03	1.00E-02	6.66E-03	pCi/m3
4JS(294921003) - AP	19-Jan-12	BETA	4.13E-02	5.66E-03	2.08E-03	1.00E-02	5.72E-03	pCi/m3
4JS(295305003) - AP	27-Jan-12	BETA	5.40E-02	6.54E-03	2.00E-03	1.00E-02	6.63E-03	pCi/m3
4JS(295814003) - AP	3-Feb-12	BETA	4.31E-02	5.82E-03	1.97E-03	1.00E-02	5.89E-03	pCi/m3
4JS(296278003) - AP	10-Feb-12	BETA	4.31E-02	5.55E-03	1.82E-03	1.00E-02	5.62E-03	pCi/m3
4JS(296564003) - AP	17-Feb-12	BETA	4.57E-02	6.04E-03	2.03E-03	1.00E-02	6.11E-03	pCi/m3
4JS(297009003) - AP	24-Feb-12	BETA	5.28E-02	6.55E-03	2.25E-03	1.00E-02	6.64E-03	pCi/m3
4JS(297528003) - AP	2-Mar-12	BETA	4.46E-02	5.83E-03	2.10E-03	1.00E-02	5.90E-03	pCi/m3
4JS(297688003) - AP	9-Mar-12	BETA	4.63E-02	6.79E-03	2.72E-03	1.00E-02	6.86E-03	pCi/m3
4JS(298316003) - AP	15-Mar-12	BETA	4.26E-02	5.98E-03	2.13E-03	1.00E-02	6.05E-03	pCi/m3
4JS(298530003) - AP	22-Mar-12	BETA	4.24E-02	6.06E-03	2.23E-03	1.00E-02	6.12E-03	pCi/m3
4JS(301305003) - AP	30-Mar-12	BETA	3.04E-02	4.60E-03	1.79E-03	1.00E-02	4.64E-03	pCi/m3
4JS(302656003) - AP	6-Apr-12	BETA	3.89E-02	5.84E-03	2.24E-03	1.00E-02	5.89E-03	pCi/m3
4JS(303148003) - AP	13-Apr-12	BETA	4.46E-02	6.46E-03	2.64E-03	1.00E-02	6.53E-03	pCi/m3
4JS(303394003) - AP	19-Apr-12	BETA	2.86E-02	4.99E-03	2.39E-03	1.00E-02	5.02E-03	pCi/m3
4JS(303704003) - AP	27-Apr-12	BETA	4.67E-02	6.04E-03	2.09E-03	1.00E-02	6.11E-03	pCi/m3
4JS(304259003) - AP	4-May-12	BETA	4.32E-02	6.22E-03	2.30E-03	1.00E-02	6.28E-03	pCi/m3
4JS(304710003) - AP	10-May-12	BETA	3.14E-02	5.10E-03	2.10E-03	1.00E-02	5.14E-03	pCi/m3
4JS(305032003) - AP	17-May-12	BETA	4.67E-02	6.26E-03	2.17E-03	1.00E-02	6.33E-03	pCi/m3
4JS(305329003) - AP	25-May-12	BETA	4.17E-02	5.36E-03	2.49E-03	1.00E-02	5.39E-03	pCi/m3
4JS(305652003) - AP	1-Jun-12	BETA	3.25E-02	5.66E-03	3.33E-03	1.00E-02	5.67E-03	pCi/m3
4JS(306146003) - AP	8-Jun-12	BETA	4.92E-02	6.19E-03	2.82E-03	1.00E-02	6.23E-03	pCi/m3
4JS(306527003) - AP	15-Jun-12	BETA	3.56E-02	5.47E-03	3.07E-03	1.00E-02	5.50E-03	pCi/m3
4JS(306795003) - AP	22-Jun-12	BETA	3.80E-02	5.69E-03	3.13E-03	1.00E-02	5.71E-03	pCi/m3
4JS(307247001) - AP	28-Jun-12	BETA	4.60E-02	6.31E-03	2.15E-03	1.00E-02	6.38E-03	pCi/m3
4JS(307880001) - AP	5-Jul-12	BETA	7.02E-02	7.69E-03	2.27E-03	1.00E-02	7.82E-03	pCi/m3
4JS(308136001) - AP	12-Jul-12	BETA	4.84E-02	6.55E-03	2.35E-03	1.00E-02	6.62E-03	pCi/m3
4JS(308563003) - AP	19-Jul-12	BETA	4.67E-02	6.27E-03	2.05E-03	1.00E-02	6.34E-03	pCi/m3
4JS(308963003) - AP	26-Jul-12	BETA	4.97E-02	7.37E-03	2.72E-03	1.00E-02	7.44E-03	pCi/m3
4JS(309665003) - AP	3-Aug-12	BETA	5.74E-02	7.64E-03	2.49E-03	1.00E-02	7.72E-03	pCi/m3
4JS(309845003) - AP	10-Aug-12	BETA	4.29E-02	7.23E-03	2.92E-03	1.00E-02	7.28E-03	pCi/m3
4JS(310024003) - AP	17-Aug-12	BETA	6.44E-02	9.23E-03	3.22E-03	1.00E-02	9.33E-03	pCi/m3
4JS(310455003) - AP	24-Aug-12	BETA	6.31E-02	8.44E-03	2.74E-03	1.00E-02	8.54E-03	pCi/m3
4JS(310772003) - AP	31-Aug-12	BETA	4.63E-02	7.45E-03	2.87E-03	1.00E-02	7.51E-03	pCi/m3
4JS(311287003) - AP	6-Sep-12	BETA	4.36E-02	7.27E-03	3.05E-03	1.00E-02	7.32E-03	pCi/m3
4JS(311590003) - AP	14-Sep-12	BETA	6.30E-02	8.36E-03	2.92E-03	1.00E-02	8.46E-03	pCi/m3

4JS(312007003) - AP	21-Sep-12	BETA	3.34E-02	6.27E-03	2.73E-03	1.00E-02	6.30E-03	pCi/m3
4JS(312520003) - AP	28-Sep-12	BETA	4.94E-02	7.06E-03	2.63E-03	1.00E-02	7.13E-03	pCi/m3
4JS(313304003) - AP	5-Oct-12	BETA	4.01E-02	6.79E-03	2.68E-03	1.00E-02	6.84E-03	pCi/m3
4JS(313510003) - AP	12-Oct-12	BETA	4.86E-02	7.82E-03	3.06E-03	1.00E-02	7.89E-03	pCi/m3
4JS(314081003) - AP	19-Oct-12	BETA	4.50E-02	6.97E-03	2.68E-03	1.00E-02	7.03E-03	pCi/m3
4JS(314490003) - AP	26-Oct-12	BETA	5.36E-02	7.33E-03	2.51E-03	1.00E-02	7.41E-03	pCi/m3
4JS(314789003) - AP	2-Nov-12	BETA	2.59E-02	5.27E-03	2.59E-03	1.00E-02	5.29E-03	pCi/m3
4JS(315478003) - AP	9-Nov-12	BETA	5.80E-02	7.17E-03	2.12E-03	1.00E-02	7.27E-03	pCi/m3
4JS(315754003) - AP	16-Nov-12	BETA	6.88E-02	9.06E-03	2.84E-03	1.00E-02	9.17E-03	pCi/m3
4JS(316061003) - AP	23-Nov-12	BETA	8.76E-02	8.62E-03	2.09E-03	1.00E-02	8.80E-03	pCi/m3
4JS(316466003) - AP	30-Nov-12	BETA	9.95E-02	1.09E-02	2.94E-03	1.00E-02	1.11E-02	pCi/m3
4JS(316829003) - AP	7-Dec-12	BETA	4.29E-02	6.47E-03	2.34E-03	1.00E-02	6.53E-03	pCi/m3
4JS(317131003) - AP	14-Dec-12	BETA	5.04E-02	7.23E-03	2.65E-03	1.00E-02	7.31E-03	pCi/m3
4JS(317478003) - AP	20-Dec-12	BETA	5.65E-02	7.58E-03	2.79E-03	1.00E-02	7.67E-03	pCi/m3
4JS(317479003) - AP	27-Dec-12	BETA	4.75E-02	6.87E-03	2.70E-03	1.00E-02	6.93E-03	pCi/m3
4JS(303289003) - AP	10-Feb-12	Beryllium-7	1.09E-01	1.79E-02	9.79E-03		1.80E-02	pCi/m3
4JS(308059003) - AP	10-May-12	Beryllium-7	9.10E-02	1.44E-02	6.48E-03		1.45E-02	pCi/m3
4JS(313324001) - AP	9-Aug-12	Beryllium-7	1.36E-01	2.06E-02	9.51E-03		2.08E-02	pCi/m3
4JS(318975003) - AP	8-Nov-12	Beryllium-7	4.31E-02	8.02E-03	5.92E-03		8.82E-03	pCi/m3
4JS(303289003) - AP	10-Feb-12	Cesium-134	9.54E-05	3.55E-04	6.26E-04	5.00E-02	3.58E-04	pCi/m3
4JS(308059003) - AP	10-May-12	Cesium-134	-4.36E-05	3.09E-04	4.96E-04	5.00E-02	3.10E-04	pCi/m3
4JS(313324001) - AP	9-Aug-12	Cesium-134	-1.39E-04	4.01E-04	6.39E-04	5.00E-02	4.06E-04	pCi/m3
4JS(318975003) - AP	8-Nov-12	Cesium-134	1.88E-04	2.36E-04	2.89E-04	5.00E-02	2.52E-04	pCi/m3
4JS(303289003) - AP	10-Feb-12	Cesium-137	-9.12E-05	3.61E-04	5.37E-04	6.00E-02	3.63E-04	pCi/m3
4JS(308059003) - AP	10-May-12	Cesium-137	2.34E-05	2.22E-04	3.81E-04	6.00E-02	2.23E-04	pCi/m3
4JS(313324001) - AP	9-Aug-12	Cesium-137	7.67E-05	3.99E-04	6.70E-04	6.00E-02	4.00E-04	pCi/m3
4JS(318975003) - AP	8-Nov-12	Cesium-137	-2.73E-05	2.24E-04	3.53E-04	6.00E-02	2.24E-04	pCi/m3

5PR

AC

Sample Name	Date Collected	Nuclide	Result	2 Sigma Uncert	MDC	LLD	2 Sigma TPU	Units
5PR(294021009) - AC	6-Jan-12	Iodine-131	1.70E-02	3.30E-02	6.17E-02	7.00E-02	3.39E-02	pCi/m3
5PR(294538009) - AC	13-Jan-12	Iodine-131	-4.26E-03	2.87E-02	4.68E-02	7.00E-02	2.88E-02	pCi/m3
5PR(294921009) - AC	19-Jan-12	Iodine-131	-8.04E-03	1.24E-02	2.09E-02	7.00E-02	1.29E-02	pCi/m3
5PR(295305009) - AC	27-Jan-12	Iodine-131	1.44E-02	2.40E-02	4.30E-02	7.00E-02	2.48E-02	pCi/m3
5PR(295814009) - AC	3-Feb-12	Iodine-131	-8.35E-03	2.14E-02	3.38E-02	7.00E-02	2.17E-02	pCi/m3
5PR(296278009) - AC	10-Feb-12	Iodine-131	-1.57E-03	2.43E-02	4.09E-02	7.00E-02	2.43E-02	pCi/m3
5PR(296564009) - AC	17-Feb-12	Iodine-131	-9.26E-03	1.91E-02	2.73E-02	7.00E-02	1.95E-02	pCi/m3
5PR(297009009) - AC	24-Feb-12	Iodine-131	-9.62E-03	1.60E-02	2.45E-02	7.00E-02	1.65E-02	pCi/m3
5PR(297528009) - AC	2-Mar-12	Iodine-131	4.12E-03	1.77E-02	3.09E-02	7.00E-02	1.78E-02	pCi/m3
5PR(297688009) - AC	9-Mar-12	Iodine-131	-7.74E-03	1.51E-02	2.41E-02	7.00E-02	1.55E-02	pCi/m3
5PR(298316009) - AC	15-Mar-12	Iodine-131	-3.58E-02	4.93E-02	6.38E-02	7.00E-02	5.19E-02	pCi/m3
5PR(298530009) - AC	22-Mar-12	Iodine-131	-1.18E-02	2.85E-02	4.65E-02	7.00E-02	2.90E-02	pCi/m3
5PR(301305009) - AC	30-Mar-12	Iodine-131	1.33E-04	1.62E-02	2.82E-02	7.00E-02	1.62E-02	pCi/m3

5PR(302656009) - AC	6-Apr-12	Iodine-131	2.11E-02	3.35E-02	6.42E-02	7.00E-02	3.48E-02	pCi/m3
5PR(303148009) - AC	13-Apr-12	Iodine-131	2.84E-02	2.45E-02	5.01E-02	7.00E-02	2.76E-02	pCi/m3
5PR(303394009) - AP	19-Apr-12	Iodine-131	-1.93E-02	2.70E-02	3.84E-02	7.00E-02	2.83E-02	pCi/m3
5PR(303704009) - AC	27-Apr-12	Iodine-131	1.58E-02	1.64E-02	3.33E-02	7.00E-02	1.79E-02	pCi/m3
5PR(304259009) - AC	4-May-12	Iodine-131	3.46E-03	3.68E-02	6.38E-02	7.00E-02	3.69E-02	pCi/m3
5PR(304710009) - AC	10-May-12	Iodine-131	-2.01E-03	2.16E-02	3.64E-02	7.00E-02	2.16E-02	pCi/m3
5PR(305032009) - AC	17-May-12	Iodine-131	-2.40E-03	2.54E-02	4.16E-02	7.00E-02	2.54E-02	pCi/m3
5PR(305329009) - AC	25-May-12	Iodine-131	-4.75E-03	2.15E-02	3.54E-02	7.00E-02	2.16E-02	pCi/m3
5PR(305652009) - AC	1-Jun-12	Iodine-131	-1.04E-02	2.86E-02	4.26E-02	7.00E-02	2.90E-02	pCi/m3
5PR(306146009) - AC	8-Jun-12	Iodine-131	-3.01E-03	1.73E-02	2.87E-02	7.00E-02	1.74E-02	pCi/m3
5PR(306527009) - AC	15-Jun-12	Iodine-131	-3.78E-02	3.12E-02	3.45E-02	7.00E-02	3.56E-02	pCi/m3
5PR(306795009) - AC	22-Jun-12	Iodine-131	-4.36E-03	1.62E-02	2.62E-02	7.00E-02	1.63E-02	pCi/m3
5PR(307247007) - AC	28-Jun-12	Iodine-131	-4.29E-02	3.55E-02	4.71E-02	7.00E-02	4.05E-02	pCi/m3
5PR(307880007) - AC	5-Jul-12	Iodine-131	2.06E-02	2.58E-02	4.69E-02	7.00E-02	2.74E-02	pCi/m3
5PR(308136007) - AC	12-Jul-12	Iodine-131	-1.13E-02	2.99E-02	4.68E-02	7.00E-02	3.03E-02	pCi/m3
5PR(308563009) - AC	19-Jul-12	Iodine-131	1.09E-02	2.21E-02	3.91E-02	7.00E-02	2.26E-02	pCi/m3
5PR(308963009) - AC	26-Jul-12	Iodine-131	-1.72E-02	3.02E-02	4.70E-02	7.00E-02	3.12E-02	pCi/m3
5PR(309665009) - AC	3-Aug-12	Iodine-131	-1.91E-02	3.94E-02	5.71E-02	7.00E-02	4.04E-02	pCi/m3
5PR(309845009) - AC	10-Aug-12	Iodine-131	-7.88E-03	3.49E-02	5.75E-02	7.00E-02	3.51E-02	pCi/m3
5PR(310024009) - AC	17-Aug-12	Iodine-131	-2.65E-04	2.64E-02	4.46E-02	7.00E-02	2.64E-02	pCi/m3
5PR(310455009) - AC	24-Aug-12	Iodine-131	-2.99E-03	2.76E-02	4.53E-02	7.00E-02	2.77E-02	pCi/m3
5PR(310772009) - AC	31-Aug-12	Iodine-131	2.90E-03	3.09E-02	5.13E-02	7.00E-02	3.09E-02	pCi/m3
5PR(311287009) - AC	6-Sep-12	Iodine-131	2.08E-02	2.21E-02	4.04E-02	7.00E-02	2.40E-02	pCi/m3
5PR(311590009) - AC	14-Sep-12	Iodine-131	-2.38E-03	2.19E-02	3.53E-02	7.00E-02	2.20E-02	pCi/m3
5PR(312007009) - AC	21-Sep-12	Iodine-131	8.73E-03	1.76E-02	3.04E-02	7.00E-02	1.80E-02	pCi/m3
5PR(312520009) - AC	28-Sep-12	Iodine-131	-1.69E-03	2.28E-02	3.75E-02	7.00E-02	2.28E-02	pCi/m3
5PR(313304009) - AC	5-Oct-12	Iodine-131	1.60E-02	2.26E-02	4.12E-02	7.00E-02	2.38E-02	pCi/m3
5PR(313510009) - AC	12-Oct-12	Iodine-131	-7.68E-03	1.99E-02	3.10E-02	7.00E-02	2.02E-02	pCi/m3
5PR(314081009) - AC	19-Oct-12	Iodine-131	1.22E-02	2.57E-02	4.75E-02	7.00E-02	2.62E-02	pCi/m3
5PR(314490009) - AC	26-Oct-12	Iodine-131	-1.60E-02	2.41E-02	3.61E-02	7.00E-02	2.52E-02	pCi/m3
5PR(314789009) - AC	2-Nov-12	Iodine-131	8.38E-03	2.08E-02	3.77E-02	7.00E-02	2.11E-02	pCi/m3
5PR(315478009) - AC	9-Nov-12	Iodine-131	-4.92E-03	1.18E-02	1.89E-02	7.00E-02	1.20E-02	pCi/m3
5PR(315754009) - AC	16-Nov-12	Iodine-131	-6.59E-04	1.78E-02	3.01E-02	7.00E-02	1.78E-02	pCi/m3
5PR(316061009) - AC	23-Nov-12	Iodine-131	-1.00E-02	2.75E-02	4.58E-02	7.00E-02	2.78E-02	pCi/m3
5PR(316466009) - AC	30-Nov-12	Iodine-131	1.54E-02	3.93E-02	6.99E-02	7.00E-02	4.00E-02	pCi/m3
5PR(316829009) - AC	7-Dec-12	Iodine-131	1.15E-02	3.15E-02	5.79E-02	7.00E-02	3.19E-02	pCi/m3
5PR(317131009) - AC	14-Dec-12	Iodine-131	-2.18E-02	3.88E-02	5.35E-02	7.00E-02	4.01E-02	pCi/m3
5PR(317478009) - AC	20-Dec-12	Iodine-131	-1.46E-02	4.02E-02	6.18E-02	7.00E-02	4.07E-02	pCi/m3
5PR(317479009) - AC	27-Dec-12	Iodine-131	1.30E-02	1.83E-02	3.51E-02	7.00E-02	1.93E-02	pCi/m3

5PR
AP

Sample Name	Date Collected	Nuclide	Result	2 Sigma Uncert	MDC	LLD	2 Sigma TPU	Units
5PR(294021004) - AP	6-Jan-12	BETA	6.53E-02	9.67E-03	3.82E-03	1.00E-02	9.76E-03	pCi/m3

5PR(294538004) - AP	13-Jan-12	BETA	9.68E-02	1.27E-02	4.50E-03	1.00E-02	1.29E-02	pCi/m3
5PR(294921004) - AP	19-Jan-12	BETA	6.93E-02	1.01E-02	3.93E-03	1.00E-02	1.02E-02	pCi/m3
5PR(295305004) - AP	27-Jan-12	BETA	8.67E-02	1.11E-02	3.59E-03	1.00E-02	1.13E-02	pCi/m3
5PR(295814004) - AP	3-Feb-12	BETA	7.13E-02	9.84E-03	3.40E-03	1.00E-02	9.95E-03	pCi/m3
5PR(296278004) - AP	10-Feb-12	BETA	6.67E-02	9.16E-03	3.19E-03	1.00E-02	9.26E-03	pCi/m3
5PR(296564004) - AP	17-Feb-12	BETA	8.01E-02	1.06E-02	3.59E-03	1.00E-02	1.08E-02	pCi/m3
5PR(297009004) - AP	24-Feb-12	BETA	7.78E-02	1.05E-02	3.86E-03	1.00E-02	1.06E-02	pCi/m3
5PR(297528004) - AP	2-Mar-12	BETA	6.78E-02	9.72E-03	3.81E-03	1.00E-02	9.82E-03	pCi/m3
5PR(297688004) - AP	9-Mar-12	BETA	6.37E-02	1.29E-02	6.81E-03	1.00E-02	1.30E-02	pCi/m3
5PR(298316004) - AP	15-Mar-12	BETA	6.26E-02	9.00E-03	3.27E-03	1.00E-02	9.09E-03	pCi/m3
5PR(298530004) - AP	22-Mar-12	BETA	4.75E-02	9.50E-03	4.70E-03	1.00E-02	9.55E-03	pCi/m3
5PR(301305004) - AP	30-Mar-12	BETA	3.63E-02	6.72E-03	3.12E-03	1.00E-02	6.76E-03	pCi/m3
5PR(302656004) - AP	6-Apr-12	BETA	5.70E-02	1.04E-02	4.75E-03	1.00E-02	1.05E-02	pCi/m3
5PR(303148004) - AP	13-Apr-12	BETA	5.65E-02	9.50E-03	4.42E-03	1.00E-02	9.57E-03	pCi/m3
5PR(303394004) - AP	19-Apr-12	BETA	6.28E-02	1.07E-02	5.02E-03	1.00E-02	1.08E-02	pCi/m3
5PR(303704004) - AP	27-Apr-12	BETA	7.16E-02	9.82E-03	3.59E-03	1.00E-02	9.93E-03	pCi/m3
5PR(304259004) - AP	4-May-12	BETA	6.41E-02	1.07E-02	4.52E-03	1.00E-02	1.08E-02	pCi/m3
5PR(304710004) - AP	10-May-12	BETA	5.05E-02	8.20E-03	3.38E-03	1.00E-02	8.27E-03	pCi/m3
5PR(305032004) - AP	17-May-12	BETA	7.39E-02	1.12E-02	4.31E-03	1.00E-02	1.13E-02	pCi/m3
5PR(305329004) - AP	25-May-12	BETA	5.49E-02	7.76E-03	3.90E-03	1.00E-02	7.79E-03	pCi/m3
5PR(305652004) - AP	1-Jun-12	BETA	7.48E-02	1.26E-02	7.22E-03	1.00E-02	1.26E-02	pCi/m3
5PR(306146004) - AP	8-Jun-12	BETA	5.11E-02	8.17E-03	4.54E-03	1.00E-02	8.20E-03	pCi/m3
5PR(306527004) - AP	15-Jun-12	BETA	7.22E-02	1.16E-02	6.71E-03	1.00E-02	1.16E-02	pCi/m3
5PR(306795004) - AP	22-Jun-12	BETA	5.82E-02	9.12E-03	5.20E-03	1.00E-02	9.15E-03	pCi/m3
5PR(307247002) - AP	28-Jun-12	BETA	8.29E-02	1.26E-02	4.74E-03	1.00E-02	1.27E-02	pCi/m3
5PR(307880002) - AP	5-Jul-12	BETA	8.96E-02	1.11E-02	3.66E-03	1.00E-02	1.12E-02	pCi/m3
5PR(308136002) - AP	12-Jul-12	BETA	7.64E-02	1.22E-02	5.09E-03	1.00E-02	1.23E-02	pCi/m3
5PR(308563004) - AP	19-Jul-12	BETA	7.17E-02	9.99E-03	3.37E-03	1.00E-02	1.01E-02	pCi/m3
5PR(308963004) - AP	26-Jul-12	BETA	5.60E-02	1.04E-02	4.70E-03	1.00E-02	1.05E-02	pCi/m3
5PR(309665004) - AP	3-Aug-12	BETA	6.97E-02	9.17E-03	2.96E-03	1.00E-02	9.28E-03	pCi/m3
5PR(309845004) - AP	10-Aug-12	BETA	6.33E-02	1.15E-02	4.93E-03	1.00E-02	1.15E-02	pCi/m3
5PR(310024004) - AP	17-Aug-12	BETA	7.55E-02	1.14E-02	4.19E-03	1.00E-02	1.15E-02	pCi/m3
5PR(310455004) - AP	24-Aug-12	BETA	9.44E-02	1.31E-02	4.38E-03	1.00E-02	1.32E-02	pCi/m3
5PR(310772004) - AP	31-Aug-12	BETA	7.87E-02	1.07E-02	3.51E-03	1.00E-02	1.08E-02	pCi/m3
5PR(311287004) - AP	6-Sep-12	BETA	5.62E-02	1.09E-02	5.20E-03	1.00E-02	1.09E-02	pCi/m3
5PR(311590004) - AP	14-Sep-12	BETA	9.06E-02	1.14E-02	3.77E-03	1.00E-02	1.15E-02	pCi/m3
5PR(312007004) - AP	21-Sep-12	BETA	7.03E-02	1.27E-02	5.34E-03	1.00E-02	1.28E-02	pCi/m3
5PR(312520004) - AP	28-Sep-12	BETA	7.88E-02	1.04E-02	3.62E-03	1.00E-02	1.05E-02	pCi/m3
5PR(313304004) - AP	5-Oct-12	BETA	6.64E-02	1.24E-02	5.30E-03	1.00E-02	1.24E-02	pCi/m3
5PR(313510004) - AP	12-Oct-12	BETA	9.30E-02	1.32E-02	4.62E-03	1.00E-02	1.33E-02	pCi/m3
5PR(314081004) - AP	19-Oct-12	BETA	8.71E-02	1.39E-02	5.47E-03	1.00E-02	1.40E-02	pCi/m3
5PR(314490004) - AP	26-Oct-12	BETA	7.83E-02	1.07E-02	3.65E-03	1.00E-02	1.08E-02	pCi/m3
5PR(314789004) - AP	2-Nov-12	BETA	6.32E-02	1.21E-02	5.66E-03	1.00E-02	1.22E-02	pCi/m3
5PR(315478004) - AP	9-Nov-12	BETA	1.05E-01	1.20E-02	3.30E-03	1.00E-02	1.22E-02	pCi/m3

5PR(315754004) - AP	16-Nov-12	BETA	1.63E-01	1.99E-02	5.83E-03	1.00E-02	2.02E-02	pCi/m3
5PR(316061004) - AP	23-Nov-12	BETA	1.60E-01	1.44E-02	3.22E-03	1.00E-02	1.48E-02	pCi/m3
5PR(316466004) - AP	30-Nov-12	BETA	2.29E-01	2.35E-02	5.95E-03	1.00E-02	2.40E-02	pCi/m3
5PR(316829004) - AP	7-Dec-12	BETA	7.76E-02	1.08E-02	3.63E-03	1.00E-02	1.09E-02	pCi/m3
5PR(317131004) - AP	14-Dec-12	BETA	1.04E-01	1.49E-02	5.48E-03	1.00E-02	1.51E-02	pCi/m3
5PR(317478004) - AP	20-Dec-12	BETA	9.85E-02	1.24E-02	4.27E-03	1.00E-02	1.25E-02	pCi/m3
5PR(317479004) - AP	27-Dec-12	BETA	9.74E-02	1.44E-02	5.76E-03	1.00E-02	1.45E-02	pCi/m3
5PR(303289004) - AP	10-Feb-12	Beryllium-7	2.27E-01	4.83E-02	3.20E-02		4.85E-02	pCi/m3
5PR(308059004) - AP	10-May-12	Beryllium-7	1.38E-01	2.22E-02	1.10E-02		2.23E-02	pCi/m3
5PR(313324002) - AP	9-Aug-12	Beryllium-7	2.14E-01	3.53E-02	1.88E-02		3.56E-02	pCi/m3
5PR(318975004) - AP	8-Nov-12	Beryllium-7	7.39E-02	1.61E-02	1.24E-02		1.73E-02	pCi/m3
5PR(303289004) - AP	10-Feb-12	Cesium-134	-5.13E-04	1.30E-03	2.11E-03	5.00E-02	1.32E-03	pCi/m3
5PR(308059004) - AP	10-May-12	Cesium-134	-2.36E-04	4.95E-04	7.30E-04	5.00E-02	5.07E-04	pCi/m3
5PR(313324002) - AP	9-Aug-12	Cesium-134	-5.33E-04	9.47E-04	1.46E-03	5.00E-02	9.77E-04	pCi/m3
5PR(318975004) - AP	8-Nov-12	Cesium-134	4.00E-05	3.72E-04	6.28E-04	5.00E-02	3.72E-04	pCi/m3
5PR(303289004) - AP	10-Feb-12	Cesium-137	2.63E-04	1.00E-03	1.75E-03	6.00E-02	1.01E-03	pCi/m3
5PR(308059004) - AP	10-May-12	Cesium-137	2.16E-04	4.02E-04	7.52E-04	6.00E-02	4.14E-04	pCi/m3
5PR(313324002) - AP	9-Aug-12	Cesium-137	6.38E-05	6.08E-04	1.04E-03	6.00E-02	6.09E-04	pCi/m3
5PR(318975004) - AP	8-Nov-12	Cesium-137	1.72E-04	3.19E-04	5.25E-04	6.00E-02	3.28E-04	pCi/m3

8SP

AC

Sample Name	Date Collected	Nuclide	Result	2 Sigma Uncert	MDC	LLD	2 Sigma TPU	Units
8SP(294021006) - AC	6-Jan-12	Iodine-131	1.25E-04	1.35E-02	2.23E-02	7.00E-02	1.35E-02	pCi/m3
8SP(294538006) - AC	13-Jan-12	Iodine-131	-1.29E-02	2.12E-02	3.11E-02	7.00E-02	2.20E-02	pCi/m3
8SP(294921006) - AC	19-Jan-12	Iodine-131	-2.57E-03	3.32E-02	5.51E-02	7.00E-02	3.33E-02	pCi/m3
8SP(295305006) - AC	27-Jan-12	Iodine-131	-1.25E-02	2.18E-02	3.41E-02	7.00E-02	2.25E-02	pCi/m3
8SP(295814006) - AC	3-Feb-12	Iodine-131	6.45E-03	1.10E-02	2.18E-02	7.00E-02	1.14E-02	pCi/m3
8SP(296278006) - AC	10-Feb-12	Iodine-131	1.77E-03	1.32E-02	2.26E-02	7.00E-02	1.32E-02	pCi/m3
8SP(296564006) - AC	17-Feb-12	Iodine-131	-1.06E-02	1.65E-02	2.34E-02	7.00E-02	1.72E-02	pCi/m3
8SP(297009006) - AC	24-Feb-12	Iodine-131	-2.98E-03	1.23E-02	1.97E-02	7.00E-02	1.24E-02	pCi/m3
8SP(297528006) - AC	2-Mar-12	Iodine-131	8.45E-03	1.85E-02	3.27E-02	7.00E-02	1.89E-02	pCi/m3
8SP(297688006) - AC	9-Mar-12	Iodine-131	-8.74E-03	1.12E-02	1.76E-02	7.00E-02	1.19E-02	pCi/m3
8SP(298316006) - AC	15-Mar-12	Iodine-131	-2.44E-03	2.43E-02	3.84E-02	7.00E-02	2.44E-02	pCi/m3
8SP(298530006) - AC	22-Mar-12	Iodine-131	4.15E-03	1.47E-02	2.54E-02	7.00E-02	1.48E-02	pCi/m3
8SP(301305006) - AC	30-Mar-12	Iodine-131	-2.27E-03	1.05E-02	1.68E-02	7.00E-02	1.05E-02	pCi/m3
8SP(302656006) - AC	6-Apr-12	Iodine-131	-1.51E-03	1.24E-02	1.97E-02	7.00E-02	1.24E-02	pCi/m3
8SP(303148006) - AC	13-Apr-12	Iodine-131	4.64E-03	1.65E-02	2.98E-02	7.00E-02	1.66E-02	pCi/m3
8SP(303394006) - AP	19-Apr-12	Iodine-131	1.05E-03	1.37E-02	2.33E-02	7.00E-02	1.37E-02	pCi/m3
8SP(303704006) - AC	27-Apr-12	Iodine-131	6.51E-03	1.42E-02	2.65E-02	7.00E-02	1.45E-02	pCi/m3
8SP(304259006) - AC	3-May-12	Iodine-131	-2.45E-04	1.51E-02	2.51E-02	7.00E-02	1.51E-02	pCi/m3
8SP(304710006) - AC	10-May-12	Iodine-131	-2.88E-04	1.43E-02	2.41E-02	7.00E-02	1.43E-02	pCi/m3
8SP(305032006) - AC	17-May-12	Iodine-131	6.15E-03	2.86E-02	5.01E-02	7.00E-02	2.87E-02	pCi/m3
8SP(305329006) - AC	25-May-12	Iodine-131	1.80E-03	1.40E-02	2.40E-02	7.00E-02	1.40E-02	pCi/m3

8SP(305652006) - AC	1-Jun-12	Iodine-131	-6.61E-03	1.94E-02	2.98E-02	7.00E-02	1.96E-02	pCi/m3
8SP(306146006) - AC	8-Jun-12	Iodine-131	5.76E-03	1.89E-02	3.35E-02	7.00E-02	1.91E-02	pCi/m3
8SP(306527006) - AC	15-Jun-12	Iodine-131	-1.99E-03	1.53E-02	2.47E-02	7.00E-02	1.53E-02	pCi/m3
8SP(306795006) - AC	21-Jun-12	Iodine-131	9.23E-03	2.77E-02	4.93E-02	7.00E-02	2.80E-02	pCi/m3
8SP(307247008) - AC	28-Jun-12	Iodine-131	-4.11E-03	1.81E-02	2.89E-02	7.00E-02	1.82E-02	pCi/m3
8SP(307880008) - AC	5-Jul-12	Iodine-131	-2.47E-03	1.29E-02	2.13E-02	7.00E-02	1.29E-02	pCi/m3
8SP(308136008) - AC	12-Jul-12	Iodine-131	3.38E-04	1.64E-02	2.71E-02	7.00E-02	1.65E-02	pCi/m3
8SP(308563006) - AC	19-Jul-12	Iodine-131	-1.83E-03	1.53E-02	2.51E-02	7.00E-02	1.54E-02	pCi/m3
8SP(308963006) - AC	26-Jul-12	Iodine-131	-2.32E-02	2.68E-02	3.93E-02	7.00E-02	2.88E-02	pCi/m3
8SP(309665006) - AC	3-Aug-12	Iodine-131	-2.21E-02	3.03E-02	4.49E-02	7.00E-02	3.19E-02	pCi/m3
8SP(309845006) - AC	10-Aug-12	Iodine-131	-1.48E-02	2.52E-02	3.63E-02	7.00E-02	2.61E-02	pCi/m3
8SP(310024006) - AC	17-Aug-12	Iodine-131	2.84E-02	3.28E-02	6.19E-02	7.00E-02	3.52E-02	pCi/m3
8SP(310455006) - AC	24-Aug-12	Iodine-131	1.51E-02	3.26E-02	5.24E-02	7.00E-02	3.33E-02	pCi/m3
8SP(310772006) - AC	31-Aug-12	Iodine-131	4.08E-03	1.08E-02	1.93E-02	7.00E-02	1.10E-02	pCi/m3
8SP(311287006) - AC	6-Sep-12	Iodine-131	-2.01E-03	1.65E-02	2.64E-02	7.00E-02	1.65E-02	pCi/m3
8SP(311590006) - AC	14-Sep-12	Iodine-131	-1.14E-02	1.72E-02	2.45E-02	7.00E-02	1.80E-02	pCi/m3
8SP(312007006) - AC	21-Sep-12	Iodine-131	1.92E-03	1.50E-02	2.64E-02	7.00E-02	1.51E-02	pCi/m3
8SP(312520006) - AC	28-Sep-12	Iodine-131	8.71E-04	1.55E-02	2.56E-02	7.00E-02	1.55E-02	pCi/m3
8SP(313304006) - AC	5-Oct-12	Iodine-131	4.73E-03	1.06E-02	1.89E-02	7.00E-02	1.09E-02	pCi/m3
8SP(313510006) - AC	12-Oct-12	Iodine-131	-4.61E-03	1.02E-02	1.51E-02	7.00E-02	1.04E-02	pCi/m3
8SP(314081006) - AC	19-Oct-12	Iodine-131	6.61E-03	3.21E-02	5.62E-02	7.00E-02	3.23E-02	pCi/m3
8SP(314490006) - AC	26-Oct-12	Iodine-131	1.68E-03	1.39E-02	2.34E-02	7.00E-02	1.40E-02	pCi/m3
8SP(314789006) - AC	2-Nov-12	Iodine-131	5.37E-03	1.77E-02	3.10E-02	7.00E-02	1.78E-02	pCi/m3
8SP(315478006) - AC	9-Nov-12	Iodine-131	-1.09E-02	8.84E-03	1.20E-02	7.00E-02	1.01E-02	pCi/m3
8SP(315754006) - AC	16-Nov-12	Iodine-131	3.87E-03	8.58E-03	1.44E-02	7.00E-02	8.75E-03	pCi/m3
8SP(316061006) - AC	23-Nov-12	Iodine-131	7.89E-04	7.71E-03	1.31E-02	7.00E-02	7.72E-03	pCi/m3
8SP(316466006) - AC	30-Nov-12	Iodine-131	3.22E-03	1.80E-02	3.00E-02	7.00E-02	1.80E-02	pCi/m3
8SP(316829006) - AC	7-Dec-12	Iodine-131	6.01E-03	2.48E-02	4.38E-02	7.00E-02	2.50E-02	pCi/m3
8SP(317131006) - AC	14-Dec-12	Iodine-131	5.96E-03	1.59E-02	2.92E-02	7.00E-02	1.61E-02	pCi/m3
8SP(317478006) - AC	20-Dec-12	Iodine-131	-2.00E-03	1.98E-02	3.30E-02	7.00E-02	1.99E-02	pCi/m3
8SP(317479006) - AC	27-Dec-12	Iodine-131	1.14E-02	1.96E-02	3.52E-02	7.00E-02	2.03E-02	pCi/m3

8SP

AP

Sample Name	Date Collected	Nuclide	Result	2 Sigma Uncert	MDC	LLD	2 Sigma TPU	Units
8SP(294021001) - AP	6-Jan-12	BETA	4.16E-02	6.33E-03	2.56E-03	1.00E-02	6.38E-03	pCi/m3
8SP(294538001) - AP	13-Jan-12	BETA	5.35E-02	7.75E-03	3.00E-03	1.00E-02	7.82E-03	pCi/m3
8SP(294921001) - AP	19-Jan-12	BETA	4.06E-02	6.14E-03	2.47E-03	1.00E-02	6.19E-03	pCi/m3
8SP(295305001) - AP	27-Jan-12	BETA	6.05E-02	7.50E-03	2.35E-03	1.00E-02	7.60E-03	pCi/m3
8SP(295814001) - AP	3-Feb-12	BETA	4.91E-02	6.78E-03	2.35E-03	1.00E-02	6.86E-03	pCi/m3
8SP(296278001) - AP	10-Feb-12	BETA	4.10E-02	5.90E-03	2.15E-03	1.00E-02	5.96E-03	pCi/m3
8SP(296564001) - AP	17-Feb-12	BETA	4.47E-02	6.55E-03	2.43E-03	1.00E-02	6.62E-03	pCi/m3
8SP(297009001) - AP	24-Feb-12	BETA	4.75E-02	6.81E-03	2.67E-03	1.00E-02	6.88E-03	pCi/m3
8SP(297528001) - AP	2-Mar-12	BETA	4.02E-02	6.06E-03	2.49E-03	1.00E-02	6.12E-03	pCi/m3

8SP(297688001) - AP	9-Mar-12	BETA	4.18E-02	7.08E-03	3.21E-03	1.00E-02	7.13E-03	pCi/m3
8SP(298316001) - AP	15-Mar-12	BETA	4.27E-02	6.54E-03	2.52E-03	1.00E-02	6.60E-03	pCi/m3
8SP(298530001) - AP	22-Mar-12	BETA	4.57E-02	6.80E-03	2.60E-03	1.00E-02	6.87E-03	pCi/m3
8SP(301305001) - AP	30-Mar-12	BETA	3.29E-02	5.24E-03	2.13E-03	1.00E-02	5.28E-03	pCi/m3
8SP(302656001) - AP	6-Apr-12	BETA	3.58E-02	6.09E-03	2.61E-03	1.00E-02	6.14E-03	pCi/m3
8SP(303148001) - AP	13-Apr-12	BETA	4.16E-02	6.88E-03	3.15E-03	1.00E-02	6.93E-03	pCi/m3
8SP(303394001) - AP	19-Apr-12	BETA	4.08E-02	6.34E-03	2.52E-03	1.00E-02	6.40E-03	pCi/m3
8SP(303704001) - AP	27-Apr-12	BETA	5.27E-02	6.97E-03	2.47E-03	1.00E-02	7.06E-03	pCi/m3
8SP(304259001) - AP	3-May-12	BETA	4.29E-02	6.73E-03	2.69E-03	1.00E-02	6.79E-03	pCi/m3
8SP(304710001) - AP	10-May-12	BETA	3.18E-02	5.51E-03	3.24E-03	1.00E-02	5.53E-03	pCi/m3
8SP(305032001) - AP	17-May-12	BETA	5.12E-02	7.11E-03	2.54E-03	1.00E-02	7.18E-03	pCi/m3
8SP(305329001) - AP	25-May-12	BETA	2.24E-02	4.45E-03	2.92E-03	1.00E-02	4.46E-03	pCi/m3
8SP(305652001) - AP	1-Jun-12	BETA	4.20E-02	6.90E-03	3.89E-03	1.00E-02	6.92E-03	pCi/m3
8SP(306146001) - AP	8-Jun-12	BETA	4.55E-02	6.54E-03	3.33E-03	1.00E-02	6.56E-03	pCi/m3
8SP(306527001) - AP	15-Jun-12	BETA	4.40E-02	6.58E-03	3.62E-03	1.00E-02	6.61E-03	pCi/m3
8SP(306795001) - AP	21-Jun-12	BETA	4.29E-02	6.55E-03	3.65E-03	1.00E-02	6.58E-03	pCi/m3
8SP(307247003) - AP	28-Jun-12	BETA	5.62E-02	7.53E-03	2.51E-03	1.00E-02	7.62E-03	pCi/m3
8SP(307880003) - AP	5-Jul-12	BETA	6.31E-02	7.98E-03	2.69E-03	1.00E-02	8.08E-03	pCi/m3
8SP(308136003) - AP	12-Jul-12	BETA	4.64E-02	6.97E-03	2.75E-03	1.00E-02	7.03E-03	pCi/m3
8SP(308563001) - AP	19-Jul-12	BETA	5.08E-02	7.13E-03	2.42E-03	1.00E-02	7.20E-03	pCi/m3
8SP(308963001) - AP	26-Jul-12	BETA	4.18E-02	6.54E-03	2.53E-03	1.00E-02	6.60E-03	pCi/m3
8SP(309665001) - AP	3-Aug-12	BETA	5.58E-02	6.95E-03	2.13E-03	1.00E-02	7.05E-03	pCi/m3
8SP(309845001) - AP	10-Aug-12	BETA	3.61E-02	6.16E-03	2.51E-03	1.00E-02	6.20E-03	pCi/m3
8SP(310024001) - AP	17-Aug-12	BETA	5.61E-02	8.02E-03	2.79E-03	1.00E-02	8.10E-03	pCi/m3
8SP(310455001) - AP	24-Aug-12	BETA	6.80E-02	8.08E-03	2.35E-03	1.00E-02	8.20E-03	pCi/m3
8SP(310772001) - AP	31-Aug-12	BETA	4.62E-02	6.91E-03	2.49E-03	1.00E-02	6.98E-03	pCi/m3
8SP(311287001) - AP	6-Sep-12	BETA	3.60E-02	6.14E-03	2.63E-03	1.00E-02	6.18E-03	pCi/m3
8SP(311590001) - AP	14-Sep-12	BETA	5.48E-02	7.27E-03	2.54E-03	1.00E-02	7.35E-03	pCi/m3
8SP(312007001) - AP	21-Sep-12	BETA	2.54E-02	5.14E-03	2.39E-03	1.00E-02	5.16E-03	pCi/m3
8SP(312520001) - AP	28-Sep-12	BETA	5.21E-02	6.77E-03	2.32E-03	1.00E-02	6.85E-03	pCi/m3
8SP(313304001) - AP	5-Oct-12	BETA	4.01E-02	6.30E-03	2.32E-03	1.00E-02	6.35E-03	pCi/m3
8SP(313510001) - AP	12-Oct-12	BETA	4.95E-02	7.35E-03	2.68E-03	1.00E-02	7.42E-03	pCi/m3
8SP(314081001) - AP	19-Oct-12	BETA	4.58E-02	6.58E-03	2.36E-03	1.00E-02	6.65E-03	pCi/m3
8SP(314490001) - AP	26-Oct-12	BETA	4.59E-02	6.36E-03	2.21E-03	1.00E-02	6.43E-03	pCi/m3
8SP(314789001) - AP	2-Nov-12	BETA	3.12E-02	5.33E-03	2.25E-03	1.00E-02	5.36E-03	pCi/m3
8SP(315478001) - AP	9-Nov-12	BETA	5.02E-02	6.28E-03	1.88E-03	1.00E-02	6.37E-03	pCi/m3
8SP(315754001) - AP	16-Nov-12	BETA	6.79E-02	8.37E-03	2.47E-03	1.00E-02	8.49E-03	pCi/m3
8SP(316061001) - AP	23-Nov-12	BETA	8.05E-02	7.78E-03	1.86E-03	1.00E-02	7.95E-03	pCi/m3
8SP(316466001) - AP	30-Nov-12	BETA	9.21E-02	9.83E-03	2.58E-03	1.00E-02	1.00E-02	pCi/m3
8SP(316829001) - AP	7-Dec-12	BETA	3.75E-02	5.69E-03	2.07E-03	1.00E-02	5.74E-03	pCi/m3
8SP(317131001) - AP	14-Dec-12	BETA	5.23E-02	6.88E-03	2.33E-03	1.00E-02	6.96E-03	pCi/m3
8SP(317478001) - AP	20-Dec-12	BETA	5.44E-02	6.96E-03	2.45E-03	1.00E-02	7.05E-03	pCi/m3
8SP(317479001) - AP	27-Dec-12	BETA	4.92E-02	6.58E-03	2.41E-03	1.00E-02	6.65E-03	pCi/m3
8SP(303289001) - AP	10-Feb-12	Beryllium-7	1.11E-01	2.18E-02	1.22E-02		2.19E-02	pCi/m3

8SP(308059001) - AP	10-May-12	Beryllium-7	8.67E-02	1.34E-02	5.94E-03		1.35E-02	pCi/m3
8SP(313324003) - AP	9-Aug-12	Beryllium-7	1.42E-01	2.46E-02	1.20E-02		2.48E-02	pCi/m3
8SP(318975001) - AP	8-Nov-12	Beryllium-7	5.48E-02	8.61E-03	5.80E-03		9.77E-03	pCi/m3
8SP(303289001) - AP	10-Feb-12	Cesium-134	4.45E-04	4.16E-04	8.12E-04	5.00E-02	4.62E-04	pCi/m3
8SP(308059001) - AP	10-May-12	Cesium-134	1.13E-04	2.58E-04	4.64E-04	5.00E-02	2.63E-04	pCi/m3
8SP(313324003) - AP	9-Aug-12	Cesium-134	1.99E-04	5.05E-04	9.16E-04	5.00E-02	5.13E-04	pCi/m3
8SP(318975001) - AP	8-Nov-12	Cesium-134	2.09E-05	2.51E-04	3.67E-04	5.00E-02	2.51E-04	pCi/m3
8SP(303289001) - AP	10-Feb-12	Cesium-137	1.79E-04	3.67E-04	6.63E-04	6.00E-02	3.76E-04	pCi/m3
8SP(308059001) - AP	10-May-12	Cesium-137	1.10E-05	2.14E-04	3.67E-04	6.00E-02	2.14E-04	pCi/m3
8SP(313324003) - AP	9-Aug-12	Cesium-137	1.49E-04	3.96E-04	7.19E-04	6.00E-02	4.02E-04	pCi/m3
8SP(318975001) - AP	8-Nov-12	Cesium-137	-4.04E-05	1.75E-04	2.85E-04	6.00E-02	1.76E-04	pCi/m3

9TP

AC

Sample Name	Date Collected	Nuclide	Result	2 Sigma Uncert	MDC	LLD	2 Sigma TPU	Units
9TP(294021007) - AC	6-Jan-12	Iodine-131	-5.38E-03	1.36E-02	2.05E-02	7.00E-02	1.38E-02	pCi/m3
9TP(294538007) - AC	13-Jan-12	Iodine-131	-6.91E-03	1.95E-02	3.17E-02	7.00E-02	1.98E-02	pCi/m3
9TP(294921007) - AC	19-Jan-12	Iodine-131	-7.52E-03	1.97E-02	2.81E-02	7.00E-02	2.00E-02	pCi/m3
9TP(295305007) - AC	27-Jan-12	Iodine-131	1.53E-03	2.03E-02	3.57E-02	7.00E-02	2.03E-02	pCi/m3
9TP(295814007) - AC	3-Feb-12	Iodine-131	-7.58E-03	1.62E-02	2.54E-02	7.00E-02	1.65E-02	pCi/m3
9TP(296278007) - AC	10-Feb-12	Iodine-131	1.02E-02	1.71E-02	3.21E-02	7.00E-02	1.77E-02	pCi/m3
9TP(296564007) - AC	17-Feb-12	Iodine-131	-1.90E-02	2.35E-02	3.39E-02	7.00E-02	2.50E-02	pCi/m3
9TP(297009007) - AC	24-Feb-12	Iodine-131	-1.16E-02	1.68E-02	2.50E-02	7.00E-02	1.76E-02	pCi/m3
9TP(297528007) - AC	2-Mar-12	Iodine-131	1.05E-02	1.32E-02	2.41E-02	7.00E-02	1.41E-02	pCi/m3
9TP(297688007) - AC	9-Mar-12	Iodine-131	-2.13E-03	9.91E-03	1.63E-02	7.00E-02	9.96E-03	pCi/m3
9TP(298316007) - AC	15-Mar-12	Iodine-131	-2.88E-03	3.12E-02	5.34E-02	7.00E-02	3.12E-02	pCi/m3
9TP(298530007) - AC	22-Mar-12	Iodine-131	-2.28E-03	1.74E-02	2.82E-02	7.00E-02	1.75E-02	pCi/m3
9TP(301305007) - AC	30-Mar-12	Iodine-131	-4.19E-03	1.19E-02	1.85E-02	7.00E-02	1.20E-02	pCi/m3
9TP(302656007) - AC	6-Apr-12	Iodine-131	-1.07E-02	3.08E-02	5.02E-02	7.00E-02	3.12E-02	pCi/m3
9TP(303148007) - AC	13-Apr-12	Iodine-131	-3.40E-03	2.37E-02	3.93E-02	7.00E-02	2.38E-02	pCi/m3
9TP(303394007) - AP	19-Apr-12	Iodine-131	2.60E-03	1.88E-02	3.22E-02	7.00E-02	1.89E-02	pCi/m3
9TP(303704007) - AC	27-Apr-12	Iodine-131	1.29E-02	1.34E-02	2.71E-02	7.00E-02	1.47E-02	pCi/m3
9TP(304259007) - AC	3-May-12	Iodine-131	5.61E-03	1.94E-02	3.41E-02	7.00E-02	1.95E-02	pCi/m3
9TP(304710007) - AC	10-May-12	Iodine-131	-1.23E-03	1.99E-02	3.25E-02	7.00E-02	1.99E-02	pCi/m3
9TP(305032007) - AC	17-May-12	Iodine-131	-1.36E-02	2.07E-02	3.06E-02	7.00E-02	2.16E-02	pCi/m3
9TP(305329007) - AC	25-May-12	Iodine-131	1.15E-02	1.94E-02	3.71E-02	7.00E-02	2.01E-02	pCi/m3
9TP(305652007) - AC	1-Jun-12	Iodine-131	-2.10E-02	3.51E-02	5.44E-02	7.00E-02	3.63E-02	pCi/m3
9TP(306146007) - AC	8-Jun-12	Iodine-131	-4.81E-03	2.30E-02	3.71E-02	7.00E-02	2.31E-02	pCi/m3
9TP(306527007) - AC	15-Jun-12	Iodine-131	-9.57E-03	1.46E-02	1.91E-02	7.00E-02	1.52E-02	pCi/m3
9TP(306795007) - AC	21-Jun-12	Iodine-131	1.87E-03	1.77E-02	3.05E-02	7.00E-02	1.77E-02	pCi/m3
9TP(307247009) - AC	28-Jun-12	Iodine-131	-2.69E-02	1.79E-02	1.87E-02	7.00E-02	2.16E-02	pCi/m3
9TP(307880009) - AC	5-Jul-12	Iodine-131	-3.90E-03	1.09E-02	1.71E-02	7.00E-02	1.11E-02	pCi/m3
9TP(308136009) - AC	12-Jul-12	Iodine-131	-7.54E-04	1.98E-02	3.30E-02	7.00E-02	1.98E-02	pCi/m3
9TP(308563007) - AC	19-Jul-12	Iodine-131	1.46E-02	1.70E-02	3.24E-02	7.00E-02	1.82E-02	pCi/m3

9TP(308963007) - AC	26-Jul-12	Iodine-131	-2.44E-03	2.01E-02	3.39E-02	7.00E-02	2.02E-02	pCi/m3
9TP(309665007) - AC	3-Aug-12	Iodine-131	-3.74E-03	3.68E-02	6.02E-02	7.00E-02	3.68E-02	pCi/m3
9TP(309845007) - AC	10-Aug-12	Iodine-131	1.13E-02	1.50E-02	2.92E-02	7.00E-02	1.59E-02	pCi/m3
9TP(310024007) - AC	17-Aug-12	Iodine-131	-1.16E-02	2.58E-02	3.97E-02	7.00E-02	2.64E-02	pCi/m3
9TP(310455007) - AC	24-Aug-12	Iodine-131	-6.83E-03	1.52E-02	2.37E-02	7.00E-02	1.55E-02	pCi/m3
9TP(310772007) - AC	31-Aug-12	Iodine-131	-2.62E-04	9.65E-03	1.58E-02	7.00E-02	9.65E-03	pCi/m3
9TP(311287007) - AC	6-Sep-12	Iodine-131	3.56E-03	1.73E-02	2.97E-02	7.00E-02	1.73E-02	pCi/m3
9TP(311590007) - AC	14-Sep-12	Iodine-131	-6.60E-03	1.29E-02	1.86E-02	7.00E-02	1.32E-02	pCi/m3
9TP(312007007) - AC	21-Sep-12	Iodine-131	-1.10E-02	1.21E-02	1.46E-02	7.00E-02	1.31E-02	pCi/m3
9TP(312520007) - AC	28-Sep-12	Iodine-131	-9.77E-03	1.15E-02	1.49E-02	7.00E-02	1.23E-02	pCi/m3
9TP(313304007) - AC	5-Oct-12	Iodine-131	-8.85E-04	1.11E-02	1.82E-02	7.00E-02	1.11E-02	pCi/m3
9TP(313510007) - AC	12-Oct-12	Iodine-131	7.95E-05	1.16E-02	1.95E-02	7.00E-02	1.16E-02	pCi/m3
9TP(314081007) - AC	19-Oct-12	Iodine-131	4.33E-03	1.56E-02	2.82E-02	7.00E-02	1.57E-02	pCi/m3
9TP(314490007) - AC	26-Oct-12	Iodine-131	7.63E-04	9.91E-03	1.71E-02	7.00E-02	9.92E-03	pCi/m3
9TP(314789007) - AC	2-Nov-12	Iodine-131	-5.02E-03	9.07E-03	1.43E-02	7.00E-02	9.35E-03	pCi/m3
9TP(315478007) - AC	9-Nov-12	Iodine-131	-7.83E-04	8.52E-03	1.43E-02	7.00E-02	8.53E-03	pCi/m3
9TP(315754007) - AC	16-Nov-12	Iodine-131	-7.47E-03	1.09E-02	1.73E-02	7.00E-02	1.14E-02	pCi/m3
9TP(316061007) - AC	23-Nov-12	Iodine-131	-6.46E-04	6.51E-03	1.09E-02	7.00E-02	6.52E-03	pCi/m3
9TP(316466007) - AC	30-Nov-12	Iodine-131	1.14E-02	2.30E-02	4.10E-02	7.00E-02	2.36E-02	pCi/m3
9TP(316829007) - AC	7-Dec-12	Iodine-131	8.46E-03	1.48E-02	2.81E-02	7.00E-02	1.53E-02	pCi/m3
9TP(317131007) - AC	14-Dec-12	Iodine-131	-1.47E-03	2.13E-02	3.48E-02	7.00E-02	2.14E-02	pCi/m3
9TP(317478007) - AC	20-Dec-12	Iodine-131	1.22E-02	3.02E-02	5.29E-02	7.00E-02	3.07E-02	pCi/m3
9TP(317479007) - AC	27-Dec-12	Iodine-131	3.54E-03	7.65E-03	1.38E-02	7.00E-02	7.82E-03	pCi/m3

9TP
AP

Sample Name	Date Collected	Nuclide	Result	2 Sigma Uncert	MDC	LLD	2 Sigma TPU	Units
9TP(294021002) - AP	6-Jan-12	BETA	4.81E-02	7.24E-03	2.90E-03	1.00E-02	7.31E-03	pCi/m3
9TP(294538002) - AP	13-Jan-12	BETA	5.38E-02	8.24E-03	3.36E-03	1.00E-02	8.32E-03	pCi/m3
9TP(294921002) - AP	19-Jan-12	BETA	5.84E-02	8.08E-03	3.00E-03	1.00E-02	8.17E-03	pCi/m3
9TP(295305002) - AP	27-Jan-12	BETA	6.45E-02	8.13E-03	2.58E-03	1.00E-02	8.23E-03	pCi/m3
9TP(295814002) - AP	3-Feb-12	BETA	5.87E-02	7.81E-03	2.61E-03	1.00E-02	7.90E-03	pCi/m3
9TP(296278002) - AP	10-Feb-12	BETA	4.83E-02	6.77E-03	2.40E-03	1.00E-02	6.84E-03	pCi/m3
9TP(296564002) - AP	17-Feb-12	BETA	6.23E-02	8.17E-03	2.73E-03	1.00E-02	8.27E-03	pCi/m3
9TP(297009002) - AP	24-Feb-12	BETA	5.81E-02	7.93E-03	2.98E-03	1.00E-02	8.02E-03	pCi/m3
9TP(297528002) - AP	2-Mar-12	BETA	4.07E-02	6.53E-03	2.83E-03	1.00E-02	6.58E-03	pCi/m3
9TP(297688002) - AP	9-Mar-12	BETA	5.62E-02	8.60E-03	3.57E-03	1.00E-02	8.68E-03	pCi/m3
9TP(298316002) - AP	15-Mar-12	BETA	4.12E-02	6.79E-03	2.79E-03	1.00E-02	6.84E-03	pCi/m3
9TP(298530002) - AP	22-Mar-12	BETA	4.59E-02	7.20E-03	2.88E-03	1.00E-02	7.26E-03	pCi/m3
9TP(301305002) - AP	30-Mar-12	BETA	3.68E-02	5.87E-03	2.39E-03	1.00E-02	5.92E-03	pCi/m3
9TP(302656002) - AP	6-Apr-12	BETA	3.18E-02	6.21E-03	2.99E-03	1.00E-02	6.24E-03	pCi/m3
9TP(303148002) - AP	13-Apr-12	BETA	5.55E-02	8.46E-03	3.61E-03	1.00E-02	8.53E-03	pCi/m3
9TP(303394002) - AP	19-Apr-12	BETA	4.52E-02	7.14E-03	3.15E-03	1.00E-02	7.20E-03	pCi/m3
9TP(303704002) - AP	27-Apr-12	BETA	4.89E-02	7.30E-03	2.88E-03	1.00E-02	7.37E-03	pCi/m3

9TP(304259002) - AP	3-May-12	BETA	4.58E-02	7.44E-03	3.06E-03	1.00E-02	7.50E-03	pCi/m3
9TP(304710002) - AP	10-May-12	BETA	3.18E-02	6.03E-03	2.84E-03	1.00E-02	6.06E-03	pCi/m3
9TP(305032002) - AP	17-May-12	BETA	4.59E-02	7.20E-03	2.87E-03	1.00E-02	7.26E-03	pCi/m3
9TP(305329002) - AP	25-May-12	BETA	1.23E-02	3.83E-03	3.37E-03	1.00E-02	3.83E-03	pCi/m3
9TP(305652002) - AP	1-Jun-12	BETA	5.15E-02	8.19E-03	4.50E-03	1.00E-02	8.22E-03	pCi/m3
9TP(306146002) - AP	8-Jun-12	BETA	5.22E-02	7.52E-03	3.84E-03	1.00E-02	7.56E-03	pCi/m3
9TP(306527002) - AP	15-Jun-12	BETA	4.67E-02	6.80E-03	3.65E-03	1.00E-02	6.83E-03	pCi/m3
9TP(306795002) - AP	21-Jun-12	BETA	4.74E-02	6.96E-03	3.77E-03	1.00E-02	6.99E-03	pCi/m3
9TP(307247004) - AP	28-Jun-12	BETA	5.54E-02	7.48E-03	2.51E-03	1.00E-02	7.56E-03	pCi/m3
9TP(307880004) - AP	5-Jul-12	BETA	5.90E-02	7.81E-03	2.75E-03	1.00E-02	7.90E-03	pCi/m3
9TP(308136004) - AP	12-Jul-12	BETA	4.31E-02	6.72E-03	2.75E-03	1.00E-02	6.78E-03	pCi/m3
9TP(308563002) - AP	19-Jul-12	BETA	4.80E-02	7.01E-03	2.47E-03	1.00E-02	7.07E-03	pCi/m3
9TP(308963002) - AP	26-Jul-12	BETA	4.38E-02	6.69E-03	2.53E-03	1.00E-02	6.75E-03	pCi/m3
9TP(309665002) - AP	3-Aug-12	BETA	4.18E-02	6.10E-03	2.17E-03	1.00E-02	6.16E-03	pCi/m3
9TP(309845002) - AP	10-Aug-12	BETA	4.18E-02	6.67E-03	2.56E-03	1.00E-02	6.72E-03	pCi/m3
9TP(310024002) - AP	17-Aug-12	BETA	6.34E-02	1.03E-02	3.99E-03	1.00E-02	1.03E-02	pCi/m3
9TP(310455002) - AP	24-Aug-12	BETA	6.42E-02	7.22E-03	2.00E-03	1.00E-02	7.34E-03	pCi/m3
9TP(310772002) - AP	31-Aug-12	BETA	3.90E-02	5.83E-03	2.10E-03	1.00E-02	5.88E-03	pCi/m3
9TP(311287002) - AP	6-Sep-12	BETA	4.15E-02	5.99E-03	2.21E-03	1.00E-02	6.05E-03	pCi/m3
9TP(311590002) - AP	14-Sep-12	BETA	6.17E-02	7.04E-03	2.14E-03	1.00E-02	7.16E-03	pCi/m3
9TP(312007002) - AP	21-Sep-12	BETA	2.51E-02	4.64E-03	2.00E-03	1.00E-02	4.67E-03	pCi/m3
9TP(312520002) - AP	28-Sep-12	BETA	4.08E-02	5.47E-03	1.92E-03	1.00E-02	5.53E-03	pCi/m3
9TP(313304002) - AP	5-Oct-12	BETA	3.60E-02	5.46E-03	1.95E-03	1.00E-02	5.51E-03	pCi/m3
9TP(313510002) - AP	12-Oct-12	BETA	4.98E-02	6.73E-03	2.25E-03	1.00E-02	6.81E-03	pCi/m3
9TP(314081002) - AP	19-Oct-12	BETA	3.90E-02	5.55E-03	1.97E-03	1.00E-02	5.61E-03	pCi/m3
9TP(314490002) - AP	26-Oct-12	BETA	3.64E-02	5.22E-03	1.87E-03	1.00E-02	5.27E-03	pCi/m3
9TP(314789002) - AP	2-Nov-12	BETA	2.76E-02	4.56E-03	1.87E-03	1.00E-02	4.59E-03	pCi/m3
9TP(315478002) - AP	9-Nov-12	BETA	4.72E-02	5.70E-03	1.65E-03	1.00E-02	5.78E-03	pCi/m3
9TP(315754002) - AP	16-Nov-12	BETA	7.05E-02	7.74E-03	2.05E-03	1.00E-02	7.88E-03	pCi/m3
9TP(316061002) - AP	23-Nov-12	BETA	8.01E-02	7.09E-03	1.56E-03	1.00E-02	7.28E-03	pCi/m3
9TP(316466002) - AP	30-Nov-12	BETA	9.94E-02	9.34E-03	2.17E-03	1.00E-02	9.56E-03	pCi/m3
9TP(316829002) - AP	7-Dec-12	BETA	3.78E-02	5.28E-03	1.79E-03	1.00E-02	5.34E-03	pCi/m3
9TP(317131002) - AP	14-Dec-12	BETA	4.55E-02	5.86E-03	1.94E-03	1.00E-02	5.93E-03	pCi/m3
9TP(317478002) - AP	20-Dec-12	BETA	6.25E-02	8.48E-03	3.16E-03	1.00E-02	8.58E-03	pCi/m3
9TP(317479002) - AP	27-Dec-12	BETA	4.58E-02	5.75E-03	1.99E-03	1.00E-02	5.83E-03	pCi/m3
9TP(303289002) - AP	10-Feb-12	Beryllium-7	1.30E-01	2.52E-02	1.79E-02		2.53E-02	pCi/m3
9TP(308059002) - AP	10-May-12	Beryllium-7	8.79E-02	2.25E-02	1.25E-02		2.26E-02	pCi/m3
9TP(313324004) - AP	9-Aug-12	Beryllium-7	1.48E-01	2.26E-02	1.07E-02		2.28E-02	pCi/m3
9TP(318975002) - AP	8-Nov-12	Beryllium-7	5.24E-02	6.97E-03	5.13E-03		8.25E-03	pCi/m3
9TP(303289002) - AP	10-Feb-12	Cesium-134	-2.66E-04	5.27E-04	7.89E-04	5.00E-02	5.41E-04	pCi/m3
9TP(296564002) - AP	17-Feb-12	Cesium-134	-5.87E-04	8.06E-03	1.31E-02	5.00E-02	8.07E-03	pCi/m3
9TP(308059002) - AP	10-May-12	Cesium-134	-3.67E-05	6.81E-04	1.14E-03	5.00E-02	6.81E-04	pCi/m3
9TP(313324004) - AP	9-Aug-12	Cesium-134	3.95E-05	4.26E-04	7.28E-04	5.00E-02	4.26E-04	pCi/m3
9TP(318975002) - AP	8-Nov-12	Cesium-134	2.97E-05	1.62E-04	2.82E-04	5.00E-02	1.62E-04	pCi/m3

9TP(303289002) - AP	10-Feb-12	Cesium-137	-5.39E-05	4.82E-04	7.97E-04	6.00E-02	4.82E-04	pCi/m3
9TP(296564002) - AP	17-Feb-12	Cesium-137	3.31E-03	5.91E-03	1.10E-02	6.00E-02	6.10E-03	pCi/m3
9TP(308059002) - AP	10-May-12	Cesium-137	-6.69E-05	4.82E-04	8.10E-04	6.00E-02	4.83E-04	pCi/m3
9TP(313324004) - AP	9-Aug-12	Cesium-137	1.41E-04	4.22E-04	7.51E-04	6.00E-02	4.27E-04	pCi/m3
9TP(318975002) - AP	8-Nov-12	Cesium-137	8.09E-05	1.33E-04	2.37E-04	6.00E-02	1.38E-04	pCi/m3

Apple and Pears

VG

Sample Name	Date Collected	Nuclide	Result	2 Sigma Uncert	MDC	LLD	2 Sigma TPU	Units
Apple and Pears(313300001) - VG	11-Oct-12	Cesium-134	1.70E+00	2.81E+00	4.97E+00	6.00E+01	2.91E+00	pCi/kg
Apple and Pears(313300001) - VG	11-Oct-12	Cesium-137	8.43E-01	2.58E+00	4.29E+00	8.00E+01	2.60E+00	pCi/kg
Apple and Pears(313300001) - VG	11-Oct-12	Iodine-131	1.03E+00	3.65E+00	6.29E+00	6.00E+01	3.68E+00	pCi/kg
Apple and Pears(313300001) - VG	11-Oct-12	Potassium-40	1.24E+03	1.43E+02	3.81E+01		1.43E+02	pCi/kg

Blueberries

VG

Sample Name	Date Collected	Nuclide	Result	2 Sigma Uncert	MDC	LLD	2 Sigma TPU	Units
Blueberries(310229001) - VG	21-Aug-12	Beryllium-7	1.44E+02	3.78E+01	4.14E+01		3.78E+01	pCi/kg
Blueberries(310229001) - VG	21-Aug-12	Cesium-134	4.70E+00	3.54E+00	6.51E+00	6.00E+01	4.12E+00	pCi/kg
Blueberries(310229001) - VG	21-Aug-12	Cesium-137	6.09E+00	3.38E+00	6.09E+00	8.00E+01	4.40E+00	pCi/kg
Blueberries(310229001) - VG	21-Aug-12	Iodine-131	-1.74E-02	3.73E+00	6.39E+00	6.00E+01	3.73E+00	pCi/kg
Blueberries(310229001) - VG	21-Aug-12	Potassium-40	1.00E+03	1.26E+02	4.61E+01		1.26E+02	pCi/kg

Broadleaf Vegetation BV1

VG

Sample Name	Date Collected	Nuclide	Result	2 Sigma Uncert	MDC	LLD	2 Sigma TPU	Units
Broadleaf Vegetation BV1(306629002) - VG	21-Jun-12	Beryllium-7	1.15E+03	1.46E+02	8.66E+01		1.46E+02	pCi/kg
Broadleaf Vegetation BV1(308971002) - VG	30-Jul-12	Beryllium-7	2.06E+03	2.55E+02	1.13E+02		2.55E+02	pCi/kg
Broadleaf Vegetation BV1(310125002) - VG	20-Aug-12	Beryllium-7	2.12E+03	1.62E+02	1.12E+02		1.62E+02	pCi/kg
Broadleaf Vegetation BV1(312420002) - VG	28-Sep-12	Beryllium-7	5.29E+03	5.13E+02	1.09E+02		5.13E+02	pCi/kg
Broadleaf Vegetation BV1(306629002) - VG	21-Jun-12	Cesium-134	8.62E+00	6.76E+00	1.23E+01	6.00E+01	7.79E+00	pCi/kg
Broadleaf Vegetation BV1(308971002) - VG	30-Jul-12	Cesium-134	5.17E+00	1.08E+01	1.83E+01	6.00E+01	1.11E+01	pCi/kg
Broadleaf Vegetation BV1(310125002) - VG	20-Aug-12	Cesium-134	2.49E+00	8.75E+00	1.51E+01	6.00E+01	8.82E+00	pCi/kg
Broadleaf Vegetation BV1(312420002) - VG	28-Sep-12	Cesium-134	3.08E+00	8.75E+00	1.53E+01	6.00E+01	8.86E+00	pCi/kg
Broadleaf Vegetation BV1(306629002) - VG	21-Jun-12	Cesium-137	2.66E+01	1.09E+01	1.01E+01	8.00E+01	1.09E+01	pCi/kg
Broadleaf Vegetation BV1(308971002) - VG	30-Jul-12	Cesium-137	5.27E+01	2.13E+01	1.36E+01	8.00E+01	2.13E+01	pCi/kg
Broadleaf Vegetation BV1(310125002) - VG	20-Aug-12	Cesium-137	2.68E+01	1.51E+01	1.34E+01	8.00E+01	1.51E+01	pCi/kg
Broadleaf Vegetation BV1(312420002) - VG	28-Sep-12	Cesium-137	2.03E+01	1.22E+01	1.23E+01	8.00E+01	1.22E+01	pCi/kg
Broadleaf Vegetation BV1(306629002) - VG	21-Jun-12	Iodine-131	6.89E-01	1.13E+01	1.93E+01	6.00E+01	1.14E+01	pCi/kg
Broadleaf Vegetation BV1(308971002) - VG	30-Jul-12	Iodine-131	-2.52E+00	1.53E+01	2.53E+01	6.00E+01	1.53E+01	pCi/kg
Broadleaf Vegetation BV1(310125002) - VG	20-Aug-12	Iodine-131	-2.48E+00	1.29E+01	2.16E+01	6.00E+01	1.30E+01	pCi/kg
Broadleaf Vegetation BV1(312420002) - VG	28-Sep-12	Iodine-131	-1.59E-01	1.47E+01	2.49E+01	6.00E+01	1.47E+01	pCi/kg
Broadleaf Vegetation BV1(306629002) - VG	21-Jun-12	Potassium-40	1.90E+03	2.56E+02	9.46E+01		2.56E+02	pCi/kg
Broadleaf Vegetation BV1(308971002) - VG	30-Jul-12	Potassium-40	1.91E+03	3.05E+02	1.38E+02		3.05E+02	pCi/kg

Broadleaf Vegetation BV1(310125002) - VG	20-Aug-12	Potassium-40	2.01E+03	2.51E+02	1.18E+02		2.51E+02	pCi/kg
Broadleaf Vegetation BV1(312420002) - VG	28-Sep-12	Potassium-40	1.86E+03	2.74E+02	1.29E+02		2.74E+02	pCi/kg

Broadleaf Vegetation BV2

VG

Sample Name	Date Collected	Nuclide	Result	2 Sigma Uncert	MDC	LLD	2 Sigma TPU	Units
Broadleaf Vegetation BV2(306629003) - VG	21-Jun-12	Beryllium-7	6.00E+02	1.15E+02	8.56E+01		1.15E+02	pCi/kg
Broadleaf Vegetation BV2(308971003) - VG	26-Jul-12	Beryllium-7	6.58E+02	1.17E+02	1.07E+02		1.17E+02	pCi/kg
Broadleaf Vegetation BV2(310125003) - VG	20-Aug-12	Beryllium-7	7.57E+02	1.33E+02	1.19E+02		1.33E+02	pCi/kg
Broadleaf Vegetation BV2(312420003) - VG	28-Sep-12	Beryllium-7	3.23E+03	3.36E+02	8.87E+01		3.36E+02	pCi/kg
Broadleaf Vegetation BV2(306629003) - VG	21-Jun-12	Cesium-134	2.26E+00	7.11E+00	1.21E+01	6.00E+01	7.18E+00	pCi/kg
Broadleaf Vegetation BV2(308971003) - VG	26-Jul-12	Cesium-134	-2.16E+00	8.84E+00	1.45E+01	6.00E+01	8.90E+00	pCi/kg
Broadleaf Vegetation BV2(310125003) - VG	20-Aug-12	Cesium-134	9.36E+00	9.48E+00	1.70E+01	6.00E+01	1.04E+01	pCi/kg
Broadleaf Vegetation BV2(312420003) - VG	28-Sep-12	Cesium-134	-5.80E+00	7.91E+00	1.28E+01	6.00E+01	8.33E+00	pCi/kg
Broadleaf Vegetation BV2(306629003) - VG	21-Jun-12	Cesium-137	1.03E+00	1.23E+01	1.02E+01	8.00E+01	1.23E+01	pCi/kg
Broadleaf Vegetation BV2(308971003) - VG	26-Jul-12	Cesium-137	8.38E+00	7.78E+00	1.38E+01	8.00E+01	8.65E+00	pCi/kg
Broadleaf Vegetation BV2(310125003) - VG	20-Aug-12	Cesium-137	2.03E+01	9.93E+00	1.70E+01	8.00E+01	1.35E+01	pCi/kg
Broadleaf Vegetation BV2(312420003) - VG	28-Sep-12	Cesium-137	3.37E+00	7.23E+00	1.28E+01	8.00E+01	7.39E+00	pCi/kg
Broadleaf Vegetation BV2(306629003) - VG	21-Jun-12	Iodine-131	-4.29E+00	9.20E+00	1.50E+01	6.00E+01	9.40E+00	pCi/kg
Broadleaf Vegetation BV2(308971003) - VG	26-Jul-12	Iodine-131	5.20E+00	1.82E+01	3.08E+01	6.00E+01	1.84E+01	pCi/kg
Broadleaf Vegetation BV2(310125003) - VG	20-Aug-12	Iodine-131	1.90E+00	1.33E+01	2.24E+01	6.00E+01	1.33E+01	pCi/kg
Broadleaf Vegetation BV2(312420003) - VG	28-Sep-12	Iodine-131	3.28E+00	1.31E+01	2.23E+01	6.00E+01	1.31E+01	pCi/kg
Broadleaf Vegetation BV2(306629003) - VG	21-Jun-12	Potassium-40	2.15E+03	2.88E+02	9.32E+01		2.88E+02	pCi/kg
Broadleaf Vegetation BV2(308971003) - VG	26-Jul-12	Potassium-40	2.23E+03	2.94E+02	1.06E+02		2.94E+02	pCi/kg
Broadleaf Vegetation BV2(310125003) - VG	20-Aug-12	Potassium-40	1.08E+03	2.77E+02	1.21E+02		2.77E+02	pCi/kg
Broadleaf Vegetation BV2(312420003) - VG	28-Sep-12	Potassium-40	1.68E+03	2.58E+02	1.14E+02		2.58E+02	pCi/kg

Broadleaf Vegetation BVC1

VG

Sample Name	Date Collected	Nuclide	Result	2 Sigma Uncert	MDC	LLD	2 Sigma TPU	Units
Broadleaf Vegetation BVC1(306629001) - VG	21-Jun-12	Beryllium-7	6.50E+02	1.14E+02	7.69E+01		1.14E+02	pCi/kg
Broadleaf Vegetation BVC1(308971001) - VG	26-Jul-12	Beryllium-7	1.32E+03	1.71E+02	9.63E+01		1.71E+02	pCi/kg
Broadleaf Vegetation BVC1(310125001) - VG	20-Aug-12	Beryllium-7	1.50E+03	1.74E+02	7.77E+01		1.74E+02	pCi/kg
Broadleaf Vegetation BVC1(312420001) - VG	28-Sep-12	Beryllium-7	1.92E+03	2.13E+02	8.21E+01		2.13E+02	pCi/kg
Broadleaf Vegetation BVC1(306629001) - VG	21-Jun-12	Cesium-134	3.19E-01	7.05E+00	1.17E+01	6.00E+01	7.05E+00	pCi/kg
Broadleaf Vegetation BVC1(308971001) - VG	26-Jul-12	Cesium-134	-1.82E+00	8.58E+00	1.41E+01	6.00E+01	8.61E+00	pCi/kg
Broadleaf Vegetation BVC1(310125001) - VG	20-Aug-12	Cesium-134	1.07E+00	6.54E+00	1.13E+01	6.00E+01	6.56E+00	pCi/kg
Broadleaf Vegetation BVC1(312420001) - VG	28-Sep-12	Cesium-134	-2.79E+00	6.32E+00	1.02E+01	6.00E+01	6.44E+00	pCi/kg
Broadleaf Vegetation BVC1(306629001) - VG	21-Jun-12	Cesium-137	4.15E+00	6.00E+00	1.04E+01	8.00E+01	6.29E+00	pCi/kg
Broadleaf Vegetation BVC1(308971001) - VG	26-Jul-12	Cesium-137	1.18E+01	7.20E+00	1.30E+01	8.00E+01	8.96E+00	pCi/kg
Broadleaf Vegetation BVC1(310125001) - VG	20-Aug-12	Cesium-137	3.49E+00	5.74E+00	1.02E+01	8.00E+01	5.95E+00	pCi/kg
Broadleaf Vegetation BVC1(312420001) - VG	28-Sep-12	Cesium-137	-1.04E+01	1.17E+01	1.23E+01	8.00E+01	1.26E+01	pCi/kg
Broadleaf Vegetation BVC1(306629001) - VG	21-Jun-12	Iodine-131	-4.38E+00	9.15E+00	1.46E+01	6.00E+01	9.36E+00	pCi/kg
Broadleaf Vegetation BVC1(308971001) - VG	26-Jul-12	Iodine-131	-2.43E+01	1.57E+01	2.43E+01	6.00E+01	1.92E+01	pCi/kg

Broadleaf Vegetation BVC1(310125001) - VG	20-Aug-12	Iodine-131	6.04E-01	9.46E+00	1.60E+01	6.00E+01	9.46E+00	pCi/kg
Broadleaf Vegetation BVC1(312420001) - VG	28-Sep-12	Iodine-131	-5.82E+00	1.11E+01	1.80E+01	6.00E+01	1.14E+01	pCi/kg
Broadleaf Vegetation BVC1(306629001) - VG	21-Jun-12	Potassium-40	3.99E+03	4.02E+02	8.29E+01		4.02E+02	pCi/kg
Broadleaf Vegetation BVC1(308971001) - VG	26-Jul-12	Potassium-40	2.83E+03	3.35E+02	1.11E+02		3.35E+02	pCi/kg
Broadleaf Vegetation BVC1(310125001) - VG	20-Aug-12	Potassium-40	2.49E+03	3.10E+02	8.84E+01		3.10E+02	pCi/kg
Broadleaf Vegetation BVC1(312420001) - VG	28-Sep-12	Potassium-40	1.66E+03	2.47E+02	9.15E+01		2.47E+02	pCi/kg

Domestic Water - DW

DW

Sample Name	Date Collected	Nuclide	Result	2 Sigma Uncert	MDC	LLD	2 Sigma TPU	Units
Domestic Water - DW(296557003) - DW	15-Jan-12	BETA	1.65E+00	2.17E+00	3.20E+00	4.00E+00	2.19E+00	pCi/L
Domestic Water - DW(298092003) - DW	15-Feb-12	BETA	2.52E+00	2.13E+00	2.86E+00	4.00E+00	2.17E+00	pCi/L
Domestic Water - DW(302840003) - DW	15-Mar-12	BETA	5.17E-01	1.93E+00	3.08E+00	4.00E+00	1.93E+00	pCi/L
Domestic Water - DW(304053003) - DW	15-Apr-12	BETA	-1.05E+00	1.88E+00	3.44E+00	4.00E+00	1.88E+00	pCi/L
Domestic Water - DW(306556003) - DW	15-May-12	BETA	1.38E+00	2.33E+00	3.77E+00	4.00E+00	2.34E+00	pCi/L
Domestic Water - DW(307434005) - DW	15-Jun-12	BETA	-2.98E-01	1.85E+00	3.16E+00	4.00E+00	1.85E+00	pCi/L
Domestic Water - DW(309310003) - DW	15-Jul-12	BETA	9.34E-01	2.19E+00	3.43E+00	4.00E+00	2.20E+00	pCi/L
Domestic Water - DW(311298003) - DW	15-Aug-12	BETA	1.35E+00	1.94E+00	2.84E+00	4.00E+00	1.95E+00	pCi/L
Domestic Water - DW(313124002) - DW	15-Sep-12	BETA	2.95E+00	2.44E+00	3.62E+00	4.00E+00	2.49E+00	pCi/L
Domestic Water - DW(314784002) - DW	15-Oct-12	BETA	3.40E-01	1.90E+00	3.08E+00	4.00E+00	1.90E+00	pCi/L
Domestic Water - DW(316744002) - DW	15-Nov-12	BETA	2.43E+00	1.97E+00	2.69E+00	4.00E+00	2.01E+00	pCi/L
Domestic Water - DW(318107002) - DW	15-Dec-12	BETA	1.75E+00	1.98E+00	2.78E+00	4.00E+00	2.00E+00	pCi/L
Domestic Water - DW(296557003) - DW	15-Jan-12	Barium-140	-6.46E+00	1.19E+01	1.87E+01	1.50E+01	1.22E+01	pCi/L
Domestic Water - DW(298092003) - DW	15-Feb-12	Barium-140	2.43E+00	1.13E+01	1.90E+01	1.50E+01	1.14E+01	pCi/L
Domestic Water - DW(302840003) - DW	15-Mar-12	Barium-140	-1.25E+00	6.40E+00	1.07E+01	1.50E+01	6.43E+00	pCi/L
Domestic Water - DW(304053003) - DW	15-Apr-12	Barium-140	4.16E+00	3.99E+00	7.19E+00	1.50E+01	4.41E+00	pCi/L
Domestic Water - DW(306556003) - DW	15-May-12	Barium-140	1.76E+00	1.17E+01	2.01E+01	1.50E+01	1.17E+01	pCi/L
Domestic Water - DW(307434005) - DW	15-Jun-12	Barium-140	-1.53E+00	4.90E+00	8.16E+00	1.50E+01	4.95E+00	pCi/L
Domestic Water - DW(309310003) - DW	15-Jul-12	Barium-140	2.29E+00	4.25E+00	7.51E+00	1.50E+01	4.38E+00	pCi/L
Domestic Water - DW(311298003) - DW	15-Aug-12	Barium-140	3.14E+00	7.14E+00	1.26E+01	1.50E+01	7.27E+00	pCi/L
Domestic Water - DW(313124002) - DW	15-Sep-12	Barium-140	-1.56E+00	5.84E+00	9.72E+00	1.50E+01	5.89E+00	pCi/L
Domestic Water - DW(314784002) - DW	15-Oct-12	Barium-140	-4.72E+00	6.25E+00	9.92E+00	1.50E+01	6.60E+00	pCi/L
Domestic Water - DW(316744002) - DW	15-Nov-12	Barium-140	-2.91E+00	6.82E+00	1.12E+01	1.50E+01	6.95E+00	pCi/L
Domestic Water - DW(318107002) - DW	15-Dec-12	Barium-140	-2.28E+00	5.31E+00	8.56E+00	1.50E+01	5.41E+00	pCi/L
Domestic Water - DW(296557003) - DW	15-Jan-12	Cesium-134	3.37E-01	1.08E+00	1.74E+00	1.50E+01	1.09E+00	pCi/L
Domestic Water - DW(298092003) - DW	15-Feb-12	Cesium-134	1.48E-01	1.13E+00	1.90E+00	1.50E+01	1.13E+00	pCi/L
Domestic Water - DW(302840003) - DW	15-Mar-12	Cesium-134	-1.05E-01	1.00E+00	1.69E+00	1.50E+01	1.00E+00	pCi/L
Domestic Water - DW(304053003) - DW	15-Apr-12	Cesium-134	4.73E-01	1.03E+00	1.79E+00	1.50E+01	1.05E+00	pCi/L
Domestic Water - DW(306556003) - DW	15-May-12	Cesium-134	8.93E-01	1.23E+00	2.16E+00	1.50E+01	1.30E+00	pCi/L
Domestic Water - DW(307434005) - DW	15-Jun-12	Cesium-134	-2.03E-01	1.25E+00	2.05E+00	1.50E+01	1.25E+00	pCi/L
Domestic Water - DW(309310003) - DW	15-Jul-12	Cesium-134	5.28E-01	1.01E+00	1.77E+00	1.50E+01	1.04E+00	pCi/L
Domestic Water - DW(311298003) - DW	15-Aug-12	Cesium-134	-5.67E-01	1.24E+00	1.98E+00	1.50E+01	1.26E+00	pCi/L
Domestic Water - DW(313124002) - DW	15-Sep-12	Cesium-134	7.32E-01	1.33E+00	2.27E+00	1.50E+01	1.37E+00	pCi/L
Domestic Water - DW(314784002) - DW	15-Oct-12	Cesium-134	-7.63E-01	1.35E+00	2.15E+00	1.50E+01	1.39E+00	pCi/L

Domestic Water - DW(316744002) - DW	15-Nov-12	Cesium-134	-3.95E-01	9.75E-01	1.63E+00	1.50E+01	9.92E-01	pCi/L
Domestic Water - DW(318107002) - DW	15-Dec-12	Cesium-134	4.01E-01	1.07E+00	1.71E+00	1.50E+01	1.09E+00	pCi/L
Domestic Water - DW(296557003) - DW	15-Jan-12	Cesium-137	-3.79E-01	8.72E-01	1.45E+00	1.80E+01	8.89E-01	pCi/L
Domestic Water - DW(298092003) - DW	15-Feb-12	Cesium-137	-3.20E-01	1.72E+00	1.99E+00	1.80E+01	1.73E+00	pCi/L
Domestic Water - DW(302840003) - DW	15-Mar-12	Cesium-137	2.93E-01	8.38E-01	1.46E+00	1.80E+01	8.48E-01	pCi/L
Domestic Water - DW(304053003) - DW	15-Apr-12	Cesium-137	1.25E-01	2.65E+00	1.44E+00	1.80E+01	2.65E+00	pCi/L
Domestic Water - DW(306556003) - DW	15-May-12	Cesium-137	9.33E-01	1.11E+00	1.89E+00	1.80E+01	1.18E+00	pCi/L
Domestic Water - DW(307434005) - DW	15-Jun-12	Cesium-137	3.65E-01	1.03E+00	1.76E+00	1.80E+01	1.04E+00	pCi/L
Domestic Water - DW(309310003) - DW	15-Jul-12	Cesium-137	1.25E+00	9.85E-01	1.71E+00	1.80E+01	1.13E+00	pCi/L
Domestic Water - DW(311298003) - DW	15-Aug-12	Cesium-137	6.13E-02	1.02E+00	1.71E+00	1.80E+01	1.02E+00	pCi/L
Domestic Water - DW(313124002) - DW	15-Sep-12	Cesium-137	-3.61E-01	1.12E+00	1.83E+00	1.80E+01	1.13E+00	pCi/L
Domestic Water - DW(314784002) - DW	15-Oct-12	Cesium-137	1.27E+00	1.26E+00	2.23E+00	1.80E+01	1.38E+00	pCi/L
Domestic Water - DW(316744002) - DW	15-Nov-12	Cesium-137	2.21E-01	9.80E-01	1.63E+00	1.80E+01	9.85E-01	pCi/L
Domestic Water - DW(318107002) - DW	15-Dec-12	Cesium-137	2.19E-01	1.05E+00	1.74E+00	1.80E+01	1.06E+00	pCi/L
Domestic Water - DW(296557003) - DW	15-Jan-12	Cobalt-58	-1.83E-01	1.22E+00	2.02E+00	1.50E+01	1.22E+00	pCi/L
Domestic Water - DW(298092003) - DW	15-Feb-12	Cobalt-58	-8.76E-01	1.34E+00	2.15E+00	1.50E+01	1.40E+00	pCi/L
Domestic Water - DW(302840003) - DW	15-Mar-12	Cobalt-58	-1.72E-01	1.01E+00	1.70E+00	1.50E+01	1.01E+00	pCi/L
Domestic Water - DW(304053003) - DW	15-Apr-12	Cobalt-58	-2.65E-01	9.80E-01	1.64E+00	1.50E+01	9.87E-01	pCi/L
Domestic Water - DW(306556003) - DW	15-May-12	Cobalt-58	-5.55E-01	1.36E+00	2.26E+00	1.50E+01	1.38E+00	pCi/L
Domestic Water - DW(307434005) - DW	15-Jun-12	Cobalt-58	2.35E-02	1.20E+00	1.98E+00	1.50E+01	1.20E+00	pCi/L
Domestic Water - DW(309310003) - DW	15-Jul-12	Cobalt-58	9.60E-01	1.02E+00	1.82E+00	1.50E+01	1.11E+00	pCi/L
Domestic Water - DW(311298003) - DW	15-Aug-12	Cobalt-58	2.50E-01	1.31E+00	2.19E+00	1.50E+01	1.31E+00	pCi/L
Domestic Water - DW(313124002) - DW	15-Sep-12	Cobalt-58	-1.75E-01	1.19E+00	1.94E+00	1.50E+01	1.19E+00	pCi/L
Domestic Water - DW(314784002) - DW	15-Oct-12	Cobalt-58	1.03E-01	1.48E+00	2.47E+00	1.50E+01	1.48E+00	pCi/L
Domestic Water - DW(316744002) - DW	15-Nov-12	Cobalt-58	-2.80E-02	1.17E+00	1.99E+00	1.50E+01	1.17E+00	pCi/L
Domestic Water - DW(318107002) - DW	15-Dec-12	Cobalt-58	1.85E-01	1.44E+00	2.15E+00	1.50E+01	1.44E+00	pCi/L
Domestic Water - DW(296557003) - DW	15-Jan-12	Cobalt-60	-3.15E-01	8.93E-01	1.47E+00	1.50E+01	9.05E-01	pCi/L
Domestic Water - DW(298092003) - DW	15-Feb-12	Cobalt-60	1.40E+00	1.03E+00	1.87E+00	1.50E+01	1.21E+00	pCi/L
Domestic Water - DW(302840003) - DW	15-Mar-12	Cobalt-60	0.00E+00	1.40E+00	1.33E+00	1.50E+01	1.40E+00	pCi/L
Domestic Water - DW(304053003) - DW	15-Apr-12	Cobalt-60	-4.13E+00	1.78E+00	1.65E+00	1.50E+01	2.58E+00	pCi/L
Domestic Water - DW(306556003) - DW	15-May-12	Cobalt-60	-3.83E-01	1.20E+00	1.93E+00	1.50E+01	1.21E+00	pCi/L
Domestic Water - DW(307434005) - DW	15-Jun-12	Cobalt-60	3.62E-01	1.02E+00	1.75E+00	1.50E+01	1.03E+00	pCi/L
Domestic Water - DW(309310003) - DW	15-Jul-12	Cobalt-60	8.36E-01	9.92E-01	1.74E+00	1.50E+01	1.06E+00	pCi/L
Domestic Water - DW(311298003) - DW	15-Aug-12	Cobalt-60	4.96E-01	1.05E+00	1.81E+00	1.50E+01	1.08E+00	pCi/L
Domestic Water - DW(313124002) - DW	15-Sep-12	Cobalt-60	-2.90E-01	1.13E+00	1.83E+00	1.50E+01	1.13E+00	pCi/L
Domestic Water - DW(314784002) - DW	15-Oct-12	Cobalt-60	7.70E-01	1.29E+00	2.24E+00	1.50E+01	1.34E+00	pCi/L
Domestic Water - DW(316744002) - DW	15-Nov-12	Cobalt-60	-4.62E-01	8.86E-01	1.47E+00	1.50E+01	9.11E-01	pCi/L
Domestic Water - DW(318107002) - DW	15-Dec-12	Cobalt-60	-3.63E-01	8.62E-01	1.41E+00	1.50E+01	8.78E-01	pCi/L
Domestic Water - DW(296557003) - DW	15-Jan-12	Iron-59	-2.53E-01	3.17E+00	5.39E+00	3.00E+01	3.17E+00	pCi/L
Domestic Water - DW(298092003) - DW	15-Feb-12	Iron-59	3.68E-01	3.45E+00	5.91E+00	3.00E+01	3.45E+00	pCi/L
Domestic Water - DW(302840003) - DW	15-Mar-12	Iron-59	3.20E+00	2.66E+00	4.67E+00	3.00E+01	3.02E+00	pCi/L
Domestic Water - DW(304053003) - DW	15-Apr-12	Iron-59	-5.99E-01	2.28E+00	3.71E+00	3.00E+01	2.29E+00	pCi/L
Domestic Water - DW(306556003) - DW	15-May-12	Iron-59	-3.32E-01	3.69E+00	6.14E+00	3.00E+01	3.69E+00	pCi/L
Domestic Water - DW(307434005) - DW	15-Jun-12	Iron-59	-5.34E-01	2.85E+00	4.77E+00	3.00E+01	2.86E+00	pCi/L

Domestic Water - DW(309310003) - DW	15-Jul-12	Iron-59	1.41E+00	2.30E+00	3.99E+00	3.00E+01	2.38E+00	pCi/L
Domestic Water - DW(311298003) - DW	15-Aug-12	Iron-59	-1.03E+00	3.11E+00	5.14E+00	3.00E+01	3.14E+00	pCi/L
Domestic Water - DW(313124002) - DW	15-Sep-12	Iron-59	2.41E+00	2.82E+00	5.05E+00	3.00E+01	3.02E+00	pCi/L
Domestic Water - DW(314784002) - DW	15-Oct-12	Iron-59	4.65E-01	3.44E+00	5.87E+00	3.00E+01	3.45E+00	pCi/L
Domestic Water - DW(316744002) - DW	15-Nov-12	Iron-59	-7.33E-02	2.73E+00	4.56E+00	3.00E+01	2.74E+00	pCi/L
Domestic Water - DW(318107002) - DW	15-Dec-12	Iron-59	2.18E+00	2.93E+00	5.14E+00	3.00E+01	3.11E+00	pCi/L
Domestic Water - DW(296557003) - DW	15-Jan-12	Lanthanum-140	-6.46E+00	1.19E+01	1.87E+01	1.50E+01	1.22E+01	pCi/L
Domestic Water - DW(298092003) - DW	15-Feb-12	Lanthanum-140	2.43E+00	1.13E+01	1.90E+01	1.50E+01	1.14E+01	pCi/L
Domestic Water - DW(302840003) - DW	15-Mar-12	Lanthanum-140	-1.25E+00	6.40E+00	1.07E+01	1.50E+01	6.43E+00	pCi/L
Domestic Water - DW(304053003) - DW	15-Apr-12	Lanthanum-140	4.16E+00	3.97E+00	7.19E+00	1.50E+01	4.39E+00	pCi/L
Domestic Water - DW(306556003) - DW	15-May-12	Lanthanum-140	1.76E+00	1.17E+01	2.01E+01	1.50E+01	1.17E+01	pCi/L
Domestic Water - DW(307434005) - DW	15-Jun-12	Lanthanum-140	-1.53E+00	4.90E+00	8.16E+00	1.50E+01	4.95E+00	pCi/L
Domestic Water - DW(309310003) - DW	15-Jul-12	Lanthanum-140	2.29E+00	4.25E+00	7.51E+00	1.50E+01	4.37E+00	pCi/L
Domestic Water - DW(311298003) - DW	15-Aug-12	Lanthanum-140	3.14E+00	7.13E+00	1.26E+01	1.50E+01	7.27E+00	pCi/L
Domestic Water - DW(313124002) - DW	15-Sep-12	Lanthanum-140	-1.56E+00	5.84E+00	9.72E+00	1.50E+01	5.89E+00	pCi/L
Domestic Water - DW(314784002) - DW	15-Oct-12	Lanthanum-140	-4.72E+00	6.24E+00	9.92E+00	1.50E+01	6.59E+00	pCi/L
Domestic Water - DW(316744002) - DW	15-Nov-12	Lanthanum-140	-2.91E+00	6.82E+00	1.12E+01	1.50E+01	6.95E+00	pCi/L
Domestic Water - DW(318107002) - DW	15-Dec-12	Lanthanum-140	-2.28E+00	5.31E+00	8.56E+00	1.50E+01	5.41E+00	pCi/L
Domestic Water - DW(296557003) - DW	15-Jan-12	Manganese-54	-1.41E+00	1.13E+00	1.44E+00	1.50E+01	1.30E+00	pCi/L
Domestic Water - DW(298092003) - DW	15-Feb-12	Manganese-54	-3.89E-01	9.66E-01	1.57E+00	1.50E+01	9.82E-01	pCi/L
Domestic Water - DW(302840003) - DW	15-Mar-12	Manganese-54	-6.65E-01	8.31E-01	1.34E+00	1.50E+01	8.84E-01	pCi/L
Domestic Water - DW(304053003) - DW	15-Apr-12	Manganese-54	-7.88E-01	8.44E-01	1.35E+00	1.50E+01	9.16E-01	pCi/L
Domestic Water - DW(306556003) - DW	15-May-12	Manganese-54	-9.00E-01	1.04E+00	1.69E+00	1.50E+01	1.12E+00	pCi/L
Domestic Water - DW(307434005) - DW	15-Jun-12	Manganese-54	9.00E-01	1.10E+00	1.89E+00	1.50E+01	1.17E+00	pCi/L
Domestic Water - DW(309310003) - DW	15-Jul-12	Manganese-54	4.80E-01	8.40E-01	1.47E+00	1.50E+01	8.68E-01	pCi/L
Domestic Water - DW(311298003) - DW	15-Aug-12	Manganese-54	5.92E-02	1.05E+00	1.73E+00	1.50E+01	1.05E+00	pCi/L
Domestic Water - DW(313124002) - DW	15-Sep-12	Manganese-54	3.65E-01	1.13E+00	1.90E+00	1.50E+01	1.14E+00	pCi/L
Domestic Water - DW(314784002) - DW	15-Oct-12	Manganese-54	1.81E-01	1.19E+00	1.99E+00	1.50E+01	1.19E+00	pCi/L
Domestic Water - DW(316744002) - DW	15-Nov-12	Manganese-54	3.29E-01	8.85E-01	1.53E+00	1.50E+01	8.98E-01	pCi/L
Domestic Water - DW(318107002) - DW	15-Dec-12	Manganese-54	1.88E-01	1.05E+00	1.71E+00	1.50E+01	1.06E+00	pCi/L
Domestic Water - DW(296557003) - DW	15-Jan-12	Niobium-95	1.99E+00	1.40E+00	2.49E+00	1.50E+01	1.66E+00	pCi/L
Domestic Water - DW(298092003) - DW	15-Feb-12	Niobium-95	1.36E+00	1.40E+00	2.45E+00	1.50E+01	1.53E+00	pCi/L
Domestic Water - DW(302840003) - DW	15-Mar-12	Niobium-95	7.73E-01	1.13E+00	1.98E+00	1.50E+01	1.18E+00	pCi/L
Domestic Water - DW(304053003) - DW	15-Apr-12	Niobium-95	9.54E-02	1.02E+00	1.75E+00	1.50E+01	1.02E+00	pCi/L
Domestic Water - DW(306556003) - DW	15-May-12	Niobium-95	4.87E-01	1.44E+00	2.49E+00	1.50E+01	1.46E+00	pCi/L
Domestic Water - DW(307434005) - DW	15-Jun-12	Niobium-95	-7.23E-01	1.31E+00	2.10E+00	1.50E+01	1.35E+00	pCi/L
Domestic Water - DW(309310003) - DW	15-Jul-12	Niobium-95	1.22E+00	1.08E+00	1.93E+00	1.50E+01	1.21E+00	pCi/L
Domestic Water - DW(311298003) - DW	15-Aug-12	Niobium-95	1.93E-01	1.34E+00	2.24E+00	1.50E+01	1.34E+00	pCi/L
Domestic Water - DW(313124002) - DW	15-Sep-12	Niobium-95	-6.64E-01	1.36E+00	2.18E+00	1.50E+01	1.39E+00	pCi/L
Domestic Water - DW(314784002) - DW	15-Oct-12	Niobium-95	2.37E+00	1.65E+00	2.93E+00	1.50E+01	1.96E+00	pCi/L
Domestic Water - DW(316744002) - DW	15-Nov-12	Niobium-95	9.25E-01	1.30E+00	2.29E+00	1.50E+01	1.37E+00	pCi/L
Domestic Water - DW(318107002) - DW	15-Dec-12	Niobium-95	4.71E-01	1.34E+00	2.22E+00	1.50E+01	1.36E+00	pCi/L
Domestic Water - DW(296557003) - DW	15-Jan-12	Tritium	1.22E+01	2.55E+02	4.27E+02	2.00E+03	2.55E+02	pCi/L
Domestic Water - DW(298092003) - DW	15-Feb-12	Tritium	5.33E+01	2.29E+02	3.75E+02	2.00E+03	2.29E+02	pCi/L

Domestic Water - DW(302840003) - DW	15-Mar-12	Tritium	3.73E+02	3.76E+02	5.77E+02	2.00E+03	3.83E+02	pCi/L
Domestic Water - DW(304053003) - DW	15-Apr-12	Tritium	3.50E+02	3.76E+02	5.80E+02	2.00E+03	3.82E+02	pCi/L
Domestic Water - DW(306556003) - DW	15-May-12	Tritium	2.98E+02	3.56E+02	5.48E+02	2.00E+03	3.61E+02	pCi/L
Domestic Water - DW(307434005) - DW	15-Jun-12	Tritium	0.00E+00	2.52E+02	4.23E+02	2.00E+03	2.52E+02	pCi/L
Domestic Water - DW(309310003) - DW	15-Jul-12	Tritium	2.82E+02	3.16E+02	4.89E+02	2.00E+03	3.21E+02	pCi/L
Domestic Water - DW(311298003) - DW	15-Aug-12	Tritium	1.76E+01	2.66E+02	4.42E+02	2.00E+03	2.66E+02	pCi/L
Domestic Water - DW(313124002) - DW	15-Sep-12	Tritium	2.12E+02	4.00E+02	6.34E+02	2.00E+03	4.02E+02	pCi/L
Domestic Water - DW(314784002) - DW	15-Oct-12	Tritium	1.67E+02	3.19E+02	5.11E+02	2.00E+03	3.20E+02	pCi/L
Domestic Water - DW(316744002) - DW	15-Nov-12	Tritium	1.63E+02	2.78E+02	4.32E+02	2.00E+03	2.80E+02	pCi/L
Domestic Water - DW(318107002) - DW	15-Dec-12	Tritium	2.78E+01	2.64E+02	4.39E+02	2.00E+03	2.64E+02	pCi/L
Domestic Water - DW(296557003) - DW	15-Jan-12	Zinc-65	-2.25E+00	2.14E+00	3.39E+00	3.00E+01	2.36E+00	pCi/L
Domestic Water - DW(298092003) - DW	15-Feb-12	Zinc-65	-1.08E+00	2.56E+00	3.61E+00	3.00E+01	2.61E+00	pCi/L
Domestic Water - DW(302840003) - DW	15-Mar-12	Zinc-65	-1.71E+00	1.95E+00	3.04E+00	3.00E+01	2.10E+00	pCi/L
Domestic Water - DW(304053003) - DW	15-Apr-12	Zinc-65	6.09E-01	1.86E+00	3.15E+00	3.00E+01	1.88E+00	pCi/L
Domestic Water - DW(306556003) - DW	15-May-12	Zinc-65	1.21E+00	2.28E+00	3.93E+00	3.00E+01	2.35E+00	pCi/L
Domestic Water - DW(307434005) - DW	15-Jun-12	Zinc-65	9.39E-01	2.43E+00	3.66E+00	3.00E+01	2.46E+00	pCi/L
Domestic Water - DW(309310003) - DW	15-Jul-12	Zinc-65	1.99E-01	1.98E+00	3.33E+00	3.00E+01	1.98E+00	pCi/L
Domestic Water - DW(311298003) - DW	15-Aug-12	Zinc-65	3.39E-01	2.35E+00	3.46E+00	3.00E+01	2.35E+00	pCi/L
Domestic Water - DW(313124002) - DW	15-Sep-12	Zinc-65	-1.34E+00	2.33E+00	3.75E+00	3.00E+01	2.41E+00	pCi/L
Domestic Water - DW(314784002) - DW	15-Oct-12	Zinc-65	-2.10E-01	3.09E+00	4.44E+00	3.00E+01	3.09E+00	pCi/L
Domestic Water - DW(316744002) - DW	15-Nov-12	Zinc-65	-3.45E-01	2.33E+00	3.28E+00	3.00E+01	2.33E+00	pCi/L
Domestic Water - DW(318107002) - DW	15-Dec-12	Zinc-65	9.59E-02	2.21E+00	3.68E+00	3.00E+01	2.21E+00	pCi/L

Fish Control Suckers

FH

Sample Name	Date Collected	Nuclide	Result	2 Sigma Uncert	MDC	LLD	2 Sigma TPU	Units
Fish Control Suckers(314174002) - FH	22-Oct-12	Cesium-134	1.33E+00	2.94E+00	4.98E+00	1.30E+02	3.00E+00	pCi/kg
Fish Control Suckers(314174002) - FH	22-Oct-12	Cesium-137	9.17E+00	3.64E+00	3.81E+00	1.50E+02	3.64E+00	pCi/kg
Fish Control Suckers(314174002) - FH	22-Oct-12	Cobalt-58	-2.26E-01	2.39E+00	3.94E+00	1.30E+02	2.39E+00	pCi/kg
Fish Control Suckers(314174002) - FH	22-Oct-12	Cobalt-60	-2.04E+00	2.53E+00	3.95E+00	1.30E+02	2.69E+00	pCi/kg
Fish Control Suckers(314174002) - FH	22-Oct-12	Iodine-131	-2.71E+00	4.20E+00	6.85E+00	6.00E+01	4.38E+00	pCi/kg
Fish Control Suckers(314174002) - FH	22-Oct-12	Iron-59	-1.23E+00	5.71E+00	9.54E+00	2.60E+02	5.74E+00	pCi/kg
Fish Control Suckers(314174002) - FH	22-Oct-12	Manganese-54	-1.09E+00	2.35E+00	3.78E+00	1.30E+02	2.40E+00	pCi/kg
Fish Control Suckers(314174002) - FH	22-Oct-12	Potassium-40	3.13E+03	2.88E+02	3.68E+01	5.00E+02	2.88E+02	pCi/kg
Fish Control Suckers(314174002) - FH	22-Oct-12	Zinc-65	-7.42E+00	6.32E+00	9.93E+00	2.60E+02	7.15E+00	pCi/kg

Fish FSH1 Control Ludington Alewife

FH

Sample Name	Date Collected	Nuclide	Result	2 Sigma Uncert	MDC	LLD	2 Sigma TPU	Units
Fish FSH1 Control Ludington Alewife(309023001) - FH	13-Jul-12	Cesium-134	6.25E-01	3.25E+00	5.51E+00	1.30E+02	3.26E+00	pCi/kg
Fish FSH1 Control Ludington Alewife(309023001) - FH	13-Jul-12	Cesium-137	8.07E+00	3.42E+00	4.44E+00	1.50E+02	3.42E+00	pCi/kg
Fish FSH1 Control Ludington Alewife(309023001) - FH	13-Jul-12	Cobalt-58	1.89E+00	3.16E+00	5.50E+00	1.30E+02	3.28E+00	pCi/kg
Fish FSH1 Control Ludington Alewife(309023001) - FH	13-Jul-12	Cobalt-60	1.22E+00	3.11E+00	5.40E+00	1.30E+02	3.15E+00	pCi/kg
Fish FSH1 Control Ludington Alewife(309023001) - FH	13-Jul-12	Iodine-131	-3.46E+00	1.99E+01	3.30E+01	6.00E+01	1.99E+01	pCi/kg

Fish FSH1 Control Ludington Alewife(309023001) - FH	13-Jul-12	Iron-59	-1.93E-01	8.33E+00	1.42E+01	2.60E+02	8.33E+00	pCi/kg
Fish FSH1 Control Ludington Alewife(309023001) - FH	13-Jul-12	Manganese-54	-1.88E+00	2.70E+00	4.29E+00	1.30E+02	2.83E+00	pCi/kg
Fish FSH1 Control Ludington Alewife(309023001) - FH	13-Jul-12	Potassium-40	2.08E+03	2.13E+02	3.96E+01	5.00E+02	2.13E+02	pCi/kg
Fish FSH1 Control Ludington Alewife(309023001) - FH	13-Jul-12	Zinc-65	-3.88E-01	7.51E+00	1.28E+01	2.60E+02	7.51E+00	pCi/kg

Fish FSH1 Control Ludington Lake Trout
FH

Sample Name	Date Collected	Nuclide	Result	2 Sigma Uncert	MDC	LLD	2 Sigma TPU	Units
Fish FSH1 Control Ludington Lake Trout(309023003) - FH	13-Jul-12	Cesium-134	1.90E+00	2.25E+00	3.96E+00	1.30E+02	2.41E+00	pCi/kg
Fish FSH1 Control Ludington Lake Trout(314174001) - FH	22-Oct-12	Cesium-134	2.29E+00	2.71E+00	4.79E+00	1.30E+02	2.90E+00	pCi/kg
Fish FSH1 Control Ludington Lake Trout(309023003) - FH	13-Jul-12	Cesium-137	2.49E+01	4.44E+00	2.78E+00	1.50E+02	4.44E+00	pCi/kg
Fish FSH1 Control Ludington Lake Trout(314174001) - FH	22-Oct-12	Cesium-137	2.36E+01	4.58E+00	3.84E+00	1.50E+02	4.58E+00	pCi/kg
Fish FSH1 Control Ludington Lake Trout(309023003) - FH	13-Jul-12	Cobalt-58	2.65E-01	2.07E+00	3.55E+00	1.30E+02	2.08E+00	pCi/kg
Fish FSH1 Control Ludington Lake Trout(314174001) - FH	22-Oct-12	Cobalt-58	-2.87E+00	2.24E+00	3.40E+00	1.30E+02	2.58E+00	pCi/kg
Fish FSH1 Control Ludington Lake Trout(309023003) - FH	13-Jul-12	Cobalt-60	6.32E-01	1.92E+00	3.24E+00	1.30E+02	1.94E+00	pCi/kg
Fish FSH1 Control Ludington Lake Trout(314174001) - FH	22-Oct-12	Cobalt-60	-2.06E+00	2.62E+00	4.16E+00	1.30E+02	2.78E+00	pCi/kg
Fish FSH1 Control Ludington Lake Trout(309023003) - FH	13-Jul-12	Iodine-131	-4.89E+00	1.44E+01	2.40E+01	6.00E+01	1.45E+01	pCi/kg
Fish FSH1 Control Ludington Lake Trout(314174001) - FH	22-Oct-12	Iodine-131	-9.60E-01	4.56E+00	7.56E+00	6.00E+01	4.58E+00	pCi/kg
Fish FSH1 Control Ludington Lake Trout(309023003) - FH	13-Jul-12	Iron-59	-1.95E+00	5.91E+00	9.73E+00	2.60E+02	5.97E+00	pCi/kg
Fish FSH1 Control Ludington Lake Trout(314174001) - FH	22-Oct-12	Iron-59	5.70E+00	6.11E+00	1.06E+01	2.60E+02	6.63E+00	pCi/kg
Fish FSH1 Control Ludington Lake Trout(309023003) - FH	13-Jul-12	Manganese-54	3.10E-01	1.78E+00	3.05E+00	1.30E+02	1.78E+00	pCi/kg
Fish FSH1 Control Ludington Lake Trout(314174001) - FH	22-Oct-12	Manganese-54	4.61E-01	2.13E+00	3.63E+00	1.30E+02	2.14E+00	pCi/kg
Fish FSH1 Control Ludington Lake Trout(309023003) - FH	13-Jul-12	Potassium-40	2.79E+03	2.50E+02	2.27E+01	5.00E+02	2.50E+02	pCi/kg
Fish FSH1 Control Ludington Lake Trout(314174001) - FH	22-Oct-12	Potassium-40	2.65E+03	2.46E+02	2.53E+02	5.00E+02	1.22E+03	pCi/kg
Fish FSH1 Control Ludington Lake Trout(309023003) - FH	13-Jul-12	Zinc-65	2.59E+00	4.76E+00	8.13E+00	2.60E+02	4.90E+00	pCi/kg
Fish FSH1 Control Ludington Lake Trout(314174001) - FH	22-Oct-12	Zinc-65	-1.89E+00	6.30E+00	1.01E+01	2.60E+02	6.36E+00	pCi/kg

Fish FSH1 Control Ludington White Sucker
FH

Sample Name	Date Collected	Nuclide	Result	2 Sigma Uncert	MDC	LLD	2 Sigma TPU	Units
Fish FSH1 Control Ludington White Sucker(309023004) - FH	13-Jul-12	Cesium-134	-2.10E-02	2.45E+00	4.07E+00	1.30E+02	2.45E+00	pCi/kg
Fish FSH1 Control Ludington White Sucker(309023004) - FH	13-Jul-12	Cesium-137	9.34E+00	3.51E+00	3.15E+00	1.50E+02	3.51E+00	pCi/kg
Fish FSH1 Control Ludington White Sucker(309023004) - FH	13-Jul-12	Cobalt-58	-2.16E-01	2.42E+00	4.00E+00	1.30E+02	2.42E+00	pCi/kg
Fish FSH1 Control Ludington White Sucker(309023004) - FH	13-Jul-12	Cobalt-60	7.65E-01	2.07E+00	3.55E+00	1.30E+02	2.10E+00	pCi/kg
Fish FSH1 Control Ludington White Sucker(309023004) - FH	13-Jul-12	Iodine-131	1.15E+00	1.75E+01	2.87E+01	6.00E+01	1.75E+01	pCi/kg
Fish FSH1 Control Ludington White Sucker(309023004) - FH	13-Jul-12	Iron-59	-2.47E+00	5.54E+00	9.25E+00	2.60E+02	5.66E+00	pCi/kg
Fish FSH1 Control Ludington White Sucker(309023004) - FH	13-Jul-12	Manganese-54	-4.40E-01	2.09E+00	3.43E+00	1.30E+02	2.10E+00	pCi/kg
Fish FSH1 Control Ludington White Sucker(309023004) - FH	13-Jul-12	Potassium-40	3.29E+03	2.88E+02	2.75E+01	5.00E+02	2.88E+02	pCi/kg
Fish FSH1 Control Ludington White Sucker(309023004) - FH	13-Jul-12	Zinc-65	-3.21E-01	4.53E+00	7.69E+00	2.60E+02	4.53E+00	pCi/kg

Fish FSH1 Control Ludington Yellow Perch
FH

Sample Name	Date Collected	Nuclide	Result	2 Sigma Uncert	MDC	LLD	2 Sigma TPU	Units
Fish FSH1 Control Ludington Yellow Perch(309023002) - FH	13-Jul-12	Cesium-134	1.95E+00	2.10E+00	3.64E+00	1.30E+02	2.27E+00	pCi/kg

Fish FSH1 Control Ludington Yellow Perch(309023002) - FH	13-Jul-12	Cesium-137	1.61E+01	4.33E+00	2.91E+00	1.50E+02	4.33E+00	pCi/kg
Fish FSH1 Control Ludington Yellow Perch(309023002) - FH	13-Jul-12	Cobalt-58	6.42E-01	2.05E+00	3.47E+00	1.30E+02	2.07E+00	pCi/kg
Fish FSH1 Control Ludington Yellow Perch(309023002) - FH	13-Jul-12	Cobalt-60	8.96E-01	2.02E+00	3.49E+00	1.30E+02	2.06E+00	pCi/kg
Fish FSH1 Control Ludington Yellow Perch(309023002) - FH	13-Jul-12	Iodine-131	-6.58E+00	1.48E+01	2.42E+01	6.00E+01	1.51E+01	pCi/kg
Fish FSH1 Control Ludington Yellow Perch(309023002) - FH	13-Jul-12	Iron-59	-4.15E+00	5.28E+00	8.61E+00	2.60E+02	5.60E+00	pCi/kg
Fish FSH1 Control Ludington Yellow Perch(309023002) - FH	13-Jul-12	Manganese-54	-9.41E-01	1.80E+00	2.92E+00	1.30E+02	1.85E+00	pCi/kg
Fish FSH1 Control Ludington Yellow Perch(309023002) - FH	13-Jul-12	Potassium-40	2.76E+03	2.48E+02	2.58E+01	5.00E+02	2.48E+02	pCi/kg
Fish FSH1 Control Ludington Yellow Perch(309023002) - FH	13-Jul-12	Zinc-65	5.61E-01	4.59E+00	7.86E+00	2.60E+02	4.60E+00	pCi/kg

Fish FSH1 Indicator Carp
FH

Sample Name	Date Collected	Nuclide	Result	2 Sigma Uncert	MDC	LLD	2 Sigma TPU	Units
Fish FSH1 Indicator Carp(312844001) - FH	28-Sep-12	Cesium-134	-1.99E-01	2.09E+00	3.55E+00	1.30E+02	2.09E+00	pCi/kg
Fish FSH1 Indicator Carp(312844001) - FH	28-Sep-12	Cesium-137	3.02E+00	2.18E+00	2.98E+00	1.50E+02	2.18E+00	pCi/kg
Fish FSH1 Indicator Carp(312844001) - FH	28-Sep-12	Cobalt-58	-2.00E+00	1.92E+00	3.09E+00	1.30E+02	2.12E+00	pCi/kg
Fish FSH1 Indicator Carp(312844001) - FH	28-Sep-12	Cobalt-60	1.33E+00	2.01E+00	3.45E+00	1.30E+02	2.09E+00	pCi/kg
Fish FSH1 Indicator Carp(312844001) - FH	28-Sep-12	Iron-59	-2.23E+00	4.57E+00	7.44E+00	2.60E+02	4.67E+00	pCi/kg
Fish FSH1 Indicator Carp(312844001) - FH	28-Sep-12	Manganese-54	1.39E+00	1.81E+00	3.17E+00	1.30E+02	1.92E+00	pCi/kg
Fish FSH1 Indicator Carp(312844001) - FH	28-Sep-12	Potassium-40	2.58E+03	2.34E+02	2.54E+01	5.00E+02	2.34E+02	pCi/kg
Fish FSH1 Indicator Carp(312844001) - FH	28-Sep-12	Zinc-65	1.32E+00	4.71E+00	7.96E+00	2.60E+02	4.74E+00	pCi/kg

Fish FSH1 Indicator Catfish
FH

Sample Name	Date Collected	Nuclide	Result	2 Sigma Uncert	MDC	LLD	2 Sigma TPU	Units
Fish FSH1 Indicator Catfish(312844002) - FH	28-Sep-12	Cesium-134	1.39E+00	3.05E+00	5.24E+00	1.30E+02	3.11E+00	pCi/kg
Fish FSH1 Indicator Catfish(312844002) - FH	28-Sep-12	Cesium-137	1.09E+01	4.40E+00	3.82E+00	1.50E+02	4.40E+00	pCi/kg
Fish FSH1 Indicator Catfish(312844002) - FH	28-Sep-12	Cobalt-58	-1.96E+00	2.59E+00	4.12E+00	1.30E+02	2.74E+00	pCi/kg
Fish FSH1 Indicator Catfish(312844002) - FH	28-Sep-12	Cobalt-60	-4.56E-01	2.73E+00	4.53E+00	1.30E+02	2.73E+00	pCi/kg
Fish FSH1 Indicator Catfish(312844002) - FH	28-Sep-12	Iron-59	-2.56E-01	6.29E+00	1.07E+01	2.60E+02	6.29E+00	pCi/kg
Fish FSH1 Indicator Catfish(312844002) - FH	28-Sep-12	Manganese-54	-5.87E-01	2.46E+00	4.06E+00	1.30E+02	2.48E+00	pCi/kg
Fish FSH1 Indicator Catfish(312844002) - FH	28-Sep-12	Potassium-40	2.62E+03	2.57E+02	5.00E+01	5.00E+02	2.57E+02	pCi/kg
Fish FSH1 Indicator Catfish(312844002) - FH	28-Sep-12	Zinc-65	-2.70E+00	6.80E+00	1.14E+01	2.60E+02	6.91E+00	pCi/kg

Fish FSH1 Indicator Freshwater Drum
FH

Sample Name	Date Collected	Nuclide	Result	2 Sigma Uncert	MDC	LLD	2 Sigma TPU	Units
Fish FSH1 Indicator Freshwater Drum(308840001) - FH	27-Jun-12	Cesium-134	-8.37E-01	2.19E+00	3.48E+00	1.30E+02	2.22E+00	pCi/kg
Fish FSH1 Indicator Freshwater Drum(308840001) - FH	27-Jun-12	Cesium-137	1.32E+01	3.15E+00	2.87E+00	1.50E+02	3.15E+00	pCi/kg
Fish FSH1 Indicator Freshwater Drum(308840001) - FH	27-Jun-12	Cobalt-58	1.35E+00	2.34E+00	4.10E+00	1.30E+02	2.41E+00	pCi/kg
Fish FSH1 Indicator Freshwater Drum(308840001) - FH	27-Jun-12	Cobalt-60	1.10E+00	1.91E+00	3.29E+00	1.30E+02	1.98E+00	pCi/kg
Fish FSH1 Indicator Freshwater Drum(308840001) - FH	27-Jun-12	Iodine-131	1.27E+01	5.46E+01	9.31E+01	6.00E+01	5.49E+01	pCi/kg
Fish FSH1 Indicator Freshwater Drum(308840001) - FH	27-Jun-12	Iron-59	-6.08E+00	6.74E+00	1.07E+01	2.60E+02	7.28E+00	pCi/kg
Fish FSH1 Indicator Freshwater Drum(308840001) - FH	27-Jun-12	Manganese-54	1.10E+00	1.80E+00	3.15E+00	1.30E+02	1.87E+00	pCi/kg
Fish FSH1 Indicator Freshwater Drum(308840001) - FH	27-Jun-12	Potassium-40	2.51E+03	2.28E+02	2.82E+01	5.00E+02	2.28E+02	pCi/kg

Fish FSH1 Indicator Freshwater Drum(308840001) - FH	27-Jun-12	Zinc-65	2.74E+00	5.25E+00	7.89E+00	2.60E+02	5.40E+00	pCi/kg

Fish FSH1 Indicator Lake Trout
FH

Sample Name	Date Collected	Nuclide	Result	2 Sigma Uncert	MDC	LLD	2 Sigma TPU	Units
Fish FSH1 Indicator Lake Trout(308840002) - FH	27-Jun-12	Cesium-134	2.79E+00	2.57E+00	4.51E+00	1.30E+02	2.86E+00	pCi/kg
Fish FSH1 Indicator Lake Trout(308840002) - FH	27-Jun-12	Cesium-137	2.22E+01	4.07E+00	3.59E+00	1.50E+02	4.07E+00	pCi/kg
Fish FSH1 Indicator Lake Trout(308840002) - FH	27-Jun-12	Cobalt-58	2.89E+00	2.87E+00	5.01E+00	1.30E+02	3.15E+00	pCi/kg
Fish FSH1 Indicator Lake Trout(308840002) - FH	27-Jun-12	Cobalt-60	5.85E-01	2.48E+00	4.23E+00	1.30E+02	2.50E+00	pCi/kg
Fish FSH1 Indicator Lake Trout(308840002) - FH	27-Jun-12	Iodine-131	-3.41E+01	6.63E+01	1.10E+02	6.00E+01	6.81E+01	pCi/kg
Fish FSH1 Indicator Lake Trout(308840002) - FH	27-Jun-12	Iron-59	-4.11E+00	8.66E+00	1.45E+01	2.60E+02	8.85E+00	pCi/kg
Fish FSH1 Indicator Lake Trout(308840002) - FH	27-Jun-12	Manganese-54	1.97E+00	2.21E+00	3.83E+00	1.30E+02	2.38E+00	pCi/kg
Fish FSH1 Indicator Lake Trout(308840002) - FH	27-Jun-12	Potassium-40	3.16E+03	2.85E+02	2.90E+01	5.00E+02	2.85E+02	pCi/kg
Fish FSH1 Indicator Lake Trout(308840002) - FH	27-Jun-12	Zinc-65	3.38E+00	6.02E+00	1.05E+01	2.60E+02	6.21E+00	pCi/kg

Fish FSH1 Indicator Salmon
FH

Sample Name	Date Collected	Nuclide	Result	2 Sigma Uncert	MDC	LLD	2 Sigma TPU	Units
Fish FSH1 Indicator Salmon(312844003) - FH	28-Sep-12	Cesium-134	3.38E+00	2.36E+00	4.10E+00	1.30E+02	2.81E+00	pCi/kg
Fish FSH1 Indicator Salmon(312844003) - FH	28-Sep-12	Cesium-137	2.64E+01	4.37E+00	3.12E+00	1.50E+02	4.37E+00	pCi/kg
Fish FSH1 Indicator Salmon(312844003) - FH	28-Sep-12	Cobalt-58	1.99E+00	2.11E+00	3.61E+00	1.30E+02	2.29E+00	pCi/kg
Fish FSH1 Indicator Salmon(312844003) - FH	28-Sep-12	Cobalt-60	-1.74E-01	2.08E+00	3.49E+00	1.30E+02	2.08E+00	pCi/kg
Fish FSH1 Indicator Salmon(312844003) - FH	28-Sep-12	Iron-59	5.15E-01	4.64E+00	7.96E+00	2.60E+02	4.65E+00	pCi/kg
Fish FSH1 Indicator Salmon(312844003) - FH	28-Sep-12	Manganese-54	-1.06E-01	2.03E+00	3.35E+00	1.30E+02	2.03E+00	pCi/kg
Fish FSH1 Indicator Salmon(312844003) - FH	28-Sep-12	Potassium-40	3.46E+03	3.02E+02	2.81E+01	5.00E+02	3.02E+02	pCi/kg
Fish FSH1 Indicator Salmon(312844003) - FH	28-Sep-12	Zinc-65	-8.08E+00	4.90E+00	7.56E+00	2.60E+02	6.11E+00	pCi/kg

Lake In - LKIN
SW

Sample Name	Date Collected	Nuclide	Result	2 Sigma Uncert	MDC	LLD	2 Sigma TPU	Units
Lake In - LKIN(296557001) - SW	15-Jan-12	BETA	9.05E-02	1.93E+00	3.20E+00	4.00E+00	1.93E+00	pCi/L
Lake In - LKIN(298092001) - SW	15-Feb-12	BETA	2.56E+00	2.37E+00	3.32E+00	4.00E+00	2.42E+00	pCi/L
Lake In - LKIN(302840001) - SW	15-Mar-12	BETA	3.04E-01	1.40E+00	2.26E+00	4.00E+00	1.40E+00	pCi/L
Lake In - LKIN(304053001) - SW	15-Apr-12	BETA	1.02E+00	1.90E+00	2.85E+00	4.00E+00	1.91E+00	pCi/L
Lake In - LKIN(306556001) - SW	15-May-12	BETA	3.51E+00	2.33E+00	3.51E+00	4.00E+00	2.40E+00	pCi/L
Lake In - LKIN(307434003) - SW	15-Jun-12	BETA	1.38E+00	2.27E+00	3.53E+00	4.00E+00	2.28E+00	pCi/L
Lake In - LKIN(309310001) - SW	15-Jul-12	BETA	4.81E-01	1.87E+00	2.97E+00	4.00E+00	1.87E+00	pCi/L
Lake In - LKIN(311298001) - SW	15-Aug-12	BETA	7.49E-02	1.79E+00	2.97E+00	4.00E+00	1.79E+00	pCi/L
Lake In - LKIN(313124001) - SW	15-Sep-12	BETA	2.88E-01	2.14E+00	3.53E+00	4.00E+00	2.14E+00	pCi/L
Lake In - LKIN(314784001) - SW	15-Oct-12	BETA	-2.31E-01	2.00E+00	3.39E+00	4.00E+00	2.00E+00	pCi/L
Lake In - LKIN(316744001) - SW	15-Nov-12	BETA	-1.05E+00	1.95E+00	3.44E+00	4.00E+00	1.94E+00	pCi/L
Lake In - LKIN(318107001) - SW	15-Dec-12	BETA	2.40E+00	2.03E+00	2.65E+00	4.00E+00	2.06E+00	pCi/L
Lake In - LKIN(296557001) - SW	15-Jan-12	Barium-140	-1.61E-02	1.08E+01	1.82E+01	1.50E+01	1.08E+01	pCi/L
Lake In - LKIN(298092001) - SW	15-Feb-12	Barium-140	1.78E+00	1.25E+01	2.14E+01	1.50E+01	1.25E+01	pCi/L

Lake In - LKIN(302840001) - SW	15-Mar-12	Barium-140	4.08E+00	8.25E+00	1.44E+01	1.50E+01	8.45E+00	pCi/L
Lake In - LKIN(304053001) - SW	15-Apr-12	Barium-140	2.87E+00	4.72E+00	8.38E+00	1.50E+01	4.89E+00	pCi/L
Lake In - LKIN(306556001) - SW	15-May-12	Barium-140	3.08E+00	1.05E+01	1.78E+01	1.50E+01	1.06E+01	pCi/L
Lake In - LKIN(307434003) - SW	15-Jun-12	Barium-140	6.48E+00	5.07E+00	9.31E+00	1.50E+01	5.86E+00	pCi/L
Lake In - LKIN(309310001) - SW	15-Jul-12	Barium-140	3.56E-01	4.22E+00	7.10E+00	1.50E+01	4.23E+00	pCi/L
Lake In - LKIN(311298001) - SW	15-Aug-12	Barium-140	-4.61E+00	7.56E+00	1.23E+01	1.50E+01	7.84E+00	pCi/L
Lake In - LKIN(313124001) - SW	15-Sep-12	Barium-140	-2.38E+00	6.99E+00	1.16E+01	1.50E+01	7.07E+00	pCi/L
Lake In - LKIN(314784001) - SW	15-Oct-12	Barium-140	-2.42E+00	5.49E+00	8.71E+00	1.50E+01	5.60E+00	pCi/L
Lake In - LKIN(316744001) - SW	15-Nov-12	Barium-140	-2.22E+00	6.32E+00	1.04E+01	1.50E+01	6.40E+00	pCi/L
Lake In - LKIN(318107001) - SW	15-Dec-12	Barium-140	-6.08E+00	5.83E+00	8.75E+00	1.50E+01	6.46E+00	pCi/L
Lake In - LKIN(296557001) - SW	15-Jan-12	Cesium-134	-5.65E-01	9.49E-01	1.57E+00	1.50E+01	9.83E-01	pCi/L
Lake In - LKIN(298092001) - SW	15-Feb-12	Cesium-134	-1.75E+00	1.34E+00	2.05E+00	1.50E+01	1.56E+00	pCi/L
Lake In - LKIN(302840001) - SW	15-Mar-12	Cesium-134	-6.36E-01	1.19E+00	1.96E+00	1.50E+01	1.22E+00	pCi/L
Lake In - LKIN(304053001) - SW	15-Apr-12	Cesium-134	1.33E+00	1.22E+00	2.14E+00	1.50E+01	1.36E+00	pCi/L
Lake In - LKIN(306556001) - SW	15-May-12	Cesium-134	4.76E-01	1.11E+00	1.91E+00	1.50E+01	1.13E+00	pCi/L
Lake In - LKIN(307434003) - SW	15-Jun-12	Cesium-134	9.74E-01	1.21E+00	2.16E+00	1.50E+01	1.29E+00	pCi/L
Lake In - LKIN(309310001) - SW	15-Jul-12	Cesium-134	7.32E-01	9.51E-01	1.67E+00	1.50E+01	1.01E+00	pCi/L
Lake In - LKIN(311298001) - SW	15-Aug-12	Cesium-134	-1.56E-01	1.26E+00	2.07E+00	1.50E+01	1.26E+00	pCi/L
Lake In - LKIN(313124001) - SW	15-Sep-12	Cesium-134	9.05E-01	1.43E+00	2.48E+00	1.50E+01	1.49E+00	pCi/L
Lake In - LKIN(314784001) - SW	15-Oct-12	Cesium-134	3.68E-01	1.23E+00	2.11E+00	1.50E+01	1.24E+00	pCi/L
Lake In - LKIN(316744001) - SW	15-Nov-12	Cesium-134	-1.16E-01	8.52E-01	1.43E+00	1.50E+01	8.53E-01	pCi/L
Lake In - LKIN(318107001) - SW	15-Dec-12	Cesium-134	8.35E-02	1.05E+00	1.80E+00	1.50E+01	1.05E+00	pCi/L
Lake In - LKIN(296557001) - SW	15-Jan-12	Cesium-137	-2.50E-01	8.83E-01	1.43E+00	1.80E+01	8.91E-01	pCi/L
Lake In - LKIN(298092001) - SW	15-Feb-12	Cesium-137	1.02E+00	1.14E+00	1.99E+00	1.80E+01	1.23E+00	pCi/L
Lake In - LKIN(302840001) - SW	15-Mar-12	Cesium-137	-2.48E-01	1.06E+00	1.73E+00	1.80E+01	1.07E+00	pCi/L
Lake In - LKIN(304053001) - SW	15-Apr-12	Cesium-137	2.74E-01	1.07E+00	1.82E+00	1.80E+01	1.08E+00	pCi/L
Lake In - LKIN(306556001) - SW	15-May-12	Cesium-137	4.24E-01	9.12E-01	1.59E+00	1.80E+01	9.32E-01	pCi/L
Lake In - LKIN(307434003) - SW	15-Jun-12	Cesium-137	6.20E-01	1.14E+00	1.93E+00	1.80E+01	1.17E+00	pCi/L
Lake In - LKIN(309310001) - SW	15-Jul-12	Cesium-137	-4.37E-02	1.49E+00	1.87E+00	1.80E+01	1.49E+00	pCi/L
Lake In - LKIN(311298001) - SW	15-Aug-12	Cesium-137	7.81E-01	1.08E+00	1.87E+00	1.80E+01	1.13E+00	pCi/L
Lake In - LKIN(313124001) - SW	15-Sep-12	Cesium-137	1.73E-01	1.29E+00	2.19E+00	1.80E+01	1.30E+00	pCi/L
Lake In - LKIN(314784001) - SW	15-Oct-12	Cesium-137	-8.57E-01	1.13E+00	1.82E+00	1.80E+01	1.19E+00	pCi/L
Lake In - LKIN(316744001) - SW	15-Nov-12	Cesium-137	-6.94E-01	1.48E+00	1.37E+00	1.80E+01	1.52E+00	pCi/L
Lake In - LKIN(318107001) - SW	15-Dec-12	Cesium-137	-6.71E-03	1.01E+00	1.74E+00	1.80E+01	1.01E+00	pCi/L
Lake In - LKIN(296557001) - SW	15-Jan-12	Cobalt-58	-1.56E-01	1.16E+00	1.96E+00	1.50E+01	1.16E+00	pCi/L
Lake In - LKIN(298092001) - SW	15-Feb-12	Cobalt-58	3.82E-01	1.56E+00	2.62E+00	1.50E+01	1.57E+00	pCi/L
Lake In - LKIN(302840001) - SW	15-Mar-12	Cobalt-58	-4.87E-01	1.27E+00	2.12E+00	1.50E+01	1.29E+00	pCi/L
Lake In - LKIN(304053001) - SW	15-Apr-12	Cobalt-58	-5.69E-01	1.23E+00	1.97E+00	1.50E+01	1.26E+00	pCi/L
Lake In - LKIN(306556001) - SW	15-May-12	Cobalt-58	7.71E-02	1.25E+00	2.11E+00	1.50E+01	1.25E+00	pCi/L
Lake In - LKIN(307434003) - SW	15-Jun-12	Cobalt-58	-1.59E-01	1.29E+00	2.20E+00	1.50E+01	1.29E+00	pCi/L
Lake In - LKIN(309310001) - SW	15-Jul-12	Cobalt-58	-1.06E+00	9.58E-01	1.50E+00	1.50E+01	1.07E+00	pCi/L
Lake In - LKIN(311298001) - SW	15-Aug-12	Cobalt-58	-1.82E-01	1.41E+00	2.31E+00	1.50E+01	1.41E+00	pCi/L
Lake In - LKIN(313124001) - SW	15-Sep-12	Cobalt-58	5.03E-02	1.52E+00	2.53E+00	1.50E+01	1.52E+00	pCi/L
Lake In - LKIN(314784001) - SW	15-Oct-12	Cobalt-58	-6.51E-01	1.46E+00	2.37E+00	1.50E+01	1.49E+00	pCi/L

Lake In - LKIN(316744001) - SW	15-Nov-12	Cobalt-58	2.53E-01	1.00E+00	1.72E+00	1.50E+01	1.01E+00	pCi/L
Lake In - LKIN(318107001) - SW	15-Dec-12	Cobalt-58	5.82E-01	1.17E+00	2.06E+00	1.50E+01	1.20E+00	pCi/L
Lake In - LKIN(296557001) - SW	15-Jan-12	Cobalt-60	-2.98E-01	9.42E-01	1.51E+00	1.50E+01	9.52E-01	pCi/L
Lake In - LKIN(298092001) - SW	15-Feb-12	Cobalt-60	-5.75E-01	1.12E+00	1.79E+00	1.50E+01	1.15E+00	pCi/L
Lake In - LKIN(302840001) - SW	15-Mar-12	Cobalt-60	1.04E+00	1.13E+00	1.97E+00	1.50E+01	1.22E+00	pCi/L
Lake In - LKIN(304053001) - SW	15-Apr-12	Cobalt-60	-1.17E-01	1.11E+00	1.83E+00	1.50E+01	1.11E+00	pCi/L
Lake In - LKIN(306556001) - SW	15-May-12	Cobalt-60	2.17E-01	9.57E-01	1.64E+00	1.50E+01	9.62E-01	pCi/L
Lake In - LKIN(307434003) - SW	15-Jun-12	Cobalt-60	9.06E-01	1.11E+00	1.94E+00	1.50E+01	1.18E+00	pCi/L
Lake In - LKIN(309310001) - SW	15-Jul-12	Cobalt-60	6.39E-01	8.70E-01	1.55E+00	1.50E+01	9.16E-01	pCi/L
Lake In - LKIN(311298001) - SW	15-Aug-12	Cobalt-60	9.70E-01	1.13E+00	2.01E+00	1.50E+01	1.22E+00	pCi/L
Lake In - LKIN(313124001) - SW	15-Sep-12	Cobalt-60	-2.85E-01	1.25E+00	2.05E+00	1.50E+01	1.26E+00	pCi/L
Lake In - LKIN(314784001) - SW	15-Oct-12	Cobalt-60	-1.21E-01	1.09E+00	1.83E+00	1.50E+01	1.09E+00	pCi/L
Lake In - LKIN(316744001) - SW	15-Nov-12	Cobalt-60	-1.27E+00	1.54E+00	1.57E+00	1.50E+01	1.64E+00	pCi/L
Lake In - LKIN(318107001) - SW	15-Dec-12	Cobalt-60	7.52E-01	1.01E+00	1.83E+00	1.50E+01	1.06E+00	pCi/L
Lake In - LKIN(296557001) - SW	15-Jan-12	Iron-59	-3.45E-01	3.26E+00	5.40E+00	3.00E+01	3.26E+00	pCi/L
Lake In - LKIN(298092001) - SW	15-Feb-12	Iron-59	6.71E-01	3.74E+00	6.38E+00	3.00E+01	3.75E+00	pCi/L
Lake In - LKIN(302840001) - SW	15-Mar-12	Iron-59	-1.05E+00	3.14E+00	5.14E+00	3.00E+01	3.17E+00	pCi/L
Lake In - LKIN(304053001) - SW	15-Apr-12	Iron-59	2.22E+00	2.94E+00	5.17E+00	3.00E+01	3.10E+00	pCi/L
Lake In - LKIN(306556001) - SW	15-May-12	Iron-59	3.98E-01	3.00E+00	5.19E+00	3.00E+01	3.01E+00	pCi/L
Lake In - LKIN(307434003) - SW	15-Jun-12	Iron-59	3.32E+00	2.81E+00	5.02E+00	3.00E+01	3.19E+00	pCi/L
Lake In - LKIN(309310001) - SW	15-Jul-12	Iron-59	-1.33E+00	2.32E+00	3.64E+00	3.00E+01	2.39E+00	pCi/L
Lake In - LKIN(311298001) - SW	15-Aug-12	Iron-59	1.83E-02	3.14E+00	5.31E+00	3.00E+01	3.14E+00	pCi/L
Lake In - LKIN(313124001) - SW	15-Sep-12	Iron-59	5.43E-01	3.47E+00	5.95E+00	3.00E+01	3.48E+00	pCi/L
Lake In - LKIN(314784001) - SW	15-Oct-12	Iron-59	7.93E-01	3.16E+00	5.31E+00	3.00E+01	3.18E+00	pCi/L
Lake In - LKIN(316744001) - SW	15-Nov-12	Iron-59	-5.51E-01	2.48E+00	4.05E+00	3.00E+01	2.49E+00	pCi/L
Lake In - LKIN(318107001) - SW	15-Dec-12	Iron-59	1.52E+00	2.83E+00	4.88E+00	3.00E+01	2.92E+00	pCi/L
Lake In - LKIN(296557001) - SW	15-Jan-12	Lanthanum-140	-1.61E-02	1.08E+01	1.82E+01	1.50E+01	1.08E+01	pCi/L
Lake In - LKIN(298092001) - SW	15-Feb-12	Lanthanum-140	1.78E+00	1.25E+01	2.14E+01	1.50E+01	1.25E+01	pCi/L
Lake In - LKIN(302840001) - SW	15-Mar-12	Lanthanum-140	4.08E+00	8.24E+00	1.44E+01	1.50E+01	8.44E+00	pCi/L
Lake In - LKIN(304053001) - SW	15-Apr-12	Lanthanum-140	2.87E+00	4.71E+00	8.38E+00	1.50E+01	4.89E+00	pCi/L
Lake In - LKIN(306556001) - SW	15-May-12	Lanthanum-140	3.08E+00	1.05E+01	1.78E+01	1.50E+01	1.06E+01	pCi/L
Lake In - LKIN(307434003) - SW	15-Jun-12	Lanthanum-140	6.48E+00	5.05E+00	9.31E+00	1.50E+01	5.83E+00	pCi/L
Lake In - LKIN(309310001) - SW	15-Jul-12	Lanthanum-140	3.56E-01	4.22E+00	7.10E+00	1.50E+01	4.23E+00	pCi/L
Lake In - LKIN(311298001) - SW	15-Aug-12	Lanthanum-140	-4.61E+00	7.55E+00	1.23E+01	1.50E+01	7.83E+00	pCi/L
Lake In - LKIN(313124001) - SW	15-Sep-12	Lanthanum-140	-2.38E+00	6.99E+00	1.16E+01	1.50E+01	7.07E+00	pCi/L
Lake In - LKIN(314784001) - SW	15-Oct-12	Lanthanum-140	-2.42E+00	5.48E+00	8.71E+00	1.50E+01	5.59E+00	pCi/L
Lake In - LKIN(316744001) - SW	15-Nov-12	Lanthanum-140	-2.22E+00	6.32E+00	1.04E+01	1.50E+01	6.40E+00	pCi/L
Lake In - LKIN(318107001) - SW	15-Dec-12	Lanthanum-140	-6.08E+00	5.83E+00	8.75E+00	1.50E+01	6.46E+00	pCi/L
Lake In - LKIN(296557001) - SW	15-Jan-12	Manganese-54	5.36E-01	8.69E-01	1.53E+00	1.50E+01	9.02E-01	pCi/L
Lake In - LKIN(298092001) - SW	15-Feb-12	Manganese-54	1.28E+00	1.13E+00	1.96E+00	1.50E+01	1.27E+00	pCi/L
Lake In - LKIN(302840001) - SW	15-Mar-12	Manganese-54	1.46E-01	1.01E+00	1.73E+00	1.50E+01	1.01E+00	pCi/L
Lake In - LKIN(304053001) - SW	15-Apr-12	Manganese-54	-1.27E-01	1.08E+00	1.77E+00	1.50E+01	1.09E+00	pCi/L
Lake In - LKIN(306556001) - SW	15-May-12	Manganese-54	-1.15E+00	1.01E+00	1.57E+00	1.50E+01	1.14E+00	pCi/L
Lake In - LKIN(307434003) - SW	15-Jun-12	Manganese-54	2.79E-02	1.10E+00	1.88E+00	1.50E+01	1.10E+00	pCi/L

Lake In - LKIN(309310001) - SW	15-Jul-12	Manganese-54	-4.90E-01	8.43E-01	1.37E+00	1.50E+01	8.71E-01	pCi/L
Lake In - LKIN(311298001) - SW	15-Aug-12	Manganese-54	-3.61E-01	1.05E+00	1.70E+00	1.50E+01	1.07E+00	pCi/L
Lake In - LKIN(313124001) - SW	15-Sep-12	Manganese-54	-1.23E+00	1.31E+00	2.02E+00	1.50E+01	1.42E+00	pCi/L
Lake In - LKIN(314784001) - SW	15-Oct-12	Manganese-54	7.53E-01	1.22E+00	2.13E+00	1.50E+01	1.27E+00	pCi/L
Lake In - LKIN(316744001) - SW	15-Nov-12	Manganese-54	-5.93E-01	7.99E-01	1.30E+00	1.50E+01	8.45E-01	pCi/L
Lake In - LKIN(318107001) - SW	15-Dec-12	Manganese-54	-5.11E-01	1.01E+00	1.66E+00	1.50E+01	1.04E+00	pCi/L
Lake In - LKIN(296557001) - SW	15-Jan-12	Niobium-95	4.57E-01	1.20E+00	2.10E+00	1.50E+01	1.22E+00	pCi/L
Lake In - LKIN(298092001) - SW	15-Feb-12	Niobium-95	0.00E+00	1.93E+00	2.87E+00	1.50E+01	1.93E+00	pCi/L
Lake In - LKIN(302840001) - SW	15-Mar-12	Niobium-95	1.16E+00	1.33E+00	2.36E+00	1.50E+01	1.43E+00	pCi/L
Lake In - LKIN(304053001) - SW	15-Apr-12	Niobium-95	4.12E-01	1.24E+00	2.09E+00	1.50E+01	1.25E+00	pCi/L
Lake In - LKIN(306556001) - SW	15-May-12	Niobium-95	-3.62E-01	1.40E+00	2.33E+00	1.50E+01	1.41E+00	pCi/L
Lake In - LKIN(307434003) - SW	15-Jun-12	Niobium-95	4.95E-01	1.45E+00	2.41E+00	1.50E+01	1.46E+00	pCi/L
Lake In - LKIN(309310001) - SW	15-Jul-12	Niobium-95	1.59E+00	1.05E+00	1.90E+00	1.50E+01	1.27E+00	pCi/L
Lake In - LKIN(311298001) - SW	15-Aug-12	Niobium-95	5.39E-01	1.43E+00	2.42E+00	1.50E+01	1.45E+00	pCi/L
Lake In - LKIN(313124001) - SW	15-Sep-12	Niobium-95	1.04E+00	1.54E+00	2.67E+00	1.50E+01	1.61E+00	pCi/L
Lake In - LKIN(314784001) - SW	15-Oct-12	Niobium-95	1.79E+00	1.34E+00	2.46E+00	1.50E+01	1.57E+00	pCi/L
Lake In - LKIN(316744001) - SW	15-Nov-12	Niobium-95	4.31E-01	1.43E+00	1.76E+00	1.50E+01	1.43E+00	pCi/L
Lake In - LKIN(318107001) - SW	15-Dec-12	Niobium-95	-8.06E-01	1.58E+00	2.12E+00	1.50E+01	1.62E+00	pCi/L
Lake In - LKIN(296557001) - SW	15-Jan-12	Tritium	2.31E+02	2.84E+02	4.44E+02	2.00E+03	2.87E+02	pCi/L
Lake In - LKIN(298092001) - SW	15-Feb-12	Tritium	1.19E+02	2.35E+02	3.72E+02	2.00E+03	2.36E+02	pCi/L
Lake In - LKIN(302840001) - SW	15-Mar-12	Tritium	8.12E+01	3.46E+02	5.68E+02	2.00E+03	3.46E+02	pCi/L
Lake In - LKIN(304053001) - SW	15-Apr-12	Tritium	-6.50E+01	3.42E+02	5.84E+02	2.00E+03	3.42E+02	pCi/L
Lake In - LKIN(306556001) - SW	15-May-12	Tritium	3.46E+02	3.40E+02	5.13E+02	2.00E+03	3.46E+02	pCi/L
Lake In - LKIN(307434003) - SW	15-Jun-12	Tritium	1.12E+02	2.71E+02	4.37E+02	2.00E+03	2.71E+02	pCi/L
Lake In - LKIN(309310001) - SW	15-Jul-12	Tritium	2.24E+02	3.09E+02	4.85E+02	2.00E+03	3.12E+02	pCi/L
Lake In - LKIN(311298001) - SW	15-Aug-12	Tritium	1.19E+02	2.68E+02	4.26E+02	2.00E+03	2.69E+02	pCi/L
Lake In - LKIN(313124001) - SW	15-Sep-12	Tritium	2.94E+02	4.09E+02	6.36E+02	2.00E+03	4.13E+02	pCi/L
Lake In - LKIN(314784001) - SW	15-Oct-12	Tritium	3.89E+02	3.35E+02	5.08E+02	2.00E+03	3.43E+02	pCi/L
Lake In - LKIN(316744001) - SW	15-Nov-12	Tritium	3.62E+01	2.58E+02	4.25E+02	2.00E+03	2.58E+02	pCi/L
Lake In - LKIN(318107001) - SW	15-Dec-12	Tritium	1.22E+02	2.40E+02	3.78E+02	2.00E+03	2.41E+02	pCi/L
Lake In - LKIN(296557001) - SW	15-Jan-12	Zinc-65	-1.09E+00	1.97E+00	3.16E+00	3.00E+01	2.03E+00	pCi/L
Lake In - LKIN(298092001) - SW	15-Feb-12	Zinc-65	-3.69E+00	2.62E+00	4.02E+00	3.00E+01	3.10E+00	pCi/L
Lake In - LKIN(302840001) - SW	15-Mar-12	Zinc-65	-2.02E+00	2.39E+00	3.78E+00	3.00E+01	2.56E+00	pCi/L
Lake In - LKIN(304053001) - SW	15-Apr-12	Zinc-65	-8.47E-01	2.22E+00	3.65E+00	3.00E+01	2.25E+00	pCi/L
Lake In - LKIN(306556001) - SW	15-May-12	Zinc-65	-1.26E+00	2.12E+00	3.49E+00	3.00E+01	2.20E+00	pCi/L
Lake In - LKIN(307434003) - SW	15-Jun-12	Zinc-65	-2.63E+00	2.49E+00	3.92E+00	3.00E+01	2.76E+00	pCi/L
Lake In - LKIN(309310001) - SW	15-Jul-12	Zinc-65	-6.48E-01	1.88E+00	3.01E+00	3.00E+01	1.90E+00	pCi/L
Lake In - LKIN(311298001) - SW	15-Aug-12	Zinc-65	-2.39E+00	2.45E+00	3.86E+00	3.00E+01	2.68E+00	pCi/L
Lake In - LKIN(313124001) - SW	15-Sep-12	Zinc-65	-1.33E+00	2.87E+00	4.68E+00	3.00E+01	2.93E+00	pCi/L
Lake In - LKIN(314784001) - SW	15-Oct-12	Zinc-65	1.33E+00	2.53E+00	3.85E+00	3.00E+01	2.60E+00	pCi/L
Lake In - LKIN(316744001) - SW	15-Nov-12	Zinc-65	1.02E+00	1.90E+00	2.86E+00	3.00E+01	1.96E+00	pCi/L
Lake In - LKIN(318107001) - SW	15-Dec-12	Zinc-65	-1.64E+00	2.22E+00	3.43E+00	3.00E+01	2.35E+00	pCi/L

Ludington Control

REMP Year End Report for PALI for 2012
Palisades REMP

SW

Sample Name	Date Collected	Nuclide	Result	2 Sigma Uncert	MDC	LLD	2 Sigma TPU	Units
Ludington Control(296557004) - SW	15-Jan-12	BETA	1.71E+00	2.53E+00	3.83E+00	4.00E+00	2.54E+00	pCi/L
Ludington Control(298092004) - SW	15-Feb-12	BETA	2.74E-01	1.87E+00	3.05E+00	4.00E+00	1.87E+00	pCi/L
Ludington Control(302840005) - SW	15-Mar-12	BETA	3.21E+00	2.41E+00	3.23E+00	4.00E+00	2.47E+00	pCi/L
Ludington Control(304053004) - SW	15-Apr-12	BETA	2.56E+00	2.13E+00	2.87E+00	4.00E+00	2.17E+00	pCi/L
Ludington Control(306556004) - SW	15-May-12	BETA	1.24E+00	1.70E+00	2.67E+00	4.00E+00	1.71E+00	pCi/L
Ludington Control(308247001) - SW	15-Jun-12	BETA	-2.41E-01	1.85E+00	3.17E+00	4.00E+00	1.85E+00	pCi/L
Ludington Control(309850003) - SW	15-Jul-12	BETA	1.32E+00	1.91E+00	2.90E+00	4.00E+00	1.92E+00	pCi/L
Ludington Control(311298004) - SW	15-Aug-12	BETA	-5.54E-01	1.54E+00	2.76E+00	4.00E+00	1.54E+00	pCi/L
Ludington Control(313124003) - SW	15-Sep-12	BETA	2.91E+00	2.38E+00	3.53E+00	4.00E+00	2.43E+00	pCi/L
Ludington Control(314784003) - SW	15-Oct-12	BETA	2.54E+00	2.34E+00	3.40E+00	4.00E+00	2.38E+00	pCi/L
Ludington Control(316744003) - SW	15-Nov-12	BETA	1.23E-02	2.14E+00	3.57E+00	4.00E+00	2.14E+00	pCi/L
Ludington Control(318226001) - SW	15-Dec-12	BETA	7.76E-01	1.75E+00	2.66E+00	4.00E+00	1.76E+00	pCi/L
Ludington Control(302840005) - SW	15-Mar-12	Barium-140	6.64E+00	8.75E+00	1.56E+01	1.50E+01	9.25E+00	pCi/L
Ludington Control(304053004) - SW	15-Apr-12	Barium-140	4.58E-01	4.87E+00	8.32E+00	1.50E+01	4.87E+00	pCi/L
Ludington Control(306556004) - SW	15-May-12	Barium-140	-1.01E+01	1.02E+01	1.56E+01	1.50E+01	1.11E+01	pCi/L
Ludington Control(308247001) - SW	15-Jun-12	Barium-140	1.41E+00	8.90E+00	1.49E+01	1.50E+01	8.93E+00	pCi/L
Ludington Control(309850003) - SW	15-Jul-12	Barium-140	-1.56E+00	6.55E+00	1.10E+01	1.50E+01	6.59E+00	pCi/L
Ludington Control(311298004) - SW	15-Aug-12	Barium-140	4.14E+00	5.70E+00	1.01E+01	1.50E+01	5.99E+00	pCi/L
Ludington Control(313124003) - SW	15-Sep-12	Barium-140	2.40E+00	4.90E+00	8.57E+00	1.50E+01	5.02E+00	pCi/L
Ludington Control(314784003) - SW	15-Oct-12	Barium-140	-1.64E+00	4.96E+00	8.10E+00	1.50E+01	5.02E+00	pCi/L
Ludington Control(316744003) - SW	15-Nov-12	Barium-140	-2.90E+00	6.32E+00	1.05E+01	1.50E+01	6.45E+00	pCi/L
Ludington Control(318226001) - SW	15-Dec-12	Barium-140	-1.21E+00	4.50E+00	7.40E+00	1.50E+01	4.54E+00	pCi/L
Ludington Control(302840005) - SW	15-Mar-12	Cesium-134	-1.33E+00	1.38E+00	2.13E+00	1.50E+01	1.50E+00	pCi/L
Ludington Control(304053004) - SW	15-Apr-12	Cesium-134	2.95E-01	1.17E+00	2.02E+00	1.50E+01	1.18E+00	pCi/L
Ludington Control(306556004) - SW	15-May-12	Cesium-134	7.50E-01	1.03E+00	1.82E+00	1.50E+01	1.09E+00	pCi/L
Ludington Control(308247001) - SW	15-Jun-12	Cesium-134	-8.10E-01	9.42E-01	1.49E+00	1.50E+01	1.01E+00	pCi/L
Ludington Control(309850003) - SW	15-Jul-12	Cesium-134	1.46E-01	8.94E-01	1.55E+00	1.50E+01	8.96E-01	pCi/L
Ludington Control(311298004) - SW	15-Aug-12	Cesium-134	1.46E-01	1.01E+00	1.72E+00	1.50E+01	1.01E+00	pCi/L
Ludington Control(313124003) - SW	15-Sep-12	Cesium-134	1.49E-01	1.18E+00	2.00E+00	1.50E+01	1.18E+00	pCi/L
Ludington Control(314784003) - SW	15-Oct-12	Cesium-134	-2.00E-01	1.16E+00	1.94E+00	1.50E+01	1.16E+00	pCi/L
Ludington Control(316744003) - SW	15-Nov-12	Cesium-134	7.27E-01	8.46E-01	1.51E+00	1.50E+01	9.10E-01	pCi/L
Ludington Control(318226001) - SW	15-Dec-12	Cesium-134	-8.38E-01	1.34E+00	1.67E+00	1.50E+01	1.39E+00	pCi/L
Ludington Control(302840005) - SW	15-Mar-12	Cesium-137	-1.83E+00	2.73E+00	2.88E+00	1.80E+01	2.85E+00	pCi/L
Ludington Control(304053004) - SW	15-Apr-12	Cesium-137	-7.53E-01	1.08E+00	1.71E+00	1.80E+01	1.13E+00	pCi/L
Ludington Control(306556004) - SW	15-May-12	Cesium-137	4.28E-01	9.11E-01	1.53E+00	1.80E+01	9.31E-01	pCi/L
Ludington Control(308247001) - SW	15-Jun-12	Cesium-137	7.87E-01	1.97E+00	1.34E+00	1.80E+01	1.97E+00	pCi/L
Ludington Control(309850003) - SW	15-Jul-12	Cesium-137	-6.36E-01	8.65E-01	1.36E+00	1.80E+01	9.11E-01	pCi/L
Ludington Control(311298004) - SW	15-Aug-12	Cesium-137	-5.25E-01	1.56E+00	1.86E+00	1.80E+01	1.58E+00	pCi/L
Ludington Control(313124003) - SW	15-Sep-12	Cesium-137	-9.42E-01	2.03E+00	2.13E+00	1.80E+01	2.07E+00	pCi/L
Ludington Control(314784003) - SW	15-Oct-12	Cesium-137	-1.23E-01	1.15E+00	1.97E+00	1.80E+01	1.15E+00	pCi/L
Ludington Control(316744003) - SW	15-Nov-12	Cesium-137	2.22E-01	8.35E-01	1.39E+00	1.80E+01	8.41E-01	pCi/L
Ludington Control(318226001) - SW	15-Dec-12	Cesium-137	-6.75E-01	1.59E+00	1.72E+00	1.80E+01	1.62E+00	pCi/L

Ludington Control(302840005) - SW	15-Mar-12	Cobalt-58	-9.37E-03	1.41E+00	2.31E+00	1.50E+01	1.41E+00	pCi/L
Ludington Control(304053004) - SW	15-Apr-12	Cobalt-58	4.71E-01	1.17E+00	2.03E+00	1.50E+01	1.19E+00	pCi/L
Ludington Control(306556004) - SW	15-May-12	Cobalt-58	-2.99E-01	1.12E+00	1.88E+00	1.50E+01	1.13E+00	pCi/L
Ludington Control(308247001) - SW	15-Jun-12	Cobalt-58	3.65E-02	1.15E+00	1.92E+00	1.50E+01	1.15E+00	pCi/L
Ludington Control(309850003) - SW	15-Jul-12	Cobalt-58	-1.61E-01	1.05E+00	1.79E+00	1.50E+01	1.06E+00	pCi/L
Ludington Control(311298004) - SW	15-Aug-12	Cobalt-58	-5.53E-01	1.02E+00	1.65E+00	1.50E+01	1.05E+00	pCi/L
Ludington Control(313124003) - SW	15-Sep-12	Cobalt-58	-4.01E-01	1.19E+00	1.95E+00	1.50E+01	1.20E+00	pCi/L
Ludington Control(314784003) - SW	15-Oct-12	Cobalt-58	1.49E-01	1.26E+00	2.15E+00	1.50E+01	1.26E+00	pCi/L
Ludington Control(316744003) - SW	15-Nov-12	Cobalt-58	-3.87E-01	1.06E+00	1.69E+00	1.50E+01	1.08E+00	pCi/L
Ludington Control(318226001) - SW	15-Dec-12	Cobalt-58	6.93E-01	1.11E+00	1.96E+00	1.50E+01	1.16E+00	pCi/L
Ludington Control(302840005) - SW	15-Mar-12	Cobalt-60	-5.62E-01	1.11E+00	1.77E+00	1.50E+01	1.14E+00	pCi/L
Ludington Control(304053004) - SW	15-Apr-12	Cobalt-60	-5.81E+00	2.44E+00	1.97E+00	1.50E+01	3.58E+00	pCi/L
Ludington Control(306556004) - SW	15-May-12	Cobalt-60	3.21E-01	8.37E-01	1.47E+00	1.50E+01	8.50E-01	pCi/L
Ludington Control(308247001) - SW	15-Jun-12	Cobalt-60	1.06E+00	8.54E-01	1.55E+00	1.50E+01	9.79E-01	pCi/L
Ludington Control(309850003) - SW	15-Jul-12	Cobalt-60	1.13E+00	8.50E-01	1.53E+00	1.50E+01	9.91E-01	pCi/L
Ludington Control(311298004) - SW	15-Aug-12	Cobalt-60	5.79E-01	8.62E-01	1.53E+00	1.50E+01	9.01E-01	pCi/L
Ludington Control(313124003) - SW	15-Sep-12	Cobalt-60	-7.19E-02	9.82E-01	1.65E+00	1.50E+01	9.82E-01	pCi/L
Ludington Control(314784003) - SW	15-Oct-12	Cobalt-60	3.70E-01	1.12E+00	1.97E+00	1.50E+01	1.13E+00	pCi/L
Ludington Control(316744003) - SW	15-Nov-12	Cobalt-60	5.40E-01	8.65E-01	1.50E+00	1.50E+01	9.00E-01	pCi/L
Ludington Control(318226001) - SW	15-Dec-12	Cobalt-60	0.00E+00	1.31E+00	1.98E+00	1.50E+01	1.84E+00	pCi/L
Ludington Control(302840005) - SW	15-Mar-12	Iron-59	-1.04E+00	3.45E+00	5.72E+00	3.00E+01	3.49E+00	pCi/L
Ludington Control(304053004) - SW	15-Apr-12	Iron-59	2.11E-01	2.77E+00	4.65E+00	3.00E+01	2.77E+00	pCi/L
Ludington Control(306556004) - SW	15-May-12	Iron-59	1.60E+00	2.90E+00	4.98E+00	3.00E+01	2.99E+00	pCi/L
Ludington Control(308247001) - SW	15-Jun-12	Iron-59	-8.50E-01	2.70E+00	4.51E+00	3.00E+01	2.72E+00	pCi/L
Ludington Control(309850003) - SW	15-Jul-12	Iron-59	-1.23E+00	2.58E+00	4.20E+00	3.00E+01	2.64E+00	pCi/L
Ludington Control(311298004) - SW	15-Aug-12	Iron-59	-1.67E+00	2.75E+00	4.33E+00	3.00E+01	2.85E+00	pCi/L
Ludington Control(313124003) - SW	15-Sep-12	Iron-59	-2.52E+00	2.72E+00	4.06E+00	3.00E+01	2.94E+00	pCi/L
Ludington Control(314784003) - SW	15-Oct-12	Iron-59	1.45E+00	3.11E+00	5.35E+00	3.00E+01	3.18E+00	pCi/L
Ludington Control(316744003) - SW	15-Nov-12	Iron-59	6.97E-02	2.51E+00	4.22E+00	3.00E+01	2.51E+00	pCi/L
Ludington Control(318226001) - SW	15-Dec-12	Iron-59	-1.61E+00	3.48E+00	4.06E+00	3.00E+01	3.56E+00	pCi/L
Ludington Control(302840005) - SW	15-Mar-12	Lanthanum-140	6.64E+00	8.73E+00	1.56E+01	1.50E+01	9.23E+00	pCi/L
Ludington Control(304053004) - SW	15-Apr-12	Lanthanum-140	4.58E-01	4.87E+00	8.32E+00	1.50E+01	4.87E+00	pCi/L
Ludington Control(306556004) - SW	15-May-12	Lanthanum-140	-1.01E+01	1.01E+01	1.56E+01	1.50E+01	1.11E+01	pCi/L
Ludington Control(308247001) - SW	15-Jun-12	Lanthanum-140	1.41E+00	8.90E+00	1.49E+01	1.50E+01	8.92E+00	pCi/L
Ludington Control(309850003) - SW	15-Jul-12	Lanthanum-140	-1.56E+00	6.55E+00	1.10E+01	1.50E+01	6.59E+00	pCi/L
Ludington Control(311298004) - SW	15-Aug-12	Lanthanum-140	4.14E+00	5.69E+00	1.01E+01	1.50E+01	5.98E+00	pCi/L
Ludington Control(313124003) - SW	15-Sep-12	Lanthanum-140	2.40E+00	4.89E+00	8.57E+00	1.50E+01	5.01E+00	pCi/L
Ludington Control(314784003) - SW	15-Oct-12	Lanthanum-140	-1.64E+00	4.96E+00	8.10E+00	1.50E+01	5.02E+00	pCi/L
Ludington Control(316744003) - SW	15-Nov-12	Lanthanum-140	-2.90E+00	6.32E+00	1.05E+01	1.50E+01	6.45E+00	pCi/L
Ludington Control(318226001) - SW	15-Dec-12	Lanthanum-140	-1.21E+00	4.50E+00	7.40E+00	1.50E+01	4.54E+00	pCi/L
Ludington Control(302840005) - SW	15-Mar-12	Manganese-54	-8.38E-01	1.07E+00	1.76E+00	1.50E+01	1.14E+00	pCi/L
Ludington Control(304053004) - SW	15-Apr-12	Manganese-54	5.12E-01	1.02E+00	1.77E+00	1.50E+01	1.04E+00	pCi/L
Ludington Control(306556004) - SW	15-May-12	Manganese-54	-1.03E-01	8.63E-01	1.46E+00	1.50E+01	8.65E-01	pCi/L
Ludington Control(308247001) - SW	15-Jun-12	Manganese-54	-2.96E-01	8.58E-01	1.40E+00	1.50E+01	8.69E-01	pCi/L

Ludington Control(309850003) - SW	15-Jul-12	Manganese-54	-2.34E-01	7.79E-01	1.31E+00	1.50E+01	7.86E-01	pCi/L
Ludington Control(311298004) - SW	15-Aug-12	Manganese-54	-4.60E-01	8.52E-01	1.39E+00	1.50E+01	8.77E-01	pCi/L
Ludington Control(313124003) - SW	15-Sep-12	Manganese-54	-4.28E-01	9.65E-01	1.57E+00	1.50E+01	9.85E-01	pCi/L
Ludington Control(314784003) - SW	15-Oct-12	Manganese-54	-1.79E-02	1.07E+00	1.82E+00	1.50E+01	1.07E+00	pCi/L
Ludington Control(316744003) - SW	15-Nov-12	Manganese-54	-5.40E-03	8.42E-01	1.25E+00	1.50E+01	8.42E-01	pCi/L
Ludington Control(318226001) - SW	15-Dec-12	Manganese-54	-1.72E-01	9.16E-01	1.53E+00	1.50E+01	9.20E-01	pCi/L
Ludington Control(302840005) - SW	15-Mar-12	Niobium-95	9.42E-01	1.47E+00	2.50E+00	1.50E+01	1.53E+00	pCi/L
Ludington Control(304053004) - SW	15-Apr-12	Niobium-95	1.24E+00	1.26E+00	2.23E+00	1.50E+01	1.38E+00	pCi/L
Ludington Control(306556004) - SW	15-May-12	Niobium-95	5.07E-01	1.20E+00	2.09E+00	1.50E+01	1.22E+00	pCi/L
Ludington Control(308247001) - SW	15-Jun-12	Niobium-95	1.12E+00	1.16E+00	2.03E+00	1.50E+01	1.26E+00	pCi/L
Ludington Control(309850003) - SW	15-Jul-12	Niobium-95	-3.40E-02	1.11E+00	1.90E+00	1.50E+01	1.11E+00	pCi/L
Ludington Control(311298004) - SW	15-Aug-12	Niobium-95	1.74E-01	1.13E+00	1.93E+00	1.50E+01	1.13E+00	pCi/L
Ludington Control(313124003) - SW	15-Sep-12	Niobium-95	1.22E+00	1.27E+00	2.26E+00	1.50E+01	1.38E+00	pCi/L
Ludington Control(314784003) - SW	15-Oct-12	Niobium-95	1.28E+00	1.40E+00	2.50E+00	1.50E+01	1.51E+00	pCi/L
Ludington Control(316744003) - SW	15-Nov-12	Niobium-95	9.30E-01	1.06E+00	1.89E+00	1.50E+01	1.14E+00	pCi/L
Ludington Control(318226001) - SW	15-Dec-12	Niobium-95	4.22E-01	1.62E+00	1.97E+00	1.50E+01	1.62E+00	pCi/L
Ludington Control(296557004) - SW	15-Jan-12	Tritium	2.37E+02	2.78E+02	4.32E+02	2.00E+03	2.81E+02	pCi/L
Ludington Control(298092004) - SW	15-Feb-12	Tritium	1.22E+02	2.40E+02	3.81E+02	2.00E+03	2.41E+02	pCi/L
Ludington Control(302840005) - SW	15-Mar-12	Tritium	-1.59E+02	3.27E+02	5.74E+02	2.00E+03	3.27E+02	pCi/L
Ludington Control(304053004) - SW	15-Apr-12	Tritium	-1.32E+02	3.40E+02	5.91E+02	2.00E+03	3.40E+02	pCi/L
Ludington Control(306556004) - SW	15-May-12	Tritium	1.40E+02	3.41E+02	5.48E+02	2.00E+03	3.42E+02	pCi/L
Ludington Control(308247001) - SW	15-Jun-12	Tritium	-1.13E+02	2.58E+02	4.57E+02	2.00E+03	2.58E+02	pCi/L
Ludington Control(309850003) - SW	15-Jul-12	Tritium	4.61E+01	3.23E+02	5.34E+02	2.00E+03	3.23E+02	pCi/L
Ludington Control(311298004) - SW	15-Aug-12	Tritium	1.74E+01	2.62E+02	4.35E+02	2.00E+03	2.62E+02	pCi/L
Ludington Control(313124003) - SW	15-Sep-12	Tritium	8.49E+01	3.86E+02	6.32E+02	2.00E+03	3.86E+02	pCi/L
Ludington Control(314784003) - SW	15-Oct-12	Tritium	9.68E+01	3.08E+02	5.03E+02	2.00E+03	3.08E+02	pCi/L
Ludington Control(316744003) - SW	15-Nov-12	Tritium	1.83E+01	2.58E+02	4.29E+02	2.00E+03	2.58E+02	pCi/L
Ludington Control(318226001) - SW	15-Dec-12	Tritium	2.46E+02	2.57E+02	3.83E+02	2.00E+03	2.61E+02	pCi/L
Ludington Control(302840005) - SW	15-Mar-12	Zinc-65	-5.95E-01	2.40E+00	3.97E+00	3.00E+01	2.41E+00	pCi/L
Ludington Control(304053004) - SW	15-Apr-12	Zinc-65	-1.43E+00	2.24E+00	3.59E+00	3.00E+01	2.33E+00	pCi/L
Ludington Control(306556004) - SW	15-May-12	Zinc-65	-3.34E+00	2.03E+00	2.90E+00	3.00E+01	2.53E+00	pCi/L
Ludington Control(308247001) - SW	15-Jun-12	Zinc-65	6.57E-02	1.75E+00	3.00E+00	3.00E+01	1.75E+00	pCi/L
Ludington Control(309850003) - SW	15-Jul-12	Zinc-65	-1.67E+00	1.80E+00	2.83E+00	3.00E+01	1.95E+00	pCi/L
Ludington Control(311298004) - SW	15-Aug-12	Zinc-65	-1.33E+00	2.09E+00	3.28E+00	3.00E+01	2.18E+00	pCi/L
Ludington Control(313124003) - SW	15-Sep-12	Zinc-65	-3.19E+00	2.09E+00	2.87E+00	3.00E+01	2.54E+00	pCi/L
Ludington Control(314784003) - SW	15-Oct-12	Zinc-65	-2.30E+00	2.48E+00	3.77E+00	3.00E+01	2.69E+00	pCi/L
Ludington Control(316744003) - SW	15-Nov-12	Zinc-65	1.48E+00	1.98E+00	3.07E+00	3.00E+01	2.10E+00	pCi/L
Ludington Control(318226001) - SW	15-Dec-12	Zinc-65	-1.70E+00	2.13E+00	3.31E+00	3.00E+01	2.27E+00	pCi/L

MW-11
GW

Sample Name	Date Collected	Nuclide	Result	2 Sigma Uncert	MDC	LLD	2 Sigma TPU	Units
MW-11(295049002) - GW	19-Jan-12	Iron-55	7.88E-01	1.26E+02	1.88E+02	2.00E+02	1.25E+02	pCi/L
MW-11(295049002) - GW	19-Jan-12	Nickel-63	1.34E+01	2.09E+01	3.45E+01	5.00E+01	2.10E+01	pCi/L

MW-11(295049002) - GW	19-Jan-12	Strontium-89	6.14E-01	1.11E+00	1.82E+00	2.00E+00	1.40E+00	pCi/L
MW-11(295049002) - GW	19-Jan-12	Strontium-90	-4.08E-01	6.60E-01	1.72E+00	2.00E+00	9.61E-01	pCi/L
MW-11(295049002) - GW	19-Jan-12	Tritium	7.73E+02	2.51E+02	3.38E+02	5.00E+02	2.92E+02	pCi/L

MW-3

GW

Sample Name	Date Collected	Nuclide	Result	2 Sigma Uncert	MDC	LLD	2 Sigma TPU	Units
MW-3(295049001) - GW	19-Jan-12	Iron-55	-9.73E+01	9.19E+01	1.45E+02	2.00E+02	9.19E+01	pCi/L
MW-3(295049001) - GW	19-Jan-12	Nickel-63	1.47E+01	2.06E+01	3.41E+01	5.00E+01	2.08E+01	pCi/L
MW-3(295049001) - GW	19-Jan-12	Strontium-89	5.12E-02	1.14E+00	1.91E+00	2.00E+00	1.48E+00	pCi/L
MW-3(295049001) - GW	19-Jan-12	Strontium-90	2.40E-02	6.96E-01	1.69E+00	2.00E+00	1.01E+00	pCi/L
MW-3(295049001) - GW	19-Jan-12	Tritium	8.51E+02	2.40E+02	3.03E+02	5.00E+02	2.91E+02	pCi/L

Palisades Park - Commercial Well

DW

Sample Name	Date Collected	Nuclide	Result	2 Sigma Uncert	MDC	LLD	2 Sigma TPU	Units
Palisades Park - Commercial Well(303476001) - DW	24-Apr-12	BETA	1.09E+00	2.13E+00	3.25E+00	4.00E+00	2.13E+00	pCi/L
Palisades Park - Commercial Well(304713001) - DW	15-May-12	BETA	3.41E+00	2.49E+00	3.51E+00	4.00E+00	2.55E+00	pCi/L
Palisades Park - Commercial Well(306556005) - DW	19-Jun-12	BETA	1.08E+00	1.66E+00	2.61E+00	4.00E+00	1.67E+00	pCi/L
Palisades Park - Commercial Well(308649001) - DW	24-Jul-12	BETA	5.20E-01	1.69E+00	2.68E+00	4.00E+00	1.69E+00	pCi/L
Palisades Park - Commercial Well(309850001) - DW	14-Aug-12	BETA	1.16E+00	2.03E+00	3.12E+00	4.00E+00	2.04E+00	pCi/L
Palisades Park - Commercial Well(311298005) - DW	12-Sep-12	BETA	-3.40E-01	1.48E+00	2.60E+00	4.00E+00	1.48E+00	pCi/L
Palisades Park - Commercial Well(312843001) - DW	4-Oct-12	BETA	1.86E+00	2.05E+00	2.85E+00	4.00E+00	2.07E+00	pCi/L
Palisades Park - Commercial Well(303476001) - DW	24-Apr-12	Barium-140	-3.51E-01	1.89E+00	3.07E+00	1.50E+01	1.89E+00	pCi/L
Palisades Park - Commercial Well(304713001) - DW	15-May-12	Barium-140	3.26E-02	1.77E+00	3.01E+00	1.50E+01	1.77E+00	pCi/L
Palisades Park - Commercial Well(306556005) - DW	19-Jun-12	Barium-140	-3.61E-02	1.26E+00	2.13E+00	1.50E+01	1.26E+00	pCi/L
Palisades Park - Commercial Well(308649001) - DW	24-Jul-12	Barium-140	5.89E-01	1.72E+00	2.95E+00	1.50E+01	1.74E+00	pCi/L
Palisades Park - Commercial Well(309850001) - DW	14-Aug-12	Barium-140	9.12E-02	1.59E+00	2.65E+00	1.50E+01	1.59E+00	pCi/L
Palisades Park - Commercial Well(311298005) - DW	12-Sep-12	Barium-140	9.76E-01	1.63E+00	2.85E+00	1.50E+01	1.69E+00	pCi/L
Palisades Park - Commercial Well(312843001) - DW	4-Oct-12	Barium-140	3.22E-01	2.06E+00	3.49E+00	1.50E+01	2.06E+00	pCi/L
Palisades Park - Commercial Well(303476001) - DW	24-Apr-12	Cesium-134	-7.54E-01	1.31E+00	2.09E+00	1.50E+01	1.36E+00	pCi/L
Palisades Park - Commercial Well(304713001) - DW	15-May-12	Cesium-134	-5.46E-01	1.39E+00	2.23E+00	1.50E+01	1.42E+00	pCi/L
Palisades Park - Commercial Well(306556005) - DW	19-Jun-12	Cesium-134	1.13E-01	1.02E+00	1.52E+00	1.50E+01	1.02E+00	pCi/L
Palisades Park - Commercial Well(308649001) - DW	24-Jul-12	Cesium-134	-3.17E-01	1.46E+00	2.40E+00	1.50E+01	1.47E+00	pCi/L
Palisades Park - Commercial Well(309850001) - DW	14-Aug-12	Cesium-134	5.25E-01	1.24E+00	2.10E+00	1.50E+01	1.26E+00	pCi/L
Palisades Park - Commercial Well(311298005) - DW	12-Sep-12	Cesium-134	9.81E-01	1.28E+00	2.22E+00	1.50E+01	1.36E+00	pCi/L
Palisades Park - Commercial Well(312843001) - DW	4-Oct-12	Cesium-134	2.76E-01	1.21E+00	2.08E+00	1.50E+01	1.22E+00	pCi/L
Palisades Park - Commercial Well(303476001) - DW	24-Apr-12	Cesium-137	-2.69E-02	1.10E+00	1.84E+00	1.80E+01	1.10E+00	pCi/L
Palisades Park - Commercial Well(304713001) - DW	15-May-12	Cesium-137	-1.12E-01	1.33E+00	2.22E+00	1.80E+01	1.33E+00	pCi/L
Palisades Park - Commercial Well(306556005) - DW	19-Jun-12	Cesium-137	-9.02E-02	7.88E-01	1.35E+00	1.80E+01	7.89E-01	pCi/L
Palisades Park - Commercial Well(308649001) - DW	24-Jul-12	Cesium-137	1.54E+00	1.21E+00	2.16E+00	1.80E+01	1.40E+00	pCi/L
Palisades Park - Commercial Well(309850001) - DW	14-Aug-12	Cesium-137	4.31E-01	1.02E+00	1.74E+00	1.80E+01	1.03E+00	pCi/L
Palisades Park - Commercial Well(311298005) - DW	12-Sep-12	Cesium-137	1.08E+00	1.09E+00	1.91E+00	1.80E+01	1.19E+00	pCi/L
Palisades Park - Commercial Well(312843001) - DW	4-Oct-12	Cesium-137	-5.21E-01	1.05E+00	1.73E+00	1.80E+01	1.08E+00	pCi/L

Palisades Park - Commercial Well(303476001) - DW	24-Apr-12	Cobalt-58	-1.05E+00	9.81E-01	1.48E+00	1.50E+01	1.09E+00	pCi/L
Palisades Park - Commercial Well(304713001) - DW	15-May-12	Cobalt-58	-7.81E-01	1.23E+00	1.93E+00	1.50E+01	1.28E+00	pCi/L
Palisades Park - Commercial Well(306556005) - DW	19-Jun-12	Cobalt-58	-7.27E-02	7.28E-01	1.23E+00	1.50E+01	7.29E-01	pCi/L
Palisades Park - Commercial Well(308649001) - DW	24-Jul-12	Cobalt-58	3.16E-01	1.19E+00	2.01E+00	1.50E+01	1.20E+00	pCi/L
Palisades Park - Commercial Well(309850001) - DW	14-Aug-12	Cobalt-58	-6.06E-01	1.06E+00	1.71E+00	1.50E+01	1.10E+00	pCi/L
Palisades Park - Commercial Well(311298005) - DW	12-Sep-12	Cobalt-58	-3.65E-01	9.79E-01	1.61E+00	1.50E+01	9.93E-01	pCi/L
Palisades Park - Commercial Well(312843001) - DW	4-Oct-12	Cobalt-58	-4.72E-01	1.16E+00	1.89E+00	1.50E+01	1.18E+00	pCi/L
Palisades Park - Commercial Well(303476001) - DW	24-Apr-12	Cobalt-60	8.90E-01	1.07E+00	1.92E+00	1.50E+01	1.14E+00	pCi/L
Palisades Park - Commercial Well(304713001) - DW	15-May-12	Cobalt-60	-3.37E-01	1.31E+00	2.13E+00	1.50E+01	1.32E+00	pCi/L
Palisades Park - Commercial Well(306556005) - DW	19-Jun-12	Cobalt-60	2.30E-01	8.69E-01	1.46E+00	1.50E+01	8.75E-01	pCi/L
Palisades Park - Commercial Well(308649001) - DW	24-Jul-12	Cobalt-60	3.48E-01	1.15E+00	1.98E+00	1.50E+01	1.16E+00	pCi/L
Palisades Park - Commercial Well(309850001) - DW	14-Aug-12	Cobalt-60	7.09E-01	9.74E-01	1.72E+00	1.50E+01	1.03E+00	pCi/L
Palisades Park - Commercial Well(311298005) - DW	12-Sep-12	Cobalt-60	9.63E-01	1.17E+00	2.07E+00	1.50E+01	1.25E+00	pCi/L
Palisades Park - Commercial Well(312843001) - DW	4-Oct-12	Cobalt-60	5.66E-01	1.25E+00	2.20E+00	1.50E+01	1.27E+00	pCi/L
Palisades Park - Commercial Well(303476001) - DW	24-Apr-12	Iron-59	1.71E+00	2.06E+00	3.69E+00	3.00E+01	2.20E+00	pCi/L
Palisades Park - Commercial Well(304713001) - DW	15-May-12	Iron-59	1.47E+00	2.49E+00	4.38E+00	3.00E+01	2.57E+00	pCi/L
Palisades Park - Commercial Well(306556005) - DW	19-Jun-12	Iron-59	-7.48E-02	1.57E+00	2.61E+00	3.00E+01	1.57E+00	pCi/L
Palisades Park - Commercial Well(308649001) - DW	24-Jul-12	Iron-59	1.53E+00	2.21E+00	3.92E+00	3.00E+01	2.31E+00	pCi/L
Palisades Park - Commercial Well(309850001) - DW	14-Aug-12	Iron-59	-5.91E-01	1.64E+00	2.72E+00	3.00E+01	1.66E+00	pCi/L
Palisades Park - Commercial Well(311298005) - DW	12-Sep-12	Iron-59	-6.90E-01	2.01E+00	3.37E+00	3.00E+01	2.03E+00	pCi/L
Palisades Park - Commercial Well(312843001) - DW	4-Oct-12	Iron-59	7.97E-02	2.27E+00	3.74E+00	3.00E+01	2.27E+00	pCi/L
Palisades Park - Commercial Well(303476001) - DW	24-Apr-12	Lanthanum-140	-3.51E-01	1.89E+00	3.07E+00	1.50E+01	1.89E+00	pCi/L
Palisades Park - Commercial Well(304713001) - DW	15-May-12	Lanthanum-140	3.26E-02	1.77E+00	3.01E+00	1.50E+01	1.77E+00	pCi/L
Palisades Park - Commercial Well(306556005) - DW	19-Jun-12	Lanthanum-140	-3.61E-02	1.26E+00	2.13E+00	1.50E+01	1.26E+00	pCi/L
Palisades Park - Commercial Well(308649001) - DW	24-Jul-12	Lanthanum-140	5.89E-01	1.72E+00	2.95E+00	1.50E+01	1.74E+00	pCi/L
Palisades Park - Commercial Well(309850001) - DW	14-Aug-12	Lanthanum-140	9.12E-02	1.59E+00	2.65E+00	1.50E+01	1.59E+00	pCi/L
Palisades Park - Commercial Well(311298005) - DW	12-Sep-12	Lanthanum-140	9.76E-01	1.63E+00	2.85E+00	1.50E+01	1.69E+00	pCi/L
Palisades Park - Commercial Well(312843001) - DW	4-Oct-12	Lanthanum-140	3.22E-01	2.06E+00	3.49E+00	1.50E+01	2.06E+00	pCi/L
Palisades Park - Commercial Well(303476001) - DW	24-Apr-12	Manganese-54	-2.68E-01	1.03E+00	1.67E+00	1.50E+01	1.04E+00	pCi/L
Palisades Park - Commercial Well(304713001) - DW	15-May-12	Manganese-54	-6.68E-01	1.14E+00	1.79E+00	1.50E+01	1.18E+00	pCi/L
Palisades Park - Commercial Well(306556005) - DW	19-Jun-12	Manganese-54	-4.90E-01	7.45E-01	1.22E+00	1.50E+01	7.77E-01	pCi/L
Palisades Park - Commercial Well(308649001) - DW	24-Jul-12	Manganese-54	-3.01E-01	1.24E+00	2.03E+00	1.50E+01	1.25E+00	pCi/L
Palisades Park - Commercial Well(309850001) - DW	14-Aug-12	Manganese-54	-3.58E-01	1.06E+00	1.72E+00	1.50E+01	1.07E+00	pCi/L
Palisades Park - Commercial Well(311298005) - DW	12-Sep-12	Manganese-54	3.38E-01	1.00E+00	1.70E+00	1.50E+01	1.01E+00	pCi/L
Palisades Park - Commercial Well(312843001) - DW	4-Oct-12	Manganese-54	-2.31E-01	1.10E+00	1.81E+00	1.50E+01	1.10E+00	pCi/L
Palisades Park - Commercial Well(303476001) - DW	24-Apr-12	Niobium-95	1.93E-01	9.86E-01	1.66E+00	1.50E+01	9.90E-01	pCi/L
Palisades Park - Commercial Well(304713001) - DW	15-May-12	Niobium-95	6.49E-02	1.26E+00	2.10E+00	1.50E+01	1.26E+00	pCi/L
Palisades Park - Commercial Well(306556005) - DW	19-Jun-12	Niobium-95	1.70E-01	7.22E-01	1.25E+00	1.50E+01	7.26E-01	pCi/L
Palisades Park - Commercial Well(308649001) - DW	24-Jul-12	Niobium-95	6.95E-01	1.24E+00	2.12E+00	1.50E+01	1.28E+00	pCi/L
Palisades Park - Commercial Well(309850001) - DW	14-Aug-12	Niobium-95	4.84E-01	1.04E+00	1.76E+00	1.50E+01	1.06E+00	pCi/L
Palisades Park - Commercial Well(311298005) - DW	12-Sep-12	Niobium-95	1.08E+00	9.82E-01	1.73E+00	1.50E+01	1.10E+00	pCi/L
Palisades Park - Commercial Well(312843001) - DW	4-Oct-12	Niobium-95	-1.20E-01	1.18E+00	1.97E+00	1.50E+01	1.18E+00	pCi/L
Palisades Park - Commercial Well(303476001) - DW	24-Apr-12	Tritium	0.00E+00	2.76E+02	4.64E+02	2.00E+03	2.76E+02	pCi/L
Palisades Park - Commercial Well(304713001) - DW	15-May-12	Tritium	-3.48E+01	3.60E+02	6.10E+02	2.00E+03	3.60E+02	pCi/L

Palisades Park - Commercial Well(306556005) - DW	19-Jun-12	Tritium	2.29E+02	3.49E+02	5.47E+02	2.00E+03	3.52E+02	pCi/L
Palisades Park - Commercial Well(308649001) - DW	24-Jul-12	Tritium	1.92E+02	2.79E+02	4.30E+02	2.00E+03	2.82E+02	pCi/L
Palisades Park - Commercial Well(309850001) - DW	14-Aug-12	Tritium	-1.17E+02	2.93E+02	5.10E+02	2.00E+03	2.93E+02	pCi/L
Palisades Park - Commercial Well(311298005) - DW	12-Sep-12	Tritium	1.78E+01	2.69E+02	4.47E+02	2.00E+03	2.69E+02	pCi/L
Palisades Park - Commercial Well(312843001) - DW	4-Oct-12	Tritium	-1.94E+02	3.25E+02	5.76E+02	2.00E+03	3.25E+02	pCi/L
Palisades Park - Commercial Well(303476001) - DW	24-Apr-12	Zinc-65	-3.91E-01	2.18E+00	3.64E+00	3.00E+01	2.18E+00	pCi/L
Palisades Park - Commercial Well(304713001) - DW	15-May-12	Zinc-65	-1.48E+00	2.56E+00	4.12E+00	3.00E+01	2.65E+00	pCi/L
Palisades Park - Commercial Well(306556005) - DW	19-Jun-12	Zinc-65	-1.21E+00	1.56E+00	2.44E+00	3.00E+01	1.65E+00	pCi/L
Palisades Park - Commercial Well(308649001) - DW	24-Jul-12	Zinc-65	-1.98E+00	2.26E+00	3.60E+00	3.00E+01	2.43E+00	pCi/L
Palisades Park - Commercial Well(309850001) - DW	14-Aug-12	Zinc-65	-1.84E+00	1.85E+00	2.94E+00	3.00E+01	2.03E+00	pCi/L
Palisades Park - Commercial Well(311298005) - DW	12-Sep-12	Zinc-65	1.96E-01	2.41E+00	3.55E+00	3.00E+01	2.41E+00	pCi/L
Palisades Park - Commercial Well(312843001) - DW	4-Oct-12	Zinc-65	-1.49E+00	2.53E+00	3.93E+00	3.00E+01	2.62E+00	pCi/L

Palisades Park - Community Well

DW

Sample Name	Date Collected	Nuclide	Result	2 Sigma Uncert	MDC	LLD	2 Sigma TPU	Units
Palisades Park - Community Well(303476002) - DW	24-Apr-12	BETA	2.40E+00	2.26E+00	3.15E+00	4.00E+00	2.29E+00	pCi/L
Palisades Park - Community Well(304713002) - DW	15-May-12	BETA	1.06E+00	2.11E+00	3.23E+00	4.00E+00	2.12E+00	pCi/L
Palisades Park - Community Well(306556006) - DW	19-Jun-12	BETA	1.92E+00	1.86E+00	2.84E+00	4.00E+00	1.88E+00	pCi/L
Palisades Park - Community Well(308649002) - DW	24-Jul-12	BETA	-8.13E-02	1.91E+00	3.21E+00	4.00E+00	1.91E+00	pCi/L
Palisades Park - Community Well(309850002) - DW	14-Aug-12	BETA	1.79E+00	2.07E+00	3.04E+00	4.00E+00	2.09E+00	pCi/L
Palisades Park - Community Well(311298006) - DW	12-Sep-12	BETA	-1.02E-01	1.62E+00	2.76E+00	4.00E+00	1.62E+00	pCi/L
Palisades Park - Community Well(312843002) - DW	4-Oct-12	BETA	9.79E-01	2.13E+00	3.30E+00	4.00E+00	2.14E+00	pCi/L
Palisades Park - Community Well(303476002) - DW	24-Apr-12	Barium-140	-1.30E+00	1.69E+00	2.64E+00	1.50E+01	1.78E+00	pCi/L
Palisades Park - Community Well(304713002) - DW	15-May-12	Barium-140	6.86E-01	1.72E+00	3.00E+00	1.50E+01	1.75E+00	pCi/L
Palisades Park - Community Well(306556006) - DW	19-Jun-12	Barium-140	-4.23E-01	1.69E+00	2.75E+00	1.50E+01	1.70E+00	pCi/L
Palisades Park - Community Well(308649002) - DW	24-Jul-12	Barium-140	-1.42E+00	1.42E+00	2.10E+00	1.50E+01	1.55E+00	pCi/L
Palisades Park - Community Well(309850002) - DW	14-Aug-12	Barium-140	1.35E+00	1.83E+00	3.26E+00	1.50E+01	1.92E+00	pCi/L
Palisades Park - Community Well(311298006) - DW	12-Sep-12	Barium-140	7.51E-01	1.60E+00	2.82E+00	1.50E+01	1.64E+00	pCi/L
Palisades Park - Community Well(312843002) - DW	4-Oct-12	Barium-140	-3.08E-01	1.90E+00	3.17E+00	1.50E+01	1.90E+00	pCi/L
Palisades Park - Community Well(303476002) - DW	24-Apr-12	Cesium-134	-1.18E-01	1.16E+00	1.98E+00	1.50E+01	1.16E+00	pCi/L
Palisades Park - Community Well(304713002) - DW	15-May-12	Cesium-134	5.94E-02	1.16E+00	1.99E+00	1.50E+01	1.16E+00	pCi/L
Palisades Park - Community Well(306556006) - DW	19-Jun-12	Cesium-134	7.89E-01	1.21E+00	2.10E+00	1.50E+01	1.26E+00	pCi/L
Palisades Park - Community Well(308649002) - DW	24-Jul-12	Cesium-134	-5.23E-01	1.11E+00	1.79E+00	1.50E+01	1.13E+00	pCi/L
Palisades Park - Community Well(309850002) - DW	14-Aug-12	Cesium-134	7.80E-02	1.25E+00	2.08E+00	1.50E+01	1.25E+00	pCi/L
Palisades Park - Community Well(311298006) - DW	12-Sep-12	Cesium-134	1.19E+00	1.11E+00	1.93E+00	1.50E+01	1.23E+00	pCi/L
Palisades Park - Community Well(312843002) - DW	4-Oct-12	Cesium-134	1.72E-01	1.50E+00	2.50E+00	1.50E+01	1.50E+00	pCi/L
Palisades Park - Community Well(303476002) - DW	24-Apr-12	Cesium-137	1.57E-01	9.68E-01	1.62E+00	1.80E+01	9.71E-01	pCi/L
Palisades Park - Community Well(304713002) - DW	15-May-12	Cesium-137	-1.09E+00	1.91E+00	2.22E+00	1.80E+01	1.97E+00	pCi/L
Palisades Park - Community Well(306556006) - DW	19-Jun-12	Cesium-137	2.69E-01	1.03E+00	1.78E+00	1.80E+01	1.04E+00	pCi/L
Palisades Park - Community Well(308649002) - DW	24-Jul-12	Cesium-137	4.62E-01	2.08E+00	1.69E+00	1.80E+01	2.08E+00	pCi/L
Palisades Park - Community Well(309850002) - DW	14-Aug-12	Cesium-137	2.03E-01	1.06E+00	1.81E+00	1.80E+01	1.07E+00	pCi/L
Palisades Park - Community Well(311298006) - DW	12-Sep-12	Cesium-137	2.66E-01	1.02E+00	1.73E+00	1.80E+01	1.03E+00	pCi/L
Palisades Park - Community Well(312843002) - DW	4-Oct-12	Cesium-137	4.43E-01	1.27E+00	2.18E+00	1.80E+01	1.28E+00	pCi/L

REMP Year End Report for PALI for 2012
Palisades REMP

Palisades Park - Community Well(303476002) - DW	24-Apr-12	Cobalt-58	-1.47E-01	9.39E-01	1.59E+00	1.50E+01	9.41E-01	pCi/L
Palisades Park - Community Well(304713002) - DW	15-May-12	Cobalt-58	4.50E-01	9.73E-01	1.70E+00	1.50E+01	9.94E-01	pCi/L
Palisades Park - Community Well(306556006) - DW	19-Jun-12	Cobalt-58	-2.59E-01	9.60E-01	1.59E+00	1.50E+01	9.67E-01	pCi/L
Palisades Park - Community Well(308649002) - DW	24-Jul-12	Cobalt-58	5.17E-03	9.17E-01	1.53E+00	1.50E+01	9.17E-01	pCi/L
Palisades Park - Community Well(309850002) - DW	14-Aug-12	Cobalt-58	-4.04E-01	1.06E+00	1.71E+00	1.50E+01	1.07E+00	pCi/L
Palisades Park - Community Well(311298006) - DW	12-Sep-12	Cobalt-58	4.93E-01	9.10E-01	1.55E+00	1.50E+01	9.37E-01	pCi/L
Palisades Park - Community Well(312843002) - DW	4-Oct-12	Cobalt-58	6.81E-01	1.24E+00	2.13E+00	1.50E+01	1.28E+00	pCi/L
Palisades Park - Community Well(303476002) - DW	24-Apr-12	Cobalt-60	7.17E-01	1.07E+00	1.88E+00	1.50E+01	1.12E+00	pCi/L
Palisades Park - Community Well(304713002) - DW	15-May-12	Cobalt-60	-1.77E-01	9.86E-01	1.66E+00	1.50E+01	9.89E-01	pCi/L
Palisades Park - Community Well(306556006) - DW	19-Jun-12	Cobalt-60	5.85E-01	1.06E+00	1.85E+00	1.50E+01	1.09E+00	pCi/L
Palisades Park - Community Well(308649002) - DW	24-Jul-12	Cobalt-60	1.51E+00	1.76E+00	2.09E+00	1.50E+01	1.89E+00	pCi/L
Palisades Park - Community Well(309850002) - DW	14-Aug-12	Cobalt-60	7.22E-02	1.14E+00	1.90E+00	1.50E+01	1.14E+00	pCi/L
Palisades Park - Community Well(311298006) - DW	12-Sep-12	Cobalt-60	9.85E-02	9.41E-01	1.58E+00	1.50E+01	9.42E-01	pCi/L
Palisades Park - Community Well(312843002) - DW	4-Oct-12	Cobalt-60	5.95E-01	1.31E+00	2.25E+00	1.50E+01	1.34E+00	pCi/L
Palisades Park - Community Well(303476002) - DW	24-Apr-12	Iron-59	-3.51E-01	2.00E+00	3.30E+00	3.00E+01	2.01E+00	pCi/L
Palisades Park - Community Well(304713002) - DW	15-May-12	Iron-59	-3.71E-01	1.92E+00	3.13E+00	3.00E+01	1.93E+00	pCi/L
Palisades Park - Community Well(306556006) - DW	19-Jun-12	Iron-59	5.96E-01	1.93E+00	3.36E+00	3.00E+01	1.95E+00	pCi/L
Palisades Park - Community Well(308649002) - DW	24-Jul-12	Iron-59	1.03E-01	1.87E+00	3.23E+00	3.00E+01	1.87E+00	pCi/L
Palisades Park - Community Well(309850002) - DW	14-Aug-12	Iron-59	1.33E+00	2.23E+00	3.89E+00	3.00E+01	2.31E+00	pCi/L
Palisades Park - Community Well(311298006) - DW	12-Sep-12	Iron-59	1.38E+00	1.82E+00	3.20E+00	3.00E+01	1.92E+00	pCi/L
Palisades Park - Community Well(312843002) - DW	4-Oct-12	Iron-59	1.31E+00	2.51E+00	4.38E+00	3.00E+01	2.58E+00	pCi/L
Palisades Park - Community Well(303476002) - DW	24-Apr-12	Lanthanum-140	-1.30E+00	1.69E+00	2.64E+00	1.50E+01	1.78E+00	pCi/L
Palisades Park - Community Well(304713002) - DW	15-May-12	Lanthanum-140	6.86E-01	1.72E+00	3.00E+00	1.50E+01	1.75E+00	pCi/L
Palisades Park - Community Well(306556006) - DW	19-Jun-12	Lanthanum-140	-4.23E-01	1.69E+00	2.75E+00	1.50E+01	1.70E+00	pCi/L
Palisades Park - Community Well(308649002) - DW	24-Jul-12	Lanthanum-140	-1.42E+00	1.41E+00	2.10E+00	1.50E+01	1.55E+00	pCi/L
Palisades Park - Community Well(309850002) - DW	14-Aug-12	Lanthanum-140	1.35E+00	1.82E+00	3.26E+00	1.50E+01	1.92E+00	pCi/L
Palisades Park - Community Well(311298006) - DW	12-Sep-12	Lanthanum-140	7.51E-01	1.60E+00	2.82E+00	1.50E+01	1.64E+00	pCi/L
Palisades Park - Community Well(312843002) - DW	4-Oct-12	Lanthanum-140	-3.08E-01	1.90E+00	3.17E+00	1.50E+01	1.90E+00	pCi/L
Palisades Park - Community Well(303476002) - DW	24-Apr-12	Manganese-54	-5.00E-01	9.55E-01	1.58E+00	1.50E+01	9.81E-01	pCi/L
Palisades Park - Community Well(304713002) - DW	15-May-12	Manganese-54	1.67E-01	9.57E-01	1.64E+00	1.50E+01	9.60E-01	pCi/L
Palisades Park - Community Well(306556006) - DW	19-Jun-12	Manganese-54	-5.53E-01	9.59E-01	1.56E+00	1.50E+01	9.91E-01	pCi/L
Palisades Park - Community Well(308649002) - DW	24-Jul-12	Manganese-54	3.24E-01	9.10E-01	1.55E+00	1.50E+01	9.21E-01	pCi/L
Palisades Park - Community Well(309850002) - DW	14-Aug-12	Manganese-54	-1.64E-01	9.68E-01	1.59E+00	1.50E+01	9.70E-01	pCi/L
Palisades Park - Community Well(311298006) - DW	12-Sep-12	Manganese-54	9.93E-01	9.40E-01	1.63E+00	1.50E+01	1.04E+00	pCi/L
Palisades Park - Community Well(312843002) - DW	4-Oct-12	Manganese-54	-5.97E-01	1.17E+00	1.88E+00	1.50E+01	1.21E+00	pCi/L
Palisades Park - Community Well(303476002) - DW	24-Apr-12	Niobium-95	2.20E-02	1.04E+00	1.79E+00	1.50E+01	1.04E+00	pCi/L
Palisades Park - Community Well(304713002) - DW	15-May-12	Niobium-95	8.73E-03	9.92E-01	1.69E+00	1.50E+01	9.92E-01	pCi/L
Palisades Park - Community Well(306556006) - DW	19-Jun-12	Niobium-95	-1.49E-01	9.59E-01	1.61E+00	1.50E+01	9.62E-01	pCi/L
Palisades Park - Community Well(308649002) - DW	24-Jul-12	Niobium-95	7.00E-01	9.80E-01	1.71E+00	1.50E+01	1.03E+00	pCi/L
Palisades Park - Community Well(309850002) - DW	14-Aug-12	Niobium-95	1.65E+00	1.06E+00	1.88E+00	1.50E+01	1.29E+00	pCi/L
Palisades Park - Community Well(311298006) - DW	12-Sep-12	Niobium-95	4.23E-01	9.73E-01	1.65E+00	1.50E+01	9.92E-01	pCi/L
Palisades Park - Community Well(312843002) - DW	4-Oct-12	Niobium-95	1.97E+00	1.29E+00	2.30E+00	1.50E+01	1.57E+00	pCi/L
Palisades Park - Community Well(303476002) - DW	24-Apr-12	Tritium	1.34E+02	2.78E+02	4.41E+02	2.00E+03	2.79E+02	pCi/L
Palisades Park - Community Well(304713002) - DW	15-May-12	Tritium	3.80E+02	4.02E+02	6.18E+02	2.00E+03	4.09E+02	pCi/L

Palisades Park - Community Well(306556006) - DW	19-Jun-12	Tritium	-1.84E+01	3.24E+02	5.46E+02	2.00E+03	3.24E+02	pCi/L
Palisades Park - Community Well(308649002) - DW	24-Jul-12	Tritium	1.39E+02	2.69E+02	4.23E+02	2.00E+03	2.70E+02	pCi/L
Palisades Park - Community Well(309850002) - DW	14-Aug-12	Tritium	3.16E+01	3.15E+02	5.23E+02	2.00E+03	3.15E+02	pCi/L
Palisades Park - Community Well(311298006) - DW	12-Sep-12	Tritium	0.00E+00	2.57E+02	4.31E+02	2.00E+03	2.57E+02	pCi/L
Palisades Park - Community Well(312843002) - DW	4-Oct-12	Tritium	-1.27E+02	3.29E+02	5.72E+02	2.00E+03	3.29E+02	pCi/L
Palisades Park - Community Well(303476002) - DW	24-Apr-12	Zinc-65	-6.78E-01	2.25E+00	3.67E+00	3.00E+01	2.27E+00	pCi/L
Palisades Park - Community Well(304713002) - DW	15-May-12	Zinc-65	-4.73E-01	2.05E+00	3.33E+00	3.00E+01	2.06E+00	pCi/L
Palisades Park - Community Well(306556006) - DW	19-Jun-12	Zinc-65	-7.31E-01	2.05E+00	3.42E+00	3.00E+01	2.07E+00	pCi/L
Palisades Park - Community Well(308649002) - DW	24-Jul-12	Zinc-65	-2.21E+00	1.85E+00	2.86E+00	3.00E+01	2.11E+00	pCi/L
Palisades Park - Community Well(309850002) - DW	14-Aug-12	Zinc-65	-3.61E+00	2.28E+00	3.43E+00	3.00E+01	2.81E+00	pCi/L
Palisades Park - Community Well(311298006) - DW	12-Sep-12	Zinc-65	7.17E-01	2.12E+00	3.16E+00	3.00E+01	2.14E+00	pCi/L
Palisades Park - Community Well(312843002) - DW	4-Oct-12	Zinc-65	-4.75E+00	2.68E+00	3.85E+00	3.00E+01	3.43E+00	pCi/L

Sediment - SED

SD

Sample Name	Date Collected	Nuclide	Result	2 Sigma Uncert	MDC	LLD	2 Sigma TPU	Units
Sediment - SED(307434002) - SD	28-Jun-12	Cesium-134	6.25E+00	2.65E+01	4.70E+01	1.50E+02	2.66E+01	pCi/kg
Sediment - SED(314070001) - SD	22-Oct-12	Cesium-134	-6.75E+00	2.07E+01	3.48E+01	1.50E+02	2.09E+01	pCi/kg
Sediment - SED(307434002) - SD	28-Jun-12	Cesium-137	3.53E+00	2.18E+01	3.93E+01	1.80E+02	2.19E+01	pCi/kg
Sediment - SED(314070001) - SD	22-Oct-12	Cesium-137	-2.71E+00	1.57E+01	2.76E+01	1.80E+02	1.57E+01	pCi/kg
Sediment - SED(307434002) - SD	28-Jun-12	Lead-212	1.48E+02	6.42E+01	5.82E+01	1.50E+02	6.42E+01	pCi/kg
Sediment - SED(307434002) - SD	28-Jun-12	Potassium-40	7.67E+03	9.00E+02	3.11E+02		9.00E+02	pCi/kg
Sediment - SED(314070001) - SD	22-Oct-12	Potassium-40	7.89E+03	1.08E+03	2.97E+02		1.08E+03	pCi/kg
Sediment - SED(307434002) - SD	28-Jun-12	Thallium-208	3.35E+01	4.28E+01	3.79E+01	1.50E+02	4.28E+01	pCi/kg

Septic Sample

WW

Sample Name	Date Collected	Nuclide	Result	2 Sigma Uncert	MDC	LLD	2 Sigma TPU	Units
Septic Sample(302840004) - WW	30-Mar-12	Barium-140	2.48E+00	6.22E+00	1.08E+01	1.50E+01	6.32E+00	pCi/L
Septic Sample(307434001) - WW	29-Jun-12	Barium-140	2.79E+00	4.14E+00	7.37E+00	1.50E+01	4.33E+00	pCi/L
Septic Sample(312843004) - WW	28-Sep-12	Barium-140	1.62E+00	4.19E+00	7.41E+00	1.50E+01	4.26E+00	pCi/L
Septic Sample(318107004) - WW	29-Dec-12	Barium-140	-2.73E-01	4.27E+00	7.10E+00	1.50E+01	4.27E+00	pCi/L
Septic Sample(302840004) - WW	30-Mar-12	Cesium-134	-8.20E-01	2.55E+00	4.28E+00	1.50E+01	2.57E+00	pCi/L
Septic Sample(307434001) - WW	29-Jun-12	Cesium-134	-1.21E-01	2.20E+00	3.58E+00	1.50E+01	2.20E+00	pCi/L
Septic Sample(312843004) - WW	28-Sep-12	Cesium-134	-1.64E+00	2.29E+00	3.65E+00	1.50E+01	2.40E+00	pCi/L
Septic Sample(318107004) - WW	29-Dec-12	Cesium-134	-1.85E+00	2.07E+00	3.26E+00	1.50E+01	2.24E+00	pCi/L
Septic Sample(302840004) - WW	30-Mar-12	Cesium-137	-3.50E-01	2.16E+00	3.55E+00	1.80E+01	2.17E+00	pCi/L
Septic Sample(307434001) - WW	29-Jun-12	Cesium-137	-5.31E-01	1.94E+00	3.26E+00	1.80E+01	1.96E+00	pCi/L
Septic Sample(312843004) - WW	28-Sep-12	Cesium-137	-7.33E-01	2.07E+00	3.48E+00	1.80E+01	2.09E+00	pCi/L
Septic Sample(318107004) - WW	29-Dec-12	Cesium-137	2.10E+00	2.42E+00	3.03E+00	1.80E+01	2.43E+00	pCi/L
Septic Sample(302840004) - WW	30-Mar-12	Cobalt-58	-1.70E+00	2.40E+00	3.96E+00	1.50E+01	2.52E+00	pCi/L
Septic Sample(307434001) - WW	29-Jun-12	Cobalt-58	-1.63E+00	1.94E+00	2.96E+00	1.50E+01	2.08E+00	pCi/L
Septic Sample(312843004) - WW	28-Sep-12	Cobalt-58	-5.12E-01	2.05E+00	3.40E+00	1.50E+01	2.06E+00	pCi/L
Septic Sample(318107004) - WW	29-Dec-12	Cobalt-58	-8.65E-01	1.85E+00	2.99E+00	1.50E+01	1.90E+00	pCi/L

Septic Sample(302840004) - WW	30-Mar-12	Cobalt-60	-9.87E-01	1.81E+00	2.97E+00	1.50E+01	1.87E+00	pCi/L
Septic Sample(307434001) - WW	29-Jun-12	Cobalt-60	8.13E-01	2.00E+00	3.50E+00	1.50E+01	2.03E+00	pCi/L
Septic Sample(312843004) - WW	28-Sep-12	Cobalt-60	-1.52E+00	2.12E+00	3.34E+00	1.50E+01	2.23E+00	pCi/L
Septic Sample(318107004) - WW	29-Dec-12	Cobalt-60	-1.37E+00	2.31E+00	3.13E+00	1.50E+01	2.40E+00	pCi/L
Septic Sample(302840004) - WW	30-Mar-12	Iron-59	2.39E+00	4.53E+00	7.78E+00	3.00E+01	4.65E+00	pCi/L
Septic Sample(307434001) - WW	29-Jun-12	Iron-59	-1.10E+00	4.08E+00	6.56E+00	3.00E+01	4.11E+00	pCi/L
Septic Sample(312843004) - WW	28-Sep-12	Iron-59	2.41E-01	4.78E+00	7.98E+00	3.00E+01	4.79E+00	pCi/L
Septic Sample(318107004) - WW	29-Dec-12	Iron-59	4.29E-01	4.06E+00	7.02E+00	3.00E+01	4.06E+00	pCi/L
Septic Sample(302840004) - WW	30-Mar-12	Lanthanum-140	2.48E+00	6.21E+00	1.08E+01	1.50E+01	6.31E+00	pCi/L
Septic Sample(307434001) - WW	29-Jun-12	Lanthanum-140	2.79E+00	4.13E+00	7.37E+00	1.50E+01	4.32E+00	pCi/L
Septic Sample(312843004) - WW	28-Sep-12	Lanthanum-140	1.62E+00	4.19E+00	7.41E+00	1.50E+01	4.26E+00	pCi/L
Septic Sample(318107004) - WW	29-Dec-12	Lanthanum-140	-2.73E-01	4.27E+00	7.10E+00	1.50E+01	4.27E+00	pCi/L
Septic Sample(302840004) - WW	30-Mar-12	Manganese-54	2.69E+00	2.23E+00	3.95E+00	1.50E+01	2.54E+00	pCi/L
Septic Sample(307434001) - WW	29-Jun-12	Manganese-54	1.80E+00	1.82E+00	3.23E+00	1.50E+01	2.00E+00	pCi/L
Septic Sample(312843004) - WW	28-Sep-12	Manganese-54	5.84E-01	2.06E+00	3.56E+00	1.50E+01	2.08E+00	pCi/L
Septic Sample(318107004) - WW	29-Dec-12	Manganese-54	1.11E+00	1.94E+00	2.96E+00	1.50E+01	2.00E+00	pCi/L
Septic Sample(302840004) - WW	30-Mar-12	Niobium-95	1.07E+00	2.35E+00	4.10E+00	1.50E+01	2.40E+00	pCi/L
Septic Sample(307434001) - WW	29-Jun-12	Niobium-95	1.39E+00	2.00E+00	3.51E+00	1.50E+01	2.10E+00	pCi/L
Septic Sample(312843004) - WW	28-Sep-12	Niobium-95	3.37E-02	2.08E+00	3.55E+00	1.50E+01	2.08E+00	pCi/L
Septic Sample(318107004) - WW	29-Dec-12	Niobium-95	-5.81E-01	2.88E+00	3.51E+00	1.50E+01	2.89E+00	pCi/L
Septic Sample(302840004) - WW	30-Mar-12	Tritium	1.92E+02	3.57E+02	5.70E+02	2.00E+03	3.58E+02	pCi/L
Septic Sample(307434001) - WW	29-Jun-12	Tritium	1.93E+02	2.67E+02	4.19E+02	2.00E+03	2.70E+02	pCi/L
Septic Sample(312843004) - WW	28-Sep-12	Tritium	0.00E+00	3.36E+02	5.64E+02	2.00E+03	3.36E+02	pCi/L
Septic Sample(318107004) - WW	29-Dec-12	Tritium	2.26E+02	2.50E+02	3.76E+02	2.00E+03	2.54E+02	pCi/L
Septic Sample(302840004) - WW	30-Mar-12	Zinc-65	-2.55E+00	4.04E+00	6.43E+00	3.00E+01	4.20E+00	pCi/L
Septic Sample(307434001) - WW	29-Jun-12	Zinc-65	2.97E+00	4.50E+00	6.83E+00	3.00E+01	4.70E+00	pCi/L
Septic Sample(312843004) - WW	28-Sep-12	Zinc-65	2.39E+00	4.53E+00	6.99E+00	3.00E+01	4.66E+00	pCi/L
Septic Sample(318107004) - WW	29-Dec-12	Zinc-65	-2.50E-01	3.29E+00	5.61E+00	3.00E+01	3.29E+00	pCi/L

South Haven Raw Water - SHR
DW

Sample Name	Date Collected	Nuclide	Result	2 Sigma Uncert	MDC	LLD	2 Sigma TPU	Units
South Haven Raw Water - SHR(296557002) - DW	15-Jan-12	BETA	2.88E+00	2.48E+00	3.46E+00	4.00E+00	2.52E+00	pCi/L
South Haven Raw Water - SHR(298092002) - DW	15-Feb-12	BETA	2.02E+00	2.14E+00	3.03E+00	4.00E+00	2.17E+00	pCi/L
South Haven Raw Water - SHR(302840002) - DW	15-Mar-12	BETA	5.73E-01	2.04E+00	3.26E+00	4.00E+00	2.05E+00	pCi/L
South Haven Raw Water - SHR(304053002) - DW	15-Apr-12	BETA	6.58E-01	1.77E+00	2.75E+00	4.00E+00	1.77E+00	pCi/L
South Haven Raw Water - SHR(306556002) - DW	15-May-12	BETA	1.60E+00	1.86E+00	2.87E+00	4.00E+00	1.87E+00	pCi/L
South Haven Raw Water - SHR(307434004) - DW	15-Jun-12	BETA	1.42E+00	2.08E+00	3.18E+00	4.00E+00	2.09E+00	pCi/L
South Haven Raw Water - SHR(309310002) - DW	15-Jul-12	BETA	-6.14E-01	1.77E+00	3.13E+00	4.00E+00	1.77E+00	pCi/L
South Haven Raw Water - SHR(311298002) - DW	15-Aug-12	BETA	-1.03E+00	1.44E+00	2.76E+00	4.00E+00	1.44E+00	pCi/L
South Haven Raw Water - SHR(312843003) - DW	15-Sep-12	BETA	-1.69E-01	1.96E+00	3.33E+00	4.00E+00	1.96E+00	pCi/L
South Haven Raw Water - SHR(314909001) - DW	15-Oct-12	BETA	1.23E+00	1.92E+00	2.99E+00	4.00E+00	1.93E+00	pCi/L
South Haven Raw Water - SHR(316744004) - DW	15-Nov-12	BETA	-1.65E+00	2.15E+00	3.71E+00	4.00E+00	2.15E+00	pCi/L
South Haven Raw Water - SHR(318107003) - DW	15-Dec-12	BETA	1.11E+00	1.72E+00	2.49E+00	4.00E+00	1.73E+00	pCi/L

South Haven Raw Water - SHR(296557002) - DW	15-Jan-12	Barium-140	5.06E+00	8.51E+00	1.51E+01	1.50E+01	8.81E+00	pCi/L
South Haven Raw Water - SHR(298092002) - DW	15-Feb-12	Barium-140	5.30E+00	1.16E+01	2.02E+01	1.50E+01	1.19E+01	pCi/L
South Haven Raw Water - SHR(302840002) - DW	15-Mar-12	Barium-140	3.03E+00	7.17E+00	1.25E+01	1.50E+01	7.30E+00	pCi/L
South Haven Raw Water - SHR(304053002) - DW	15-Apr-12	Barium-140	-1.29E+00	4.21E+00	6.91E+00	1.50E+01	4.25E+00	pCi/L
South Haven Raw Water - SHR(306556002) - DW	15-May-12	Barium-140	-1.91E+00	1.07E+01	1.76E+01	1.50E+01	1.07E+01	pCi/L
South Haven Raw Water - SHR(307434004) - DW	15-Jun-12	Barium-140	-1.99E-01	4.63E+00	7.74E+00	1.50E+01	4.63E+00	pCi/L
South Haven Raw Water - SHR(309310002) - DW	15-Jul-12	Barium-140	3.82E+00	5.14E+00	9.02E+00	1.50E+01	5.42E+00	pCi/L
South Haven Raw Water - SHR(311298002) - DW	15-Aug-12	Barium-140	-1.19E-02	6.71E+00	1.14E+01	1.50E+01	6.71E+00	pCi/L
South Haven Raw Water - SHR(312843003) - DW	15-Sep-12	Barium-140	-9.05E-01	5.25E+00	8.74E+00	1.50E+01	5.27E+00	pCi/L
South Haven Raw Water - SHR(314909001) - DW	15-Oct-12	Barium-140	-3.27E+00	5.26E+00	8.47E+00	1.50E+01	5.46E+00	pCi/L
South Haven Raw Water - SHR(316744004) - DW	15-Nov-12	Barium-140	-2.02E+00	6.41E+00	1.06E+01	1.50E+01	6.48E+00	pCi/L
South Haven Raw Water - SHR(318107003) - DW	15-Dec-12	Barium-140	3.88E-01	8.89E+00	1.29E+01	1.50E+01	8.89E+00	pCi/L
South Haven Raw Water - SHR(296557002) - DW	15-Jan-12	Cesium-134	-2.52E-01	9.77E-01	1.64E+00	1.50E+01	9.83E-01	pCi/L
South Haven Raw Water - SHR(298092002) - DW	15-Feb-12	Cesium-134	6.17E-01	1.17E+00	2.03E+00	1.50E+01	1.21E+00	pCi/L
South Haven Raw Water - SHR(302840002) - DW	15-Mar-12	Cesium-134	8.78E-01	9.62E-01	1.73E+00	1.50E+01	1.04E+00	pCi/L
South Haven Raw Water - SHR(304053002) - DW	15-Apr-12	Cesium-134	7.63E-01	1.16E+00	1.98E+00	1.50E+01	1.21E+00	pCi/L
South Haven Raw Water - SHR(306556002) - DW	15-May-12	Cesium-134	5.50E-01	1.22E+00	2.11E+00	1.50E+01	1.25E+00	pCi/L
South Haven Raw Water - SHR(307434004) - DW	15-Jun-12	Cesium-134	8.58E-01	1.14E+00	2.00E+00	1.50E+01	1.21E+00	pCi/L
South Haven Raw Water - SHR(309310002) - DW	15-Jul-12	Cesium-134	9.30E-01	1.22E+00	2.12E+00	1.50E+01	1.29E+00	pCi/L
South Haven Raw Water - SHR(311298002) - DW	15-Aug-12	Cesium-134	-2.75E-01	1.12E+00	1.83E+00	1.50E+01	1.13E+00	pCi/L
South Haven Raw Water - SHR(312843003) - DW	15-Sep-12	Cesium-134	9.58E-02	1.22E+00	2.08E+00	1.50E+01	1.22E+00	pCi/L
South Haven Raw Water - SHR(314909001) - DW	15-Oct-12	Cesium-134	3.90E-01	1.10E+00	1.87E+00	1.50E+01	1.12E+00	pCi/L
South Haven Raw Water - SHR(316744004) - DW	15-Nov-12	Cesium-134	-2.82E-01	8.13E-01	1.36E+00	1.50E+01	8.23E-01	pCi/L
South Haven Raw Water - SHR(318107003) - DW	15-Dec-12	Cesium-134	-1.09E-01	1.36E+00	2.32E+00	1.50E+01	1.36E+00	pCi/L
South Haven Raw Water - SHR(296557002) - DW	15-Jan-12	Cesium-137	-4.60E-02	8.25E-01	1.41E+00	1.80E+01	8.25E-01	pCi/L
South Haven Raw Water - SHR(298092002) - DW	15-Feb-12	Cesium-137	8.21E-02	1.03E+00	1.75E+00	1.80E+01	1.03E+00	pCi/L
South Haven Raw Water - SHR(302840002) - DW	15-Mar-12	Cesium-137	-2.17E-01	8.87E-01	1.44E+00	1.80E+01	8.92E-01	pCi/L
South Haven Raw Water - SHR(304053002) - DW	15-Apr-12	Cesium-137	-3.21E-01	1.00E+00	1.64E+00	1.80E+01	1.01E+00	pCi/L
South Haven Raw Water - SHR(306556002) - DW	15-May-12	Cesium-137	-2.78E-01	9.71E-01	1.63E+00	1.80E+01	9.79E-01	pCi/L
South Haven Raw Water - SHR(307434004) - DW	15-Jun-12	Cesium-137	-5.92E-01	9.60E-01	1.58E+00	1.80E+01	9.96E-01	pCi/L
South Haven Raw Water - SHR(309310002) - DW	15-Jul-12	Cesium-137	3.18E-01	1.08E+00	1.84E+00	1.80E+01	1.09E+00	pCi/L
South Haven Raw Water - SHR(311298002) - DW	15-Aug-12	Cesium-137	4.83E-01	9.89E-01	1.69E+00	1.80E+01	1.01E+00	pCi/L
South Haven Raw Water - SHR(312843003) - DW	15-Sep-12	Cesium-137	7.42E-01	1.09E+00	1.94E+00	1.80E+01	1.14E+00	pCi/L
South Haven Raw Water - SHR(314909001) - DW	15-Oct-12	Cesium-137	1.00E+00	1.13E+00	1.97E+00	1.80E+01	1.21E+00	pCi/L
South Haven Raw Water - SHR(316744004) - DW	15-Nov-12	Cesium-137	7.28E-01	8.05E-01	1.44E+00	1.80E+01	8.71E-01	pCi/L
South Haven Raw Water - SHR(318107003) - DW	15-Dec-12	Cesium-137	7.30E-01	2.34E+00	2.15E+00	1.80E+01	2.34E+00	pCi/L
South Haven Raw Water - SHR(296557002) - DW	15-Jan-12	Cobalt-58	3.30E-01	1.11E+00	1.91E+00	1.50E+01	1.12E+00	pCi/L
South Haven Raw Water - SHR(298092002) - DW	15-Feb-12	Cobalt-58	-1.85E+00	1.40E+00	2.15E+00	1.50E+01	1.63E+00	pCi/L
South Haven Raw Water - SHR(302840002) - DW	15-Mar-12	Cobalt-58	-4.44E-01	1.04E+00	1.75E+00	1.50E+01	1.06E+00	pCi/L
South Haven Raw Water - SHR(304053002) - DW	15-Apr-12	Cobalt-58	3.86E-01	1.11E+00	1.93E+00	1.50E+01	1.12E+00	pCi/L
South Haven Raw Water - SHR(306556002) - DW	15-May-12	Cobalt-58	-5.26E-01	1.35E+00	2.22E+00	1.50E+01	1.37E+00	pCi/L
South Haven Raw Water - SHR(307434004) - DW	15-Jun-12	Cobalt-58	-9.77E-01	1.10E+00	1.74E+00	1.50E+01	1.19E+00	pCi/L
South Haven Raw Water - SHR(309310002) - DW	15-Jul-12	Cobalt-58	-6.81E-01	1.20E+00	1.95E+00	1.50E+01	1.24E+00	pCi/L
South Haven Raw Water - SHR(311298002) - DW	15-Aug-12	Cobalt-58	-8.33E-03	1.18E+00	1.95E+00	1.50E+01	1.18E+00	pCi/L

South Haven Raw Water - SHR(312843003) - DW	15-Sep-12	Cobalt-58	-5.77E-01	1.27E+00	2.09E+00	1.50E+01	1.30E+00	pCi/L
South Haven Raw Water - SHR(314909001) - DW	15-Oct-12	Cobalt-58	-6.82E-01	1.25E+00	2.01E+00	1.50E+01	1.29E+00	pCi/L
South Haven Raw Water - SHR(316744004) - DW	15-Nov-12	Cobalt-58	9.79E-01	1.14E+00	1.81E+00	1.50E+01	1.23E+00	pCi/L
South Haven Raw Water - SHR(318107003) - DW	15-Dec-12	Cobalt-58	7.50E-01	1.50E+00	2.65E+00	1.50E+01	1.54E+00	pCi/L
South Haven Raw Water - SHR(296557002) - DW	15-Jan-12	Cobalt-60	1.52E+00	1.12E+00	1.63E+00	1.50E+01	1.31E+00	pCi/L
South Haven Raw Water - SHR(298092002) - DW	15-Feb-12	Cobalt-60	-1.22E-01	9.57E-01	1.61E+00	1.50E+01	9.58E-01	pCi/L
South Haven Raw Water - SHR(302840002) - DW	15-Mar-12	Cobalt-60	2.49E-01	8.97E-01	1.51E+00	1.50E+01	9.04E-01	pCi/L
South Haven Raw Water - SHR(304053002) - DW	15-Apr-12	Cobalt-60	1.71E-01	9.86E-01	1.71E+00	1.50E+01	9.89E-01	pCi/L
South Haven Raw Water - SHR(306556002) - DW	15-May-12	Cobalt-60	-9.58E-03	1.04E+00	1.77E+00	1.50E+01	1.04E+00	pCi/L
South Haven Raw Water - SHR(307434004) - DW	15-Jun-12	Cobalt-60	-4.66E-01	9.78E-01	1.60E+00	1.50E+01	1.00E+00	pCi/L
South Haven Raw Water - SHR(309310002) - DW	15-Jul-12	Cobalt-60	2.94E-01	1.14E+00	1.95E+00	1.50E+01	1.14E+00	pCi/L
South Haven Raw Water - SHR(311298002) - DW	15-Aug-12	Cobalt-60	-3.81E-01	9.70E-01	1.57E+00	1.50E+01	9.85E-01	pCi/L
South Haven Raw Water - SHR(312843003) - DW	15-Sep-12	Cobalt-60	3.58E-01	1.22E+00	2.14E+00	1.50E+01	1.23E+00	pCi/L
South Haven Raw Water - SHR(314909001) - DW	15-Oct-12	Cobalt-60	1.35E-01	1.13E+00	1.90E+00	1.50E+01	1.14E+00	pCi/L
South Haven Raw Water - SHR(316744004) - DW	15-Nov-12	Cobalt-60	9.56E-01	8.29E-01	1.48E+00	1.50E+01	9.37E-01	pCi/L
South Haven Raw Water - SHR(318107003) - DW	15-Dec-12	Cobalt-60	-5.68E-01	1.36E+00	2.23E+00	1.50E+01	1.38E+00	pCi/L
South Haven Raw Water - SHR(296557002) - DW	15-Jan-12	Iron-59	-1.67E+00	2.86E+00	4.55E+00	3.00E+01	2.95E+00	pCi/L
South Haven Raw Water - SHR(298092002) - DW	15-Feb-12	Iron-59	1.49E-01	3.62E+00	5.98E+00	3.00E+01	3.62E+00	pCi/L
South Haven Raw Water - SHR(302840002) - DW	15-Mar-12	Iron-59	-3.83E-01	2.60E+00	4.31E+00	3.00E+01	2.61E+00	pCi/L
South Haven Raw Water - SHR(304053002) - DW	15-Apr-12	Iron-59	-2.03E-01	2.58E+00	4.30E+00	3.00E+01	2.58E+00	pCi/L
South Haven Raw Water - SHR(306556002) - DW	15-May-12	Iron-59	9.25E-01	3.54E+00	5.92E+00	3.00E+01	3.56E+00	pCi/L
South Haven Raw Water - SHR(307434004) - DW	15-Jun-12	Iron-59	-3.40E-01	2.66E+00	4.34E+00	3.00E+01	2.66E+00	pCi/L
South Haven Raw Water - SHR(309310002) - DW	15-Jul-12	Iron-59	1.58E+00	2.73E+00	4.81E+00	3.00E+01	2.83E+00	pCi/L
South Haven Raw Water - SHR(311298002) - DW	15-Aug-12	Iron-59	-3.34E-01	2.75E+00	4.61E+00	3.00E+01	2.75E+00	pCi/L
South Haven Raw Water - SHR(312843003) - DW	15-Sep-12	Iron-59	-2.23E+00	2.93E+00	4.52E+00	3.00E+01	3.10E+00	pCi/L
South Haven Raw Water - SHR(314909001) - DW	15-Oct-12	Iron-59	3.18E+00	2.90E+00	5.16E+00	3.00E+01	3.24E+00	pCi/L
South Haven Raw Water - SHR(316744004) - DW	15-Nov-12	Iron-59	-6.63E-01	2.55E+00	4.19E+00	3.00E+01	2.57E+00	pCi/L
South Haven Raw Water - SHR(318107003) - DW	15-Dec-12	Iron-59	4.11E-01	3.97E+00	6.66E+00	3.00E+01	3.97E+00	pCi/L
South Haven Raw Water - SHR(296557002) - DW	15-Jan-12	Lanthanum-140	5.06E+00	8.50E+00	1.51E+01	1.50E+01	8.80E+00	pCi/L
South Haven Raw Water - SHR(298092002) - DW	15-Feb-12	Lanthanum-140	5.30E+00	1.16E+01	2.02E+01	1.50E+01	1.19E+01	pCi/L
South Haven Raw Water - SHR(302840002) - DW	15-Mar-12	Lanthanum-140	3.03E+00	7.17E+00	1.25E+01	1.50E+01	7.30E+00	pCi/L
South Haven Raw Water - SHR(304053002) - DW	15-Apr-12	Lanthanum-140	-1.29E+00	4.21E+00	6.91E+00	1.50E+01	4.25E+00	pCi/L
South Haven Raw Water - SHR(306556002) - DW	15-May-12	Lanthanum-140	-1.91E+00	1.07E+01	1.76E+01	1.50E+01	1.07E+01	pCi/L
South Haven Raw Water - SHR(307434004) - DW	15-Jun-12	Lanthanum-140	-1.99E-01	4.63E+00	7.74E+00	1.50E+01	4.63E+00	pCi/L
South Haven Raw Water - SHR(309310002) - DW	15-Jul-12	Lanthanum-140	3.82E+00	5.13E+00	9.02E+00	1.50E+01	5.41E+00	pCi/L
South Haven Raw Water - SHR(311298002) - DW	15-Aug-12	Lanthanum-140	-1.19E-02	6.71E+00	1.14E+01	1.50E+01	6.71E+00	pCi/L
South Haven Raw Water - SHR(312843003) - DW	15-Sep-12	Lanthanum-140	-9.05E-01	5.25E+00	8.74E+00	1.50E+01	5.26E+00	pCi/L
South Haven Raw Water - SHR(314909001) - DW	15-Oct-12	Lanthanum-140	-3.27E+00	5.25E+00	8.47E+00	1.50E+01	5.46E+00	pCi/L
South Haven Raw Water - SHR(316744004) - DW	15-Nov-12	Lanthanum-140	-2.02E+00	6.41E+00	1.06E+01	1.50E+01	6.48E+00	pCi/L
South Haven Raw Water - SHR(318107003) - DW	15-Dec-12	Lanthanum-140	3.88E-01	8.89E+00	1.29E+01	1.50E+01	8.89E+00	pCi/L
South Haven Raw Water - SHR(296557002) - DW	15-Jan-12	Manganese-54	5.51E-01	8.26E-01	1.44E+00	1.50E+01	8.63E-01	pCi/L
South Haven Raw Water - SHR(298092002) - DW	15-Feb-12	Manganese-54	1.03E-01	9.78E-01	1.65E+00	1.50E+01	9.79E-01	pCi/L
South Haven Raw Water - SHR(302840002) - DW	15-Mar-12	Manganese-54	-1.82E+00	8.58E-01	1.26E+00	1.50E+01	1.19E+00	pCi/L
South Haven Raw Water - SHR(304053002) - DW	15-Apr-12	Manganese-54	-3.92E-01	1.00E+00	1.68E+00	1.50E+01	1.02E+00	pCi/L

South Haven Raw Water - SHR(306556002) - DW	15-May-12	Manganese-54	6.81E-01	1.07E+00	1.85E+00	1.50E+01	1.11E+00	pCi/L
South Haven Raw Water - SHR(307434004) - DW	15-Jun-12	Manganese-54	1.29E-01	9.81E-01	1.66E+00	1.50E+01	9.82E-01	pCi/L
South Haven Raw Water - SHR(309310002) - DW	15-Jul-12	Manganese-54	-1.80E-01	1.05E+00	1.73E+00	1.50E+01	1.05E+00	pCi/L
South Haven Raw Water - SHR(311298002) - DW	15-Aug-12	Manganese-54	1.36E-01	9.41E-01	1.56E+00	1.50E+01	9.43E-01	pCi/L
South Haven Raw Water - SHR(312843003) - DW	15-Sep-12	Manganese-54	-4.50E-01	1.05E+00	1.72E+00	1.50E+01	1.07E+00	pCi/L
South Haven Raw Water - SHR(314909001) - DW	15-Oct-12	Manganese-54	-2.27E-02	1.11E+00	1.84E+00	1.50E+01	1.11E+00	pCi/L
South Haven Raw Water - SHR(316744004) - DW	15-Nov-12	Manganese-54	-1.05E+00	8.10E-01	1.28E+00	1.50E+01	9.43E-01	pCi/L
South Haven Raw Water - SHR(318107003) - DW	15-Dec-12	Manganese-54	-3.67E-01	1.30E+00	2.16E+00	1.50E+01	1.31E+00	pCi/L
South Haven Raw Water - SHR(296557002) - DW	15-Jan-12	Niobium-95	1.09E+00	1.18E+00	2.09E+00	1.50E+01	1.28E+00	pCi/L
South Haven Raw Water - SHR(298092002) - DW	15-Feb-12	Niobium-95	2.23E+00	1.47E+00	2.65E+00	1.50E+01	1.78E+00	pCi/L
South Haven Raw Water - SHR(302840002) - DW	15-Mar-12	Niobium-95	4.76E-01	1.12E+00	1.97E+00	1.50E+01	1.14E+00	pCi/L
South Haven Raw Water - SHR(304053002) - DW	15-Apr-12	Niobium-95	1.19E+00	1.23E+00	2.13E+00	1.50E+01	1.35E+00	pCi/L
South Haven Raw Water - SHR(306556002) - DW	15-May-12	Niobium-95	1.25E+00	1.50E+00	2.63E+00	1.50E+01	1.61E+00	pCi/L
South Haven Raw Water - SHR(307434004) - DW	15-Jun-12	Niobium-95	3.03E-01	1.22E+00	2.08E+00	1.50E+01	1.22E+00	pCi/L
South Haven Raw Water - SHR(309310002) - DW	15-Jul-12	Niobium-95	-2.19E-01	1.23E+00	2.05E+00	1.50E+01	1.24E+00	pCi/L
South Haven Raw Water - SHR(311298002) - DW	15-Aug-12	Niobium-95	1.74E+00	1.25E+00	2.21E+00	1.50E+01	1.48E+00	pCi/L
South Haven Raw Water - SHR(312843003) - DW	15-Sep-12	Niobium-95	1.47E+00	1.36E+00	2.46E+00	1.50E+01	1.52E+00	pCi/L
South Haven Raw Water - SHR(314909001) - DW	15-Oct-12	Niobium-95	2.16E+00	1.43E+00	2.52E+00	1.50E+01	1.73E+00	pCi/L
South Haven Raw Water - SHR(316744004) - DW	15-Nov-12	Niobium-95	8.69E-01	1.05E+00	1.87E+00	1.50E+01	1.12E+00	pCi/L
South Haven Raw Water - SHR(318107003) - DW	15-Dec-12	Niobium-95	3.87E-01	1.58E+00	2.76E+00	1.50E+01	1.59E+00	pCi/L
South Haven Raw Water - SHR(296557002) - DW	15-Jan-12	Tritium	4.84E+01	2.65E+02	4.38E+02	2.00E+03	2.65E+02	pCi/L
South Haven Raw Water - SHR(298092002) - DW	15-Feb-12	Tritium	2.13E+02	2.42E+02	3.67E+02	2.00E+03	2.45E+02	pCi/L
South Haven Raw Water - SHR(302840002) - DW	15-Mar-12	Tritium	8.04E+01	3.43E+02	5.63E+02	2.00E+03	3.43E+02	pCi/L
South Haven Raw Water - SHR(304053002) - DW	15-Apr-12	Tritium	-2.10E+02	3.29E+02	5.85E+02	2.00E+03	3.29E+02	pCi/L
South Haven Raw Water - SHR(306556002) - DW	15-May-12	Tritium	2.11E+02	3.49E+02	5.50E+02	2.00E+03	3.51E+02	pCi/L
South Haven Raw Water - SHR(307434004) - DW	15-Jun-12	Tritium	1.45E+02	2.44E+02	3.88E+02	2.00E+03	2.46E+02	pCi/L
South Haven Raw Water - SHR(309310002) - DW	15-Jul-12	Tritium	-9.84E+01	2.87E+02	4.96E+02	2.00E+03	2.86E+02	pCi/L
South Haven Raw Water - SHR(311298002) - DW	15-Aug-12	Tritium	-8.28E+01	2.45E+02	4.28E+02	2.00E+03	2.45E+02	pCi/L
South Haven Raw Water - SHR(312843003) - DW	15-Sep-12	Tritium	-1.74E+02	3.22E+02	5.68E+02	2.00E+03	3.22E+02	pCi/L
South Haven Raw Water - SHR(314909001) - DW	15-Oct-12	Tritium	1.51E+02	3.09E+02	4.97E+02	2.00E+03	3.11E+02	pCi/L
South Haven Raw Water - SHR(316744004) - DW	15-Nov-12	Tritium	2.17E+02	2.83E+02	4.30E+02	2.00E+03	2.86E+02	pCi/L
South Haven Raw Water - SHR(318107003) - DW	15-Dec-12	Tritium	2.51E+02	2.48E+02	3.68E+02	2.00E+03	2.53E+02	pCi/L
South Haven Raw Water - SHR(296557002) - DW	15-Jan-12	Zinc-65	1.79E-01	1.91E+00	2.77E+00	3.00E+01	1.92E+00	pCi/L
South Haven Raw Water - SHR(298092002) - DW	15-Feb-12	Zinc-65	4.09E-01	2.07E+00	3.45E+00	3.00E+01	2.07E+00	pCi/L
South Haven Raw Water - SHR(302840002) - DW	15-Mar-12	Zinc-65	-1.84E+00	2.02E+00	3.15E+00	3.00E+01	2.18E+00	pCi/L
South Haven Raw Water - SHR(304053002) - DW	15-Apr-12	Zinc-65	-1.19E-01	2.33E+00	3.33E+00	3.00E+01	2.33E+00	pCi/L
South Haven Raw Water - SHR(306556002) - DW	15-May-12	Zinc-65	-3.82E-01	2.66E+00	3.71E+00	3.00E+01	2.66E+00	pCi/L
South Haven Raw Water - SHR(307434004) - DW	15-Jun-12	Zinc-65	-2.17E+00	2.31E+00	3.53E+00	3.00E+01	2.51E+00	pCi/L
South Haven Raw Water - SHR(309310002) - DW	15-Jul-12	Zinc-65	-1.19E+00	2.28E+00	3.78E+00	3.00E+01	2.34E+00	pCi/L
South Haven Raw Water - SHR(311298002) - DW	15-Aug-12	Zinc-65	-1.33E+00	2.11E+00	3.42E+00	3.00E+01	2.19E+00	pCi/L
South Haven Raw Water - SHR(312843003) - DW	15-Sep-12	Zinc-65	-1.58E+00	2.49E+00	3.90E+00	3.00E+01	2.59E+00	pCi/L
South Haven Raw Water - SHR(314909001) - DW	15-Oct-12	Zinc-65	-4.49E+00	2.57E+00	3.83E+00	3.00E+01	3.27E+00	pCi/L
South Haven Raw Water - SHR(316744004) - DW	15-Nov-12	Zinc-65	-3.07E+00	1.91E+00	2.86E+00	3.00E+01	2.39E+00	pCi/L
South Haven Raw Water - SHR(318107003) - DW	15-Dec-12	Zinc-65	-2.15E+00	3.11E+00	4.88E+00	3.00E+01	3.27E+00	pCi/L

REMP Year End Report for PALI for 2012
Palisades REMP

TW-15
GW

Sample Name	Date Collected	Nuclide	Result	2 Sigma Uncert	MDC	LLD	2 Sigma TPU	Units
TW-15(295049003) - GW	19-Jan-12	Iron-55	-6.16E+01	1.04E+02	1.58E+02	2.00E+02	1.04E+02	pCi/L
TW-15(295049003) - GW	19-Jan-12	Nickel-63	1.20E+01	2.09E+01	3.47E+01	5.00E+01	2.10E+01	pCi/L
TW-15(295049003) - GW	19-Jan-12	Strontium-89	9.94E-01	1.14E+00	1.83E+00	2.00E+00	1.46E+00	pCi/L
TW-15(295049003) - GW	19-Jan-12	Strontium-90	-2.41E-01	6.82E-01	1.72E+00	2.00E+00	9.94E-01	pCi/L
TW-15(295049003) - GW	19-Jan-12	Tritium	4.12E+03	3.94E+02	3.05E+02	5.00E+02	8.89E+02	pCi/L

TW-16
GW

Sample Name	Date Collected	Nuclide	Result	2 Sigma Uncert	MDC	LLD	2 Sigma TPU	Units
TW-16(295049004) - GW	19-Jan-12	Iron-55	1.47E+01	9.15E+01	1.34E+02	2.00E+02	9.15E+01	pCi/L
TW-16(295049004) - GW	19-Jan-12	Nickel-63	2.51E+01	2.23E+01	3.64E+01	5.00E+01	2.26E+01	pCi/L
TW-16(295049004) - GW	19-Jan-12	Strontium-89	-1.57E+00	6.57E-01	1.75E+00	2.00E+00	1.32E+00	pCi/L
TW-16(295049004) - GW	19-Jan-12	Strontium-90	9.77E-01	7.96E-01	1.75E+00	2.00E+00	1.16E+00	pCi/L
TW-16(295049004) - GW	19-Jan-12	Tritium	1.49E+04	6.92E+02	3.07E+02	5.00E+02	2.97E+03	pCi/L

ATTACHMENT E
GEL LABORATORIES, LLC
INTERLABORATORY COMPARISON PROGRAM RESULTS

The following is an excerpt from the GEL Laboratories 2012 Annual Quality Assurance Report for the Radiological Environmental Monitoring Program (REMP) supplied to Palisades:

2. Quality Assurance Programs for Inter-laboratory, Intra-laboratory and Third Party Cross-Check

In addition to internal and client audits, our laboratory participates in annual performance evaluation studies conducted by independent providers. We routinely participate in the following types of performance audits:

- Proficiency testing and other inter-laboratory comparisons
- Performance requirements necessary to retain Certifications
- Evaluation of recoveries of certified reference and in-house secondary reference materials using statistical process control data.
- Evaluation of relative percent difference between measurements through SPC data.

We also participate in a number of proficiency testing programs for federal and state agencies and as required by contracts. It is our policy that no proficiency evaluation samples be analyzed in any special manner. Our annual performance evaluation participation generally includes a combination of studies that support the following:

- US Environmental Protection Agency Discharge Monitoring Report, Quality Assurance Program (DMR-QA). Annual national program sponsored by EPA for laboratories engaged in the analysis of samples associated with the NPDES monitoring program. Participation is mandatory for all holders of NPDES permits. The permit holder must analyze for all of the parameters listed on the discharge permit. Parameters include general chemistry, metals, BOD/COD, oil and grease, ammonia, nitrates, etc.

- Department of Energy Mixed Analyte Performance Evaluation Program (MAPEP). A semiannual program developed by DOE in support of DOE contractors performing waste analyses. Participation is required for all laboratories that perform environmental analytical measurements in support of environmental management activities. This program includes radioactive isotopes in water, soil, vegetation and air filters.

- ERA's MRAD-Multimedia Radiochemistry Proficiency test program. This program is for labs seeking certification for radionuclides in wastewater and solid waste. The program is conducted in strict compliance with USEPA National Standards for Water Proficiency study.

- ERA's InterLaB RadCheM Proficiency Testing Program for radiological analyses. This program completes the process of replacing the USEPA EMSL-LV Nuclear Radiation Assessment Division program discontinued in 1998. Laboratories seeking certification for radionuclide analysis in drinking water also use the study. This program is conducted in strict compliance with the USEPA National Standards for Water Proficiency Testing Studies. This program encompasses Uranium by EPA method 200.8 (for drinking water certification in Florida/Primary NELAP), gamma emitters, Gross Alpha/Beta, Iodine-131, naturally occurring radioactive isotopes, Strontium-89/90, and Tritium.

- ERA's Water Pollution (WP) biannual program for waste methodologies includes parameters for both organic and inorganic analytes.

- ERA's Water Supply (WS) biannual program for drinking water methodologies includes parameters for organic and inorganic analytes.

- Environmental Cross-Check Program administered by Eckert & Ziegler Analytics, Inc. This program encompasses radionuclides in water, soil, milk, naturally occurring radioactive isotopes in soil and air filters.

GEL procures single-blind performance evaluation samples from Eckert & Ziegler Analytics to verify the analysis of sample matrices processed at GEL. Samples are received on a quarterly basis. GEL's Third-Party Cross-Check Program provides environmental matrices encountered in a typical nuclear utility REMP. The Third-Party Cross-Check Program is intended to meet or exceed the inter-laboratory comparison program requirements discussed in NRC Regulatory Guide 4.15, revision 1. Once performance evaluation samples have been prepared in accordance with the instructions provided by the PT provider, samples are managed and analyzed in the same manner as environmental samples from GEL's clients.

3. Quality Assurance Program for Internal and External Audits

During each annual reporting period, at least one internal assessment of each area of the laboratory is conducted in accordance with the pre-established schedule from Standard Operating Procedure for the Conduct of Quality Audits, GL-QS-E-001. The annual internal audit plan is reviewed for adequacy and includes the scheduled frequency and scope of quality control actions necessary to GEL's QA program. Internal audits are conducted at least annually in accordance with a schedule approved by the Quality Systems Director. Supplier audits are contingent upon the categorization of the supplier, and may or may not be conducted prior to the use of a supplier or subcontractor. Type I suppliers and subcontractors, regardless of how they were initially qualified, are re-evaluated at least once every three years.

In addition, prospective customers audit GEL during pre-contract audits. GEL hosts several external audits each year for both our clients and other programs. These programs include environmental monitoring, waste characterization, and radiobioassay. The following list of programs may audit GEL at least annually or up to every three years depending on the program.

- NELAC, National Environmental Laboratory Accreditation Program
- DOECAP, U.S. Department of Energy Consolidated Audit Program
- DOELAP, U.S. Department of Energy Laboratory Accreditation Program
- DOE QSAS, U.S. Department of Energy, Quality Systems for Analytical Services
- ISO/IEC 17025
- A2LA, American Association for Laboratory Accreditation
- DOD ELAP, US Department of Defense Environmental Accreditation Program
- NUPIC, Nuclear Procurement Issues Committee
- South Carolina Department of Heath and Environmental Control (SC DHEC)

The annual radiochemistry laboratory internal audit (12-RAD-001) was conducted in March 2012. Two (2) findings, three (3) observations, and three (3) recommendations resulted from this

assessment. In May, 2012, each finding was closed and appropriate laboratory staff addressed each observation and recommendation.

The Nuclear Procurement Issues Committee (NUPIC) follow up verification audit was conducted on October 16, 2012 through October 17, 2012. This Duke Energy/NUPIC QA audit was performed to verify that the six audit findings identified in the 2011 NUPIC audit had been successfully implemented.

The audit confirmed that the actions taken to the six findings have been adequately addressed by GEL. The Audit Report # 22837-A for Supplier Number 5644 has been posted on the NUPIC website.

4. Performance Evaluation Acceptance Criteria for Environmental Sample Analysis

GEL utilized an acceptance protocol based upon two performance models. For those inter-laboratory programs that already have established performance criteria for bias (i.e., MAPEP, and ERA/ELAP), GEL will utilize the criteria for the specific program. For intra-laboratory or third party quality control programs that do not have a specific acceptance criteria (i.e. the Eckert-Ziegler Analytics Environmental Cross-check Program), results will be evaluated in accordance with GEL's internal acceptance criteria.

5. Performance Evaluation Samples

Performance Evaluation (PE) results and internal quality control sample results are evaluated in accordance with GEL acceptance criteria. The first criterion concerns bias, which is defined as the deviation of any one result from the known value. The second criterion concerns precision, which deals with the ability of the measurement to be replicated by comparison of an individual result with the mean of all results for a given sample set.

At GEL, we also evaluate our analytical performance on a regular basis through statistical process control (SPC) acceptance criteria. Where feasible, this criterion is applied to both measures of precision and accuracy and is specific to sample matrix. We establish environmental process control limits at least annually.

For Radiochemistry analysis, quality control evaluation is based on static limits rather than those that are statistically derived. Our current process control limits are maintained in GEL's AlphaLIMS. We also measure precision with matrix duplicates and/or matrix spike duplicates. The upper and lower control limits (UCL and LCL respectively) for precision are plus or minus three times the standard deviation from the mean of a series of relative percent differences. The static precision criteria for radiochemical analyses are 0 - 20%, for activity levels exceeding the contract required detection limit (CRDL).

6. Quality Control Program for Environmental Sample Analysis

GEL's internal QA Program is designed to include QC functions such as instrumentation calibration checks (to insure proper instrument response), blank samples, instrumentation backgrounds, duplicates, as well as overall staff qualification analyses and statistical process controls. Both quality control and qualification analyses samples are used to be as similar as the matrix type of those samples submitted for analysis by the various laboratory clients. These performance test samples (or performance evaluation samples) are either actual sample submitted in duplicate in order to evaluate the precision of laboratory measurements, or fortified

blank samples, which have been given a known quantity of a radioisotope that is in the interest to GEL's clients.

Accuracy (or Bias) is measured through laboratory control samples and/or matrix spikes, as well as surrogates and internal standards. The UCLs and LCLs for accuracy are plus or minus three times the standard deviation from the mean of a series of recoveries. The static limit for radiochemical analyses is 75 - 125%. Specific instructions for out-of-control situations are provided in the applicable analytical SOP.

GEL's Laboratory Control Standard (LCS) is an aliquot of reagent water or other blank matrix to which known quantities of the method analytes are added in the laboratory. The LCS is analyzed exactly like a sample, and its purpose is to determine whether the methodology is in control, and whether the laboratory is capable of making accurate and precise measurements. Some methods may refer to these samples as Laboratory Fortified Blanks (LFB). The requirement for recovery is between 75 and 125% for radiological analyses excluding drinking water matrix.

$$\text{Bias (\%)} = \frac{\text{(observed concentration)}}{\text{(known concentration)}} * 100\ \%$$

Precision is a data quality indicator of the agreement between measurements of the same property, obtained under similar conditions, and how well they conform to themselves. Precision is usually expressed as standard deviation, variance or range in either absolute or relative (percentage) terms.

GEL's laboratory duplicate (DUP or LCSD) is an aliquot of a sample taken from the same container and processed in the same manner under identical laboratory conditions. The aliquot is analyzed independently from the parent sample and the results are compared to measure precision and accuracy.

If a sample duplicate is analyzed, it will be reported as Relative Percent Difference (RPD). The RPD must be 20 percent or less, if both samples are greater than 5 times the MDC. If both results are less than 5 times MDC, then the RPD must be equal to or less than 100%. If one result is above the MDC and the other is below the MDC, then the RPD can be calculated using the MDC for the result of the one below the MDC. The RPD must be 100% or less. In the situation where both results are above the MDC but one result is greater than 5 times the MDC and the other is less than 5 times the MDC, the RPD must be less than or equal to 20%. If both results are below MDC, then the limits on % RPD are not applicable.

$$\text{Difference (\%)} = \frac{\text{(high duplicate result} - \text{low duplicate result)}}{\text{(average of results)}} * 100\ \%$$

7. Summary of Data Results

During 2012, forty-three (43) radioisotopes associated with seven (7) matrix types were analyzed under GEL's Performance Evaluation program in participation with ERA, MAPEP, and Eckert & Ziegler Analytics. Matrix types were representative of client analyses performed during 2012. Of the four hundred forty-four (444) total results reported, 98% (433 of 444) were found to be acceptable. The list below contains the type of matrix evaluated by GEL.

- Air Filter
- Cartridge

- Water
- Milk
- Soil
- Liquid
- Vegetation

Graphs are provided in Figures 1-9 of this report to allow for the evaluation of trends or biases. These graphs include radioisotopes Cobalt-60, Cesium-137, Tritium, Strontium-90, Gross Alpha, Gross Beta, Iodine-131, Americium-241, and Plutonium-238.

8. Summary of Participation in the Eckert & Ziegler Analytics Environmental Cross-Check Program

Eckert & Ziegler Analytics provided samples for nintety-two (92) individual environmental analyses. The accuracy of each result reported to Eckert & Ziegler Analytics, Inc. is measured by the ratio of GEL's result to the known value. All results fell within GEL's acceptance criteria (100%). .

9. Summary of Participation in the MAPEP Monitoring Program

MAPEP Series 25, 26 and 27 were analyzed by the laboratory. Of the one hundred twenty-nine (129) analyses, 94% (121 out of 129) of all results fell within the PT provider's acceptance criteria. Eight analytical failures occurred: Cobalt-57 in soil, Uranium-234/235 in filter, Strontium-90 in vegetation, Uranium 234/235 in vegetation, Strontium-90 in soil, Uranium-234/235 in filter, Uranium-238 in filter and Gross Alpha in Filter.

For the corrective actions associated with MAPEP Series 26 and 27, refer to CARR120711-694, CARR120711-698, CARR121127-742, CARR121127-743, and CARR121127-744 please see Table 8.

10. Summary of Participation in the ERA MRaD PT Program

The ERA MRad program provided samples (MRAD-16 and MRAD-17) for one hundred seventy-nine individual environmental analyses. All results (100%) fell within the PT provider's acceptance criteria.

11. Summary of Participation in the ERA PT Program

The ERA program provided samples (RAD-88, RAD-89, RAD-90 and RAD-91) for forty-four (44) individual environmental analyses. Of the 44 analyses, 93% (41 out of 44) of all results fell within the PT provider's acceptance criteria. Three analytical failures occurred: Barium-133 in water, Zinc-65 in soil, and I-131 in water.

For the corrective actions associated with RAD-88, and RAD-90, refer to corrective actions CARR120306-667 and CARR120831-715 (Table 8).

12. Corrective Action Request and Report (CARR)

There are two categories of corrective action at GEL. One is corrective action implemented at the analytical and data review level in accordance with the analytical SOP. The other is formal

corrective action documented by the Quality Systems Team in accordance with GL-QS-E-002. A formal corrective action is initiated when a nonconformance reoccurs or is so significant that permanent elimination or prevention of the problem is required. Formal corrective action investigations include root cause analysis.

GEL includes quality requirements in most analytical standard operating procedures to ensure that data are reported only if the quality control criteria are met or the quality control measures that did not meet the acceptance criteria are documented. A formal corrective action is implemented according to GL-QS-E-002 for Conducting Corrective/Preventive Action and Identifying Opportunities for Improvement. Recording and documentation is performed following guidelines stated in GL-QS-E-012 for Client NCR Database Operation.

Any employee at GEL can identify and report a nonconformance and request that corrective action be taken. Any GEL employee can participate on a corrective action team as requested by the QS team or Group Leaders. The steps for conducting corrective action are detailed in GL-QS-E-002. In the event that correctness or validity of the laboratory's test results in doubt, the laboratory will take corrective action. If investigations show that the results have been impacted, affected clients will be informed of the issue in writing within five (5) calendar days of the discovery.

It has been determined that causes of the failures did not impact any data reported to our clients.

Table 1

2012 RADIOLOGICAL PROFICIENCY TESTING RESULTS AND ACCEPTANCE CRITERIA

PT Provider	Quarter / Year	Analytical Date	Sample Number	Sample Media	Unit	Analyte / Nuclide	GEL Value	Known value	Acceptance Range/ Ratio	Evaluation
ERA	1st/2012	03/06/12	RAD - 88	Water	pCi/L	Barium-133	58.2	57.1	47.3-63.0	Acceptable
ERA	1st/2012	03/06/12	RAD - 88	Water	pCi/L	Cesium-134	63.5	64	52.0-70.4	Acceptable
ERA	1st/2012	03/06/12	RAD - 88	Water	pCi/L	Cesium-137	89.5	91.2	82.1-103	Acceptable
ERA	1st/2012	03/06/12	RAD - 88	Water	pCi/L	Cobalt-60	49.5	48.9	44.0-56.4	Acceptable
ERA	1st/2012	03/06/12	RAD - 88	Water	pCi/L	Zinc-65	75	71.8	64.2-86.7	Acceptable
ERA	1st/2012	03/06/12	RAD - 88	Water	pCi/L	Gross Alpha	31.0	35.7	18.4-45.9	Acceptable
ERA	1st/2012	03/06/12	RAD - 88	Water	pCi/L	Gross Beta	27.3	28.8	18.3-36.6	Acceptable
ERA	1st/2012	03/06/12	RAD - 88	Water	pCi/L	Gross Alpha	29.8	35.7	18.4-45.9	Acceptable
ERA	1st/2012	03/06/12	RAD - 88	Water	pCi/L	Radium-226	8.89	8.73	6.55-10.2	Acceptable
ERA	1st/2012	03/06/12	RAD - 88	Water	pCi/L	Radium-228	5.9	5.78	3.53-7.60	Acceptable
ERA	1st/2012	03/06/12	RAD - 88	Water	pCi/L	Uranium (Nat)	31.6	32.5	26.2-36.3	Acceptable
ERA	1st/2012	03/06/12	RAD - 88	Water	ug/L	Uranium (Nat) mass	49.9	47.5	38.3-53.1	Acceptable
ERA	1st/2012	03/06/12	RAD - 88	Water	pCi/L	Radium-226	8.80	8.73	6.55-10.2	Acceptable
ERA	1st/2012	03/06/12	RAD - 88	Water	pCi/L	Radium-228	4.8	5.78	3.53-7.60	Acceptable
ERA	1st/2012	03/06/12	RAD - 88	Water	pCi/L	Uranium (Nat)	27.6	32.5	26.2-36.3	Acceptable
ERA	1st/2012	03/06/12	RAD - 88	Water	ug/L	Uranium (Nat) mass	41.2	47.5	38.3-53.1	Acceptable
ERA	1st/2012	03/06/12	RAD - 88	Water	pCi/L	Tritium	16200	19200	16800-21100	Not Acceptable
ERA	1st/2012	03/06/12	RAD - 88	Water	pCi/L	Strontium-89	38.4	42.5	32.7-49.6	Acceptable
ERA	1st/2012	03/06/12	RAD - 88	Water	pCi/L	Strontium-90	23.5	24.2	17.4-28.3	Acceptable
ERA	1st/2012	03/06/12	RAD - 88	Water	pCi/L	Strontium-89	42.2	42.5	32.7-49.6	Acceptable
ERA	1st/2012	03/06/12	RAD - 88	Water	pCi/L	Strontium-90	24.2	24.2	17.4-28.3	Acceptable
ERA	1st/2012	03/06/12	RAD - 88	Water	pCi/L	Iodine-131	28.4	25.7	21.3-30.3	Acceptable
ERA	1st/2012	03/06/12	RAD - 88	Water	pCi/L	Iodine-131	28.4	25.7	21.3-30.3	Acceptable
EZA	1st/2012	02/08/12	E8197-278	Cartridge	pCi	Iodine-131	9.52E+01	8.92E+01	1.07	Acceptable
EZA	1st/2012	02/08/12	E8197-278	Milk	pCi/L	Strontium-89	8.78E+01	8.96E+01	0.98	Acceptable
EZA	1st/2012	02/08/12	E8197-278	Milk	pCi/L	Strontium-90	1.51E+01	1.48E+01	1.02	Acceptable
EZA	1st/2012	02/08/12	E8197-278	Milk	pCi/L	Iodine-131	9.36E+01	9.02E+01	1.04	Acceptable
EZA	1st/2012	02/08/12	E8197-278	Milk	pCi/L	Chromium-51	5.53E+02	5.66E+02	0.98	Acceptable
EZA	1st/2012	02/08/12	E8197-278	Milk	pCi/L	Cesium-134	1.59E+02	1.71E+02	0.93	Acceptable
EZA	1st/2012	02/08/12	E8197-278	Milk	pCi/L	Cesium-137	2.27E+02	2.10E+02	1.08	Acceptable
EZA	1st/2012	02/08/12	E8197-278	Milk	pCi/L	Cobalt-58	2.18E+02	2.21E+02	0.99	Acceptable
EZA	1st/2012	02/08/12	E8197-278	Milk	pCi/L	Manganese-54	2.52E+02	2.41E+02	1.05	Acceptable
EZA	1st/2012	02/08/12	E8197-278	Milk	pCi/L	Iron-59	1.90E+02	1.83E+02	1.04	Acceptable
EZA	1st/2012	02/08/12	E8197-278	Milk	pCi/L	Zinc-65	3.19E+02	2.91E+02	1.09	Acceptable
EZA	1st/2012	02/08/12	E8197-278	Milk	pCi/L	Cobalt-60	2.82E+02	2.70E+02	1.04	Acceptable
EZA	1st/2012	02/08/12	E8197-278	Milk	pCi/L	Cesium-141	1.00E+01	Not spiked	None	Acceptable
EZA	1st/2012	02/08/12	E8197-278	Water	pCi/L	Iodine-131	8.44E+01	8.87E+01	0.95	Acceptable
EZA	1st/2012	02/08/12	E8197-278	Water	pCi/L	Chromium-51	5.32E+02	5.66E+02	0.94	Acceptable
EZA	1st/2012	02/08/12	E8197-278	Water	pCi/L	Cesium-134	1.56E+02	1.71E+02	0.91	Acceptable
EZA	1st/2012	02/08/12	E8197-278	Water	pCi/L	Cesium-137	2.06E+02	2.10E+02	0.98	Acceptable

EZA	1st/2012	02/08/12	E8197-278	Water	pCi/L	Cobalt-58	2.02E+02	2.21E+02	0.92	Acceptable
EZA	1st/2012	02/08/12	E8197-278	Water	pCi/L	Manganese-54	2.50E+02	2.41E+02	1.04	Acceptable
EZA	1st/2012	02/08/12	E8197-278	Water	pCi/L	Iron-59	1.81E+02	1.83E+02	0.99	Acceptable
EZA	1st/2012	02/08/12	E8197-278	Water	pCi/L	Zinc-65	2.95E+02	2.91E+02	1.01	Acceptable
EZA	1st/2012	02/08/12	E8197-278	Water	pCi/L	Cobalt-60	2.58E+02	2.70E+02	0.96	Acceptable
EZA	1st/2012	02/08/12	E8197-278	Water	pCi/L	Cesium-141	-9.60E+01	Not spiked	None	Acceptable
EZA	1st/2012	03/15/12	E10043	Water	pCi/L	Iodine-131	1.01E+02	9.38E-01	1.08	Acceptable
EZA	1st/2012	03/15/12	E10043	Water	pCi/L	Cerium-141	2.64E+00	2.60E+00	1.01	Acceptable
EZA	1st/2012	03/15/12	E10043	Water	pCi/L	Chromium-51	3.34E+02	3.09E+02	1.08	Acceptable
EZA	1st/2012	03/15/12	E10043	Water	pCi/L	Cesium-134	9.90E-01	1.13E+02	0.94	Acceptable
EZA	1st/2012	03/15/12	E10043	Water	pCi/L	Cesium-137	1.26E+02	1.13E+02	1.12	Acceptable
EZA	1st/2012	03/15/12	E10043	Water	pCi/L	Cobalt-58	9.55E-01	9.34E-01	1.02	Acceptable
EZA	1st/2012	03/15/12	E10043	Water	pCi/L	Manganese-54	1.49E+02	1.38E+02	1.08	Acceptable
EZA	1st/2012	03/15/12	E10043	Water	pCi/L	Iron-59	1.40E+02	1.19E+02	1.18	Acceptable
EZA	1st/2012	03/15/12	E10043	Water	pCi/L	Zinc-65	2.58E+02	2.35E+02	1.1	Acceptable
EZA	1st/2012	03/15/12	E10043	Water	pCi/L	Cobalt-60	2.14E+02	1.97E+02	1.09	Acceptable
EZA	1st/2012	03/15/12	E10041	Milk	pCi/L	Strontium-89	7.94E-01	7.99E-01	0.99	Acceptable
EZA	1st/2012	03/15/12	E10041	Milk	pCi/L	Strontium-90	1.12E+01	1.14E+01	0.98	Acceptable
EZA	1st/2012	03/15/12	E10042	Milk	pCi/L	Iodine-131	1.02E+02	1.54E+02	1.10	Acceptable
EZA	1st/2012	03/15/12	E10042	Milk	pCi/L	Cerium-141	2.64E+02	2.60E+02	1.01	Acceptable
EZA	1st/2012	03/15/12	E10042	Milk	pCi/L	Chromium-51	4.46E+02	4.36E+02	1.02	Acceptable
EZA	1st/2012	03/15/12	E10042	Milk	pCi/L	Cesium-134	1.31E+02	1.49E+02	0.88	Acceptable
EZA	1st/2012	03/15/12	E10042	Milk	pCi/L	Cesium-137	1.62E+02	1.59E+02	1.02	Acceptable
EZA	1st/2012	03/15/12	E10042	Milk	pCi/L	Cobalt-58	1.28E+02	1.32E+02	0.97	Acceptable
EZA	1st/2012	03/15/12	E10042	Milk	pCi/L	Manganese-54	1.99E+02	1.95E+02	1.02	Acceptable
EZA	1st/2012	03/15/12	E10042	Milk	pCi/L	Iron-59	1.96E+02	1.68E+02	1.17	Acceptable
EZA	1st/2012	03/15/12	E10042	Milk	pCi/L	Zinc-65	3.50E+02	3.33E+02	1.05	Acceptable
EZA	1st/2012	03/15/12	E10040	Milk	pCi/L	Cobalt-60	2.90E+02	2.79E+02	1.04	Acceptable
EZA	1st/2012	03/15/12	E7465-278	Cartridge	pCi	Iodine-131	8.93E+01	9.42E+01	0.95	Acceptable
ERA	2nd/2012	05/18/12	MRAD-16	Soil	pCi/kg	Actinium-228	1330	1570	110-2180	Acceptable
ERA	2nd/2012	05/18/12	MRAD-16	Soil	pCi/kg	Americium-241	900	938	549-1220	Acceptable
ERA	2nd/2012	05/18/12	MRAD-16	Soil	pCi/kg	Bismuth-212	1540	1550	413-2280	Acceptable
ERA	2nd/2012	05/18/12	MRAD-16	Soil	pCi/kg	Bismuth-214	1100	1100	665-1590	Acceptable
ERA	2nd/2012	05/18/12	MRAD-16	Soil	pCi/kg	Cesium-134	2380	2180	1420-2620	Acceptable
ERA	2nd/2012	05/18/12	MRAD-16	Soil	pCi/kg	Cesium-137	10700	8770	6720-11300	Acceptable
ERA	2nd/2012	05/18/12	MRAD-16	Soil	pCi/kg	Cobalt-60	4060	3500	2370-4820	Acceptable
ERA	2nd/2012	05/18/12	MRAD-16	Soil	pCi/kg	Lead-212	1380	1510	992-2110	Acceptable
ERA	2nd/2012	05/18/12	MRAD-16	Soil	pCi/kg	Lead-214	1350	1110	647-1650	Acceptable
ERA	2nd/2012	05/18/12	MRAD-16	Soil	pCi/kg	Manganese-54	<37.2	<1000	0-1000	Acceptable
ERA	2nd/2012	05/18/12	MRAD-16	Soil	pCi/kg	Plutonium-238	842	984.00	592-1360	Acceptable
ERA	2nd/2012	05/18/12	MRAD-16	Soil	pCi/kg	Plutonium-239	793	879.00	575-1210	Acceptable
ERA	2nd/2012	05/18/12	MRAD-16	Soil	pCi/kg	Potassium-40	10400	11600	8470-15600	Acceptable
ERA	2nd/2012	05/18/12	MRAD-16	Soil	pCi/kg	Strontium-90	7370	8800	3360-13900	Acceptable
ERA	2nd/2012	05/18/12	MRAD-16	Soil	pCi/kg	Thorium-234	2360	2000	632-3760	Acceptable
ERA	2nd/2012	05/18/12	MRAD-16	Soil	pCi/kg	Zinc-65	4540	3650	2910-4850	Acceptable
ERA	2nd/2012	05/18/12	MRAD-16	Soil	pCi/kg	Strontium-90	7370	8800	3360-13900	Acceptable
ERA	2nd/2012	05/18/12	MRAD-16	Soil	pCi/kg	Uranium-234	2250	1960	1200-2510	Acceptable
ERA	2nd/2012	05/18/12	MRAD-16	Soil	pCi/kg	Uranium-238	1620	2000	1240-2540	Acceptable
ERA	2nd/2012	05/18/12	MRAD-16	Soil	pCi/kg	Uranium-Total	4220	4030	2190-5320	Acceptable

ERA	2nd/2012	05/18/12	MRAD-16	Soil	ug/kg	Uranium-Total(mass)	5070	5880	3240-7400	Acceptable
ERA	2nd/2012	05/18/12	MRAD-16	Veg	pCi/kg	Americium-241	4270	4540	2780-6040	Acceptable
ERA	2nd/2012	05/18/12	MRAD-16	Veg	pCi/kg	Curium-244	829	812	400 - 1260	Acceptable
ERA	2nd/2012	05/18/12	MRAD-16	Veg	pCi/kg	Plutonium-238	2300	2570	1400-3220	Acceptable
ERA	2nd/2012	05/18/12	MRAD-16	Veg	pCi/kg	Plutonium-239	2480	2570	1580-3540	Acceptable
ERA	2nd/2012	05/18/12	MRAD-16	Veg	pCi/kg	Uranium-234	3310	3610	2370-4640	Acceptable
ERA	2nd/2012	05/18/12	MRAD-16	Veg	pCi/kg	Uranium-238	3540	3580	2390-4550	Acceptable
ERA	2nd/2012	05/18/12	MRAD-16	Veg	pCi/kg	Uranium-Total	7025	7350	4980-9150	Acceptable
ERA	2nd/2012	05/18/12	MRAD-16	Veg	ug/kg	Uranium-Total(mass)	10600	10700	7170-13600	Acceptable
ERA	2nd/2012	05/18/12	MRAD-16	Veg	pCi/kg	Americium-241	4270	4540	2780-6040	Acceptable
ERA	2nd/2012	05/18/12	MRAD-16	Veg	pCi/kg	Cesium-134	2840	2920	1880-3790	Acceptable
ERA	2nd/2012	05/18/12	MRAD-16	Veg	pCi/kg	Cesium-137	1330	1340	972-1860	Acceptable
ERA	2nd/2012	05/18/12	MRAD-16	Veg	pCi/kg	Cobalt-60	2380	2210	1520-3090	Acceptable
ERA	2nd/2012	05/18/12	MRAD-16	Veg	pCi/kg	Manganese-54	<68.8	<300	0.00-300	Acceptable
ERA	2nd/2012	05/18/12	MRAD-16	Veg	pCi/kg	Potassium-40	33700	28600	20700-40100	Acceptable
ERA	2nd/2012	05/18/12	MRAD-16	Veg	pCi/kg	Zinc-65	2570	2310	1670-3240	Acceptable
ERA	2nd/2012	05/18/12	MRAD-16	Veg	pCi/kg	Strontium-90	7000	8520	4860-11300	Acceptable
ERA	2nd/2012	05/18/12	MRAD-16	Filter	pCi/Filter	Americium-241	72.4	68.8	42.4-93.1	Acceptable
ERA	2nd/2012	05/18/12	MRAD-16	Filter	pCi/Filter	Plutonium-238	57.3	63.2	43.3-83.1	Acceptable
ERA	2nd/2012	05/18/12	MRAD-16	Filter	pCi/Filter	Plutonium-239	58.8	63	45.6-82.4	Acceptable
ERA	2nd/2012	05/18/12	MRAD-16	Filter	pCi/Filter	Uranium-234	42.5	47.5	29.4-71.6	Acceptable
ERA	2nd/2012	05/18/12	MRAD-16	Filter	pCi/Filter	Uranium-238	44.5	47.4	30.4-65.1	Acceptable
ERA	2nd/2012	05/18/12	MRAD-16	Filter	pCi/Filter	Uranium-Total	89.4	96.7	53.5-147	Acceptable
ERA	2nd/2012	05/18/12	MRAD-16	Filter	ug/Filter	Uranium-Total(mass)	134	141	90.2-198	Acceptable
ERA	2nd/2012	05/18/12	MRAD-16	Filter	pCi/Filter	Americium-241	72.4	68.8	42.4-93.1	Acceptable
ERA	2nd/2012	05/18/12	MRAD-16	Filter	pCi/Filter	Cesium-134	260	279	182 - 345	Acceptable
ERA	2nd/2012	05/18/12	MRAD-16	Filter	pCi/Filter	Cesium-137	1210	1130	849-1480	Acceptable
ERA	2nd/2012	05/18/12	MRAD-16	Filter	pCi/Filter	Cobalt-60	942	880	681-1100	Acceptable
ERA	2nd/2012	05/18/12	MRAD-16	Filter	pCi/Filter	Manganese-54	<7.68	<50.0	0-50.0	Acceptable
ERA	2nd/2012	05/18/12	MRAD-16	Filter	pCi/Filter	Zinc-65	1040	897	642-1240	Acceptable
ERA	2nd/2012	05/18/12	MRAD-16	Filter	pCi/Filter	Strontium-90	87	89.6	43.8-134	Acceptable
ERA	2nd/2012	05/18/12	MRAD-16	Filter	pCi/Filter	Iron-55	776	739	229-1440	Acceptable
ERA	2nd/2012	05/18/12	MRAD-16	Filter	ug/Filter	Uranium-Total(mass)	147	141	90.2-198	Acceptable
ERA	2nd/2012	05/18/12	MRAD-16	Filter	pCi/Filter	Gross Alpha	93.9	77.8	26.1-121	Acceptable
ERA	2nd/2012	05/18/12	MRAD-16	Filter	pCi/Filter	Gross Beta	57.3	52.5	33.2-76.5	Acceptable
ERA	2nd/2012	05/18/12	MRAD-16	Water	pCi/L	Uranium-234	92.6	105	78.9-135	Acceptable
ERA	2nd/2012	05/18/12	MRAD-16	Water	pCi/L	Uranium-238	94.9	104	79.3-128	Acceptable
ERA	2nd/2012	05/18/12	MRAD-16	Water	pCi/L	Uranium-Total	192.6	214	157-277	Acceptable
ERA	2nd/2012	05/18/12	MRAD-16	Water	ug/L	Uranium-Total(mass)	285	312	249-377	Acceptable
ERA	2nd/2012	05/18/12	MRAD-16	Water	pCi/L	Americium-241	132	135	91.0-181	Acceptable
ERA	2nd/2012	05/18/12	MRAD-16	Water	pCi/L	Plutonium-238	127	135	99.9-168	Acceptable
ERA	2nd/2012	05/18/12	MRAD-16	Water	pCi/L	Plutonium-239	107	112	86.9-141	Acceptable
ERA	2nd/2012	05/18/12	MRAD-16	Water	pCi/L	Cesium-134	580	609	447-700	Acceptable
ERA	2nd/2012	05/18/12	MRAD-16	Water	pCi/L	Cesium-137	1290	1250	1060-1500	Acceptable
ERA	2nd/2012	05/18/12	MRAD-16	Water	pCi/L	Cobalt-60	910	875	760-1020	Acceptable
ERA	2nd/2012	05/18/12	MRAD-16	Water	pCi/L	Manganese-54	<5.0	<100	0.00-100	Acceptable
ERA	2nd/2012	05/18/12	MRAD-16	Water	pCi/L	Zinc-65	822	749	624-945	Acceptable
ERA	2nd/2012	05/18/12	MRAD-16	Water	pCi/L	Strontium-90	970	989	644-1310	Acceptable
ERA	2nd/2012	05/18/12	MRAD-16	Water	pCi/L	Iron-55	987	863	514-1170	Acceptable
ERA	2nd/2012	05/18/12	MRAD-16	Water	pCi/L	Gross Alpha	95.9	103	36.6-160	Acceptable
ERA	2nd/2012	05/18/12	MRAD-16	Water	pCi/L	Gross Beta	50	43.7	25.0-64.7	Acceptable
ERA	2nd/2012	05/18/12	MRAD-16	Water	pCi/L	Tritium	8740	9150	6130-13000	Acceptable

ERA	2nd/2012	05/24/12	RAD-89	Water	pCi/L	Tritium	1700	15800	13800-17400	Acceptable
MAPEP	2nd/2012	05/03/12	MAPEP-11-GrF24	Filter	Bq/sample	Gross Alpha	0.000	0.000	False Pos. Test	Acceptable
MAPEP	2nd/2012	05/03/12	MAPEP-11-GrF24	Filter	Bq/sample	Gross Beta	0.000	0.000	False Pos. Test	Acceptable
EZA	2nd/2012	06/14/12	E10175	Cartridge	pCi	Iodine-131	9.67E+01	9.72E+01	0.99	Acceptable
EZA	2nd/2012	06/14/12	E10176	Milk	pCi/L	Strontium-89	1.11E+02	9.98E+01	1.11	Acceptable
EZA	2nd/2012	06/14/12	E10176	Milk	pCi/L	Strontium-90	1.06E+02	1.27E+01	0.83	Acceptable
EZA	2nd/2012	06/14/12	E10177	Milk	pCi/L	Iodine-131	9.94E+01	9.97E+01	1.00	Acceptable
EZA	2nd/2012	06/14/12	E10177	Milk	pCi/L	Cerium-141	8.62E+01	8.22E+01	1.05	Acceptable
EZA	2nd/2012	06/14/12	E10177	Milk	pCi/L	Chromium-51	3.76E+02	4.02E+02	0.94	Acceptable
EZA	2nd/2012	06/14/12	E10177	Milk	pCi/L	Cesium-134	1.63E+02	1.74E+02	0.93	Acceptable
EZA	2nd/2012	06/14/12	E10177	Milk	pCi/L	Cesium-137	2.08E+02	2.12E+02	0.98	Acceptable
EZA	2nd/2012	06/14/12	E10177	Milk	pCi/L	Cobalt-58	8.94E+01	9.23E+01	0.97	Acceptable
EZA	2nd/2012	06/14/12	E10177	Milk	pCi/L	Manganese-54	1.27E+02	1.32E+02	0.96	Acceptable
EZA	2nd/2012	06/14/12	E10177	Milk	pCi/L	Iron-59	1.46E+02	1.28E+02	1.14	Acceptable
EZA	2nd/2012	06/14/12	E10177	Milk	pCi/L	Zinc-65	2.22E+02	1.99E+02	1.11	Acceptable
EZA	2nd/2012	06/14/12	E10177	Milk	pCi/L	Cobalt-60	3.52E+02	3.55E+02	0.99	Acceptable
EZA	2nd/2012	06/14/12	E10178	Water	pCi/L	Iodine-131	9.94E+01	9.94E+01	1.00	Acceptable
EZA	2nd/2012	06/14/12	E10178	Water	pCi/L	Cerium-141	1.31E+02	1.12E+02	1.17	Acceptable
EZA	2nd/2012	06/14/12	E10178	Water	pCi/L	Chromium-51	5.51E+02	5.48E+02	1.01	Acceptable
EZA	2nd/2012	06/14/12	E10178	Water	pCi/L	Cesium-134	2.22E+02	2.38E+02	0.93	Acceptable
EZA	2nd/2012	06/14/12	E10178	Water	pCi/L	Cesium-137	2.91E+02	2.89E+02	1.01	Acceptable
EZA	2nd/2012	06/14/12	E10178	Water	pCi/L	Cobalt-58	1.35E+02	1.26E+02	1.07	Acceptable
EZA	2nd/2012	06/14/12	E10178	Water	pCi/L	Manganese-54	1.83E+02	1.80E+02	1.02	Acceptable
EZA	2nd/2012	06/14/12	E10178	Water	pCi/L	Iron-59	2.00E+02	1.74E+02	1.15	Acceptable
EZA	2nd/2012	06/14/12	E10178	Water	pCi/L	Zinc-65	2.94E+02	2.72E+02	1.08	Acceptable
EZA	2nd/2012	06/14/12	E10178	Water	pCi/L	Cobalt-60	5.04E+02	4.84E+02	1.04	Acceptable
MAPEP	3rd/2012	07/26/12	MAPEP-12-MaS26	Soil	mg/kg	Americium-241	152	159	111-207	Acceptable
MAPEP	3rd/2012	07/26/12	MAPEP-12-MaS26	Soil	mg/kg	Cesium-134	754	828	580-1076	Acceptable
MAPEP	3rd/2012	07/26/12	MAPEP-12-MaS26	Soil	mg/kg	Cesium-137	0	0	False Pos Test	Acceptable
MAPEP	3rd/2012	07/26/12	MAPEP-12-MaS26	Soil	mg/kg	Cobalt-57	1430.0	1179	825-1533	Warning
MAPEP	3rd/2012	07/26/12	MAPEP-12-MaS26	Soil	mg/kg	Cobalt-60	0.97	1.56	Sens. Eval.	Acceptable
MAPEP	3rd/2012	07/26/12	MAPEP-12-MaS26	Soil	mg/kg	Iron-55	1456	1370	959-1781	Acceptable
MAPEP	3rd/2012	07/26/12	MAPEP-12-MaS26	Soil	mg/kg	Manganese-54	596	558	391-725	Acceptable
MAPEP	3rd/2012	07/26/12	MAPEP-12-MaS26	Soil	mg/kg	Nickel-63	888.0	862	603-1121	Acceptable
MAPEP	3rd/2012	07/26/12	MAPEP-12-MaS26	Soil	mg/kg	Plutonium-238	127.0	136	95-177	Acceptable
MAPEP	3rd/2012	07/26/12	MAPEP-12-MaS26	Soil	mg/kg	Plutonium-239/240	61.13	65.8	46.1-85.5	Acceptable
MAPEP	3rd/2012	07/26/12	MAPEP-12-MaS26	Soil	mg/kg	Potassium-40	1495	1491	1044-1938	Acceptable
MAPEP	3rd/2012	07/26/12	MAPEP-12-MaS26	Soil	mg/kg	Strontium-90	391.7	392	274-510	Acceptable
MAPEP	3rd/2012	07/26/12	MAPEP-12-MaS26	Soil	mg/kg	Technetium-99	345.3	374	262-486	Acceptable
MAPEP	3rd/2012	07/26/12	MAPEP-12-MaW26	Water	Bq/L	Americium-241	1.5067	1.630	1.14-2.12	Acceptable
MAPEP	3rd/2012	07/26/12	MAPEP-12-MaW26	Water	Bq/L	Cesium-134	0.09	0.0	False Pos Test	Acceptable
MAPEP	3rd/2012	07/26/12	MAPEP-12-MaW26	Water	Bq/L	Cesium-137	41.2	39.9	27.9-51.9	Acceptable
MAPEP	3rd/2012	07/26/12	MAPEP-12-MaW26	Water	Bq/L	Cobalt-57	34.45	32.9	23.0-42.8	Acceptable
MAPEP	3rd/2012	07/26/12	MAPEP-12-MaW26	Water	Bq/L	Cobalt-60	23.90	23.7	16.60-30.84	Acceptable
MAPEP	3rd/2012	07/26/12	MAPEP-12-MaW26	Water	Bq/L	Hydrogen-3	481.7	437	306-568	Acceptable

MAPEP	3rd/2012	07/26/12	MAPEP-12-MaW26	Water	Bq/L	Iron-55	88.10	81.9	57.3-106.5	Acceptable
MAPEP	3rd/2012	07/26/12	MAPEP-12-MaW26	Water	Bq/L	Manganese-54	33.3	31.8	22.3-41.3	Acceptable
MAPEP	3rd/2012	07/26/12	MAPEP-12-MaW26	Water	Bq/L	Nickel-63	59.6	60.0	42.0-78.0	Acceptable
MAPEP	3rd/2012	07/26/12	MAPEP-12-MaW26	Water	Bq/L	Plutonium-238	0.555	0.629	0.110-0.818	Acceptable
MAPEP	3rd/2012	07/26/12	MAPEP-12-MaW26	Water	Bq/L	Plutonium-239/240	1.230	1.340	0.94-1.74	Acceptable
MAPEP	3rd/2012	07/26/12	MAPEP-12-MaW26	Water	Bq/L	Potassium-40	156.5	142	99-185	Acceptable
MAPEP	3rd/2012	07/26/12	MAPEP-12-MaW26	Water	Bq/L	Strontium-90	0.01	0.00	False Pos Test	Acceptable
MAPEP	3rd/2012	07/26/12	MAPEP-12-MaW26	Water	Bq/L	Technetium-99	26.3	27.90	19.5-36.3	Acceptable
MAPEP	3rd/2012	07/26/12	MAPEP-12-MaW26	Water	Bq/L	Uranium-234/233	0.381	0.39	0.270-0.510	Acceptable
MAPEP	3rd/2012	07/26/12	MAPEP-12-MaW26	Water	Bq/L	Uranium-238	2.537	2.76	1.93-3.59	Acceptable
MAPEP	3rd/2012	07/26/12	MAPEP-12-MaW26	Water	Bq/L	Zinc-65	-0.220	0.00	False Pos Test	Acceptable
MAPEP	3rd/2012	07/26/12	MAPEP-12-GrW26	Water	Bq/L	Gross Alpha	2.043	2.140	0.64-3.64	Acceptable
MAPEP	3rd/2012	07/26/12	MAPEP-12-GrW26	Water	Bq/L	Gross Beta	6.820	6.36	3.18-9.54	Acceptable
MAPEP	3rd/2012	07/26/12	MAPEP-12-RdF26	Filter	ug/sample	Uranium-235	0.200	0.019	0.0131-0.243	Acceptable
MAPEP	3rd/2012	07/26/12	MAPEP-12-RdF26	Filter	ug/sample	Uranium-238	9.5	10.0	7.0-13.0	Acceptable
MAPEP	3rd/2012	07/26/12	MAPEP-12-RdF26	Filter	ug/sample	Uranium-Total	9.98	10.0	7.0-13.0	Acceptable
MAPEP	3rd/2012	07/26/12	MAPEP-12-RdF26	Filter	ug/sample	Americium-241	0.660	0.073	0.051-0.095	Acceptable
MAPEP	3rd/2012	07/26/12	MAPEP-12-RdF26	Filter	Bq/sample	Cesium-134	2.29	2.38	1.67-3.09	Acceptable
MAPEP	3rd/2012	07/26/12	MAPEP-12-RdF26	Filter	Bq/sample	Cesium-137	1.910	1.79	1.25-2.33	Acceptable
MAPEP	3rd/2012	07/26/12	MAPEP-12-RdF26	Filter	Bq/sample	Cobalt-57	0.008	0.00	False Pos Test	Acceptable
MAPEP	3rd/2012	07/26/12	MAPEP-12-RdF26	Filter	Bq/sample	Cobalt-60	2.235	2.18	1.527-2.837	Acceptable
MAPEP	3rd/2012	07/26/12	MAPEP-12-RdF26	Filter	Bq/sample	Manganese-54	3.440	3.24	2.27-4.21	Acceptable
MAPEP	3rd/2012	07/26/12	MAPEP-12-RdF26	Filter	Bq/sample	Plutonium-238	0.004	0.002	Sens. Eval.	Acceptable
MAPEP	3rd/2012	07/26/12	MAPEP-12-RdF26	Filter	Bq/sample	Plutonium-239/240	0.088	0.0970	0.068-0.126	Acceptable
MAPEP	3rd/2012	07/26/12	MAPEP-12-RdF26	Filter	Bq/sample	Strontium-90	0.012	0.00	False Pos Test	Acceptable
MAPEP	3rd/2012	07/26/12	MAPEP-12-RdF26	Filter	Bq/sample	Uranium-234/233	0.010	0.0188	0.0132-0.0244	Not Acceptable
MAPEP	3rd/2012	07/26/12	MAPEP-12-RdF26	Filter	Bq/sample	Uranium-238	0.111	0.124	0.087-0.161	Acceptable
MAPEP	3rd/2012	07/26/12	MAPEP-12-RdF26	Filter	Bq/sample	Zinc-65	3.460	2.99	2.09-3.89	Acceptable
MAPEP	3rd/2012	07/26/12	MAPEP-12-RdF26	Filter	Bq/sample	Gross Alpha	0.780	1.200	0.4-2.0	Acceptable
MAPEP	3rd/2012	07/26/12	MAPEP-12-RdF26	Filter	Bq/sample	Gross Beta	2.59	2.40	1.2-3.6	Acceptable
MAPEP	3rd/2012	07/26/12	MAPEP-12-RdF26	Filter	Bq/sample	Americium-241	0.005	0.00	False Pos Test	Acceptable
MAPEP	3rd/2012	07/26/12	MAPEP-12-RdV26	Vegetation	Bq/sample	Cesium-134	7.655	8.43	5.90-10.96	Acceptable
MAPEP	3rd/2012	07/26/12	MAPEP-12-RdV26	Vegetation	Bq/sample	Cesium-137	-0.025	0.00	False Pos Test	Acceptable
MAPEP	3rd/2012	07/26/12	MAPEP-12-RdV26	Vegetation	Bq/sample	Cobalt-57	11.950	12.00	8.4-15.6	Acceptable
MAPEP	3rd/2012	07/26/12	MAPEP-12-RdV26	Vegetation	Bq/sample	Cobalt-60	6.255	6.05	4.24-7.87	Acceptable
MAPEP	3rd/2012	07/26/12	MAPEP-12-RdV26	Vegetation	Bq/sample	Manganese-54	0.029	0.00	False Pos Test	Acceptable
MAPEP	3rd/2012	07/26/12	MAPEP-12-RdV26	Vegetation	Bq/sample	Plutonium-238	0.194	0.219	0.153-0.285	Acceptable
MAPEP	3rd/2012	07/26/12	MAPEP-12-RdV26	Vegetation	Bq/sample	Plutonium-239/240	0.1226	0.152	0.106-0.198	Acceptable

MAPEP	3rd/2012	07/26/12	MAPEP-12-RdV26	Vegetation	Bq/sample	Strontium-90	1.613	2.11	1.48-2.74	Warning
MAPEP	3rd/2012	07/26/12	MAPEP-12-RdV26	Vegetation	Bq/sample	Uranium-234/233	0.030	0.411	0.0288-0.0534	Warning
MAPEP	3rd/2012	07/26/12	MAPEP-12-RdV26	Vegetation	Bq/sample	Uranium-238	0.224	0.278	0.195-0.361	Acceptable
MAPEP	3rd/2012	07/26/12	MAPEP-12-RdV26	Vegetation	Bq/sample	Zinc-65	9.720	8.90	6.23-11.57	Acceptable
EZA	3rd/2012	11/06/12	E10281	Cartridge	pCi	Iodine-131	1.02E+02	9.64E+01	1.06	Acceptable
EZA	3rd/2012	11/06/12	E10283	Milk	pCi/L	Strontium-89	9.87E+01	9.96E+01	0.99	Acceptable
EZA	3rd/2012	11/06/12	E10283	Milk	pCi/L	Strontium-90	1.44E+01	1.60E+01	0.9	Acceptable
EZA	3rd/2012	11/06/12	E10284	Milk	pCi/L	Iodine-131	9.69E+01	9.96E+01	0.97	Acceptable
EZA	3rd/2012	11/06/12	E10284	Milk	pCi/L	Cerium-141	1.61E+02	1.64E+02	0.98	Acceptable
EZA	3rd/2012	11/06/12	E10284	Milk	pCi/L	Chromium-51	2.92E+02	2.48E+02	1.18	Acceptable
EZA	3rd/2012	11/06/12	E10284	Milk	pCi/L	Cesium-134	9.85E+01	1.08E+02	0.91	Acceptable
EZA	3rd/2012	11/06/12	E10284	Milk	pCi/L	Cesium-137	1.76E+02	1.74E+02	1.01	Acceptable
EZA	3rd/2012	11/06/12	E10284	Milk	pCi/L	Cobalt-58	9.72E+01	1.00E+02	0.97	Acceptable
EZA	3rd/2012	11/06/12	E10284	Milk	pCi/L	Manganese-54	1.98E+02	1.96E+02	1.01	Acceptable
EZA	3rd/2012	11/06/12	E10284	Milk	pCi/L	Iron-59	1.62E+02	1.52E+02	1.07	Acceptable
EZA	3rd/2012	11/06/12	E10284	Milk	pCi/L	Zinc-65	2.08E+02	1.92E+02	1.08	Acceptable
EZA	3rd/2012	11/06/12	E10284	Milk	pCi/L	Cobalt-60	1.59E+02	1.52E+02	1.05	Acceptable
EZA	3rd/2012	11/06/12	E10285	Water	pCi/L	Iodine-131	1.10E+02	9.99E+01	1.1	Acceptable
EZA	3rd/2012	11/06/12	E10285	Water	pCi/L	Cerium-141	2.49E+02	2.51E+02	0.99	Acceptable
EZA	3rd/2012	11/06/12	E10285	Water	pCi/L	Chromium-51	3.75E+02	3.80E+02	0.99	Acceptable
EZA	3rd/2012	11/06/12	E10285	Water	pCi/L	Cesium-134	1.51E+02	1.66E+02	0.91	Acceptable
EZA	3rd/2012	11/06/12	E10285	Water	pCi/L	Cesium-137	2.72E+02	2.67E+02	1.02	Acceptable
EZA	3rd/2012	11/06/12	E10285	Water	pCi/L	Cobalt-58	1.56E+02	1.54E+02	1.01	Acceptable
EZA	3rd/2012	11/06/12	E10285	Water	pCi/L	Manganese-54	3.16E+02	3.00E+02	1.05	Acceptable
EZA	3rd/2012	11/06/12	E10285	Water	pCi/L	Iron-59	2.65E+02	2.33E+02	1.14	Acceptable
EZA	3rd/2012	11/06/12	E10285	Water	pCi/L	Zinc-65	3.20E+02	2.95E+02	1.09	Acceptable
EZA	3rd/2012	11/06/12	E10285	Water	pCi/L	Cobalt-60	2.42E+02	2.33E+02	1.04	Acceptable
MAPEP	4th/2012	11/26/12	MAPEP-12-MaS27	Soil	Bq/kg	Americium-241	106.67	111	78-144	Acceptable
MAPEP	4th/2012	11/26/12	MAPEP-12-MaS27	Soil	Bq/kg	Cesium-134	839.5	939	657-1221	Acceptable
MAPEP	4th/2012	11/26/12	MAPEP-12-MaS27	Soil	Bq/kg	Cesium-137	1230.0	1150	805-1495	Acceptable
MAPEP	4th/2012	11/26/12	MAPEP-12-MaS27	Soil	Bq/kg	Cobalt-57	1605	1316	921-1711	Acceptable
MAPEP	4th/2012	11/26/12	MAPEP-12-MaS27	Soil	Bq/kg	Cobalt-60	551.5	531	372-690	Acceptable
MAPEP	4th/2012	11/26/12	MAPEP-12-MaS27	Soil	Bq/kg	Iron-55	459.3	508	356-660	Acceptable
MAPEP	4th/2012	11/26/12	MAPEP-12-MaS27	Soil	Bq/kg	Manganese-54	1015	920	644-1196	Acceptable
MAPEP	4th/2012	11/26/12	MAPEP-12-MaS27	Soil	Bq/kg	Plutonium-238	104.6	106	74.1-137.5	Acceptable
MAPEP	4th/2012	11/26/12	MAPEP-12-MaS27	Soil	Bq/kg	Plutonium-239/240	132.33	134	94-174	Acceptable
MAPEP	4th/2012	11/26/12	MAPEP-12-MaS27	Soil	Bq/kg	Potassium-40	723	632	442-822	Acceptable
MAPEP	4th/2012	11/26/12	MAPEP-12-MaS27	Soil	Bq/kg	Strontium-90	476.7	508	356-660	Warning
MAPEP	4th/2012	11/26/12	MAPEP-12-MaS27	Soil	Bq/kg	Technetium-99	385.3	469	328-610	Acceptable
MAPEP	4th/2012	11/26/12	MAPEP-12-MaS27	Soil	Bq/kg	Uranium-234/233	51.6	60	42.2-78.4	Acceptable
MAPEP	4th/2012	11/26/12	MAPEP-12-MaS27	Soil	Bq/kg	Uranium-238	238.33	263	184-342	Acceptable
MAPEP	4th/2012	11/26/12	MAPEP-12-MaS27	Soil	Bq/kg	Zinc-65	721.5	606	424-788	Acceptable
MAPEP	4th/2012	11/26/12	MAPEP-12-MaW27	Water	Bq/L	Americium-241	0.9407	1.06	0.74-1.38	Acceptable
MAPEP	4th/2012	11/26/12	MAPEP-12-MaW27	Water	Bq/L	Cesium-134	20.6	23.2	16.2-30.2	Acceptable
MAPEP	4th/2012	11/26/12	MAPEP-12-MaW27	Water	Bq/L	Cesium-137	17.05	16.7	11.7-21.7	Acceptable

MAPEP	4th/2012	11/26/12	MAPEP-12-MaW27	Water	Bq/L	Cobalt-57	29.45	29.3	20.5-38.1	Acceptable
MAPEP	4th/2012	11/26/12	MAPEP-12-MaW27	Water	Bq/L	Cobalt-60	0.03	0.0	False Positive	Acceptable
MAPEP	4th/2012	11/26/12	MAPEP-12-MaW27	Water	Bq/L	Hydrogen-3	334	334	234-434	Acceptable
MAPEP	4th/2012	11/26/12	MAPEP-12-MaW27	Water	Bq/L	Manganese-54	18.4	17.8	12.5-23.1	Acceptable
MAPEP	4th/2012	11/26/12	MAPEP-12-MaW27	Water	Bq/L	Nickel-63	66.2	66.3	46.4-86.2	Acceptable
MAPEP	4th/2012	11/26/12	MAPEP-12-MaW27	Water	Bq/L	Plutonium-238	0.0088	0.0	Sensitivity Eval.	Acceptable
MAPEP	4th/2012	11/26/12	MAPEP-12-MaW27	Water	Bq/L	Plutonium-239/240	1.44	1.61	1.13-2.09	Acceptable
MAPEP	4th/2012	11/26/12	MAPEP-12-MaW27	Water	Bq/L	Potassium-40	140.5	134	94-174	Acceptable
MAPEP	4th/2012	11/26/12	MAPEP-12-MaW27	Water	Bq/L	Strontium-90	11.13	12.2	8.5-15.9	Acceptable
MAPEP	4th/2012	11/26/12	MAPEP-12-MaW27	Water	Bq/L	Technetium-99	4.5	4.58	3.21-5.95	Acceptable
MAPEP	4th/2012	11/26/12	MAPEP-12-MaW27	Water	Bq/L	Uranium-234/233	0.414	0.451	0.316-0.586	Acceptable
MAPEP	4th/2012	11/26/12	MAPEP-12-MaW27	Water	Bq/L	Uranium-238	2.96	3.33	2.33-4.33	Acceptable
MAPEP	4th/2012	11/26/12	MAPEP-12-MaW27	Water	Bq/L	Zinc-65	28.15	25.9	18.1-33.7	Acceptable
MAPEP	4th/2012	11/26/12	MAPEP-12-GrW27	Water	Bq/L	Gross Alpha	1.737	1.79	0.54-3.04	Acceptable
MAPEP	4th/2012	11/26/12	MAPEP-12-GrW27	Water	Bq/L	Gross Beta	8.893	9.1	4.6-13.7	Acceptable
MAPEP	4th/2012	11/26/12	MAPEP-12-XaW27	Water	Bq/L	Iodine-129	6.229	6.82	4.77-8.87	Acceptable
MAPEP	4th/2012	11/26/12	MAPEP-12-RdF27	Filter	uq/sample	Uranium-235	0.0154	0.0148	0.0104-0.0192	Acceptable
MAPEP	4th/2012	11/26/12	MAPEP-12-RdF27	Filter	uq/sample	Uranium-238	7.77	8	5.6-10.4	Acceptable
MAPEP	4th/2012	11/26/12	MAPEP-12-RdF27	Filter	uq/sample	Uranium-Total	7.785	8.1	5.7-10.5	Acceptable
MAPEP	4th/2012	11/26/12	MAPEP-12-RdF27	Filter	uq/sample	Americium-241	0.0716	0.078	0.0546-0.1014	Acceptable
MAPEP	4th/2012	11/26/12	MAPEP-12-RdF27	Filter	uq/sample	Cesium-134	2.795	2.74	1.92-3.56	Acceptable
MAPEP	4th/2012	11/26/12	MAPEP-12-RdF27	Filter	uq/sample	Cesium-137	-0.016	0	False Positive	Acceptable
MAPEP	4th/2012	11/26/12	MAPEP-12-RdF27	Filter	uq/sample	Cobalt-57	2.265	1.91	1.34-2.48	Acceptable
MAPEP	4th/2012	11/26/12	MAPEP-12-RdF27	Filter	uq/sample	Cobalt-60	1.865	1.728	1.210-2.246	Acceptable
MAPEP	4th/2012	11/26/12	MAPEP-12-RdF27	Filter	uq/sample	Manganese-54	2.465	2.36	1.65-3.07	Acceptable
MAPEP	4th/2012	11/26/12	MAPEP-12-RdF27	Filter	uq/sample	Plutonium-238	0.061	0.0625	0.0438-0.0813	Acceptable
MAPEP	4th/2012	11/26/12	MAPEP-12-RdF27	Filter	uq/sample	Plutonium-239/240	-0.002	0.00081	Sensitivity Eval.	Acceptable
MAPEP	4th/2012	11/26/12	MAPEP-12-RdF27	Filter	uq/sample	Strontium-90	0.914	1.03	0.72-1.34	Acceptable
MAPEP	4th/2012	11/26/12	MAPEP-12-RdF27	Filter	uq/sample	Uranium-234/233	0.009	0.0141	0.0099-0.0183	Not Acceptable
MAPEP	4th/2012	11/26/12	MAPEP-12-RdF27	Filter	uq/sample	Uranium-238	0.087	0.1	0.070-0.130	Not Acceptable
MAPEP	4th/2012	11/26/12	MAPEP-12-RdF27	Filter	uq/sample	Zinc-65	-0.154	0	False Positive	Acceptable
MAPEP	4th/2012	11/26/12	MAPEP-12-GrF27	Filter	Bq/sample	Gross Alpha	0.2253	0.97	0.29-1.65	Not Acceptable
MAPEP	4th/2012	11/26/12	MAPEP-12-GrF27	Filter	Bq/sample	Gross Beta	1.93	1.92	0.96-2.88	Acceptable
MAPEP	4th/2012	11/26/12	MAPEP-12-RdV27	Vegetation	Bq/sample	Americium-241	0.142	0.163	0.114-0.212	Acceptable
MAPEP	4th/2012	11/26/12	MAPEP-12-RdV27	Vegetation	Bq/sample	Cesium-134	6.355	6.51	4.56-8.46	Acceptable
MAPEP	4th/2012	11/26/12	MAPEP-12-RdV27	Vegetation	Bq/sample	Cesium-137	4.575	4.38	3.07-5.69	Acceptable
MAPEP	4th/2012	11/26/12	MAPEP-12-RdV27	Vegetation	Bq/sample	Cobalt-57	6.04	5.66	3.96-7.36	Acceptable
MAPEP	4th/2012	11/26/12	MAPEP-12-RdV27	Vegetation	Bq/sample	Cobalt-60	5.44	5.12	3.58-6.66	Acceptable

MAPEP	4th/2012	11/26/12	MAPEP-12-RdV27	Vegetation	Bq/sample	Manganese-54	3.565	3.27	2.29-4.25	Acceptable
MAPEP	4th/2012	11/26/12	MAPEP-12-RdV27	Vegetation	Bq/sample	Plutonium-238	0.176	0.187	0.131-0.243	Acceptable
MAPEP	4th/2012	11/26/12	MAPEP-12-RdV27	Vegetation	Bq/sample	Plutonium-239/240	0.12	0.123	0.086-0.160	Acceptable
MAPEP	4th/2012	11/26/12	MAPEP-12-RdV27	Vegetation	Bq/sample	Strontium-90	0.0018	0	False Positive	Acceptable
MAPEP	4th/2012	11/26/12	MAPEP-12-RdV27	Vegetation	Bq/sample	Uranium-234/233	0.024	0.0257	0.0180-0.0334	Acceptable
MAPEP	4th/2012	11/26/12	MAPEP-12-RdV27	Vegetation	Bq/sample	Uranium-238	0.143	0.158	0.111-0.205	Acceptable
MAPEP	4th/2012	11/26/12	MAPEP-12-RdV27	Vegetation	Bq/sample	Uranium-Total	11.1	12.7	8.9-16.5	Acceptable
MAPEP	4th/2012	11/26/12	MAPEP-12-RdV27	Vegetation	Bq/sample	Zinc-65	-0.04	0	False Positive	Acceptable
MAPEP	4th/2012	11/26/12	MAPEP-11-XaW25	Water	Bq/sample	Iodine-129	8.723	9.5	6.7 - 12.4	Acceptable
ERA	4th/2012	12/12/12	MRAD-17	Soil	pCi/kg	Uranium-234	4310	4310	2830-5540	Acceptable
ERA	4th/2012	12/12/12	MRAD-17	Soil	pCi/kg	Uranium-238	4330	4280	2860-5440	Acceptable
ERA	4th/2012	12/12/12	MRAD-17	Soil	pCi/kg	Uranium-Total	4849	5190	2960 - 7010	Acceptable
ERA	4th/2012	12/12/12	MRAD-17	Soil	ug/kg	Uranium-Total (mass)	8860	8790	5960-10900	Acceptable
ERA	4th/2012	12/12/12	MRAD-17	Soil	pCi/kg	Uranium-234	3720	3400	2080-4360	Acceptable
ERA	4th/2012	12/12/12	MRAD-17	Soil	pCi/kg	Uranium-238	3350	3420	2120-4340	Acceptable
ERA	4th/2012	12/12/12	MRAD-17	Soil	pCi/kg	Uranium-Total	7232	6970	3780-9200	Acceptable
ERA	4th/2012	12/12/12	MRAD-17	Soil	ug/kg	Uranium-Total (mass)	10400	10200	5620-12800	Acceptable
ERA	4th/2012	12/12/12	MRAD-17	Soil	pCi/kg	Actinium-228	1400	1240	795-1720	Acceptable
ERA	4th/2012	12/12/12	MRAD-17	Soil	pCi/kg	Americium-241	847	728	426-946	Acceptable
ERA	4th/2012	12/12/12	MRAD-17	Soil	pCi/kg	Bismuth-212	1300	1240	330-1820	Acceptable
ERA	4th/2012	12/12/12	MRAD-17	Soil	pCi/kg	Bismuth-214	1310	1290	777-1860	Acceptable
ERA	4th/2012	12/12/12	MRAD-17	Soil	pCi/kg	Cesium-134	2210	1980	1290-2380	Acceptable
ERA	4th/2012	12/12/12	MRAD-17	Soil	pCi/kg	Cesium-137	4140	3470	2660-4460	Acceptable
ERA	4th/2012	12/12/12	MRAD-17	Soil	pCi/kg	Cobalt-60	5270	4310	2910-5930	Acceptable
ERA	4th/2012	12/12/12	MRAD-17	Soil	pCi/kg	Lead-212	1250	1240	812-1730	Acceptable
ERA	4th/2012	12/12/12	MRAD-17	Soil	pCi/kg	Lead-214	1580	1290	753-1920	Acceptable
ERA	4th/2012	12/12/12	MRAD-17	Soil	pCi/kg	Manganese-54	< 35	< 1000	0.00 - 1000	Acceptable
ERA	4th/2012	12/12/12	MRAD-17	Soil	pCi/kg	Plutonium-238	1250	981	590-1350	Acceptable
ERA	4th/2012	12/12/12	MRAD-17	Soil	pCi/kg	Plutonium-239	1110	871	569-1200	Acceptable
ERA	4th/2012	12/12/12	MRAD-17	Soil	pCi/kg	Potassium-40	11000	12300	8980-16500	Acceptable
ERA	4th/2012	12/12/12	MRAD-17	Soil	pCi/kg	Thorium-234	5120	3420	1080-6430	Acceptable
ERA	4th/2012	12/12/12	MRAD-17	Soil	pCi/kg	Zinc-65	3770	2880	2290-3830	Acceptable
ERA	4th/2012	12/12/12	MRAD-17	Soil	pCi/kg	Strontium-90	6670	6860	2620-10800	Acceptable
ERA	4th/2012	12/12/12	MRAD-17	Soil	pCi/kg	Uranium-234	2640	2530	1600 - 3140	Acceptable
ERA	4th/2012	12/12/12	MRAD-17	Soil	pCi/kg	Uranium-238	2450	2560	1560 - 3250	Acceptable
ERA	4th/2012	12/12/12	MRAD-17	Soil	pCi/kg	Uranium-Total	5200	5190	2960 - 7010	Acceptable
ERA	4th/2012	12/12/12	MRAD-17	Soil	ug/kg	Uranium-Total (mass)	7286	7570	4160 - 9520	Acceptable
ERA	4th/2012	12/12/12	MRAD-17	Soil	ug/kg	Uranium-Total (mass)	7430	7570	4160 - 9520	Acceptable
ERA	4th/2012	12/12/12	MRAD-17	Soil	pCi/kg	Americium-241	3040	2980	1700 - 4090	Acceptable
ERA	4th/2012	12/12/12	MRAD-17	Soil	pCi/kg	Curium-244	697	642	316 - 1000	Acceptable
ERA	4th/2012	12/12/12	MRAD-17	Soil	pCi/kg	Plutonium-238	3000	2880	1560 - 4220	Acceptable
ERA	4th/2012	12/12/12	MRAD-17	Soil	pCi/kg	Plutonium-239	2910	2980	1850 - 4060	Acceptable
ERA	4th/2012	12/12/12	MRAD-17	Soil	pCi/kg	Uranium-234	2580	2420	1660 - 3210	Acceptable
ERA	4th/2012	12/12/12	MRAD-17	Soil	pCi/kg	Uranium-238	2660	2400	1690 - 3030	Acceptable
ERA	4th/2012	12/12/12	MRAD-17	Soil	pCi/kg	Uranium-Total	5356	4920	3330 - 6120	Acceptable
ERA	4th/2012	12/12/12	MRAD-17	Soil	ug/kg	Uranium-Total (mass)	7970	7180	4810 - 9120	Acceptable
ERA	4th/2012	12/12/12	MRAD-17	Soil	pCi/kg	Cesium-134	1480	1380	790 - 1910	Acceptable
ERA	4th/2012	12/12/12	MRAD-17	Soil	pCi/kg	Cesium-137	1570	1270	932 - 1760	Acceptable

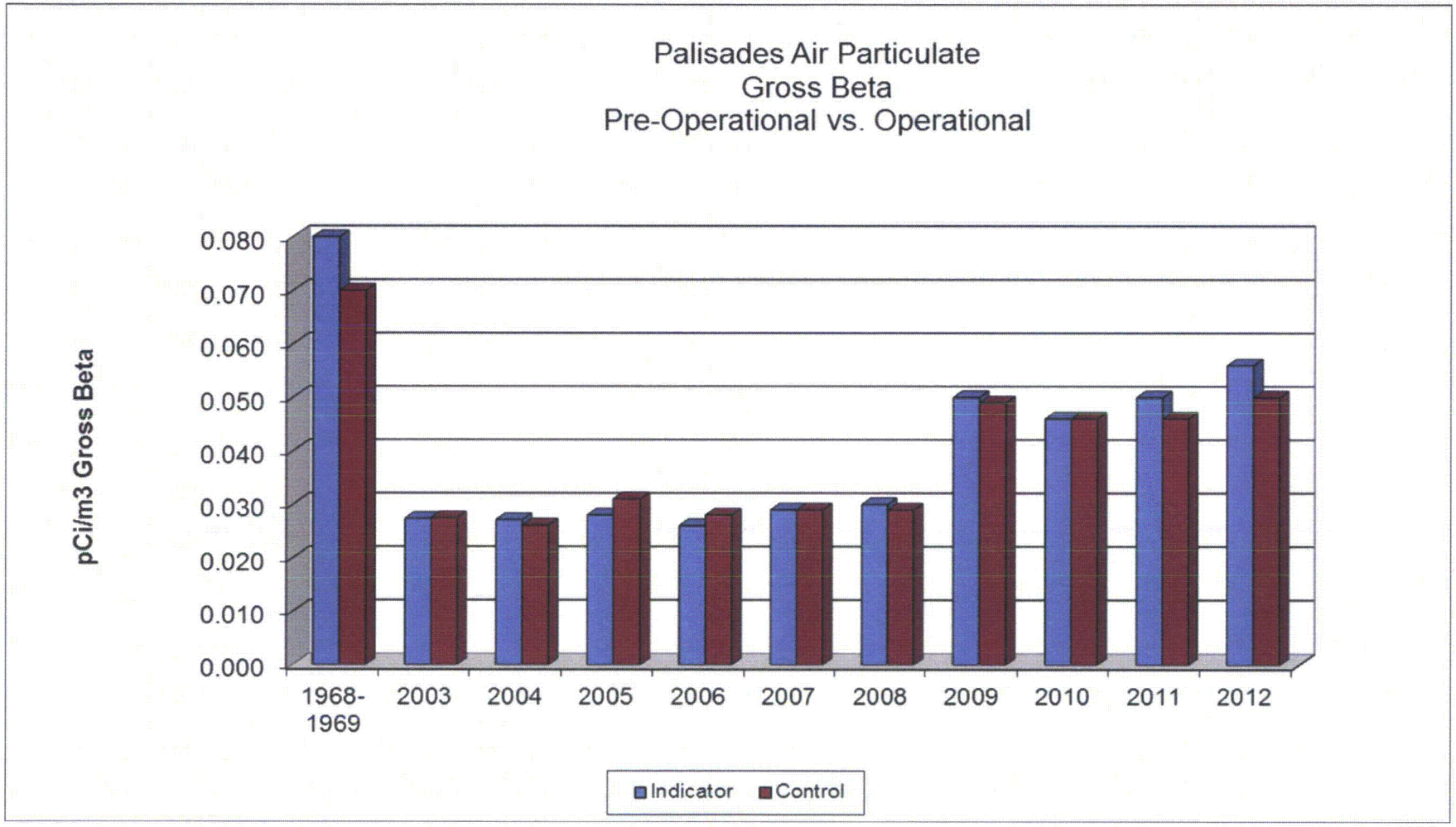
ERA	4th/2012	12/12/12	MRAD-17	Soil	pCi/kg	Cobalt-60	1800	1500	1010 - 2160	Acceptable
ERA	4th/2012	12/12/12	MRAD-17	Soil	pCi/kg	Manganese-54	< 44.0	< 300	0.00 - 300	Acceptable
ERA	4th/2012	12/12/12	MRAD-17	Soil	pCi/kg	Potassium-40	32100	28800	20700 - 40800	Acceptable
ERA	4th/2012	12/12/12	MRAD-17	Soil	pCi/kg	Zinc-65	3470	2770	2000 - 3790	Acceptable
ERA	4th/2012	12/12/12	MRAD-17	Soil	pCi/kg	Strontium-90	6320	5440	3040 - 7220	Acceptable
ERA	4th/2012	12/12/12	MRAD-17	Vegetation	pCi/kg	Americium-241	3780	3540	2160-4710	Acceptable
ERA	4th/2012	12/12/12	MRAD-17	Vegetation	pCi/kg	Curium-244	1910	1850	906-2880	Acceptable
ERA	4th/2012	12/12/12	MRAD-17	Vegetation	pCi/kg	Plutonium-238	2360	2250	1340-3080	Acceptable
ERA	4th/2012	12/12/12	MRAD-17	Vegetation	pCi/kg	Plutonium-239	2270	2170	1330-2990	Acceptable
ERA	4th/2012	12/12/12	MRAD-17	Vegetation	pCi/kg	Uranium-234	4310	4310	2830-5540	Acceptable
ERA	4th/2012	12/12/12	MRAD-17	Vegetation	pCi/kg	Uranium-238	4330	4280	2860-5440	Acceptable
ERA	4th/2012	12/12/12	MRAD-17	Vegetation	pCi/kg	Uranium-Total	8860	8790	5960-10900	Acceptable
ERA	4th/2012	12/12/12	MRAD-17	Vegetation	ug/kg	Uranium-Total (mass)	13000	12800	8580-16200	Acceptable
ERA	4th/2012	12/12/12	MRAD-17	Vegetation	ug/kg	Uranium-Total (mass)	11900	12800	8580-16200	Acceptable
ERA	4th/2012	12/12/12	MRAD-17	Vegetation	pCi/kg	Cesium-134	2240	2350	1510-3050	Acceptable
ERA	4th/2012	12/12/12	MRAD-17	Vegetation	pCi/kg	Cesium-137	2190	2070	1500-2880	Acceptable
ERA	4th/2012	12/12/12	MRAD-17	Vegetation	pCi/kg	Cobalt-60	2360	2030	1400-2840	Acceptable
ERA	4th/2012	12/12/12	MRAD-17	Vegetation	pCi/kg	Manganese-54	< 38.6	< 300	0.00 - 300	Acceptable
ERA	4th/2012	12/12/12	MRAD-17	Vegetation	pCi/kg	Potassium-40	36000	29600	21400-41500	Acceptable
ERA	4th/2012	12/12/12	MRAD-17	Vegetation	pCi/kg	Zinc-65	2500	1970	1420-2760	Acceptable
ERA	4th/2012	12/12/12	MRAD-17	Vegetation	pCi/kg	Strontium-90	9040	10000	5700-13300	Acceptable
ERA	4th/2012	12/12/12	MRAD-17	Filter	pCi/Filter	Americium-241	64.7	67.1	41.4-90.8	Acceptable
ERA	4th/2012	12/12/12	MRAD-17	Filter	pCi/Filter	Plutonium-238	50.3	55	37.7-72.3	Acceptable
ERA	4th/2012	12/12/12	MRAD-17	Filter	pCi/Filter	Plutonium-239	53.8	56.8	41.1-74.2	Acceptable
ERA	4th/2012	12/12/12	MRAD-17	Filter	pCi/Filter	Uranium-234	49.1	55.2	34.2-83.2	Acceptable
ERA	4th/2012	12/12/12	MRAD-17	Filter	pCi/Filter	Uranium-238	55	54.7	35.3-75.6	Acceptable
ERA	4th/2012	12/12/12	MRAD-17	Filter	pCi/Filter	Uranium-Total	106.6	112	62.0-170	Acceptable
ERA	4th/2012	12/12/12	MRAD-17	Filter	ug/Filter	Uranium-Total (mass)	165	164	105-231	Acceptable
ERA	4th/2012	12/12/12	MRAD-17	Filter	pCi/Filter	Cesium-134	393	429	273-532	Acceptable
ERA	4th/2012	12/12/12	MRAD-17	Filter	pCi/Filter	Cesium-137	810	793	596-1040	Acceptable
ERA	4th/2012	12/12/12	MRAD-17	Filter	pCi/Filter	Cobalt-60	532	521	403-651	Acceptable
ERA	4th/2012	12/12/12	MRAD-17	Filter	pCi/Filter	Manganese-54	< 3.97	< 50.0	0.00 - 50.0	Acceptable
ERA	4th/2012	12/12/12	MRAD-17	Filter	pCi/Filter	Zinc-65	765	692	496-955	Acceptable
ERA	4th/2012	12/12/12	MRAD-17	Filter	pCi/Filter	Strontium-90	167	166	81.1-249	Acceptable
ERA	4th/2012	12/12/12	MRAD-17	Filter	pCi/Filter	Uranium-Total (mass)	152	164	105-231	Acceptable
ERA	4th/2012	12/12/12	MRAD-17	Filter	pCi/Filter	Uranium-Total (mass)	160	164	105-231	Acceptable
ERA	4th/2012	12/12/12	MRAD-17	Filter	pCi/Filter	Gross Alpha	110	87	30.3 - 87.8	Acceptable
ERA	4th /2012	12/12/12	MRAD-17	Filter	pCi/Filter	Gross Beta	71.2	62.7	39.6-91.4	Acceptable
ERA	4th/2012	12/12/12	MRAD-17	Water	pCi/L	Uranium-234	155	159	119-205	Acceptable
ERA	4th/2012	12/12/12	MRAD-17	Water	pCi/L	Uranium-238	161	158	120-194	Acceptable
ERA	4th/2012	12/12/12	MRAD-17	Water	pCi/L	Uranium-Total	323.6	324	238-419	Acceptable
ERA	4th/2012	12/12/12	MRAD-17	Water	ug/L	Uranium-Total (mass)	482	473	337-572	Acceptable
ERA	4th/2012	12/12/12	MRAD-17	Water	pCi/L	Americium-241	96.3	91.8	61.8-123	Acceptable
ERA	4th/2012	12/12/12	MRAD-17	Water	pCi/L	Plutonium-238	98	97.7	72.3-122	Acceptable
ERA	4th/2012	12/12/12	MRAD-17	Water	pCi/L	Plutonium-239	82.5	85.8	66.6-108	Acceptable
ERA	4th/2012	12/12/12	MRAD-17	Water	pCi/L	Uranium-234	155	159	119-205	Acceptable
ERA	4th/2012	12/12/12	MRAD-17	Water	pCi/L	Uranium-238	161	158	120-194	Acceptable
ERA	4th/2012	12/12/12	MRAD-17	Water	pCi/L	Uranium-Total	312.6	324	238-419	Acceptable
ERA	4th/2012	12/12/12	MRAD-17	Water	ug/L	Uranium-Total (mass)	482	473	377-572	Acceptable
ERA	4th/2012	12/12/12	MRAD-17	Water	pCi/L	Cesium-134	786	876	643-1010	Acceptable
ERA	4th/2012	12/12/12	MRAD-17	Water	pCi/L	Cesium-137	2050	2040	1730-2440	Acceptable

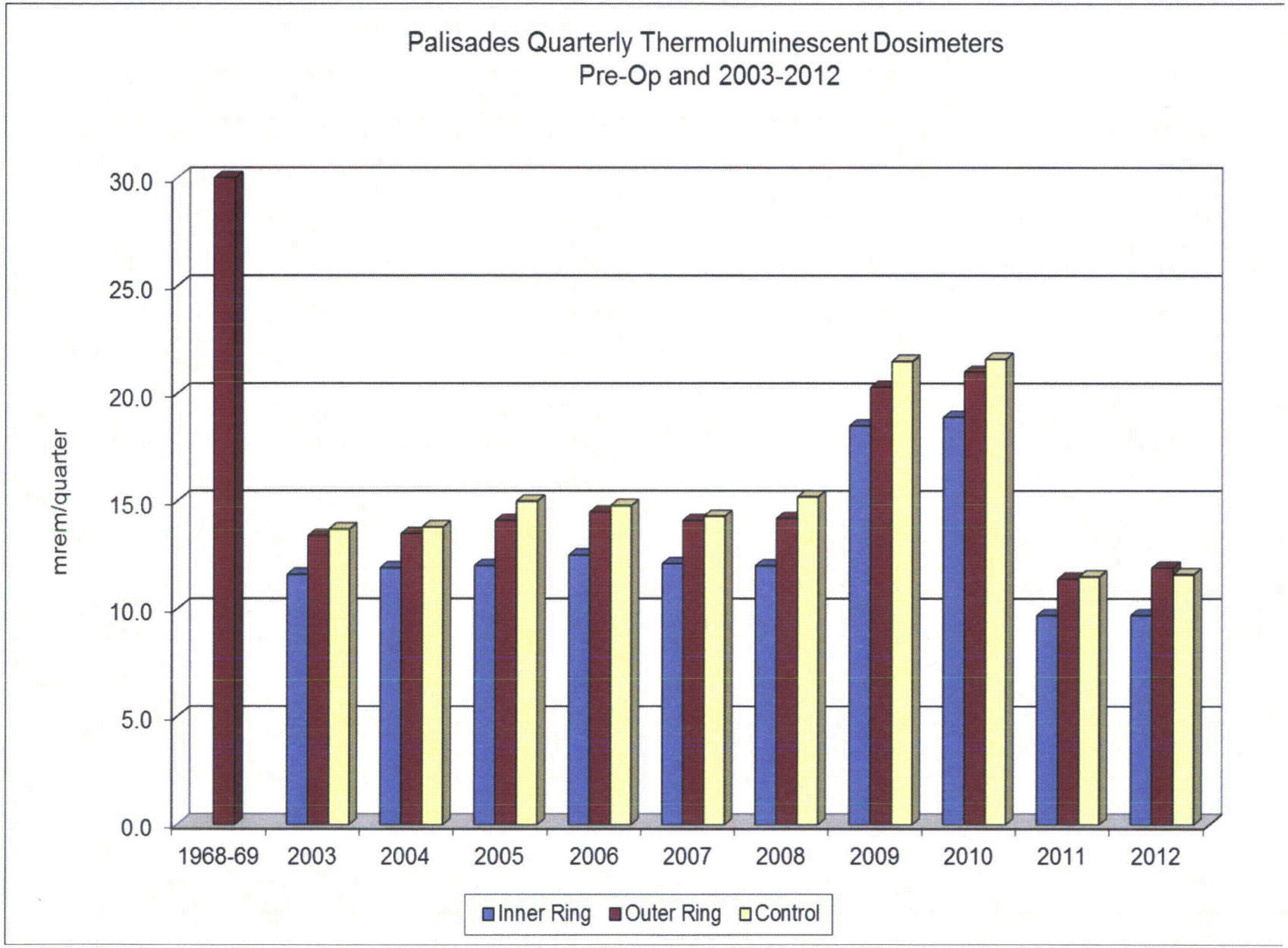
ERA	4th/2012	12/12/12	MRAD-17	Water	pCi/L	Cobalt-60	1270	1260	1090-1470	Acceptable
ERA	4th/2012	12/12/12	MRAD-17	Water	pCi/L	Manganese-54	< 7.27	< 100	0.00 - 100	Acceptable
ERA	4th/2012	12/12/12	MRAD-17	Water	pCi/L	Zinc-65	950	879	733-1110	Acceptable
ERA	4th/2012	12/12/12	MRAD-17	Water	pCi/L	Strontium-90	577	681	444-900	Acceptable
ERA	4th/2012	12/12/12	MRAD-17	Water	pCi/L	Uranium-234	158	159	119-205	Acceptable
ERA	4th/2012	12/12/12	MRAD-17	Water	pCi/L	Uranium-238	162	158	120-194	Acceptable
ERA	4th/2012	12/12/12	MRAD-17	Water	pCi/L	Uranium-Total	327.7	324	238-419	Acceptable
ERA	4th/2012	12/12/12	MRAD-17	Water	pCi/L	Uranium-Total (mass)	485	473	337-572	Acceptable
ERA	4th/2012	12/12/12	MRAD-17	Water	pCi/L	Uranium-234	156	159	119-205	Acceptable
ERA	4th/2012	12/12/12	MRAD-17	Water	pCi/L	Uranium-238	162	158	120-194	Acceptable
ERA	4th/2012	12/12/12	MRAD-17	Water	pCi/L	Uranium-Total	318	324	238-419	Acceptable
ERA	4th/2012	12/12/12	MRAD-17	Water	pCi/L	Uranium-Total (mass)	482	473	337-572	Acceptable
ERA	4th/2012	12/12/12	MRAD-17	Water	pCi/L	Uranium-Total (mass)	463	473	337-572	Acceptable
ERA	4th/2012	12/12/12	MRAD-17	Water	pCi/L	Iron-55	673	548	327-743	Acceptable
ERA	4th/2012	12/12/12	MRAD-17	Water	pCi/L	Gross Alpha	62.1	76.9	27.3-119	Acceptable
ERA	4th/2012	12/12/12	MRAD-17	Water	pCi/L	Gross Beta	57.4	62.6	35.8-92.7	Acceptable
ERA	4th/2012	12/12/12	MRAD-17	Water	pCi/L	Tritium	17900	18700	12500-26700	Acceptable
ERA	3rd/2012	8/31/2012	RAD-90	Water	pCi/L	Barium-133	72.7	65.0	54.1-71.5	Not Acceptable
ERA	3rd/2012	8/31/2012	RAD-90	Water	pCi/L	Cesium-134	87.5	92.5	76.0-102	Acceptable
ERA	3rd/2012	8/31/2012	RAD-90	Water	pCi/L	Cesium-137	219	216	194-239	Acceptable
ERA	3rd/2012	8/31/2012	RAD-90	Water	pCi/L	Cobalt-50	55.6	51.3	46.2-59.0	Acceptable
ERA	3rd/2012	8/31/2012	RAD-90	Water	pCi/L	Zinc-65	108	98.9	89.0-118	Acceptable
ERA	3rd/2012	8/31/2012	RAD-90	Water	pCi/L	Gross Alpha	38.8	48.2	25.1-60.8	Acceptable
ERA	3rd/2012	8/31/2012	RAD-90	Water	pCi/L	Gross Beta	34.4	36.8	24.2-44.4	Acceptable
ERA	3rd/2012	8/31/2012	RAD-90	Water	pCi/L	Gross Alpha	40.9	48.2	25.1-60.6	Acceptable
ERA	3rd/2012	8/31/2012	RAD-90	Water	pCi/L	Radium-226	14.4	12.6	9.40-14.5	Acceptable
ERA	3rd/2012	8/31/2012	RAD-90	Water	pCi/L	Radium-226	14.6	12.6	9.40-14.5	Not Acceptable
ERA	3rd/2012	8/31/2012	RAD-90	Water	pCi/L	Radium-228	4.3	5.01	2.99-6.72	Acceptable
ERA	3rd/2012	8/31/2012	RAD-90	Water	pCi/L	Uranium (Nat)	49.4	49.7	40.3-55.2	Acceptable
ERA	3rd/2012	8/31/2012	RAD-90	Water	ug/L	Uranium (Nat) mass	73.4	72.5	58.8-80.6	Acceptable
ERA	3rd/2012	8/31/2012	RAD-90	Water	pCi/L	Tritium	7290	6790	5860-7470	Acceptable
ERA	3rd/2012	8/31/2012	RAD-90	Water	pCi/L	Strontium-89	55	47.9	37.5-55.2	Acceptable
ERA	3rd/2012	8/31/2012	RAD-90	Water	pCi/L	Strontium-90	27.1	28.7	20.9-33.4	Acceptable
ERA	3rd/2012	8/31/2012	RAD-90	Water	pCi/L	Strontium-89	48.3	47.9	37.5-55.2	Acceptable
ERA	3rd/2012	8/31/2012	RAD-90	Water	pCi/L	Strontium-90	28.9	28.7	20.9-33.4	Acceptable
ERA	3rd/2012	8/31/2012	RAD-91	Water	pCi/L	Barium-133	84.9	84.8	71.3-93.3	Acceptable
ERA	3rd/2012	8/31/2012	RAD-91	Water	pCi/L	Radium-226	12.8	15	11.2-17.2	Acceptable

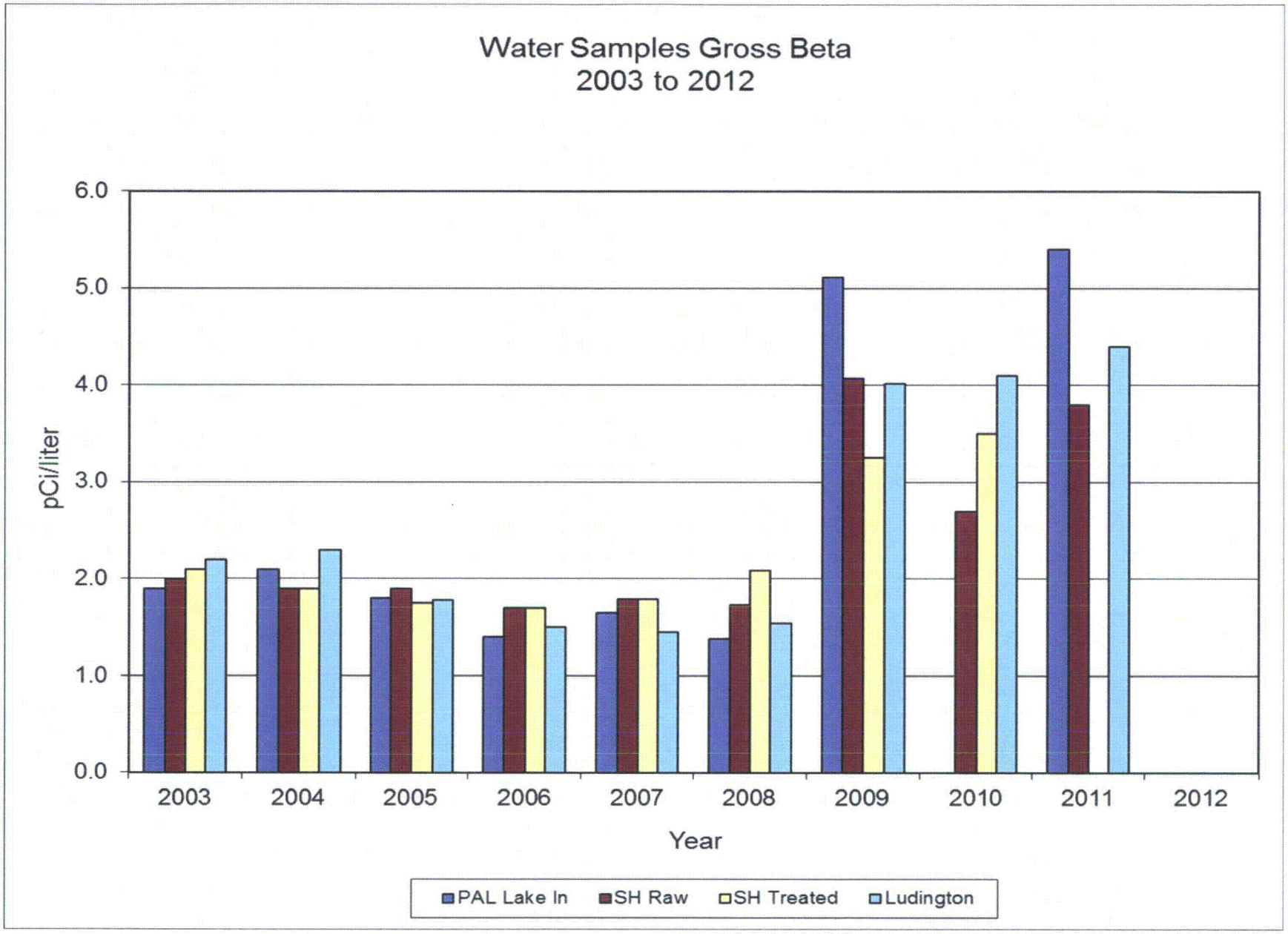
ATTACHMENT F

DATA GRAPHS

3 Pages Follow


Palisades Air Particulate
Gross Beta
Pre-Operational vs. Operational
pCi/m3 Gross Beta
0.080
0.070
0.060
0.050
0.040
0.030
0.020
0.010
0.000
1968-1969
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
Indicator
Control


Palisades Quarterly Thermoluminescent Dosimeters
Pre-Op and 2003-2012
mrem/quarter
30.0
25.0
20.0
15.0
10.0
5.0
0.0
1968-69
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
Inner Ring
Outer Ring
Control


Water Samples Gross Beta
2003 to 2012
6.0
5.0
4.0
3.0
2.0
1.0
0.0
pCi/liter
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
Year
PAL Lake In
SH Raw
SH Treated
Ludington