NEXTera® ENERGY
SEABROOK

April 30, 2020
Docket No. 50-443
SBK-L-20051

U. S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, D.C. 20555-0001

Seabrook Station
2019 Annual Radiological Environmental Operating Report

Pursuant to the requirements of 10 CFR 50.36a(a)(2) and Seabrook Station Technical Specification 6.8.1.3, NextEra Energy Seabrook, LLC submits the 2019 Annual Radiological Environmental Operating Report. The report summarizes the implementation of the NextEra Energy Seabrook, LLC Radiological Environmental Monitoring Program (REMP). Attachment 1 to the report is the complete data set for the REMP samples.

A copy of this report is also being provided to the Commonwealth of Massachusetts, Department of Public Health; and the State of New Hampshire, Bureau of Radiological Health.

Should you require further information regarding this matter, please contact David Robinson, Chemistry and Radiation Protection Department Manager, at (603) 773-7496.

Sincerely,

NextEra Energy Seabrook, LLC

Kenneth Browne
Safety Assurance and Learning Site Director

cc: with enclosure

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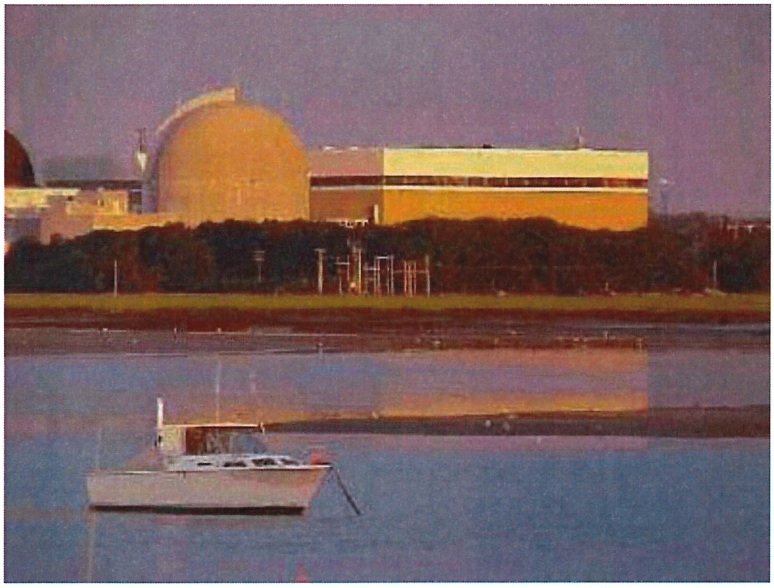
NEXTera ENERGY SEABROOK

2019 Annual Radiological Environmental Operating Report



April 2020

SEABROOK STATION

ANNUAL RADIOLOGICAL ENVIRONMENTAL OPERATING REPORT

For the Period

January - December 2019

Docket No. 50-443

Prepared By:

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Chemistry Department
Seabrook Station

And

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David Robinson, NextEra Energy Seabrook, LLC

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Executive Summary

Both the plant operations and Dry Fuel Storage Radiological Environmental Monitoring Programs (REMP) for Seabrook Station operated successfully for the period of January through December 2019. This report describes the REMP and its implementation as required by Technical Specifications and as defined in the Offsite Dose Calculation Manual (ODCM). It also contains analytical results, data evaluation, dose assessment (as needed), and data trends for each environmental sample medium. Also included are the results of the Land Use Census, historical data, and the environmental laboratory performance in the Quality Assurance Inter-comparison Program required by the ODCM.

Radioactivity levels in the vicinity of Seabrook Station from January 1 through December 31, 2019 in air, water, sediment, milk, fish, food crops, and vegetation, as well as direct radiation measurements have been analyzed, evaluated, and summarized. The results of the REMP are intended to supplement the results of the radiological effluent monitoring by verifying that any measurable concentration of radioactive materials and levels of radiation are not higher than expected on the basis of the effluent measurement and modeling of the environmental exposure pathways.

Radiation and radioactivity in the environment is monitored within a 10-mile radius of the site. Two types of samples are taken. The first type, control samples, is collected from areas that are beyond measurable influence of Seabrook Station. These samples are used as reference data. Normal background radiation levels, or radiation present due to causes other than Seabrook Station, can thus be compared to the environment surrounding the nuclear power station. Indicator samples are the second sample type obtained. These samples show how much measureable radiation or radioactivity (if any) is contributed to the environment by the site. Indicator samples are taken from areas close to the station where any plant contribution will be at the highest potential concentration. The ODCM minimum required plant operations REMP included the collection for 2019 of at least 576 samples, with a total of 2416 individual measurement analyses. In 2019, the total number of sample analysis sets (both required and non-required) equaled 825 taken from 100 locations around Seabrook Station. These were collected from aquatic, atmospheric, and terrestrial environments. An estimated 5007 individual measurement analyses were performed on these samples. The plant operations radiological environmental monitoring program is outlined in Table 2.0-1. Radiation environmental monitoring associated with Dry Fuel Storage (DFS) in 2019 included an additional 22 TLD direct radiation measurements beyond those listed as being part of the REMP. The DFS environmental monitoring program is shown on Table 4.0-1.

Prior to station operation, samples were collected and analyzed to determine the amount of radioactivity present in the area. The resulting values are used as a "pre-operational baseline." Current analysis results from the indicator samples are compared to both current control sample values and the pre-operational baseline to determine if changes in radioactivity levels are attributable to station operations.

A report is required to be submitted to the Nuclear Regulatory Commission when the level of radioactivity as a result of plant operations in an environmental sampling medium at a specified location exceeds the reporting level limits specified in the ODCM when averaged over any calendar quarter. Also, when more than one of the radionuclides is detected in the sampling medium, this report shall be submitted if:

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

Based on the analytical results of environmental samples during 2019, Seabrook Station reporting levels were not exceeded.

All off-site radioactivity detected was attributable to either naturally-occurring radionuclides, previous nuclear weapons tests, the Fukushima Daiichi nuclear accident in Japan on March 11, 2011, or other man-made sources.

In 2019, the maximum whole body dose to the hypothetically exposed individual due to Seabrook Station effluents and operations was estimated to be 0.0795 mrem. This whole body dose is the sum of all the exposure pathways for liquid and gaseous effluents, plus the direct whole body dose from station sources. This total represents approximately 0.32% of the whole body dose limits for a member of the public as set forth in 40CFR190.

The average effective dose per individual in the U.S. population from ubiquitous or background radiation sources is about 3.11 mSv/yr (311 mrem/yr), with another 3.00 mSv/yr (300 mrem/yr) resulting from medical procedures and imaging (NCRP Report No. 160, "Ionizing Radiation Exposure of the Population of the United States" (2009)). The estimate for natural background includes radon gas which has always been present but has not always been included in previous estimates. In some regions of the country, the amount of natural radiation is significantly higher. Residents of Colorado, for example, receive an additional 60 mrem/yr due to the increase in cosmic and terrestrial radiation levels. In fact, for every 100 feet above sea level, a person will receive an additional 1 mrem/yr from cosmic radiation. In several regions of the world, naturally high concentrations of uranium and radium deposits result in doses of several thousand mrem/yr to their residents (CRC Handbook. "Radioecology: Nuclear Energy and the Environment", F. Ward Whicker and Vincent Schultz, Volume I, 1982).

Analytical results are divided into four categories based on exposure pathways: Airborne, direct radiation, ingestion, and waterborne. Each of these pathways is described below:

- The airborne exposure pathway includes airborne iodine and airborne particulate. The 2019 results were similar to previous years, excluding the Fukushima Daiichi event in 2011. There was no notable increase in natural products and no detectable fission products or other plant-related radionuclides in the airborne particulate media during the year.

- The direct exposure pathway measures environmental radiation exposures by use of thermoluminescent dosimeters (TLDs). TLD results have indicated a trend that compares with previous years which reflect the natural variability of background radiation from one location to another. The exposure rate response at some individual monitoring stations has exhibited step changes at some point in the past that appear to be related to changes in local conditions in the area of the dosimeter measurement. These step observations have been noted at various locations (both control and indicator stations) with no correlation with distance from Seabrook Station, leading to the conclusion that the changes in local TLD responses are not related to Seabrook operations. As a result, no detectable radiation contribution from Seabrook Station sources was identified via TLD environmental measurements off-site during the course of 2019 from either plant operations or from the spent fuel in the Dry Fuel Storage Facility.

- The ingestion exposure pathway includes milk, fish, shellfish, terrestrial food products and leafy vegetation samples. The gamma spectroscopy analyses indicated the most prominent positive results were for potassium-40 (K-40) at average environmental levels. Other naturally-occurring radionuclides were also periodically detected. However, past world-wide nuclear events such as atmospheric testing of nuclear weapons and the Fukushima Daiichi nuclear accident did result in detectable fallout of fission related radioactivity (Cs-137) in leafy vegetation (at a Control Station) and milk. Neither fish, shellfish, nor terrestrial food products (strawberries) had any detectable fission product related radioactivity. No radionuclides related to plant effluents were detected in any of these sample media during 2019. For the one fission product (Cs-137) detected in milk and vegetation, the concentration falls within the range of past and pre-operational measurements and can be attributed to past weapons testing fallout.

- The waterborne exposure pathway includes surface (ocean) water, drinking water supply, shallow well water, sea algae (Irish Moss) and sediment. Water samples were analyzed for tritium, gross-beta and gamma-emitting radionuclides. Irish Moss was analyzed for gamma-emitting radionuclides. Tritium was not identified in the water samples analyzed. For groundwater, the gross beta activity detected at all locations is similar to what was detected in the pre-operational program and is consistent with results from previous years of commercial operations. Gamma analysis of samples indicated no plant-related gamma-emitting radionuclides above detection limits.

The results of the 2019 REMP continue to clearly demonstrate that there is no significant short term or chronic long-term radiological impact on the environment in the vicinity of Seabrook Station from plant operations and that there is no detectable impact to members of the public associated with the DFS facility. The REMP monitoring did detect local area fallout related to past global nuclear events, such as atmospheric weapons testing and the Japanese nuclear accident in March 2011, thereby demonstrating the sensitivity and capability of the REMP to detect low level radiological changes in the environment and the likely source. The

REMP confirmed that plant effluents in 2019 did not contribute measurable radiation exposure to the general public. This finding is consistent with previous years' monitoring conclusions. As a result, no increasing or changing trends in plant related radiological impacts on the environment are found.

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1.0 Introduction

NextEra Energy Seabrook, LLC's Radiological Environmental Monitoring Program (REMP) consists of two interconnected sample collection and measurement schedules that look for environmental influences from: (1) plant operations which release to the environment radioactive materials in liquid and gaseous effluents, and direct radiation from plant facilities inside the power block Protected Area, and (2) direct radiation from used fuel placed in the Dry Fuel Storage (DFS) facility located in the West Southwest sector approximately 0.38 miles from the Containment Building. Several monitoring locations provide data that are shared or used in the assessment of both plant and DFS operations.

The plant operations REMP at Seabrook Station has been designed and carried out to achieve the following specific objectives:

- To provide an indication of the appearance or accumulation of any radioactive material in the environment caused by the operation of the nuclear power station.
- To provide assurance to regulatory agencies and the public that the station's environmental impact is known and within anticipated limits.
- To verify the adequacy and proper functioning of station effluent controls and monitoring systems.
- To provide standby monitoring capability for rapid assessment of risk to the general public in the event of unanticipated or accidental releases of radioactive material.

In July 2008, the plant operations REMP was supplemented with the DFS environmental monitoring for direct radiation when used nuclear fuel assemblies were for the first time transferred to the on-site DFS facility located WSW of the power block.

NextEra Energy Seabrook, LLC staff collected the terrestrial samples. Normandeau Associates, Inc. collected the marine and sediment samples. After initial sample preparation for shipment, the samples were sent to GEL Laboratories, Inc. of Charleston, SC for analysis. The Environmental Dosimetry Company located in Sterling, MA processed the environmental TLDs for the entire year.

This report is a summary of the findings of the REMP for 2019. It is being provided in compliance with Part A of Seabrook Station's ODCM and Technical Specification 6.8.1.3.

2.0 Plant Operations Environmental Monitoring Program

Table 2.0-1 outlines the plant operations monitoring program as specified in the Seabrook Station ODCM, Part B, Section 4. Table 2.0-2 lists the operational sampling stations and their specific locations (distances are measured from the center of the Unit 1 Containment Building). The sampling locations are shown on maps in Figures 2.1 through 2.6. The sampling and analysis program as described above fulfills the minimum requirements for environmental sample collection and analysis as contained in ODCM Table A.9.1-1, and includes additional sampling of various pathways and locations beyond the minimum requirements.

Below are listed the two-letter media codes and what they represent:

AP	Air Particulate
CF	Charcoal Filter
TM	Milk
WG	Ground Water
WS	Surface (Sea) Water
SE	Sediment
FH	Fish
HA	Lobsters
MU	Mussels (Shellfish – edible portion only)
MS	Mussels (Shellfish – shell portion only)
TL	Direct Radiation (TLD)
AL	Irish Moss (algae)
TF	Food Crop
TG	Vegetation (broad-leaf)

Table 2.0-1

Plant Operations Radiological Environmental Monitoring Program

Media	Sampling Frequency	Required Analyses
Air Particulate (AP)	-Bi-Weekly -Quarterly Composite	Gross Beta Gamma spectroscopy
Charcoal Filter (CF)	-Bi-Weekly	I-131
Milk (TM)*	-Monthly (Semimonthly when animals are on pasture)	Gamma spectroscopy I-131
Surface (Sea) Water (WS)	-Monthly -Quarterly Composite	Gamma spectroscopy H-3 (composite)
Sediment (SE)	-Semiannually	Gamma spectroscopy
Fish & Invertebrates (FH, HA, MU)	-Quarterly or -Semiannually	Gamma spectroscopy
Direct Radiation (TL)	-Quarterly	Integrated gamma exposure
Irish Moss (AL)	-Semiannually	Gamma spectroscopy
Ground Water (WG)	-Quarterly	Gamma spectroscopy Gross Beta H-3
Food Crops (TF)	-Monthly/Growing Season	Gamma spectroscopy
Vegetation (TG)	-Monthly/Growing Season	Gamma spectroscopy I-131

* Note that broad leaf vegetation is substituted for milk due to insufficient number of required milk sampling locations in the site area.

Table 2.0-2

Plant Operations Radiological Environmental Monitoring Locations[a] [b]
2019

Station Code (Media - Sta. No.)	Station Description	Zone	Approx. Distance From Plant (km)	Direction From Plant
AP/CF-01+	PSNH Barge Landing Area	1	2.6	ESE
AP/CF-02+	Hampton Marina (Harbor Rd)	1	2.5	E
AP/CF-03+	Southwest Boundary (Rock Pile)	1	1.0	SW
AP/CF-04+	West Boundary (Plate Yard)	1	1.2	W
AP/CF-05	Winnacunnet High School	1	4.0	NNE
AP/CF-07+	PSNH Substation	1	5.7	NNW
AP/CF-08	E&H Substation	1	3.4	SSE
AP/CF-09+	Georgetown Electric Light Co.	2	21.4	SSW
TM-15	Hampton Falls, NH	1	6.9	NW
WG-01	Seabrook Town Wells	1	5.6	W
WG-13	Seabrook Station Well No.13	1	1.0	N
WG-14	Brimmer's Lane	1	1.3	NNW
WS-01+	Hampton-Discharge Area	1	5.1	E
WS-51+	Ipswich Bay	2	26.2	SSE
WS-10 *	Seabrook Marsh	1	0.18	SSE
SE-02	Hampton-Discharge Area	1	5.2	E
SE-07	Hampton Beach	1	3.3	E
SE-08+	Seabrook Beach	1	3.3	ESE
SE-52	Ipswich Bay	2	26.2	SSE
SE-57	Plum Island Beach	2	22.4	SSE
FH-03+	Hampton-Discharge Area	1	5.0	ESE
FH-53+	Ipswich Bay	2	23.3	SSE
FH-06	Hampton-Discharge Area	1	5.2	E
HA-04+	Hampton-Discharge Area	1	5.1	E
HA-54+	Ipswich Bay	2	27.9	SSE
MU-06+	Hampton-Discharge Area	1	5.2	E
MU-09	Hampton Harbor	1	2.5	E
MU-56+	Ipswich Bay	2	28.6	SSE
MU-59	Plum Island	2	22.0	SSE
MS-06	Hampton-Discharge Area	1	5.2	E
MS-56	Ipswich Bay	2	28.6	SSE
AL-05	Hampton-Discharge Area	1	5.2	E
AL-55	Ipswich Bay	2	28.7	SSE
TF-02	Hampton Falls, NH	1	5.0	WNW
TF-03	Salisbury, MA	1	5.1	SW
TF-06	Ipswich, MA	2	26.0	S

Table 2.0-2 (Cont'd)

Plant Operations Radiological Environmental Monitoring Locations[a] [b]
2019

Station Code (Media - Sta. No.)	Station Description	Zone	Approx. Distance From Plant (km)	Direction From Plant
TG-08+	North Access Rd, Site Boundary	1	1.05	W
TG-09+	General Office Bld. Site Boundary	1	0.97	SW
TG-10+	Georgetown Electric Light Co.	2	21.4	SSW
TL-01+	Brimmer's Lane, Hampton Falls	I	0.97	N
TL-02+	Landing Road, Hampton	I	3.0	NNE
TL-03+	Glade Path, Hampton Beach	I	2.9	NE
TL-04+	Island Path, Hampton Beach	I	2.3	ENE
TL-05+	Harbor Road, Hampton Beach	I	2.5	E
TL-06+	PSNH Barge Landing Area	I	2.7	ESE
TL-07+	Cross Road, Seabrook Beach	I	2.6	SE
TL-08+	Farm Lane, Seabrook	I	1.3	SSE
TL-09+	Farm Lane, Seabrook	I	1.3	S
TL-10+	Site Boundary Fence	I	1.1	SSW
TL-11+	Site Boundary Fence	I	1.0	SW
TL-12+	Site Boundary Fence	I	1.2	WSW
TL-13+	Inside Site Boundary	I	1.2	W
TL-14+	Trailer Park, Seabrook	I	1.3	WNW
TL-15+	Brimmer's Lane, Hampton Falls	I	1.4	NW
TL-16+	Brimmer's Lane Hampton Falls	I	1.2	NNW
TL-17+	South Road, North Hampton	0	7.8	N
TL-18+	Mill Road, North Hampton	0	7.6	NNE
TL-19+	Appledore Avenue, North Hampton	0	7.7	NE
TL-20+	Ashworth Avenue, Hampton Beach	0	3.2	ENE
TL-21+	Route 1A, Seabrook Beach	0	3.7	SE
TL-22+	Cable Avenue, Salisbury Beach	0	7.6	SSE
TL-23+	Ferry Road, Salisbury	0	8.1	S
TL-24+	Ferry Lots Lane, Salisbury	0	7.2	SSW
TL-25+	Elm Street, Amesbury	0	7.6	SW
TL-26+	Route 107A, Amesbury	0	8.1	WSW
TL-27+	Highland St. S. Hampton	0	7.5	W
TL-28+	Rte. 150, Kensington	0	7.5	WNW
TL-29+	Frying Pan Ln., Hampton Falls	0	7.2	NW
TL-30+	Route 27, Hampton	0	7.6	NNW

Table 2.0-2 (Cont'd)

Plant Operations Radiological Environmental Monitoring Locations[a] [b]
2019

Station Code (Media - Sta. No.)	Station Description	Zone	Approx. Distance From Plant (km)	Direction From Plant
TL-31+	Alumni Drive, Hampton	S	3.8	NNE
TL-32+	Seabrook Elementary School	S	2.0	S
TL-33+	Dock Area, Newburyport	S	9.8	S
TL-34+	Bow Street, Exeter	S	12.0	NW
TL-35+	Lincoln Ackerman School	S	2.3	NNW
TL-36+	Route 97, Georgetown	2	22.6	SSW
TL-37+	Post Office Plaistow, NH	2	21.5	WSW
TL-38+	Emerson St. Hampstead, NH	2	27.7	W
TL-39+	Fremont, NH	2	27.0	WNW
TL-40+	Newmarket, NH	2	21.6	NNW
TL-41	Portsmouth, NH	2	21.0	NNE
TL-42	Ipswich, MA	2	22.8	SSE
TL-44	Education (Science & Nature) Center	S	0.6	SW
TL-45	Hampton Fire Station	S	4.4	NE
TL-46	Seabrook Beach (near Police Station)	S	2.8	ESE
TL-47	Hampton Falls, NH	S	4.1	WNW

Zone indices are: 1 = Indicator Stations; 2 = Control Stations; 0 = Outer Ring TLD;
I = Inner Ring TLD; S = Special Interest TLD

+ = Sample Locations required by the Off-Site Dose Calculation Manual (ODCM)
* Note that WS-10 is the same location as WS-02 reported in previous reports.

(a) Dry Fuel Storage (DFS) locations are listed on Table 4.0-1.

(b) Table reflects those locations included in the 2019 sample collection program.

Figure 2.1 Radiological Environmental Monitoring Locations Within 4 Km of Seabrook Station

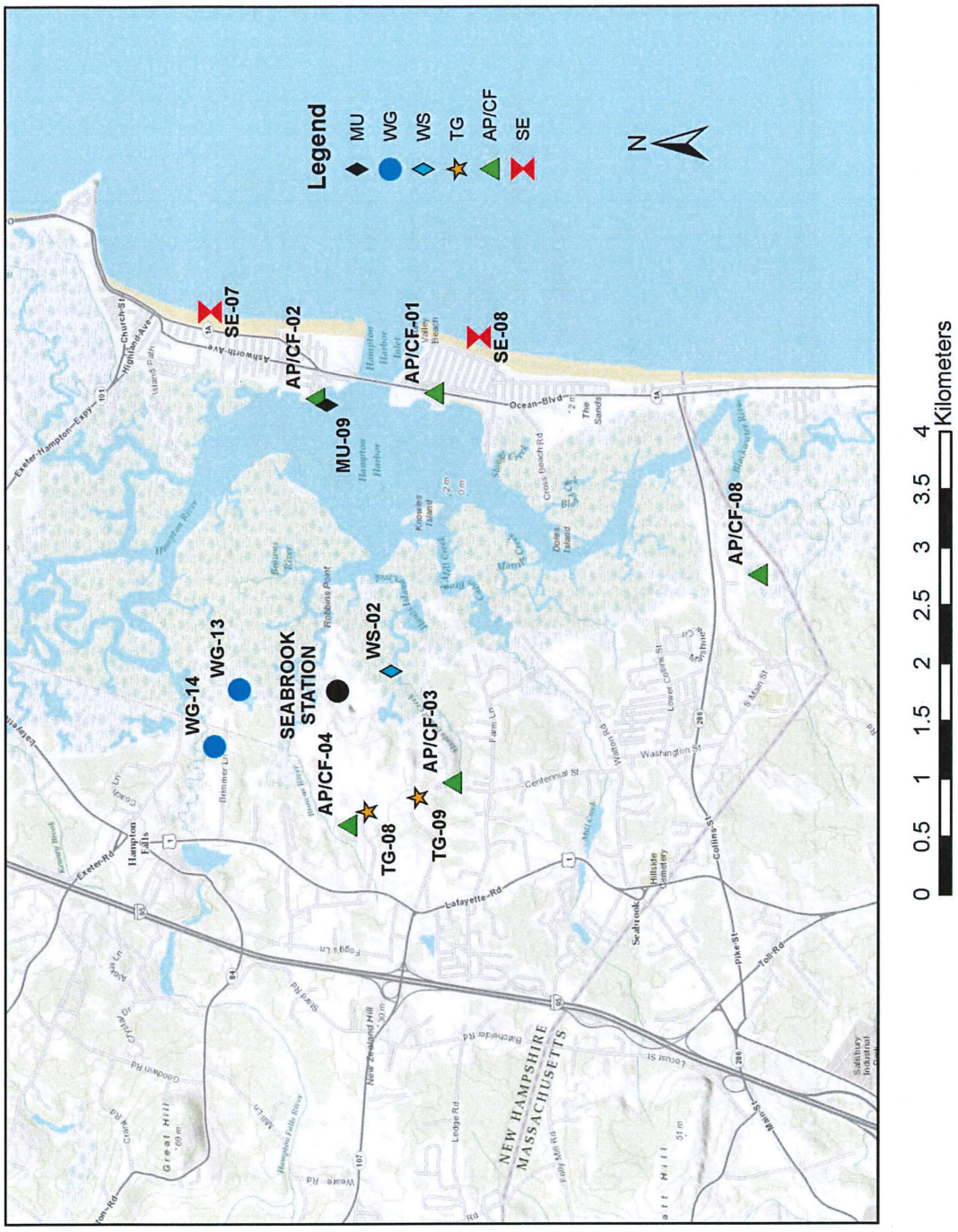


Figure 2.2 Radiological Environmental Monitoring Locations Between 4 & 12 Km of Seabrook Station

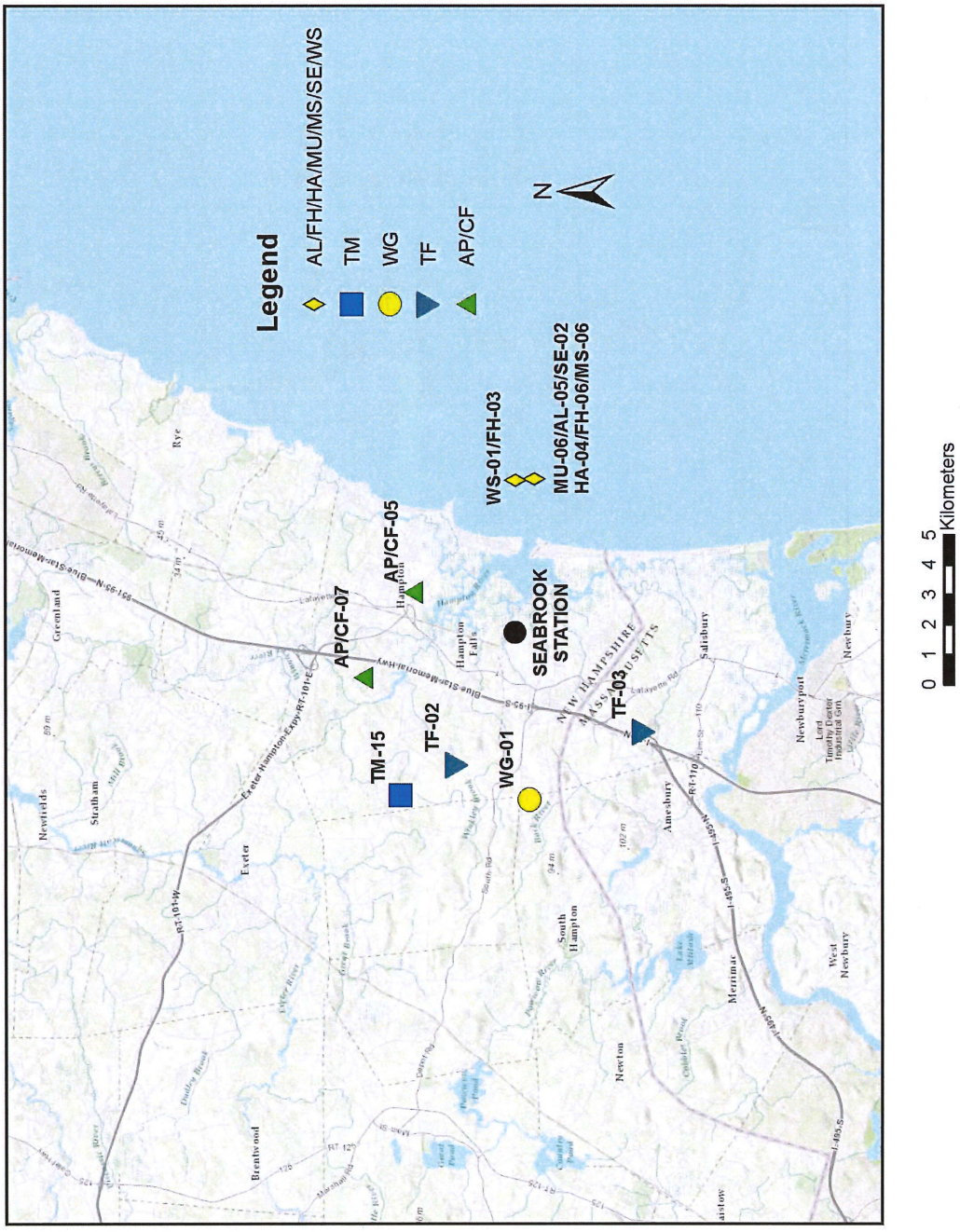


Figure 2.3 Radiological Environmental Monitoring Locations Outside 12 Km of Seabrook Station

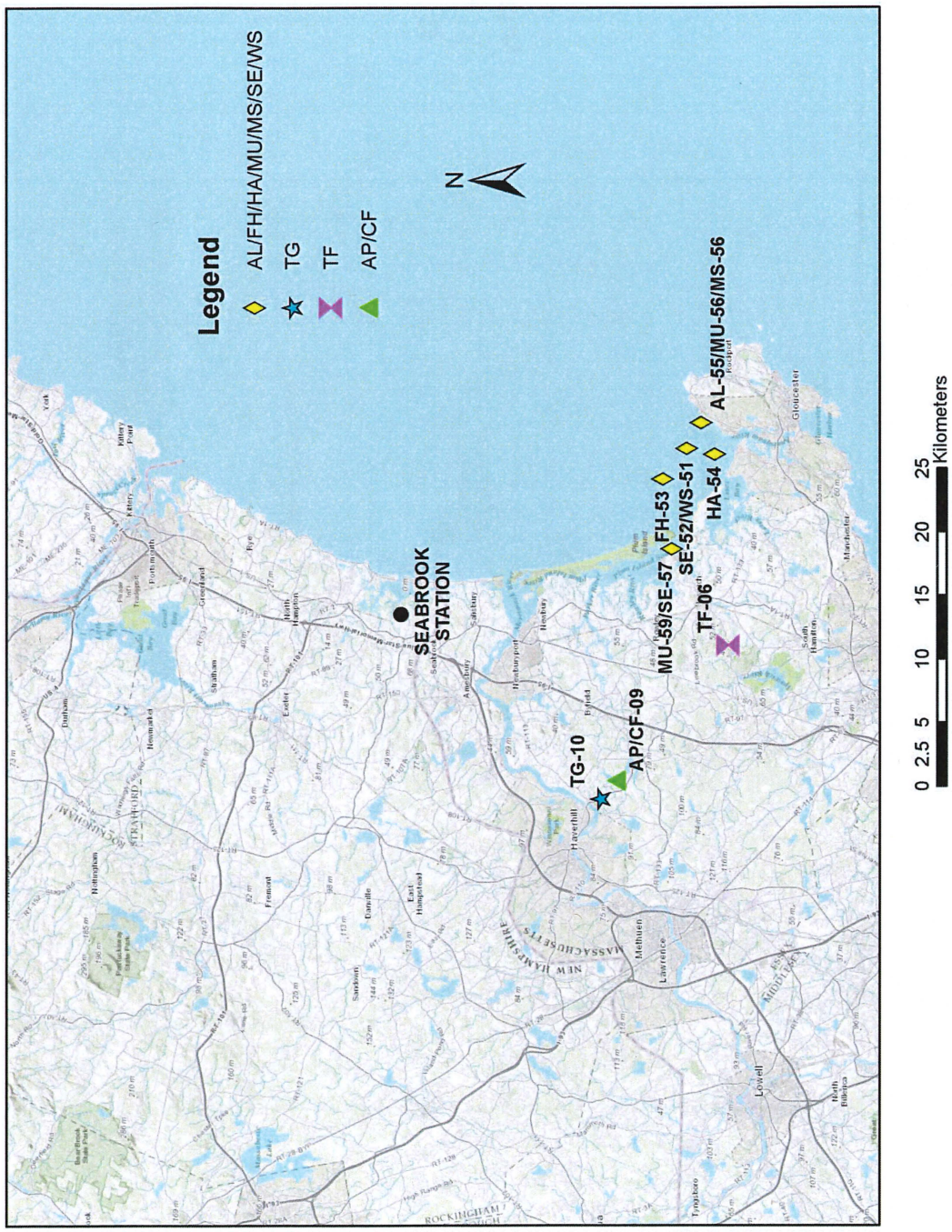


Figure 2.4 Direct Radiation Monitoring Locations Within 4 Km of Seabrook Station

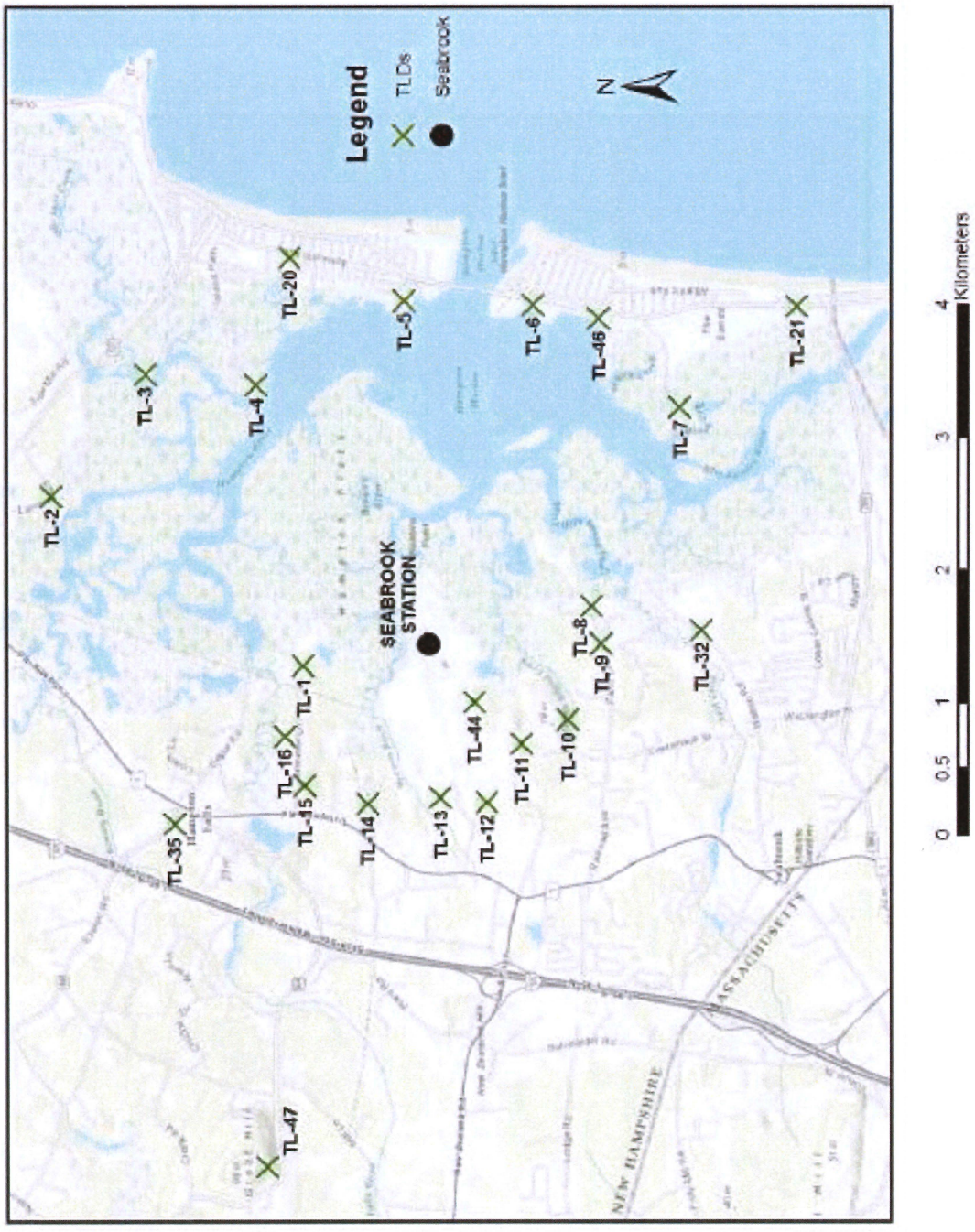


Figure 2.5 Direct Radiation Monitoring Locations Between 4 & 12 Km of Seabrook Station

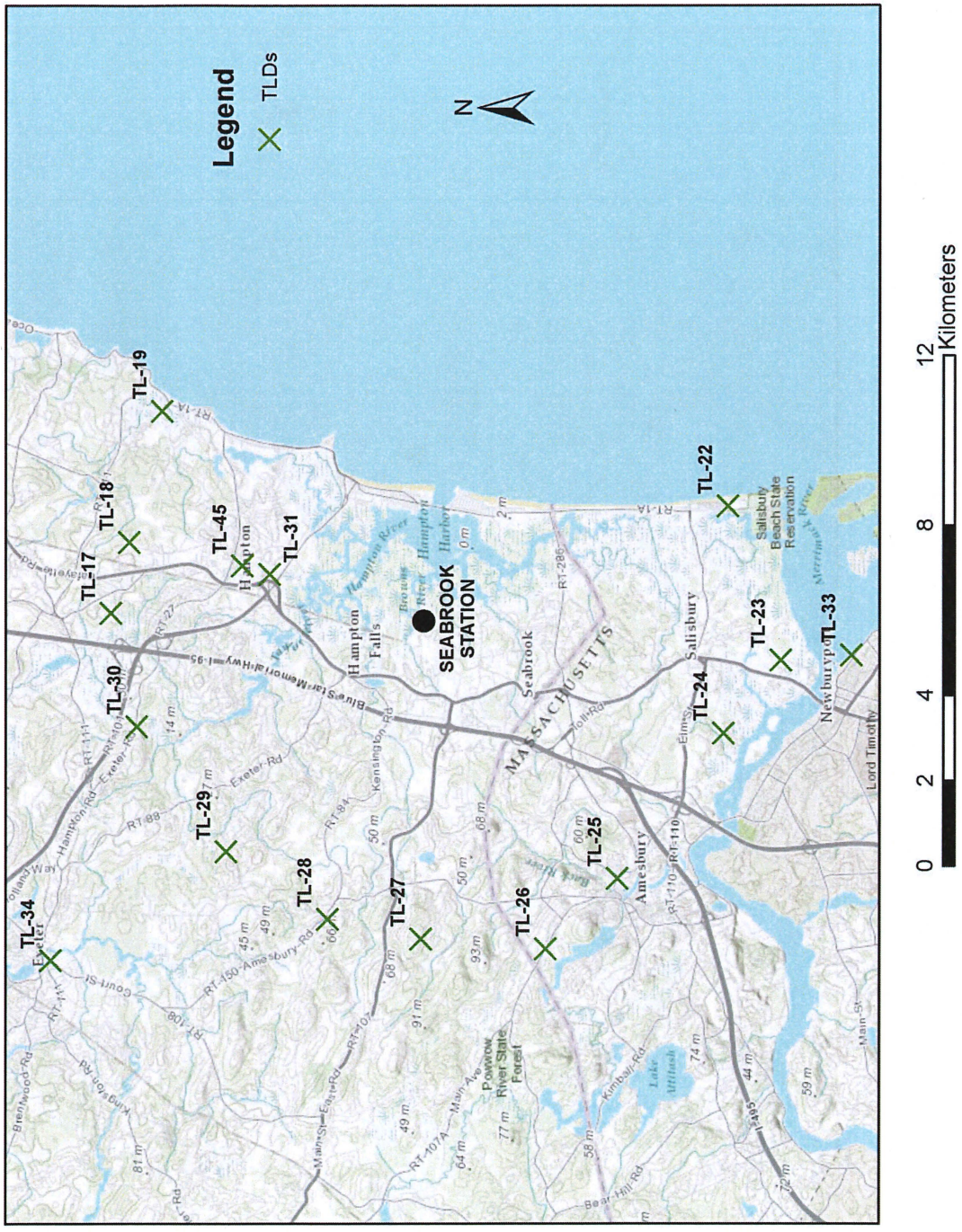
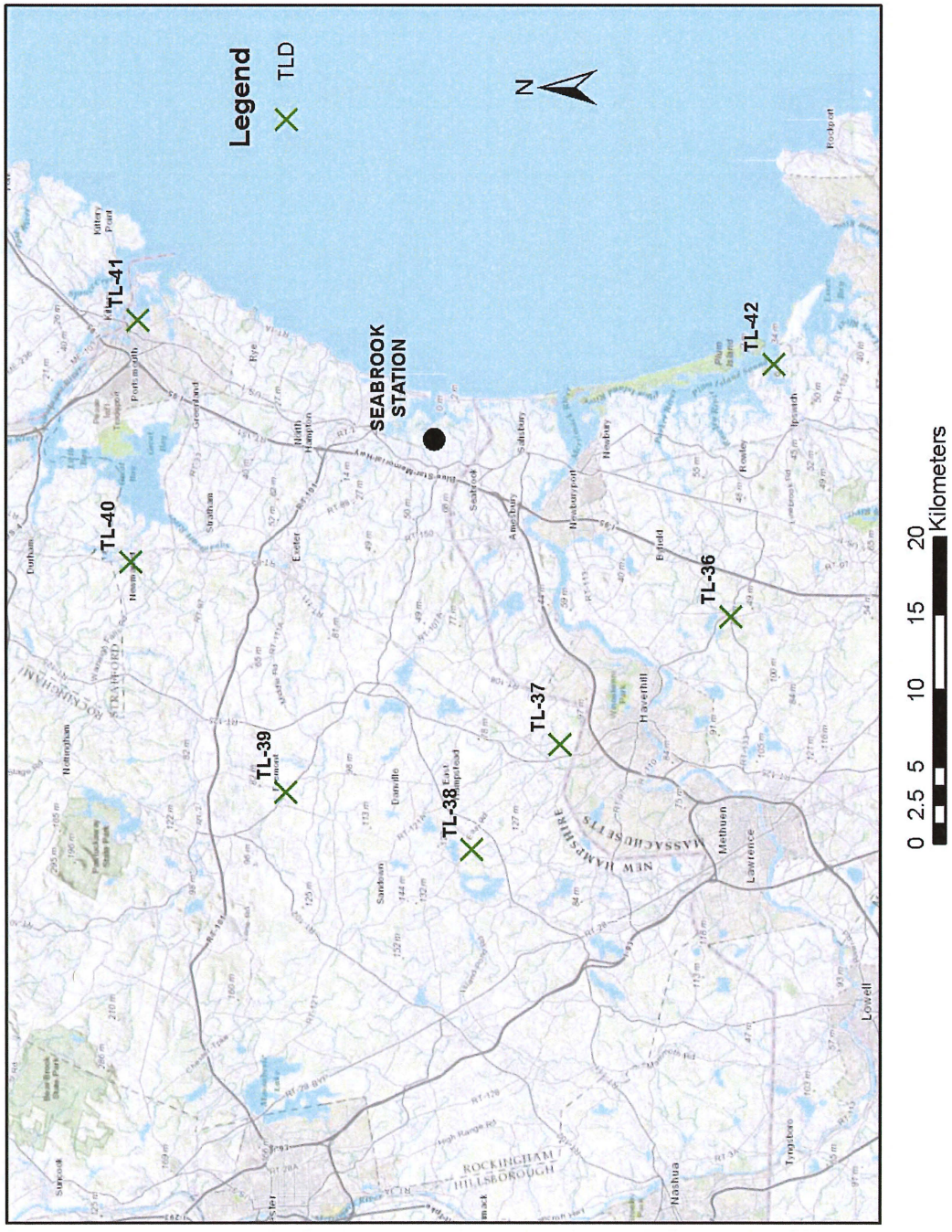


Figure 2.6 Direct Radiation Monitoring Locations Outside 12 Km of Seabrook Station



3.0 Summary of Plant Operations Radiological Environmental Monitoring Data

The following pages summarize the analytical results of the plant operations environmental samples collected in 2019. Each environmental media category is presented as a separate subsection. A table that summarizes the data follows a discussion of the sampling requirements and results for each media type. Listed at the top of each table are the units of measurement for each medium. The left-hand column contains the radionuclide which is being reported, total number of analyses of that radionuclide, and the number of measurements that exceed the required reporting level as documented in Table A.9.1-3 of the ODCM. The latter are classified as "non-routine" measurements. The next column lists the Lower Limit of Detection (LLD) for those radionuclides that have detection capability requirements specified in the ODCM.

Those sampling stations which are adjacent to the plant and which could conceivably be affected by the operation of Seabrook Station are called "Indicator" or "Zone 1" stations. Distant stations, which are beyond potential plant influences, are called "Control" or "Zone 2" stations.

A set of statistical parameters is calculated for each radionuclide. This set of statistical parameters includes separate analyses for (1) the indicator stations, (2) the station having the highest annual mean concentration for that radionuclide, and (3) control stations. For each of the three groups of data, these parameters are as follows:

- The mean value of all concentrations,
- The range of values and
- The number of positive measurements (a concentration which is greater than the MDC for the measurement) divided by the total number of measurements.

Each radioactivity measurement datum in this report is based on a single measurement and is reported as a concentration plus or minus a one standard deviation uncertainty. The quoted uncertainty term represents only the random uncertainty associated with the radioactive decay process (counting statistics), and not the propagation of all possible uncertainties in the analytical procedure.

Attachment 1 contains the data for the samples collected in 2019. The results are organized as follows: (1) by sample type; (2) within each sample type the data are alphabetical by nuclide; and (3) within each radionuclide listing the data are chronologically arranged by end date (date of sample collection).

The radionuclide value concentrations have been corrected for radioactive decay. For composite samples, such as air particulates and airborne iodine, the GEL laboratory uses the mid-point of the collection period as the reference for decay correction until time of analysis.

3.1 Air Particulate

Air monitoring stations were established at a total of eight locations, six locations required by the ODCM, Table A.9.1-1, and two additional sites included to supplement the program. Seven of the locations are indicators, while the remaining one is a control station located more than 21 km away from the plant.

Airborne particulates (AP) are collected by passing the air through a glass-fiber filter. In 2019, these filters were typically collected bi-weekly and held for a period (typically 100 hours or more) before being analyzed for gross-beta activity (indicated as BETA in Table 3.1-1) to allow for the decay of Radon and Thoron daughter products. Continuous automated and real-time remote monitoring of vital air sampling system parameters is performed with telemetry that detects power outages, pump failures, filter degradation, tubing failures and excessive filter loading. The telemetry communicates by cellular transmission to a web server that communicates to a shift technician's pager when set-point thresholds are reached, providing 24/7 alert notification. This capability provides for timely identification of problems and corrective actions that reduce the potential loss of air sampling. If periods of high dust loading during the collection period cause a higher than normal differential pressure drop across the collection filters, the collection period may be reduced to weekly cycles to reduce the dust loading. There were no recorded collection cycle reductions due to dust loading in 2019. For the year, 207 particulate filters were collected and analyzed for gross beta activity.

The 2019 gross beta activity analyses for the indicator locations were found to be statistically equivalent to that seen at the control station (positive activity for all samples). The gross beta results are also similar to what was seen in the pre-operational program and for the last thirty years of commercial operation, with the exception of the Fukushima Daiichi related spike in 2011. All filter samples from all stations showed similar trends lines (see Figure 3.1) over the course of the year and from previous years (see Figures 3.1.1, 3.1.2, and 3.1.3). Figure 3.1.4 compares the quarterly average gross beta response of all indicator air sampling stations to the control location over the last 25 years, and shows no significant difference in the two data sets. It is also noted that no plant-related radionuclides (by gamma spectroscopy) were identified in any of the quarterly filter composite samples for 2019. The overall fluctuations at all stations seen in the gross beta activity throughout the year can be attributed to changes in environmental conditions unrelated to plant operations. Natural environmental processes such as wind direction, precipitation, snow cover, and soil temperature and moisture affect concentrations of naturally-occurring radionuclides in the atmosphere directly above land.

Gamma isotopic analyses of particulate filters are summarized on Table 3.1-1. The only radionuclides detected were naturally-occurring Be-7, which indicated positive in all air particulate samples, K-40 which was positive in seven samples and Th-228, which was positive in one sample. Be-7 is of cosmogenic origin, and its presence is consistent with previous years in both the pre-operational and operational periods.

Near the end of 2010, analysis of environmental samples was changed from the AREVA Environmental Laboratory to GEL Laboratory after the AREVA lab discontinued operations. In comparing long term trends in gross beta activity, the results since 2011 appear to reflect a step increase at the time of the transition between labs. The reason for the step increase is related to the change in the gross beta counting equipment configurations and reference calibration standards used by the AREVA lab and GEL. Both labs use(d) gas proportional counting of the filter element. However, AREVA applied a Cs-137 calibration source while the GEL lab uses a Tc-99 calibration source. In the case of the AREVA data record, the Cs-137 detection efficiency (typically 34%) was applied to the "gross" counts to determine the apparent activity. This inherently presumes that the radioactivity in a field sample is all Cs-137. In the case of the GEL data record, the Tc-99 efficiency (20.6%), is applied to the same "gross" counts as if all the radioactivity in this case is Tc-99. The end result is two different gross beta radioactivity determinations for the same level of environmental activity. In application, this is not an adverse condition in that the gross beta counting is used as a qualitative indicator of changes in environmental conditions, not as a quantitative measure of the actual radioactivity. Since the comparison of the response curves for each monitoring station, including the control station, are similar over time, the curves indicate that there is no detectable influence from a single nearby point source such as Seabrook Station.

The air particulate sampling program demonstrated no off-site dose to the public or impact to the environment from this pathway as the result of plant operations. This is consistent with previous years

and the pre-operational program. The REMP Summary Table 3.1-1 lists the range of analysis results by radionuclide for Indicator and Control Stations for the air particulate environmental media. Attachment 1 to this report lists the individual analysis results for each measurement of air particulates under the Sample Type code AP.

Air particulate sample collection and analysis deviations from the ODCM required program (if any) are described in Section 5.

FIGURE 3.1

GROSS-BETA MEASUREMENTS OF AIR PARTICULATE FILTERS
SEABROOK STATION

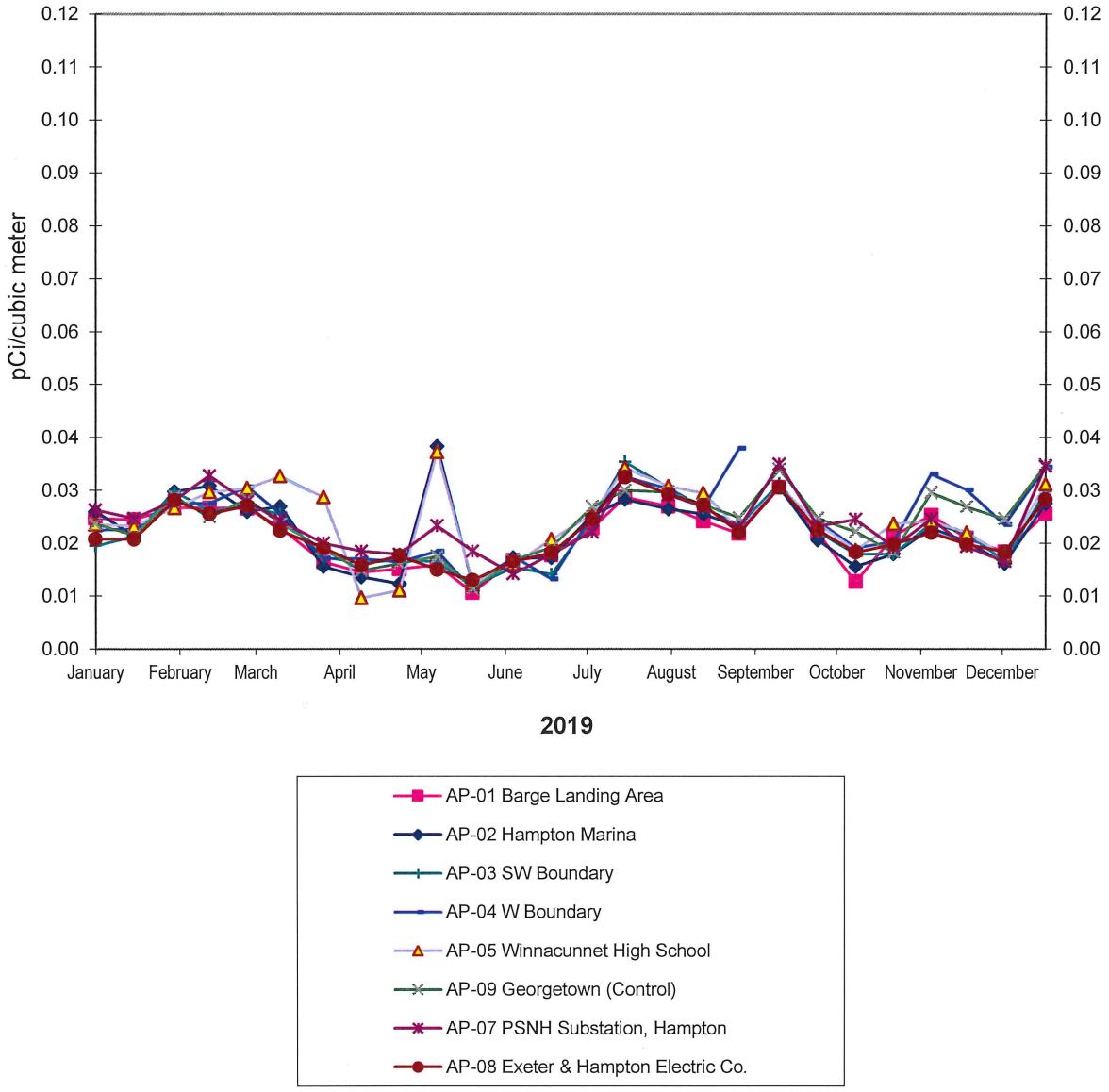


FIGURE 3.1.1

GROSS-BETA MEASUREMENTS OF AIR PARTICULATE FILTERS QUARTERLY AVERAGES
SEABROOK STATION

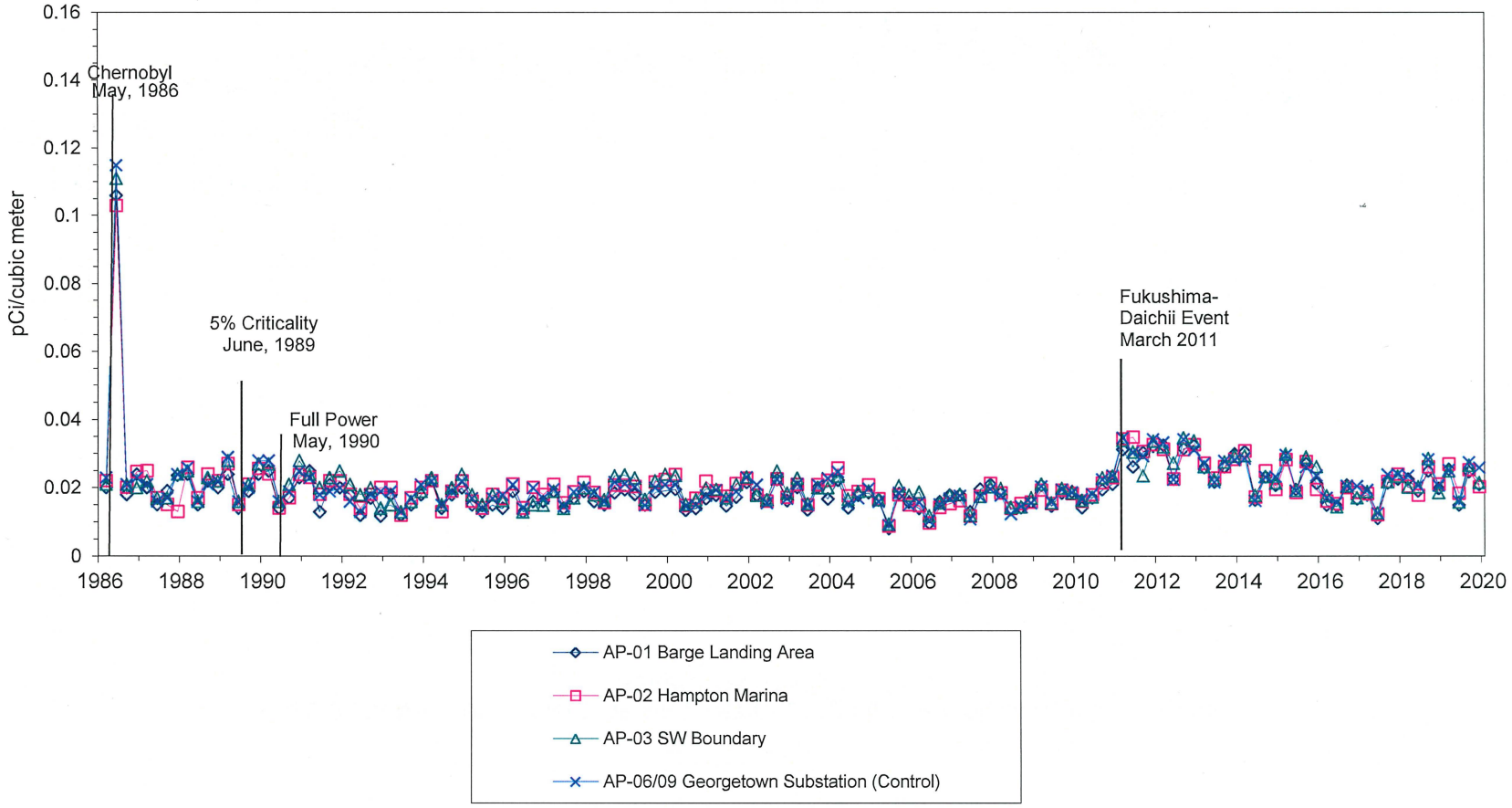


FIGURE 3.1.2

GROSS-BETA MEASUREMENTS OF AIR PARTICULATE FILTERS QUARTERLY AVERAGES
SEABROOK STATION

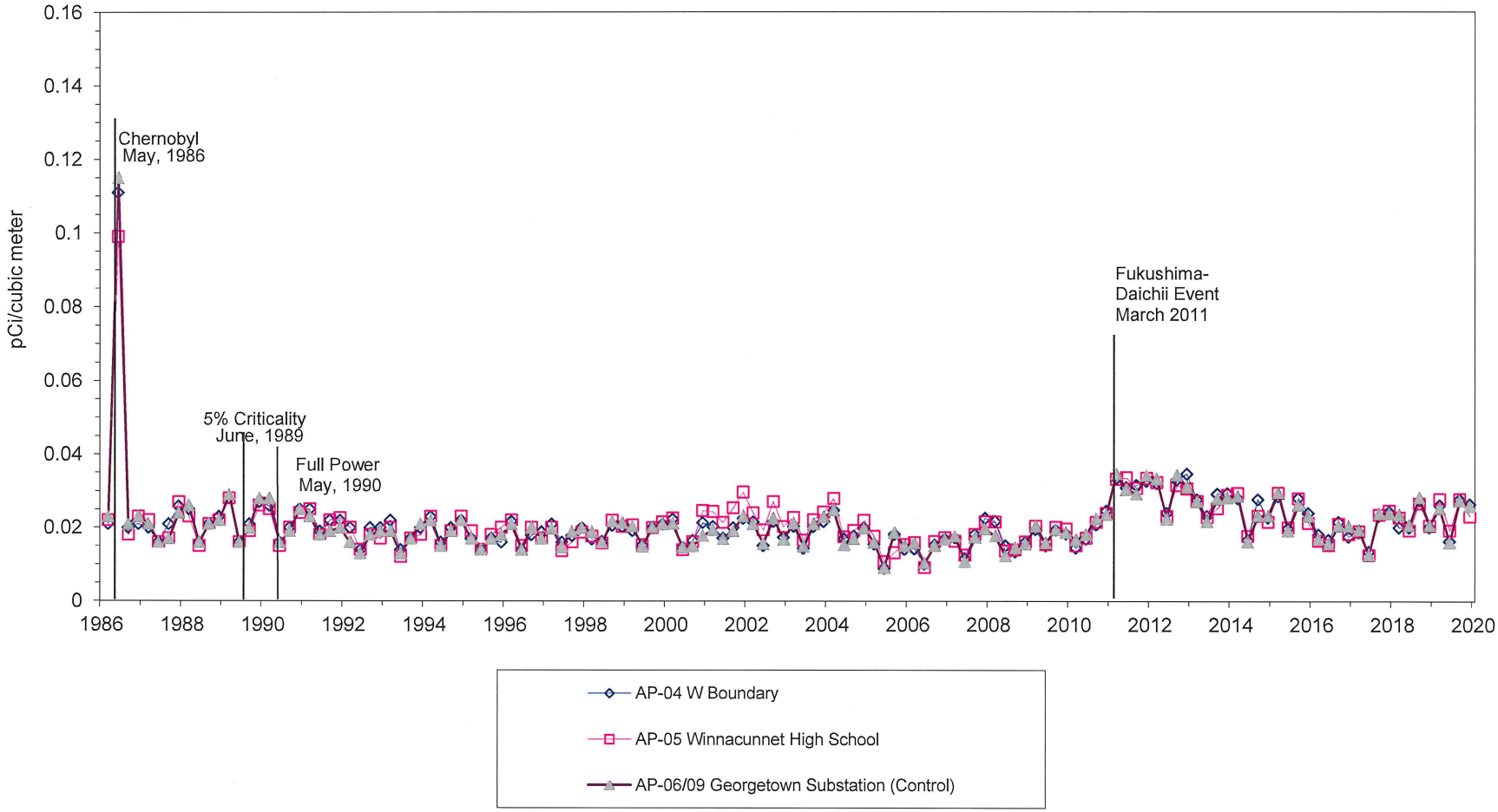


FIGURE 3.1.3

GROSS-BETA MEASUREMENTS OF AIR PARTICULATE FILTERS QUARTERLY AVERAGES
SEABROOK STATION

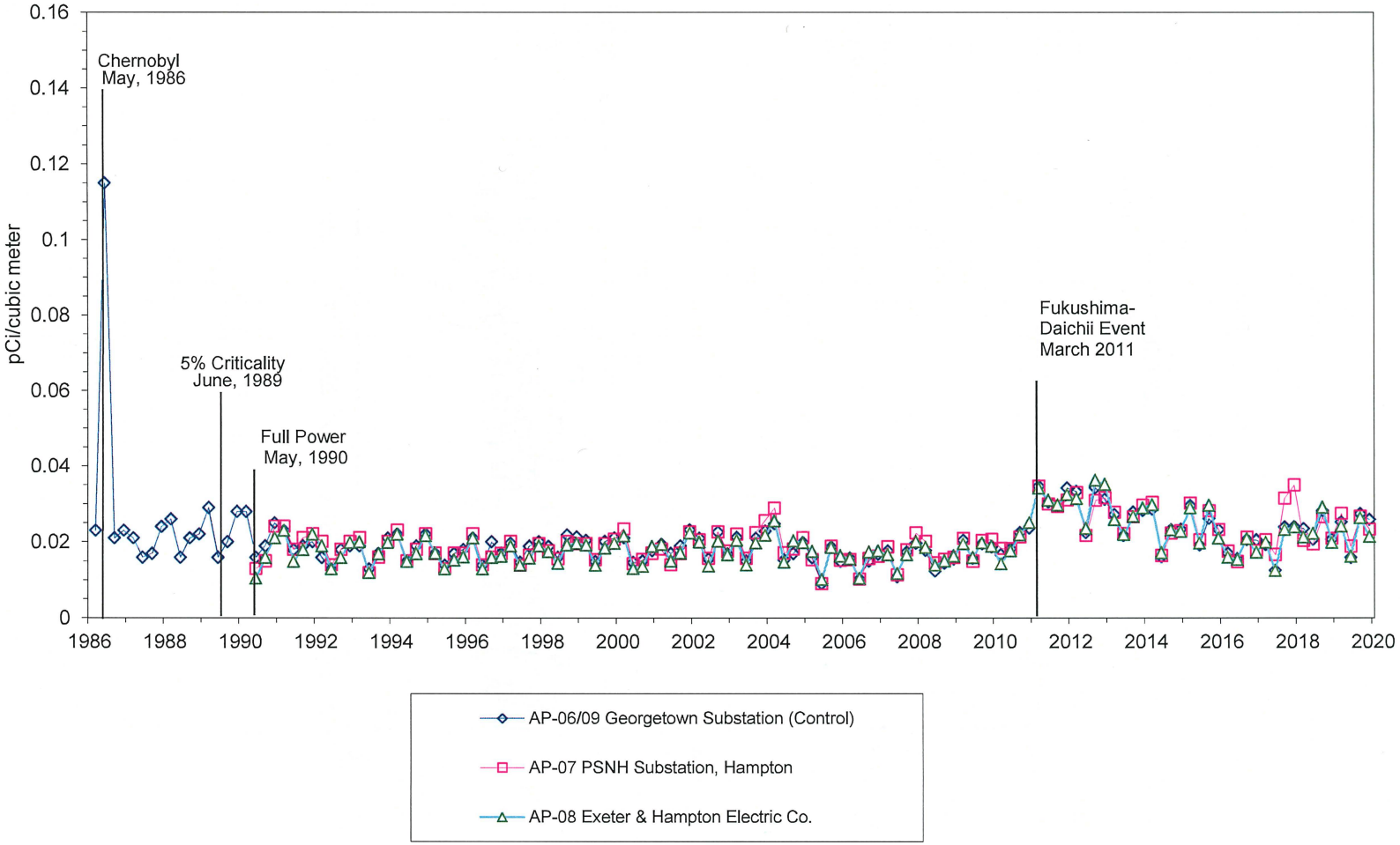


FIGURE 3.1.4

GROSS-BETA ON AIR PARTICULATE FILTERS
QUARTERLY AVERAGES
SEABROOK STATION

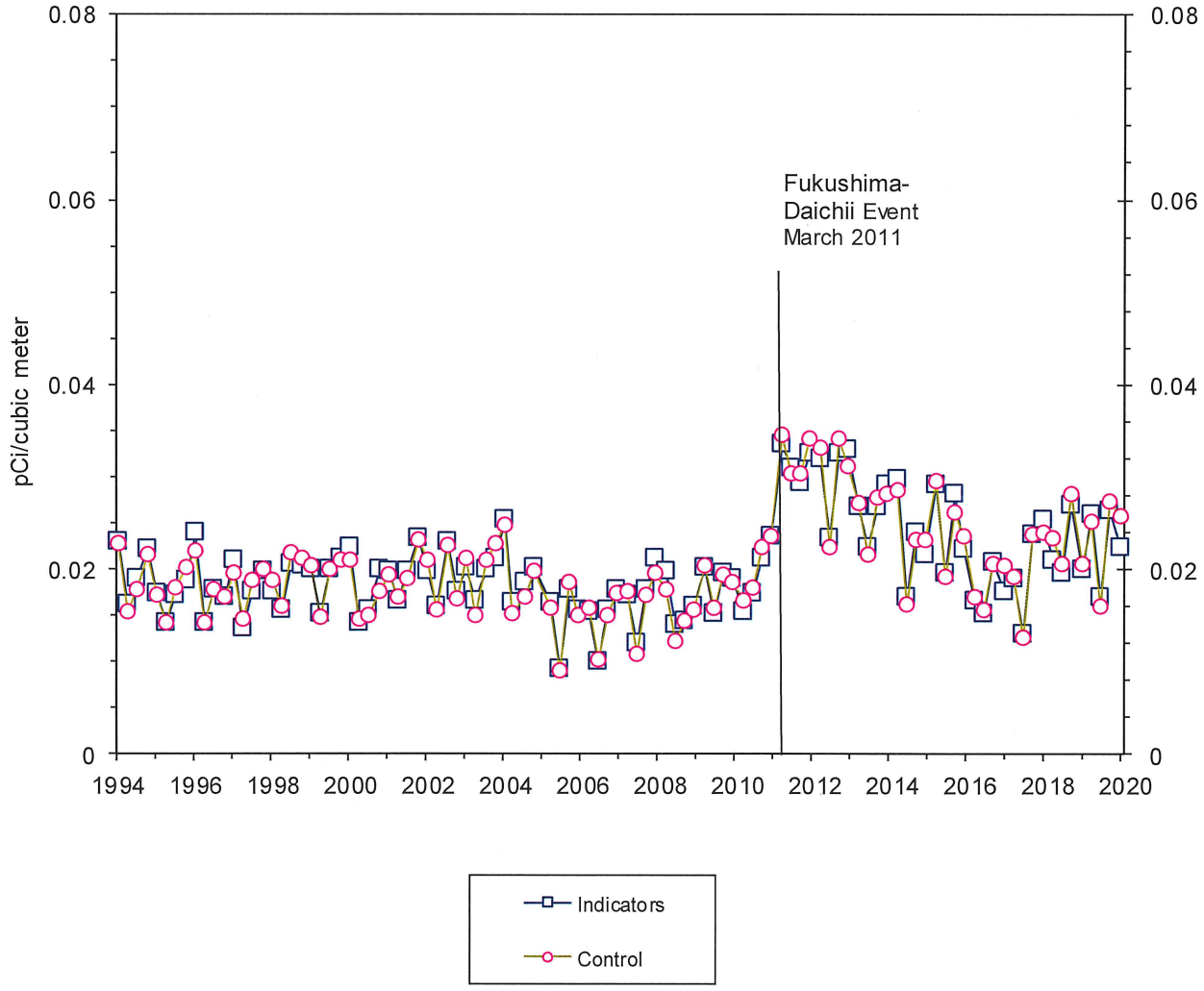


Table 3.1-1

Radiological Environmental Monitoring Program Summary
Seabrook Nuclear Power Station, Seabrook, NH
(January - December 2019)

MEDIUM: Air Particulates (AP) UNITS: pCi/cubic meter

Radionuclides (No. Analyses) (Non-Routine*)		Required LLD	Indicator Stations: Mean Range (No. Detected**)	Station With Highest Mean: Station	Station With Highest Mean: Mean Range (No. Detected**)	Control Stations: Mean Range (No. Detected**)
BETA	(207)	0.01	2.3E -2	05	2.4E -2	2.4E -2
	(0)		(9.7 - 38.3)E -3 (180/ 181)		(9.7 - 37.3)E -3 (26/ 26)	(1.1 - 3.5)E -2 (26/ 26)
Be-7	(32)		1.2E -1	05	1.3E -1	1.1E -1
	(0)		(8.3 - 15.0)E -2 (28/ 28)		(1.1 - 1.5)E -1 (4/ 4)	(9.4 - 13.7)E -2 (4/ 4)
K-40	(32)		2.2E -3	01	4.1E -3	3.6E -3
	(0)		(-1.9 - 9.2)E -3 (6/ 28)		(-1.9 - 9.2)E -3 (1/ 4)	(1.8 - 6.4)E -3 (1/ 4)
Cr-51	(32)		-1.7E -3	08	3.0E -3	3.5E -4
	(0)		(-1.4 - 1.1)E -2 (0/ 28)		(-2.7 - 10.6)E -3 (0/ 4)	(-3.8 - 3.5)E -3 (0/ 4)
Mn-54	(32)		0.0E 0	07	6.7E -5	5.2E -5
	(0)		(-1.7 - 1.6)E -4 (0/ 28)		(-5.0 - 15.8)E -5 (0/ 4)	(1.6 - 10.3)E -5 (0/ 4)
Co-57	(32)		0.0E 0	02	3.8E -5	3.2E -5
	(0)		(-1.3 - 1.2)E -4 (0/ 28)		(1.1 - 6.0)E -5 (0/ 4)	(1.7 - 4.2)E -5 (0/ 4)
Co-58	(32)		-6.6E -5	09	1.4E -4	1.4E -4
	(0)		(-4.4 - 2.8)E -4 (0/ 28)		(-4.1 - 33.2)E -5 (0/ 4)	(-4.1 - 33.2)E -5 (0/ 4)
Fe-59	(32)		1.7E -5	01	4.6E -4	-4.7E -4
	(0)		(-1.0 - 1.4)E -3 (0/ 28)		(-4.2 - 14.4)E -4 (0/ 4)	(-1.1 - 0.1)E -3 (0/ 4)
Co-60	(32)		1.5E -5	01	1.2E -4	0.0E 0
	(0)		(-2.3 - 2.1)E -4 (0/ 28)		(7.3 - 15.1)E -5 (0/ 4)	(-4.0 - 3.3)E -6 (0/ 4)
Zn-65	(32)		1.8E -5	05	1.3E -4	-1.5E -4
	(0)		(-3.8 - 5.8)E -4 (0/ 28)		(-1.8 - 5.8)E -4 (0/ 4)	(-6.0 - 1.9)E -4 (0/ 4)
Se-75	(32)		3.1E -5	05	9.4E -5	5.5E -5
	(0)		(-3.1 - 2.5)E -4 (0/ 28)		(-3.7 - 18.9)E -5 (0/ 4)	(-4.8 - 196.0)E -6 (0/ 4)
Nb-95	(32)		4.1E -5	05	1.3E -4	1.2E -4
	(0)		(-5.6 - 6.2)E -4 (0/ 28)		(-1.4 - 5.2)E -4 (0/ 4)	(-1.4 - 3.2)E -4 (0/ 4)
Zr-95	(32)		0.0E 0	07	1.2E -4	-2.2E -4
	(0)		(-6.2 - 5.7)E -4 (0/ 28)		(-1.3 - 5.7)E -4 (0/ 4)	(-6.3 - 0.9)E -4 (0/ 4)
Ru-103	(32)		2.2E -4	01	5.7E -4	0.0E 0
	(0)		(-5.0 - 14.9)E -4 (0/ 28)		(9.9 - 149.0)E -5 (0/ 4)	(-1.8 - 3.0)E -4 (0/ 4)
Ru-106	(32)		2.8E -4	02	6.9E -4	-2.3E -5
	(0)		(-1.7 - 1.8)E -3 (0/ 28)		(2.9 - 12.8)E -4 (0/ 4)	(-8.0 - 7.9)E -4 (0/ 4)

* Non-Routine refers to those radionuclides that exceeded the Reporting Levels in ODCM Table A.9.1-3.
** The fraction of detectable measurements (i.e., > MDC with no uncertain identification) is shown in parentheses.

Table 3.1-1 (Continued)

Radiological Environmental Monitoring Program Summary
Seabrook Nuclear Power Station, Seabrook, NH
(January - December 2019)

MEDIUM: Air Particulates (AP) UNITS: pCi/cubic meter

Radionuclides (No. Analyses) (Non-Routine*)		Required LLD	Indicator Stations Mean Range (No. Detected**)	Station With Highest Mean Station	Station With Highest Mean Mean Range (No. Detected**)	Control Stations Mean Range (No. Detected**)
Ag-108m	(32)		0.0E 0	03	2.5E -5	0.0E 0
	(0)		(-1.4 - 2.0)E -4 (0/ 28)		(-3.4 - 13.6)E -5 (0/ 4)	(-5.1 - 14.6)E -5 (0/ 4)
Ag-110m	(32)		3.1E -5	01	1.6E -4	3.9E -5
	(0)		(-3.2 - 4.8)E -4 (0/ 28)		(-8.4 - 48.4)E -5 (0/ 4)	(-3.2 - 2.1)E -4 (0/ 4)
Sb-124	(32)		-6.9E -5	02	3.7E -4	6.0E -5
	(0)		(-1.1 - 1.0)E -3 (0/ 28)		(-4.3 - 954.0)E -6 (0/ 4)	(-3.6 - 6.5)E -4 (0/ 4)
Sb-125	(32)		2.7E -5	07	1.2E -4	0.0E 0
	(0)		(-3.3 - 5.8)E -4 (0/ 28)		(-4.6 - 26.0)E -5 (0/ 4)	(-1.3 - 0.9)E -4 (0/ 4)
I-131	(32)		-6.8E -2	05	0.0E 0	-9.1E -2
	(0)		(-4.0 - 0.0)E -1 (0/ 28)		(0.0 - 0.0)E 0 (0/ 4)	(-2.0 - 0.0)E -1 (0/ 4)
Cs-134	(32)	0.05	4.1E -5	01	1.2E -4	2.9E -5
	(0)		(-2.0 - 1.9)E -4 (0/ 28)		(-8.0 - 191.0)E -6 (0/ 4)	(-7.0 - 15.5)E -5 (0/ 4)
Cs-137	(32)	0.06	2.5E -5	05	1.2E -4	1.8E -5
	(0)		(-2.2 - 1.8)E -4 (0/ 28)		(4.1 - 18.4)E -5 (0/ 4)	(-1.3 - 0.9)E -4 (0/ 4)
Ba-140	(32)		2.3E -2	01	4.0E -2	1.1E -2
	(0)		(-3.4 - 11.1)E -2 (0/ 28)		(2.0 - 6.4)E -2 (0/ 4)	(-1.0 - 3.7)E -2 (0/ 4)
La-140	(32)		-2.3E -3	04	1.8E -2	-1.2E -2
	(0)		(-3.5 - 3.0)E -2 (0/ 28)		(4.8 - 29.5)E -3 (0/ 4)	(-5.6 - 1.3)E -2 (0/ 4)
Ce-141	(32)		-2.7E -4	02	3.4E -4	1.2E -4
	(0)		(-1.7 - 1.2)E -3 (0/ 28)		(-4.0 - 12.4)E -4 (0/ 4)	(-8.3 - 9.9)E -4 (0/ 4)
Ce-144	(32)		-2.2E -5	09	3.1E -4	3.1E -4
	(0)		(-7.7 - 10.8)E -4 (0/ 28)		(-1.9 - 10.4)E -4 (0/ 4)	(-1.9 - 10.4)E -4 (0/ 4)
Ac-228	(32)		2.2E -4	05	6.9E -4	3.9E -4
	(0)		(-8.9 - 10.8)E -4 (0/ 28)		(1.6 - 10.8)E -4 (0/ 4)	(0.0 - 1.1)E -3 (0/ 4)
Th-228	(32)		1.1E -4	09	3.0E -4	3.0E -4
	(0)		(-1.1 - 4.3)E -4 (1/ 28)		(2.3 - 3.5)E -4 (0/ 4)	(2.3 - 3.5)E -4 (0/ 4)

* Non-Routine refers to those radionuclides that exceeded the Reporting Levels in ODCM Table A.9.1-3.
** The fraction of detectable measurements (i.e., > MDC with no uncertain identification) is shown in parentheses.

3.2 Charcoal Filters

Charcoal filter (CF) cartridges are placed in series behind the air particulate glass-fiber filters at each of the air sampling locations. Monitoring stations were established at a total of eight locations. Seven of these are indicators and one is a control. Charcoal filters from the air sampling stations were collected and analyzed for I-131 activity to a lower limit of detection (LLD) of 0.07 pCi/m^3 or lower.

During 2019, a total of 207 charcoal cartridges from eight locations were analyzed. As described for the air particulate samplers (see Section 3.1), the collection cycles for the charcoal filters were biweekly during 2019. Off-normal conditions, such as observed high differential pressure across the associated particulate filter (none detected in 2019) which might be indicative of excessive dust loading, could prompt switching to a temporary weekly cycle (see Section 3.1).

No sample analyses indicated a detectable level for I-131 that was statistically relevant (positive) at any of the air sampling locations during the year. Figure 3.2 shows the I-131 measurement responses in 2019 for all air sampling stations. All analyses were below their respective measurement minimum detectable concentrations (MDC).

From initial criticality in June 1989 to the Fukushima Daiichi accident in March 2011, the Seabrook REMP program had not detected I-131 at any offsite air sample locations. Following the March – April, 2011 air concentration spikes of I-131 related to the Fukushima Daiichi accident releases, no detectable I-131 has been observed. The pre-operational data for I-131 are consistent with present (2019) data. Therefore, there are no increasing or decreasing trends related to Seabrook Station operations for airborne I-131. The potential organ doses from I-131 in gaseous effluents, if assumed to be released at the MDA, are well below the 10CFR50, Appendix I dose criteria.

The REMP Summary Table 3.2-1 list the range of analysis results for iodine (I-131) at both Indicator and Control Stations. Attachment 1 to this report lists the individual analysis results for each air sample measurement under the Sample Type code CF.

Charcoal filter sample collection and analysis deviations from the ODCM required program (if any) are described in Section 5.

Table 3.2-1

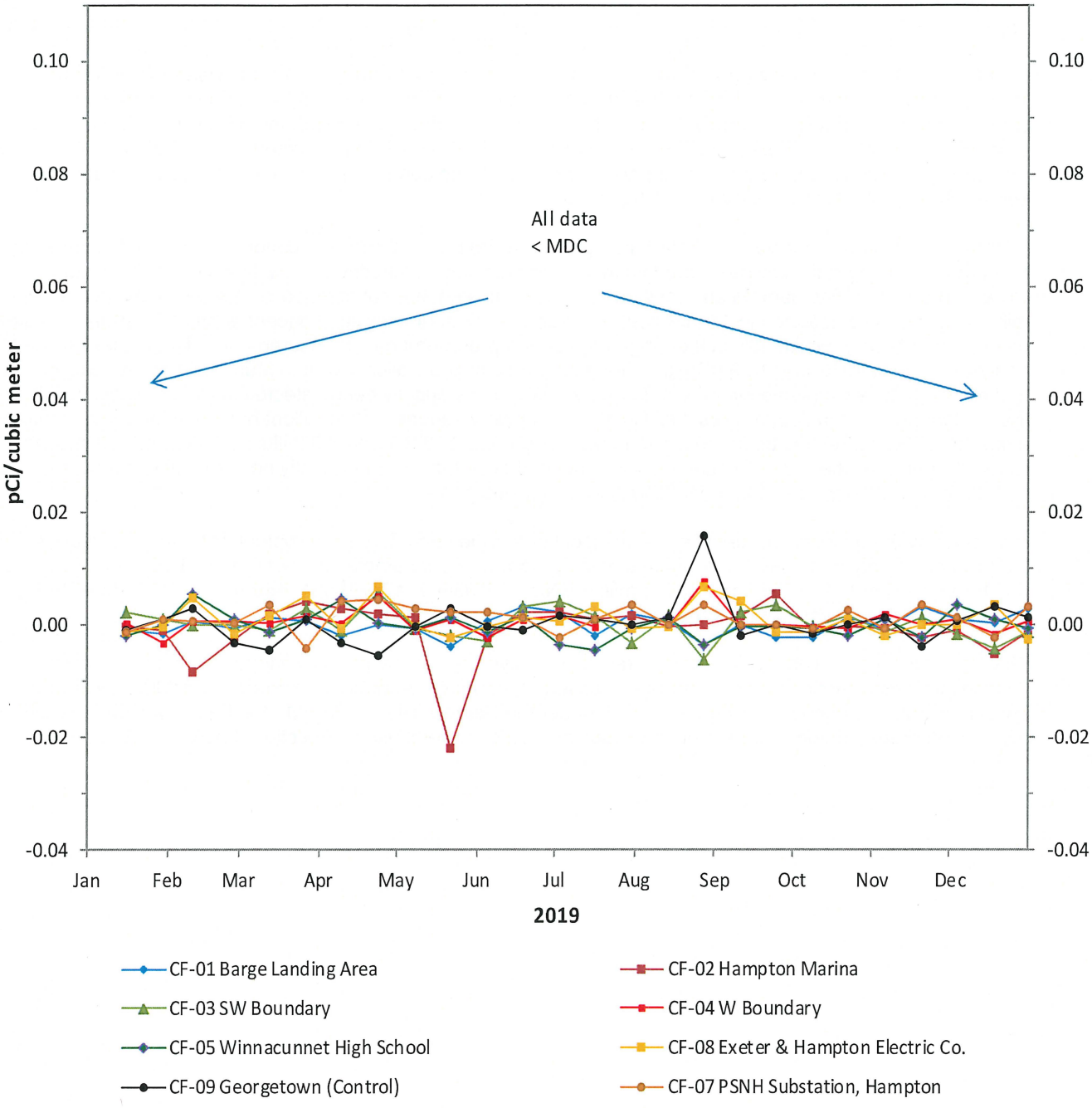
Radiological Environmental Monitoring Program Summary
Seabrook Nuclear Power Station, Seabrook, NH
(January - December 2019)

MEDIUM: Charcoal Cartridge (CF) UNITS: pCi/cubic meter

Radionuclides (No. Analyses) (Non-Routine*)		Required LLD	Indicator Stations: Mean Range (No. Detected**)	Station With Highest Mean: Station	Station With Highest Mean: Mean Range (No. Detected**)	Control Stations: Mean Range (No. Detected**)
I-131	**(207)**	0.07	3.7E -4	07	1.3E -3	3.9E -4
	(0)		(-2.2 - 0.8)E -2 (0/ 181)		(-4.1 - 4.5)E -3 (0/ 26)	(-5.3 - 15.9)E -3 (0/ 26)

* Non-Routine refers to those radionuclides that exceeded the Reporting Levels in ODCM Table A.9.1-3.
** The fraction of detectable measurements (i.e., > MDC with no uncertain identification) is shown in parentheses.

FIGURE 3.2
I-131 MEASUREMENTS OF AIR CHARCOAL CARTRIDGES
SEABROOK STATION



3.3 Milk

Milk samples (TM) were collected semi-monthly during the pasture season and monthly at other times. Samples are analyzed for low level I-131 and gamma-emitting radionuclides.

The ODCM (Table A.9.1-1) requires that milk samples be collected from three locations within 5 km of the plant having the highest dose potential. If there are none, then one sample is required from milking animals in each of three areas between 5 to 8 km from the plant where the doses are calculated to be greater than 1 mrem/yr. Due to the limited inventory of milk animals in the site area, as reconfirmed by the 2019 Land Use Census, the number of available sample locations required by the ODCM sampling program could not be met (insufficient numbers of milk animals within 5 km, and only one milk location [designated TM-15] between 5 and 8 km). The ODCM allows for broad leaf vegetation samples to be collected if milk sampling cannot be performed in accordance to the REMP requirements. As a result, two site boundary locations and one control vegetation location are sampled to compensate for the limited milk availability (see Section 3.12).

A total of 18 milk samples were collected during the year from one available location. Each sample was analyzed for gamma emitting radionuclides. In addition, all samples were evaluated for low levels of I-131 through an iodine extraction process. The gamma analyses on samples indicated that naturally-occurring K-40 was detectable in all milk samples. Also detected in 14 milk samples was Cs-137 at an average concentration of 6.3 pCi/kg (positive measurements only) which falls in the range of past and pre-operational measurements. The highest single Cs-137 analysis result in 2019 was 10.9 pCi/kg. Though the Fukushima Daiichi event in March 2011 may have contributed to the Cs-137 levels observed in milk in 2019, Cs-137 has historically been detected at similar levels in milk before the nuclear accident in Japan. Residual Cs-137 from past weapons testing fallout has been the major contributor attributed to the currently observed values in milk. Figures 3.3, 3.3.1 and 3.3.2 illustrate the analysis results (without regard to whether individual analysis indicated detectable or statistically not detectable concentrations) for Cs-137 in milk over the current period (2019) and previous years.

Iodine-131 was not positively identified at any location for the year. This is consistent with previous years for both the pre-operational and operational phases of the program. Four samples did not met the Lower Limit of Detection (LLD) requirements (1 pCi/kg) for I-131 in milk (LSN's 477793001, 478748001, 489378001, and 490471001). No increasing or decreasing trends in the radioactivity content of milk were observed.

The REMP Summary Table 3.3-1 lists the range of analysis results by radionuclide for the Indicator station (Historical Control Stations for the milk have ceased operations). Attachment 1 to this report lists the individual analysis results for each measurement of milk under the Sample Type code TM. Section 5 identifies deviations in the sample measurement program (if any), such as missed lower limits of detection (LLD) requirements.

FIGURE 3.3

CESIUM-137 IN MILK
SEABROOK STATION

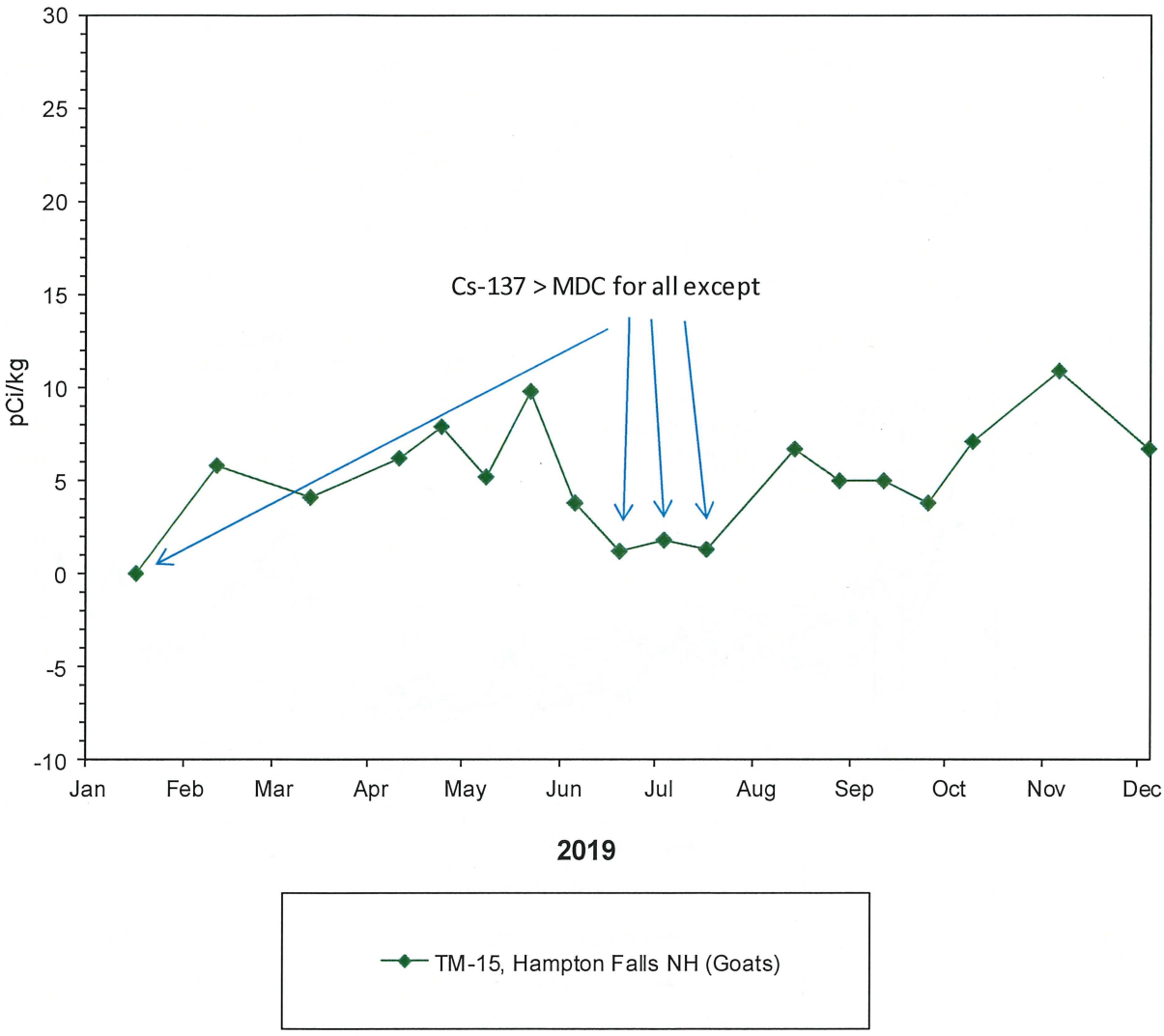


FIGURE 3.3.1

CESIUM-137 IN MILK
ANNUAL AVERAGE CONCENTRATIONS

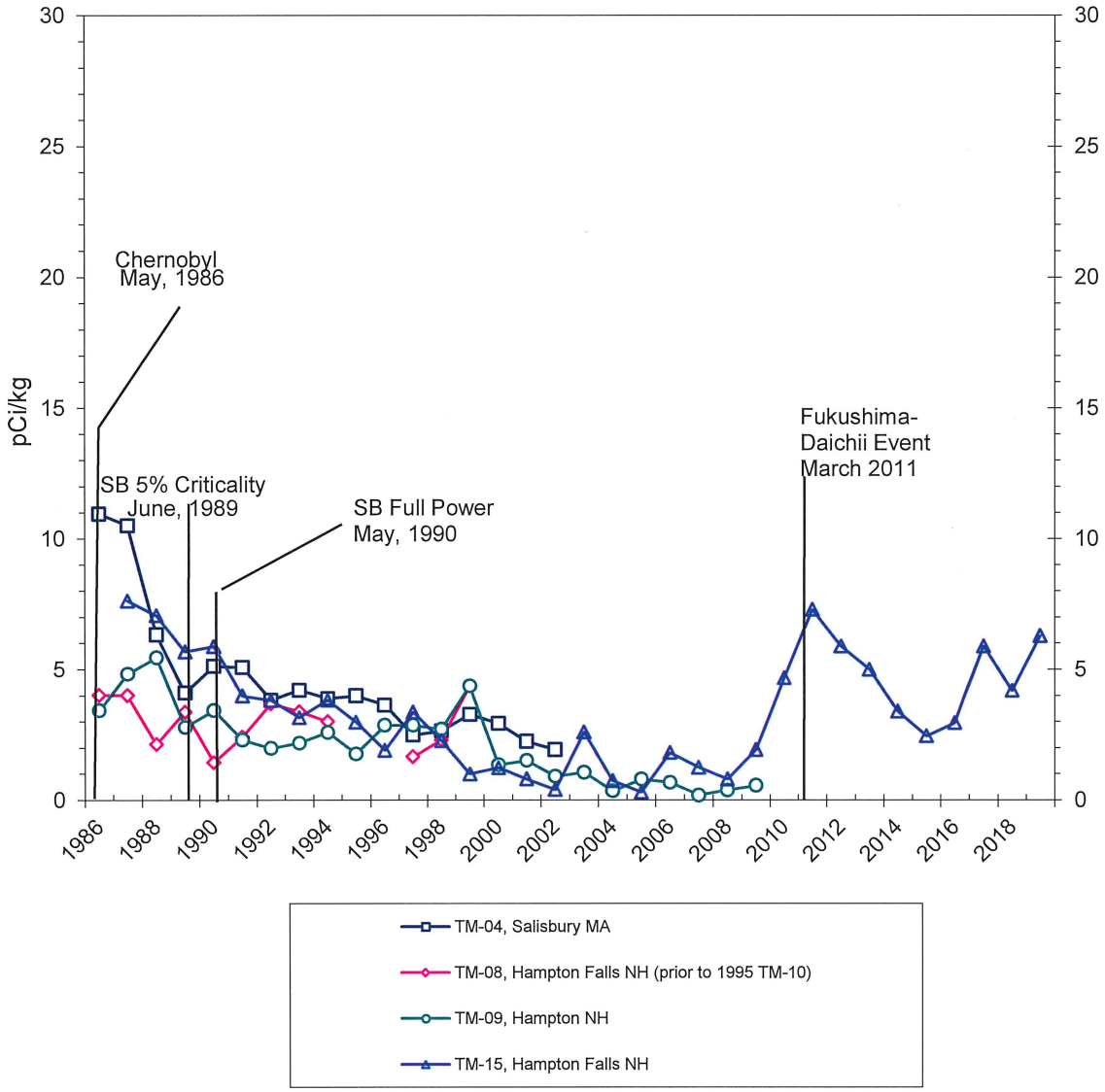


FIGURE 3.3.2

CESIUM-137 IN MILK
ANNUAL AVERAGE CONCENTRATIONS

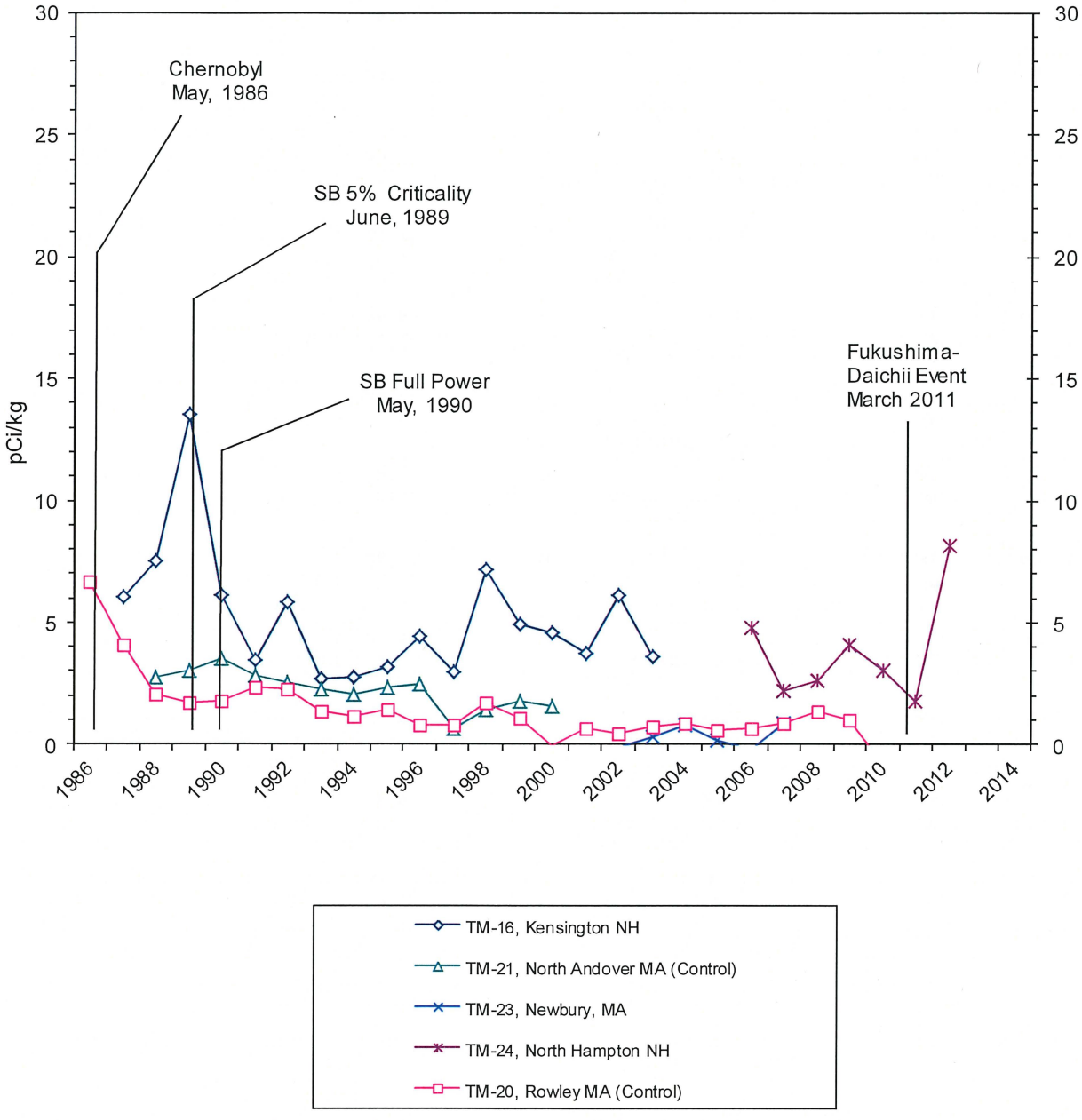


Table 3.3-1
Radiological Environmental Monitoring Program Summary
Seabrook Nuclear Power Station, Seabrook, NH
(January - December 2019)

MEDIUM: Milk (TM) UNITS: pCi/kg

Radionuclides (No. Analyses) (Non-Routine*)		Required LLD	Indicator Stations Mean Range (No. Detected**)	Station With Highest Mean Station	Station With Highest Mean Mean Range (No. Detected**)	Control Stations Mean Range (No. Detected**)
Be-7	(18)		3.1E 0	15	3.1E 0	NO DATA
	(0)		(-4.6 - 10.9)E 0 (0/ 18)		(-4.6 - 10.9)E 0 (0/ 18)	
K-40	(18)		1.6E 3	15	1.6E 3	NO DATA
	(0)		(1.4 - 1.8)E 3 (18/ 18)		(1.4 - 1.8)E 3 (18/ 18)	
Cr-51	(18)		-9.8E -1	15	-9.8E -1	NO DATA
	(0)		(-1.1 - 1.2)E 1 (0/ 18)		(-1.1 - 1.2)E 1 (0/ 18)	
Mn-54	(18)		-1.1E -1	15	-1.1E -1	NO DATA
	(0)		(-1.1 - 1.1)E 0 (0/ 18)		(-1.1 - 1.1)E 0 (0/ 18)	
Co-57	(18)		-5.9E -2	15	-5.9E -2	NO DATA
	(0)		(-1.1 - 1.3)E 0 (0/ 18)		(-1.1 - 1.3)E 0 (0/ 18)	
Co-58	(18)		-2.0E -2	15	-2.0E -2	NO DATA
	(0)		(-7.9 - 9.7)E -1 (0/ 18)		(-7.9 - 9.7)E -1 (0/ 18)	
Fe-59	(18)		9.8E -2	15	9.8E -2	NO DATA
	(0)		(-2.9 - 2.8)E 0 (0/ 18)		(-2.9 - 2.8)E 0 (0/ 18)	
Co-60	(18)		2.3E -1	15	2.3E -1	NO DATA
	(0)		(-1.7 - 1.3)E 0 (0/ 18)		(-1.7 - 1.3)E 0 (0/ 18)	
Zn-65	(18)		1.5E -1	15	1.5E -1	NO DATA
	(0)		(-1.6 - 2.6)E 0 (0/ 18)		(-1.6 - 2.6)E 0 (0/ 18)	
Se-75	(18)		-6.5E -2	15	-6.5E -2	NO DATA
	(0)		(-2.2 - 1.7)E 0 (0/ 18)		(-2.2 - 1.7)E 0 (0/ 18)	
Nb-95	(18)		6.6E -2	15	6.6E -2	NO DATA
	(0)		(-1.1 - 0.7)E 0 (0/ 18)		(-1.1 - 0.7)E 0 (0/ 18)	
Zr-95	(18)		-1.1E -1	15	-1.1E -1	NO DATA
	(0)		(-1.6 - 0.8)E 0 (0/ 18)		(-1.6 - 0.8)E 0 (0/ 18)	
Ru-103	(18)		-3.0E -1	15	-3.0E -1	NO DATA
	(0)		(-1.3 - 0.6)E 0 (0/ 18)		(-1.3 - 0.6)E 0 (0/ 18)	
Ru-106	(18)		-9.4E -1	15	-9.4E -1	NO DATA
	(0)		(-8.6 - 6.6)E 0 (0/ 18)		(-8.6 - 6.6)E 0 (0/ 18)	

* Non-Routine refers to those radionuclides that exceeded the Reporting Levels in ODCM Table A.9.1-3.
** The fraction of detectable measurements (i.e., > MDC with no uncertain identification) is shown in parentheses.

Table 3.3-1 (Continued)

Radiological Environmental Monitoring Program Summary
Seabrook Nuclear Power Station, Seabrook, NH
(January - December 2019)

MEDIUM: Milk (TM) UNITS: pCi/kg

Radionuclides (No. Analyses) (Non-Routine*)		Required LLD	Indicator Stations: Mean Range (No. Detected**)	Station With Highest Mean: Station	Station With Highest Mean: Mean Range (No. Detected**)	Control Stations: Mean Range (No. Detected**)
Ag-108m	(18)		1.4E -1	15	1.4E -1	NO DATA
	(0)		(-8.0 - 7.8)E -1 (0/ 18)		(-8.0 - 7.8)E -1 (0/ 18)	
Ag-110m	(18)		9.9E -2	15	9.9E -2	NO DATA
	(0)		(-9.5 - 21.0)E -1 (0/ 18)		(-9.5 - 21.0)E -1 (0/ 18)	
Sb-124	(18)		8.8E -2	15	8.8E -2	NO DATA
	(0)		(-1.7 - 4.1)E 0 (0/ 18)		(-1.7 - 4.1)E 0 (0/ 18)	
Sb-125	(18)		8.4E -2	15	8.4E -2	NO DATA
	(0)		(-2.6 - 1.5)E 0 (0/ 18)		(-2.6 - 1.5)E 0 (0/ 18)	
I-131	(18)	1	-1.1E -1	15	-1.1E -1	NO DATA
	(0)		(-8.3 - 5.7)E -1 (0/ 18)		(-8.3 - 5.7)E -1 (0/ 18)	
Cs-134	(18)	15	4.0E -1	15	4.0E -1	NO DATA
	(0)		(-6.2 - 19.6)E -1 (0/ 18)		(-6.2 - 19.6)E -1 (0/ 18)	
Cs-137	(18)	18	5.1E 0	15	5.1E 0	NO DATA
	(0)		(0.0 - 1.1)E 1 (14/ 18)		(0.0 - 1.1)E 1 (14/ 18)	
Ba-140	(18)	15	4.9E -1	15	4.9E -1	NO DATA
	(0)		(-1.0 - 0.6)E 1 (0/ 18)		(-1.0 - 0.6)E 1 (0/ 18)	
La-140	(18)	15	-3.5E -2	15	-3.5E -2	NO DATA
	(0)		(-1.7 - 2.4)E 0 (0/ 18)		(-1.7 - 2.4)E 0 (0/ 18)	
Ce-141	(18)		-4.9E -1	15	-4.9E -1	NO DATA
	(0)		(-4.0 - 3.3)E 0 (0/ 18)		(-4.0 - 3.3)E 0 (0/ 18)	
Ce-144	(18)		1.1E 0	15	1.1E 0	NO DATA
	(0)		(-8.7 - 18.1)E 0 (0/ 18)		(-8.7 - 18.1)E 0 (0/ 18)	
Ac-228	(18)		-7.7E -1	15	-7.7E -1	NO DATA
	(0)		(-7.9 - 6.5)E 0 (0/ 18)		(-7.9 - 6.5)E 0 (0/ 18)	
Th-228	(18)		-2.7E -1	15	-2.7E -1	NO DATA
	(0)		(-3.0 - 3.5)E 0 (0/ 18)		(-3.0 - 3.5)E 0 (0/ 18)	

* Non-Routine refers to those radionuclides that exceeded the Reporting Levels in ODCM Table A.9.1-3.
** The fraction of detectable measurements (i.e., > MDC with no uncertain identification) is shown in parentheses.

3.4 Surface Water

Surface water (seawater - WS) grab samples are required at two locations (control and indicator) monthly. The indicator (WS-01) is over the vicinity of the plant's submerged discharge structure. The control location (WS-51) is situated in Ipswich Bay, MA, approximately 26.2 km from the plant. A gamma analysis is performed on each sample. A tritium analysis is performed on the quarterly composite of samples from each ODCM required location. Additional samples were collected from the Seabrook Marsh (WS-10) which borders the immediate plant property. The marsh samples are intended to provide indication of any ground water movement across the site area that might carry contamination into the surface waters of the marsh. Each of these samples is analyzed for both gamma emitters and tritium.

For 2019, a total of 26 gamma analyses were performed on surface water samples. The only radionuclides detected were naturally-occurring K-40, which was detected in all samples, and naturally-occurring Bi-214, which was detected in two samples. No plant-related nuclides were detected. The present data for gamma emitters in seawater is consistent with that of the pre-operational program and previous years of operations. Therefore, no increasing or decreasing trends were observed.

Quarterly composites for the required off-shore locations (Stations WS-01 and WS-51) were analyzed for tritium. A total of 8 off-shore samples (composites) were analyzed in 2019, plus one additional sample from the non-ODCM required location (WS-10) situated approximately 600 feet SSE from the Containment Building in Seabrook Marsh. The quarterly composites and WS-10 samples showed no indication of tritium. All samples met the required minimum LLD (3000 pCi/kg) for tritium in seawater. These results are consistent with pre-operational tritium data. The achieved tritium Minimum Detectable Concentration (MDC) for the quarterly off-shore composite samples averaged 422 pCi/kg, while the marsh area sample from WS-10 had an MDC of 643 pCi/kg.

The calculated dose as the result of plant effluents is not evaluated due to the fact that no plant-related radionuclides were or have been detected in the past. Therefore, no increasing or decreasing trends in dose were observed. This sampling program demonstrates that there is no impact to the public or environment, through this pathway from plant operations.

The REMP Summary Table 3.4-1 lists the range of analysis results by radionuclide for Indicator and Control Stations for the sea water environmental media. Attachment 1 to this report lists the individual analysis results for each measurement of sea water under the Sample Type code WS.

Any sample collection and analysis deviations from the ODCM required program or reportable concentrations that may have occurred during the year are described in Section 5.

Table 3.4-1

Radiological Environmental Monitoring Program Summary
Seabrook Nuclear Power Station, Seabrook, NH
(January - December 2019)

MEDIUM: Sea Water (WS) UNITS: pCi/kg

Radionuclides (No. Analyses) (Non-Routine*)		Required LLD	Indicator Stations Mean Range (No. Detected**)	Station With Highest Mean Station	 Mean Range (No. Detected**)	Control Stations Mean Range (No. Detected**)
H-3	(9)	3000	-4.3E 1	51	4.7E 1	4.7E 1
	(0)		(-2.7 - 2.1)E 2 (0/ 5)		(-2.3 - 2.8)E 2 (0/ 4)	(-2.3 - 2.8)E 2 (0/ 4)
Be-7	(26)		1.2E 0	01	1.7E 0	7.4E -1
	(0)		(-6.0 - 17.2)E 0 (0/ 14)		(-4.3 - 17.2)E 0 (0/ 12)	(-4.9 - 5.4)E 0 (0/ 12)
K-40	(26)		3.1E 2	01	3.3E 2	3.1E 2
	(0)		(1.5 - 3.6)E 2 (14/ 14)		(3.1 - 3.6)E 2 (12/ 12)	(2.2 - 3.6)E 2 (12/ 12)
Cr-51	(26)		1.6E 0	10	2.5E 0	-1.1E -1
	(0)		(-4.1 - 7.4)E 0 (0/ 14)		(9.7 - 41.2)E -1 (0/ 2)	(-6.0 - 7.6)E 0 (0/ 12)
Mn-54	(26)	15	-7.2E -2	10	2.6E -1	-1.7E -2
	(0)		(-1.5 - 1.1)E 0 (0/ 14)		(1.6 - 3.6)E -1 (0/ 2)	(-1.3 - 0.4)E 0 (0/ 12)
Co-57	(26)		5.7E -2	10	7.0E -2	6.9E -2
	(0)		(-6.0 - 5.9)E -1 (0/ 14)		(-2.0 - 15.9)E -2 (0/ 2)	(-4.8 - 3.2)E -1 (0/ 12)
Co-58	(26)	15	-2.5E -1	51	-2.1E -1	-2.1E -1
	(0)		(-1.1 - 1.0)E 0 (0/ 14)		(-2.0 - 0.6)E 0 (0/ 12)	(-2.0 - 0.6)E 0 (0/ 12)
Fe-59	(26)	30	-2.9E -2	10	6.8E -2	3.6E -2
	(0)		(-1.3 - 1.1)E 0 (0/ 14)		(-2.6 - 3.9)E -1 (0/ 2)	(-2.6 - 2.5)E 0 (0/ 12)
Co-60	(26)	15	9.2E -2	01	1.4E -1	-1.2E -1
	(0)		(-7.3 - 10.0)E -1 (0/ 14)		(-7.3 - 10.0)E -1 (0/ 12)	(-1.4 - 0.9)E 0 (0/ 12)
Zn-65	(26)	30	7.4E -2	10	5.6E -1	3.0E -1
	(0)		(-2.9 - 1.7)E 0 (0/ 14)		(1.4 - 9.9)E -1 (0/ 2)	(-1.7 - 2.7)E 0 (0/ 12)
Se-75	(26)		-7.7E -3	51	1.1E -1	1.1E -1
	(0)		(-1.5 - 1.4)E 0 (0/ 14)		(-7.6 - 13.1)E -1 (0/ 12)	(-7.6 - 13.1)E -1 (0/ 12)
Nb-95	(26)	15	-1.3E -1	51	8.2E -2	8.2E -2
	(0)		(-1.1 - 0.9)E 0 (0/ 14)		(-1.7 - 1.3)E 0 (0/ 12)	(-1.7 - 1.3)E 0 (0/ 12)
Zr-95	(26)	15	-2.8E -1	51	5.2E -1	5.2E -1
	(0)		(-2.4 - 0.9)E 0 (0/ 14)		(-1.2 - 2.1)E 0 (0/ 12)	(-1.2 - 2.1)E 0 (0/ 12)
Ru-103	(26)		-3.0E -1	10	2.7E -1	-3.6E -1
	(0)		(-1.4 - 0.7)E 0 (0/ 14)		(-1.2 - 6.7)E -1 (0/ 2)	(-1.2 - 0.9)E 0 (0/ 12)
Ru-106	(26)		2.9E 0	01	3.0E 0	-8.4E -1
	(0)		(-5.0 - 7.7)E 0 (0/ 14)		(-5.0 - 7.7)E 0 (0/ 12)	(-1.0 - 0.4)E 1 (0/ 12)

* Non-Routine refers to those radionuclides that exceeded the Reporting Levels in ODCM Table A.9.1-3.
** The fraction of detectable measurements (i.e., > MDC with no uncertain identification) is shown in parentheses.

Table 3.4-1 (Continued)

Radiological Environmental Monitoring Program Summary
Seabrook Nuclear Power Station, Seabrook, NH
(January - December 2019)

MEDIUM: Sea Water (WS) UNITS: pCi/kg

Radionuclides (No. Analyses) (Non-Routine*)		Required LLD	Indicator Stations Mean Range (No. Detected**)	Station With Highest Mean Station	Station With Highest Mean Mean Range (No. Detected**)	Control Stations Mean Range (No. Detected**)
Ag-108m	(26)		4.8E -2	01	7.7E -2	-1.8E -1
	(0)		(-1.1 - 0.9)E 0 (0/ 14)		(-1.1 - 0.9)E 0 (0/ 12)	(-7.9 - 5.9)E -1 (0/ 12)
Ag-110m	(26)		1.6E -1	01	2.3E -1	-2.6E -2
	(0)		(-9.2 - 12.0)E -1 (0/ 14)		(-3.4 - 12.0)E -1 (0/ 12)	(-8.8 - 12.5)E -1 (0/ 12)
Sb-124	(26)		-2.6E -1	51	2.6E -2	2.6E -2
	(0)		(-2.0 - 2.1)E 0 (0/ 14)		(-1.1 - 2.3)E 0 (0/ 12)	(-1.1 - 2.3)E 0 (0/ 12)
Sb-125	(26)		-6.6E -1	10	-2.2E -1	-7.7E -1
	(0)		(-3.0 - 1.3)E 0 (0/ 14)		(-6.3 - 1.9)E -1 (0/ 2)	(-7.7 - 1.1)E 0 (0/ 12)
I-131	(26)	15	-8.5E -2	01	-8.6E -3	-1.5E -2
	(0)		(-1.9 - 1.8)E 0 (0/ 14)		(-1.9 - 1.8)E 0 (0/ 12)	(-1.2 - 1.4)E 0 (0/ 12)
Cs-134	(26)	15	-1.2E -1	51	7.4E -2	7.4E -2
	(0)		(-9.3 - 8.7)E -1 (0/ 14)		(-1.2 - 1.1)E 0 (0/ 12)	(-1.2 - 1.1)E 0 (0/ 12)
Cs-137	(26)	18	-1.5E -1	51	-5.4E -2	-5.4E -2
	(0)		(-7.8 - 5.4)E -1 (0/ 14)		(-9.7 - 10.3)E -1 (0/ 12)	(-9.7 - 10.3)E -1 (0/ 12)
Ba-140	(26)	15	-4.1E -1	01	-3.7E -1	-5.3E -1
	(0)		(-4.1 - 5.2)E 0 (0/ 14)		(-4.1 - 5.2)E 0 (0/ 12)	(-7.1 - 3.0)E 0 (0/ 12)
La-140	(26)	15	-3.2E -1	10	3.1E -1	-8.3E -1
	(0)		(-1.4 - 2.0)E 0 (0/ 14)		(-6.2 - 68.2)E -2 (0/ 2)	(-2.6 - 0.8)E 0 (0/ 12)
Ce-141	(26)		-2.3E 0	51	-3.5E -1	-3.5E -1
	(0)		(-8.6 - 1.8)E 0 (0/ 14)		(-3.7 - 1.5)E 0 (0/ 12)	(-3.7 - 1.5)E 0 (0/ 12)
Ce-144	(26)		-1.1E -1	51	8.6E -2	8.6E -2
	(0)		(-6.6 - 3.9)E 0 (0/ 14)		(-4.0 - 3.7)E 0 (0/ 12)	(-4.0 - 3.7)E 0 (0/ 12)
Pb-212	(26)		4.0E -1	10	1.2E 0	3.8E -1
	(0)		(-3.1 - 3.4)E 0 (0/ 14)		(9.5 - 15.0)E -1 (0/ 2)	(-2.1 - 3.1)E 0 (0/ 12)
Pb-214	(26)		-3.7E -1	01	-2.8E -1	-9.3E -1
	(0)		(-3.6 - 3.4)E 0 (0/ 14)		(-3.6 - 3.4)E 0 (0/ 12)	(-3.3 - 1.4)E 0 (0/ 12)

* Non-Routine refers to those radionuclides that exceeded the Reporting Levels in ODCM Table A.9.1-3.
** The fraction of detectable measurements (i.e., > MDC with no uncertain identification) is shown in parentheses

Table 3.4-1 (Continued)

Radiological Environmental Monitoring Program Summary
Seabrook Nuclear Power Station, Seabrook, NH
(January - December 2019)

MEDIUM: Sea Water (WS) UNITS: pCi/kg

Radionuclides (No. Analyses) (Non-Routine*)		Required LLD	Indicator Stations Mean Range (No. Detected**)	Station With Highest Mean Station	Station With Highest Mean Mean Range (No. Detected**)	Control Stations Mean Range (No. Detected**)
Bi-214	**(26)**		8.0E -1	10	3.1E 0	-4.4E -1
	(0)		(-2.4 - 5.6)E 0 (1/ 14)		(6.2 - 55.7)E -1 (1/ 2)	(-4.1 - 4.9)E 0 (1/ 12)
Ac-228	**(26)**		-2.3E 0	51	-7.7E -2	-7.7E -2
	(0)		(-1.2 - 0.5)E 1 (0/ 14)		(-7.7 - 6.9)E 0 (0/ 12)	(-7.7 - 6.9)E 0 (0/ 12)
Th-228	**(26)**		4.0E -1	10	1.2E 0	3.8E -1
	(0)		(-3.1 - 3.4)E 0 (0/ 14)		(9.5 - 15.0)E -1 (0/ 2)	(-2.1 - 3.1)E 0 (0/ 12)

* Non-Routine refers to those radionuclides that exceeded the Reporting Levels in ODCM Table A.9.1-3.
** The fraction of detectable measurements (i.e., > MDC with no uncertain identification) is shown in parentheses.

3.5 Ground Water

There is no requirement in the ODCM to collect ground water (WG) samples. For the year, quarterly ground water samples were collected when available from three locations. These samples were collected from the town water line (WG-01) supplied to the Site (by the Town of Seabrook), from an inactive well (WG-13) located approximately 1 km north of the plant, and from a private well 1.3 km NNW (WG-14). For 2019, a total of 12 samples were collected. All samples were analyzed for gross-beta activity, gamma-emitters and tritium.

Gross beta activity was detected in eight of the twelve samples due to naturally-occurring radium and its daughter products. The gross beta activity is consistent with results from previous years of commercial operations. Figures 3.5 and 3.5.1 indicate the current year (2019) and the long-term measurement history for gross beta in well waters. No tritium or plant-related gamma emitters were detected in any of the ground water samples collected during the year. Table 3.5-1 identifies the results of the search for radionuclides of which only naturally-occurring Pb-214 and Bi-214 were detected in 8 of 12 samples.

The dose potential to the public from drinking ground water is not evaluated due to the fact that plant-related radionuclides have not been detected. Therefore, no increasing or decreasing trends were observed. There is no impact to the public, through this pathway, from plant operations.

The REMP Summary Table 3.5-1 lists the range of analysis results by radionuclide for all ground water environmental samples. Attachment 1 to this report lists the individual analysis results for each measurement of ground water under the Sample Type code WG.

Any reportable sample concentrations that may have occurred during the year are described in Section 5.

FIGURE 3.5

GROSS-BETA MEASUREMENTS OF GROUND WATER
SEABROOK STATION

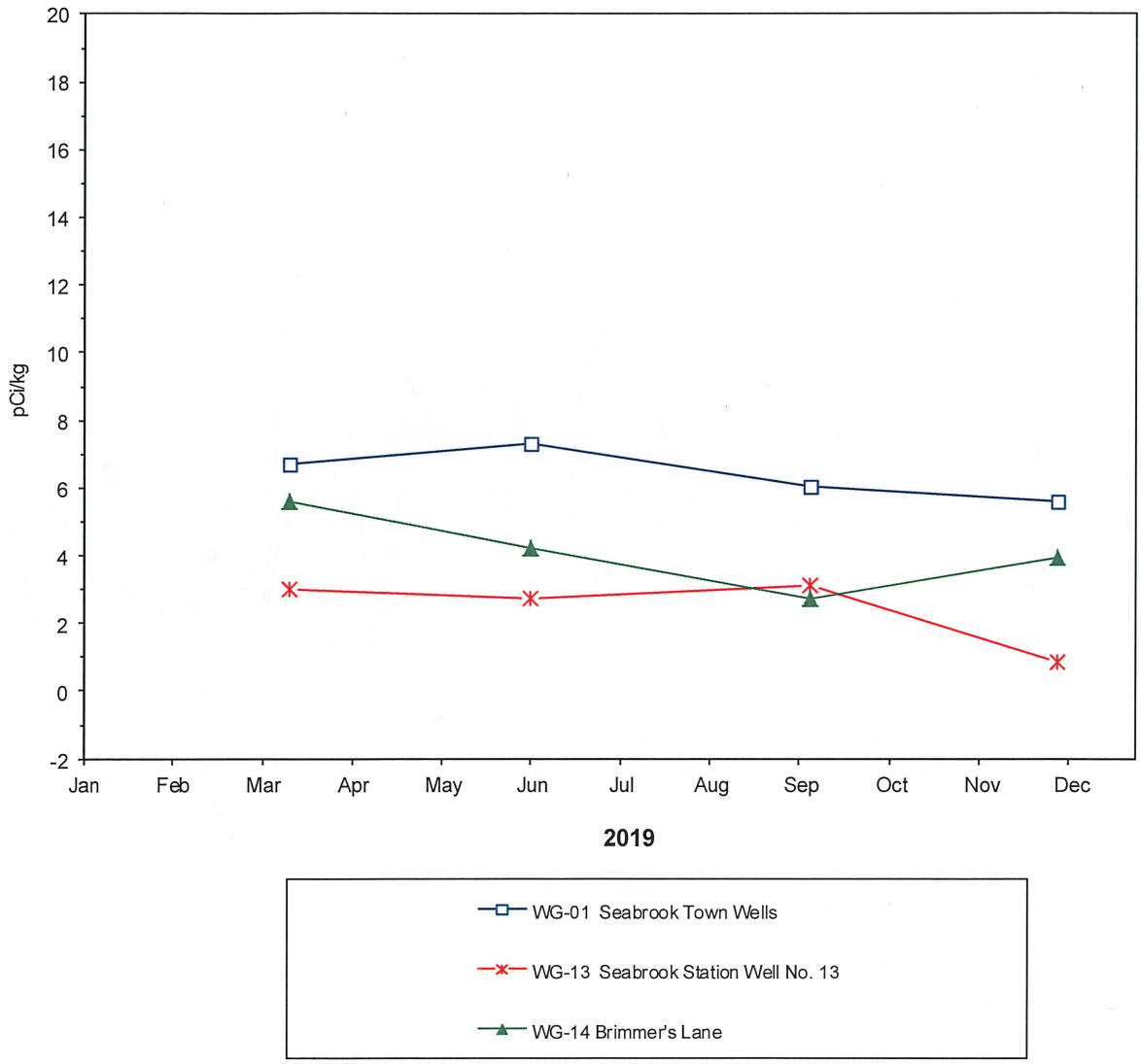


FIGURE 3.5.1

GROSS-BETA MEASUREMENTS OF GROUND WATER
SEMI-ANNUAL AVERAGES
SEABROOK STATION

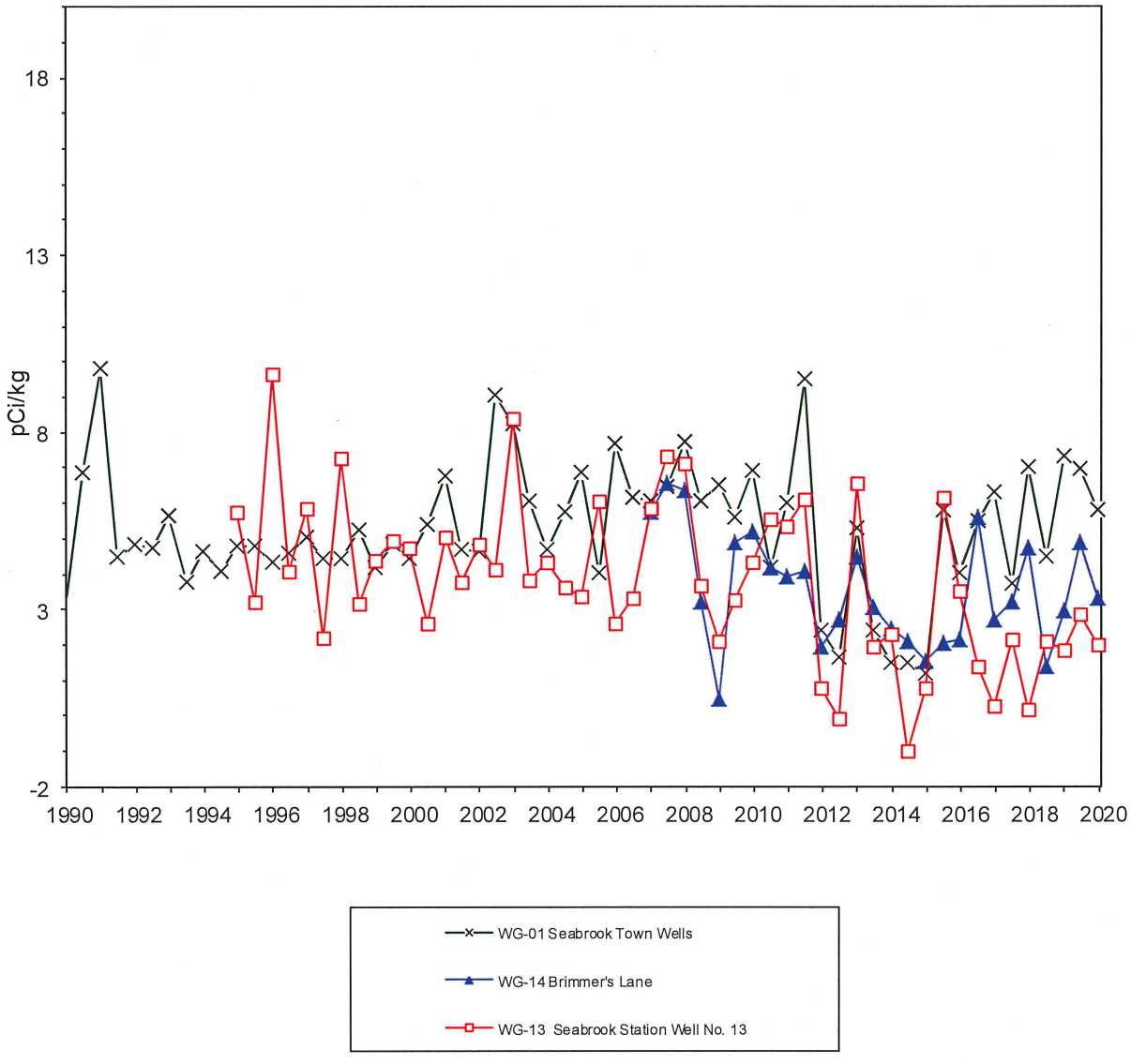


Table 3.5-1

Radiological Environmental Monitoring Program Summary
Seabrook Nuclear Power Station, Seabrook, NH
(January - December 2019)

MEDIUM: Ground Water (WG) UNITS: pCi/kg

Radionuclides (No. Analyses) (Non-Routine*)		Required LLD	Indicator Stations: Mean Range (No. Detected**)	Station With Highest Mean: Station	Station With Highest Mean: Mean Range (No. Detected**)	Control Stations: Mean Range (No. Detected**)
BETA	(12)	4	4.3E 0	01	6.4E 0	NO DATA
	(0)		(8.6 - 73.0)E -1 (8/ 12)		(5.6 - 7.3)E 0 (4/ 4)	
H-3	(12)	3000	8.3E 1	14	2.0E 2	NO DATA
	(0)		(-2.4 - 5.7)E 2 (0/ 12)		(-5.9 - 57.3)E 1 (0/ 4)	
Be-7	(12)		-1.3E 0	13	1.7E 0	NO DATA
	(0)		(-7.7 - 4.0)E 0 (0/ 12)		(-1.3 - 4.0)E 0 (0/ 4)	
K-40	(12)		-2.9E 0	01	5.9E -1	NO DATA
	(0)		(-2.4 - 1.1)E 1 (0/ 12)		(-1.7 - 1.1)E 1 (0/ 4)	
Cr-51	(12)		-2.0E 0	14	-1.2E 0	NO DATA
	(0)		(-6.2 - 4.5)E 0 (0/ 12)		(-4.7 - 4.5)E 0 (0/ 4)	
Mn-54	(12)	15	-1.1E -2	01	2.9E -1	NO DATA
	(0)		(-9.9 - 15.7)E -1 (0/ 12)		(-9.9 - 15.7)E -1 (0/ 4)	
Co-57	(12)		-8.2E -2	01	7.7E -2	NO DATA
	(0)		(-5.9 - 4.6)E -1 (0/ 12)		(-5.9 - 4.6)E -1 (0/ 4)	
Co-58	(12)	15	-2.1E -1	01	-8.2E -2	NO DATA
	(0)		(-1.2 - 0.7)E 0 (0/ 12)		(-7.7 - 7.4)E -1 (0/ 4)	
Fe-59	(12)	30	-6.6E -1	13	4.4E -1	NO DATA
	(0)		(-2.6 - 2.5)E 0 (0/ 12)		(-5.6 - 25.0)E -1 (0/ 4)	
Co-60	(12)	15	3.9E -1	01	4.6E -1	NO DATA
	(0)		(-3.5 - 11.9)E -1 (0/ 12)		(-3.5 - 11.4)E -1 (0/ 4)	
Zn-65	(12)	30	1.9E -1	13	1.0E 0	NO DATA
	(0)		(-2.2 - 3.0)E 0 (0/ 12)		(-2.7 - 29.7)E -1 (0/ 4)	
Se-75	(12)		1.7E -1	14	3.1E -1	NO DATA
	(0)		(-8.5 - 10.4)E -1 (0/ 12)		(-7.6 - 10.4)E -1 (0/ 4)	
Nb-95	(12)	15	2.2E -1	01	4.8E -1	NO DATA
	(0)		(-1.0 - 1.3)E 0 (0/ 12)		(-2.6 - 12.8)E -1 (0/ 4)	

* Non-Routine refers to those radionuclides that exceeded the Reporting Levels in ODCM Table A.9.1-3.
** The fraction of detectable measurements (i.e., > MDC with no uncertain identification) is shown in parentheses.

Table 3.5-1 (Continued)

Radiological Environmental Monitoring Program Summary
Seabrook Nuclear Power Station, Seabrook, NH
(January - December 2019)

MEDIUM: Ground Water (WG) UNITS: pCi/kg

Radionuclides (No. Analyses) (Non-Routine*)		Required LLD	Indicator Stations Mean Range (No. Detected**)	Station With Highest Mean Station	Station With Highest Mean Mean Range (No. Detected**)	Control Stations Mean Range (No. Detected**)
Zr-95	(12)	15	-2.7E -1	01	2.4E -1	NO DATA
	(0)		(-2.5 - 0.8)E 0		(-1.2 - 7.9)E -1	
			(0/ 12)		(0/ 4)	
Ru-103	(12)		-2.0E -1	01	2.3E -1	NO DATA
	(0)		(-1.8 - 0.6)E 0		(-6.2 - 6.2)E -1	
			(0/ 12)		(0/ 4)	
Ru-106	(12)		-8.5E -1	13	2.4E 0	NO DATA
	(0)		(-8.7 - 7.6)E 0		(-5.3 - 7.6)E 0	
			(0/ 12)		(0/ 4)	
Ag-108m	(12)		8.4E -3	14	2.5E -1	NO DATA
	(0)		(-5.4 - 9.0)E -1		(-2.7 - 9.0)E -1	
			(0/ 12)		(0/ 4)	
Ag-110m	(12)		8.9E -3	13	7.5E -2	NO DATA
	(0)		(-4.8 - 4.7)E -1		(-2.9 - 2.5)E -1	
			(0/ 12)		(0/ 4)	
Sb-124	(12)		8.6E -2	01	5.3E -1	NO DATA
	(0)		(-3.2 - 2.3)E 0		(-1.8 - 2.3)E 0	
			(0/ 12)		(0/ 4)	
Sb-125	(12)		5.5E -2	14	3.5E -1	NO DATA
	(0)		(-1.9 - 2.1)E 0		(-7.8 - 13.2)E -1	
			(0/ 12)		(0/ 4)	
I-131	(12)	15	-1.2E -2	01	3.6E -1	NO DATA
	(0)		(-2.2 - 2.3)E 0		(-2.2 - 2.3)E 0	
			(0/ 12)		(0/ 4)	
Cs-134	(12)	15	1.6E -1	01	2.6E -1	NO DATA
	(0)		(-7.6 - 13.8)E -1		(-1.2 - 7.7)E -1	
			(0/ 12)		(0/ 4)	
Cs-137	(12)	18	6.8E -2	01	2.5E -1	NO DATA
	(0)		(-1.1 - 1.0)E 0		(-3.2 - 10.0)E -1	
			(0/ 12)		(0/ 4)	
Ba-140	(12)	15	-8.3E -1	01	3.3E -1	NO DATA
	(0)		(-7.2 - 7.8)E 0		(-3.7 - 7.8)E 0	
			(0/ 12)		(0/ 4)	
La-140	(12)	15	-6.4E -1	13	-2.3E -1	NO DATA
	(0)		(-3.0 - 1.3)E 0		(-1.8 - 0.7)E 0	
			(0/ 12)		(0/ 4)	
Ce-141	(12)		-1.0E 0	14	-8.9E -1	NO DATA
	(0)		(-5.5 - 1.2)E 0		(-3.5 - 1.0)E 0	
			(0/ 12)		(0/ 4)	

* Non-Routine refers to those radionuclides that exceeded the Reporting Levels in ODCM Table A.9.1-3.
** The fraction of detectable measurements (i.e., >3 standard deviations with no uncertain identification) is shown in parentheses.

Table 3.5-1 (Continued)

Radiological Environmental Monitoring Program Summary
Seabrook Nuclear Power Station, Seabrook, NH
(January - December 2019)

MEDIUM: Ground Water (WG) UNITS: pCi/kg

Radionuclides (No. Analyses) (Non-Routine*)	Required LLD	Indicator Stations Mean Range (No. Detected**)	Station With Highest Mean Station	Station With Highest Mean Mean Range (No. Detected**)	Control Stations Mean Range (No. Detected**)
Ce-144 (12) (0)		1.2E 0 (-5.5 - 9.4)E 0 (0/ 12)	14	3.8E 0 (-1.3 - 9.4)E 0 (0/ 4)	NO DATA
Pb-212 (12) (0)		-4.6E -1 (-4.6 - 2.5)E 0 (0/ 12)	14	1.3E 0 (-6.6 - 24.5)E -1 (0/ 4)	NO DATA
Pb-214 (12) (0)		3.0E 1 (-4.5 - 126.0)E 0 (8/ 12)	14	6.8E 1 (2.2 - 12.6)E 1 (4/ 4)	NO DATA
Bi-214 (12) (0)		2.6E 1 (-2.2 - 107.0)E 0 (8/ 12)	14	5.6E 1 (1.7 - 10.7)E 1 (4/ 4)	NO DATA
Ac-228 (12) (0)		-2.7E -1 (-5.1 - 5.0)E 0 (0/ 12)	01	4.4E -1 (-3.3 - 5.0)E 0 (0/ 4)	NO DATA
Th-228 (12) (0)		-4.6E -1 (-4.6 - 2.5)E 0 (0/ 12)	14	1.3E 0 (-6.6 - 24.5)E -1 (0/ 4)	NO DATA

* Non-Routine refers to those radionuclides that exceeded the Reporting Levels in ODCM Table A.9.1-3.
** The fraction of detectable measurements (i.e., > MDC with no uncertain identification) is shown in parentheses.

3.6 Sediment

Semiannual sediment sampling is required at one indicator location, although a total of five locations, three indicators and two controls, are collected. The indicator stations are comprised of two sets of beach sediment cores from Hampton Beach (SE-07) and Seabrook Beach (SE-08), plus two sub-tidal sediment cores taken from near the discharge structure (SE-02). The control locations, Plum Island Beach (SE-57) and sub-tidal Ipswich Bay (SE-52), are both located within Ipswich Bay. A total of 10 samples were collected for the year from all locations. All cores were analyzed as single or whole samples without segmenting. A gamma analysis was performed on each core.

Table 3.6-1 identifies the results of the search for radionuclides of which several naturally-occurring were detected. The naturally-occurring radionuclides include K-40 and nuclides of the Uranium-238 decay chain (Th-230, Ra-226, Pb-214 and Bi-214) and the Thorium-232 decay chain (Ac-228, Th-228, Pb-212, and Tl-208). No plant-related radionuclides were detected in any core. No increasing or decreasing trends were observed. This is consistent with the pre-operational program and with previous years of plant operations. There is no plant related dose to the public or impact to the environment from any pathways associated with this media.

The REMP Summary Table 3.6-1 lists the range of analysis results by radionuclide for Indicator and Control Stations for the sediment environmental media. Attachment 1 to this report lists the individual analysis results for each measurement of sediment under the Sample Type code SE.

Any sample collection and analysis deviations from the ODCM required program, or reportable concentrations that may have occurred during the year are described in Section 5.

Table 3.6-1

Radiological Environmental Monitoring Program Summary
Seabrook Nuclear Power Station, Seabrook, NH
(January - December 2019)

MEDIUM: Sediment (SE) UNITS: pCi/kg

Radionuclides (No. Analyses) (Non-Routine*)	Required LLD	Indicator Stations Mean Range (No. Detected**)	Station	Station With Highest Mean Mean Range (No. Detected**)	Control Stations Mean Range (No. Detected**)
Be-7 (10) (0)		3.1E 1 (-9.6 - 22.9)E 1 (0/ 6)	08	1.1E 2 (-1.7 - 22.9)E 1 (0/ 2)	-4.2E 1 (-9.6 - 1.4)E 1 (0/ 4)
K-40 (10) (0)		1.7E 4 (1.5 - 2.2)E 4 (6/ 6)	08	1.9E 4 (1.7 - 2.2)E 4 (2/ 2)	1.6E 4 (1.2 - 2.1)E 4 (4/ 4)
Cr-51 (10) (0)		6.4E 1 (-1.0 - 2.8)E 2 (0/ 6)	08	1.2E 2 (3.9 - 19.9)E 1 (0/ 2)	-5.0E 1 (-2.3 - 1.5)E 2 (0/ 4)
Mn-54 (10) (0)		1.3E 1 (1.8 - 25.8)E 0 (0/ 6)	02	2.1E 1 (1.5 - 2.6)E 1 (0/ 2)	2.2E 0 (-1.7 - 8.6)E 0 (0/ 4)
Co-57 (10) (0)		-3.1E 0 (-6.2 - 0.7)E 0 (0/ 6)	52	8.6E 0 (8.4 - 1720.0)E -2 (0/ 2)	2.2E 0 (-9.6 - 17.2)E 0 (0/ 4)
Co-58 (10) (0)		6.2E -1 (-2.7 - 2.1)E 1 (0/ 6)	02	1.0E 1 (-1.1 - 21.4)E 0 (0/ 2)	2.7E 0 (-1.8 - 11.0)E 0 (0/ 4)
Fe-59 (10) (0)		-6.7E 0 (-5.7 - 2.9)E 1 (0/ 6)	07	1.4E 1 (-8.2 - 289.0)E -1 (0/ 2)	3.0E 0 (-2.1 - 3.8)E 1 (0/ 4)
Co-60 (10) (0)		1.3E -1 (-1.1 - 1.3)E 1 (0/ 6)	57	9.9E 0 (-4.9 - 24.7)E 0 (0/ 2)	9.4E 0 (-4.9 - 24.7)E 0 (0/ 4)
Zn-65 (10) (0)		-1.3E 1 (-5.1 - 3.5)E 1 (0/ 6)	57	1.4E 1 (-1.8 - 29.9)E 0 (0/ 2)	2.1E 0 (-1.4 - 3.0)E 1 (0/ 4)
Se-75 (10) (0)		7.6E 0 (-1.6 - 3.7)E 1 (0/ 6)	08	2.9E 1 (2.0 - 3.7)E 1 (0/ 2)	-4.9E 0 (-2.7 - 2.0)E 1 (0/ 4)
Nb-95 (10) (0)		1.5E 0 (-9.2 - 22.6)E 0 (0/ 6)	08	6.7E 0 (-9.2 - 22.6)E 0 (0/ 2)	1.5E 0 (-1.1 - 1.6)E 1 (0/ 4)
Zr-95 (10) (0)		-3.7E 0 (-3.3 - 1.5)E 1 (0/ 6)	52	2.5E 1 (-1.8 - 6.9)E 1 (0/ 2)	9.1E 0 (-1.8 - 6.9)E 1 (0/ 4)
Ru-103 (10) (0)		5.3E 0 (-6.2 - 40.0)E 0 (0/ 6)	07	2.0E 1 (6.9 - 400.0)E -1 (0/ 2)	1.2E 1 (2.0 - 19.6)E 0 (0/ 4)

* Non-Routine refers to those radionuclides that exceeded the Reporting Levels in ODCM Table A.9.1-3.
** The fraction of detectable measurements (i.e., > MDC with no uncertain identification) is shown in parentheses.

Table 3.6-1 (Continued)

Radiological Environmental Monitoring Program Summary
Seabrook Nuclear Power Station, Seabrook, NH
(January - December 2019)

MEDIUM: Sediment (SE) UNITS: pCi/kg

Radionuclides (No. Analyses) (Non-Routine*)		Required LLD	Indicator Stations Mean Range (No. Detected**)	Station With Highest Mean Station	Station With Highest Mean Mean Range (No. Detected**)	Control Stations Mean Range (No. Detected**)
Ru-106	(10)		-6.2E 1	52	1.3E 2	1.2E 2
	(0)		(-1.8 - 1.3)E 2 (0/ 6)		(6.5 - 19.0)E 1 (0/ 2)	(6.0 - 19.0)E 1 (0/ 4)
Ag-108m	(10)		2.7E 0	02	5.5E 0	-3.2E 0
	(0)		(-2.9 - 11.7)E 0 (0/ 6)		(5.4 - 5.5)E 0 (0/ 2)	(-9.6 - 1.7)E 0 (0/ 4)
Ag-110m	(10)		1.7E 0	02	6.8E 0	-7.6E 0
	(0)		(-1.7 - 2.0)E 1 (0/ 6)		(1.3 - 12.3)E 0 (0/ 2)	(-1.2 - -0.2)E 1 (0/ 4)
Sb-124	(10)		-4.2E 0	08	-1.3E 0	-1.0E 1
	(0)		(-3.4 - 2.6)E 1 (0/ 6)		(-4.6 - 2.0)E 0 (0/ 2)	(-2.3 - 0.4)E 1 (0/ 4)
Sb-125	(10)		-5.5E 0	07	9.6E 0	-3.3E 1
	(0)		(-4.7 - 2.0)E 1 (0/ 6)		(-8.5 - 200.0)E -1 (0/ 2)	(-5.9 - 1.5)E 1 (0/ 4)
I-131	(10)		-3.2E 1	52	1.1E 2	3.1E 1
	(0)		(-2.1 - 0.4)E 2 (0/ 6)		(5.9 - 16.1)E 1 (0/ 2)	(-9.1 - 16.1)E 1 (0/ 4)
Cs-134	(10)	150	1.9E 1	52	6.3E 1	3.3E 1
	(0)		(-1.1 - 4.6)E 1 (0/ 6)		(0.0 - 1.3)E 2 (0/ 2)	(0.0 - 1.3)E 2 (0/ 4)
Cs-137	(10)	180	7.1E 0	52	1.3E 1	7.7E 0
	(0)		(-3.6 - 13.8)E 0 (0/ 6)		(1.2 - 1.3)E 1 (0/ 2)	(-1.7 - 13.4)E 0 (0/ 4)
Ba-140	(10)		-1.3E 1	02	8.9E 1	4.2E 1
	(0)		(-1.2 - 1.4)E 2 (0/ 6)		(3.6 - 14.2)E 1 (0/ 2)	(-3.8 - 10.3)E 1 (0/ 4)
La-140	(10)		-3.1E 1	07	1.8E 1	-2.9E 1
	(0)		(-1.5 - 0.4)E 2 (0/ 6)		(-5.7 - 41.6)E 0 (0/ 2)	(-6.1 - -0.9)E 1 (0/ 4)
Ce-141	(10)		9.9E 0	02	2.8E 1	-2.6E 1
	(0)		(-2.8 - 5.1)E 1 (0/ 6)		(5.6 - 51.4)E 0 (0/ 2)	(-4.6 - -0.4)E 1 (0/ 4)
Ce-144	(10)		4.3E 1	02	1.2E 2	-9.0E -1
	(0)		(-7.8 - 22.9)E 1 (0/ 6)		(1.9 - 22.9)E 1 (0/ 2)	(-8.1 - 7.9)E 1 (0/ 4)
Tl-208	(10)		1.6E 2	52	5.1E 2	3.2E 2
	(0)		(9.7 - 24.8)E 1 (6/ 6)		(2.6 - 7.6)E 2 (2/ 2)	(1.3 - 7.6)E 2 (4/ 4)

* Non-Routine refers to those radionuclides that exceeded the Reporting Levels in ODCM Table A.9.1-3.
** The fraction of detectable measurements (i.e., > MDC with no uncertain identification) is shown in parentheses.

Table 3.6-1 (Continued)

Radiological Environmental Monitoring Program Summary
Seabrook Nuclear Power Station, Seabrook, NH
(January - December 2019)

MEDIUM: Sediment (SE) UNITS: pCi/kg

Radionuclides (No. Analyses) (Non-Routine*)		Required LLD	Indicator Stations: Mean Range (No. Detected**)	Station With Highest Mean: Station	Station With Highest Mean: Mean Range (No. Detected**)	Control Stations: Mean Range (No. Detected**)
Pb-212	**(10)**		6.2E 2	52	2.0E 3	1.3E 3
	(0)		(3.9 - 10.3)E 2 (6/ 6)		(1.2 - 2.8)E 3 (2/ 2)	(4.7 - 28.3)E 2 (4/ 4)
Pb-214	**(10)**		4.8E 2	52	1.4E 3	9.5E 2
	(0)		(1.8 - 9.2)E 2 (6/ 6)		(8.7 - 20.3)E 2 (2/ 2)	(4.0 - 20.3)E 2 (4/ 4)
Bi-214	**(10)**		4.0E 2	52	1.2E 3	7.1E 2
	(0)		(2.5 - 6.7)E 2 (6/ 6)		(6.8 - 16.2)E 2 (2/ 2)	(2.6 - 16.2)E 2 (4/ 4)
Ra-226	**(10)**		4.0E 2	52	1.2E 3	7.1E 2
	(0)		(2.5 - 6.7)E 2 (6/ 6)		(6.8 - 16.2)E 2 (2/ 2)	(2.6 - 16.2)E 2 (4/ 4)
Ac-228	**(10)**		4.8E 2	52	1.9E 3	1.0E 3
	(0)		(0.0 - 1.1)E 3 (5/ 6)		(8.9 - 28.2)E 2 (2/ 2)	(0.0 - 2.8)E 3 (3/ 4)
Th-228	**(10)**		6.2E 2	52	2.0E 3	1.3E 3
	(0)		(3.9 - 10.3)E 2 (6/ 6)		(1.2 - 2.8)E 3 (2/ 2)	(4.7 - 28.3)E 2 (4/ 4)
Th-230	**(10)**		4.0E 2	52	1.2E 3	7.1E 2
	(0)		(2.5 - 6.7)E 2 (6/ 6)		(6.8 - 16.2)E 2 (2/ 2)	(2.6 - 16.2)E 2 (4/ 4)

* Non-Routine refers to those radionuclides that exceeded the Reporting Levels in ODCM Table A.9.1-3.
** The fraction of detectable measurements (i.e., > MDC with no uncertain identification) is shown in parentheses.

3.7 Fish

Semiannual fish (FH) and invertebrate samples are required by the ODCM REMP from two locations. Quarterly collections are attempted to ensure the sampling requirements are met. This section presents the results for fish sampling only. Invertebrate results may be found in Sections 3.8 and 3.9, entitled Lobsters and Shellfish, respectively.

During the year, a total of 9 fish samples were collected. The fish species available from Station FH-03 (indicator station) and Station FH-53 (control station) were dominated by Winter Flounder which are bottom dwelling species. Two samples of Cunner fish were also collected from sample location FH-06 (Hampton Bay in the area of the plant's discharge).

A gamma analysis was performed on the edible portion of each sample collected. In 2019, the only radionuclides detected were naturally-occurring K-40 (all samples), and Tl-208 in one sample, part of the Thorium-232 decay chain. Table 3.7-1 summarizes the results for radionuclides in fish. Similar to past years, no plant-related radionuclides were detected in any samples. As a result, no increasing or decreasing trends were observed. Subsequently, there is no dose to the public or impact to the environment through this pathway due to plant operations. This is consistent with previous years of plant operations, as well as the pre-operational program.

In addition to the required program for fish as defined in the ODCM, sampling was attempted to collect a local fish species (cunner fish) that resides in the upper regions of the water column using an alternate collection method from that used for the more prevalent bottom species (flounder). For 2019, two Cunner samples were collected from Hampton Bay. The results are listed in Attachment 1 as laboratory numbers 481983003 (05/30/2019) and 498584003 (11/27/2019). No plant radionuclides were detected in the Cunner fish samples, with only naturally-occurring K-40 being found.

The REMP Summary Table 3.7-1 also lists the range of analysis results by radionuclide for Indicator and Control Stations for all fish environmental media. Attachment 1 to this report lists the individual analysis results for each measurement of fish under the Sample Type code FH.

Any sample collection and analysis deviations from the ODCM required program, or reportable concentrations that may have occurred during the year are described in Section 5.

Table 3.7-1

Radiological Environmental Monitoring Program Summary
Seabrook Nuclear Power Station, Seabrook, NH
(January - December 2019)

MEDIUM: Fish (FH) UNITS: pCi/kg

Radionuclides (No. Analyses) (Non-Routine*)		Required LLD	Indicator Stations Mean Range (No. Detected**)	Station With Highest Mean Station	Station With Highest Mean Mean Range (No. Detected**)	Control Stations Mean Range (No. Detected**)
Be-7	(9)		8.0E 0	06	1.8E 1	2.3E 0
	(0)		(-1.8 - 5.4)E 1 (0/ 6)		(-1.8 - 5.4)E 1 (0/ 2)	(-2.1 - 2.7)E 1 (0/ 3)
K-40	(9)		3.3E 3	03	3.7E 3	3.6E 3
	(0)		(2.5 - 5.2)E 3 (6/ 6)		(2.6 - 5.2)E 3 (4/ 4)	(3.1 - 4.0)E 3 (3/ 3)
Cr-51	(9)		-4.6E 1	06	5.6E 1	-7.2E 0
	(0)		(-2.3 - 0.8)E 2 (0/ 6)		(3.4 - 7.8)E 1 (0/ 2)	(-1.3 - -0.3)E 1 (0/ 3)
Mn-54	(9)	130	-4.1E 0	53	-7.5E -1	-7.5E -1
	(0)		(-1.5 - 0.0)E 1 (0/ 6)		(-1.4 - -0.3)E 0 (0/ 3)	(-1.4 - -0.3)E 0 (0/ 3)
Co-57	(9)		-7.2E -1	06	6.9E -2	-9.8E -1
	(0)		(-4.7 - 3.3)E 0 (0/ 6)		(3.3 - 10.5)E -2 (0/ 2)	(-1.8 - 0.1)E 0 (0/ 3)
Co-58	(9)	130	6.0E 0	06	1.0E 1	1.7E -1
	(0)		(-2.3 - 13.9)E 0 (0/ 6)		(6.5 - 13.9)E 0 (0/ 2)	(-5.8 - 6.2)E -1 (0/ 3)
Fe-59	(9)	260	-2.9E -1	53	9.4E 0	9.4E 0
	(0)		(-7.0 - 16.7)E 0 (0/ 6)		(3.0 - 17.2)E 0 (0/ 3)	(3.0 - 17.2)E 0 (0/ 3)
Co-60	(9)	130	4.3E 0	03	5.5E 0	2.0E -2
	(0)		(-3.3 - 23.2)E 0 (0/ 6)		(-3.3 - 23.2)E 0 (0/ 4)	(-2.1 - 1.6)E 0 (0/ 3)
Zn-65	(9)	260	-1.3E 1	53	-3.0E 0	-3.0E 0
	(0)		(-3.6 - 0.4)E 1 (0/ 6)		(-4.2 - -1.8)E 0 (0/ 3)	(-4.2 - -1.8)E 0 (0/ 3)
Se-75	(9)		-2.8E 0	53	1.4E 0	1.4E 0
	(0)		(-2.7 - 0.8)E 1 (0/ 6)		(7.6 - 24.9)E -1 (0/ 3)	(7.6 - 24.9)E -1 (0/ 3)
Nb-95	(9)		2.4E 0	06	9.0E 0	2.4E 0
	(0)		(-1.1 - 1.9)E 1 (0/ 6)		(-1.3 - 19.2)E 0 (0/ 2)	(2.1 - 2.6)E 0 (0/ 3)
Zr-95	(9)		2.8E 0	03	1.2E 1	1.6E 0
	(0)		(-2.2 - 5.5)E 1 (0/ 6)		(-1.4 - 5.5)E 1 (0/ 4)	(-1.6 - 4.6)E 0 (0/ 3)
Ru-103	(9)		-1.4E 0	53	2.2E 0	2.2E 0
	(0)		(-7.2 - 4.6)E 0 (0/ 6)		(-1.3 - 4.5)E 0 (0/ 3)	(-1.3 - 4.5)E 0 (0/ 3)

* Non-Routine refers to those radionuclides that exceeded the Reporting Levels in ODCM Table A.9.1-3.
** The fraction of detectable measurements (i.e., > MDC with no uncertain identification) is shown in parentheses.

Table 3.7-1 (Continued)

Radiological Environmental Monitoring Program Summary
Seabrook Nuclear Power Station, Seabrook, NH
(January - December 2019)

MEDIUM: Fish (FH) UNITS: pCi/kg

Radionuclides (No. Analyses) (Non-Routine*)		Required LLD	Indicator Stations Mean Range (No. Detected**)	Station With Highest Mean Station	Station With Highest Mean Mean Range (No. Detected**)	Control Stations Mean Range (No. Detected**)
Ru-106	(9)		7.9E 1	06	9.3E 1	-2.7E 0
	(0)		(-9.7 - 222.0)E 0 (0/ 6)		(5.8 - 12.8)E 1 (0/ 2)	(-2.4 - 1.1)E 1 (0/ 3)
Ag-108m	(9)		-3.9E 0	53	-2.9E -1	-2.9E -1
	(0)		(-1.3 - 0.0)E 1 (0/ 6)		(-6.2 - 0.4)E -1 (0/ 3)	(-6.2 - 0.4)E -1 (0/ 3)
Ag-110m	(9)		-5.7E 0	06	1.2E 1	2.4E -1
	(0)		(-4.0 - 2.0)E 1 (0/ 6)		(3.1 - 20.3)E 0 (0/ 2)	(-7.0 - 16.1)E -1 (0/ 3)
Sb-124	(9)		-2.2E 0	06	7.9E 0	-1.0E 0
	(0)		(-3.7 - 0.9)E 1 (0/ 6)		(7.0 - 8.7)E 0 (0/ 2)	(-5.9 - 4.5)E 0 (0/ 3)
Sb-125	(9)		5.4E 0	06	2.0E 1	3.8E 0
	(0)		(-1.2 - 2.8)E 1 (0/ 6)		(1.3 - 2.8)E 1 (0/ 2)	(-3.2 - 12.0)E 0 (0/ 3)
I-131	(9)		1.4E 1	03	1.6E 1	4.3E -1
	(0)		(-1.6 - 5.3)E 1 (0/ 6)		(-1.6 - 5.3)E 1 (0/ 4)	(-1.4 - 1.7)E 0 (0/ 3)
Cs-134	(9)	130	-4.4E -1	03	2.1E 0	6.8E -1
	(0)		(-1.4 - 1.4)E 1 (0/ 6)		(-7.3 - 14.4)E 0 (0/ 4)	(-5.7 - 24.1)E -1 (0/ 3)
Cs-137	(9)	150	6.7E -1	53	2.7E 0	2.7E 0
	(0)		(-1.7 - 2.2)E 1 (0/ 6)		(2.3 - 3.4)E 0 (0/ 3)	(2.3 - 3.4)E 0 (0/ 3)
Ba-140	(9)		3.9E 1	03	6.0E 1	8.8E -1
	(0)		(-2.2 - 23.4)E 1 (0/ 6)		(-2.2 - 23.4)E 1 (0/ 4)	(-1.3 - 1.4)E 1 (0/ 3)
La-140	(9)		6.1E 0	03	1.5E 1	5.6E -1
	(0)		(-1.2 - 6.8)E 1 (0/ 6)		(-6.8 - 68.0)E 0 (0/ 4)	(-1.4 - 2.6)E 0 (0/ 3)
Ce-141	(9)		3.5E 0	03	9.6E 0	-1.0E 0
	(0)		(-9.6 - 30.0)E 0 (0/ 6)		(-3.3 - 300.0)E -1 (0/ 4)	(-2.4 - -0.1)E 0 (0/ 3)
Ce-144	(9)		9.6E 0	03	1.3E 1	2.6E -1
	(0)		(-2.2 - 394.0)E -1 (0/ 6)		(-2.2 - 394.0)E -1 (0/ 4)	(-3.5 - 5.8)E 0 (0/ 3)
Tl-208	(9)		3.0E 0	03	4.4E 0	1.6E 0
	(0)		(-6.8 - 128.0)E -1 (0/ 6)		(0.0 - 1.3)E 1 (0/ 4)	(-3.8 - 6.1)E 0 (1/ 3)

* Non-Routine refers to those radionuclides that exceeded the Reporting Levels in ODCM Table A.9.1-3.
** The fraction of detectable measurements (i.e., > MDC with no uncertain identification) is shown in parentheses.

Table 3.7-1 (Continued)

Radiological Environmental Monitoring Program Summary
Seabrook Nuclear Power Station, Seabrook, NH
(January - December 2019)

MEDIUM: Fish (FH) UNITS: pCi/kg

Radionuclides (No. Analyses) (Non-Routine*)		Required LLD	Indicator Stations Mean Range (No. Detected**)	Station With Highest Mean Station	 Mean Range (No. Detected**)	Control Stations Mean Range (No. Detected**)
Pb-212	**(9)**		7.5E 0	03	1.1E 1	1.6E 0
	(0)		(-6.9 - 21.0)E 0 (0/ 6)		(1.3 - 21.0)E 0 (0/ 4)	(-2.7 - 7.5)E 0 (0/ 3)
Pb-214	**(9)**		-7.2E 0	06	7.2E 0	4.4E 0
	(0)		(-6.4 - 1.3)E 1 (0/ 6)		(1.1 - 13.3)E 0 (0/ 2)	(5.0 - 82.5)E -1 (0/ 3)
Bi-214	**(9)**		-1.7E 1	53	-2.0E -1	-2.0E -1
	(0)		(-5.4 - 1.0)E 1 (0/ 6)		(-5.3 - 4.7)E 0 (0/ 3)	(-5.3 - 4.7)E 0 (0/ 3)
Ra-226	**(9)**		-1.7E 1	53	-2.0E -1	-2.0E -1
	(0)		(-5.4 - 1.0)E 1 (0/ 6)		(-5.3 - 4.7)E 0 (0/ 3)	(-5.3 - 4.7)E 0 (0/ 3)
Ac-228	**(9)**		-6.9E 0	03	6.0E 0	-3.5E 0
	(0)		(-9.2 - 2.9)E 1 (0/ 6)		(-4.8 - 28.6)E 0 (0/ 4)	(-2.1 - 2.8)E 1 (0/ 3)
Th-228	**(9)**		7.5E 0	03	1.1E 1	1.6E 0
	(0)		(-6.9 - 21.0)E 0 (0/ 6)		(1.3 - 21.0)E 0 (0/ 4)	(-2.7 - 7.5)E 0 (0/ 3)
Th-230	**(9)**		-1.7E 1	53	-2.0E -1	-2.0E -1
	(0)		(-5.4 - 1.0)E 1 (0/ 6)		(-5.3 - 4.7)E 0 (0/ 3)	(-5.3 - 4.7)E 0 (0/ 3)

* Non-Routine refers to those radionuclides that exceeded the Reporting Levels in ODCM Table A.9.1-3.
** The fraction of detectable measurements (i.e., > MDC with no uncertain identification) is shown in parentheses.

3.8 Lobsters

Semiannual fish and invertebrate samples were required from two locations. This section provides the results for one type of invertebrate – *Homarus americanus (*American lobsters) which is an important commercial food species from local waters. Lobsters (HA) were collected from an indicator location near the discharge (HA-04) and from a control location (HA-54) within Ipswich Bay. A total of four samples were collected for the year. Fish and shellfish results may be found in Sections 3.7 and 3.9, respectively.

A gamma analysis was performed on each sample. The only radionuclide detected in lobster samples in 2019 was naturally-occurring K-40 (all samples). Similar to past years, no plant-related radionuclides were detected in any sample. Therefore, no increasing or decreasing trends were observed. Consequently, there is no dose to the public or impact to the environment from this pathway due to plant operations. This is consistent with previous years as well as the pre-operational program.

The REMP Summary Table 3.8-1 also lists the range of analysis results by radionuclide for Indicator and Control Stations for all lobster samples. Attachment 1 to this report lists the individual analysis results for each measurement of lobsters under the Sample Type code HA.

Any sample collection and analysis deviations from the ODCM required program, or reportable concentrations that may have occurred during the year are described in Section 5.

Table 3.8-1

Radiological Environmental Monitoring Program Summary
Seabrook Nuclear Power Station, Seabrook, NH
(January - December 2019)

MEDIUM: American Lobster (HA) UNITS: pCi/kg

Radionuclides (No. Analyses) (Non-Routine*)		Required LLD	Indicator Stations Mean Range (No. Detected**)	Station With Highest Mean Station	Station With Highest Mean Mean Range (No. Detected**)	Control Stations Mean Range (No. Detected**)
Be-7	(4)		-1.6E 1	54	3.8E 1	3.8E 1
	(0)		(-2.0 - -1.3)E 1 (0/ 2)		(-2.5 - 10.0)E 1 (0/ 2)	(-2.5 - 10.0)E 1 (0/ 2)
K-40	(4)		2.8E 3	04	2.8E 3	2.3E 3
	(0)		(2.0 - 3.5)E 3 (2/ 2)		(2.0 - 3.5)E 3 (2/ 2)	(1.7 - 3.0)E 3 (2/ 2)
Cr-51	(4)		-4.1E 1	04	-4.1E 1	-8.0E 1
	(0)		(-4.2 - -4.1)E 1 (0/ 2)		(-4.2 - -4.1)E 1 (0/ 2)	(-1.4 - -0.2)E 2 (0/ 2)
Mn-54	(4)	130	-1.0E 0	04	-1.0E 0	-6.7E 0
	(0)		(-6.0 - 3.9)E 0 (0/ 2)		(-6.0 - 3.9)E 0 (0/ 2)	(-7.3 - -6.0)E 0 (0/ 2)
Co-57	(4)		-9.8E -1	54	2.2E 0	2.2E 0
	(0)		(-4.3 - 2.3)E 0 (0/ 2)		(1.2 - 3.1)E 0 (0/ 2)	(1.2 - 3.1)E 0 (0/ 2)
Co-58	(4)	130	-2.1E 0	04	-2.1E 0	-4.9E 0
	(0)		(-5.4 - 1.1)E 0 (0/ 2)		(-5.4 - 1.1)E 0 (0/ 2)	(-7.7 - -2.1)E 0 (0/ 2)
Fe-59	(4)	260	9.0E 0	04	9.0E 0	3.8E 0
	(0)		(-6.9 - 186.0)E -1 (0/ 2)		(-6.9 - 186.0)E -1 (0/ 2)	(-1.8 - 9.3)E 0 (0/ 2)
Co-60	(4)	130	-3.6E 0	04	-3.6E 0	-5.8E 0
	(0)		(-8.2 - 1.0)E 0 (0/ 2)		(-8.2 - 1.0)E 0 (0/ 2)	(-7.4 - -4.1)E 0 (0/ 2)
Zn-65	(4)	260	-1.8E -1	04	-1.8E -1	-1.0E 1
	(0)		(-4.6 - 4.2)E 0 (0/ 2)		(-4.6 - 4.2)E 0 (0/ 2)	(-2.2 - 0.1)E 1 (0/ 2)
Se-75	(4)		2.3E -1	04	2.3E -1	-8.6E 0
	(0)		(-3.3 - 7.8)E -1 (0/ 2)		(-3.3 - 7.8)E -1 (0/ 2)	(-1.3 - -0.4)E 1 (0/ 2)
Nb-95	(4)		5.3E -1	54	6.5E -1	6.5E -1
	(0)		(-6.2 - 7.2)E 0 (0/ 2)		(-2.9 - 4.2)E 0 (0/ 2)	(-2.9 - 4.2)E 0 (0/ 2)
Zr-95	(4)		1.7E 1	04	1.7E 1	1.2E 0
	(0)		(-9.7 - 44.5)E 0 (0/ 2)		(-9.7 - 44.5)E 0 (0/ 2)	(-2.8 - 5.2)E 0 (0/ 2)
Ru-103	(4)		4.3E 0	04	4.3E 0	-4.4E -1
	(0)		(1.5 - 7.1)E 0 (0/ 2)		(1.5 - 7.1)E 0 (0/ 2)	(-9.7 - 0.8)E -1 (0/ 2)

* Non-Routine refers to those radionuclides that exceeded the Reporting Levels in ODCM Table A.9.1-3.
** The fraction of detectable measurements (i.e., > MDC with no uncertain identification) is shown in parentheses.

Table 3.8-1 (Continued)
Radiological Environmental Monitoring Program Summary
Seabrook Nuclear Power Station, Seabrook, NH
(January - December 2019)

MEDIUM: American Lobster (HA) UNITS: pCi/kg

Radionuclides (No. Analyses) (Non-Routine*)		Required LLD	Indicator Stations Mean Range (No. Detected**)	Station With Highest Mean Station	Station With Highest Mean Mean Range (No. Detected**)	Control Stations Mean Range (No. Detected**)
Ru-106	(4)		7.0E -1	04	7.0E -1	-8.7E 1
	(0)		(-2.7 - 2.9)E 1 (0/ 2)		(-2.7 - 2.9)E 1 (0/ 2)	(-1.6 - -0.2)E 2 (0/ 2)
Ag-108m	(4)		1.3E 1	04	1.3E 1	-4.5E -1
	(0)		(1.7 - 23.9)E 0 (0/ 2)		(1.7 - 23.9)E 0 (0/ 2)	(-5.3 - 4.4)E 0 (0/ 2)
Ag-110m	(4)		-4.9E 0	04	-4.9E 0	-7.2E 0
	(0)		(-6.1 - -3.8)E 0 (0/ 2)		(-6.1 - -3.8)E 0 (0/ 2)	(-1.5 - 0.1)E 1 (0/ 2)
Sb-124	(4)		2.8E 0	54	1.4E 1	1.4E 1
	(0)		(-1.1 - 6.7)E 0 (0/ 2)		(2.6 - 25.1)E 0 (0/ 2)	(2.6 - 25.1)E 0 (0/ 2)
Sb-125	(4)		9.4E 0	04	9.4E 0	-7.8E 0
	(0)		(-5.4 - 24.2)E 0 (0/ 2)		(-5.4 - 24.2)E 0 (0/ 2)	(-1.2 - -0.4)E 1 (0/ 2)
I-131	(4)		2.1E -1	04	2.1E -1	-8.6E 0
	(0)		(-6.4 - 6.9)E 0 (0/ 2)		(-6.4 - 6.9)E 0 (0/ 2)	(-1.5 - -0.2)E 1 (0/ 2)
Cs-134	(4)	130	2.2E 0	04	2.2E 0	-7.7E 0
	(0)		(0.0 - 4.4)E 0 (0/ 2)		(0.0 - 4.4)E 0 (0/ 2)	(-1.4 - -0.2)E 1 (0/ 2)
Cs-137	(4)	150	-2.3E 0	04	-2.3E 0	-8.0E 0
	(0)		(-6.1 - 1.5)E 0 (0/ 2)		(-6.1 - 1.5)E 0 (0/ 2)	(-1.5 - -0.1)E 1 (0/ 2)
Ba-140	(4)		3.1E 1	04	3.1E 1	-4.6E 0
	(0)		(8.5 - 53.8)E 0 (0/ 2)		(8.5 - 53.8)E 0 (0/ 2)	(-1.9 - 1.0)E 1 (0/ 2)
La-140	(4)		-5.5E 0	54	1.8E 0	1.8E 0
	(0)		(-7.6 - -3.4)E 0 (0/ 2)		(-3.4 - 7.1)E 0 (0/ 2)	(-3.4 - 7.1)E 0 (0/ 2)
Ce-141	(4)		-7.2E 0	54	1.4E 0	1.4E 0
	(0)		(-1.1 - -0.3)E 1 (0/ 2)		(-5.1 - 7.9)E 0 (0/ 2)	(-5.1 - 7.9)E 0 (0/ 2)
Ce-144	(4)		-9.3E -1	54	3.0E 1	3.0E 1
	(0)		(-1.5 - -0.4)E 0 (0/ 2)		(2.2 - 3.9)E 1 (0/ 2)	(2.2 - 3.9)E 1 (0/ 2)
Tl-208	(4)		-3.6E 0	04	-3.6E 0	-9.7E 0
	(0)		(-7.2 - 0.0)E 0 (0/ 2)		(-7.2 - 0.0)E 0 (0/ 2)	(-2.1 - 0.1)E 1 (0/ 2)

* Non-Routine refers to those radionuclides that exceeded the Reporting Levels in ODCM Table A.9.1-3.
** The fraction of detectable measurements (i.e., > MDC with no uncertain identification) is shown in parentheses.

Table 3.8-1 (Continued)

Radiological Environmental Monitoring Program Summary
Seabrook Nuclear Power Station, Seabrook, NH
(January - December 2019)

MEDIUM: American Lobster (HA) UNITS: pCi/kg

Radionuclides (No. Analyses) (Non-Routine*)		Required LLD	Indicator Stations Mean Range (No. Detected**)	Station With Highest Mean Station	Station With Highest Mean Mean Range (No. Detected**)	Control Stations Mean Range (No. Detected**)
Pb-212	**(4)**		1.4E 0	54	1.5E 1	1.5E 1
	(0)		(-3.9 - 6.6)E 0 (0/ 2)		(-8.4 - 318.0)E -1 (0/ 2)	(-8.4 - 318.0)E -1 (0/ 2)
Pb-214	**(4)**		-2.8E 0	54	3.0E 1	3.0E 1
	(0)		(-1.3 - 0.8)E 1 (0/ 2)		(-6.5 - 67.3)E 0 (0/ 2)	(-6.5 - 67.3)E 0 (0/ 2)
Bi-214	**(4)**		-2.6E 1	54	3.1E 1	3.1E 1
	(0)		(-5.1 - -0.1)E 1 (0/ 2)		(1.1 - 5.2)E 1 (0/ 2)	(1.1 - 5.2)E 1 (0/ 2)
Ra-226	**(4)**		-2.6E 1	54	3.1E 1	3.1E 1
	(0)		(-5.1 - -0.1)E 1 (0/ 2)		(1.1 - 5.2)E 1 (0/ 2)	(1.1 - 5.2)E 1 (0/ 2)
Ac-228	**(4)**		1.8E 1	04	1.8E 1	-5.7E 0
	(0)		(-2.3 - 6.0)E 1 (0/ 2)		(-2.3 - 6.0)E 1 (0/ 2)	(-1.3 - 0.2)E 1 (0/ 2)
Th-228	**(4)**		1.4E 0	54	1.5E 1	1.5E 1
	(0)		(-3.9 - 6.6)E 0 (0/ 2)		(-8.4 - 318.0)E -1 (0/ 2)	(-8.4 - 318.0)E -1 (0/ 2)
Th-230	**(4)**		-2.6E 1	54	3.1E 1	3.1E 1
	(0)		(-5.1 - -0.1)E 1 (0/ 2)		(1.1 - 5.2)E 1 (0/ 2)	(1.1 - 5.2)E 1 (0/ 2)

* Non-Routine refers to those radionuclides that exceeded the Reporting Levels in ODCM Table A.9.1-3.
** The fraction of detectable measurements (i.e., > MDC with no uncertain identification) is shown in parentheses.

3.9 Shellfish

Semiannual fish and invertebrate samples are required by the ODCM from two locations. This section provides the results for shellfish (MU) samples only. In 2019, four locations (two indicators and two controls) were included in the sample collections. Fish and lobster results may be found in the Sections 3.7 and 3.8, entitled Fish and Lobsters, respectively.

During the year there were two species of mussels (MU) harvested for analysis. *Modiolus (horse mussels)* was collected by divers from near the discharge outfall (indicator station MU-06) and from Ipswich Bay (control MU-56). *Mytilus* (blue mussels) were collected from the intertidal areas of Hampton Harbor (indicator MU-09) and Plum Island (control MU-59). A total of eight samples were collected in 2019 and analyzed for radioactivity in the edible portion or meat of the shellfish.

The only radionuclides detected in edible shellfish body samples in 2019 were naturally-occurring K-40 (seven of 8 samples), and Be-7 (two of 8 samples). Similar to past years, no plant-related gamma emitting radionuclides were detected in any sample. Therefore, no increasing or decreasing trends were observed. Consequently, there is no dose to the public or impact to the environment from this pathway due to plant operations. This is consistent with the pre-operational program and with previous years of plant operations.

Additional analyses were conducted on the May and November shellfish collections from both indicator (MS-06) and control (MS-56) locations. Mussel shells (MS) were analyzed for Strontium 89 and 90 (four samples) to see if there was any indication of strontium uptake into the shell. For 2019, no Sr-89/90 was detected in any sample. No shell analyses are required by the REMP as defined in the ODCM.

The REMP Summary Table 3.9-1 (mussel bodies) and Table 3.9-2 (mussel shells) list the range of analysis results by radionuclide for Indicator and Control Stations for all shellfish samples. Attachment 1 to this report lists the individual analysis results for each measurement of shellfish under the Sample Type code MU for the edible portions and MS for shells only.

Any sample collection and analysis deviations from the ODCM required program, or reportable concentrations that may have occurred during the year, are described in Section 5.

Table 3.9-1
Radiological Environmental Monitoring Program Summary
Seabrook Nuclear Power Station, Seabrook, NH
(January - December 2019)

MEDIUM: Mussel Body (MU) UNITS: pCi/kg

Radionuclides (No. Analyses) (Non-Routine*)		Required LLD	Indicator Stations Mean Range (No. Detected**)	Station With Highest Mean Station	Station With Highest Mean Mean Range (No. Detected**)	Control Stations Mean Range (No. Detected**)
Be-7	(8)		4.9E 1	06	7.7E 1	2.0E 1
	(0)		(-3.2 - 134.0)E 0 (1/ 4)		(2.1 - 13.4)E 1 (0/ 2)	(-1.2 - 0.8)E 2 (1/ 4)
K-40	(8)		1.3E 3	06	1.5E 3	8.9E 2
	(0)		(1.0 - 2.0)E 3 (4/ 4)		(1.0 - 2.0)E 3 (2/ 2)	(1.2 - 13.6)E 2 (3/ 4)
Cr-51	(8)		6.8E 0	09	2.9E 1	-2.4E 1
	(0)		(-4.0 - 7.2)E 1 (0/ 4)		(-1.3 - 7.2)E 1 (0/ 2)	(-1.3 - 0.8)E 2 (0/ 4)
Mn-54	(8)	130	6.4E 0	06	1.6E 1	2.4E 0
	(0)		(-6.5 - 30.4)E 0 (0/ 4)		(1.6 - 30.4)E 0 (0/ 2)	(-5.9 - 17.1)E 0 (0/ 4)
Co-57	(8)		3.5E 0	09	8.9E 0	-1.8E 0
	(0)		(-3.3 - 15.4)E 0 (0/ 4)		(2.5 - 15.4)E 0 (0/ 2)	(-7.2 - 0.4)E 0 (0/ 4)
Co-58	(8)	130	-1.1E 1	59	5.2E 0	3.4E 0
	(0)		(-2.7 - 0.2)E 1 (0/ 4)		(0.0 - 1.0)E 1 (0/ 2)	(-6.5 - 104.0)E-1 (0/ 4)
Fe-59	(8)	260	4.5E -2	09	4.3E -1	-1.1E 1
	(0)		(-9.4 - 8.7)E 0 (0/ 4)		(-2.7 - 3.5)E 0 (0/ 2)	(-2.5 - 0.2)E 1 (0/ 4)
Co-60	(8)	130	2.5E 0	06	1.8E 1	-3.3E 0
	(0)		(-2.5 - 3.7)E 1 (0/ 4)		(-6.8 - 369.0)E -1 (0/ 2)	(-7.4 - 0.7)E 0 (0/ 4)
Zn-65	(8)	260	-1.9E 1	56	2.1E -1	-7.2E 0
	(0)		(-4.2 - 0.1)E 1 (0/ 4)		(-2.8 - 6.9)E -1 (0/ 2)	(-3.1 - 0.1)E 1 (0/ 4)
Se-75	(8)		-2.8E 0	56	3.4E 0	1.5E 0
	(0)		(-1.2 - 1.0)E 1 (0/ 4)		(-7.6 - 76.6)E -1 (0/ 2)	(-9.8 - 8.8)E 0 (0/ 4)
Nb-95	(8)		6.7E 0	06	1.3E 1	7.8E 0
	(0)		(-4.4 - 30.3)E 0 (0/ 4)		(-4.4 - 30.3)E 0 (0/ 2)	(2.9 - 14.6)E 0 (0/ 4)
Zr-95	(8)		-2.1E 0	59	2.2E 1	7.8E 0
	(0)		(-1.7 - 1.5)E 1 (0/ 4)		(2.1 - 2.2)E 1 (0/ 2)	(-9.6 - 22.2)E 0 (0/ 4)
Ru-103	(8)		-7.9E 0	59	-2.3E 0	-2.3E 0
	(0)		(-2.7 - 0.1)E 1 (0/ 4)		(-2.4 - -2.2)E 0 (0/ 2)	(-4.5 - -0.3)E 0 (0/ 4)

* Non-Routine refers to those radionuclides that exceeded the Reporting Levels in ODCM Table A.9.1-3.
** The fraction of detectable measurements (i.e., > MDC with no uncertain identification) is shown in parentheses.

Table 3.9-1 (Continued)
Radiological Environmental Monitoring Program Summary
Seabrook Nuclear Power Station, Seabrook, NH
(January - December 2019)

MEDIUM: Mussel Body (MU) UNITS: pCi/kg

Radionuclides (No. Analyses) (Non-Routine*)		Required LLD	Indicator Stations Mean Range (No. Detected**)	Station With Highest Mean Station	Station With Highest Mean Mean Range (No. Detected**)	Control Stations Mean Range (No. Detected**)
Ru-106	(8)		3.4E 1	06	1.1E 2	2.2E 1
	(0)		(-9.8 - 22.6)E 1 (0/ 4)		(3.6 - 226.0)E 0 (0/ 2)	(-5.4 - 9.3)E 1 (0/ 4)
Ag-108m	(8)		-1.8E -1	09	4.7E 0	3.7E 0
	(0)		(-1.0 - 0.8)E 1 (0/ 4)		(1.1 - 8.4)E 0 (0/ 2)	(-1.9 - 8.9)E 0 (0/ 4)
Ag-110m	(8)		-2.8E 0	56	5.7E 0	-7.2E -1
	(0)		(-1.4 - 0.4)E 1 (0/ 4)		(-3.7 - 15.0)E 0 (0/ 2)	(-2.6 - 1.5)E 1 (0/ 4)
Sb-124	(8)		-1.2E 1	06	1.5E 1	-7.4E 0
	(0)		(-8.7 - 2.9)E 1 (0/ 4)		(1.9 - 29.1)E 0 (0/ 2)	(-2.0 - 1.2)E 1 (0/ 4)
Sb-125	(8)		1.2E 1	06	2.2E 1	8.1E 0
	(0)		(-1.7 - 39.3)E 0 (0/ 4)		(4.9 - 39.3)E 0 (0/ 2)	(-4.2 - 25.1)E 0 (0/ 4)
I-131	(8)		-1.3E 1	56	-4.2E -1	-3.5E 0
	(0)		(-3.2 - 0.1)E 1 (0/ 4)		(-1.1 - 0.3)E 0 (0/ 2)	(-2.7 - 1.4)E 1 (0/ 4)
Cs-134	(8)	130	5.1E 0	06	8.1E 0	-3.7E 0
	(0)		(4.1 - 157.0)E -1 (0/ 4)		(4.1 - 157.0)E -1 (0/ 2)	(-1.4 - 1.3)E 1 (0/ 4)
Cs-137	(8)	150	-6.0E 0	59	2.3E 1	9.5E 0
	(0)		(-2.0 - 0.2)E 1 (0/ 4)		(2.3 - 2.4)E 1 (0/ 2)	(-8.6 - 23.9)E 0 (0/ 4)
Ba-140	(8)		6.9E 1	59	1.2E 2	7.2E 1
	(0)		(8.0 - 145.0)E 0 (0/ 4)		(7.1 - 16.3)E 1 (0/ 2)	(2.9 - 163.0)E 0 (0/ 4)
La-140	(8)		8.2E 0	06	3.8E 1	9.0E 0
	(0)		(-4.2 - 7.3)E 1 (0/ 4)		(1.8 - 73.4)E 0 (0/ 2)	(-8.9 - 26.0)E 0 (0/ 4)
Ce-141	(8)		-1.3E 1	09	-1.4E 0	-2.2E 1
	(0)		(-4.6 - 0.0)E 1 (0/ 4)		(-2.8 - 0.0)E 0 (0/ 2)	(-4.8 - 0.6)E 1 (0/ 4)
Ce-144	(8)		2.2E 0	06	2.4E 0	-1.1E 1
	(0)		(-8.3 - 13.0)E 0 (0/ 4)		(-8.3 - 13.0)E 0 (0/ 2)	(-2.9 - 2.7)E 1 (0/ 4)
Tl-208	(8)		-2.5E 0	59	8.7E 0	2.1E 0
	(0)		(-1.1 - 0.1)E 1 (0/ 4)		(2.4 - 15.1)E 0 (0/ 2)	(-1.1 - 1.5)E 1 (0/ 4)

* Non-Routine refers to those radionuclides that exceeded the Reporting Levels in ODCM Table A.9.1-3.
** The fraction of detectable measurements (i.e., > MDC with no uncertain identification) is shown in parentheses.

Table 3.9-1 (Continued)

Radiological Environmental Monitoring Program Summary
Seabrook Nuclear Power Station, Seabrook, NH
(January - December 2019)

MEDIUM: Mussel Body (MU) UNITS: pCi/kg

Radionuclides (No. Analyses) (Non-Routine*)		Required LLD	Indicator Stations Mean Range (No. Detected**)	Station With Highest Mean Station	 Mean Range (No. Detected**)	Control Stations Mean Range (No. Detected**)
Pb-212	(8)		-5.1E 0	56	2.2E 1	1.2E 1
	(0)		(-3.9 - 1.1)E 1 (0/ 4)		(5.9 - 38.0)E 0 (0/ 2)	(-5.2 - 38.0)E 0 (0/ 4)
Pb-214	(8)		2.6E 1	06	3.4E 1	1.6E 1
	(0)		(9.9 - 601.0)E -1 (0/ 4)		(8.4 - 60.1)E 0 (0/ 2)	(-3.7 - 6.7)E 1 (0/ 4)
Bi-214	(8)		4.1E 0	09	1.7E 1	-6.8E 0
	(0)		(-1.9 - 2.3)E 1 (0/ 4)		(1.1 - 2.3)E 1 (0/ 2)	(-2.8 - 0.3)E 1 (0/ 4)
Ra-226	(8)		4.1E 0	09	1.7E 1	-6.8E 0
	(0)		(-1.9 - 2.3)E 1 (0/ 4)		(1.1 - 2.3)E 1 (0/ 2)	(-2.8 - 0.3)E 1 (0/ 4)
Ac-228	(8)		3.8E 1	56	6.6E 1	5.5E 1
	(0)		(-8.9 - 139.0)E 0 (0/ 4)		(-1.6 - 14.8)E 1 (0/ 2)	(-1.6 - 14.8)E 1 (0/ 4)
Th-228	(8)		-5.1E 0	56	2.2E 1	1.2E 1
	(0)		(-3.9 - 1.1)E 1 (0/ 4)		(5.9 - 38.0)E 0 (0/ 2)	(-5.2 - 38.0)E 0 (0/ 4)
Th-230	(8)		4.1E 0	09	1.7E 1	-6.8E 0
	(0)		(-1.9 - 2.3)E 1 (0/ 4)		(1.1 - 2.3)E 1 (0/ 2)	(-2.8 - 0.3)E 1 (0/ 4)

* Non-Routine refers to those radionuclides that exceeded the Reporting Levels in ODCM Table A.9.1-3.
** The fraction of detectable measurements (i.e., > MDC with no uncertain identification) is shown in parentheses.

Table 3.9-2

Radiological Environmental Monitoring Program Summary
Seabrook Nuclear Power Station, Seabrook, NH
(January - December 2019)

MEDIUM: Mussel Shell (MS) UNITS: pCi/kg

Radionuclides (No. Analyses) (Non-Routine*)		Required LLD	Indicator Stations Mean Range (No. Detected**)	Station With Highest Mean Station	 Mean Range (No. Detected**)	Control Stations Mean Range (No. Detected**)
Sr-89	**(4)**		-1.1E 2	56	-4.5E 1	-4.5E 1
	(0)		(-1.4 - -0.7)E 2 (0/ 2)		(-6.2 - -2.7)E 1 (0/ 2)	(-6.2 - -2.7)E 1 (0/ 2)
Sr-90	**(4)**		1.7E 1	06	1.7E 1	-2.4E 0
	(0)		(-2.1 - 5.5)E 1 (0/ 2)		(-2.1 - 5.5)E 1 (0/ 2)	(-2.2 - 1.7)E 1 (0/ 2)

* Non-Routine refers to those radionuclides that exceeded the Reporting Levels in ODCM Table A.9.1-3.
** The fraction of detectable measurements (i.e., > MDC with no uncertain identification) is shown in parentheses.

3.10 Irish Moss

There is no REMP technical requirement defined in the ODCM to collect Irish Moss (algae) samples. As a supplement to the required REMP, semiannual Chondrus (Irish Moss) samples were collected from an indicator area (AL-05) near the plant discharge and a control location (AL-55) within Ipswich Bay. If plant-related radionuclides were re-concentrating in the aquatic environment, an early indication of this might be shown in this type of environmental species. Four routine samples (two indicators and two controls) were collected for the year.

A gamma analysis was performed on each sample. Although not required by Table 5.2-1, the LLDs associated with food products were applied to ensure adequate counting statistics. Naturally-occurring K-40 and Be-7 were detected in all samples for both indicator and control stations. Other naturally-occurring radionuclides detected include Th-228 (2 samples). For the off-shore indicator station (AL-05), no plant-related radionuclides were detected in any sample. Therefore, no plant-related increasing or decreasing trends were observed. Subsequently, there is no dose or impact to the environment from plant operations. This is consistent with the pre-operational program and previous years of plant operations.

The REMP Summary Table 3.10-1 lists the range of analysis results by radionuclide for Indicator and Control Stations for Irish Moss samples. Attachment 1 lists the individual analysis results for each measurement of Irish moss under the Sample Type code AL.

Any sample collection and analysis deviations from the ODCM defined program, or reportable concentrations that may have occurred during the year, are described in Section 5.

Table 3.10-1
Radiological Environmental Monitoring Program Summary
Seabrook Nuclear Power Station, Seabrook, NH
(January - December 2019)

MEDIUM: Irish Moss (AL) UNITS: pCi/kg

Radionuclides (No. Analyses) (Non-Routine*)		Required LLD	Indicator Stations Mean Range (No. Detected**)	Station With Highest Mean Station	 Mean Range (No. Detected**)	Control Stations Mean Range (No. Detected**)
Be-7	(4)		2.5E 2	55	3.7E 2	3.7E 2
	(0)		(2.2 - 2.9)E 2 (2/ 2)		(3.1 - 4.2)E 2 (2/ 2)	(3.1 - 4.2)E 2 (2/ 2)
K-40	(4)		8.5E 3	05	8.5E 3	7.4E 3
	(0)		(7.2 - 9.8)E 3 (2/ 2)		(7.2 - 9.8)E 3 (2/ 2)	(6.2 - 8.6)E 3 (2/ 2)
Cr-51	(4)		-3.1E 0	55	3.3E 1	3.3E 1
	(0)		(-2.9 - 2.3)E 1 (0/ 2)		(-8.4 - 74.9)E 0 (0/ 2)	(-8.4 - 74.9)E 0 (0/ 2)
Mn-54	(4)		-3.1E -1	05	-3.1E -1	-6.4E -1
	(0)		(-6.7 - 6.0)E 0 (0/ 2)		(-6.7 - 6.0)E 0 (0/ 2)	(-1.0 - -0.3)E 0 (0/ 2)
Co-57	(4)		2.1E 0	05	2.1E 0	1.2E -1
	(0)		(1.4 - 2.9)E 0 (0/ 2)		(1.4 - 2.9)E 0 (0/ 2)	(-4.4 - 6.8)E -1 (0/ 2)
Co-58	(4)		2.7E 0	55	7.4E 0	7.4E 0
	(0)		(-8.4 - 63.2)E -1 (0/ 2)		(7.2 - 141.0)E -1 (0/ 2)	(7.2 - 141.0)E -1 (0/ 2)
Fe-59	(4)		-1.5E 1	55	3.2E -1	3.2E -1
	(0)		(-2.3 - -0.7)E 1 (0/ 2)		(-7.0 - 7.6)E 0 (0/ 2)	(-7.0 - 7.6)E 0 (0/ 2)
Co-60	(4)		2.0E 0	05	2.0E 0	1.3E 0
	(0)		(7.8 - 33.0)E -1 (0/ 2)		(7.8 - 33.0)E -1 (0/ 2)	(-5.4 - 31.0)E -1 (0/ 2)
Zn-65	(4)		-2.9E 0	55	9.9E 0	9.9E 0
	(0)		(-1.1 - 0.5)E 1 (0/ 2)		(-9.1 - 28.9)E 0 (0/ 2)	(-9.1 - 28.9)E 0 (0/ 2)
Se-75	(4)		4.3E 0	05	4.3E 0	-1.2E 0
	(0)		(3.0 - 5.5)E 0 (0/ 2)		(3.0 - 5.5)E 0 (0/ 2)	(-1.9 - -0.4)E 0 (0/ 2)
Nb-95	(4)		5.6E -1	55	4.0E 0	4.0E 0
	(0)		(1.9 - 9.3)E -1 (0/ 2)		(3.2 - 4.8)E 0 (0/ 2)	(3.2 - 4.8)E 0 (0/ 2)
Zr-95	(4)		2.6E 0	05	2.6E 0	-1.9E 0
	(0)		(8.4 - 42.8)E -1 (0/ 2)		(8.4 - 42.8)E -1 (0/ 2)	(-3.3 - -0.4)E 0 (0/ 2)
Ru-103	(4)		1.5E 0	55	3.7E 0	3.7E 0
	(0)		(-1.3 - 4.3)E 0 (0/ 2)		(3.9 - 70.1)E -1 (0/ 2)	(3.9 - 70.1)E -1 (0/ 2)

* Non-Routine refers to those radionuclides that exceeded the Reporting Levels in ODCM Table A.9.1-3.
** The fraction of detectable measurements (i.e., > MDC with no uncertain identification) is shown in parentheses.

Table 3.10-1
Radiological Environmental Monitoring Program Summary
Seabrook Nuclear Power Station, Seabrook, NH
(January - December 2019)

MEDIUM: Irish Moss (AL) UNITS: pCi/kg

Radionuclides (No. Analyses) (Non-Routine*)		Required LLD	Indicator Stations: Mean Range (No. Detected**)	Station With Highest Mean: Station	Station With Highest Mean: Mean Range (No. Detected**)	Control Stations: Mean Range (No. Detected**)
Ru-106	(4)		1.3E 0	55	8.2E 0	8.2E 0
	(0)		(-2.1 - 2.4)E 1 (0/ 2)		(-3.5 - 19.8)E 0 (0/ 2)	(-3.5 - 19.8)E 0 (0/ 2)
Ag-108m	(4)		-1.9E -1	55	2.2E 0	2.2E 0
	(0)		(-2.3 - 1.9)E 0 (0/ 2)		(4.5 - 38.8)E -1 (0/ 2)	(4.5 - 38.8)E -1 (0/ 2)
Ag-110m	(4)		-2.8E 0	05	-2.8E 0	-5.5E 0
	(0)		(-3.6 - -2.1)E 0 (0/ 2)		(-3.6 - -2.1)E 0 (0/ 2)	(-9.0 - -2.0)E 0 (0/ 2)
Sb-124	(4)		-6.8E 0	55	-4.6E -1	-4.6E -1
	(0)		(-9.8 - -3.8)E 0 (0/ 2)		(-1.3 - 0.4)E 0 (0/ 2)	(-1.3 - 0.4)E 0 (0/ 2)
Sb-125	(4)		-3.6E 0	05	-3.6E 0	-6.7E 0
	(0)		(-1.1 - 0.4)E 1 (0/ 2)		(-1.1 - 0.4)E 1 (0/ 2)	(-1.2 - -0.2)E 1 (0/ 2)
I-131	(4)	60	6.3E 0	05	6.3E 0	0.0E 0
	(0)		(4.7 - 8.0)E 0 (0/ 2)		(4.7 - 8.0)E 0 (0/ 2)	(0.0 - 0.0)E 0 (0/ 2)
Cs-134	(4)	60	-1.2E 0	55	-1.1E -1	-1.1E -1
	(0)		(-3.2 - 0.7)E 0 (0/ 2)		(-8.6 - 6.4)E -1 (0/ 2)	(-8.6 - 6.4)E -1 (0/ 2)
Cs-137	(4)	80	1.7E -1	55	3.4E 0	3.4E 0
	(0)		(-2.2 - 2.6)E 0 (0/ 2)		(3.3 - 3.6)E 0 (0/ 2)	(3.3 - 3.6)E 0 (0/ 2)
Ba-140	(4)		3.5E 1	05	3.5E 1	9.6E 0
	(0)		(-1.1 - 72.0)E 0 (0/ 2)		(-1.1 - 72.0)E 0 (0/ 2)	(3.8 - 15.4)E 0 (0/ 2)
La-140	(4)		2.3E 0	05	2.3E 0	-3.6E 0
	(0)		(-1.1 - 5.7)E 0 (0/ 2)		(-1.1 - 5.7)E 0 (0/ 2)	(-4.9 - -2.3)E 0 (0/ 2)
Ce-141	(4)		1.5E 0	05	1.5E 0	-3.0E 0
	(0)		(-2.8 - 5.8)E 0 (0/ 2)		(-2.8 - 5.8)E 0 (0/ 2)	(-8.3 - 2.2)E 0 (0/ 2)

* Non-Routine refers to those radionuclides that exceeded the Reporting Levels in ODCM Table A.9.1-3.
** The fraction of detectable measurements (i.e., > MDC with no uncertain identification) is shown in parentheses.

Table 3.10-1
Radiological Environmental Monitoring Program Summary
Seabrook Nuclear Power Station, Seabrook, NH
(January - December 2019)

MEDIUM: Irish Moss (AL) UNITS: pCi/kg

Radionuclides (No. Analyses) (Non-Routine*)		Required LLD	Indicator Stations Mean Range (No. Detected**)	Station With Highest Mean Station	 Mean Range (No. Detected**)	Control Stations Mean Range (No. Detected**)
Ce-144	**(4)**		-1.8E 0	05	-1.8E 0	-1.4E 1
	(0)		(-8.6 - 5.0)E 0 (0/ 2)		(-8.6 - 5.0)E 0 (0/ 2)	(-2.2 - -0.5)E 1 (0/ 2)
Ac-228	**(4)**		-5.5E 0	55	1.0E 1	1.0E 1
	(0)		(-2.2 - 1.2)E 1 (0/ 2)		(0.0 - 2.1)E 1 (0/ 2)	(0.0 - 2.1)E 1 (0/ 2)
Th-228	**(4)**		3.1E 1	05	3.1E 1	2.5E 1
	(0)		(1.4 - 4.7)E 1 (1/ 2)		(1.4 - 4.7)E 1 (1/ 2)	(2.0 - 3.0)E 1 (1/ 2)

* Non-Routine refers to those radionuclides that exceeded the Reporting Levels in ODCM Table A.9.1-3.
** The fraction of detectable measurements (i.e., > MDC with no uncertain identification) is shown in parentheses.

3.11 Food Crop

There is no requirement for food crop or vegetation samples as long as the required milk locations are available. As noted in Section 3.3, milk sampling at the minimum required number of locations in 2019 was not possible due to the limited inventory of milk animal sites in the plant vicinity. To compensate for this, vegetation samples were collected as part of the REMP. Section 3.12 describes the alternate broad leafy vegetation (TG) collections.

In addition to the broad leafy vegetation sampling, nine food crop (TF) samples were collected from three locations listed on Table 2.0-2 (two indicator stations, TF-02 and TF-03, and one control station, TF-06) during the growing season months (June, July and August). These included strawberries in June (Lab numbers 482703001, 2, & 3), strawberries in July (Lab numbers 485329001, 2, & 3), and strawberries in August (Lab numbers 487951001 and 2).

A gamma analysis was performed on each sample. Naturally-occurring K-40 was detected in all samples for both indicator and control stations. Similar to past years, no plant-related radionuclides were detected in any samples. Therefore, no increasing or decreasing trends are identified. Subsequently, there is no dose to the public or impact on the environment through this pathway due to plant operations. This is consistent with the pre-operational program and with previous years of plant operations.

The following REMP Summary (Table 3.11-1) lists the range of analysis results by radionuclide for indicator and control stations for the Food Crop environmental media. Attachment 1 to this report lists the individual analysis results for each measurement of Food Crops under the Sample Type code TF.

Any sample collection and analysis deviations from the ODCM defined program, or reportable concentrations that may have occurred during the year, are described in Section 5.

Table 3.11-1

Radiological Environmental Monitoring Program Summary
Seabrook Nuclear Power Station, Seabrook, NH
(January - December 2019)

MEDIUM: Food Crop (TF) UNITS: pCi/kg

Radionuclides (No. Analyses) (Non-Routine*)		Required LLD	Indicator Stations Mean Range (No. Detected**)	Station With Highest Mean Station	Station With Highest Mean Mean Range (No. Detected**)	Control Stations Mean Range (No. Detected**)
Be-7	(9)		1.7E 1	02	2.3E 1	2.0E 1
	(0)		(-1.1 - 5.2)E 1 (0/ 6)		(4.4 - 51.7)E 0 (0/ 3)	(0.0 - 4.2)E 1 (0/ 3)
K-40	(9)		2.0E 3	02	2.5E 3	1.4E 3
	(0)		(7.2 - 30.1)E 2 (6/ 6)		(1.9 - 3.0)E 3 (3/ 3)	(6.8 - 24.1)E 2 (3/ 3)
Cr-51	(9)		3.0E -1	03	2.2E 1	9.9E 0
	(0)		(-2.4 - 2.5)E 1 (0/ 6)		(1.6 - 2.5)E 1 (0/ 3)	(1.1 - 27.2)E 0 (0/ 3)
Mn-54	(9)		5.0E -1	06	2.4E 0	2.4E 0
	(0)		(-2.8 - 4.6)E 0 (0/ 6)		(-3.5 - 54.9)E -1 (0/ 3)	(-3.5 - 54.9)E -1 (0/ 3)
Co-57	(9)		-2.5E -1	06	1.2E 0	1.2E 0
	(0)		(-3.7 - 2.2)E 0 (0/ 6)		(2.3 - 25.9)E -1 (0/ 3)	(2.3 - 25.9)E -1 (0/ 3)
Co-58	(9)		4.3E -1	06	7.9E -1	7.9E -1
	(0)		(-4.5 - 3.2)E 0 (0/ 6)		(-3.6 - 17.8)E -1 (0/ 3)	(-3.6 - 17.8)E -1 (0/ 3)
Fe-59	(9)		3.8E 0	02	4.2E 0	-3.9E 0
	(0)		(-2.1 - 15.6)E 0 (0/ 6)		(-2.1 - 15.6)E 0 (0/ 3)	(-5.4 - -2.7)E 0 (0/ 3)
Co-60	(9)		1.9E 0	02	3.0E 0	2.9E 0
	(0)		(-2.2 - 8.8)E 0 (0/ 6)		(-1.0 - 8.8)E 0 (0/ 3)	(2.4 - 3.3)E 0 (0/ 3)
Zn-65	(9)		-4.6E 0	02	-4.9E -1	-7.4E -1
	(0)		(-2.1 - 0.2)E 1 (0/ 6)		(-3.4 - 2.4)E 0 (0/ 3)	(-7.0 - 5.0)E 0 (0/ 3)
Se-75	(9)		5.3E -1	06	9.3E -1	9.3E -1
	(0)		(-2.6 - 3.8)E 0 (0/ 6)		(-7.6 - 29.6)E -1 (0/ 3)	(-7.6 - 29.6)E -1 (0/ 3)
Nb-95	(9)		-3.2E -1	03	1.8E 0	-5.8E -1
	(0)		(-7.3 - 5.3)E 0 (0/ 6)		(-2.6 - 5.3)E 0 (0/ 3)	(-2.1 - 0.5)E 0 (0/ 3)
Zr-95	(9)		6.5E -1	02	3.0E 0	-1.1E 0
	(0)		(-2.2 - 7.3)E 0 (0/ 6)		(7.1 - 72.7)E -1 (0/ 3)	(-2.8 - 1.9)E 0 (0/ 3)
Ru-103	(9)		-1.1E 0	06	9.1E -1	9.1E -1
	(0)		(-5.0 - 2.7)E 0 (0/ 6)		(-1.8 - 4.6)E 0 (0/ 3)	(-1.8 - 4.6)E 0 (0/ 3)

* Non-Routine refers to those radionuclides that exceeded the Reporting Levels in ODCM Table A.9.1-3.
** The fraction of detectable measurements (i.e., > MDC with no uncertain identification) is shown in parentheses.

Table 3.11-1 (Continued)

Radiological Environmental Monitoring Program Summary
Seabrook Nuclear Power Station, Seabrook, NH
(January - December 2019)

MEDIUM: Food Crop (TF) UNITS: pCi/kg

Radionuclides (No. Analyses) (Non-Routine*)		Required LLD	Indicator Stations Mean Range (No. Detected**)	Station With Highest Mean Station	Station With Highest Mean Mean Range (No. Detected**)	Control Stations Mean Range (No. Detected**)
Ru-106	(9)		1.3E 1	02	2.3E 1	2.8E 0
	(0)		(-2.7 - 33.7)E 0 (0/ 6)		(1.5 - 3.4)E 1 (0/ 3)	(1.4 - 4.4)E 0 (0/ 3)
Ag-108m	(9)		-8.3E -1	06	1.4E 0	1.4E 0
	(0)		(-2.1 - 0.5)E 0 (0/ 6)		(1.7 - 35.1)E -1 (0/ 3)	(1.7 - 35.1)E -1 (0/ 3)
Ag-110m	(9)		5.5E -1	02	3.5E 0	-7.0E -1
	(0)		(-6.4 - 5.2)E 0 (0/ 6)		(9.0 - 52.1)E -1 (0/ 3)	(-4.5 - 3.8)E 0 (0/ 3)
Sb-124	(9)		-2.8E 0	06	2.9E 0	2.9E 0
	(0)		(-7.6 - 2.9)E 0 (0/ 6)		(-2.2 - 12.4)E 0 (0/ 3)	(-2.2 - 12.4)E 0 (0/ 3)
Sb-125	(9)		1.8E 0	03	2.5E 0	1.6E 0
	(0)		(-2.7 - 7.0)E 0 (0/ 6)		(-2.7 - 7.0)E 0 (0/ 3)	(-5.0 - 6.2)E 0 (0/ 3)
I-131	(9)	60	2.6E -1	06	6.3E 0	6.3E 0
	(0)		(-6.6 - 5.5)E 0 (0/ 6)		(1.2 - 16.0)E 0 (0/ 3)	(1.2 - 16.0)E 0 (0/ 3)
Cs-134	(9)	60	-7.9E -1	03	2.1E 0	8.0E -1
	(0)		(-8.1 - 4.8)E 0 (0/ 6)		(-4.1 - 48.1)E -1 (0/ 3)	(-2.6 - 4.3)E 0 (0/ 3)
Cs-137	(9)	80	8.5E -1	03	1.8E 0	-1.9E 0
	(0)		(-1.1 - 3.1)E 0 (0/ 6)		(1.3 - 30.9)E -1 (0/ 3)	(-3.4 - 0.7)E 0 (0/ 3)
Ba-140	(9)		8.4E 0	02	1.0E 1	1.7E 0
	(0)		(-1.4 - 3.5)E 1 (0/ 6)		(4.9 - 18.5)E 0 (0/ 3)	(-8.7 - 8.5)E 0 (0/ 3)
La-140	(9)		-6.8E -1	06	2.3E 0	2.3E 0
	(0)		(-3.4 - 1.8)E 0 (0/ 6)		(-9.9 - 73.9)E -1 (0/ 3)	(-9.9 - 73.9)E -1 (0/ 3)
Ce-141	(9)		6.4E -1	02	2.0E 0	-4.0E 0
	(0)		(-1.2 - 6.1)E 0 (0/ 6)		(-5.9 - 60.9)E -1 (0/ 3)	(-4.9 - -3.1)E 0 (0/ 3)
Ce-144	(9)		4.6E 0	03	6.9E 0	6.5E 0
	(0)		(-1.5 - 2.3)E 1 (0/ 6)		(-3.4 - 23.1)E 0 (0/ 3)	(4.6 - 1230.0)E-2 (0/ 3)
Ac-228	(9)		3.5E 0	06	5.1E 0	5.1E 0
	(0)		(-3.6 - 3.3)E 1 (0/ 6)		(-8.0 - 24.3)E 0 (0/ 3)	(-8.0 - 24.3)E 0 (0/ 3)
Th-228	(9)		-1.3E 0	02	1.6E 0	-2.8E 0
	(0)		(-1.4 - 0.7)E 1 (0/ 6)		(-6.7 - 7.0)E 0 (0/ 3)	(-1.3 - 0.6)E 1 (0/ 3)

* Non-Routine refers to those radionuclides that exceeded the Reporting Levels in ODCM Table A.9.1-3.
** The fraction of detectable measurements (i.e., > MDC with no uncertain identification) is shown in parentheses.

3.12 Vegetation

In lieu of milk sampling, the ODCM, Table A.9.1-1, requires that broad leafy vegetation (TG) samples grown in the nearest of two different offsite locations with the highest D/Q, and from one control location 15-30 km distant in the least prevalent wind direction, be collected when available (growing season). Offsite locations are defined in the UFSAR as the land beyond a 3000-foot radius of the two Containment Building centerlines. The analysis of garden locations in the Land Use Census provides a ranking of potential sampling sites for use in determining sampling locations in the general population. Since sampling of broad leaf garden vegetables at high D/Q locations is not feasible due to uncertain availability, other types of broad leafy vegetation were utilized.

Two locations at the site boundary with a maximum D/Q (higher values than determined in the 2019 Land Use Census garden listing) were selected over ranked D/Q gardens in the general population. These two Indicator locations (TG-08 and TG-09) are on site property in areas with available sample media. A third far-field control location (TG-10) was selected in Georgetown, MA. Samples consisted of tree leaves, as broad leaf vegetation provides increased reliability for sample availability. For 2019, a total of 18 monthly (growing season) broad leaf vegetation samples were collected and analyzed by gamma spectroscopy.

A gamma analysis was performed on each sample. Naturally-occurring Be-7 and K-40 were detected in all samples for both indicator and control stations. Naturally-occurring Ac-228, part of the Thorium-232 decay chain, was detected in two samples. Fission product related C-137 was detected positive in one sample from the control station at location TG-10 at a concentration of 123 pCi/kg. Cesium-137 has been detected in broad leafy vegetation in past years at comparable activity levels as detected in 2019, and evaluated as to the source. The conclusion of the assessment was that world-wide fallout from events un-related to Seabrook operations, such as the March 11, 2011 Fukushima Daiichi accident in Japan and past atmospheric nuclear weapons testing, have led to Cs-137 being deposited on the ground surface in the northeast United States with subsequent root uptake into leaves of long-lived vegetation. This conclusion continues to be supported by the fact that Seabrook Station had no detectable Cs-137 in any gaseous effluents in recent years, including 2019, and by the prevalence of detectable Cs-137 at the control location compared to in-close indicator sampling points. Utilizing the results of broad leaf vegetation sampling for broad leaf food products, it is concluded that there was no dose impact to the public or to the environment through this food ingestion pathway from Seabrook plant operations.

The following REMP Summary (Table 3.12-1) lists the range of analysis results by radionuclide for indicator and control stations for the broad leaf vegetation environmental media. Attachment 1 to this report lists the individual analysis results for each measurement of broad leaf vegetation under the Sample Type code TG.

Any sample collection and analysis deviations from the ODCM required program, or reportable concentrations that may have occurred during the year, are described in Section 5.

Table 3.12-1

Radiological Environmental Monitoring Program Summary
Seabrook Nuclear Power Station, Seabrook, NH
(January - December 2019)

MEDIUM: Vegetation (TG) UNITS: pCi/kg

Radionuclides (No. Analyses) (Non-Routine*)		Required LLD	Indicator Stations Mean Range (No. Detected**)	Station With Highest Mean Station	Station With Highest Mean Mean Range (No. Detected**)	Control Stations Mean Range (No. Detected**)
Be-7	(18)		8.9E 2	10	1.1E 3	1.1E 3
	(0)		(5.3 - 15.9)E 2 (12/ 12)		(6.6 - 14.3)E 2 (6/ 6)	(6.6 - 14.3)E 2 (6/ 6)
K-40	(18)		4.5E 3	09	5.0E 3	4.1E 3
	(0)		(3.1 - 6.0)E 3 (12/ 12)		(3.9 - 6.0)E 3 (6/ 6)	(3.2 - 4.6)E 3 (6/ 6)
Cr-51	(18)		4.8E 1	09	6.0E 1	4.7E -1
	(0)		(-1.1 - 18.4)E 1 (0/ 12)		(7.6 - 184.0)E 0 (0/ 6)	(-1.2 - 0.8)E 2 (0/ 6)
Mn-54	(18)		-3.7E -1	09	-2.1E -1	-2.8E 0
	(0)		(-1.2 - 1.1)E 1 (0/ 12)		(-4.6 - 5.5)E 0 (0/ 6)	(-1.1 - 0.6)E 1 (0/ 6)
Co-57	(18)		1.5E 0	09	3.2E 0	2.8E 0
	(0)		(-2.4 - 6.2)E 0 (0/ 12)		(-1.8 - 6.2)E 0 (0/ 6)	(-5.3 - 14.2)E 0 (0/ 6)
Co-58	(18)		-3.9E 0	10	6.5E 0	6.5E 0
	(0)		(-1.7 - 0.3)E 1 (0/ 12)		(-3.7 - 17.0)E 0 (0/ 6)	(-3.7 - 17.0)E 0 (0/ 6)
Fe-59	(18)		-1.7E 0	10	-3.3E -1	-3.3E -1
	(0)		(-2.7 - 1.4)E 1 (0/ 12)		(-2.3 - 3.3)E 1 (0/ 6)	(-2.3 - 3.3)E 1 (0/ 6)
Co-60	(18)		1.2E 0	10	9.5E 0	9.5E 0
	(0)		(-1.5 - 1.6)E 1 (0/ 12)		(-4.4 - 211.0)E -1 (0/ 6)	(-4.4 - 211.0)E -1 (0/ 6)
Zn-65	(18)		9.8E 0	08	1.2E 1	3.8E 0
	(0)		(-2.0 - 5.1)E 1 (0/ 12)		(-5.1 - 51.1)E 0 (0/ 6)	(-2.3 - 5.7)E 1 (0/ 6)
Se-75	(18)		9.7E -2	08	4.9E 0	-3.3E -2
	(0)		(-1.3 - 2.1)E 1 (0/ 12)		(-3.6 - 21.3)E 0 (0/ 6)	(-5.3 - 6.6)E 0 (0/ 6)
Nb-95	(18)		4.4E -1	10	1.2E 1	1.2E 1
	(0)		(-1.2 - 1.7)E 1 (0/ 12)		(-1.7 - 357.0)E -1 (0/ 6)	(-1.7 - 357.0)E -1 (0/ 6)
Zr-95	(18)		-5.2E 0	09	5.4E 0	1.1E 0
	(0)		(-2.7 - 2.3)E 1 (0/ 12)		(-5.2 - 22.6)E 0 (0/ 6)	(-1.0 - 3.2)E 1 (0/ 6)
Ru-103	(18)		-7.1E -1	09	-6.9E -1	-7.8E -1
	(0)		(-1.4 - 0.7)E 1 (0/ 12)		(-1.0 - 0.5)E 1 (0/ 6)	(-8.0 - 4.6)E 0 (0/ 6)
Ru-106	(18)		5.4E 0	10	2.5E 1	2.5E 1
	(0)		(-1.4 - 1.1)E 2 (0/ 12)		(-3.8 - 10.3)E 1 (0/ 6)	(-3.8 - 10.3)E 1 (0/ 6)

* Non-Routine refers to those radionuclides that exceeded the Reporting Levels in ODCM Table A.9.1-3.
** The fraction of detectable measurements (i.e., > MDC with no uncertain identification) is shown in parentheses.

Table 3.12-1 (Continued)

Radiological Environmental Monitoring Program Summary
Seabrook Nuclear Power Station, Seabrook, NH
(January - December 2019)

MEDIUM: Vegetation (TG) UNITS: pCi/kg

Radionuclides (No. Analyses) (Non-Routine*)		Required LLD	Indicator Stations Mean Range (No. Detected**)	Station With Highest Mean Station	Station With Highest Mean Mean Range (No. Detected**)	Control Stations Mean Range (No. Detected**)
Ag-108m	(18)		-3.5E -1	08	1.7E 0	-3.8E 0
	(0)		(-1.7 - 1.1)E 1 (0/ 12)		(-7.6 - 10.7)E 0 (0/ 6)	(-2.2 - 0.4)E 1 (0/ 6)
Ag-110m	(18)		3.6E -1	08	2.1E 0	1.6E 0
	(0)		(-2.2 - 3.4)E 1 (0/ 12)		(-2.2 - 3.4)E 1 (0/ 6)	(-3.0 - 18.7)E 0 (0/ 6)
Sb-124	(18)		-2.3E 0	10	4.5E 0	4.5E 0
	(0)		(-3.0 - 3.2)E 1 (0/ 12)		(-9.6 - 21.7)E 0 (0/ 6)	(-9.6 - 21.7)E 0 (0/ 6)
Sb-125	(18)		7.8E -1	09	4.0E 0	-2.6E 0
	(0)		(-3.9 - 3.4)E 1 (0/ 12)		(-3.9 - 3.4)E 1 (0/ 6)	(-2.3 - 0.5)E 1 (0/ 6)
I-131	(18)	60	6.4E 0	09	8.0E 0	5.6E 0
	(0)		(-9.3 - 21.6)E 0 (0/ 12)		(-3.7 - 21.6)E 0 (0/ 6)	(-2.4 - 2.6)E 1 (0/ 6)
Cs-134	(18)	60	2.8E 0	08	3.4E 0	1.8E 0
	(0)		(-6.8 - 14.9)E 0 (0/ 12)		(-6.8 - 14.9)E 0 (0/ 6)	(-1.4 - 1.0)E 1 (0/ 6)
Cs-137	(18)	80	3.6E 0	10	2.4E 1	2.4E 1
	(0)		(-8.5 - 12.5)E 0 (0/ 12)		(-2.2 - 123.0)E 0 (1/ 6)	(-2.2 - 123.0)E 0 (1/ 6)
Ba-140	(18)		-9.1E 0	08	-5.3E 0	-1.4E 1
	(0)		(-6.8 - 8.2)E 1 (0/ 12)		(-6.8 - 8.2)E 1 (0/ 6)	(-1.3 - 0.6)E 2 (0/ 6)
La-140	(18)		-2.9E 0	10	7.4E -1	7.4E -1
	(0)		(-2.2 - 2.3)E 1 (0/ 12)		(-2.4 - 3.6)E 1 (0/ 6)	(-2.4 - 3.6)E 1 (0/ 6)
Ce-141	(18)		-2.8E 0	09	2.0E 0	-7.6E 0
	(0)		(-4.7 - 1.9)E 1 (0/ 12)		(-3.0 - 1.9)E 1 (0/ 6)	(-1.7 - 0.3)E 1 (0/ 6)
Ce-144	(18)		-3.2E 0	09	7.5E -1	-1.5E 0
	(0)		(-5.4 - 4.2)E 1 (0/ 12)		(-5.4 - 4.2)E 1 (0/ 6)	(-3.0 - 3.9)E 1 (0/ 6)
Ac-228	(18)		1.7E 1	08	3.6E 1	3.1E 1
	(0)		(-6.5 - 12.5)E 1 (1/ 12)		(-1.1 - 12.5)E 1 (1/ 6)	(-2.9 - 10.2)E 1 (1/ 6)
Th-228	(18)		7.7E 0	09	8.5E 0	5.0E 0
	(0)		(-1.2 - 4.8)E 1 (0/ 12)		(1.3 - 302.0)E -1 (0/ 6)	(-2.5 - 4.7)E 1 (0/ 6)

* Non-Routine refers to those radionuclides that exceeded the Reporting Levels in ODCM Table A.9.1-3.
** The fraction of detectable measurements (i.e., > MDC with no uncertain identification) is shown in parentheses.

3.13 Direct Radiation

Direct gamma radiation exposure was measured with thermoluminescent dosimeters (TLDs). Two TLD badges are placed at each of the designated monitoring stations. Each TLD badge has three $CaSO_4$:Tm elements. The badges were collected and read on a quarterly schedule. A location result is an average of six independent readings per quarter. A total of forty-six stations are located offsite, forty of which are required by the ODCM.

The exposure rates were normalized to a standard 91-day quarter so that quarterly results from any monitoring location can be compared to another location based on an equivalent time period of exposure. A summary of the 2019 data for the plant operational REMP is shown in Table 3.13-1. Figures 3.6 through 3.14 provide a comparison of quarterly TLD location responses in 2019 and illustrate the naturally variation in exposure rates quarter to quarter. Figures 3.6.1 through 3.14.1 provide a long term trend line for each of the environmental TLD locations.

The exposure rate response at individual monitoring stations have on occasion exhibited step changes at some point in the past that are related to changes in local conditions in the area of the dosimeter measurement. As an example, the outer ring TL-33 (a parking lot located 9.8 km south of the plant) was observed for several quarters in the recent past to approach or exceed the normal expected environmental fluctuations based on observed history. The average TLD exposure rate from the 2nd quarter 2011 through the 4th quarter of 2013 is reported as 21.8 mR/quarter. For the seven prior quarters (3rd quarter 2009 to the 1st quarter 2011), the average TLD response was 18.6 mR/quarter, or approximately 17% lower than the most recent trend history. Since no other TLDs in the same sector or closer to the plant showed an average increase in measured response above the expected, the change at TL-33 was attributed to a local change in the background radiation associated with parking lot modifications and not with Seabrook Station operations. Field investigations of TL-33 indicated that the parking lot appeared to be re-graded with new fill/gravel material which could have increased the natural concentration of background radiation that the TLD measures. The expected background exposure level for location TL-33 was re-indexed to 20.6 mR/quarter in 2013 to reflect the observed change in background radiation. Two other locations (TL-01 and TL-69) also indicated changes in background exposure rates trends over time (un-related to Seabrook operations) and had their expected background exposure levels re-indexed to 17.4 mR/quarter and 13.7 mR/quarter, respectively, in 2013.

Overall, the REMP direct radiation program showed no statistically significant indication of increased direct radiation above the variable background measured exposure rate in unrestricted areas. This is demonstrated by the fact that indicator location results (as a group) are statistically the same as control locations. The 2019 annual mean of all indicator locations was 16.3 mR/91-day quarter while the mean of all control locations was 17.7 mR/91-day quarter. This indicates that collectively there is no statistical difference in the annual direct dose as a function of distance from the plant. As a result, no direct radiation dose beyond the site boundary was attributed to station operation during 2019.

Starting in 2015, a supplemental analytical method was implemented to evaluate the TLD measurements. Using the method described in ANSI/HPS N13.37-2014, quarterly and annual baseline dose for each TLD location was determined using appropriate statistical analytical methods considering data from 2004 through 2014. Quarterly and annual dose for 2019 was compared to baseline values to determine if an Investigation Level had been exceeded for evaluation of potential dose to a member of the public. An Investigation Level is considered to be exceeded under the following conditions:

$$\text{Quarterly: If } M_Q > (B_Q + MDD_Q), \text{ then } F_Q = M_Q - B_Q$$

Where:

M_Q is the normalized quarterly field measurement result
B_Q is the quarterly baseline background dose
MDD_Q is the quarterly minimum differential dose and
F_Q is the quarterly facility related dose

Or: Annually: If $M_A > (B_A + MDD_A)$, then $F_A = M_A - B_A$

Where:

M_A is the sum of the four normalized quarterly measurement values
B_A is the annual baseline background dose
MDD_A is the annual minimum differential dose
F_A is the annual facility related dose

Table 3.13-3 summarizes the evaluation of the TLD measurements using the methodology described in ANSI/HPS N13.37-2014. As noted in Table 3.13-3, TLD location TL-18 (Mill Road, North Hampton) was found to have a calculated annual facility dose of 10.2 mR when comparing the measured TLD value against the annual baseline value. However, this dose was determined not to be facility related due to the distance of this TLD location with respect to the plant (7.6 km) and the lack of any observed dose for TLD locations closer to the plant. The observed dose is likely a result of a change in the environment at the TLD location. Figure 3.9.1 shows a step increase in the quarterly TLD measurements for this location starting in 2017. For this reason, the quarterly and annual baseline values for this location have been adjusted to incorporate the latest four years of data. Updating the quarterly and annual baseline calculations to utilize data from 2009 – 2019, results in a quarterly baseline value of 16.3 mR and an annual baseline value of 65.0 mR. Using these updated baseline values results in no detectable quarterly or annual dose. These updated baseline values for location TL-18 will continue to be used in future assessments.

The direct radiation-monitoring program demonstrated that no increasing or decreasing trends were detected. Therefore, there was no offsite dose to the public or impact to the environment from the operation of the plant.

Any TLD collection and analysis deviations from the ODCM required program that may have occurred during the year are described in Section 5.

Table 3.13-1

Environmental TLD Measurements
Net Exposure in mR/Standard Quarter (91 days)

2019

Sta. No.	Description	1st Quarter Exp.	S.D.	2nd Quarter Exp.	S.D.	3rd Quarter Exp.	S.D.	4th Quarter Exp.	S.D.	Qtr Ave. Exp.
TL-01	Brimmer's Lane	17.7	± 1.0	18.3	± 0.8	17.5	± 0.8	18.6	± 0.9	18.0
TL-02	Landing Road	14.4	± 1.0	14.2	± 0.8	13.0	± 0.8	14.0	± 0.7	13.9
TL-03	Glade Path	15.2	± 0.7	15.0	± 0.7	13.5	± 0.6	14.3	± 0.6	14.5
TL-04	Island Path	15.9	± 0.8	15.9	± 0.8	14.7	± 0.7	15.7	± 0.6	15.6
TL-05	Harbor Road	14.8	± 0.9	15.1	± 0.6	14.1	± 1.0	14.9	± 0.7	14.7
TL-06	Barge Landing	14.9	± 0.7	15.6	± 0.9	13.7	± 0.7	14.6	± 1.0	14.7
TL-07	Cross Road	13.3	± 0.9	13.7	± 0.6	12.2	± 0.8	13.4	± 0.5	13.2
TL-08	Farm Lane	15.3	± 0.7	15.7	± 0.9	14.5	± 0.9	15.6	± 0.8	15.3
TL-09	Farm Lane	16.5	± 0.8	17.3	± 0.7	15.3	± 0.8	16.9	± 0.9	16.5
TL-10	Site Boundary	14.5	± 0.9	16.5	± 0.6	16.0	± 0.8	16.7	± 0.6	15.9
TL-11	Site Boundary	16.8	± 0.7	20.0	± 1.0	18.0	± 0.8	18.6	± 1.0	18.4
TL-12	Site Boundary	17.9	± 0.6	19.0	± 0.8	17.9	± 0.9	18.9	± 0.8	18.4
TL-13	Inside Site Boundary	18.5	± 1.2	19.1	± 0.7	17.9	± 1.1	19.2	± 0.9	18.7
TL-14	Trailer Park	16.2	± 0.7	17.5	± 0.7	16.0	± 0.7	16.2	± 0.8	16.5
TL-15	Brimmer's Lane	18.1	± 1.1	19.6	± 1.0	18.9	± 1.0	19.1	± 0.9	18.9
TL-16	Brimmer's Lane	16.7	± 0.9	18.2	± 0.9	17.3	± 0.8	17.8	± 1.1	17.5
TL-17	South Road	15.2	± 0.7	17.9	± 1.0		(1)	14.4	± 0.8	15.8
TL-18	Mill Road	17.1	± 1.0	19.1	± 0.8	18.2	± 0.8	17.8	± 0.6	18.1
TL-19	Appledore Avenue	15.3	± 0.8	16.2	± 0.9	15.1	± 0.7	15.3	± 0.6	15.5
TL-20	Ashworth Avenue	17.7	± 0.8	18.6	± 1.2	15.9	± 0.9	17.6	± 0.7	17.5
TL-21	Route 1A	19.0	± 0.8	17.9	± 0.7	17.5	± 0.8	18.4	± 0.8	18.2
TL-22	Cable Avenue	15.7	± 0.7	16.8	± 0.8	16.3	± 0.8	16.5	± 0.7	16.3
TL-23	Ferry Road	15.2	± 0.7	15.9	± 0.7	15.6	± 0.8	15.9	± 0.6	15.7
TL-24	Ferry Lots Lane	17.2	± 0.8	18.2	± 0.9	17.2	± 0.8	18.1	± 0.7	17.7
TL-25	Elm Street	15.4	± 0.7	16.8	± 0.9	15.2	± 0.7	15.6	± 0.7	15.8
TL-26	Route 107A	13.8	± 0.7	16.1	± 0.7	15.1	± 0.9	15.1	± 0.7	15.0
TL-27	Highland Street	15.7	± 0.9	17.0	± 0.8	16.2	± 0.7	16.4	± 0.8	16.3
TL-28	Route 150	16.7	± 0.9	18.4	± 0.7	17.6	± 0.9	17.8	± 0.7	17.6
TL-29	Frying Pan Lane	15.5	± 1.1	16.2	± 0.7	15.5	± 0.7	15.5	± 0.7	15.7
TL-30	Route 27	16.1	± 0.7	17.4	± 0.7	16.5	± 0.9	17.0	± 0.9	16.8
TL-31	Alumni Drive	14.6	± 0.8	15.0	± 0.8	14.2	± 0.6	15.0	± 0.7	14.7
TL-32	SB Elementary School	17.6	± 1.1	18.6	± 1.1	17.7	± 0.8	18.2	± 0.7	18.0
TL-33	Dock Area	11.6	± 0.6		(1)	11.3	± 0.7	11.6	± 0.5	11.5
TL-34	Bow Street	19.6	± 1.1	21.4	± 0.8	20.4	± 0.9	20.9	± 0.8	20.6
TL-35	Lincoln Ack. School	17.7	± 0.9	18.4	± 0.7	17.2	± 0.8	17.7	± 0.8	17.8
TL-36	Route 97(Control)	15.8	± 0.6	15.4	± 0.6	15.1	± 0.8	14.9	± 0.6	15.3
TL-37	Plaistow, NH (Control)	17.9	± 0.8	18.4	± 0.8	18.8	± 0.9	17.9	± 0.7	18.3
TL-38	Hampstead, NH (Control)	19.0	± 0.8	18.8	± 0.9	18.5	± 1.0	18.9	± 0.8	18.8

Table 3.13-1 (Continued)

Environmental TLD Measurements
Net Exposure in mR/Standard Quarter (91 days)

2019

Sta. No.	Description	1st Quarter Exp.	S.D.	2nd Quarter Exp.	S.D.	3rd Quarter Exp.	S.D.	4th Quarter Exp.	S.D.	Qtr. Ave. Exp.
TL-39	Fremont, NH (Control)	21.2	± 1.2	21.9	± 0.8	21.2	± 1.0	20.5	± 0.8	21.2
TL-40	Newmarket, NH (Control)	15.8	± 0.7	18.3	± 0.9	17.8	± 0.9	16.7	± 0.8	17.2
TL-41	Portsmouth, NH (Control)	17.8	± 0.9	18.2	± 0.9	16.9	± 0.7	17.1	± 0.7	17.5
TL-42	Ipswich, MA (Control)	14.3	± 0.6	14.9	± 0.7	14.2	± 0.9	14.1	± 0.7	14.4
TL-44	SB Education Center	15.0	± 0.8	15.9	± 0.6	15.8	± 0.8	15.8	± 1.0	15.6
TL-45	Hampton Fire Station	16.1	± 0.8	16.6	± 0.9	16.3	± 0.8	16.1	± 0.7	16.3
TL-46	SB Police Station	17.4	± 0.7	16.8	± 0.8	16.1	± 0.8	16.1	± 0.8	16.6
TL-47	Route 84	17.2	± 1.1	17.5	± 0.7	16.5	± 0.7	16.2	± 0.6	16.9
	Mean of Indicators	16.1		17.2		16.0		16.5		16.4
	Mean of Controls	17.4		18.0		17.5		17.2		17.5

(1) TLD missing at time of collection.

Table 3.13-2

Pre-Operational Environmental TLD Measurements
Net Exposure in mR/Standard Quarter (91 days)

	1st Quarter Exp.	2nd Quarter Exp.	3rd Quarter Exp.	4th Quarter Exp.	Qtr Ave Over Yr Exp.
1982					
Mean of Indicators	--	17.1	18.1	17.5	17.6
Mean of Controls	--	16.9	18.1	17.9	16.8
1983					
Mean of Indicators	16.7	17.1	18.8	17.9	17.6
Mean of Controls	16.9	17.5	18.7	18.4	17.9
1984					
Mean of Indicators	16.1	17.1	16.9	17.5	17.0
Mean of Controls	17.6	17.4	15.8	18.7	17.4
1985					
Mean of Indicators	16.9	18.0	18.9	16.1	17.4
Mean of Controls	16.8	17.7	18.9	16.1	17.4
1986					
Mean of Indicators	14.0	15.5	15.3	15.0	15.0
Mean of Controls	13.9	18.0	16.8	15.1	16.0
1987					
Mean of Indicators	12.7	14.8	15.0	14.4	14.2
Mean of Controls	13.0	14.8	15.3	15.0	14.6
1988					
Mean of Indicators	13.5	14.1	14.7	14.9	14.3
Mean of Controls	13.3	14.4	18.1	14.6	15.1
1989					
Mean of Indicators	14.4	14.3	--	--	14.4
Mean of Controls	14.0	14.4	--	--	14.2
All Pre-Operational					
Mean of Indicators	14.9	16.0	16.8	16.2	15.9
Mean of Controls	15.1	16.4	17.4	16.5	16.2

Table 3.13-3

Facility Related Dose using ANSI/HPS N13.37-2014 Methodology

		Quarterly Ave.					Quarterly Facility Dose				Annual	2019	Annual Facility Dose
		Baseline, B_Q	2019 Quarterly Monitoring Data, M_Q (mR/qtr)				$F_Q = M_Q - (B_Q+MDD_Q)$				Baseline, B_A	Annual TLD Data, M_A	$F_A = M_A - (B_A+MDD_A)$
		mR	1	2	3	4	1	2	3	4	mR	mR	
TL-01	Brimmer's Lane	18.6	17.7	18.3	17.5	18.6	ND	ND	ND	ND	74.5	72.1	ND
TL-02	Landing Road	13.8	14.4	14.2	13.0	14.0	ND	ND	ND	ND	55.1	55.6	ND
TL-03	Glade Path	14.9	15.2	15.0	13.5	14.3	ND	ND	ND	ND	59.5	58.0	ND
TL-04	Island Path	15.9	15.9	15.9	14.7	15.7	ND	ND	ND	ND	63.7	62.1	ND
TL-05	Harbor Road	14.6	14.8	15.1	14.1	14.9	ND	ND	ND	ND	58.1	58.8	ND
TL-06	Barge Landing	14.6	14.9	15.6	13.7	14.6	ND	ND	ND	ND	58.6	58.9	ND
TL-07	Cross Road	12.5	13.3	13.7	12.2	13.4	ND	ND	ND	ND	50.0	52.6	ND
TL-08	Farm Lane	15.8	15.3	15.7	14.5	15.6	ND	ND	ND	ND	63.1	61.2	ND
TL-09	Farm Lane	16.3	16.5	17.3	15.3	16.9	ND	ND	ND	ND	65.3	66.1	ND
TL-10	Site Boundary	17.2	14.5	16.5	16.0	16.7	ND	ND	ND	ND	68.7	63.7	ND
TL-11	Site Boundary	17.5	16.8	20.0	18.0	18.6	ND	ND	ND	ND	69.9	73.3	ND
TL-12	Site Boundary	18.2	17.9	19.0	17.9	18.9	ND	ND	ND	ND	72.6	73.6	ND
TL-13	Inside Site Boundary	19.2	18.5	19.1	17.9	19.2	ND	ND	ND	ND	77.0	74.7	ND
TL-14	Trailer Park	15.9	16.2	17.5	16.0	16.2	ND	ND	ND	ND	63.5	66.0	ND
TL-15	Brimmer's Lane	18.8	18.1	19.6	18.9	19.1	ND	ND	ND	ND	75.0	75.6	ND
TL-16	Brimmer's Lane	16.2	16.7	18.2	17.3	17.8	ND	ND	ND	ND	64.8	70.0	ND
TL-17	South Road	16.3	15.2	17.9	-1.0	14.4	ND	ND	ND	ND	65.2	46.5	ND
TL-18	Mill Road	15.5	17.1	19.1	18.2	17.8	ND	ND	ND	ND	62.0	72.3	(1)
TL-19	Appledore Avenue	15.5	15.3	16.2	15.1	15.3	ND	ND	ND	ND	62.1	61.8	ND
TL-20	Ashworth Avenue	17.5	17.7	18.6	15.9	17.6	ND	ND	ND	ND	70.2	69.8	ND
TL-21	Route 1A	16.6	19.0	17.9	17.5	18.4	ND	ND	ND	ND	66.3	72.8	ND
TL-22	Cable Avenue	16.3	15.7	16.8	16.3	16.5	ND	ND	ND	ND	65.4	65.3	ND
TL-23	Ferry Road	15.7	15.2	15.9	15.6	15.9	ND	ND	ND	ND	62.7	62.7	ND

Table 3.13-3 (Continued)

Facility Related Dose using ANSI/HPS N13.37-2014 Methodology

		Baseline B_Q	Quarterly Ave. 2019 Quarterly Monitoring Data, M_Q (mR/qtr)				Quarterly Facility Dose $F_Q = M_Q - (B_Q+MDD_Q)$				Annual Baseline B_A	2019 Annual TLD Data, M_A	Annual Facility Dose $F_A = M_A - (B_A+MDD_A)$
		mR	1	2	3	4	1	2	3	4	mR	mR	
TL-24	Ferry Lots Lane	16.0	17.2	18.2	17.2	18.1	ND	ND	ND	ND	63.9	70.7	ND
TL-25	Elm Street	15.6	15.4	16.8	15.2	15.6	ND	ND	ND	ND	62.3	63.0	ND
TL-26	Route 107A	15.4	13.8	16.1	15.1	15.1	ND	ND	ND	ND	61.8	60.1	ND
TL-27	Highland Street	16.1	15.7	17.0	16.2	16.4	ND	ND	ND	ND	64.3	65.3	ND
TL-28	Route 150	16.2	16.7	18.4	17.6	17.8	ND	ND	ND	ND	64.9	70.5	ND
TL-29	Frying Pan Lane	15.4	15.5	16.2	15.5	15.5	ND	ND	ND	ND	61.6	62.7	ND
TL-30	Route 27	15.7	16.1	17.4	16.5	17.0	ND	ND	ND	ND	62.9	67.1	ND
TL-31	Alumni Drive	14.3	14.6	15.0	14.2	15.0	ND	ND	ND	ND	57.0	58.8	ND
TL-32	SB Elementary School	17.8	17.6	18.6	17.7	18.2	ND	ND	ND	ND	71.2	72.0	ND
TL-33	Dock Area	21.4	11.6	-1.0	11.3	11.6	ND	ND	ND	ND	84.4	33.5	ND
TL-34	Bow Street	19.5	19.6	21.4	20.4	20.9	ND	ND	ND	ND	78.2	82.4	ND
TL-35	Lincoln Ack. School	18.2	17.7	18.4	17.2	17.7	ND	ND	ND	ND	72.6	71.1	ND
TL-36	Route 97(Control)	15.4	15.8	15.4	15.1	14.9	ND	ND	ND	ND	61.9	61.3	ND
TL-37	Plaistow, NH (Control)	18.0	17.9	18.4	18.8	17.9	ND	ND	ND	ND	72.0	73.1	ND
TL-38	Hampstead, NH (Control)	19.8	19.0	18.8	18.5	18.9	ND	ND	ND	ND	79.3	75.3	ND
TL-39	Fremont, NH (Control)	21.3	21.2	21.9	21.2	20.5	ND	ND	ND	ND	85.2	84.8	ND
TL-40	Newmarket, NH (Control)	16.7	15.8	18.3	17.8	16.7	ND	ND	ND	ND	66.9	68.6	ND
TL-41	Portsmouth, NH (Control)	16.9	17.8	18.2	16.9	17.1	ND	ND	ND	ND	67.6	70.1	ND
TL-42	Ipswich, MA (Control)	14.3	14.3	14.9	14.2	14.1	ND	ND	ND	ND	57.2	57.5	ND
TL-44	SB Education Center	14.8	15.0	15.9	15.8	15.8	ND	ND	ND	ND	59.0	62.5	ND

Table 3.13-3 (Continued)

Facility Related Dose using ANSI/HPS N13.37-2014 Methodology

		Baseline B_Q	Quarterly Ave. 2019 Quarterly Monitoring Data, M_Q (mR/qtr)				Quarterly Facility Dose $F_Q = M_Q - (B_Q+MDD_Q)$				Annual Baseline B_A	2019 Annual TLD Data, M_A	Annual Facility Dose $F_A = M_A - (B_A+MDD_A)$
		mR	1	2	3	4	1	2	3	4	mR	mR	
TL-45	Hampton Fire Station	16.9	16.1	16.6	16.3	16.1	ND	ND	ND	ND	67.7	65.1	ND
TL-46	SB Police Station	16.7	17.4	16.8	16.1	16.1	ND	ND	ND	ND	66.7	66.5	ND
TL-47	Route 84	15.6	17.2	17.5	16.5	16.2	ND	ND	ND	ND	62.4	67.4	ND

MDD_Q = 4.55 = minimum differential exposure, quarterly, 3 times 90th percentile S_Q determined from analysis in mR.

MDD_A = 8.97 = minimum differential exposure, annual, 3 times 90th percentile S_A determined from analysis in mR.

B_Q = Quarterly baseline exposure (mR).

M_Q = location's 91 day standard quarterly exposure (mR).

L_Q = Quarterly Investigative Level exposure (mR).

B_A = Quarterly baseline background average exposure (mR).

M_A = Annual monitoring data, determined by summing the quarterly data over all four quarters (mR).

L_A = Annual Investigative Level exposure (mR).

ND = Facility contribution to exposure "Not Detected"

(1) An annual dose of 10.2 mR was calculated for location TL-18 using the ANSI/HPS N13.37-2014 methodology and the baseline values calculated using data from 2004 to 2014. However, this dose was determined not to be facility related due to the distance of this TLD location with respect to the plant (7.6 km) and the lack of any observed dose for TLD locations closer to the plant. The observed dose is likely a result of a change in the environment at the TLD location. Figure 3.9.1 shows a step increase in the quarterly TLD values for this location starting in 2017. For this reason, the quarterly and annual baseline values for this location have been adjusted to incorporate the most recent four years of data. Updating the quarterly and annual baseline calculations to utilize data from 2009 – 2019, results in a quarterly baseline value of 16.3 mR and an annual baseline value of 65.0 mR. Using these updated values results in no detectable quarterly or annual dose when compared to the baseline values. These updated baseline values for location TL-18 will continue to be used in future assessments.

FIGURE 3.6

ENVIRONMENTAL RADIATION MEASUREMENTS (USING TLDs) SEABROOK STATION

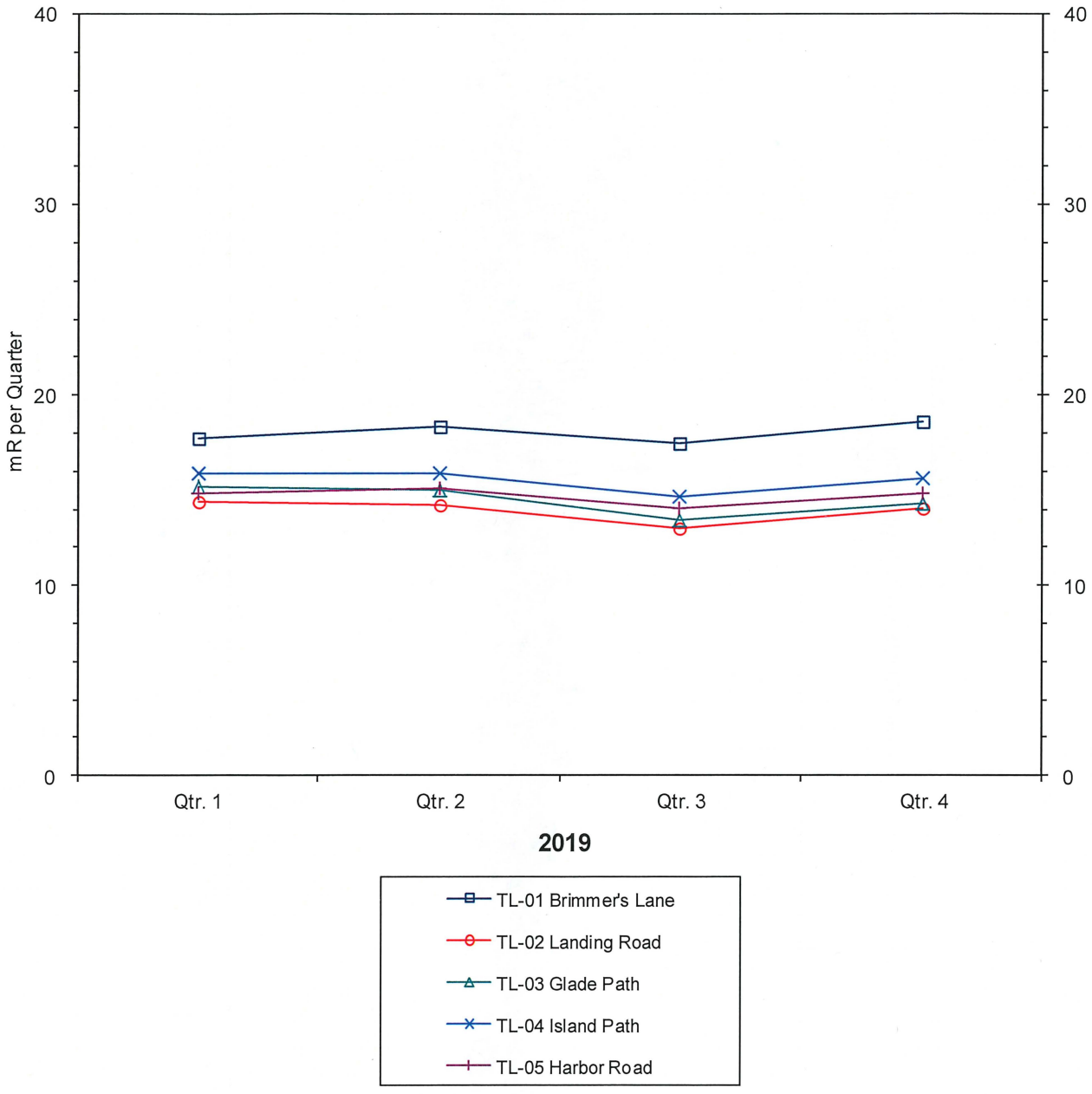


FIGURE 3.6.1

ENVIRONMENTAL RADIATION MEASUREMENTS (USING TLDs)
SEABROOK STATION

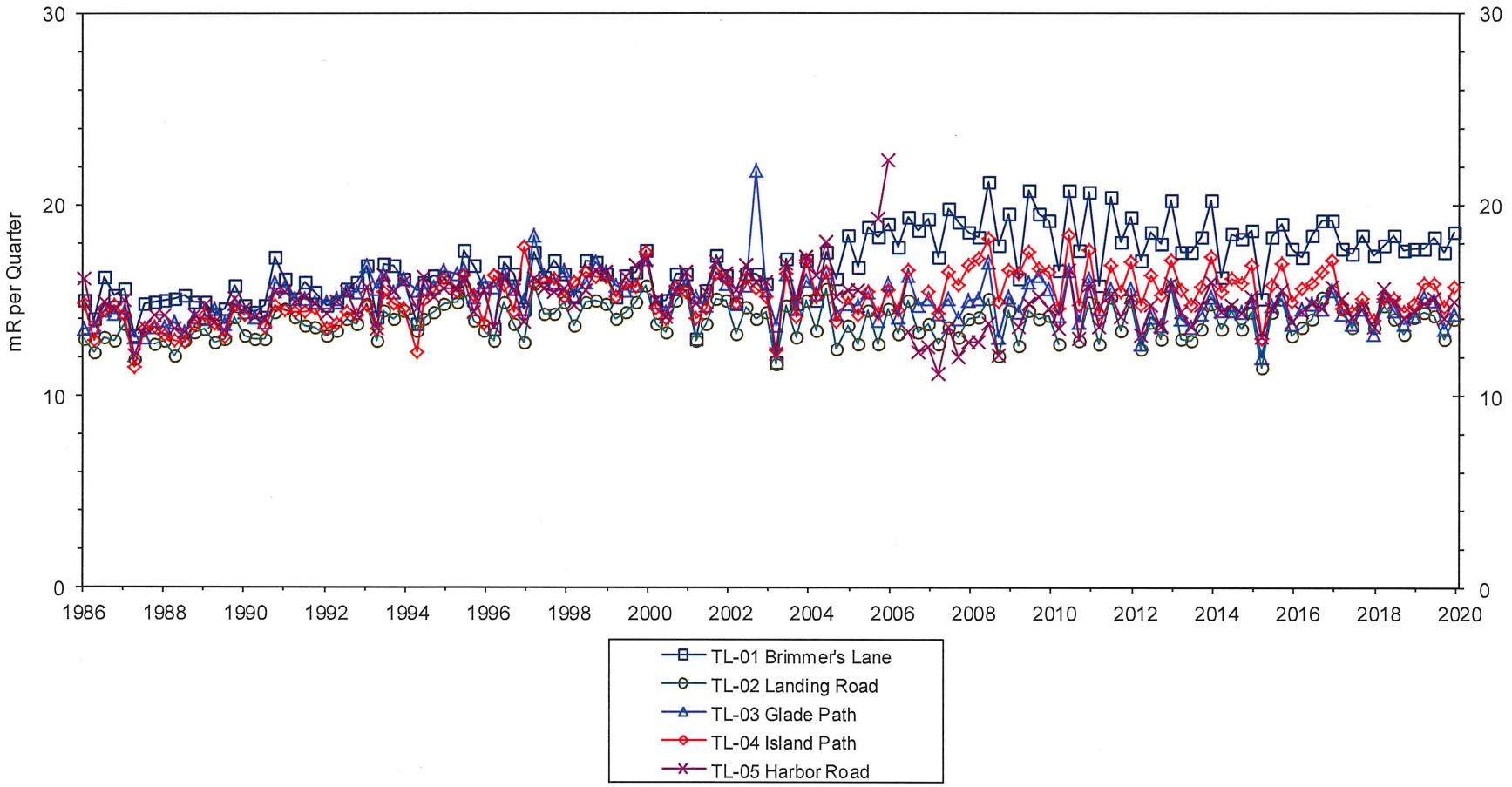


FIGURE 3.7

ENVIRONMENTAL RADIATION MEASUREMENTS (USING TLDs)
SEABROOK STATION

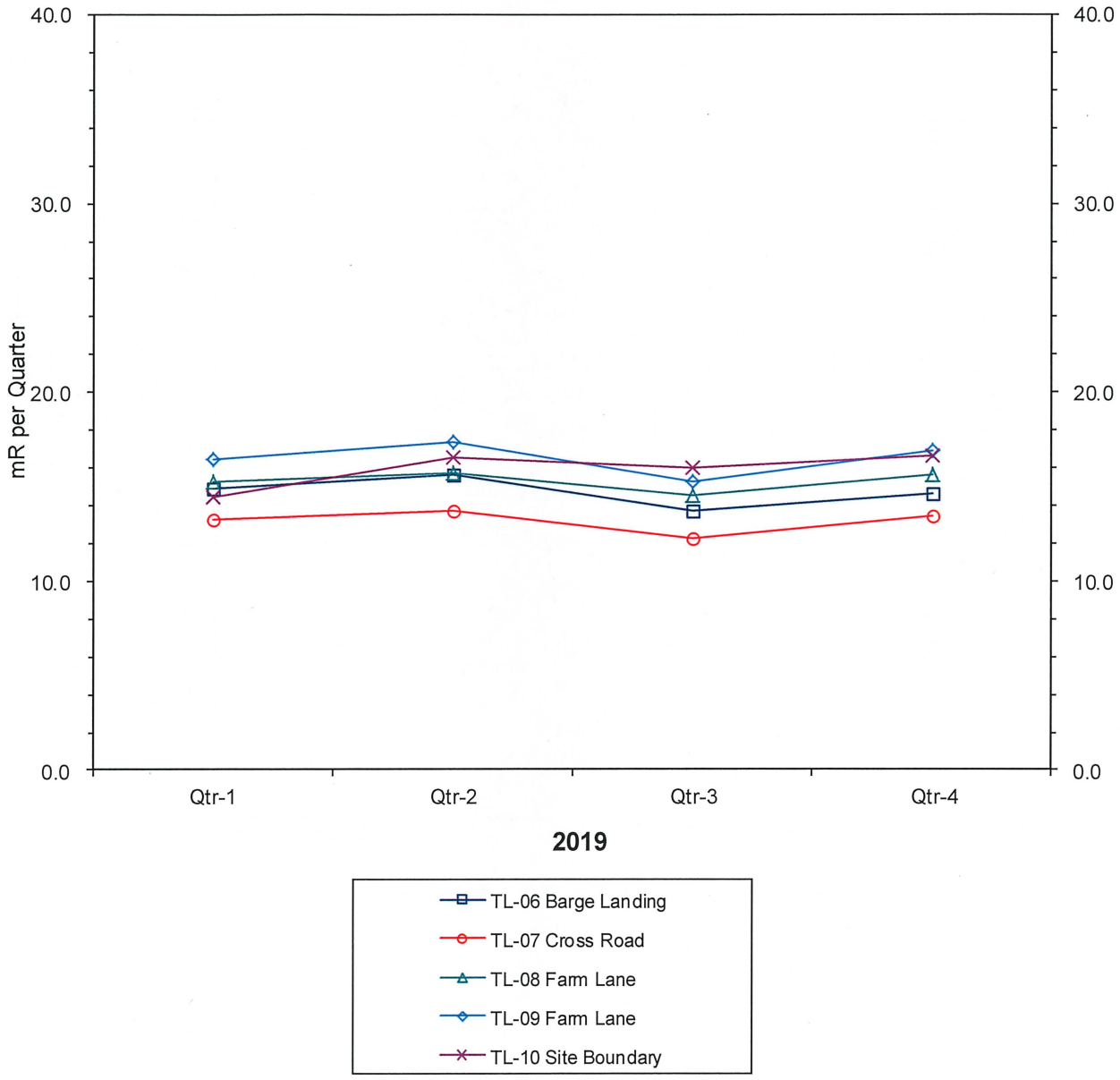


FIGURE 3.7.1

ENVIRONMENTAL RADIATION MEASUREMENTS (USING TLDs)
SEABROOK STATION

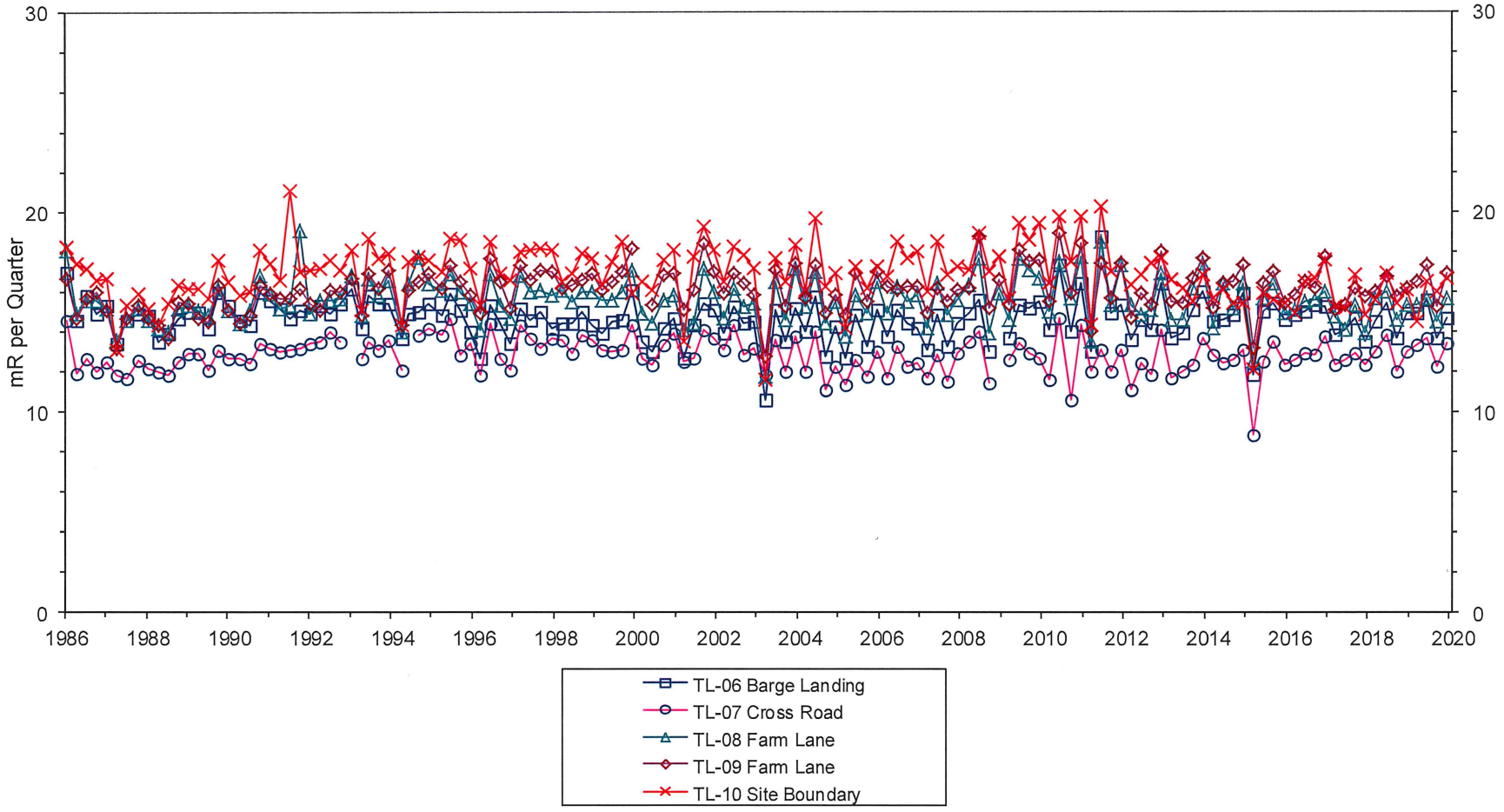


FIGURE 3.8

ENVIRONMENTAL RADIATION MEASUREMENTS (USING TLDs)
SEABROOK STATION

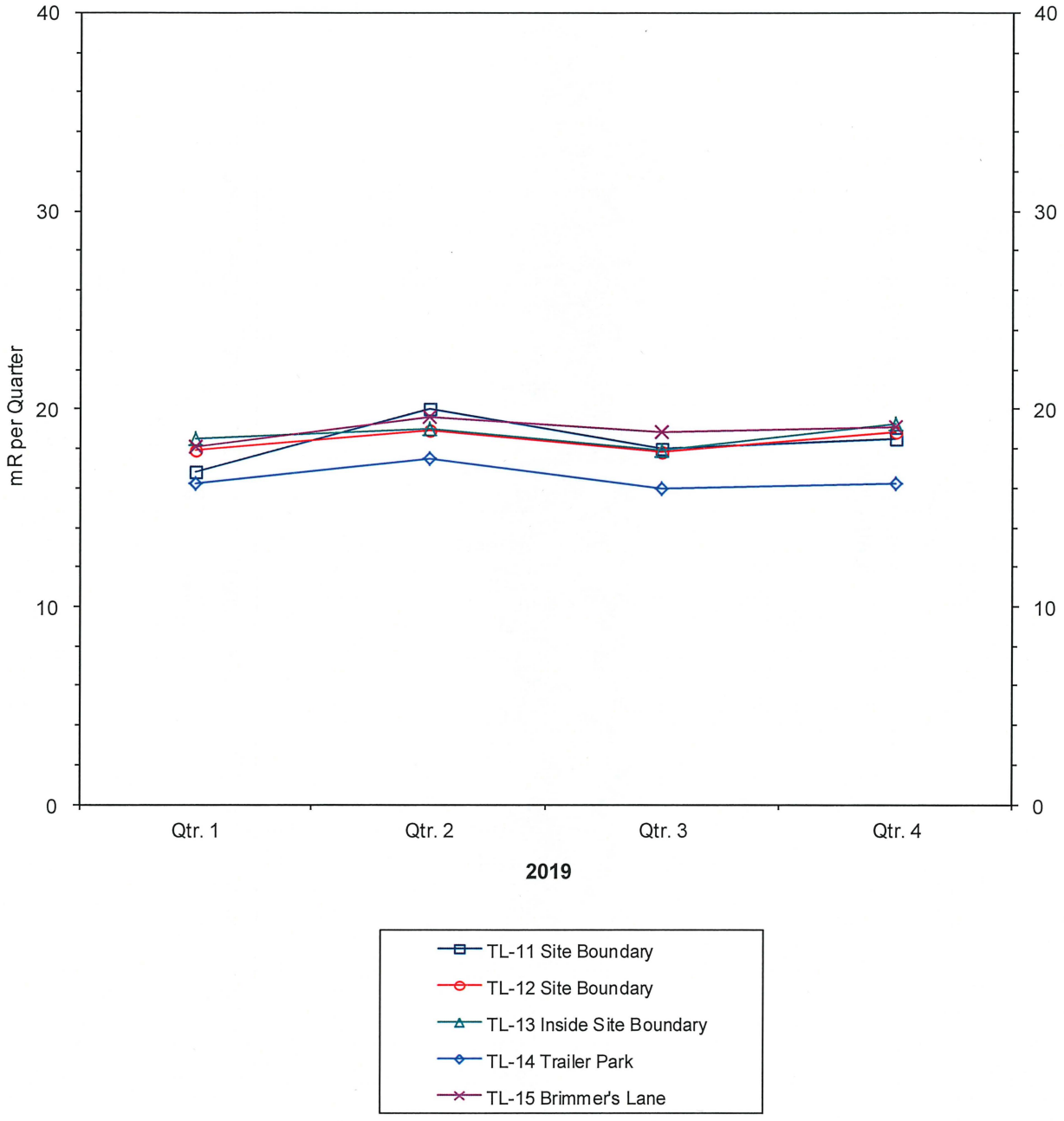


FIGURE 3.8.1

ENVIRONMENTAL RADIATION MEASUREMENTS (USING TLDs)
SEABROOK STATION

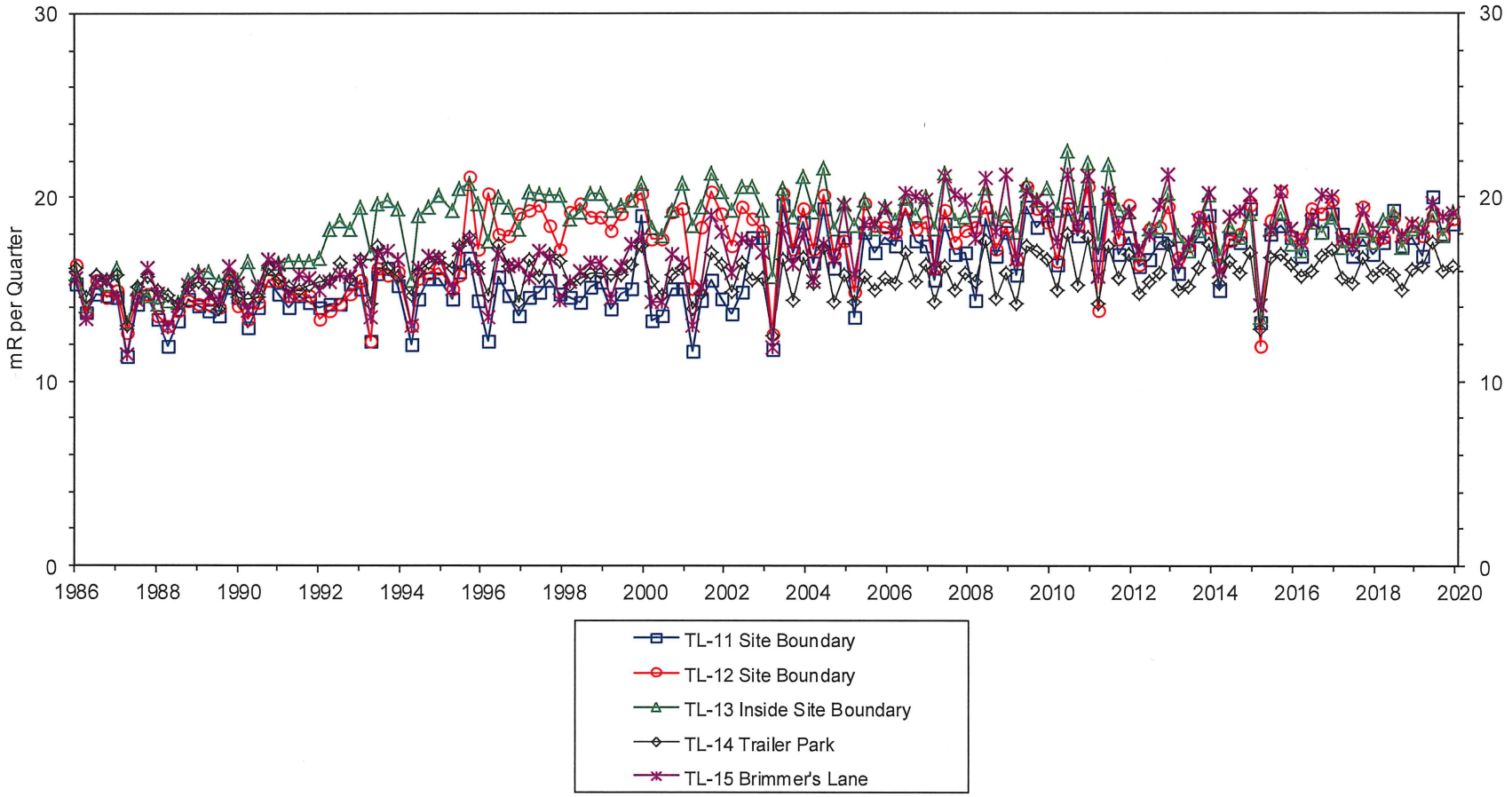


FIGURE 3.9

ENVIRONMENTAL RADIATION MEASUREMENTS (USING TLDs) SEABROOK STATION

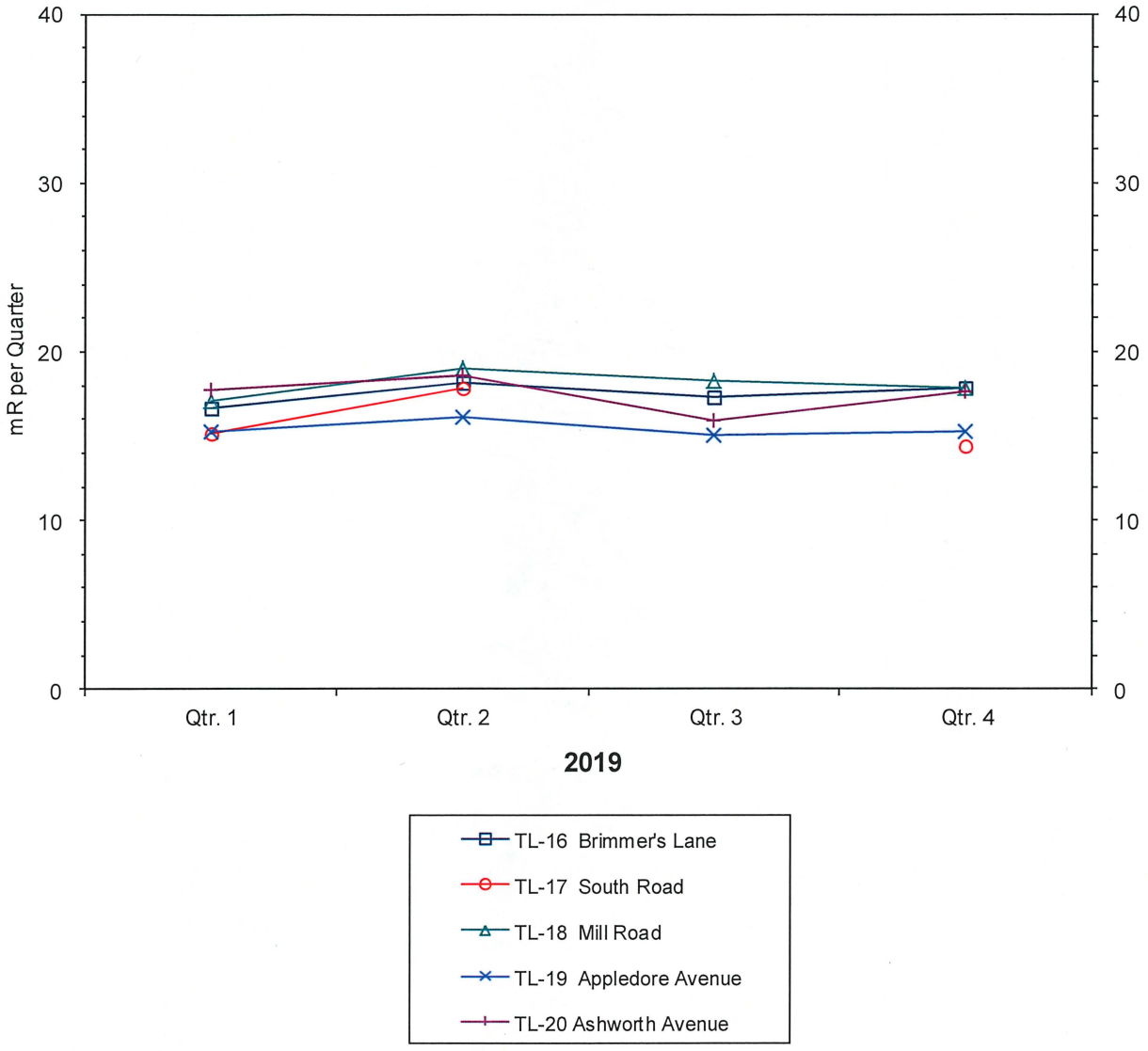


FIGURE 3.9.1

ENVIRONMENTAL RADIATION MEASUREMENTS (USING TLDs) SEABROOK STATION

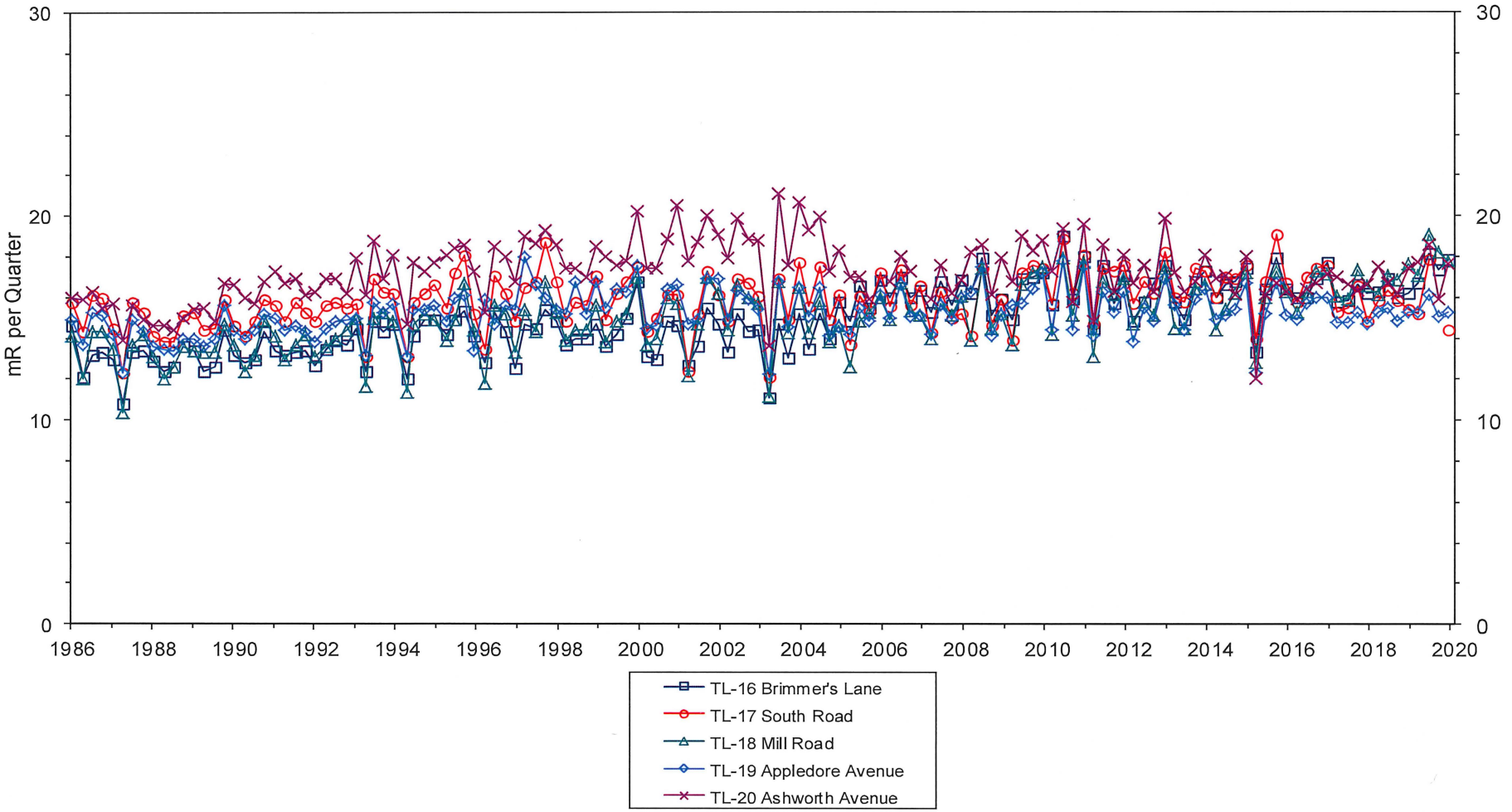


FIGURE 3.10

ENVIRONMENTAL RADIATION MEASUREMENTS (USING TLDs)
SEABROOK STATION

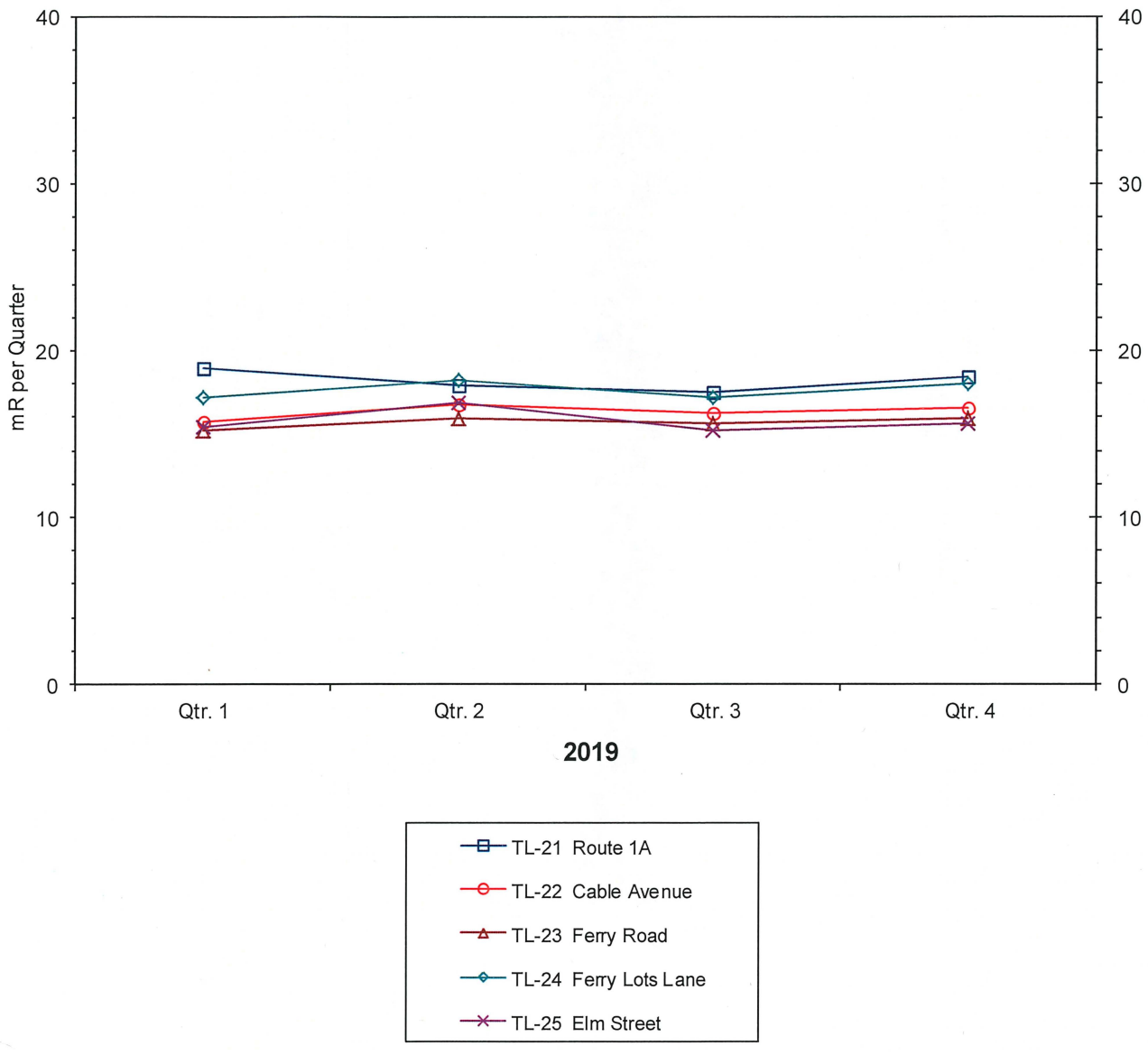


FIGURE 3.10.1

ENVIRONMENTAL RADIATION MEASUREMENTS (USING TLDs)
SEABROOK STATION

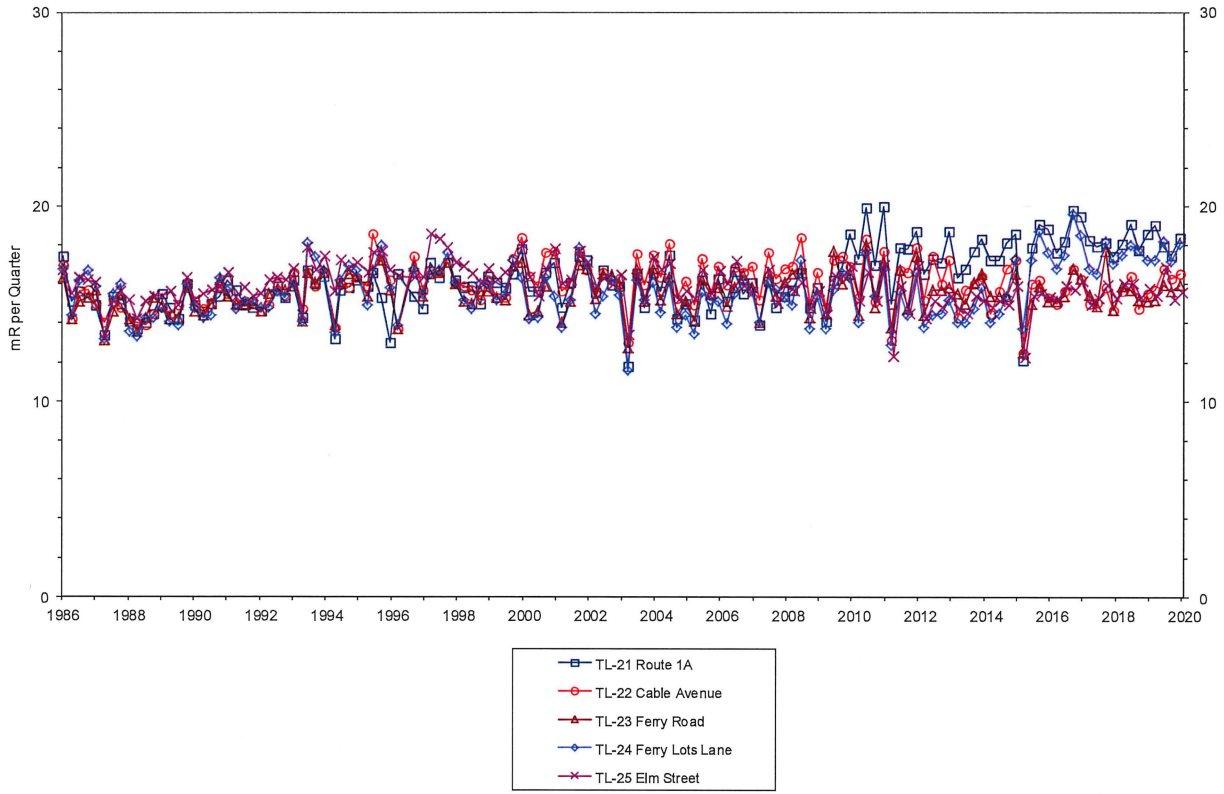


FIGURE 3.11

ENVIRONMENTAL RADIATION MEASUREMENTS (USING TLDs) SEABROOK STATION

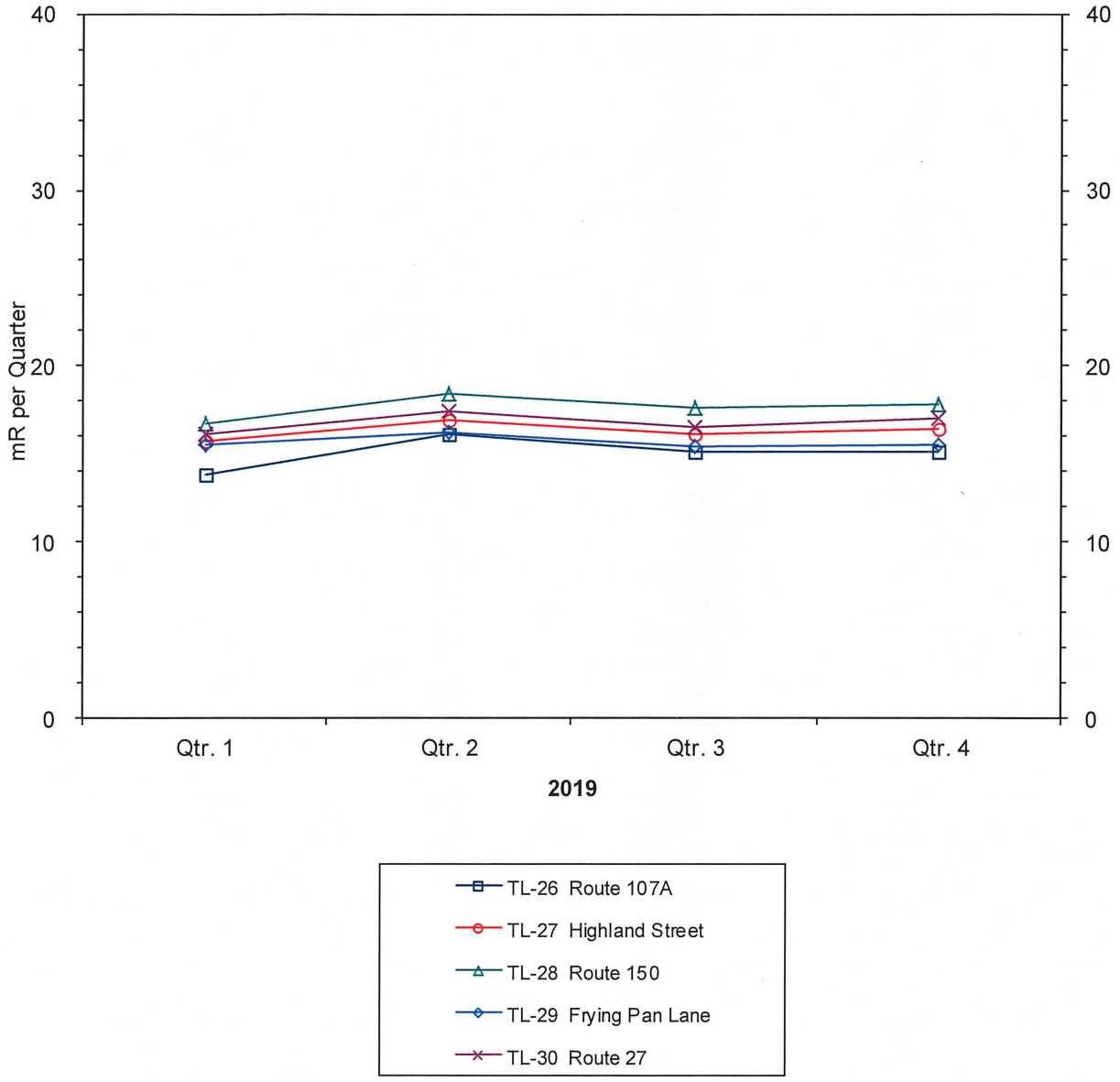


FIGURE 3.11.1

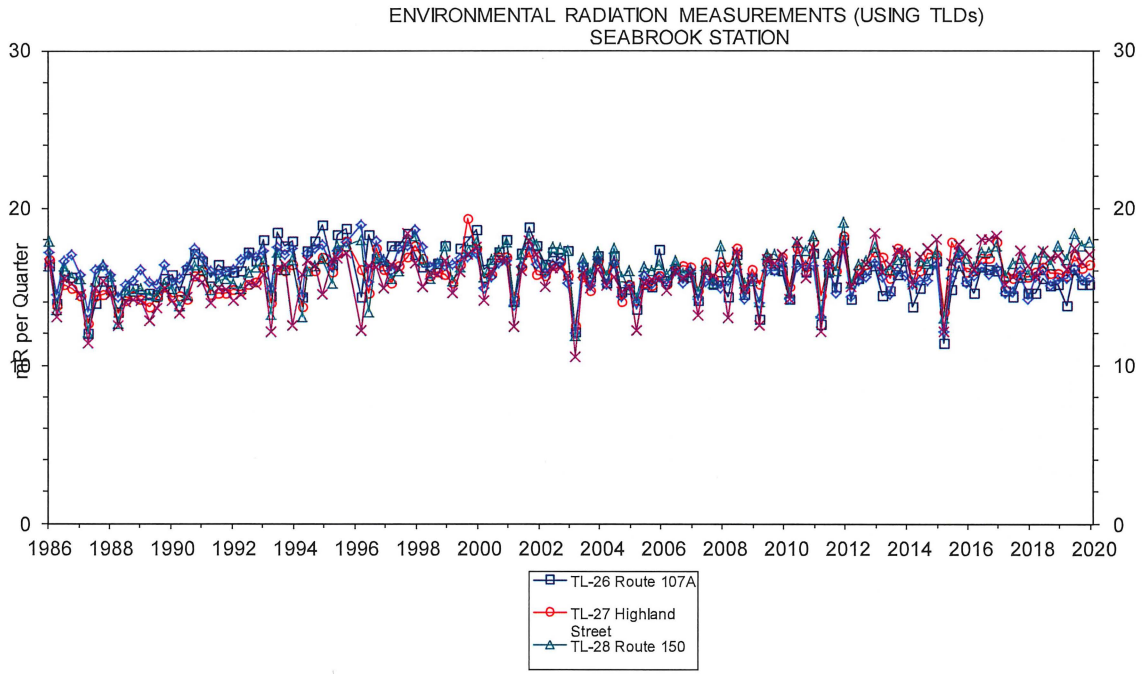

ENVIRONMENTAL RADIATION MEASUREMENTS (USING TLDs)
SEABROOK STATION
mR per Quarter
30
20
10
0
1986 1988 1990 1992 1994 1996 1998 2000 2002 2004 2006 2008 2010 2012 2014 2016 2018 2020
TL-26 Route 107A
TL-27 Highland Street
TL-28 Route 150

FIGURE 3.12

ENVIRONMENTAL RADIATION MEASUREMENTS (USING TLDs)
SEABROOK STATION

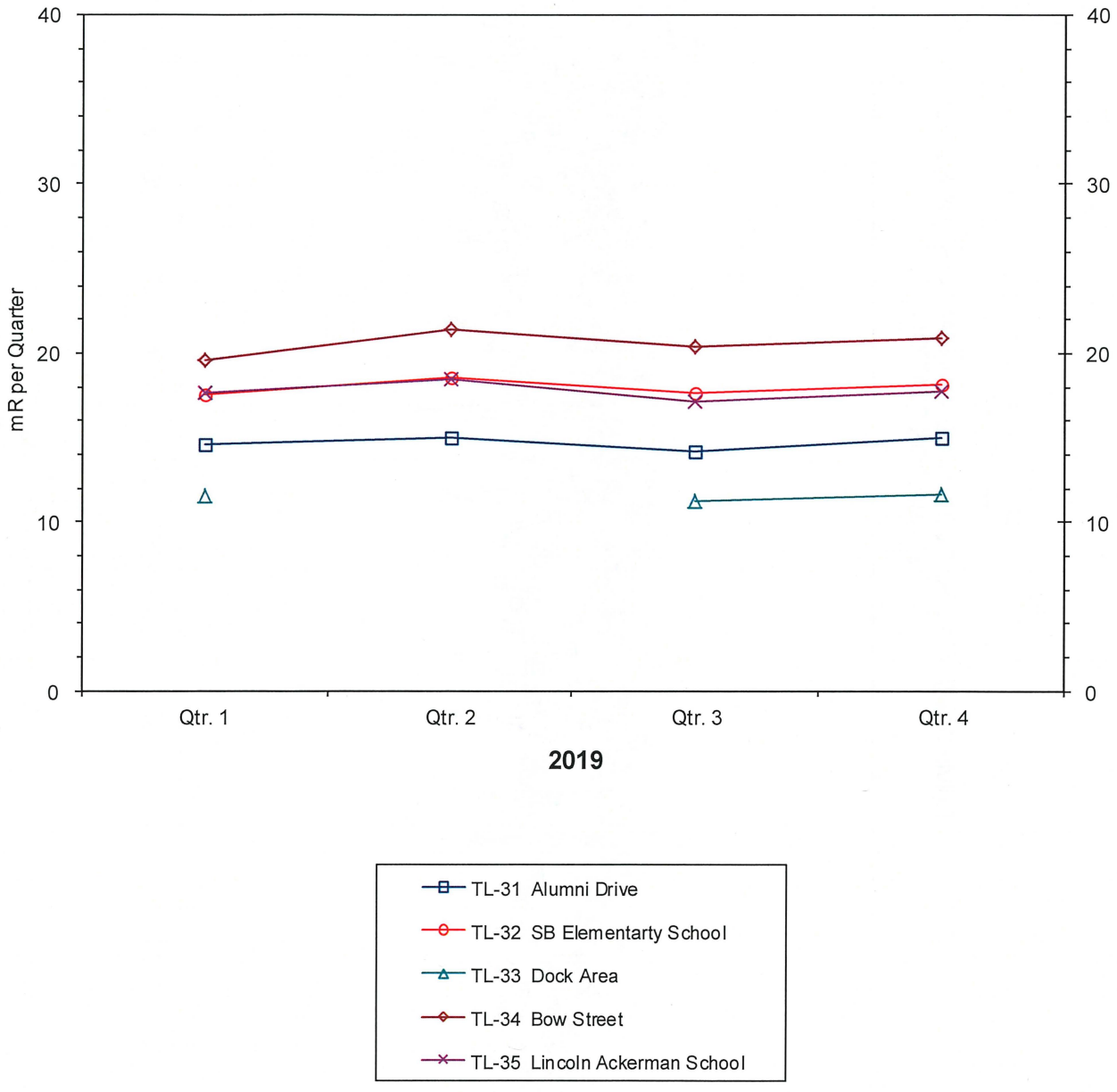


FIGURE 3.12.1

ENVIRONMENTAL RADIATION MEASUREMENTS (USING TLDs)
SEABROOK STATION

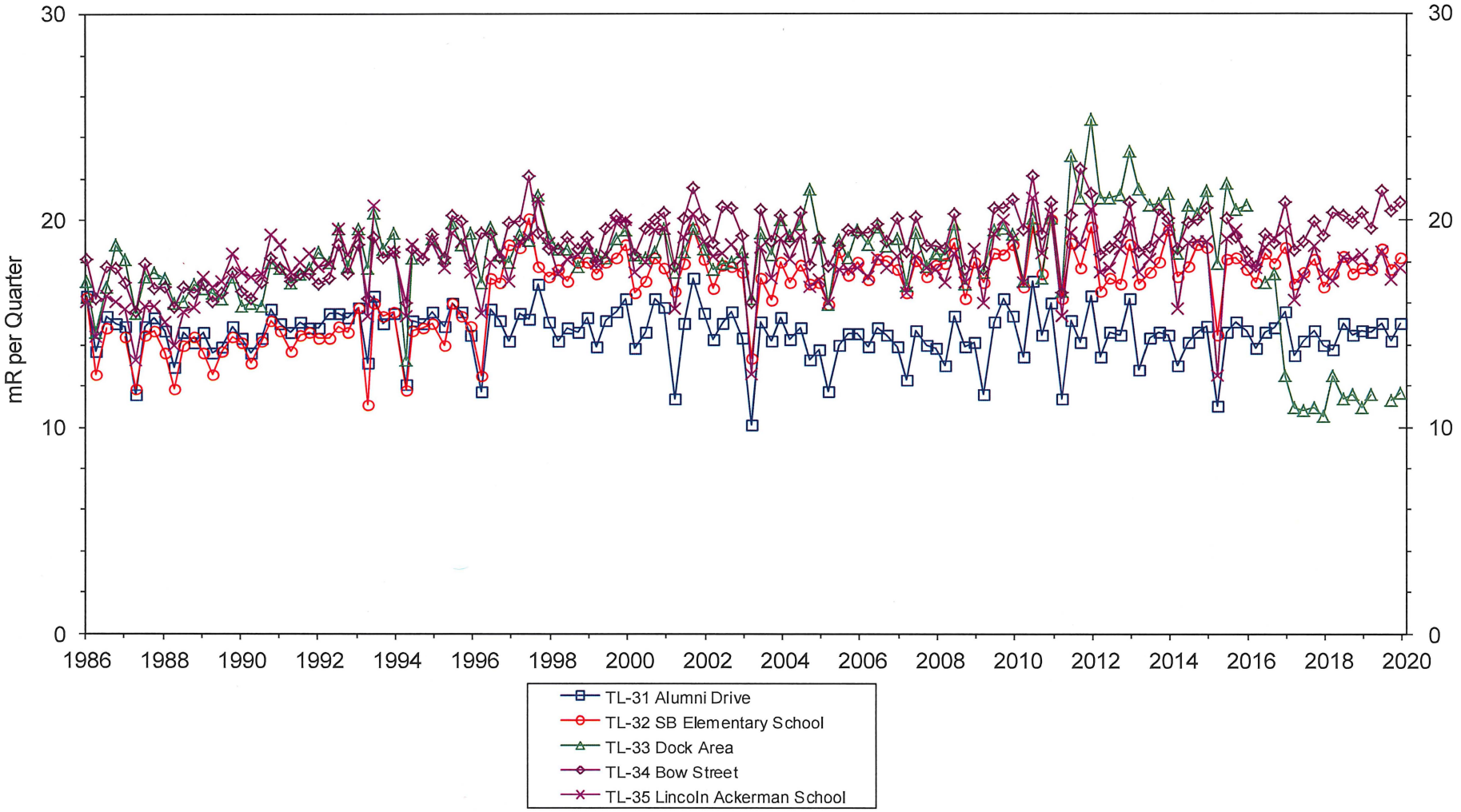


FIGURE 3.13

ENVIRONMENTAL RADIATION MEASUREMENTS (USING TLDs) SEABROOK STATION

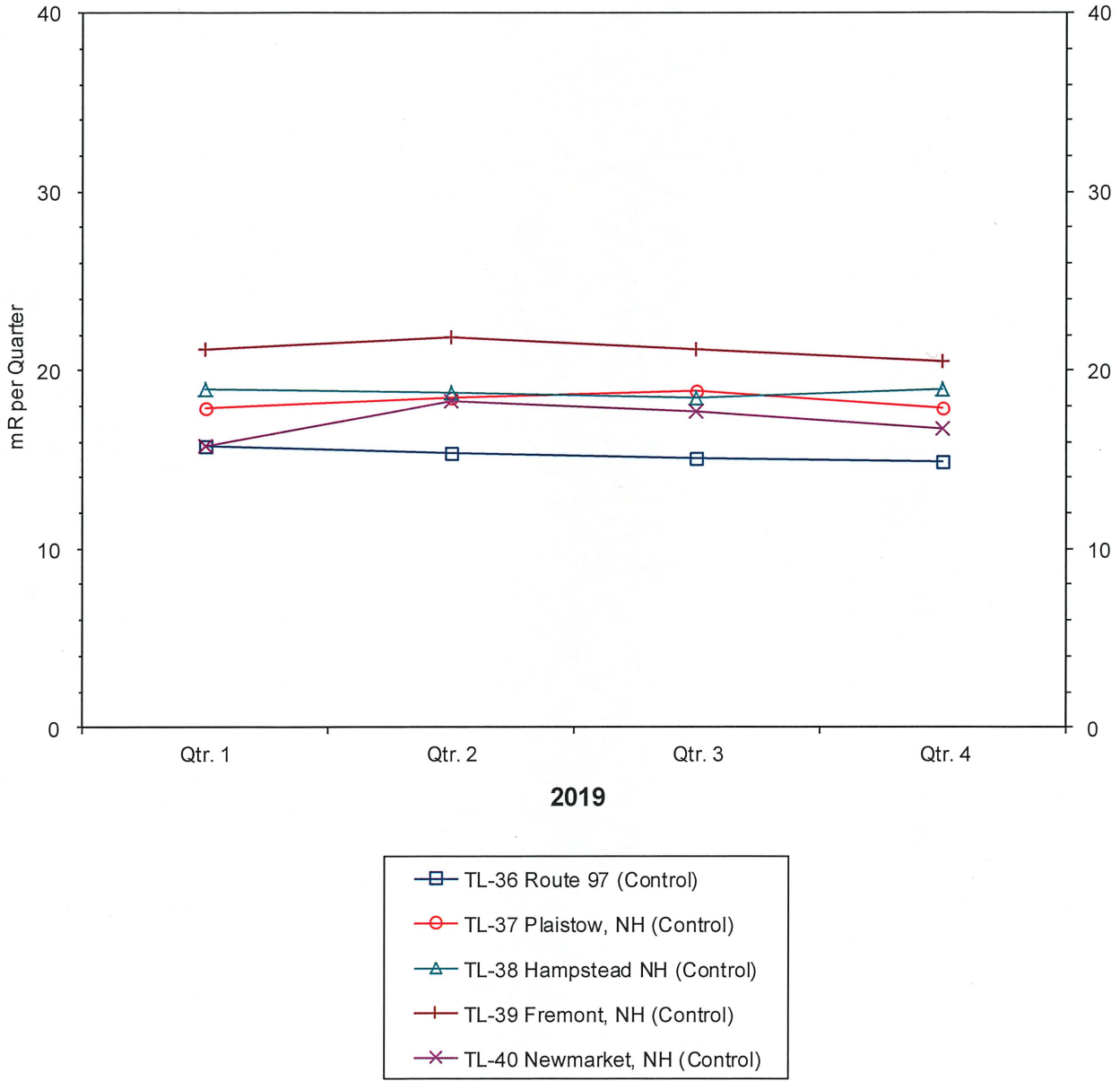


FIGURE 3.13.1

ENVIRONMENTAL RADIATION MEASUREMENTS (USING TLDs)
SEABROOK STATION

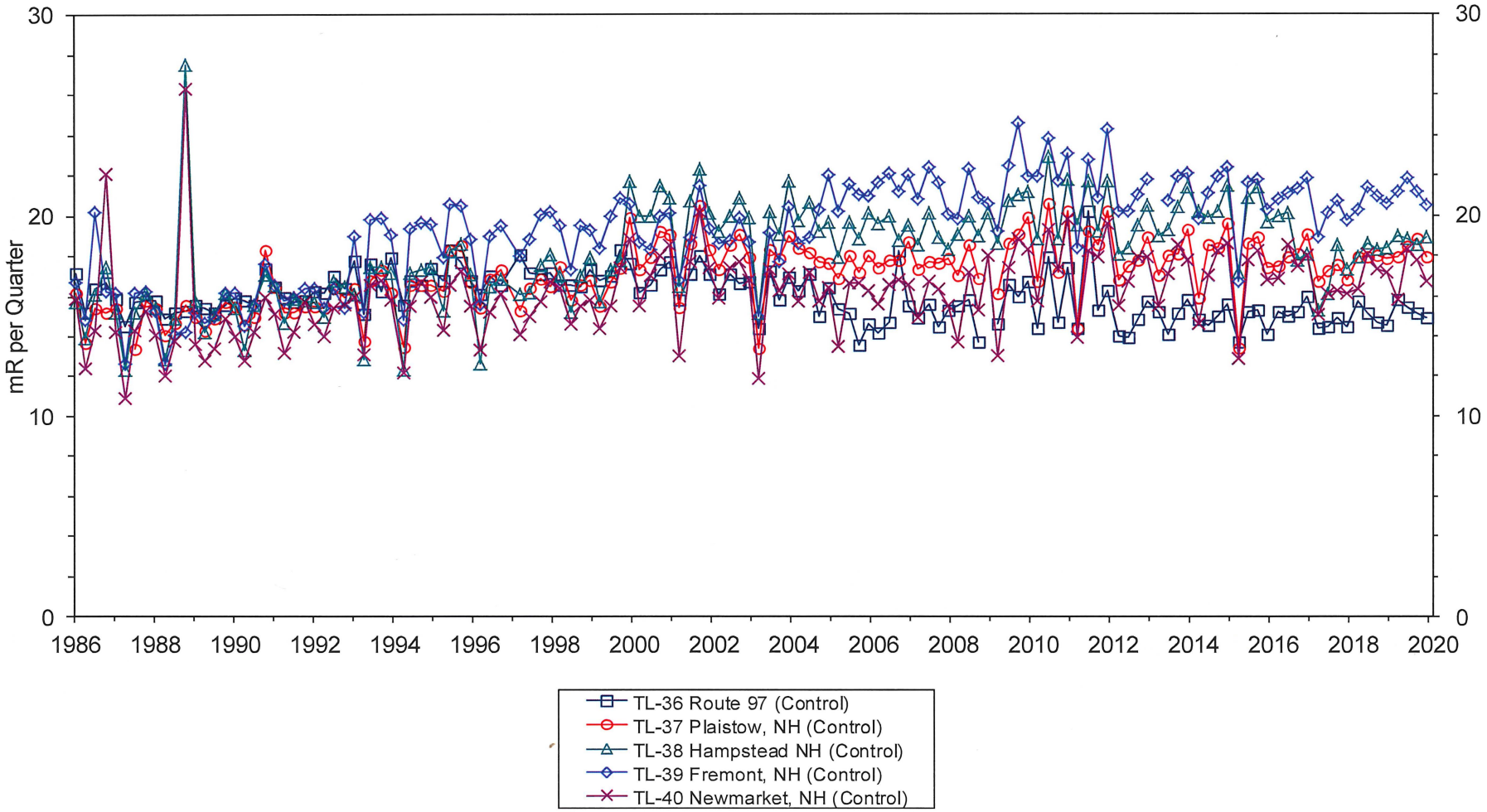


FIGURE 3.14

ENVIRONMENTAL RADIATION MEASUREMENTS (USING TLDs)
SEABROOK STATION

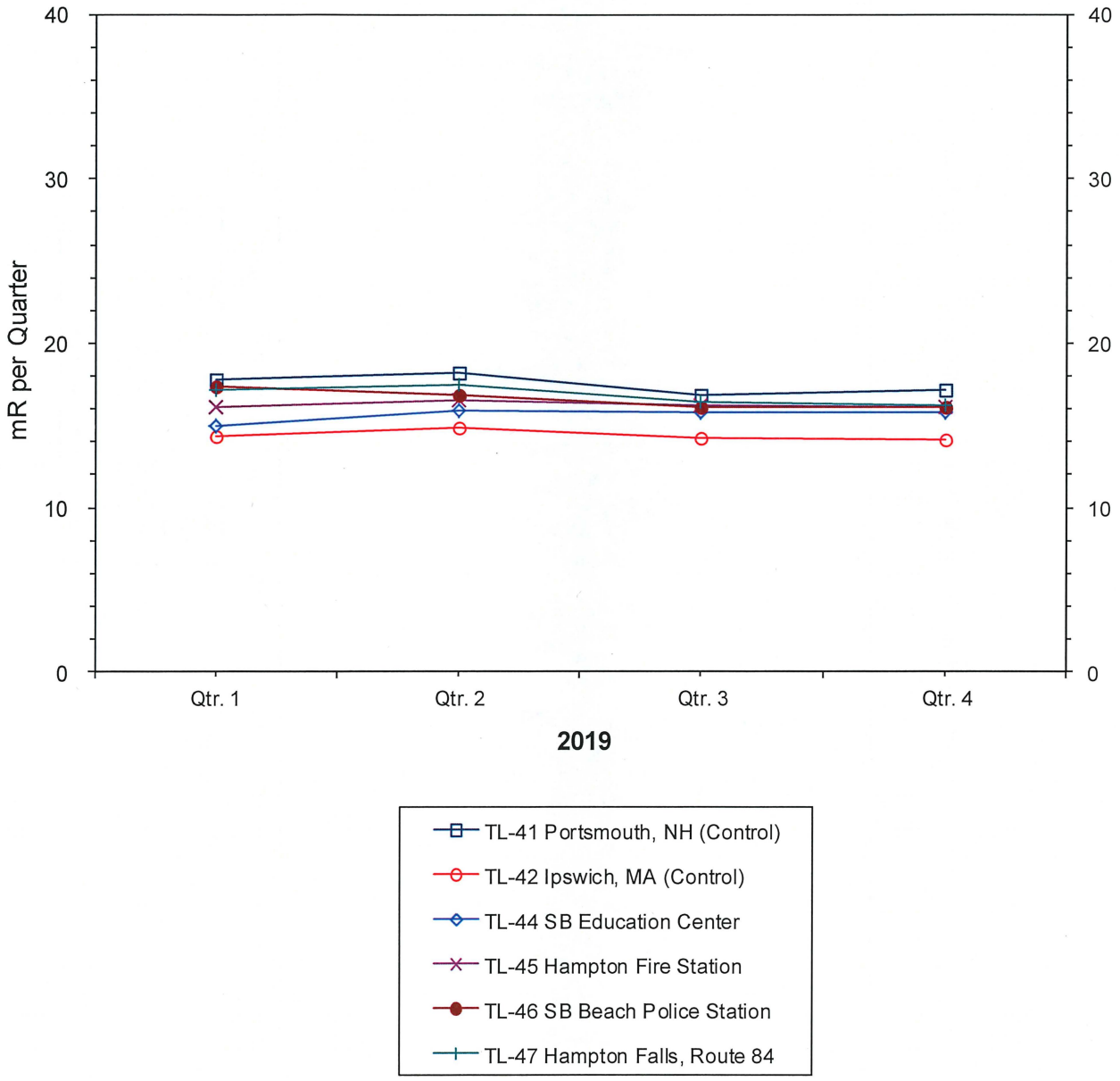
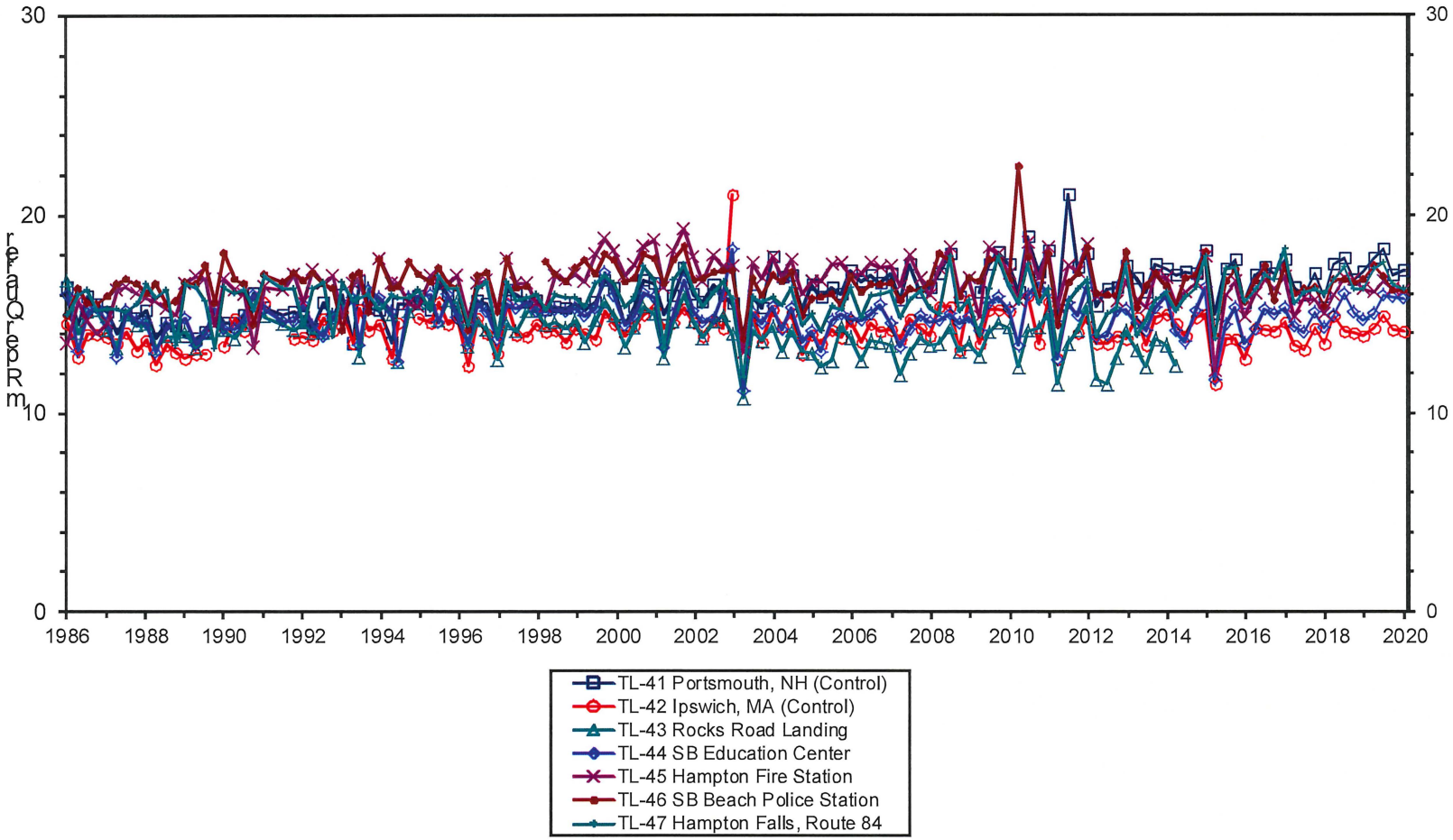


FIGURE 3.14.1

ENVIRONMENTAL RADIATION MEASUREMENTS (USING TLDs)
SEABROOK STATION



4.0 Dry Fuel Storage REMP & Data Summary

The Dry Fuel Storage (DFS) radiological environmental monitoring program required by ODCM Control C.9.4.1 provides representative measurements of direct (including scattered) radiation exposure at those locations that have the highest potential for dose to members of the public resulting from dry fuel storage operations. The design of the storage facility is such that there are no liquid or gaseous effluents released to the environment from DFS and, therefore, no associated exposure pathways for liquids and gases requiring the collection and analysis of such sample media. As a result, only direct (including scattered) radiation from the DFS modules need to be monitored for integrated exposures in areas where doses to members of the public need to be limited.

At locations near the DFS where members of the public might be present (off-site areas near the site boundary and on-site special use locations, i.e., the Science and Nature Center, the new Fitness Center located in the High Rise office building east of the DFS facility and the Firing Range located on the west site boundary), TLDs were placed at least 1 year (4 quarterly measurements) prior to used fuel being placed into storage. The DFS received its first load of fuel for storage on July 28, 2008. A total of 6 fuel canisters were placed in the NUHOMS© Horizontal Storage Modules (HSM) on the DFS pad during 2008 with the last one being loaded on September 4, 2008. A second fuel transfer campaign was conducted during August and September, 2013, with an additional 8 fuel canisters placed into storage, and a third fuel transfer campaign during August – October 2017 with an additional 8 fuel canisters bringing the total to 22 canisters in storage.

The DFS radiological environmental monitoring stations are listed in Table 4.0-1. At the end of 2013, TLD location SB-35, which was located inside the old Fitness Center, and location TL-67 (first quarter of 2014), which was located outside the old Fitness Center south of the DFS, were removed from the program due to the relocation of the fitness center to the High Rise Office Building. TLD locations SB-32 and SB-33 now provide monitoring for the new Fitness Center location. The measurement locations with respect to the Seabrook site area are shown on Figure 4.0.1.

4.1 Direct Radiation from DFS

As with the plant operations TLD program described in Section 3.13, the DFS TLD exposure rates were normalized to a standard 91-day quarter. A summary of the 2019 data for the DFS REMP is shown in Table 4.1-1. Figures 4.1, 4.2 and 4.3 show the quarterly 2019 TLD trend lines for the control and indicator monitoring locations. Figures 4.4, 4.5 and 4.6 provide a comparison of long term trend lines (12 years) for the same control locations, site boundary and special use sites.

Overall, the direct radiation program showed no statistically significant indication of increased direct radiation above the variable background measured exposure rate in unrestricted areas. The 2019 annual mean of all indicator locations for the DFS was 17.3 mR/91-day quarter while the mean of all control locations was 17.5 mR/91-day quarter. There was no notable difference detected in the annual exposure rates in areas were members of the public could occupy (site boundary and inside special use locations) and the control locations. Starting in the 4th quarter of 2013, location TL-67 indicated a notable measurement increase in exposure rate following the expansion of fuel storage in the DFS facility in the third quarter of 2013. However, by late November, 2013, the fitness center operations had been transferred from its original location south of the DFS to the High Rise Office Building east of the DFS, thereby ending use of the original fitness center facility and its parking lot by members of the public.

Starting in 2015, an additional analytical method was implemented to evaluate the TLD measurements. Using the method described in ANSI/HPS N13.37-2014, quarterly and annual baseline dose for each DFS TLD location was determined using appropriate statistical analytical methods considering data from 2004 through 2014. Quarterly and annual dose for 2019 was compared to baseline values to determine if an Investigation Level had been exceeded for evaluation of potential dose to a member of the public. An Investigation Level is considered to be exceeded under the following conditions:

$$\text{Quarterly: If } M_Q > (B_Q + MDD_Q), \text{ then } F_Q = M_Q - B_Q$$

Where:

M_Q is the normalized quarterly field measurement result
B_Q is the quarterly baseline background dose
MDD_Q is the quarterly minimum differential dose and
F_Q is the quarterly facility related dose

or: Annually: If $M_A > (B_A + MDD_A)$, then $F_A = M_A - B_A$

Where:

M_A is the sum of the four normalized quarterly measurement values
B_A is the annual baseline background dose
MDD_A is the annual minimum differential dose
F_A is the annual facility related dose

Table 4.1-2 summarizes the evaluation of the TLD measurements using the methodology described in ANSI/HPS N13.37-2014. As noted in Table 4.1-2, TLD location SB-33 (High-Rise Building 1st floor, Fitness Center) was found to have a calculated annual facility related dose of 13.1 mR when comparing the measured TLD value against the annual baseline values. However, as this is an onsite fitness center under Station control, an annual occupancy factor for this location of 0.0416 (1 hour per day x 7 days a week x 52 weeks per year / 8760 hours) can be applied. This results in an annual dose of 0.5 mR.

Any sample collection and analysis deviations from the ODCM required program, or reportable concentrations that may have occurred during the year are described in Section 5.

Figure 4.0.1
Dry Fuel Storage TLD Environmental Monitoring Locations

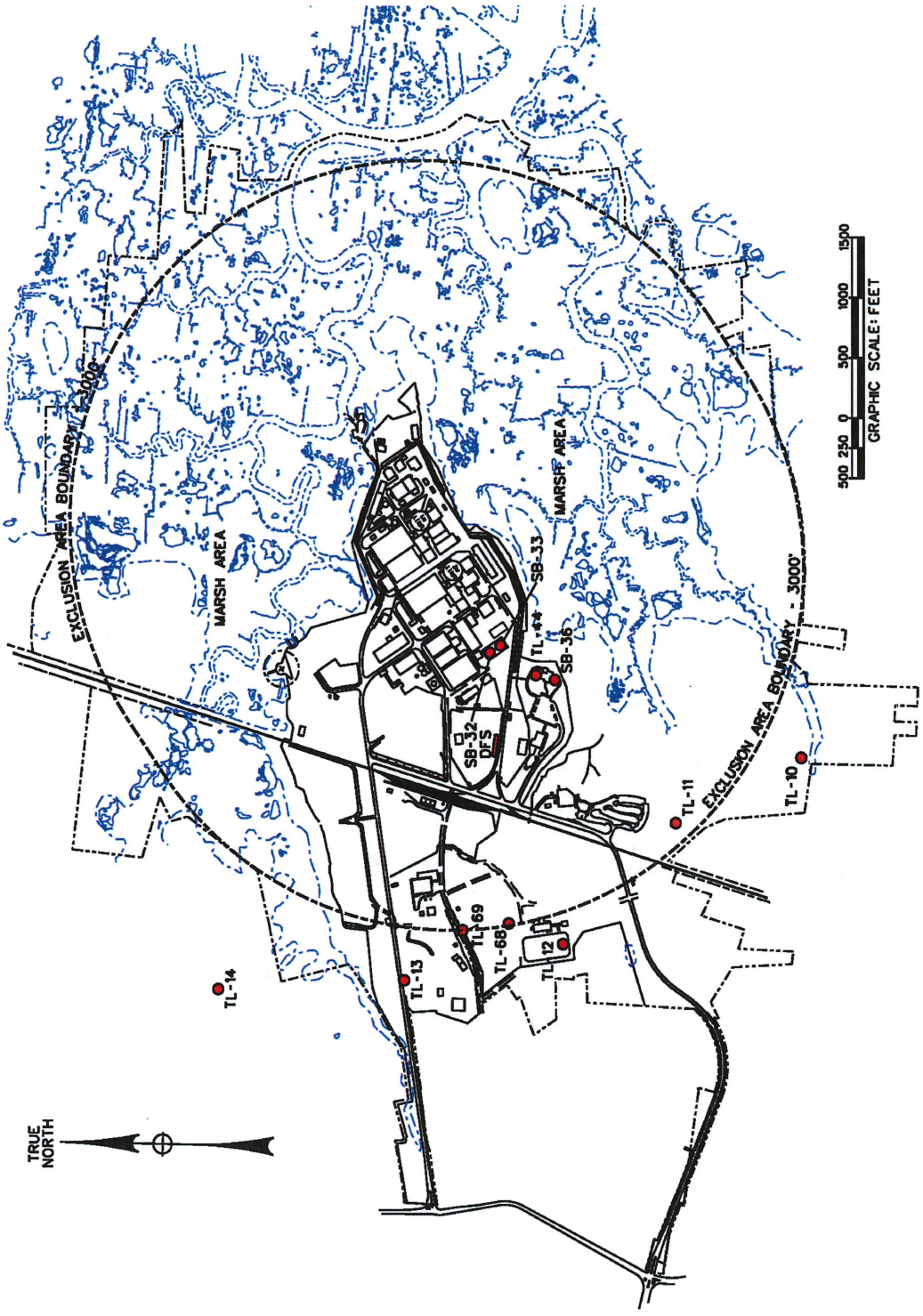


Table 4.0-1

Dry Fuel Storage (DFS) TLD Monitoring Locations

Site Designation Code	TLD Sample Location Description[3]	Distance From DFS Pad (km)	Direction From DFS Pad
TL-44	On-site, outside Science & Nature Center [1][2]	0.21	ESE
SB-36	On-site, inside Science & Nature Center	0.24	SE
SB-32	High-Rise Building, 3rd Floor[1]	0.23	E
SB-33	High-Rise Building, 1st Floor (new Fitness Center)[1]	0.23	E
TL-68	Nearby site boundary (firing range) to DFS	0.45	W
TL-69	Nearby site boundary (Rocks Rd) to DFS	0.47	W
TL-10	Site Boundary Fence [2]	0.77	S
TL-11	Site Boundary Fence [2]	0.52	SSW
TL-12	Site Boundary fence [2]	0.53	WSW
TL-13	Inside Site Boundary [2]	0.61	WNW
TL-14	Trailer Park, Seabrook [2]	0.94	NW
TL-36	Rt 97, Georgetown (Control) [2]	22	SSW
TL-37	Plaistow, NH (Control) [2]	21	WSW
TL-38	Hampstead, NH (Control) [2]	27	W
TL-39	Fremont, NH (Control) [2]	27	WNW
TL-40	Newmarket, NH (Control) [2]	22	NNW
TL-41	Portsmouth, NH (Control) [1][2]	22	NNE
TL-42	Ipswich, MA (Control) [1][2]	22	SSE

(1) This location is not part of the required DFS radiological monitoring program as defined in Table A.9.4-1 of the Seabrook ODCM.

(2) Shared environmental monitoring locations for both Seabrook Station REMP and DFS monitoring.

(3) TL-67 and SB-35 locations were removed in 2014 due to relocation of the Fitness Center to the High Rise office building.

Table 4.1-1

DFS Environmental TLD Measurements
Net Exposures in mR/Standard Quarter (91 days)

2019

Sta. No.	Description	1st Quarter Exp.	1st Quarter S.D.	2nd Quarter Exp.	2nd Quarter S.D.	3rd Quarter Exp.	3rd Quarter S.D.	4th Quarter Exp.	4th Quarter S.D.	Qtr Ave Exp.
TL-44	Outside Science & Nature C.(1)	15.0 ±	0.8	15.9 ±	0.6	15.8 ±	0.8	15.8 ±	1.0	15.6
SB-36	Inside Science & Nature C.	16.7 ±	1.3	18.2 ±	1.3	16.8 ±	0.9	17.0 ±	0.8	17.2
SB-32	High-Rise 3rd Floor (1)	15.0 ±	0.7	15.4 ±	1.0	14.6 ±	1.0	14.7 ±	0.7	14.9
SB-33	High-Rise 1st Fl.(Fitness Cntr)(1)	19.8 ±	0.9	22.0 ±	1.7	19.7 ±	1.1	20.7 ±	0.8	20.6
TL-68	Nearby Site Boundary to DFS	17.5 ±	0.9	19.7 ±	0.9	19.7 ±	0.9	18.2 ±	0.7	18.8
TL-69	Nearby Site Boundary to DFS	13.8 ±	0.7	15.7 ±	0.6	15.4 ±	0.8	14.7 ±	0.9	14.9
TL-10	Site Boundary Fence (2)	14.5 ±	0.9	16.5 ±	0.6	16.0 ±	0.8	16.7 ±	0.6	15.9
TL-11	Site Boundary Fence (2)	16.8 ±	0.7	20.0 ±	1.0	18.0 ±	0.8	18.6 ±	1.0	18.4
TL-12	Site Boundary Fence (2)	17.9 ±	0.6	19.0 ±	0.8	17.9 ±	0.9	18.9 ±	0.8	18.4
TL-13	Inside Site Boundary (2)	18.5 ±	1.2	19.1 ±	0.7	17.9 ±	1.1	19.2 ±	0.9	18.7
TL-14	Trailer Park Seabrook (2)	16.2 ±	0.7	17.5 ±	0.7	16.0 ±	0.7	16.2 ±	0.8	16.5
TL-36	Rt 97, Georgetown (control)(2)	15.8 ±	0.6	15.4 ±	0.6	15.1 ±	0.8	14.9 ±	0.6	15.3
TL-37	Plaistow, NH (Control)(2)	17.9 ±	0.8	18.4 ±	0.8	18.8 ±	0.9	17.9 ±	0.7	18.3
TL-38	Hampstead, NH (Control)(2)	19.0 ±	0.8	18.8 ±	0.9	18.5 ±	1.0	18.9 ±	0.8	18.8
TL-39	Fremont, NH (Control)(2)	21.2 ±	1.2	21.9 ±	0.8	21.2 ±	1.0	20.5 ±	0.8	21.2
TL-40	Newmarket, NH (Control)(2)	15.8 ±	0.7	18.3 ±	0.9	17.8 ±	0.9	16.7 ±	0.8	17.2
TL-41	Portsmouth, NH (Control)(1)(2)	17.8 ±	0.9	18.2 ±	0.9	16.9 ±	0.7	17.1 ±	0.7	17.5
TL-42	Ipswich, MA (Control)(1)(2)	14.3 ±	0.6	14.9 ±	0.7	14.2 ±	0.9	14.1 ±	0.7	14.4
	Mean of Indicators	16.5		18.1		17.1		17.3		17.3
	Mean of Controls	17.4		18.0		17.5		17.2		17.5

(1) This location is not part of the DFS required program defined by the ODCM.

(2) Shared environmental monitoring locations for both plant REMP and DFS monitoring.

Table 4.1-2

DFS Facility Related Dose using ANSI/HPS N13.37-2014 Methodology

		Quarterly Ave. Baseline, B_Q	2019 Quarterly Monitoring Data, M_Q (mR/qtr)				Quarterly Facility Dose $F_Q = M_Q - (B_Q+MDD_Q)$				Annual Baseline, B_A	2019 Annual TLD Data, M_A	Annual Facility Dose $F_A = M_A - (B_A+MDD_A)$
		mR	1	2	3	4	1	2	3	4	mR	mR	
TL-44	On-site, outside Science & Nature Center	14.8	15.0	15.9	15.8	15.8	ND	ND	ND	ND	59.0	62.5	ND
SB-36	On-site, inside Science & Nature Center	16.2	16.7	18.2	16.8	17.0	ND	ND	ND	ND	64.7	68.7	ND
SB-32	High-Rise Building, 3rd floor	14.0	15.0	15.4	14.6	14.7	ND	ND	ND	ND	55.7	59.7	ND
SB-33	High-Rise Building 1st floor, Fitness Center	17.5	19.8	22.0	19.7	20.7	ND	ND	ND	ND	69.2	82.3	13.1[1]
TL-68	Nearby site boundary (firing Range)	17.7	17.5	19.7	19.7	18.2	ND	ND	ND	ND	70.8	75.1	ND
TL-69	Nearby site boundary (Rocks Rd)	14.6	13.8	15.7	15.4	14.7	ND	ND	ND	ND	58.2	59.5	ND
TL-10	Site Boundary	17.2	14.5	16.5	16.0	16.7	ND	ND	ND	ND	68.7	63.7	ND
TL-11	Site Boundary	17.5	16.8	20.0	18.0	18.6	ND	ND	ND	ND	69.9	73.3	ND
TL-12	Site Boundary	18.2	17.9	19.0	17.9	18.9	ND	ND	ND	ND	72.6	73.6	ND
TL-13	Inside Site Boundary	19.2	18.5	19.1	17.9	19.2	ND	ND	ND	ND	77.0	74.7	ND
TL-14	Trailer Park	15.9	16.2	17.5	16.0	16.2	ND	ND	ND	ND	63.5	66.0	ND
TL-36	Route 97(Control)	15.4	15.8	15.4	15.1	14.9	ND	ND	ND	ND	61.9	61.3	ND
TL-37	Plaistow, NH (Control)	18.0	17.9	18.4	18.8	17.9	ND	ND	ND	ND	72.0	73.1	ND
TL-38	Hampstead, NH (Control)	19.8	19.0	18.8	18.5	18.9	ND	ND	ND	ND	79.3	75.3	ND
TL-39	Fremont, NH (Control)	21.3	21.2	21.9	21.2	20.5	ND	ND	ND	ND	85.2	84.8	ND
TL-40	Newmarket, NH (Control)	16.7	15.8	18.3	17.8	16.7	ND	ND	ND	ND	66.9	68.6	ND
TL-41	Portsmouth, NH (Control)	16.9	17.8	18.2	16.9	17.1	ND	ND	ND	ND	67.6	70.1	ND
TL-42	Ipswich, MA (Control)	14.3	14.3	14.9	14.2	14.1	ND	ND	ND	ND	57.2	57.5	ND

Table 4.1-2 (cont'd)

DFS Facility Related Dose using ANSI/HPS N13.37-2014 Methodology

MDD_Q = 4.48 = minimum differential exposure, quarterly, 3 times 90th percentile S_Q determined from analysis in mR.

MDD_A = 10.17 = minimum differential exposure, annual, 3 times 90th percentile S_A determined from analysis in mR.

B_Q = Quarterly baseline exposure (mR).

M_Q = location's 91 day standard quarterly exposure (mR).

L_Q = Quarterly Investigative Level exposure (mR).

B_A = Quarterly baseline background average exposure (mR).
M_A = Annual monitoring data, determined by summing the quarterly data over all four quarters (mR).

L_A = Annual Investigative Level exposure (mR).
ND = Facility contribution to exposure "Not Detected"

[1] Note that this location is a fitness center and is not occupied full time. Applying an annual occupancy factor for this location of 0.0416 (1 hour per day x 7 days a week x 52 weeks per year / 8760 hours), results in an annual dose of 0.5 mR.

FIGURE 4.1

DFS CONTROL RADIATION MEASUREMENTS (USING TLDs)
SEABROOK STATION

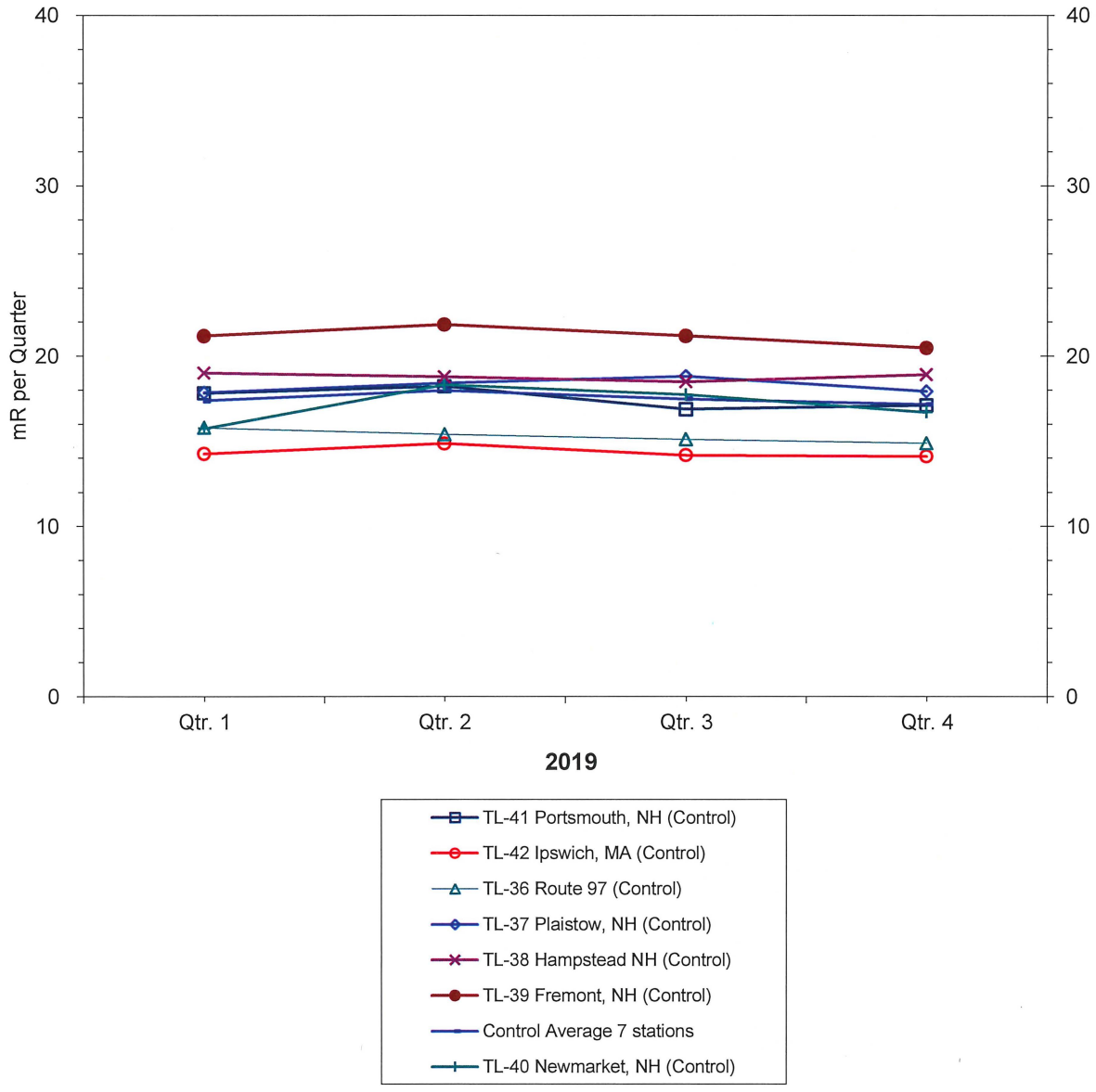


FIGURE 4.2

DFS ENVIRONMENTAL RADIATION MEASUREMENTS (USING TLDs)
SEABROOK STATION

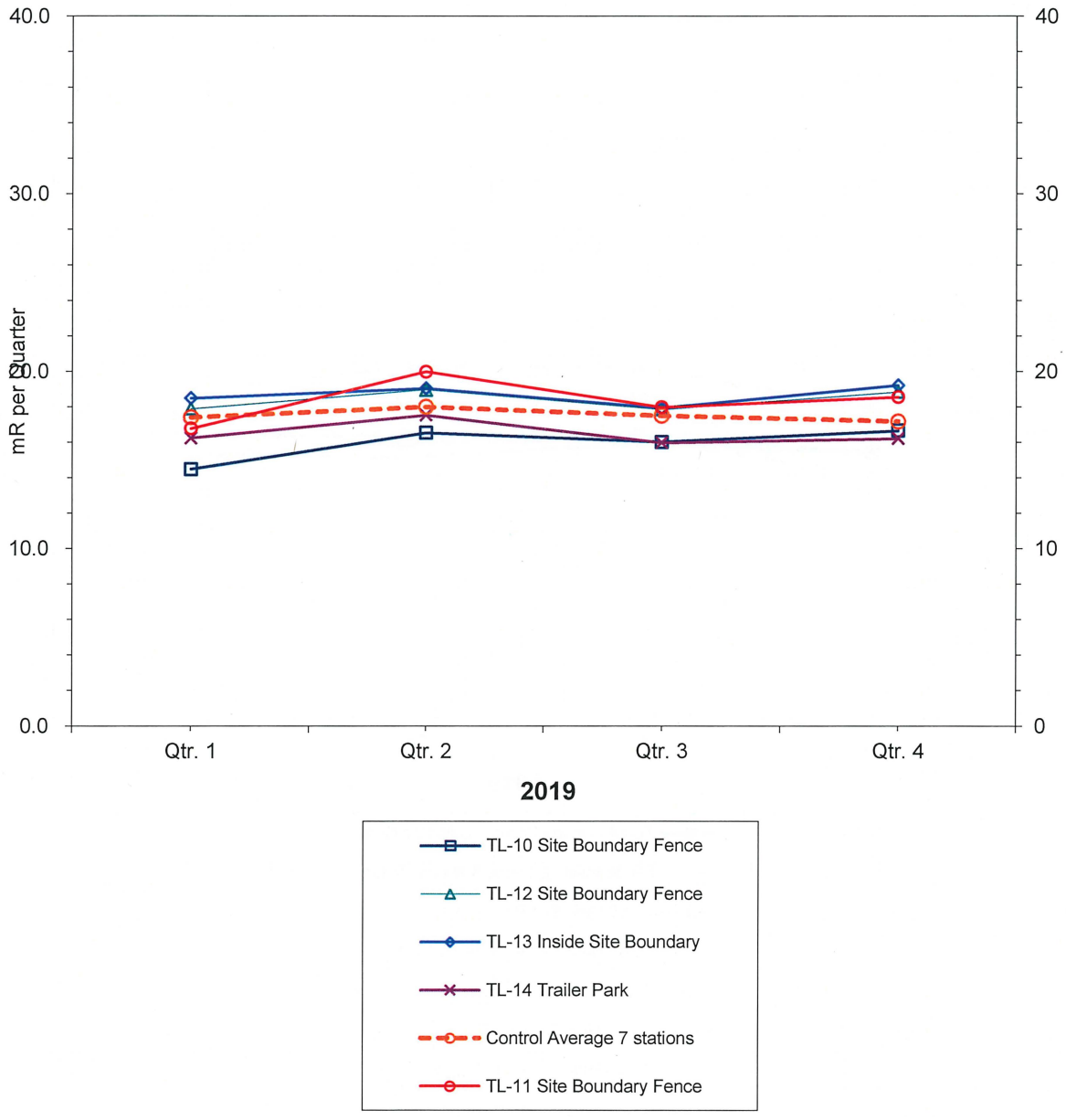


FIGURE 4.3

DFS ENVIRONMENTAL RADIATION MEASUREMENTS (USING TLDs)
SEABROOK STATION

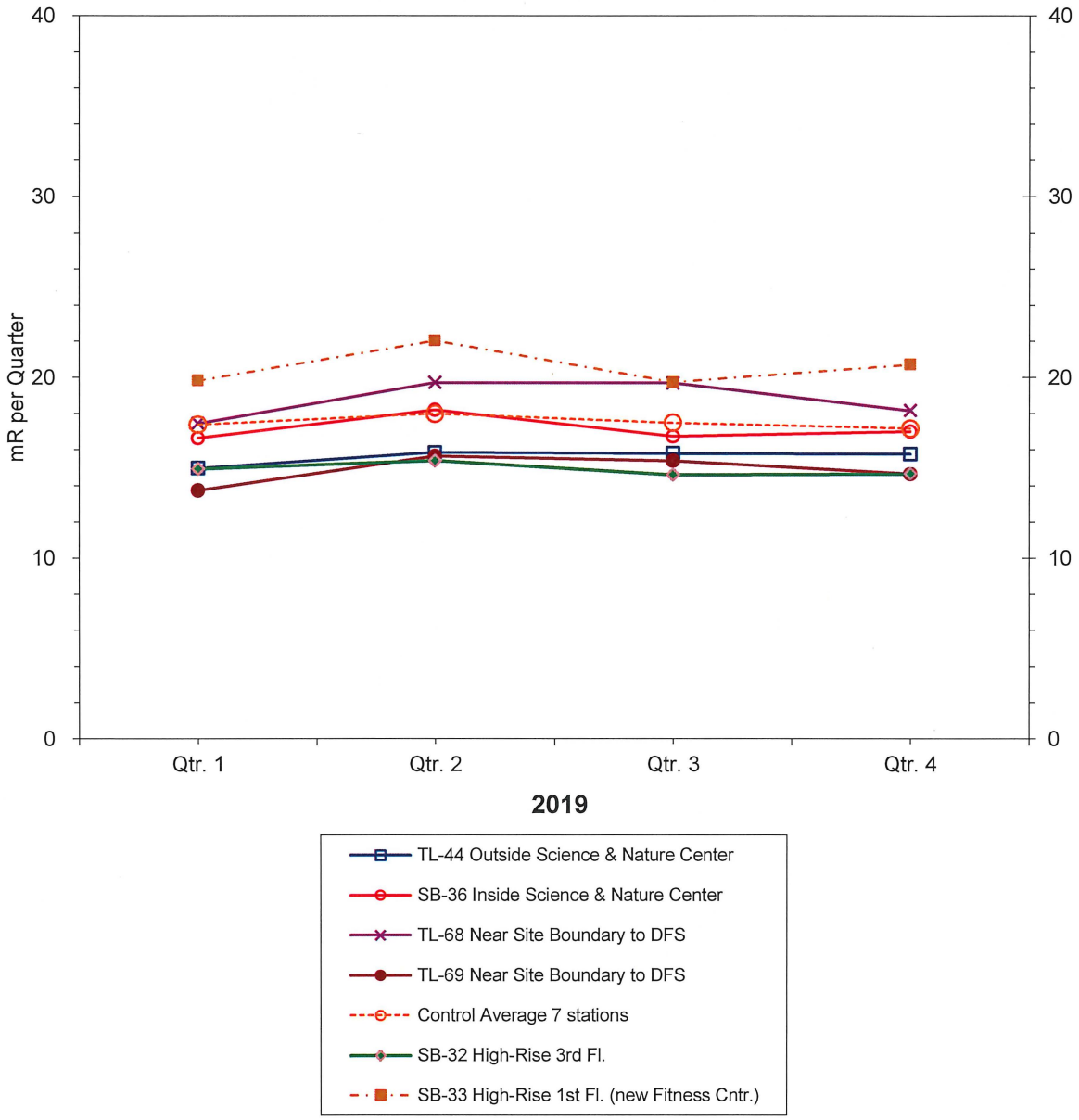


FIGURE 4.4

DFS CONTROL RADIATION MEASUREMENTS (USING TLDs)
SEABROOK STATION

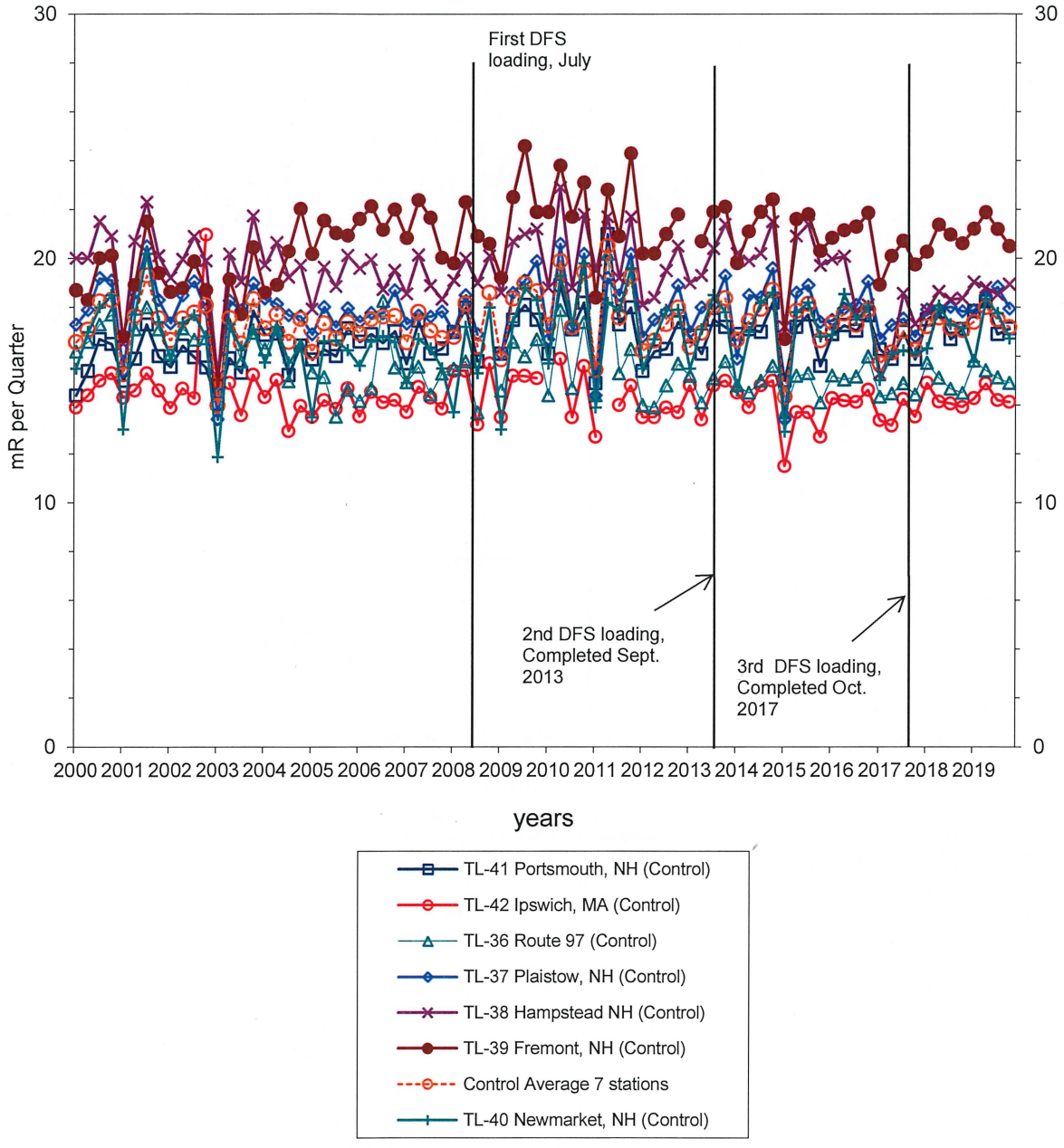


FIGURE 4.5

DFS RADIATION MEASUREMENTS TRENDS (USING TLDs)
SEABROOK STATION

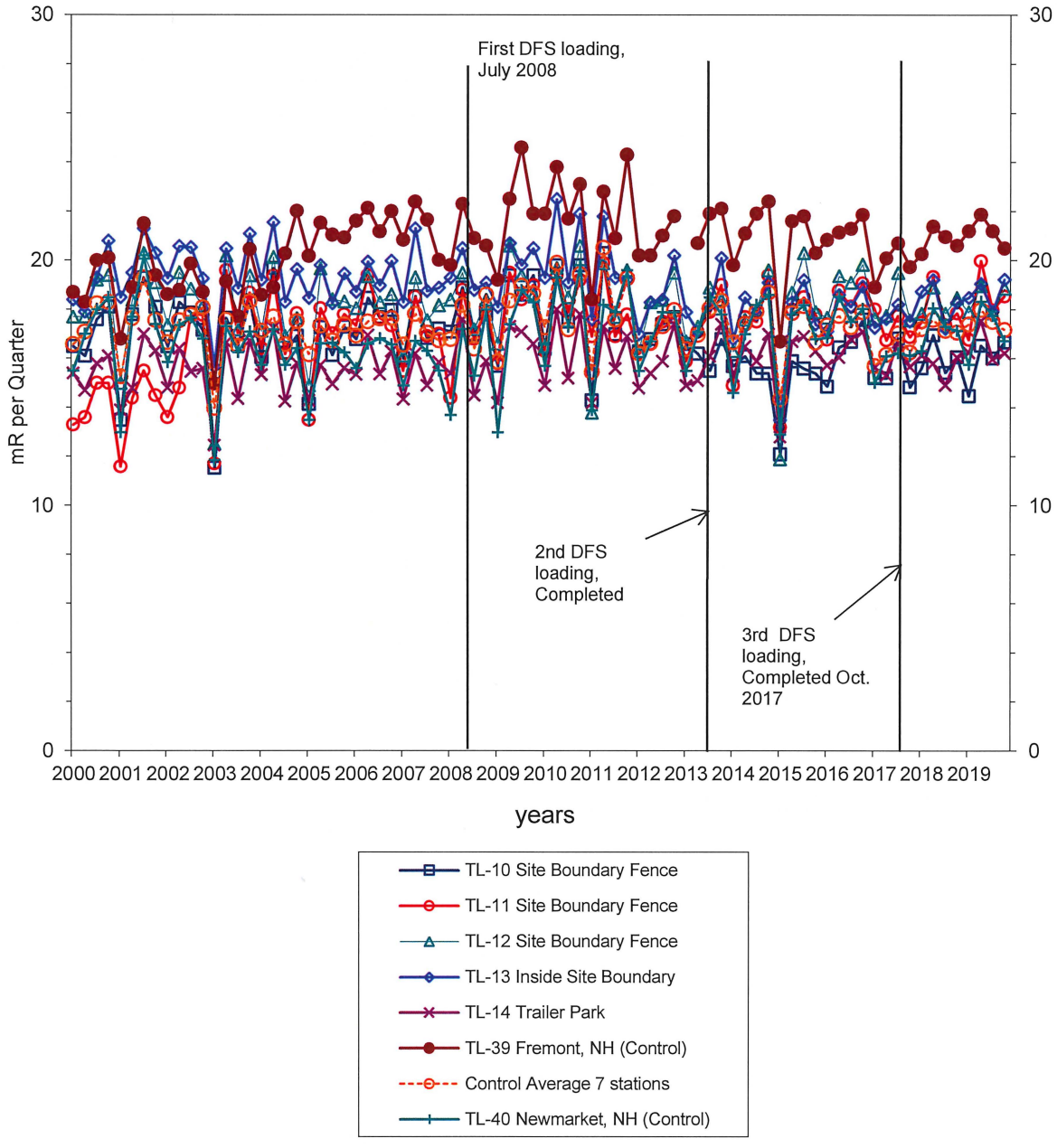
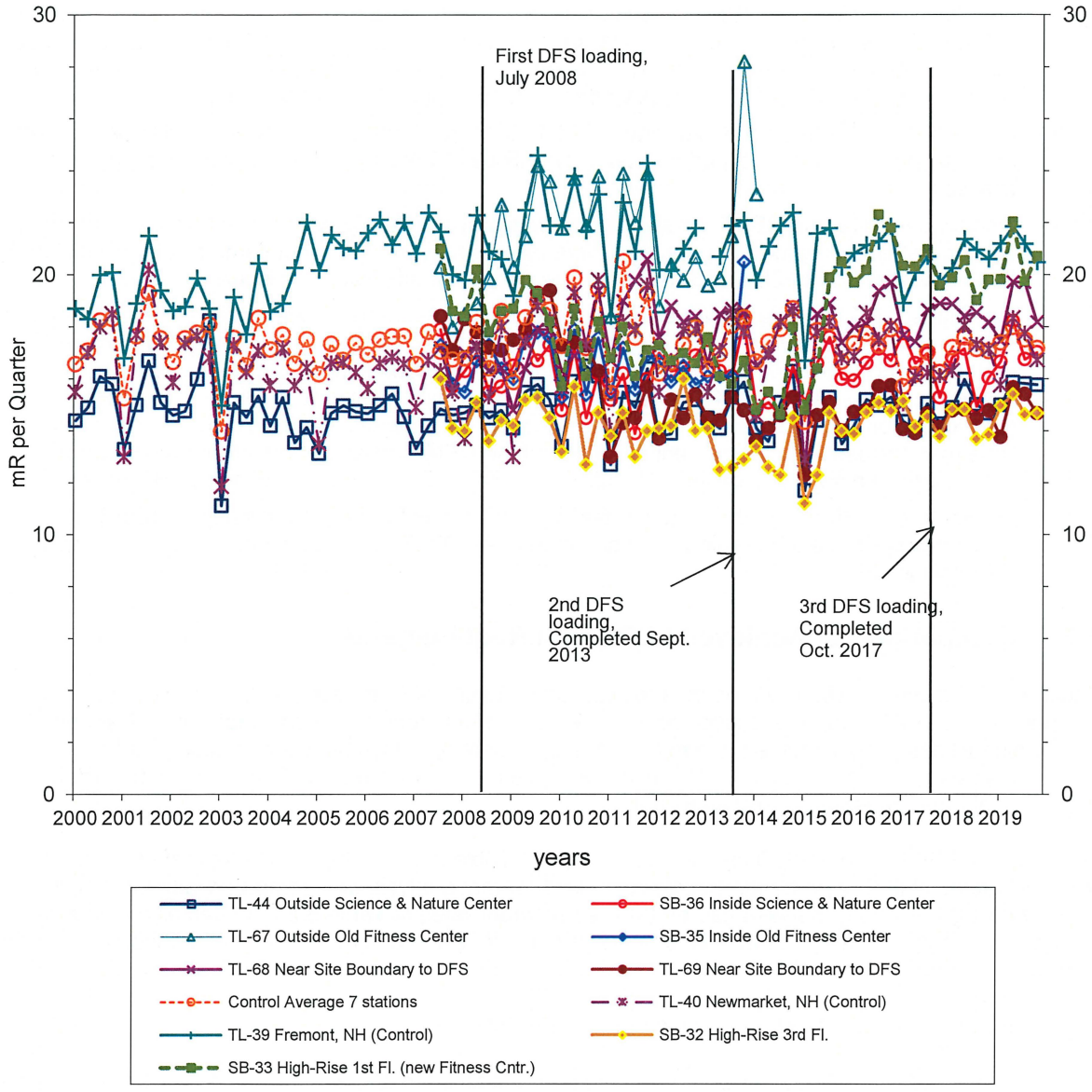


FIGURE 4.6

DFS RADIATION MEASUREMENTS TRENDS (USING TLDs)
SEABROOK STATION



5.0 Program Deviations and Reporting

5.1 Sampling Program Deviations

Table A.9.1-1 of the Offsite Dose Calculation Manual (ODCM) allows for deviations in the REMP sampling schedule "if specimens are unobtainable due to circumstances such as hazardous conditions, seasonal unavailability and malfunction of automatic sampling equipment." All deviations from the sampling schedule shall be documented each year in the Radiological Environmental Operating Report. The deviations for 2019 are as follows:

- On March 27, 2019, the REMP air sampling station at Normandeau Associates in Hampton, NH, (AP/CF-02) lost AC power and electrical support was brought in to resolve this issue. The out of service time did not impact the ability to collect sufficient sample volume over the collection cycle for this analysis. AR 02307670 was written to document and track this issue.
- On June 26, 2019, the second quarter 2019 TLD TL-33 (Newburyport) was found to be missing, and was replaced with the third quarter TLD. AR 02319296 was written to document and track this issue.
- On July 24, 2019, the REMP air sampler in the plateyard (AP/CR-04) lost AC power. The pump was operational only for 24 hours and, therefore, there was insufficient sample volume collected for this location. AR 02322153 was written to document and track this issue.
- On August 16, 2019, the REMP air sampling station at the barge landing area (AP-01) was found to have a significant amount of overgrown brush. In addition, the property owner is storing material in the vicinity of the air sampler station that impeded safe access to the station. Seabrook Station AR -02324734 was written to track and investigate the issue. The REMP manager coordinated brush removal and contacted the property owner to move or mark items. Note that the issue did not prevent collection of the REMP sample and sufficient volume was obtained for the sample location. AR 02324734 was written to document and track this issue.
- On September 30, 2019, the third quarter TLD TL-17 was found to be missing. A new TLD location was sited and coordinates documented. AR 02329752 was written to document and track this issue.

5.2 Comparison of Achieved LLDs with Requirements

Table A.9.1-2 of the ODCM indicates the required Lower Limits of Detection (LLDs) for environmental sample analyses. (This table is duplicated in Table 5.2-1 of this report.) Occasionally an LLD for short-lived radionuclides is not achieved due to low sample volume or delays between sample collection and time of analysis. In such cases, ODCM Table A.9.1-2 requires a discussion of the event in the annual Radiological Environmental Operating Report.

For each analysis having an LLD requirement in ODCM Table A.9.1-2, the *a posteriori* (after the fact) Minimum Detectable Concentration (MDC) calculated for that analysis was compared with the required LLD. During 2019, 1361 analyses had an LLD requirement listed in Table 5.2-1, and in all cases except five (four missed LLD's for I-131 in milk, one missed LLD for Ba-140 in milk), the LLD requirements were met.

For the missed LLD's, the following explanations are provided:

- LSN 477793001 (missed LLD for I-131 in milk) – Sample not counted for sufficient amount of time and error not identified by processing group.
- LSN 478748001 (missed LLD for I-131 in milk) - Sample was batched with another client and was delayed due to limited volumes. After incident occurred, analyst was trained not to batch samples together that need to wait for additional volume.
- LSN's 489378001 and 490471001 (missed LLD for I-131 in milk) - Both of these work orders missed the LLDs due to the closure of the lab as a result of Hurricane Dorian and the short half-life of I-131.
- LSN 473847001 (missed LLD for Ba-140 in milk) - Analyst scheduling error.

The issue has been added into the laboratory NCR system for communication within the lab and process improvement.

5.3 Comparison of Results against Reporting Levels

Seabrook Station ODCM Section 10.1 requires the notification of the NRC by special report within 30 days of receipt from the environmental laboratory whenever a Reporting Level in Table 5.3-1 is exceeded. Reporting Levels are the environmental concentrations that relate to the ALARA design dose objectives of 10 CFR 50, Appendix I. It should be noted that environmental concentrations are averaged over calendar quarters for the purposes of this comparison, and that Reporting Levels apply only to measured levels of radioactivity due to plant effluents. During 2019, no Reporting Levels were exceeded.

Table 5.2-1

DETECTION CAPABILITIES FOR ENVIRONMENTAL SAMPLE ANALYSIS[a]

Lower Limit of Detection (LLD)

Analysis	Water (pCi/kg)	Airborne Particulate or Gas (pCi/m^3)	Fish and Invertebrates (pCi/kg, wet)	Milk (pCi/kg)	Food Products (pCi/kg, wet)	Sediment (pCi/kg, dry)
Gross Beta	4	0.01				
H-3	3,000					
Mn-54	15		130			
Fe-59	30		260			
Co-58, 60	15		130			
Zn-65	30		260			
Zr-Nb-95	15[c]					
I-131	15	0.07		1	60[b]	
Cs-134	15	0.05	130	15	60	150
Cs-137	18	0.06	150	18	80	180
Ba-La-140	15[c]			15		

a. Reference Seabrook Station ODCM, Table A.9.1-2 for clarifications.
b. Broad leaf vegetation only.
c. Parent only.

Table 5.3-1

REPORTING LEVELS FOR RADIOACTIVITY CONCENTRATIONS IN ENVIRONMENTAL SAMPLES[a]

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

a. Reference Seabrook Station ODCM Table A.9.1-3 for clarifications.
b. Broad leaf vegetation only.

6.0 QUALITY ASSURANCE PROGRAM

6.1 GEL Laboratories QA

GEL's primary goals are to ensure that all measurement data generated are scientifically and legally defensible, of known and acceptable quality per the data quality objectives (DQOs), and thoroughly documented to provide sound support for environmental decisions. In addition, GEL continues to ensure compliance with all contractual requirements, environmental standards, and regulations established by local, state and federal authorities.

GEL administers the QA program in accordance with their Quality Assurance Plan, GL-QS-B-001. The Quality Systems include all quality assurance (QA) policies and quality control (QC) procedures necessary to plan, implement, and assess the work that GEL performs. GEL's QA Program establishes a quality management system (QMS) that governs all of the activities of the organization.

The results of GEL's assessment of their laboratory activities listed in this section entails their quality assurance program for the proficiency testing (PT) and environmental monitoring aspects of GEL for 2019. GEL's QA Program is designed to monitor the quality of analytical processing associated with environmental, radiobioassay, effluent (10 CFR Part 50), and waste (10 CFR Part 61) sample analysis.

This summary was extracted from GEL Laboratories report entitled "2019 Annual Quality Assurance Report for the Radiological Environmental Monitoring Program (REMP)", dated February 28, 2020, and includes:

- Intra-laboratory QC results analyzed during 2019.
- Inter-laboratory QC results analyzed during 2019 where known values were available.

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

In addition to internal and client audits, GEL's laboratory participates in annual performance evaluation studies conducted by independent providers. GEL routinely participates 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 statistical process control (SPC) data.

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

- US Environmental Protection Agency (EPA) Discharge Monitoring Report, Quality Assurance Program (DMR-QA) - An annual national program sponsored by the 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 (DOE) 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 Utah/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, which includes parameters for both organic and inorganic analytes.

- ERA's Water Supply (WS) biannual program for drinking water methodologies, which 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. Once performance evaluation samples have been prepared in accordance with the instructions provided by the program test (PT) provider, samples are managed and analyzed in the same manner as environmental samples from GEL's clients.

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.

- TNI, The NELAC Institute, National Environmental Laboratory Accreditation Program (NELAP)
- 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 17025:2005
- A2LA, American Association for Laboratory Accreditation
- DOD ELAP, US Department of Defense Environmental Accreditation Program
- NUPIC, Nuclear Procurement Issues Committee
- South Carolina Department of Health and Environmental Control (SC DHEC)

The annual radiochemistry laboratory internal audit (19-RAD-001) was conducted in July and August, 2019. There were no findings or observations, and four noteworthy improvements.

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.

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.

GEL also evaluates its 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. GEL establishes 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. Current process control limits are maintained in GEL's AlphaLIMS. GEL also measures 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).

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 samples 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.

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

Summary of Data Results

During 2019, forty-five (45) 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 2019. Of the four hundred twenty-five (425) total results reported, 97.2% (413 of 425) were found to be acceptable. The list below contains the type of matrix evaluated by GEL.

- Air Filter
- Cartridge
- Water
- Milk
- Soil
- Liquid
- Vegetation

A summary list of all Inter-laboratory radiological proficiency test results and their evaluation against their acceptance criteria is provided in Table 6.1-1. This list reflects GEL's participation in the MAPEP Monitoring Program, the ERA MRaD PT Program, the ERA PT Program, and the Eckert & Ziegler Analytics Environmental Cross-Check Program.

Summaries of GEL's Intra-laboratory test result for bias and precision by sample matrix are provided in Table 6.1-3 (REMP Related) and Table 6.1-4 (All Samples).

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

Eckert & Ziegler Analytics provided samples for eighty-nine (89) 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%). Table 6.1-2 list the results specific to the Eckert & Ziegler Analytics sample provided in 2019. No corrective action reports were noted for these results.

Summary of Participation in the MAPEP Monitoring Program

MAPEP Series 40 and 41 were analyzed by the laboratory. Of the one hundred twenty-eight (128) analyses, 98% (126 out of 128) of all results fell within the PT provider's acceptance criteria. One isotope failure occurred in Series 40: Iron-55 in soil. One isotope failure occurred in Series 41: Radium-226 in water.

For the corrective actions associated with MAPEP Series 40 and 41, refer to corrective actions CARR190603-1212 and CARR191212-1265 (Table 6.1-5).

Summary of Participation in the ERA MRaD PT Program

The ERA MRad program provided samples (MRAD-30 and MRAD-31) for one hundred sixty-six (166) individual environmental analyses. One hundred sixty (160) of the 166 analyses fell within the PT provider's acceptance criteria (96%). Five isotope failures occurred in MRAD-30: Uranium-238 in soil, Strontium-90 in vegetation, Plutonium-238 in vegetation, Uranium-238 in vegetation, and Uranium-Total in vegetation. One isotope failure occurred in MRAD-31: Lead-212 in soil.

For the corrective actions associated with MRAD-30 and MRAD-31, refer to corrective actions CARR190530-1211 and CARR191212-1262 (Table 6.1-5).

Summary of Participation in the ERA PT Program

The ERA program provided samples (RAD-116, RAD-117, RAD-118 and 9116) for forty-two (42) individual environmental analyses. Of the 42 analyses, 90% (38 out of 42) of all results fell within the PT provider's acceptance criteria. One isotope failure occurred in RAD-116: Strontium-89 in water. Two failures occurred in RAD-118: Strontium-89 and Gross Alpha in water.

For the corrective actions associated with RAD-116 and RAD-118, refer to corrective actions CARR190225-1192 and CARR190826-1250, respectively (Table 6.1-5).

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 standard operating procedures (SOP). The other is formal corrective action documented by the Quality Systems Team in accordance with GEL's standard operating procedure 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 GEL's standard operating procedure GL-QS-E-002 for Conducting Corrective/Preventive Action and Identifying Opportunities for Improvement. Recording and documentation is performed following guidelines stated in GEL's standard operating procedure 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 GEL's standard operating procedure 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.

Table 6.1-5 provides the status of CARRs for radiological performance testing during 2019. GEL has determined that causes of the failures did not impact any data reported to its clients.

TABLE 6.1-1

2019 INTER-LAB 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 /2019	2/25/19	RAD-116	Water	pCi/L	Barium-133	105	99.5	84.1 - 109	Acceptable
ERA	1st /2019	2/25/19	RAD-116	Water	pCi/L	Cesium-134	48.2	49.1	39.5 - 54.0	Acceptable
ERA	1st /2019	2/25/19	RAD-116	Water	pCi/L	Cesium-137	128	125	112 - 140	Acceptable
ERA	1st /2019	2/25/19	RAD-116	Water	pCi/L	Cobalt-60	104	96.4	86.8 - 108	Acceptable
ERA	1st /2019	2/25/19	RAD-116	Water	pCi/L	Zinc-65	88.1	77.4	69.5 - 93.2	Acceptable
ERA	1st /2019	2/25/19	RAD-116	Water	pCi/L	Gross Alpha	22.3	21.8	10.9 - 29.5	Acceptable
ERA	1st /2019	2/25/19	RAD-116	Water	pCi/L	Gross Alpha	23.5	21.8	10.9 - 29.5	Acceptable
ERA	1st /2019	2/25/19	RAD-116	Water	pCi/L	Gross Beta	43.6	55.7	38.1 - 62.6	Acceptable
ERA	1st /2019	2/25/19	RAD-116	Water	pCi/L	Radium-226	6.47	7.37	5.55 - 8.72	Acceptable
ERA	1st /2019	2/25/19	RAD-116	Water	pCi/L	Radium-228	3.99	4.28	2.48 - 5.89	Acceptable
ERA	1st /2019	2/25/19	RAD-116	Water	pCi/L	Radium-228	4.48	4.28	2.48 - 5.89	Acceptable
ERA	1st /2019	2/25/19	RAD-116	Water	pCi/L	Uranium (Nat)	70	68.2	55.7 - 75.0	Acceptable
ERA	1st /2019	2/25/19	RAD-116	Water	µg/L	Uranium (Nat) mass	99.3	99.5	81.3 - 109	Acceptable
ERA	1st /2019	2/25/19	RAD-116	Water	pCi/L	Tritium	2160	2110	1740 - 2340	Acceptable
ERA	1st /2019	2/25/19	RAD-116	Water	pCi/L	Tritium	1920	2110	1740 - 2340	Acceptable
ERA	1st /2019	2/25/19	RAD-116	Water	pCi/L	Strontium-89	78.5	66.9	54.4 - 75.0	Not Acceptable
ERA	1st /2019	2/25/19	RAD-116	Water	pCi/L	Strontium-89	76.5	66.9	54.4 - 75.0	Not Acceptable
ERA	1st /2019	2/25/19	RAD-116	Water	pCi/L	Strontium-90	40.1	41	30.2 - 47.1	Acceptable
ERA	1st /2019	2/25/19	RAD-116	Water	pCi/L	Strontium-90	42.2	41	30.2 - 47.1	Acceptable
ERA	1st /2019	3/14/19	RAD-9116	Water	pCi/L	Iodine-131	27.4	25.9	21.5 - 30.6	Acceptable
ERA	1st /2019	3/14/19	RAD-9116	Water	pCi/L	Iodine-131	25.1	25.9	21.5 - 30.6	Acceptable
EZA	1st/2019	05/10/19	E12364	Cartridge	pCi	Iodine-131	7.80E+01	7.54E+01	1.03	Acceptable
EZA	1st/2019	05/10/19	E12366A	Milk	pCi/L	Cerium-141	1.23E+02	1.17E+02	1.05	Acceptable
EZA	1st/2019	05/10/19	E12366A	Milk	pCi/L	Cobalt-58	1.51E+02	1.43E+02	1.05	Acceptable
EZA	1st/2019	05/10/19	E12366A	Milk	pCi/L	Cobalt-60	3.12E+02	2.99E+02	1.04	Acceptable
EZA	1st/2019	05/10/19	E12366A	Milk	pCi/L	Chromium-51	3.04E+02	2.93E+02	1.04	Acceptable
EZA	1st/2019	05/10/19	E12366A	Milk	pCi/L	Cesium-134	1.53E+02	1.60E+02	0.96	Acceptable
EZA	1st/2019	05/10/19	E12366A	Milk	pCi/L	Cesium-137	2.04E+02	1.96E+02	1.04	Acceptable
EZA	1st/2019	05/10/19	E12366A	Milk	pCi/L	Manganese-54	1.55E+02	1.43E+02	1.08	Acceptable
EZA	1st/2019	05/10/19	E12366A	Milk	pCi/L	Iron-59	1.78E+02	1.59E+02	1.12	Acceptable
EZA	1st/2019	05/10/19	E12366A	Milk	pCi/L	Zinc-65	2.42E+02	2.20E+02	1.1	Acceptable
EZA	1st/2019	05/10/19	E12367	Water	pCi/L	Cerium-141	1.20E+02	1.13E+02	1.06	Acceptable

PT Provider	Quarter / Year	Analytical Date	Sample Number	Sample Media	Unit	Analyte / Nuclide	GEL Value	Known value	Acceptance Range/ Ratio	Evaluation
EZA	1st/2019	05/10/19	E12367	Water	pCi/L	Cesium-134	1.43E+02	1.55E+02	0.92	Acceptable
EZA	1st/2019	05/10/19	E12367	Water	pCi/L	Cesium-137	2.09E+02	1.91E+02	1.10	Acceptable
EZA	1st/2019	05/10/19	E12367	Water	pCi/L	Chromium-51	3.55E+02	2.84E+02	1.25	Acceptable
EZA	1st/2019	05/10/19	E12367	Water	pCi/L	Cobalt-58	1.43E+02	1.39E+02	1.03	Acceptable
EZA	1st/2019	05/10/19	E12367	Water	pCi/L	Cobalt-60	3.18E+02	2.90E+02	1.10	Acceptable
EZA	1st/2019	05/10/19	E12367	Water	pCi/L	Iodine-131	8.89E+01	9.65E+01	1.03	Acceptable
EZA	1st/2019	05/10/19	E12367	Water	pCi/L	Iron-59	1.76E+02	1.54E+02	1.14	Acceptable
EZA	1st/2019	05/10/19	E12367	Water	pCi/L	Manganese-54	1.55E+02	1.39E+02	1.12	Acceptable
EZA	1st/2019	05/10/19	E12367	Water	pCi/L	Zinc-65	2.44E+02	2.14E+02	1.14	Acceptable
EZA	2nd/2019	07/29/19	E12360	Cartridge	pCi	Iodine-131	8.40E+01	8.17E+01	1.03	Acceptable
EZA	2nd/2019	07/29/19	E12361	Milk	pCi/L	Strontium-89	1.01E+02	8.29E+01	1.22	Acceptable
EZA	2nd/2019	07/29/19	E12361	Milk	pCi/L	Strontium-90	1.21E+01	1.35E+01	0.90	Acceptable
EZA	2nd/2019	07/29/19	E12362	Milk	pCi/L	Cerium-141	1.39E+02	1.33E+02	1.04	Acceptable
EZA	2nd/2019	07/29/19	E12362	Milk	pCi/L	Cobalt-58	1.17E+02	1.12E+02	1.05	Acceptable
EZA	2nd/2019	07/29/19	E12362	Milk	pCi/L	Cobalt-60	2.05E+02	1.98E+02	1.04	Acceptable
EZA	2nd/2019	07/29/19	E12362	Milk	pCi/L	Chromium-51	3.41E+02	3.37E+02	1.01	Acceptable
EZA	2nd/2019	07/29/19	E12362	Milk	pCi/L	Cesium-134	1.30E+02	1.40E+02	0.93	Acceptable
EZA	2nd/2019	07/29/19	E12362	Milk	pCi/L	Cesium-137	1.78E+02	1.68E+02	1.06	Acceptable
EZA	2nd/2019	07/29/19	E12362	Milk	pCi/L	Iron-59	1.66E+02	1.41E+02	1.18	Acceptable
EZA	2nd/2019	07/29/19	E12362	Milk	pCi/L	Iodine-131	8.51E+01	8.14E+01	1.05	Acceptable
EZA	2nd/2019	07/29/19	E12362	Milk	pCi/L	Manganese-54	2.09E+02	1.90E+02	1.10	Acceptable
EZA	2nd/2019	07/29/19	E12362	Milk	pCi/L	Zinc-65	2.82E+02	2.47E+02	1.14	Acceptable
EZA	2nd/2019	07/29/19	E12363	Water	pCi/L	Cerium-141	1.50E+02	1.45E+02	1.03	Acceptable
EZA	2nd/2019	07/29/19	E12363	Water	pCi/L	Cobalt-58	1.22E+02	1.22E+02	1.00	Acceptable
EZA	2nd/2019	07/29/19	E12363	Water	pCi/L	Cobalt-60	2.22E+02	2.16E+02	1.03	Acceptable
EZA	2nd/2019	07/29/19	E12363	Water	pCi/L	Chromium-51	3.56E+02	3.68E+02	0.97	Acceptable
EZA	2nd/2019	07/29/19	E12363	Water	pCi/L	Cesium-134	1.37E+02	1.53E+02	0.89	Acceptable
EZA	2nd/2019	07/29/19	E12363	Water	pCi/L	Cesium-137	1.90E+02	1.84E+02	1.03	Acceptable
EZA	2nd/2019	07/29/19	E12363	Water	pCi/L	Iron-59	1.73E+02	1.54E+02	1.12	Acceptable
EZA	2nd/2019	07/29/19	E12363	Water	pCi/L	Iodine-131	8.92E+01	8.91E+01	1.00	Acceptable
EZA	2nd/2019	07/29/19	E12363	Water	pCi/L	Manganese-54	2.27E+02	2.70E+00	1.10	Acceptable
EZA	2nd/2019	07/29/19	E12363	Water	pCi/L	Zinc-65	3.01E+02	2.70E+02	1.11	Acceptable
MAPEP	2nd/2019	05/31/19	MAPEP-19-GrF40	Filter	Bq/sample	Gross alpha	0.540	0.528	0.158-0.898	Acceptable
MAPEP	2nd/2019	05/31/19	MAPEP-19-GrF41	Filter	Bq/sample	Gross beta	0.928	0.948	0.474-1.422	Acceptable

PT Provider	Quarter / Year	Analytical Date	Sample Number	Sample Media	Unit	Analyte / Nuclide	GEL Value	Known value	Acceptance Range/ Ratio	Evaluation
MAPEP	2nd/2019	05/31/19	MAPEP-19-GrW40	Water	Bq/L	Gross alpha	0.819	0.840	0.25-1.43	Acceptable
MAPEP	2nd/2019	05/31/19	MAPEP-19-GrW40	Water	Bq/L	Gross beta	2.390	2.330	1.17-3.50	Acceptable
MAPEP	2nd/2019	05/31/19	MAPEP-19-MaS40	Soil	Bq/Kg	Americium-241	52.8	49.9	34.9-64.9	Acceptable
MAPEP	2nd/2019	05/31/19	MAPEP-19-MaS40	Soil	Bq/Kg	Cesium-134	2.25		False Pos Test	Acceptable
MAPEP	2nd/2019	05/31/19	MAPEP-19-MaS40	Soil	Bq/Kg	Cesium-137	1290.00	1164.0	815-1513	Acceptable
MAPEP	2nd/2019	05/31/19	MAPEP-19-MaS40	Soil	Bq/Kg	Cobalt-57	0.133		False Pos Test	Acceptable
MAPEP	2nd/2019	05/31/19	MAPEP-19-MaS40	Soil	Bq/Kg	Cobalt-60	853	855	599-1112	Acceptable
MAPEP	2nd/2019	05/31/19	MAPEP-19-MaS40	Soil	Bq/Kg	Iron-55	486	344	241-447	Not Acceptable
MAPEP	2nd/2019	05/31/19	MAPEP-19-MaS40	Soil	Bq/Kg	Manganese-54	1130	1027	719-1335	Acceptable
MAPEP	2nd/2019	05/31/19	MAPEP-19-MaS40	Soil	Bq/Kg	Nickel-63	524.00	519	363-675	Acceptable
MAPEP	2nd/2019	05/31/19	MAPEP-19-MaS40	Soil	Bq/Kg	Plutonium-238	75.2	71.0	49.7-92.3	Acceptable
MAPEP	2nd/2019	05/31/19	MAPEP-19-MaS40	Soil	Bq/Kg	Plutonium-239/240	67.3	59.8	41.9-77.7	Acceptable
MAPEP	2nd/2019	05/31/19	MAPEP-19-MaS40	Soil	Bq/Kg	Potassium-40	596	585	410-761	Acceptable
MAPEP	2nd/2019	05/31/19	MAPEP-19-MaS40	Soil	Bq/Kg	Strontium-90	3.44		False Pos Test	Acceptable
MAPEP	2nd/2019	05/31/19	MAPEP-19-MaS40	Soil	Bq/Kg	Technetium-99	381	408	286-530	Acceptable
MAPEP	2nd/2019	05/31/19	MAPEP-19-MaS40	Soil	Bq/Kg	Uranium 234	54.7	56.0	39-73	Acceptable
MAPEP	2nd/2019	05/31/19	MAPEP-19-MaS40	Soil	Bq/Kg	Uranium-238	204	205	144-267	Acceptable
MAPEP	2nd/2019	05/31/19	MAPEP-19-MaS40	Soil	Bq/Kg	Zinc-65	751	668	468-868	Acceptable
MAPEP	2nd/2019	05/31/19	MAPEP-19-MaW40	Water	Bq/L	Americium-241	0.549	0.582	0.407-0.757	Acceptable
MAPEP	2nd/2019	05/31/19	MAPEP-19-MaW40	Water	Bq/L	Cesium-134	5.32	5.99	4.19-7.79	Acceptable
MAPEP	2nd/2019	05/31/19	MAPEP-19-MaW40	Water	Bq/L	Cesium-137	0.0		False Pos Test	Acceptable
MAPEP	2nd/2019	05/31/19	MAPEP-19-MaW40	Water	Bq/L	Cobalt-57	9.840	10	7.0-13.0	Acceptable
MAPEP	2nd/2019	05/31/19	MAPEP-19-MaW40	Water	Bq/L	Cobalt-60	6.7	6.7	4.7-8.7	Acceptable
MAPEP	2nd/2019	05/31/19	MAPEP-19-MaW40	Water	Bq/L	Hydrogen-3	389.00	421	295-547	Acceptable
MAPEP	2nd/2019	05/31/19	MAPEP-19-MaW40	Water	Bq/L	Iron-55	0.0173		False Pos Test	Acceptable
MAPEP	2nd/2019	05/31/19	MAPEP-19-MaW40	Water	Bq/L	Manganese-54	8.80	8.4	5.9-10.9	Acceptable
MAPEP	2nd/2019	05/31/19	MAPEP-19-MaW40	Water	Bq/L	Nickel-63	4.62	5.8	4.1-7.5	Acceptable
MAPEP	2nd/2019	05/31/19	MAPEP-19-MaW40	Water	Bq/L	Plutonium-238	0.419	0.451	0.316-0.586	Acceptable
MAPEP	2nd/2019	05/31/19	MAPEP-19-MaW40	Water	Bq/L	Plutonium-239/240	0.0158	0.0045	Sens. Eval.	Acceptable
MAPEP	2nd/2019	05/31/19	MAPEP-19-MaW40	Water	Bq/L	Potassium-40	-0.156		False Pos Test	Acceptable
MAPEP	2nd/2019	05/31/19	MAPEP-19-MaW40	Water	Bq/L	Radium-226	0.593	0.672	0.470-0.874	Acceptable
MAPEP	2nd/2019	05/31/19	MAPEP-19-MaW40	Water	Bq/L	Strontium-90	5.86	6.350	4.45-8.26	Acceptable
MAPEP	2nd/2019	05/31/19	MAPEP-19-MaW40	Water	Bq/L	Technetium-99	3.66	3.3	2.34-4.34	Acceptable
MAPEP	2nd/2019	05/31/19	MAPEP-19-MaW40	Water	Bq/L	Uranium-234	0.81	0.8	0.56-1.04	Acceptable
MAPEP	2nd/2019	05/31/19	MAPEP-19-MaW40	Water	Bq/L	Uranium-238	0.802	0.81	0.57-1.05	Acceptable
MAPEP	2nd/2019	05/31/19	MAPEP-19-MaW40	Water	Bq/L	Zinc-65	-0.0318		False Pos Test	Acceptable
MAPEP	2nd/2019	05/31/19	MAPEP-19-RdF40	Filter	ug/sample	Uranium-235	0.0566	0.0640	0.0448-0.0832	Acceptable

PT Provider	Quarter / Year	Analytical Date	Sample Number	Sample Media	Unit	Analyte / Nuclide	GEL Value	Known value	Acceptance Range/ Ratio	Evaluation
MAPEP	2nd/2019	05/31/19	MAPEP-19-RdF40	Filter	ug/sample	Uranium-238	7.76	8.8	6.2-11.4	Acceptable
MAPEP	2nd/2019	05/31/19	MAPEP-19-RdF40	Filter	ug/sample	Uranium-Total	7.72	8.9	6.2-11.6	Acceptable
MAPEP	2nd/2019	05/31/19	MAPEP-19-RdF40	Filter	Bq/sample	Americium-241	0.0284	0.0294	0.0206-0.0382	Acceptable
MAPEP	2nd/2019	05/31/19	MAPEP-19-RdF40	Filter	Bq/sample	Cesium-134	0.251	0.216	0.151-0.281	Acceptable
MAPEP	2nd/2019	05/31/19	MAPEP-19-RdF40	Filter	Bq/sample	Cesium-137	0.313	0.290	0.203-0.377	Acceptable
MAPEP	2nd/2019	05/31/19	MAPEP-19-RdF40	Filter	Bq/sample	Cobalt-57	0.424	0.411	0.288-0.534	Acceptable
MAPEP	2nd/2019	05/31/19	MAPEP-19-RdF40	Filter	Bq/sample	Cobalt-60	0.373	0.34	0.238-0.442	Acceptable
MAPEP	2nd/2019	05/31/19	MAPEP-19-RdF40	Filter	Bq/sample	Manganese-54	0.576	0.547	0.383-0.711	Acceptable
MAPEP	2nd/2019	05/31/19	MAPEP-19-RdF40	Filter	Bq/sample	Plutonium-238	0.0551	0.0526	0.0368-0.0684	Acceptable
MAPEP	2nd/2019	05/31/19	MAPEP-19-RdF40	Filter	Bq/sample	Plutonium-239/240	0.0377	0.038	0.0265-0.0493	Acceptable
MAPEP	2nd/2019	05/31/19	MAPEP-19-RdF40	Filter	Bq/sample	Strontium-90	0.616	0.662	0.463-0.861	Acceptable
MAPEP	2nd/2019	05/31/19	MAPEP-19-RdF40	Filter	Bq/sample	Uranium-234	0.108	0.106	0.074-0.138	Acceptable
MAPEP	2nd/2019	05/31/19	MAPEP-19-RdF40	Filter	Bq/sample	Uranium-238	0.118	0.110	0.077-0.143	Acceptable
MAPEP	2nd/2019	05/31/19	MAPEP-19-RdF40	Filter	Bq/sample	Zinc-65	0.0143		False Pos Test	Acceptable
MAPEP	2nd/2019	05/31/19	MAPEP-19-RdV40	Vegetation	Bq/sample	Americium-241	0.000092		False Pos Test	Acceptable
MAPEP	2nd/2019	05/31/19	MAPEP-19-RdV40	Vegetation	Bq/sample	Cesium-134	2.25	2.44	1.71-3.17	Acceptable
MAPEP	2nd/2019	05/31/19	MAPEP-19-RdV40	Vegetation	Bq/sample	Cesium-137	2.37	2.30	1.61-2.99	Acceptable
MAPEP	2nd/2019	05/31/19	MAPEP-19-RdV40	Vegetation	Bq/sample	Cobalt-57	2.04	2.07	1.45-2.69	Acceptable
MAPEP	2nd/2019	05/31/19	MAPEP-19-RdV40	Vegetation	Bq/sample	Cobalt-60	-0.0061		False Pos Test	Acceptable
MAPEP	2nd/2019	05/31/19	MAPEP-19-RdV40	Vegetation	Bq/sample	Manganese-54	0.00255		False Pos Test	Acceptable
MAPEP	2nd/2019	05/31/19	MAPEP-19-RdV40	Vegetation	Bq/sample	Plutonium-238	0.0247	0.0339	0.0237-0.0441	Acceptable
MAPEP	2nd/2019	05/31/19	MAPEP-19-RdV40	Vegetation	Bq/sample	Plutonium-239/240	0.0425	0.0460	0.0322-0.0598	Acceptable
MAPEP	2nd/2019	05/31/19	MAPEP-19-RdV40	Vegetation	Bq/sample	Strontium-90	0.00951		False Pos Test	Acceptable
MAPEP	2nd/2019	05/31/19	MAPEP-19-RdV40	Vegetation	Bq/sample	Uranium-234	0.20	0.217	0.152-0.282	Acceptable
MAPEP	2nd/2019	05/31/19	MAPEP-19-RdV40	Vegetation	Bq/sample	Uranium-238	0.216	0.225	0.158-0.293	Acceptable
MAPEP	2nd/2019	05/31/19	MAPEP-19-RdV40	Vegetation	Bq/sample	Zinc-65	1.85	1.71	1.20-2.22	Acceptable
MAPEP	2nd/2019	05/31/19	MAPEP-19-XaW40	Water	Bq/L	Iodine-129	0.64	0.62	0.431-0.801	Acceptable
ERA	2nd/2019	05/21/19	MRAD-30	Soil	pCi/kg	Actinium-228	3060	3280	2160 - 4130	Acceptable
ERA	2nd/2019	05/21/19	MRAD-30	Soil	pCi/kg	Americium-241	346	474	256 - 671	Acceptable
ERA	2nd/2019	05/21/19	MRAD-30	Soil	pCi/kg	Bismuth-212	3200	3400	973 - 5070	Acceptable
ERA	2nd/2019	05/21/19	MRAD-30	Soil	pCi/kg	Bismuth-214	1160	1370	658 - 2040	Acceptable
ERA	2nd/2019	05/21/19	MRAD-30	Soil	pCi/kg	Cesium-134	6590	9280	6350 - 11100	Acceptable
ERA	2nd/2019	05/21/19	MRAD-30	Soil	pCi/kg	Cesium-137	831	1030	779 - 1300	Acceptable
ERA	2nd/2019	05/21/19	MRAD-30	Soil	pCi/kg	Cobalt-60	4830	5880	4630 - 7260	Acceptable
ERA	2nd/2019	05/21/19	MRAD-30	Soil	pCi/kg	Lead-212	3360	3380	2360 - 4270	Acceptable
ERA	2nd/2019	05/21/19	MRAD-30	Soil	pCi/kg	Lead-214	1500	1450	609 - 2280	Acceptable
ERA	2nd/2019	05/21/19	MRAD-30	Soil	pCi/kg	Manganese-54	<25.4	<1000	<1000	Acceptable
ERA	2nd/2019	05/21/19	MRAD-30	Soil	pCi/kg	Plutonium-238	955	1220	608 - 1850	Acceptable
ERA	2nd/2019	05/21/19	MRAD-30	Soil	pCi/kg	Plutonium-239	579	829	452 - 1190	Acceptable
ERA	2nd/2019	05/21/19	MRAD-30	Soil	pCi/kg	Potassium-40	25800	24300	16700 - 29000	Acceptable

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ERA	2nd/2019	05/21/19	MRAD-30	Soil	pCi/kg	Strontium-90	1220	1350	420 - 2100	Acceptable
ERA	2nd/2019	05/21/19	MRAD-30	Soil	pCi/kg	Thorium-234	1050	1470	555 - 2520	Acceptable
ERA	2nd/2019	05/21/19	MRAD-30	Soil	pCi/kg	Uranium-234	1170	1050	492 - 1380	Acceptable
ERA	2nd/2019	05/21/19	MRAD-30	Soil	pCi/kg	Uranium-234	925	1050	492 - 1380	Acceptable
ERA	2nd/2019	05/21/19	MRAD-30	Soil	pCi/kg	Uranium-234	925	1050	492 - 1380	Acceptable
ERA	2nd/2019	05/21/19	MRAD-30	Soil	pCi/kg	Uranium-238	437	1030	565 - 1380	Not Acceptable
ERA	2nd/2019	05/21/19	MRAD-30	Soil	pCi/kg	Uranium-238	928	1030	565 - 1380	Acceptable
ERA	2nd/2019	05/21/19	MRAD-30	Soil	pCi/kg	Uranium-238	880	1030	565 - 1380	Acceptable
ERA	2nd/2019	05/21/19	MRAD-30	Soil	pCi/kg	Uranium-Total	2090	2030	1130 - 2620	Acceptable
ERA	2nd/2019	05/21/19	MRAD-30	Soil	pCi/kg	Uranium-Total	1910	2030	1130 - 2620	Acceptable
ERA	2nd/2019	05/21/19	MRAD-30	Soil	µg/kg	Uranium-Total (mass)	1360	2420	1090 - 3270	Acceptable
ERA	2nd/2019	05/21/19	MRAD-30	Soil	µg/kg	Uranium-Total (mass)	2780	2420	1090 - 3270	Acceptable
ERA	2nd/2019	05/21/19	MRAD-30	Soil	µg/kg	Uranium-Total (mass)	2630	2420	1090 - 3270	Acceptable
ERA	2nd/2019	05/21/19	MRAD-30	Soil	pCi/kg	Zinc-65	1300	1460	1170 - 1990	Acceptable
ERA	2nd/2019	05/21/19	MRAD-30	Vegetation	pCi/kg	Americium-241	2090	1680	1040 - 2370	Acceptable
ERA	2nd/2019	05/21/19	MRAD-30	Vegetation	pCi/kg	Cesium-134	1590	1640	1090 - 2180	Acceptable
ERA	2nd/2019	05/21/19	MRAD-30	Vegetation	pCi/kg	Cesium-137	1510	1410	1080 - 1900	Acceptable
ERA	2nd/2019	05/21/19	MRAD-30	Vegetation	pCi/kg	Cobalt-60	1200	1000	785 - 1310	Acceptable
ERA	2nd/2019	05/21/19	MRAD-30	Vegetation	pCi/kg	Curium-244	87.1	87.3	49.2 - 109	Acceptable
ERA	2nd/2019	05/21/19	MRAD-30	Vegetation	pCi/kg	Manganese-54	<35.9	<300	<300	Acceptable
ERA	2nd/2019	05/21/19	MRAD-30	Vegetation	pCi/kg	Plutonium-238	110	76	52.6 - 98.0	Not Acceptable
ERA	2nd/2019	05/21/19	MRAD-30	Vegetation	pCi/kg	Plutonium-239	1150	941	650 - 1190	Acceptable
ERA	2nd/2019	05/21/19	MRAD-30	Vegetation	pCi/kg	Potassium-40	41500	34500	25900 - 43700	Acceptable
ERA	2nd/2019	05/21/19	MRAD-30	Vegetation	pCi/kg	Strontium-90	4670	3530	1990 - 4600	Not Acceptable
ERA	2nd/2019	05/21/19	MRAD-30	Vegetation	pCi/kg	Uranium-234	1210	961	675 - 1230	Acceptable
ERA	2nd/2019	05/21/19	MRAD-30	Vegetation	pCi/kg	Uranium-238	1230	953	673 - 1190	Not Acceptable
ERA	2nd/2019	05/21/19	MRAD-30	Vegetation	pCi/kg	Uranium-Total	2540	1940	1240 - 2620	Acceptable
ERA	2nd/2019	05/21/19	MRAD-30	Vegetation	µg/kg	Uranium-Total (mass)	3720	2830	2170 - 3500	Not Acceptable
ERA	2nd/2019	05/21/19	MRAD-30	Vegetation	pCi/kg	Zinc-65	715	527	393 - 781	Acceptable
ERA	2nd/2019	05/21/19	MRAD-30	Filter	pCi/Filter	Americium-241	18.7	18.7	13.3 - 24.9	Acceptable
ERA	2nd/2019	05/21/19	MRAD-30	Filter	pCi/Filter	Cesium-134	639	721	468 - 884	Acceptable
ERA	2nd/2019	05/21/19	MRAD-30	Filter	pCi/Filter	Cesium-137	627	634	521 - 832	Acceptable
ERA	2nd/2019	05/21/19	MRAD-30	Filter	pCi/Filter	Cobalt-60	103	93.8	79.7 - 119	Acceptable
ERA	2nd/2019	05/21/19	MRAD-30	Filter	pCi/Filter	Iron-55	613	718	262 - 1150	Acceptable
ERA	2nd/2019	05/21/19	MRAD-30	Filter	pCi/Filter	Manganese-54	<3.29	<50.0	<50.0	Acceptable
ERA	2nd/2019	05/21/19	MRAD-30	Filter	pCi/Filter	Plutonium-238	31.1	33.8	25.5 - 41.5	Acceptable
ERA	2nd/2019	05/21/19	MRAD-30	Filter	pCi/Filter	Plutonium-239	62	67	50.1 - 80.8	Acceptable
ERA	2nd/2019	05/21/19	MRAD-30	Filter	pCi/Filter	Strontium-90	169	181	114 - 246	Acceptable
ERA	2nd/2019	05/21/19	MRAD-30	Filter	pCi/Filter	Uranium-234	17.1	18.2	13.5 - 21.3	Acceptable
ERA	2nd/2019	05/21/19	MRAD-30	Filter	pCi/Filter	Uranium-234	16.4	18.2	13.5 - 21.3	Acceptable

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ERA	2nd/2019	05/21/19	MRAD-30	Filter	pCi/Filter	Uranium-238	16.9	18.1	13.7 - 21.6	Acceptable
ERA	2nd/2019	05/21/19	MRAD-30	Filter	pCi/Filter	Uranium-238	16	18.1	13.7 - 21.6	Acceptable
ERA	2nd/2019	05/21/19	MRAD-30	Filter	pCi/Filter	Uranium-Total	33.1	37.1	27.1 - 44.0	Acceptable
ERA	2nd/2019	05/21/19	MRAD-30	Filter	pCi/Filter	Uranium-Total	34.7	37.1	27.1 - 44.0	Acceptable
ERA	2nd/2019	05/21/19	MRAD-30	Filter	µg/Filter	Uranium-Total (mass)	50.9	54.1	43.4 - 63.4	Acceptable
ERA	2nd/2019	05/21/19	MRAD-30	Filter	µg/Filter	Uranium-Total (mass)	48	54.1	43.4 - 63.4	Acceptable
ERA	2nd/2019	05/21/19	MRAD-30	Filter	pCi/Filter	Zinc-65	1520	1380	1130 - 2110	Acceptable
ERA	2nd/2019	05/21/19	MRAD-30	Filter	pCi/Filter	Gross Alpha	43	50.3	26.3 - 82.9	Acceptable
ERA	2nd/2019	05/21/19	MRAD-30	Filter	pCi/Filter	Gross Beta	75.7	78.6	47.7 - 119	Acceptable
ERA	2nd/2019	05/21/19	MRAD-30	Water	pCi/L	Americium-241	180	168	115 - 215	Acceptable
ERA	2nd/2019	05/21/19	MRAD-30	Water	pCi/L	Cesium-134	116	123	92.9 - 135	Acceptable
ERA	2nd/2019	05/21/19	MRAD-30	Water	pCi/L	Cesium-137	126	125	107 - 142	Acceptable
ERA	2nd/2019	05/21/19	MRAD-30	Water	pCi/L	Cobalt-60	1200	1100	949 - 1260	Acceptable
ERA	2nd/2019	05/21/19	MRAD-30	Water	pCi/L	Iron-55	1310	1320	776 - 1920	Acceptable
ERA	2nd/2019	05/21/19	MRAD-30	Water	pCi/L	Manganese-54	<5.6	<100	<100	Acceptable
ERA	2nd/2019	05/21/19	MRAD-30	Water	pCi/L	Plutonium-238	41.2	42.8	25.7 - 55.5	Acceptable
ERA	2nd/2019	05/21/19	MRAD-30	Water	pCi/L	Plutonium-239	117	123	76.1 - 152	Acceptable
ERA	2nd/2019	05/21/19	MRAD-30	Water	pCi/L	Strontium-90	365	315	227 - 389	Acceptable
ERA	2nd/2019	05/21/19	MRAD-30	Water	pCi/L	Uranium-234	56.3	55.2	42.0 - 63.1	Acceptable
ERA	2nd/2019	05/21/19	MRAD-30	Water	pCi/L	Uranium-234	56	55.2	42.0 - 63.1	Acceptable
ERA	2nd/2019	05/21/19	MRAD-30	Water	pCi/L	Uranium-234	53.7	55.2	42.0 - 63.1	Acceptable
ERA	2nd/2019	05/21/19	MRAD-30	Water	pCi/L	Uranium-234	56	55.2	42.0 - 63.1	Acceptable
ERA	2nd/2019	05/21/19	MRAD-30	Water	pCi/L	Uranium-238	55.3	54.7	42.4 - 64.4	Acceptable
ERA	2nd/2019	05/21/19	MRAD-30	Water	pCi/L	Uranium-238	51.8	54.7	42.4 - 64.4	Acceptable
ERA	2nd/2019	05/21/19	MRAD-30	Water	pCi/L	Uranium-238	51	54.7	42.4 - 64.4	Acceptable
ERA	2nd/2019	05/21/19	MRAD-30	Water	pCi/L	Uranium-Total	107.3	112	87.4 - 128	Acceptable
ERA	2nd/2019	05/21/19	MRAD-30	Water	pCi/L	Uranium-Total	113	112	87.4 - 128	Acceptable
ERA	2nd/2019	05/21/19	MRAD-30	Water	µg/L	Uranium-Total (mass)	166	163	132 - 185	Acceptable
ERA	2nd/2019	05/21/19	MRAD-30	Water	µg/L	Uranium-Total (mass)	153	163	132 - 185	Acceptable
ERA	2nd/2019	05/21/19	MRAD-30	Water	pCi/L	Zinc-65	1990	1780	1580 - 2250	Acceptable
ERA	2nd/2019	05/21/19	MRAD-30	Water	pCi/L	Gross Alpha	79.8	68.5	25.0 - 94.5	Acceptable
ERA	2nd/2019	05/21/19	MRAD-30	Water	pCi/L	Gross Beta	140	151	75.5 - 208	Acceptable
ERA	2nd/2019	05/21/19	MRAD-30	Water	pCi/L	Tritium	22200	23700	17900 - 28800	Acceptable
ERA	2nd/2019	05/23/19	RAD-117	Water	pCi/L	Strontium-89	35.9	33.3	24.5-40.1	Acceptable
ERA	2nd/2019	05/24/19	RAD-117	Water	pCi/L	Strontium-89	34.4	33.3	24.5-40.2	Acceptable
ERA	3rd/2019	08/26/19	RAD - 118	Water	pCi/L	Barium-133	68.2	66.9	55.8 - 73.6	Acceptable
ERA	3rd/2019	3rd/2019	RAD - 118	Water	pCi/L	Cesium-134	30.4	32	25.1 - 35.2	Acceptable
ERA	3rd/2019	08/26/19	RAD - 118	Water	pCi/L	Cesium-137	22.7	21.4	17.6 - 26.7	Acceptable
ERA	3rd/2019	08/26/19	RAD - 118	Water	pCi/L	Cobalt-60	102	95.1	85.6 - 107	Acceptable
ERA	3rd/2019	08/26/19	RAD - 118	Water	pCi/L	Zinc-65	49.2	41.2	35.3 - 51.4	Acceptable

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ERA	3rd/2019	08/26/19	RAD - 118	Water	pCi/L	Gross Alpha	88.7	70.6	37.1 - 87.1	Not Acceptable
ERA	3rd/2019	08/26/19	RAD - 118	Water	pCi/L	Gross Alpha	80.7	70.6	37.1 - 87.1	Acceptable
ERA	3rd/2019	08/26/19	RAD - 118	Water	pCi/L	Gross Beta	57.7	63.9	44.2 - 70.5	Acceptable
ERA	3rd/2019	08/26/19	RAD - 118	Water	pCi/L	Radium-226	18.5	18.5	13.8 - 21.1	Acceptable
ERA	3rd/2019	08/26/19	RAD - 118	Water	pCi/L	Radium-228	7.97	8.16	5.21 - 10.3	Acceptable
ERA	3rd/2019	08/26/19	RAD - 118	Water	pCi/L	Radium-228	6.72	8.16	5.21 - 10.3	Acceptable
ERA	3rd/2019	08/26/19	RAD - 118	Water	pCi/L	Uranium (Nat)	67.8	68.3	55.8 - 75.1	Acceptable
ERA	3rd/2019	08/26/19	RAD - 118	Water	µg/L	Uranium (Nat) mass	100.73	99.6	81.4 - 110	Acceptable
ERA	3rd/2019	08/26/19	RAD - 118	Water	pCi/L	Tritium	14700	16700	14600 - 18400	Acceptable
ERA	3rd/2019	08/26/19	RAD - 118	Water	pCi/L	Tritium	15000	16700	14600 - 18400	Acceptable
ERA	3rd/2019	08/26/19	RAD - 118	Water	pCi/L	Strontium-89	69.4	58.7	47.1 - 66.5	Not Acceptable
ERA	3rd/2019	08/26/19	RAD - 118	Water	pCi/L	Strontium-89	62.1	58.7	47.1 - 66.5	Acceptable
ERA	3rd/2019	08/26/19	RAD - 118	Water	pCi/L	Strontium-90	34.3	38.5	28.3 - 44.3	Acceptable
ERA	3rd/2019	08/26/19	RAD - 118	Water	pCi/L	Strontium-90	33.4	38.5	28.3 - 44.3	Acceptable
EZA	3rd/2019	11/08/19	E12368	Cartridge	pCi	Iodine-131	9.93E+01	9.33E+01	1.06	Acceptable
EZA	3rd/2019	11/08/19	E12369	Milk	pCi/L	Strontium-89	8.71E+01	9.39E+01	0.93	Acceptable
EZA	3rd/2019	11/08/19	E12369	Milk	pCi/L	Strontium-90	7.02E+00	1.29E+01	0.54	Acceptable
EZA	3rd/2019	11/08/19	E12370	Milk	pCi/L	Cerium-141	1.69E+02	1.67E+02	1.01	Acceptable
EZA	3rd/2019	11/08/19	E12370	Milk	pCi/L	Cobalt-58	1.74E+02	1.75E+02	0.99	Acceptable
EZA	3rd/2019	11/08/19	E12370	Milk	pCi/L	Cobalt-60	2.08E+02	2.11E+02	0.99	Acceptable
EZA	3rd/2019	11/08/19	E12370	Milk	pCi/L	Chromium-51	3.64E+02	3.31E+02	1.1	Acceptable
EZA	3rd/2019	11/08/19	E12370	Milk	pCi/L	Cesium-134	1.93E+02	2.07E+02	0.93	Acceptable
EZA	3rd/2019	11/08/19	E12370	Milk	pCi/L	Cesium-137	1.49E+02	1.51E+02	0.99	Acceptable
EZA	3rd/2019	11/08/19	E12370	Milk	pCi/L	Iron-59	1.66E+02	1.48E+02	1.12	Acceptable
EZA	3rd/2019	11/08/19	E12370	Milk	pCi/L	Iodine-131	9.28E+01	9.21E+01	1.01	Acceptable
EZA	3rd/2019	11/08/19	E12370	Milk	pCi/L	Manganese-54	1.69E+02	1.54E+02	1.09	Acceptable
EZA	3rd/2019	11/08/19	E12371	Milk	pCi/L	Zinc-65	3.21E+02	2.93E+02	1.1	Acceptable
EZA	3rd/2019	11/08/19	E12371	Water	pCi/L	Cerium-141	1.41E+02	1.27E+02	1.11	Acceptable
EZA	3rd/2019	11/08/19	E12371	Water	pCi/L	Cobalt-58	1.36E+02	1.33E+02	1.03	Acceptable
EZA	3rd/2019	11/08/19	E12371	Water	pCi/L	Cobalt-60	1.68E+02	1.60E+02	1.036	Acceptable
EZA	3rd/2019	11/08/19	E12371	Water	pCi/L	Chromium-51	2.45E+02	2.51E+02	0.98	Acceptable
EZA	3rd/2019	11/08/19	E12371	Water	pCi/L	Cesium-134	1.50E+02	1.57E+02	0.96	Acceptable
EZA	3rd/2019	11/08/19	E12371	Water	pCi/L	Cesium-137	1.22E+02	1.14E+02	1.07	Acceptable
EZA	3rd/2019	11/08/19	E12371	Water	pCi/L	Iron-59	1.27E+02	1.12E+02	1.13	Acceptable
EZA	3rd/2019	11/08/19	E12371	Water	pCi/L	Iodine-131	9.34E+01	8.94E+01	1.04	Acceptable
EZA	3rd/2019	11/08/19	E12371	Water	pCi/L	Manganese-54	1.34E+02	1.17E+02	1.15	Acceptable
EZA	3rd/2019	11/08/19	E12371	Water	pCi/L	Zinc-65	2.57E+02	2.22E+02	1.16	Acceptable
EZA	4th/2019	02/05/20	E12372	Cartridge	pCi	Iodine-131	9.07E+01	8.88E+01	1.02	Acceptable
EZA	4th/2019	02/05/20	E12373	Milk	pCi/L	Strontium-89	6.60E+01	8.06E+01	0.82	Acceptable
EZA	4th/2019	02/05/20	E12373	Milk	pCi/L	Strontium-90	1.11E+01	1.10E+01	1.00	Acceptable

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EZA	4th/2019	02/05/20	E12374	Milk	pCi/L	Cerium-141	7.95E+01	8.30E+01	0.96	Acceptable
EZA	4th/2019	02/05/20	E12374	Milk	pCi/L	Cobalt-58	8.93E+01	8.99E+01	0.99	Acceptable
EZA	4th/2019	02/05/20	E12374	Milk	pCi/L	Cobalt-60	1.17E+02	1.15E+02	1.02	Acceptable
EZA	4th/2019	02/05/20	E12374	Milk	pCi/L	Chromium-51	2.67E+02	2.41E+02	1.11	Acceptable
EZA	4th/2019	02/05/20	E12374	Milk	pCi/L	Cesium-134	9.79E+01	1.13E+02	0.87	Acceptable
EZA	4th/2019	02/05/20	E12374	Milk	pCi/L	Cesium-137	1.01E+02	1.02E+02	0.99	Acceptable
EZA	4th/2019	02/05/20	E12374	Milk	pCi/L	Iron-59	1.01E+02	8.71E+01	1.16	Acceptable
EZA	4th/2019	02/05/20	E12374	Milk	pCi/L	Iodine-131	9.34E+01	9.45E+01	0.99	Acceptable
EZA	4th/2019	02/05/20	E12374	Milk	pCi/L	Manganese-54	1.34E+02	1.30E+02	1.03	Acceptable
EZA	4th/2019	02/05/20	E12374	Milk	pCi/L	Zinc-65	1.17E+02	1.59E+02	1.08	Acceptable
EZA	4th/2019	02/05/20	E12375	Water	pCi/L	Cerium-141	8.92E+01	8.41E+01	1.06	Acceptable
EZA	4th/2019	02/05/20	E12375	Water	pCi/L	Cobalt-58	9.54E+01	9.11E+01	1.05	Acceptable
EZA	4th/2019	02/05/20	E12375	Water	pCi/L	Cobalt-60	1.22E+02	1.17E+02	1.05	Acceptable
EZA	4th/2019	02/05/20	E12375	Water	pCi/L	Chromium-51	2.64E+02	2.44E+02	1.08	Acceptable
EZA	4th/2019	02/05/20	E12375	Water	pCi/L	Cesium-134	1.06E+02	1.14E+02	0.93	Acceptable
EZA	4th/2019	02/05/20	E12375	Water	pCi/L	Cesium-137	1.09E+02	1.03E+02	1.06	Acceptable
EZA	4th/2019	02/05/20	E12375	Water	pCi/L	Iron-59	9.32E+01	8.82E+01	1.06	Acceptable
EZA	4th/2019	02/05/20	E12375	Water	pCi/L	Iodine-131	1.04E+02	9.45E+01	1.10	Acceptable
EZA	4th/2019	02/05/20	E12375	Water	pCi/L	Manganese-54	1.44E+02	1.31E+02	1.10	Acceptable
EZA	4th/2019	02/05/20	E12375	Water	pCi/L	Zinc-65	1.91E+02	1.61E+02	1.19	Acceptable
MAPEP	4th/2019	12/13/19	MAPEP-19-MaS41	Soil	Bq/Kg	Americium-241	86.1	74.7	52.3-97.1	Acceptable
MAPEP	4th/2019	12/13/19	MAPEP-19-MaS41	Soil	Bq/Kg	Cesium-134	896	1020	714-1326	Acceptable
MAPEP	4th/2019	12/13/19	MAPEP-19-MaS41	Soil	Bq/Kg	Cesium-137	865	789	552-1026	Acceptable
MAPEP	4th/2019	12/13/19	MAPEP-19-MaS41	Soil	Bq/Kg	Cobalt-57	0.227		False Pos Test	Acceptable
MAPEP	4th/2019	12/13/19	MAPEP-19-MaS41	Soil	Bq/Kg	Cobalt-60	761	760	532-988	Acceptable
MAPEP	4th/2019	12/13/19	MAPEP-19-MaS41	Soil	Bq/Kg	Iron-55	-48.0		False Pos Test	Acceptable
MAPEP	4th/2019	12/13/19	MAPEP-19-MaS41	Soil	Bq/Kg	Manganese-54	816	745	522-969	Acceptable
MAPEP	4th/2019	12/13/19	MAPEP-19-MaS41	Soil	Bq/Kg	Nickel-63	552	629	440-818	Acceptable
MAPEP	4th/2019	12/13/19	MAPEP-19-MaS41	Soil	Bq/Kg	Plutonium-238	55.3	52.1	36.5-67.7	Acceptable
MAPEP	4th/2019	12/13/19	MAPEP-19-MaS41	Soil	Bq/Kg	Plutonium-239/240	59.9	61.4	43.0-79.8	Acceptable
MAPEP	4th/2019	12/13/19	MAPEP-19-MaS41	Soil	Bq/Kg	Potassium-40	604	555	389-722	Acceptable
MAPEP	4th/2019	12/13/19	MAPEP-19-MaS41	Soil	Bq/Kg	Strontium-90	609	572	400-744	Acceptable
MAPEP	4th/2019	12/13/19	MAPEP-19-MaS41	Soil	Bq/Kg	Technetium-99	514	593	415-771	Acceptable
MAPEP	4th/2019	12/13/19	MAPEP-19-MaS41	Soil	Bq/Kg	U-234/233	125	116	81-151	Acceptable
MAPEP	4th/2019	12/13/19	MAPEP-19-MaS41	Soil	Bq/Kg	Uranium-238	122	117	82-152	Acceptable
MAPEP	4th/2019	12/13/19	MAPEP-19-MaS41	Soil	Bq/Kg	Zinc-65	-0.650		False Pos Test	Acceptable
MAPEP	4th/2019	12/13/19	MAPEP-19-MaW41	Water	Bq/L	Americium-241	0.511	0.522	0.365-0.679	Acceptable
MAPEP	4th/2019	12/13/19	MAPEP-19-MaW41	Water	Bq/L	Cesium-134	0.0266		False Pos Test	Acceptable
MAPEP	4th/2019	12/13/19	MAPEP-19-MaW41	Water	Bq/L	Cesium-137	19.70	18.4	12.9-23.9	Acceptable
MAPEP	4th/2019	12/13/19	MAPEP-19-MaW41	Water	Bq/L	Cobalt-57	16.2	15.6	10.9-20.3	Acceptable

PT Provider	Quarter / Year	Analytical Date	Sample Number	Sample Media	Unit	Analyte / Nuclide	GEL Value	Known value	Acceptance Range/ Ratio	Evaluation
MAPEP	4th/2019	12/13/19	MAPEP-19-MaW41	Water	Bq/L	Cobalt-60	9.01	8.8	6.2-11.4	Acceptable
MAPEP	4th/2019	12/13/19	MAPEP-19-MaW41	Water	Bq/L	Hydrogen-3	166	175	123-228	Acceptable
MAPEP	4th/2019	12/13/19	MAPEP-19-MaW41	Water	Bq/L	Iron-55	13.80	15.7	11.0-20.4	Acceptable
MAPEP	4th/2019	12/13/19	MAPEP-19-MaW41	Water	Bq/L	Manganese-54	22.6	20.6	14.4-26.8	Acceptable
MAPEP	4th/2019	12/13/19	MAPEP-19-MaW41	Water	Bq/L	Nickel-63	9.26	9.7	6.8-12.6	Acceptable
MAPEP	4th/2019	12/13/19	MAPEP-19-MaW41	Water	Bq/L	Plutonium-238	0.0164	0.0063	Sens. Evaluation	Acceptable
MAPEP	4th/2019	12/13/19	MAPEP-19-MaW41	Water	Bq/L	Plutonium-239/240	0.701	0.727	0.509-0.945	Acceptable
MAPEP	4th/2019	12/13/19	MAPEP-19-MaW41	Water	Bq/L	Potassium-40	-0.121		False Pos Test	Acceptable
MAPEP	4th/2019	12/13/19	MAPEP-19-MaW41	Water	Bq/L	Radium-226	0.481	0.307	0.215-0.399	Not Acceptable
MAPEP	4th/2019	12/13/19	MAPEP-19-MaW41	Water	Bq/L	Strontium-90	9.34	10.60	7.4-13.8	Acceptable
MAPEP	4th/2019	12/13/19	MAPEP-19-MaW41	Water	Bq/L	Technetium-99	0.119		False Pos Test	Acceptable
MAPEP	4th/2019	12/13/19	MAPEP-19-MaW41	Water	Bq/L	Uranium-234/233	1.09	1.07	0.75-1.39	Acceptable
MAPEP	4th/2019	12/13/19	MAPEP-19-MaW41	Water	Bq/L	Uranium-238	1.12	1.05	0.74-1.37	Acceptable
MAPEP	4th/2019	12/13/19	MAPEP-19-MaW41	Water	Bq/L	Zinc-65	23.1	20.3	5.27-9.79	Acceptable
MAPEP	4th/2019	12/13/19	MAPEP-19-RdF41	Filter	ug/sample	Uranium-235	0.0565	0.0565	0.0396-0.0735	Acceptable
MAPEP	4th/2019	12/13/19	MAPEP-19-RdF41	Filter	ug/sample	Uranium-238	7.8	7.7	5.4-10.0	Acceptable
MAPEP	4th/2019	12/13/19	MAPEP-19-RdF41	Filter	ug/sample	Uranium-Total	7.9	7.8	5.5-10.1	Acceptable
MAPEP	4th/2019	12/13/19	MAPEP-19-RdF41	Filter	Bq/sample	Americium-241	0.00106		False Pos Test	Acceptable
MAPEP	4th/2019	12/13/19	MAPEP-19-RdF41	Filter	Bq/sample	Cesium-134	0.00080		False Pos Test	Acceptable
MAPEP	4th/2019	12/13/19	MAPEP-19-RdF41	Filter	Bq/sample	Cesium-137	1.63	1.58	1.11-2.05	Acceptable
MAPEP	4th/2019	12/13/19	MAPEP-19-RdF41	Filter	Bq/sample	Cobalt-57	1.23	1.16	0.81-1.51	Acceptable
MAPEP	4th/2019	12/13/19	MAPEP-19-RdF41	Filter	Bq/sample	Cobalt-60	0.783	0.815	0.571-1.060	Acceptable
MAPEP	4th/2019	12/13/19	MAPEP-19-RdF41	Filter	Bq/sample	Manganese-54	1.35	1.37	0.96-1.78	Acceptable
MAPEP	4th/2019	12/13/19	MAPEP-19-RdF41	Filter	Bq/sample	Plutonium-238	0.0755	0.0761	0.0533-0.0989	Acceptable
MAPEP	4th/2019	12/13/19	MAPEP-19-RdF41	Filter	Bq/sample	Plutonium-239/240	0.0485	0.0468	0.0328-0.0608	Acceptable
MAPEP	4th/2019	12/13/19	MAPEP-19-RdF41	Filter	Bq/sample	Strontium-90	0.442	0.498	0.349-0.647	Acceptable
MAPEP	4th/2019	12/13/19	MAPEP-19-RdF41	Filter	Bq/sample	Uranium-234/233	0.0965	0.093	0.065-0.121	Acceptable
MAPEP	4th/2019	12/13/19	MAPEP-19-RdF41	Filter	Bq/sample	Uranium-238	0.0935	0.096	0.067-0.125	Acceptable
MAPEP	4th/2019	12/13/19	MAPEP-19-RdF41	Filter	Bq/sample	Zinc-65	1.09	1.06	0.74-1.38	Acceptable
MAPEP	4th/2019	12/13/19	MAPEP-19-RdV41	Vegetation	Bq/sample	Americium-241	0.0958	0.090	0.063-0.117	Acceptable
MAPEP	4th/2019	12/13/19	MAPEP-19-RdV41	Vegetation	Bq/sample	Cesium-134	0.0190		False Pos Test	Acceptable
MAPEP	4th/2019	12/13/19	MAPEP-19-RdV41	Vegetation	Bq/sample	Cesium-137	3.34	3.28	2.30-4.26	Acceptable
MAPEP	4th/2019	12/13/19	MAPEP-19-RdV41	Vegetation	Bq/sample	Cobalt-57	4.50	4.57	3.20-5.94	Acceptable
MAPEP	4th/2019	12/13/19	MAPEP-19-RdV41	Vegetation	Bq/sample	Cobalt-60	5.34	5.30	3.71-6.89	Acceptable
MAPEP	4th/2019	12/13/19	MAPEP-19-RdV41	Vegetation	Bq/sample	Manganese-54	4.57	4.49	3.14-5.84	Acceptable
MAPEP	4th/2019	12/13/19	MAPEP-19-RdV41	Vegetation	Bq/sample	Plutonium-238	0.0882	0.081	0.057-0.105	Acceptable
MAPEP	4th/2019	12/13/19	MAPEP-19-RdV41	Vegetation	Bq/sample	Plutonium-239/240	0.00127		False Pos Test	Acceptable
MAPEP	4th/2019	12/13/19	MAPEP-19-RdV41	Vegetation	Bq/sample	Strontium-90	0.847	1.00	0.70-1.30	Acceptable
MAPEP	4th/2019	12/13/19	MAPEP-19-RdV41	Vegetation	Bq/sample	Uranium-234/233	0.0656	0.0647	0.0453-0.0841	Acceptable
MAPEP	4th/2019	12/13/19	MAPEP-19-RdV41	Vegetation	Bq/sample	Uranium-238	0.0660	0.0670	0.0469-0.871	Acceptable

PT Provider	Quarter / Year	Analytical Date	Sample Number	Sample Media	Unit	Analyte / Nuclide	GEL Value	Known value	Acceptance Range/ Ratio	Evaluation
MAPEP	4th/2019	12/13/19	MAPEP-19-RdV41	Vegetation	Bq/sample	Zinc-65	2.89	2.85	2.00-3.71	Acceptable
MAPEP	4th/2019	12/13/19	MAPEP-19-XaW41	Alk. Water	Bq/L	Iodine-129	1.69	1.78	1.25-2.31	Acceptable
ERA	4th/2019	11/19/19	MRAD-31	Soil	pCi/kg	Actinium-228	3730	3170	2090 - 3990	Acceptable
ERA	4th/2019	11/19/19	MRAD-31	Soil	pCi/kg	Americium-241	1740	1920	1040 - 2720	Acceptable
ERA	4th/2019	11/19/19	MRAD-31	Soil	pCi/kg	Bismuth-212	4130	3280	939 - 4890	Acceptable
ERA	4th/2019	11/19/19	MRAD-31	Soil	pCi/kg	Bismuth-214	1370	1330	638 - 1980	Acceptable
ERA	4th/2019	11/19/19	MRAD-31	Soil	pCi/kg	Cesium-134	7600	7650	5230 - 9140	Acceptable
ERA	4th/2019	11/19/19	MRAD-31	Soil	pCi/kg	Cesium-137	1350	1230	930 - 1560	Acceptable
ERA	4th/2019	11/19/19	MRAD-31	Soil	pCi/kg	Cobalt-60	3840	3710	2920 - 4580	Acceptable
ERA	4th/2019	11/19/19	MRAD-31	Soil	pCi/kg	Lead-212	4300	3350	2340 - 4240	Not Acceptable
ERA	4th/2019	11/19/19	MRAD-31	Soil	pCi/kg	Lead-214	1740	1450	609 - 2280	Acceptable
ERA	4th/2019	11/19/19	MRAD-31	Soil	pCi/kg	Manganese-54	<26.5	<1000	<1000	Acceptable
ERA	4th/2019	11/19/19	MRAD-31	Soil	pCi/kg	Plutonium-238	680	546	272 - 830	Acceptable
ERA	4th/2019	11/19/19	MRAD-31	Soil	pCi/kg	Plutonium-239	1010	1090	594 - 1570	Acceptable
ERA	4th/2019	11/19/19	MRAD-31	Soil	pCi/kg	Potassium-40	26200	24700	17000 - 29500	Acceptable
ERA	4th/2019	11/19/19	MRAD-31	Soil	pCi/kg	Strontium-90	1660	1910	594 - 2980	Acceptable
ERA	4th/2019	11/19/19	MRAD-31	Soil	pCi/kg	Thorium-234	1580	1360	513 - 2330	Acceptable
ERA	4th/2019	11/19/19	MRAD-31	Soil	pCi/kg	Uranium-234	1140	1030	483 - 1350	Acceptable
ERA	4th/2019	11/19/19	MRAD-31	Soil	pCi/kg	Uranium-234	1290	1030	483 - 1350	Acceptable
ERA	4th/2019	11/19/19	MRAD-31	Soil	pCi/kg	Uranium-238	1080	974	534 - 1310	Acceptable
ERA	4th/2019	11/19/19	MRAD-31	Soil	pCi/kg	Uranium-238	1070	974	534 - 1310	Acceptable
ERA	4th/2019	11/19/19	MRAD-31	Soil	pCi/kg	Uranium-Total	2290	1930	1070 - 2500	Acceptable
ERA	4th/2019	11/19/19	MRAD-31	Soil	pCi/kg	Uranium-Total	2409	1930	1070 - 2500	Acceptable
ERA	4th/2019	11/19/19	MRAD-31	Soil	µg/kg	Uranium-Total (mass)	3250	2410	1090 - 3250	Acceptable
ERA	4th/2019	11/19/19	MRAD-31	Soil	µg/kg	Uranium-Total (mass)	3200	2410	1090 - 3250	Acceptable
ERA	4th/2019	11/19/19	MRAD-31	Soil	µg/kg	Zinc-65	3100	2690	2150 - 3670	Acceptable
ERA	4th/2019	11/19/19	MRAD-31	Vegetation	pCi/kg	Americium-241	2070	2050	1270 - 2900	Acceptable
ERA	4th/2019	11/19/19	MRAD-31	Vegetation	pCi/kg	Cesium-134	1910	2210	1470 - 2940	Acceptable
ERA	4th/2019	11/19/19	MRAD-31	Vegetation	pCi/kg	Cesium-137	2500	2480	1910-3340	Acceptable
ERA	4th/2019	11/19/19	MRAD-31	Vegetation	pCi/kg	Cobalt-60	604	607	476 - 793	Acceptable
ERA	4th/2019	11/19/19	MRAD-31	Vegetation	pCi/kg	Curium-244	2760	3010	1700 - 3740	Acceptable
ERA	4th/2019	11/19/19	MRAD-31	Vegetation	pCi/kg	Manganese-54	<35.4	<300	<300	Acceptable
ERA	4th/2019	11/19/19	MRAD-31	Vegetation	pCi/kg	Plutonium-238	2120	1920	1330 - 2480	Acceptable
ERA	4th/2019	11/19/19	MRAD-31	Vegetation	pCi/kg	Plutonium-239	2860	2600	1800 - 3290	Acceptable
ERA	4th/2019	11/19/19	MRAD-31	Vegetation	pCi/kg	Potassium-40	41600	39300	29500 - 49800	Acceptable
ERA	4th/2019	11/19/19	MRAD-31	Vegetation	pCi/kg	Strontium-90	4010	3940	2220 - 5130	Acceptable
ERA	4th/2019	11/19/19	MRAD-31	Vegetation	pCi/kg	Uranium-234	3510	3320	2330 - 4230	Acceptable
ERA	4th/2019	11/19/19	MRAD-31	Vegetation	pCi/kg	Uranium-238	3620	3290	2320 - 4110	Acceptable
ERA	4th/2019	11/19/19	MRAD-31	Vegetation	pCi/kg	Uranium-Total	7360	6670	4260 - 8990	Acceptable
ERA	4th/2019	11/19/19	MRAD-31	Vegetation	pCi/kg	Uranium-Total (mass)	10900	9730	7470 - 12100	Acceptable

PT Provider	Quarter / Year	Analytical Date	Sample Number	Sample Media	Unit	Analyte / Nuclide	GEL Value	Known value	Acceptance Range/ Ratio	Evaluation
ERA	4th/2019	11/19/19	MRAD-31	Vegetation	pCi/kg	Zinc-65	1860	1620	1210 - 2400	Acceptable
ERA	4th/2019	11/19/19	MRAD-31	Filter	pCi/Filter	Americium-241	34.5	32	22.8 - 42.7	Acceptable
ERA	4th/2019	11/19/19	MRAD-31	Filter	pCi/Filter	Cesium-134	55.6	59	38.3 - 72.3	Acceptable
ERA	4th/2019	11/19/19	MRAD-31	Filter	pCi/Filter	Cesium-137	443	437	359 - 573	Acceptable
ERA	4th/2019	11/19/19	MRAD-31	Filter	pCi/Filter	Cobalt-60	63.7	58.4	49.6 - 74.2	Acceptable
ERA	4th/2019	11/19/19	MRAD-31	Filter	pCi/Filter	Iron-55	150	151	55.1 - 241	Acceptable
ERA	4th/2019	11/19/19	MRAD-31	Filter	pCi/Filter	Manganese-54	<1.96	<50.0	<50.0	Acceptable
ERA	4th/2019	11/19/19	MRAD-31	Filter	pCi/Filter	Plutonium-238	23.8	21	15.9 - 25.8	Acceptable
ERA	4th/2019	11/19/19	MRAD-31	Filter	pCi/Filter	Plutonium-239	19.9	19	14.2 - 22.9	Acceptable
ERA	4th/2019	11/19/19	MRAD-31	Filter	pCi/Filter	Strontium-90	34.8	34.5	21.8 - 47.0	Acceptable
ERA	4th/2019	11/19/19	MRAD-31	Filter	pCi/Filter	Uranium-234	27.1	27.5	20.4 - 32.2	Acceptable
ERA	4th/2019	11/19/19	MRAD-31	Filter	pCi/Filter	Uranium-234	30.4	27.5	20.4 - 32.2	Acceptable
ERA	4th/2019	11/19/19	MRAD-31	Filter	pCi/Filter	Uranium-238	28.4	27.3	20.6 - 32.6	Acceptable
ERA	4th/2019	11/19/19	MRAD-31	Filter	pCi/Filter	Uranium-238	25.2	27.3	20.6 - 32.6	Acceptable
ERA	4th/2019	11/19/19	MRAD-31	Filter	pCi/Filter	Uranium-Total	57.3	56.1	41.0 - 66.5	Acceptable
ERA	4th/2019	11/19/19	MRAD-31	Filter	pCi/Filter	Uranium-Total	55.6	56.1	41.0 - 66.5	Acceptable
ERA	4th/2019	11/19/19	MRAD-31	Filter	µg/Filter	Uranium-Total (mass)	85.4	81.8	65.6 - 95.8	Acceptable
ERA	4th/2019	11/19/19	MRAD-31	Filter	µg/Filter	Uranium-Total (mass)	75.6	81.8	65.6 - 95.8	Acceptable
ERA	4th/2019	11/19/19	MRAD-31	Filter	pCi/Filter	Zinc-65	412	364	298 - 556	Acceptable
ERA	4th/2019	11/19/19	MRAD-31	Filter	pCi/Filter	Gross Alpha	71	59	30.8 - 97.2	Acceptable
ERA	4th/2019	11/19/19	MRAD-31	Filter	pCi/Filter	Gross Beta	54.7	57.6	34.9 - 87.0	Acceptable
ERA	4th/2019	11/19/19	MRAD-31	Water	pCi/L	Americium-241	67.6	64.2	44.1 - 82.1	Acceptable
ERA	4th/2019	11/19/19	MRAD-31	Water	pCi/L	Cesium-134	1820	1960	1480 - 2160	Acceptable
ERA	4th/2019	11/19/19	MRAD-31	Water	pCi/L	Cesium-137	1820	1840	1580 - 2090	Acceptable
ERA	4th/2019	11/19/19	MRAD-31	Water	pCi/L	Cobalt-60	1970	1870	1610 - 2150	Acceptable
ERA	4th/2019	11/19/19	MRAD-31	Water	pCi/L	Iron-55	1410	1460	858 - 2120	Acceptable
ERA	4th/2019	11/19/19	MRAD-31	Water	pCi/L	Manganese-54	<7.24	<100	<100	Acceptable
ERA	4th/2019	11/19/19	MRAD-31	Water	pCi/L	Plutonium-238	41.2	47.8	28.7 - 61.9	Acceptable
ERA	4th/2019	11/19/19	MRAD-31	Water	pCi/L	Plutonium-239	36.9	46.8	29.0 - 57.7	Acceptable
ERA	4th/2019	11/19/19	MRAD-31	Water	pCi/L	Strontium-90	508	481	346 - 595	Acceptable
ERA	4th/2019	11/19/19	MRAD-31	Water	pCi/L	Uranium-234	135	139	106 - 159	Acceptable
ERA	4th/2019	11/19/19	MRAD-31	Water	pCi/L	Uranium-234	138	139	106 - 159	Acceptable
ERA	4th/2019	11/19/19	MRAD-31	Water	pCi/L	Uranium-238	141	137	106 - 161	Acceptable
ERA	4th/2019	11/19/19	MRAD-31	Water	pCi/L	Uranium-238	118	137	106 - 161	Acceptable
ERA	4th/2019	11/19/19	MRAD-31	Water	pCi/L	Uranium-Total	285	282	220 - 321	Acceptable
ERA	4th/2019	11/19/19	MRAD-31	Water	pCi/L	Uranium-Total	261.3	282	220 - 321	Acceptable
ERA	4th/2019	11/19/19	MRAD-31	Water	µg/L	Uranium-Total (mass)	424	411	333 - 466	Acceptable
ERA	4th/2019	11/19/19	MRAD-31	Water	µg/L	Uranium-Total (mass)	353	411	333 - 466	Acceptable
ERA	4th/2019	11/19/19	MRAD-31	Water	pCi/L	Zinc-65	1490	1370	1220 - 1730	Acceptable
ERA	4th/2019	11/19/19	MRAD-31	Water	pCi/L	Gross Alpha	147	124	45.3 - 171	Acceptable

PT Provider	Quarter / Year	Analytical Date	Sample Number	Sample Media	Unit	Analyte / Nuclide	GEL Value	Known value	Acceptance Range/ Ratio	Evaluation
ERA	4th/2019	11/19/19	MRAD-31	Water	pCi/L	Gross Beta	72.9	68	34.0 - 93.6	Acceptable
ERA	4th/2019	11/19/19	MRAD-31	Water	pCi/L	Tritium	20900	22300	16800 - 27100	Acceptable

TABLE 6.1-2

2019 ECKERT & ZIEGLER ANALYTICS PERFORMANCE EVALUATION RESULTS

Report Date	Sample Number	Sample Media	Unit	Analyte / Nuclide	GEL Value	Known value	Acceptance Range/ Ratio	Evaluation
07/29/19	E12360	Cartridge	pCi	Iodine-131	8.40E+01	8.17E+01	1.03	Acceptable
07/29/19	E12361	Milk	pCi/L	Strontium-89	1.01E+02	8.29E+01	1.22	Acceptable
07/29/19	E12361	Milk	pCi/L	Strontium-90	1.21E+01	1.35E+01	0.90	Acceptable
07/29/19	E12362	Milk	pCi/L	Cerium-141	1.39E+02	1.33E+02	1.04	Acceptable
07/29/19	E12362	Milk	pCi/L	Cobalt-58	1.17E+02	1.12E+02	1.05	Acceptable
07/29/19	E12362	Milk	pCi/L	Cobalt-60	2.05E+02	1.98E+02	1.04	Acceptable
07/29/19	E12362	Milk	pCi/L	Chromium-51	3.41E+02	3.37E+02	1.01	Acceptable
07/29/19	E12362	Milk	pCi/L	Cesium-134	1.30E+02	1.40E+02	0.93	Acceptable
07/29/19	E12362	Milk	pCi/L	Cesium-137	1.78E+02	1.68E+02	1.06	Acceptable
07/29/19	E12362	Milk	pCi/L	Iron-59	1.66E+02	1.41E+02	1.18	Acceptable
07/29/19	E12362	Milk	pCi/L	Iodine-131	8.51E+01	8.14E+01	1.05	Acceptable
07/29/19	E12362	Milk	pCi/L	Manganese-54	2.09E+02	1.90E+02	1.10	Acceptable
07/29/19	E12362	Milk	pCi/L	Zinc-65	2.82E+02	2.47E+02	1.14	Acceptable
07/29/19	E12363	Water	pCi/L	Cerium-141	1.50E+02	1.45E+02	1.03	Acceptable
07/29/19	E12363	Water	pCi/L	Cobalt-58	1.22E+02	1.22E+02	1.00	Acceptable
07/29/19	E12363	Water	pCi/L	Cobalt-60	2.22E+02	2.16E+02	1.03	Acceptable
07/29/19	E12363	Water	pCi/L	Chromium-51	3.56E+02	3.68E+02	0.97	Acceptable
07/29/19	E12363	Water	pCi/L	Cesium-134	1.37E+02	1.53E+02	0.89	Acceptable
07/29/19	E12363	Water	pCi/L	Cesium-137	1.90E+02	1.84E+02	1.03	Acceptable
07/29/19	E12363	Water	pCi/L	Iron-59	1.73E+02	1.54E+02	1.12	Acceptable
07/29/19	E12363	Water	pCi/L	Iodine-131	8.92E+01	8.91E+01	1.00	Acceptable
07/29/19	E12363	Water	pCi/L	Manganese-54	2.27E+02	2.70E+00	1.10	Acceptable
07/29/19	E12363	Water	pCi/L	Zinc-65	3.01E+02	2.70E+02	1.11	Acceptable
05/10/19	E12364	Cartridge	pCi	Iodine-131	7.80E+01	7.54E+01	1.03	Acceptable
05/10/19	E12366A	Milk	pCi/L	Cerium-141	1.23E+02	1.17E+02	1.05	Acceptable
05/10/19	E12366A	Milk	pCi/L	Cobalt-58	1.51E+02	1.43E+02	1.05	Acceptable
05/10/19	E12366A	Milk	pCi/L	Cobalt-60	3.12E+02	2.99E+02	1.04	Acceptable
05/10/19	E12366A	Milk	pCi/L	Chromium-51	3.04E+02	2.93E+02	1.04	Acceptable
05/10/19	E12366A	Milk	pCi/L	Cesium-134	1.53E+02	1.60E+02	0.96	Acceptable
05/10/19	E12366A	Milk	pCi/L	Cesium-137	2.04E+02	1.96E+02	1.04	Acceptable
05/10/19	E12366A	Milk	pCi/L	Manganese-54	1.55E+02	1.43E+02	1.08	Acceptable

Report Date	Sample Number	Sample Media	Unit	Analyte / Nuclide	GEL Value	Known value	Acceptance Range/ Ratio	Evaluation
05/10/19	E12366A	Milk	pCi/L	Iron-59	1.78E+02	1.59E+02	1.12	Acceptable
05/10/19	E12366A	Milk	pCi/L	Zinc-65	2.42E+02	2.20E+02	1.1	Acceptable
05/10/19	E12367	Water	pCi/L	Cerium-141	1.20E+02	1.13E+02	1.06	Acceptable
05/10/19	E12367	Water	pCi/L	Cesium-134	1.43E+02	1.55E+02	0.92	Acceptable
05/10/19	E12367	Water	pCi/L	Cesium-137	2.09E+02	1.91E+02	1.10	Acceptable
05/10/19	E12367	Water	pCi/L	Chromium-51	3.55E+02	2.84E+02	1.25	Acceptable
05/10/19	E12367	Water	pCi/L	Cobalt-58	1.43E+02	1.39E+02	1.03	Acceptable
05/10/19	E12367	Water	pCi/L	Cobalt-60	3.18E+02	2.90E+02	1.10	Acceptable
05/10/19	E12367	Water	pCi/L	Iodine-131	8.89E+01	9.65E+01	1.03	Acceptable
05/10/19	E12367	Water	pCi/L	Iron-59	1.76E+02	1.54E+02	1.14	Acceptable
05/10/19	E12367	Water	pCi/L	Manganese-54	1.55E+02	1.39E+02	1.12	Acceptable
05/10/19	E12367	Water	pCi/L	Zinc-65	2.44E+02	2.14E+02	1.14	Acceptable
11/08/19	E12368	Cartridge	pCi	Iodine-131	9.93E+01	9.33E+01	1.06	Acceptable
11/08/19	E12369	Milk	pCi/L	Strontium-89	8.71E+01	9.39E+01	0.93	Acceptable
11/08/19	E12369	Milk	pCi/L	Strontium-90	7.02E+00	1.29E+01	0.54	Acceptable
11/08/19	E12370	Milk	pCi/L	Cerium-141	1.69E+02	1.67E+02	1.01	Acceptable
11/08/19	E12370	Milk	pCi/L	Cobalt-58	1.74E+02	1.75E+02	0.99	Acceptable
11/08/19	E12370	Milk	pCi/L	Cobalt-60	2.08E+02	2.11E+02	0.99	Acceptable
11/08/19	E12370	Milk	pCi/L	Chromium-51	3.64E+02	3.31E+02	1.1	Acceptable
11/08/19	E12370	Milk	pCi/L	Cesium-134	1.93E+02	2.07E+02	0.93	Acceptable
11/08/19	E12370	Milk	pCi/L	Cesium-137	1.49E+02	1.51E+02	0.99	Acceptable
11/08/19	E12370	Milk	pCi/L	Iron-59	1.66E+02	1.48E+02	1.12	Acceptable
11/08/19	E12370	Milk	pCi/L	Iodine-131	9.28E+01	9.21E+01	1.01	Acceptable
11/08/19	E12370	Milk	pCi/L	Manganese-54	1.69E+02	1.54E+02	1.09	Acceptable
11/08/19	E12371	Milk	pCi/L	Zinc-65	3.21E+02	2.93E+02	1.1	Acceptable
11/08/19	E12371	Water	pCi/L	Cerium-141	1.41E+02	1.27E+02	1.11	Acceptable
11/08/19	E12371	Water	pCi/L	Cobalt-58	1.36E+02	1.33E+02	1.03	Acceptable
11/08/19	E12371	Water	pCi/L	Cobalt-60	1.68E+02	1.60E+02	1.036	Acceptable
11/08/19	E12371	Water	pCi/L	Chromium-51	2.45E+02	2.51E+02	0.98	Acceptable
11/08/19	E12371	Water	pCi/L	Cesium-134	1.50E+02	1.57E+02	0.96	Acceptable
11/08/19	E12371	Water	pCi/L	Cesium-137	1.22E+02	1.14E+02	1.07	Acceptable
11/08/19	E12371	Water	pCi/L	Iron-59	1.27E+02	1.12E+02	1.13	Acceptable
11/08/19	E12371	Water	pCi/L	Iodine-131	9.34E+01	8.94E+01	1.04	Acceptable
11/08/19	E12371	Water	pCi/L	Manganese-54	1.34E+02	1.17E+02	1.15	Acceptable
11/08/19	E12371	Water	pCi/L	Zinc-65	2.57E+02	2.22E+02	1.16	Acceptable
02/05/20	E12372	Cartridge	pCi	Iodine-131	9.07E+01	8.88E+01	1.02	Acceptable

Report Date	Sample Number	Sample Media	Unit	Analyte / Nuclide	GEL Value	Known value	Acceptance Range/ Ratio	Evaluation
02/05/20	E12373	Milk	pCi/L	Strontium-89	6.60E+01	8.06E+01	0.82	Acceptable
02/05/20	E12373	Milk	pCi/L	Strontium-90	1.11E+01	1.10E+01	1.00	Acceptable
02/05/20	E12374	Milk	pCi/L	Cerium-141	7.95E+01	8.30E+01	0.96	Acceptable
02/05/20	E12374	Milk	pCi/L	Cobalt-58	8.93E+01	8.99E+01	0.99	Acceptable
02/05/20	E12374	Milk	pCi/L	Cobalt-60	1.17E+02	1.15E+02	1.02	Acceptable
02/05/20	E12374	Milk	pCi/L	Chromium-51	2.67E+02	2.41E+02	1.11	Acceptable
02/05/20	E12374	Milk	pCi/L	Cesium-134	9.79E+01	1.13E+02	0.87	Acceptable
02/05/20	E12374	Milk	pCi/L	Cesium-137	1.01E+02	1.02E+02	0.99	Acceptable
02/05/20	E12374	Milk	pCi/L	Iron-59	1.01E+02	8.71E+01	1.16	Acceptable
02/05/20	E12374	Milk	pCi/L	Iodine-131	9.34E+01	9.45E+01	0.99	Acceptable
02/05/20	E12374	Milk	pCi/L	Manganese-54	1.34E+02	1.30E+02	1.03	Acceptable
02/05/20	E12374	Milk	pCi/L	Zinc-65	1.17E+02	1.59E+02	1.08	Acceptable
02/05/20	E12375	Water	pCi/L	Cerium-141	8.92E+01	8.41E+01	1.06	Acceptable
02/05/20	E12375	Water	pCi/L	Cobalt-58	9.54E+01	9.11E+01	1.05	Acceptable
02/05/20	E12375	Water	pCi/L	Cobalt-60	1.22E+02	1.17E+02	1.05	Acceptable
02/05/20	E12375	Water	pCi/L	Chromium-51	2.64E+02	2.44E+02	1.08	Acceptable
02/05/20	E12375	Water	pCi/L	Cesium-134	1.06E+02	1.14E+02	0.93	Acceptable
02/05/20	E12375	Water	pCi/L	Cesium-137	1.09E+02	1.03E+02	1.06	Acceptable
02/05/20	E12375	Water	pCi/L	Iron-59	9.32E+01	8.82E+01	1.06	Acceptable
02/05/20	E12375	Water	pCi/L	Iodine-131	1.04E+02	9.45E+01	1.10	Acceptable
02/05/20	E12375	Water	pCi/L	Manganese-54	1.44E+02	1.31E+02	1.10	Acceptable
02/05/20	E12375	Water	pCi/L	Zinc-65	1.91E+02	1.61E+02	1.19	Acceptable

TABLE 6.1-3

REMP INTRA-LABORATORY DATA SUMMARY: BIAS AND PRECISION BY MATRIX

REMP 2019	Bias Criteria (+ / - 25%)		Precision Criteria (Note 1)	
	WITHIN CRITERIA	OUTSIDE CRITERIA	WITHIN CRITERIA	OUTSIDE CRITERIA
MILK				
Gas Flow Sr 2nd count	34	0	39	0
Gas Flow Total Strontium	20	0	21	0
Gamma Spec Liquid RAD A-013 with Ba, La	21	0	71	0
SOLID				
Gamma Spec Solid RAD A-013	9	0	13	0
LSC Nickel 63	5	0	5	0
Gas Flow Sr 2nd count	4	0	7	0
Gas Flow Total Strontium	4	0	4	0
Gamma Spec Solid RAD A-013 with Iodine	16	0	37	0
FILTER				
Gas Flow Sr 2nd Count	5	0	5	0
Gross A & B	462	0	333	0
Gas Flow Sr-90	1	0	1	0
Gamma Spec Filter	34	0	76	0
LIQUID				
Alpha Spec Uranium	7	0	10	0
Tritium	169	0	225	0
LSC Iron-55	17	0	15	0
LSC Nickel 63	18	0	16	0
Gamma Iodine-131	19	0	19	0
Alpha Spec Plutonium	9	0	9	0
Gas Flow Sr 2nd count	6	0	5	0
Alpha Spec Am241 Curium	9	0	9	0
Gas Flow Total Strontium	11	0	9	0
Gross Alpha Non Vol Beta	28	0	55	0
Gamma Spec Liquid RAD A-013 with Ba, La	51	0	116	0
Gamma Spec Liquid RAD A-013 with Iodine	25	0	98	0
TISSUE				
Gamma Spec Solid RAD A-013	31	0	37	0
Gas Flow Sr 2nd count	7	0	7	0
Gas Flow Total Strontium	10	0	10	0
Gamma Spec Solid RAD A-013 with Iodine	13	0	14	0
VEGETATION				
Gamma Spec Solid RAD A-013	14	0	13	0
Gas Flow Sr 2nd count	8	0	8	0
Gamma Spec Solid RAD A-013 with Iodine	63	0	79	0
AIR CHARCOAL				
Carbon-14 (Ascarite/Soda Lime Filter per Liter)	25	0	25	0
DRINKING WATER				
Tritium	20	0	24	0

REMP 2019	Bias Criteria (+ / - 25%)		Precision Criteria (Note 1)	
	WITHIN CRITERIA	OUTSIDE CRITERIA	WITHIN CRITERIA	OUTSIDE CRITERIA
LSC Iron-55	14	0	16	0
LSC Nickel 63	14	0	16	0
Gamma Iodine-131	24	0	16	0
Gas Flow Sr 2nd count	10	0	11	0
Gas Flow Total Strontium	13	0	15	0
Gross Alpha Non Vol Beta	52	0	61	0
Gamma Spec Liquid RAD A-013 with Ba, La	21	0	53	0
Gamma Spec Liquid RAD A-013 with Iodine	0	0	6	0
Total	**1323**		**1609**	

Note 1: 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.

TABLE 6.1-4

ALL RADIOLOGICAL INTRA-LABORATORY DATA SUMMARY:
BIAS AND PRECISION BY MATRIX

Total Radiological 2019	Bias Criteria (+ / - 25%		Precision Criteria (Note 1)	
	WITHIN CRITERIA	OUTSIDE CRITERIA	WITHIN CRITERIA	OUTSIDE CRITERIA
MILK				
Gamma Spec Liquid RAD A-013	4	0	5	0
Gamma Iodine-129	4	0	4	0
Gamma Iodine-131	5	0	93	0
Gas Flow Sr 2nd count	34	0	39	0
Gas Flow Strontium 90	6	0	7	0
Gas Flow Total Strontium	20	0	21	0
Gamma Spec Liquid RAD A-013 with Ba, La	21	0	71	0
Gamma Spec Liquid RAD A-013 with Iodine	4	0	4	0
SOLID				
Gamma Percent Leach	2	0	0	0
Gas Flow Radium 228	72	0	76	0
Tritium	315	0	367	0
Tritium by Pyrolysis	2	0	3	0
Carbon-14	229	0	261	0
Carbon-14 by Pyrolysis	3	0	3	0
LSC Iron-55	132	0	145	0
Alpha Spec Polonium Solid	66	0	83	0
Gamma Nickel 59 RAD A-022	116	0	127	0
LSC Chlorine-36 in Solids	1	0	1	0
Gamma Spec Ra226 RAD A-013	15	0	17	0
Gamma Spec Solid RAD A-013	946	0	1312	0
LSC Nickel 63	226	0	239	0
LSC Plutonium	209	0	216	0
Technetium-99	526	0	561	0
Gross Alpha Beta Soil Leach	24	0	29	0
ICP-MS Technetium-99 in Soil	7	0	6	0
LSC Selenium 79	10	0	12	0
Total Activity,	9	0	10	0
Tritium	29	0	29	0
Alpha Spec Am243	87	0	94	0
Gamma Iodine-129	142	0	164	0
Gas Flow Lead 210	13	0	14	0
Alpha Spec Uranium	551	0	628	0
LSC Promethium 147	4	0	4	0
LSC, Rapid Strontium 89 and 90	51	0	58	0
Alpha Spec Thorium	429	0	491	0
ICP-MS Uranium-233, 234 in Solid	99	0	100	0
LSC Sulfur 35	5	0	5	0
Alpha Spec Plutonium	510	0	497	0
ICP-MS Technetium-99 Prep in Soil	7	0	6	0
LSC Calcium 45	0	0	2	0
Alpha Spec Neptunium	383	0	392	0
Alpha Spec Plutonium	129	0	145	0

Total Radiological 2019	Bias Criteria (+ / - 25%		Precision Criteria (Note 1)	
	WITHIN CRITERIA	OUTSIDE CRITERIA	WITHIN CRITERIA	OUTSIDE CRITERIA
Alpha Spec Radium 226	34	0	43	0
Gas Flow Sr 2nd count	31	0	36	0
Gas Flow Strontium 90	316	0	297	0
Lucas Cell Radium 226	165	0	193	0
Total Activity Screen	1	0	1	0
Alpha Spec Am241 Curium	395	0	400	0
LSC Phosphorus-32	1	0	1	0
Alpha Spec Total Uranium	11	0	12	0
Gas Flow Total Strontium	75	0	76	0
ICP-MS Uranium-233, 234 Prep in Solid	99	0	103	0
ICP-MS Uranium-235, 236, 238 in Solid	84	0	85	0
Alpha Spec Polonium Solid	5	0	5	0
Gamma Spec Solid RAD A-013 with Iodine	16	0	37	0
GFC Chlorine-36 in Solids	29	0	29	0
Gamma Spec Solid RAD A-013 (pCi/Sample)	1	0	4	0
Tritium	5	0	5	0
Calculation for Percent Uranium and Ratios	2	0	0	0
ICP-MS Uranium-234, 235, 236, 238 in Solid	189	0	182	0
ICP-MS Uranium-235, 236, 238 Prep in Solid	81	0	85	0
Gross Alpha/Beta (Am/Cs Calibration) Solid	5	0	6	0
Gross Alpha/Beta	445	0	597	0
Gross Alpha/Beta (Americium Calibration) Solid	3	0	3	0
ICP-MS Uranium-234, 235, 236, 238 Prep in Solid	107	0	106	0
Gross Alpha Beta (F,U)	37	0	45	0
FILTER				
Alpha Spec Uranium	4	0	22	0
Alpha Spec Polonium	3	0	4	0
Gamma I-131, filter	4	0	4	0
LSC Plutonium Filter	59	0	91	0
Tritium	31	0	265	0
Alpha Spec Californium	1	0	1	0
Carbon-14	6	0	70	0
ICP-MS Tc-99 in Filter	0	0	4	0
Nickel-63	1	0	47	0
LSC Iron-55	42	0	68	0
Gamma Nickel 59 RAD A-022	56	0	84	0
Alpha Spec Californium FPL	4	0	14	0
Gamma Iodine 131 RAD A-013	3	0	3	0
LSC Nickel 63	46	0	73	0
Technetium-99	7	0	86	0
Gamma Spec Filter RAD A-013	111	0	181	0
ICP-MS Tc-99 Prep in Filter	0	0	4	0
Alphaspec Np Filter per Liter	16	0	22	0
Alphaspec Pu Filter per Liter	24	0	29	0
Gamma Iodine-129	4	0	54	0
Gross Alpha/Beta	0	0	115	0

Total Radiological 2019	Bias Criteria (+ / - 25%		Precision Criteria (Note 1)	
	WITHIN CRITERIA	OUTSIDE CRITERIA	WITHIN CRITERIA	OUTSIDE CRITERIA
Alpha Spec Am243	8	0	15	0
Alpha Spec Uranium	56	0	88	0
LSC Promethium 147	1	0	3	0
LSC, Rapid Strontium 89 and 90	55	0	77	0
Alpha Spec Thorium	34	0	55	0
Gas Flow Radium 228	2	0	4	0
Alpha Spec Plutonium	70	0	123	0
ICP-MS Uranium-233, 234 in Filter	0	0	4	0
Alpha Spec Neptunium	43	0	69	0
Alpha Spec Plutonium	63	0	113	0
Alpha Spec Plutonium	12	0	12	0
Alpha Spec Polonium,(Filter/Liter)	0	0	3	0
Alpha Spec Radium 226	1	0	4	0
Alpha/Beta (Americium Calibration)	0	0	1	0
Carbon-14 (Soda Lime)	0	0	2	0
Gas Flow Sr 2nd Count	31	0	45	0
Gas Flow Strontium 90	67	0	101	0
Gas Flow Total Radium	2	0	2	0
LSC Plutonium 241 Filter per Liter	29	0	42	0
Lucas Cell Radium-226	1	0	1	0
Alpha Spec Am241Curium	100	0	158	0
Gas Flow Total Strontium	3	0	4	0
ICP-MS Uranium-233, 234 Prep in Filter	0	0	3	0
ICP-MS Uranium-235, 236, 238 in Filter	2	0	5	0
Total Activity in Filter,	0	0	6	0
Alphaspec Am241 Curium Filter per Liter	30	0	55	0
Tritium	79	0	105	0
GFC Chlorine-36 in Filters	0	0	3	0
Gamma Spec Filter RAD A-013 Direct Count	2	0	7	0
Carbon-14	24	0	40	0
GFC Chlorine-36 in Filters PL	3	0	3	0
Gross A & B (Americium Calibration) Liquid	5	0	31	0
Direct Count-Gross Alpha/Beta	78	0	0	0
Gross Alpha/Beta	26	0	39	0
ICP-MS Uranium-234, 235, 236, 238 in Filter	4	0	78	0
ICP-MS Uranium-235, 236, 238 Prep in Filter	2	0	7	0
Alpha Spec U	25	0	64	0
Gross A & B	514	0	388	0
LSC Iron-55	6	0	10	0
Technetium-99	24	0	41	0
Gas Flow Sr-90	28	0	47	0
LSC Nickel 63	29	0	37	0
Gamma Spec Charcoal	9	0	11	0
Gas Flow Pb-210	20	0	38	0
Gas Flow Ra-228	22	0	35	0

Total Radiological 2019	Bias Criteria (+ / - 25%		Precision Criteria (Note 1)	
	WITHIN CRITERIA	OUTSIDE CRITERIA	WITHIN CRITERIA	OUTSIDE CRITERIA
Gross Alpha Beta (Flame, Unflame)	9	0	9	0
Direct Count- Alpha/Beta (Americium Calibration)	20	0	0	0
Gamma Iodine 129	29	0	29	0
ICP-MS Uranium-234, 235, 236, 238 Prep in Filter	2	0	39	0
Gamma Spec Filter	87	0	142	0
Lucas Cell Ra-226	16	0	25	0
Alpha Spec Thorium	18	0	31	0
LIQUID				
Alpha Spec Uranium	482	0	778	0
Alpha Spec Polonium	27	0	36	0
Tritium	1142	0	1267	0
Carbon-14	167	0	204	0
Plutonium	128	0	147	0
Chlorine-36 in Liquids	3	0	3	0
Iodine-131	2	0	2	0
LSC Iron-55	85	0	135	0
Gamma Nickel 59 RAD A-022	28	0	40	0
Gamma Iodine 131 RAD A-013	2	0	2	0
LSC Nickel 63	144	0	188	0
LSC Radon 222	17	0	16	0
Technetium-99	555	0	657	0
Direct Tritium	1	0	1	0
Gamma Spec Liquid RAD A-013	794	0	899	0
Alpha Spec Total U RAD A-011	17	0	17	0
LSC Selenium 79	31	0	33	0
Total Activity,	3	0	4	0
Alpha Spec Am243	14	0	28	0
Gamma Iodine-129	128	0	169	0
Gamma Iodine-131	19	0	19	0
ICP-MS Technetium-99 in Water	5	0	11	0
Gas Flow Lead 210	14	0	41	0
LSC Promethium 147	18	0	19	0
LSC, Rapid Strontium 89 and 90	8	0	10	0
Alpha Spec Polonium	2	0	2	0
Alpha Spec Thorium	190	0	287	0
Gas Flow Radium 228	387	0	474	0
Gas Flow Radium 228	9	0	9	0
Alpha Spec Plutonium	346	0	508	0
LSC Sulfur 35	11	0	12	0
Alpha Spec Neptunium	135	0	233	0
Alpha Spec Plutonium	25	0	29	0
Alpha Spec Radium 226	28	0	31	0
Gas Flow Sr 2nd count	73	0	108	0
Gas Flow Strontium 90	489	0	550	0
Gas Flow Strontium 90	2	0	2	0
Gas Flow Total Radium	183	0	156	0
ICP-MS Technetium-99 Prep in Water	6	0	12	0
ICP-MS Uranium-233, 234 in Liquid	6	0	21	0
LSC Calcium 45	11	0	12	0

Total Radiological 2019	Bias Criteria (+ / - 25%		Precision Criteria (Note 1)	
	WITHIN CRITERIA	OUTSIDE CRITERIA	WITHIN CRITERIA	OUTSIDE CRITERIA
Lucas Cell Radium 226	309	0	450	0
Lucas Cell Radium-226	10	0	10	0
Chlorine-36 in Liquids	17	0	27	0
Alpha Spec Am241 Curium	305	0	433	0
Gas Flow Total Strontium	77	0	88	0
Gross Alpha Non Vol Beta	830	0	1183	0
LSC Phosphorus-32	8	0	10	0
ICP-MS Uranium-233, 234 Prep in Liquid	10	0	24	0
Tritium in Drinking Water by EPA 906.0	5	0	3	0
Gamma Spec Liquid RAD A-013 with Ba, La	51	0	124	0
Gamma Spec Liquid RAD A-013 with Iodine	101	0	188	0
Gas Flow Strontium 89 & 90	5	0	3	0
ICP-MS Uranium-235, 236, 238 in Liquid	13	0	25	0
Gas Flow Total Alpha Radium	10	0	10	0
Gross Alpha Co-precipitation	4	0	7	0
ICP-MS Uranium-235, 236, 238 Prep in Liquid	9	0	24	0
Gross Alpha/Beta (Am/Cs Calibration) Liquid	2	0	2	0
Gross Alpha/Beta	0	0	3	0
ICP-MS Uranium-234, 235, 236, 238 in Liquid	170	0	172	0
Gross Alpha Beta (Flame, Unflame)	195	0	213	0
Gross Alpha Beta (Americium Calibration) Liquid	33	0	72	0
ICP-MS Uranium-234, 235, 236, 238 Prep in Liquid	84	0	85	0
Alpha/Beta (Americium Calibration) Drinking Water	27	0	19	0
ECLS-R-GA NJ 48 Hr Rapid Gross Alpha	4	0	3	0
TISSUE				
Gamma Spec Solid RAD A-013	46	0	62	0
Alpha Spec Uranium	10	0	12	0
Alpha Spec Plutonium	6	0	6	0
Gas Flow Sr 2nd count	7	0	7	0
Gas Flow Strontium 90	9	0	11	0
Alpha Spec Am241 Curium	3	0	3	0
Gas Flow Total Strontium	10	0	10	0
Gamma Spec Solid RAD A-013 with Iodine	13	0	14	0
Gross Alpha/Beta	1	0	2	0
VEGETATION				
Carbon-14	4	0	4	0
Gamma Spec Solid RAD A-013	42	0	30	0
Gas Flow Lead 210	1	0	3	0
Alpha Spec Uranium	29	0	21	0
Alpha Spec Thorium	5	0	6	0
Alpha Spec Plutonium	27	0	14	0
Gas Flow Sr 2nd count	8	0	8	0
Gas Flow Strontium 90	24	0	11	0

Total Radiological 2019	Bias Criteria (+ / - 25%		Precision Criteria (Note 1)	
	WITHIN CRITERIA	OUTSIDE CRITERIA	WITHIN CRITERIA	OUTSIDE CRITERIA
Gas Flow Total Radium	1	0	3	0
Lucas Cell Radium 226	1	0	1	0
Alpha Spec Am241 Curium	5	0	8	0
Gamma Spec Solid RAD A-013 with Iodine	63	0	79	0
Gamma Spec Solid RAD A-013 (pCi/Sample)	2	0	2	0
Alpha Spec Am241 (pCi/Sample)	1	0	2	0
Alpha Spec Uranium	1	0	2	0
Gross Alpha/Beta	3	0	3	0
Alpha Spec Plutonium	0	0	2	0
Gas Flow Strontium 90	4	0	2	0
AIR CHARCOAL				
Gamma Iodine-129	25	0	8	0
Carbon-14 (Soda Lime)	0	0	5	0
Carbon-14	12	0	12	0
Carbon-14 (Ascarite/Soda Lime Filter per Liter)	28	0	29	0
Gamma Spec Charcoal	12	0	12	0
Gamma Iodine 129	12	0	12	0
DRINKING WATER				
Alpha Spec Uranium	2	0	2	0
Tritium	21	0	25	0
Iodine-131	0	0	1	0
LSC Iron-55	14	0	16	0
LSC Nickel 63	14	0	16	0
LSC Radon 222	31	0	39	0
Gamma Spec Liquid RAD A-013	7	0	6	0
Gamma Iodine-129	1	0	2	0
Gamma Iodine-131	24	0	16	0
Gas Flow Radium 228	35	0	33	0
Gas Flow Sr 2nd count	10	0	11	0
Gas Flow Strontium 90	17	0	16	0
Gas Flow Total Radium	1	0	1	0
Lucas Cell Radium 226	1	0	0	0
Lucas Cell Radium-226	36	0	37	0
Gamma Spec Drinking Water RAD A-013	29	0	36	0
Gas Flow Total Strontium	13	0	15	0
Gross Alpha Non Vol Beta	142	0	151	0
Tritium in Drinking Water by EPA 906.0	30	0	32	0
Gamma Spec Liquid RAD A-013 with Ba, La	21	0	53	0
Gamma Spec Liquid RAD A-013 with Iodine	0	0	6	0
Gas Flow Strontium 89 & 90	20	0	14	0
Gas Flow Total Alpha Radium	1	0	1	0
ICP-MS Uranium-234, 235, 236, 238 in Liquid	2	0	2	0
ICP-MS Uranium-234, 235, 236, 238 Prep in Liquid	1	0	1	0
Alpha/Beta (Americium Calibration) Drinking Water	10	0	10	0
ECLS-R-GA NJ 48 Hr Rapid Gross Alpha	19	0	16	0
Total	**18630**		**23501**	

Total Radiological 2019	Bias Criteria (+ / - 25%		Precision Criteria (Note 1)	
	WITHIN CRITERIA	OUTSIDE CRITERIA	WITHIN CRITERIA	OUTSIDE CRITERIA

Note 1: 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.

TABLE 6.1-5

2019 CORRECTIVE ACTION REPORT SUMMARY

CORRECTIVE ACTION ID# & PE FAILURE	DISPOSITION
CARR190225-1192 ISO Documentation of PT Failures in RAD 116 for Strontium-89.	**Root Cause Analysis** **Strontium-89 in Drinking Water by EPA 905.0 and 905.0 Mod.** A review of the data as well as the preparation processes did not reveal any errors or possible contributors to the high bias. The Laboratory has concluded that this positive bias was an isolated occurrence and that our overall process is within control. In addition, the reported value is 117% of the reference value which is within the laboratory's standard acceptance criteria of +/- 25% for Laboratory Control Samples. **Permanent Corrective/Preventive Actions or Improvements** The laboratory must assume unidentified random errors caused the biases because all quality control criteria were met for the batches. The laboratory will continue to monitor
CARR190530-1211 **ISO Documentation of PT Failures in MRAD-30 for:** • Uranium-238 by 6020 (in soil) • Sr-90 (in vegetation) • Pu-238 (in vegetation) • Uranium-238 (in vegetation) • Uranium-Total (in vegetation)	**Root Cause Analysis** Upon receipt of the report, an investigation was initiated by our Quality Department and a Corrective Action (CARR) team assembled. The team consisted of representatives from the affected areas. The sample preparation and analytical processes were reviewed. This included review of reagents and standards used in the sample preparation steps, calibration records, process control samples, instruments used during analysis and interviews with the analysts. The investigation determined that the laboratory met all quality control criteria specified in the methods. Additionally, all internal procedures and processes were evaluated and found to have been performed as required. These failures were tracked through GEL's internal non-conformance system. Additionally, trending of historical PT samples for these isotope/matrix/methods were conducted. Specific tendencies of failures were not observed. **Uranium-238 by 6020:** Per the method an acid leach is used instead of a more aggressive total dissolution that other methods use. This method is not the laboratory's standard method of choice for the analysis of Uranium-238.

CORRECTIVE ACTION ID# & PE FAILURE	DISPOSITION
	Permanent Corrective/Preventive Actions or Improvements The laboratory does not use this digestion method for this isotope and therefore will discontinue analyzing and reporting a PT by using this method. **Sr-90:** A reanalysis for Strontium for the Vegetation sample was performed using a larger aliquot. The reanalysis was performed using the same processes as the original reported analysis. The reanalysis result meets the acceptance range with 96% recovery. **Permanent Corrective/Preventive Actions or Improvements** None at this time. A reanalysis was performed and results were within acceptance limits. The laboratory will continue to monitor the recoveries of these parameters to ensure that there are no continued issues in the processes **Pu-238:** A reanalysis for Plutonium for the Vegetation sample was performed using approximately the same size aliquot. Prior to the analysis, the sample was shaken and stirred vigorously to ensure homogenization. Reanalysis values fell within the acceptability range for all Plutonium isotopes. It is noted that the Pu-238 count rate is low (0.05 cpm) which results in an uncertainty of 32% at the 95% confidence interval, even with a long count time of 1000 minutes. The reported Pu-238 result is 116% of the study mean and the Z score is less than 1. Failure was potentially due to high uncertainty due to low count rates for the Pu-238, as well as a possible homogeneity issue **Permanent Corrective/Preventive Actions or Improvements** None at this time. A reanalysis was performed and results were within acceptance limits. The laboratory will continue to monitor the recoveries of these parameters to ensure that there are no continued issues in the processes **U-238/Total U mass:** A reanalysis for Uranium for the Vegetation sample was performed using approximately the same size aliquot. Prior to the analysis, the sample was shaken and stirred vigorously to ensure homogenization. Reanalysis values fell within the acceptability range for all Uranium isotopes. The original Uranium results were 126% (for U-234) and 129% (for U-238) of the assigned value, yet the Z-scores were both less than 1 and the results were 106% and 108% of the study mean. Additionally, the U-238 value fails, while the Total Uranium value in Activity units (which is simply a calculation) passes, and the Total Uranium in mass units

CORRECTIVE ACTION ID# & PE FAILURE	DISPOSITION
	(simply a conversion from the activity results) fails. Failures were potentially due to a possible homogeneity issue. **Permanent Corrective/Preventive Actions or Improvements** None at this time. A reanalysis was performed and results were within acceptance limits. The laboratory will continue to monitor the recoveries of these parameters to ensure that there are no continued issues in the processes.
CARR190603-1212 **ISO Documentation of PT Failures in MAPEP-19-MaS40:** • Fe-55	**Root Cause Analysis** Upon receipt of the report, an investigation was initiated by our Quality Department and a Corrective Action (CARR) team assembled. The team consisted of representatives from the affected areas. The sample preparation and analytical processes were reviewed. This included review of reagents and standards used in the sample preparation steps, calibration records, process control samples, instruments used during analysis and interviews with the analysts. The investigation determined that the laboratory met all quality control criteria specified in the methods. Additionally, all internal procedures and processes were evaluated and found to have been performed as required. These failures were tracked through GEL's internal non-conformance system. **Iron-55:** In reviewing the data, it was found that too small of an aliquot was used in the original analysis resulting in a high uncertainty in the result and variance or results between counts. A larger aliquot was used during reanalysis and the result was within the acceptance range and had a lower uncertainty. **Permanent Corrective/Preventive Actions or Improvements** None at this time. A reanalysis was performed and results were within acceptance limits. The laboratory will continue to monitor the recoveries of these parameters to ensure that there are no continued issues in the processes.
CARR190826-1250 **ISO Documentation of PT Failures in RAD-118** • Sr-89 • Gross Alpha	**Root Cause Analysis** Upon receipt of the report, an investigation was initiated by our Quality Department and a Corrective Action (CARR) team assembled. The team consisted of representatives from the affected areas. The sample preparation and analytical processes were reviewed. This included review of reagents and standards used in the sample preparation steps, calibration records, process control

CORRECTIVE ACTION ID# & PE FAILURE	DISPOSITION
	samples, instruments used during analysis and interviews with the analysts. The investigation determined that the laboratory met all quality control criteria specified in the methods. Additionally, all internal procedures and processes were evaluated and found to have been performed as required. These failures were tracked through GEL's internal non-conformance system. **Strontium-89:** A review of the data as well as the preparation processes did not reveal any errors or possible contributors to the high bias. In addition, the reported value is 118% of the reference value which is with the laboratory's standard acceptance criteria of +/- 25% for Laboratory Control Samples. In addition, the Sr-89 was also reported by a method using separation resin and the result was with the acceptance range. The results from the two methods compared with a relative percent difference (RPD) of 11.1% which meets the laboratory's duplicate acceptance criteria. **Gross Alpha:** The analysis data was reviewed and no errors were found. The investigation into the sample preparation did not result in any contributors to the high bias. This analysis was performed by Co-Precipitation. The laboratory also reported the gross alpha analysis by the evaporation method (EPA 900.0) and had an acceptable result. The laboratory's alpha results between the two methods compared with a relative percent difference (RPD) of 9.45% which meets the laboratory's duplicate acceptance criteria. **Permanent Corrective/Preventive Actions or Improvements** The Laboratory has concluded that these positive biases were isolated occurrences and that the overall process is within control. The lab will complete PT studies for these parameters as they become available to verify that these were isolated incidences.
CARR191212-1262 **ISO Documentation of PT Failures in MRAD-31** • Pb-212	**Root Cause Analysis** Upon receipt of the report, an investigation was initiated by our Quality Department and a Corrective Action (CARR) team assembled. The team consisted of representatives from the affected areas. The sample preparation and analytical processes were reviewed. This included review of reagents and standards used in the sample preparation steps, calibration records, process control samples, instruments used during analysis and interviews with the analysts.

CORRECTIVE ACTION ID# & PE FAILURE	DISPOSITION
	The investigation determined that the laboratory met all quality control criteria specified in the methods. Additionally, all internal procedures and processes were evaluated and found to have been performed as required. These failures were tracked through GEL's internal non-conformance system. **Lead-212:** The data was reviewed and no anomalies noted. The Duplicate result of the original analysis met the acceptance criteria of the study and replication criteria of the laboratory. Laboratory processes were evaluated and no errors were found. The other reported analytes for the method were within the limits of the study. A definitive contributor to the slightly high bias could not be identified concluding that this was an isolated occurrence. **Permanent Corrective/Preventive Actions or Improvements** None at this time. The laboratory will continue to monitor the recoveries of these parameters to ensure that there are no continued issues in the processes
CARR191212-1265 **ISO Documentation of PT Failures in MAPEP-19-MaW41** • Ra-226	**Root Cause Analysis** Upon receipt of the report, an investigation was initiated by our Quality Department and a Corrective Action (CARR) team assembled. The team consisted of representatives from the affected laboratory areas. The sample preparation and analytical processes were reviewed. This included review of reagents and standards used in the sample preparation steps, calibration records, process control samples, and interviews with the analysts. The investigation determined that the laboratory met all quality control criteria specified in each method. Additionally, all internal procedures and policies were performed as required. These failures were tracked through GEL's internal non-conformance system. The laboratory reviewed the data and no errors were found. The preparation and counting processes were reviewed and no anomalies were noted. It was noted that verification counts of the sample preparations were within limits and met laboratory replication criteria **Permanent Corrective/Preventive Actions or Improvements** None at this time. The laboratory will continue to monitor the recoveries of these parameters to ensure that there are no continued issues in the processes

6.2 Environmental TLD QA

Environmental dosimetry services for the reporting period of January – December, 2019 were provided through Stanford Dosimetry, with TLD processing by the Environmental Dosimetry Company (EDC), Sterling, Massachusetts. The TLD systems at the Environmental Dosimetry Company (EDC) are calibrated and operated to ensure consistent and accurate evaluation of TLDs. The quality of the dosimetric results reported to EDC clients is ensured by in-house performance testing and independent performance testing by EDC clients.

The purpose of the dosimetry quality assurance program is to provide performance documentation of the routine processing of EDC dosimeters. Performance testing provides a statistical measure of the bias and precision of dosimetry processing against a reliable standard, which in turn points out any trends or performance changes. Dosimetry quality control tests are performed on EDC Panasonic 814 Environmental dosimeters. These tests include: (1) the in-house testing program conducted by the EDC QA Officer and (2) independent test perform by EDC clients. In-house test are performed using six pairs of 814 dosimeters, a pair is reported as an individual result and six pairs are reported as the mean result.

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

Table 6.2-1 provides a summary of individual dosimeter results evaluated against the EDC internal acceptance criteria for high-energy photons (Cs-137) only. The internal acceptance (tolerance) criteria for the Panasonic Environmental dosimeters are: ± 15% for bias and ± 12.8% for precision. During this period, 100% (72/72) of the individual dosimeters, evaluated against these criteria met the tolerance limits for accuracy and 100% (72/72) met the criterion for precision.

Table 6.2-2 provides the Bias + Standard deviation results for each group (N=6) of dosimeters evaluated against the internal tolerance criteria. Overall, 100% (12/12) of the dosimeter sets evaluated against the internal tolerance performance criteria met these criteria.

Table 6.2-3 presents the independent blind spike results for irradiated dosimeters provided by client utilities during this annual period. All results passed the performance acceptance criterion.

Table 6.2-4 presents the independent blind duplicate results for dosimeters co-located with field dosimeters provided by the client utility (Seabrook Station) during the annual period. All results passed the performance criteria of agreement to within 20% (within 3-sigma) of the field dosimeter.

TABLE 6.2-1

PERCENTAGE OF INDIVIDUAL DOSIMETERS THAT PASSED EDC INTERNAL CRITERIA JANUARY – DECEMBER 2019[(1), (2)]

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

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

TABLE 6.2-2

MEAN DOSIMETER ANALYSES (N=6)
JANUARY – DECEMBER 2019[1], [2]

Process Date	Exposure Level	Mean Bias %	Standard Deviation %	Tolerance Limit +/-15%
4/25/2019	26	1.8	1.7	Pass
4/29/2019	51	3.1	1.5	Pass
5/04/2019	85	-0.4	1.4	Pass
7/28/2019	75	5.9	1.1	Pass
7/30/2019	32	2.8	1.2	Pass
8/4/2019	107	-0.7	1.2	Pass
10/25/2019	64	1.8	1.2	Pass
11/04/2019	90	-0.5	1.8	Pass
11/05/2019	117	3.0	1.7	Pass
01/20/2020	45	1.0	2.0	Pass
01/30/2020	57	1.8	2.6	Pass
02/17/2020	121	-2.6	2.4	Pass

[1] This table summarizes results of tests conducted by EDC for TLDs issued in 2019.
[2] Environmental dosimeter results are free in air.

TABLE 6.2-3

SUMMARY OF INDEPENDENT DOSIMETER TESTING
JANUARY – DECEMBER 2019[1], [2]

Issuance Period	Client	Mean Bias %	Standard Deviation %	Pass / Fail
1st Qtr. 2019	Millstone	0.6	2.6	Pass
2nd Qtr.2019	Seabrook	7.8	2.0	Pass
3rd Qtr. 2019	SONGS	0.1	2.4	Pass
3rd Qtr. 2019	Millstone	1.1	1.9	Pass
4th Qtr.2019	PSEG(PNNL)	-3.2	0.9	Pass
4th Qtr.2019	Seabrook	0.9	1.0	Pass

[1] Performance criterion is +/- 15%.
[2] Blind spike irradiations using Cs-137

TABLE 6.2-4

SUMMARY OF INDEPENDENT BLIND DUPLICATE DOSIMETER TESTING
JANUARY – DECEMBER 2019[1]

Issuance Period	Client	Number Tested	Mean Bias %	Standard Deviation %	% Passed Precision Criteria
1st Qtr. 2019	Seabrook	12	-1.5	3.1	Pass
2nd Qtr.2019	Seabrook	6	-3.6	3.8	Pass
3rd Qtr. 2019	Seabrook	12	-3.7	2.9	Pass
4th Qtr.2019	Seabrook	6	-2.0	2.7	Pass

[1] Performance criterion is Bias % within +/- 20% for each test dosimeter.

7.0 Land Use Census

The Offsite Dose Calculation Manual (ODCM Control 9.2.1) requires that a Land Use Census be conducted annually to identify the location of the nearest residence, milk animal and nearest garden of greater than 50 square meters producing broad leaf vegetation in each of the 16 meteorological sectors within five miles of the plant. The 2019 census was completed in accordance with the requirements of the ODCM. In 2019, a global positioning system was used to determine locations in the off-site environs with respect to the center of the site (Unit 1 Containment).

The nearest resident, garden and milk animal locations identified in the 2019 Land Use Census and their distances are shown in Table 7.0-1. There were no changes in the identification of nearest residents or gardens from last year's census.

There were no new milk producing locations identified within the required 5 miles (8 km) of the plant that were different from those reported in the last year's land use census. As a result, there still remains an insufficient number of milk producing locations to qualify milk sampling as a REMP media per the requirements of ODCM Table A.9.1-1.

The results of this year's census also showed that the sampling locations used in the REMP continue to have the highest calculated dose commitments of available locations. In 2019, broad leaf vegetation continued as part of the sample collection and analysis program due to the absence of sufficient milk producing locations to provide REMP samples. Sampling locations for broad leaf vegetation are at the site boundary near points of highest predicted D/Q. This option continues, as opposed to public owned vegetable gardens located by the land use census, in order to ensure adequate availability of samples for REMP analysis from locations with the highest potential for detecting plant effluents.

Table 7.0-1

2019 Land Use Census Results
(Within 5 Miles)

Sector	Nearest Residence (km)	Nearest Garden (km)	Nearest Milk Animal (km)
N	2.78	3.99	
NNE	3.09	3.20	
NE	2.92	4.40	
ENE	2.31	2.53	
E	2.56	---	
ESE	2.43	---	
SE	2.36	4.69	
SSE	1.65	---	
S	1.21	1.25	
SSW	1.12	1.22	
SW	1.13	1.73	
WSW	1.87	2.33	
W	1.25	1.55	
WNW	1.11	3.08	
NW	1.22	3.14	6.93
NNW	1.04	2.07	5.32 [a]

[a] No milking goats at this time.

Attachment 1: Sample Analysis Data List for 2019

FLAGS

A blank Flag field indicates that the measured activity is considered positive as it is greater than the MDC and has no other qualifiers noted.

U: Target isotope was analyzed for but not detected above the MDC and LLD.
UI: Uncertain identification for gamma spectroscopy.
X: Lab-specific qualifier:
(1) False positive due to the presence of radon gas in the water.
M: Reported result is less than the LLD and greater than the MDC.
DL: Measured MDC is greater than the LLD.
DL*: Near miss of MDC being within round-off difference of being greater than the LLD.

Seabrook REMP Summary of 2019 Data

SAMPLE TYPE	STATION	LSN	END DATE	NUCLIDE	CONC (pCi/kg)	STD.DEV. (pCi/kg)	MDC (pCi/kg)	FLAGS
AL	05	480351001	5/21/2019	Ac-228	-2.24E+01	2.67E+01	7.86E+01	U
AL	05	480351001	5/21/2019	Ag-108m	1.93E+00	4.16E+00	1.44E+01	U
AL	05	480351001	5/21/2019	Ag-110m	-3.58E+00	7.22E+00	2.21E+01	U
AL	05	480351001	5/21/2019	Ba-140	7.20E+01	4.09E+01	9.43E+01	U
AL	05	480351001	5/21/2019	Be-7	2.24E+02	7.24E+01	1.12E+02	
AL	05	480351001	5/21/2019	Ce-141	-2.75E+00	7.17E+00	2.26E+01	U
AL	05	480351001	5/21/2019	Ce-144	4.99E+00	2.55E+01	8.32E+01	U
AL	05	480351001	5/21/2019	Co-57	1.36E+00	3.21E+00	1.06E+01	U
AL	05	480351001	5/21/2019	Co-58	6.32E+00	5.16E+00	1.67E+01	U
AL	05	480351001	5/21/2019	Co-60	7.78E-01	6.78E+00	2.31E+01	U
AL	05	480351001	5/21/2019	Cr-51	2.30E+01	4.14E+01	1.45E+02	U
AL	05	480351001	5/21/2019	Cs-134	-3.21E+00	5.65E+00	1.74E+01	U
AL	05	480351001	5/21/2019	Cs-137	-2.22E+00	5.25E+00	1.67E+01	U
AL	05	480351001	5/21/2019	Fe-59	-2.29E+01	1.56E+01	4.00E+01	U
AL	05	480351001	5/21/2019	I-131	4.65E+00	9.56E+00	3.04E+01	U
AL	05	480351001	5/21/2019	K-40	9.81E+03	6.14E+02	1.37E+02	
AL	05	480351001	5/21/2019	La-140	5.70E+00	8.15E+00	2.95E+01	U
AL	05	480351001	5/21/2019	Mn-54	-6.65E+00	5.05E+00	1.35E+01	U
AL	05	480351001	5/21/2019	Nb-95	9.34E-01	5.24E+00	1.75E+01	U
AL	05	480351001	5/21/2019	Ru-103	4.31E+00	5.15E+00	1.64E+01	U
AL	05	480351001	5/21/2019	Ru-106	-2.10E+01	3.99E+01	1.26E+02	U
AL	05	480351001	5/21/2019	Sb-124	-9.84E+00	1.04E+01	2.78E+01	U
AL	05	480351001	5/21/2019	Sb-125	-1.10E+01	1.11E+01	3.40E+01	U
AL	05	480351001	5/21/2019	Se-75	5.50E+00	6.45E+00	2.08E+01	U
AL	05	480351001	5/21/2019	Th-228	1.39E+01	1.24E+01	3.00E+01	U
AL	05	480351001	5/21/2019	Zn-65	-1.08E+01	1.37E+01	3.96E+01	U
AL	05	480351001	5/21/2019	Zr-95	4.28E+00	8.45E+00	2.87E+01	U
AL	05	497223001	11/14/2019	Ac-228	1.15E+01	1.42E+01	3.98E+01	U
AL	05	497223001	11/14/2019	Ag-108m	-2.30E+00	1.86E+00	5.62E+00	U
AL	05	497223001	11/14/2019	Ag-110m	-2.06E+00	3.20E+00	1.04E+01	U
AL	05	497223001	11/14/2019	Ba-140	-1.13E+00	1.24E+01	4.03E+01	U
AL	05	497223001	11/14/2019	Be-7	2.85E+02	4.39E+01	6.60E+01	
AL	05	497223001	11/14/2019	Ce-141	5.77E+00	4.09E+00	1.18E+01	U
AL	05	497223001	11/14/2019	Ce-144	-8.62E+00	1.26E+01	3.86E+01	U
AL	05	497223001	11/14/2019	Co-57	2.91E+00	1.68E+00	5.15E+00	U
AL	05	497223001	11/14/2019	Co-58	-8.39E-01	3.08E+00	8.29E+00	U
AL	05	497223001	11/14/2019	Co-60	3.30E+00	2.80E+00	9.35E+00	U
AL	05	497223001	11/14/2019	Cr-51	-2.92E+01	2.06E+01	6.26E+01	U
AL	05	497223001	11/14/2019	Cs-134	7.45E-01	2.51E+00	8.62E+00	U
AL	05	497223001	11/14/2019	Cs-137	2.55E+00	2.51E+00	8.15E+00	U
AL	05	497223001	11/14/2019	Fe-59	-7.20E+00	6.39E+00	1.95E+01	U
AL	05	497223001	11/14/2019	I-131	7.97E+00	6.08E+00	1.59E+01	U
AL	05	497223001	11/14/2019	K-40	7.18E+03	3.52E+02	7.29E+01	
AL	05	497223001	11/14/2019	La-140	-1.10E+00	3.23E+00	1.00E+01	U
AL	05	497223001	11/14/2019	Mn-54	6.03E+00	3.54E+00	8.07E+00	U
AL	05	497223001	11/14/2019	Nb-95	1.94E-01	2.77E+00	8.80E+00	U
AL	05	497223001	11/14/2019	Ru-103	-1.33E+00	2.40E+00	7.61E+00	U
AL	05	497223001	11/14/2019	Ru-106	2.36E+01	2.22E+01	7.22E+01	U
AL	05	497223001	11/14/2019	Sb-124	-3.80E+00	4.48E+00	1.28E+01	U

Seabrook REMP Summary of 2019 Data

SAMPLE TYPE	STATION	LSN	END DATE	NUCLIDE	CONC (pCi/kg)	STD.DEV. (pCi/kg)	MDC (pCi/kg)	FLAGS
AL	05	497223001	11/14/2019	Sb-125	3.74E+00	5.76E+00	1.92E+01	U
AL	05	497223001	11/14/2019	Se-75	3.01E+00	2.64E+00	8.90E+00	U
AL	05	497223001	11/14/2019	Th-228	4.74E+01	8.72E+00	1.12E+01	
AL	05	497223001	11/14/2019	Zn-65	5.01E+00	6.48E+00	2.18E+01	U
AL	05	497223001	11/14/2019	Zr-95	8.40E-01	4.67E+00	1.49E+01	U
AL	55	480351002	5/23/2019	Ac-228	2.05E+01	2.12E+01	7.42E+01	U
AL	55	480351002	5/23/2019	Ag-108m	3.88E+00	5.10E+00	1.65E+01	U
AL	55	480351002	5/23/2019	Ag-110m	-8.95E+00	7.01E+00	1.96E+01	U
AL	55	480351002	5/23/2019	Ba-140	3.80E+00	3.14E+01	1.02E+02	U
AL	55	480351002	5/23/2019	Be-7	3.11E+02	1.01E+02	1.64E+02	
AL	55	480351002	5/23/2019	Ce-141	2.20E+00	9.55E+00	2.97E+01	U
AL	55	480351002	5/23/2019	Ce-144	-2.23E+01	2.88E+01	9.43E+01	U
AL	55	480351002	5/23/2019	Co-57	-4.42E-01	3.69E+00	1.26E+01	U
AL	55	480351002	5/23/2019	Co-58	1.41E+01	1.27E+01	2.25E+01	U
AL	55	480351002	5/23/2019	Co-60	-5.44E-01	5.48E+00	1.77E+01	U
AL	55	480351002	5/23/2019	Cr-51	7.49E+01	5.46E+01	1.84E+02	U
AL	55	480351002	5/23/2019	Cs-134	-8.58E-01	6.47E+00	2.00E+01	U
AL	55	480351002	5/23/2019	Cs-137	3.28E+00	5.64E+00	1.86E+01	U
AL	55	480351002	5/23/2019	Fe-59	7.62E+00	1.24E+01	4.28E+01	U
AL	55	480351002	5/23/2019	I-131	0.00E+00	4.20E+01	4.30E+01	U
AL	55	480351002	5/23/2019	K-40	8.58E+03	5.37E+02	1.22E+02	
AL	55	480351002	5/23/2019	La-140	-4.88E+00	9.27E+00	2.67E+01	U
AL	55	480351002	5/23/2019	Mn-54	-9.99E-01	6.14E+00	2.04E+01	U
AL	55	480351002	5/23/2019	Nb-95	4.81E+00	6.09E+00	2.13E+01	U
AL	55	480351002	5/23/2019	Ru-103	7.01E+00	6.49E+00	2.17E+01	U
AL	55	480351002	5/23/2019	Ru-106	1.98E+01	4.68E+01	1.54E+02	U
AL	55	480351002	5/23/2019	Sb-124	3.94E-01	1.11E+01	3.59E+01	U
AL	55	480351002	5/23/2019	Sb-125	-1.15E+01	1.27E+01	3.78E+01	U
AL	55	480351002	5/23/2019	Se-75	-1.86E+00	6.69E+00	2.20E+01	U
AL	55	480351002	5/23/2019	Th-228	3.00E+01	1.92E+01	3.44E+01	U
AL	55	480351002	5/23/2019	Zn-65	2.89E+01	1.63E+01	5.54E+01	U
AL	55	480351002	5/23/2019	Zr-95	-3.95E-01	1.06E+01	3.57E+01	U
AL	55	497223002	11/14/2019	Ac-228	0.00E+00	2.00E+01	3.58E+01	U
AL	55	497223002	11/14/2019	Ag-108m	4.49E-01	1.53E+00	5.06E+00	U
AL	55	497223002	11/14/2019	Ag-110m	-1.96E+00	3.23E+00	9.05E+00	U
AL	55	497223002	11/14/2019	Ba-140	1.54E+01	1.25E+01	4.05E+01	U
AL	55	497223002	11/14/2019	Be-7	4.21E+02	4.08E+01	5.48E+01	
AL	55	497223002	11/14/2019	Ce-141	-8.26E+00	3.55E+00	8.94E+00	U
AL	55	497223002	11/14/2019	Ce-144	-5.07E+00	1.01E+01	3.21E+01	U
AL	55	497223002	11/14/2019	Co-57	6.84E-01	1.29E+00	4.21E+00	U
AL	55	497223002	11/14/2019	Co-58	7.21E-01	2.10E+00	7.10E+00	U
AL	55	497223002	11/14/2019	Co-60	3.10E+00	2.44E+00	7.99E+00	U
AL	55	497223002	11/14/2019	Cr-51	-8.41E+00	1.71E+01	5.66E+01	U
AL	55	497223002	11/14/2019	Cs-134	6.38E-01	2.07E+00	7.02E+00	U
AL	55	497223002	11/14/2019	Cs-137	3.55E+00	2.32E+00	7.31E+00	U
AL	55	497223002	11/14/2019	Fe-59	-6.99E+00	4.99E+00	1.43E+01	U
AL	55	497223002	11/14/2019	I-131	0.00E+00	6.63E+00	1.45E+01	U
AL	55	497223002	11/14/2019	K-40	6.19E+03	3.09E+02	6.18E+01	
AL	55	497223002	11/14/2019	La-140	-2.29E+00	3.34E+00	1.04E+01	U

Seabrook REMP Summary of 2019 Data

SAMPLE TYPE	STATION	LSN	END DATE	NUCLIDE	CONC (pCi/kg)	STD.DEV. (pCi/kg)	MDC (pCi/kg)	FLAGS
AL	55	497223002	11/14/2019	Mn-54	-2.71E-01	1.97E+00	6.56E+00	U
AL	55	497223002	11/14/2019	Nb-95	3.21E+00	2.47E+00	8.28E+00	U
AL	55	497223002	11/14/2019	Ru-103	3.94E-01	2.04E+00	6.67E+00	U
AL	55	497223002	11/14/2019	Ru-106	-3.47E+00	1.77E+01	5.59E+01	U
AL	55	497223002	11/14/2019	Sb-124	-1.31E+00	3.70E+00	1.19E+01	U
AL	55	497223002	11/14/2019	Sb-125	-1.87E+00	4.72E+00	1.53E+01	U
AL	55	497223002	11/14/2019	Se-75	-4.49E-01	2.21E+00	7.48E+00	U
AL	55	497223002	11/14/2019	Th-228	2.03E+01	6.36E+00	1.06E+01	
AL	55	497223002	11/14/2019	Zn-65	-9.05E+00	5.93E+00	1.69E+01	U
AL	55	497223002	11/14/2019	Zr-95	-3.34E+00	3.95E+00	1.27E+01	U

Seabrook REMP Summary of 2019 Data

SAMPLE TYPE	STATION	LSN	END DATE	NUCLIDE	CONC (pCi/m^3)	STD.DEV. (pCi/m^3)	MDC (pCi/m^3)	FLAGS
AP	01	469297001	1/16/2019	BETA	2.47E-02	1.12E-03	1.05E-03	
AP	01	470206001	1/30/2019	BETA	2.45E-02	1.12E-03	1.06E-03	
AP	01	471371001	2/11/2019	BETA	2.68E-02	1.23E-03	1.07E-03	
AP	01	472602001	2/27/2019	BETA	2.67E-02	1.09E-03	8.10E-04	
AP	01	473844001	3/13/2019	BETA	2.66E-02	1.17E-03	1.06E-03	
AP	01	474872001	3/27/2019	BETA	2.30E-02	1.12E-03	9.78E-04	
AP	01	478604001	3/27/2019	Ac-228	-2.34E-04	4.57E-04	1.42E-03	U
AP	01	478604001	3/27/2019	Ag-108m	1.10E-05	8.16E-05	2.53E-04	U
AP	01	478604001	3/27/2019	Ag-110m	2.44E-05	1.73E-04	5.64E-04	U
AP	01	478604001	3/27/2019	Ba-140	1.97E-02	4.76E-02	1.57E-01	U
AP	01	478604001	3/27/2019	Be-7	1.26E-01	9.29E-03	6.94E-03	
AP	01	478604001	3/27/2019	Ce-141	-1.48E-03	7.83E-04	2.07E-03	U
AP	01	478604001	3/27/2019	Ce-144	1.74E-04	3.91E-04	1.36E-03	U
AP	01	478604001	3/27/2019	Co-57	2.99E-05	5.32E-05	1.85E-04	U
AP	01	478604001	3/27/2019	Co-58	-1.92E-04	2.12E-04	6.46E-04	U
AP	01	478604001	3/27/2019	Co-60	1.51E-04	7.78E-05	3.01E-04	U
AP	01	478604001	3/27/2019	Cr-51	-4.02E-03	6.36E-03	2.01E-02	U
AP	01	478604001	3/27/2019	Cs-134	1.89E-04	1.14E-04	3.99E-04	U
AP	01	478604001	3/27/2019	Cs-137	0.00E+00	1.67E-04	2.66E-04	U
AP	01	478604001	3/27/2019	Fe-59	-4.19E-04	6.17E-04	1.84E-03	U
AP	01	478604001	3/27/2019	I-131	-2.00E-01	2.70E-01	0.00E+00	U
AP	01	478604001	3/27/2019	K-40	9.21E-03	1.75E-03	3.20E-03	
AP	01	478604001	3/27/2019	La-140	-3.30E-02	1.70E-02	2.30E-02	U
AP	01	478604001	3/27/2019	Mn-54	-4.37E-05	1.16E-04	3.79E-04	U
AP	01	478604001	3/27/2019	Nb-95	3.44E-06	2.34E-04	7.91E-04	U
AP	01	478604001	3/27/2019	Ru-103	4.09E-04	3.55E-04	1.21E-03	U
AP	01	478604001	3/27/2019	Ru-106	1.07E-03	9.30E-04	3.12E-03	U
AP	01	478604001	3/27/2019	Sb-124	-4.39E-04	4.72E-04	1.14E-03	U
AP	01	478604001	3/27/2019	Sb-125	-1.23E-04	2.26E-04	7.05E-04	U
AP	01	478604001	3/27/2019	Se-75	7.62E-05	1.62E-04	5.48E-04	U
AP	01	478604001	3/27/2019	Th-228	1.06E-04	1.61E-04	4.69E-04	U
AP	01	478604001	3/27/2019	Zn-65	-3.82E-04	2.31E-04	5.36E-04	U
AP	01	478604001	3/27/2019	Zr-95	3.63E-04	4.24E-04	1.49E-03	U
AP	01	476459001	4/10/2019	BETA	1.64E-02	8.95E-04	8.38E-04	
AP	01	477788001	4/24/2019	BETA	1.45E-02	8.83E-04	9.26E-04	
AP	01	478754001	5/8/2019	BETA	1.51E-02	8.97E-04	9.17E-04	
AP	01	480192001	5/22/2019	BETA	1.59E-02	9.28E-04	9.30E-04	
AP	01	481290001	6/5/2019	BETA	1.06E-02	7.90E-04	9.93E-04	
AP	01	482681001	6/19/2019	BETA	1.67E-02	9.59E-04	9.46E-04	
AP	01	486655001	6/19/2019	Ac-228	-8.89E-04	4.80E-04	1.32E-03	U
AP	01	486655001	6/19/2019	Ag-108m	-1.41E-04	9.66E-05	2.63E-04	U
AP	01	486655001	6/19/2019	Ag-110m	-8.42E-05	1.69E-04	5.40E-04	U
AP	01	486655001	6/19/2019	Ba-140	2.71E-02	4.95E-02	1.69E-01	U
AP	01	486655001	6/19/2019	Be-7	9.82E-02	8.06E-03	7.25E-03	
AP	01	486655001	6/19/2019	Ce-141	-6.75E-04	8.91E-04	2.56E-03	U
AP	01	486655001	6/19/2019	Ce-144	8.42E-05	5.57E-04	1.79E-03	U

Seabrook REMP Summary of 2019 Data

SAMPLE TYPE	STATION	LSN	END DATE	NUCLIDE	CONC (pCi/m^3)	STD.DEV. (pCi/m^3)	MDC (pCi/m^3)	FLAGS
AP	01	486655001	6/19/2019	Co-57	-1.45E-05	6.78E-05	2.16E-04	U
AP	01	486655001	6/19/2019	Co-58	1.90E-04	2.76E-04	8.25E-04	U
AP	01	486655001	6/19/2019	Co-60	1.47E-04	1.45E-04	5.02E-04	U
AP	01	486655001	6/19/2019	Cr-51	-1.37E-02	8.25E-03	2.27E-02	U
AP	01	486655001	6/19/2019	Cs-134	1.91E-04	1.51E-04	4.72E-04	U
AP	01	486655001	6/19/2019	Cs-137	-9.68E-05	1.22E-04	3.12E-04	U
AP	01	486655001	6/19/2019	Fe-59	1.44E-03	8.99E-04	3.17E-03	U
AP	01	486655001	6/19/2019	I-131	-4.03E-01	2.99E-01	0.00E+00	U
AP	01	486655001	6/19/2019	K-40	-1.90E-03	1.82E-03	5.95E-03	U
AP	01	486655001	6/19/2019	La-140	-8.31E-03	2.37E-02	7.59E-02	U
AP	01	486655001	6/19/2019	Mn-54	-2.04E-05	1.13E-04	3.57E-04	U
AP	01	486655001	6/19/2019	Nb-95	-5.55E-04	2.85E-04	6.57E-04	U
AP	01	486655001	6/19/2019	Ru-103	1.49E-03	7.42E-04	1.54E-03	U
AP	01	486655001	6/19/2019	Ru-106	1.82E-04	1.03E-03	3.43E-03	U
AP	01	486655001	6/19/2019	Sb-124	-4.76E-04	6.54E-04	1.89E-03	U
AP	01	486655001	6/19/2019	Sb-125	3.01E-04	2.62E-04	8.72E-04	U
AP	01	486655001	6/19/2019	Se-75	1.40E-04	1.92E-04	6.46E-04	U
AP	01	486655001	6/19/2019	Th-228	1.85E-04	2.83E-04	4.92E-04	U
AP	01	486655001	6/19/2019	Zn-65	9.48E-05	2.79E-04	8.34E-04	U
AP	01	486655001	6/19/2019	Zr-95	-7.60E-06	4.75E-04	1.54E-03	U
AP	01	484033001	7/3/2019	BETA	1.77E-02	9.97E-04	9.86E-04	
AP	01	485327001	7/17/2019	BETA	2.28E-02	1.12E-03	1.03E-03	
AP	01	486539001	7/31/2019	BETA	2.87E-02	1.26E-03	1.04E-03	
AP	01	487940001	8/14/2019	BETA	2.70E-02	1.23E-03	1.08E-03	
AP	01	489375001	8/28/2019	BETA	2.42E-02	1.17E-03	9.57E-04	
AP	01	490269001	9/11/2019	BETA	2.18E-02	1.13E-03	1.04E-03	
AP	01	491293001	9/25/2019	BETA	3.06E-02	1.26E-03	1.00E-03	
AP	01	495102001	9/25/2019	Ac-228	6.28E-04	3.85E-04	1.40E-03	U
AP	01	495102001	9/25/2019	Ag-108m	-9.29E-05	7.99E-05	2.35E-04	U
AP	01	495102001	9/25/2019	Ag-110m	4.84E-04	2.85E-04	5.87E-04	U
AP	01	495102001	9/25/2019	Ba-140	4.86E-02	3.89E-02	1.29E-01	U
AP	01	495102001	9/25/2019	Be-7	1.47E-01	1.04E-02	6.82E-03	
AP	01	495102001	9/25/2019	Ce-141	5.62E-04	7.34E-04	1.88E-03	U
AP	01	495102001	9/25/2019	Ce-144	-1.33E-04	4.24E-04	1.36E-03	U
AP	01	495102001	9/25/2019	Co-57	-6.72E-06	5.37E-05	1.75E-04	U
AP	01	495102001	9/25/2019	Co-58	-2.67E-04	2.40E-04	6.51E-04	U
AP	01	495102001	9/25/2019	Co-60	7.28E-05	8.24E-05	3.07E-04	U
AP	01	495102001	9/25/2019	Cr-51	9.15E-05	4.43E-03	1.51E-02	U
AP	01	495102001	9/25/2019	Cs-134	9.22E-05	1.07E-04	3.67E-04	U
AP	01	495102001	9/25/2019	Cs-137	1.69E-04	1.03E-04	3.56E-04	U
AP	01	495102001	9/25/2019	Fe-59	-5.30E-05	5.05E-04	1.64E-03	U
AP	01	495102001	9/25/2019	I-131	0.00E+00	1.81E-01	0.00E+00	UI
AP	01	495102001	9/25/2019	K-40	5.59E-03	1.75E-03	3.67E-03	UI
AP	01	495102001	9/25/2019	La-140	-2.44E-02	2.19E-02	5.51E-02	U
AP	01	495102001	9/25/2019	Mn-54	-2.56E-05	1.19E-04	3.96E-04	U
AP	01	495102001	9/25/2019	Nb-95	-8.26E-05	2.32E-04	7.06E-04	U
AP	01	495102001	9/25/2019	Ru-103	9.87E-05	2.87E-04	9.79E-04	U
AP	01	495102001	9/25/2019	Ru-106	1.48E-03	9.79E-04	3.40E-03	U
AP	01	495102001	9/25/2019	Sb-124	-9.76E-04	6.65E-04	1.48E-03	U

Seabrook REMP Summary of 2019 Data

SAMPLE TYPE	STATION	LSN	END DATE	NUCLIDE	CONC (pCi/m^3)	STD.DEV. (pCi/m^3)	MDC (pCi/m^3)	FLAGS
AP	01	495102001	9/25/2019	Sb-125	-1.97E-04	2.09E-04	6.25E-04	U
AP	01	495102001	9/25/2019	Se-75	-7.70E-05	1.86E-04	5.63E-04	U
AP	01	495102001	9/25/2019	Th-228	7.58E-05	2.51E-04	5.45E-04	U
AP	01	495102001	9/25/2019	Zn-65	-1.20E-04	3.28E-04	1.05E-03	U
AP	01	495102001	9/25/2019	Zr-95	-5.21E-04	4.18E-04	1.06E-03	U
AP	01	492911001	10/9/2019	BETA	2.19E-02	1.08E-03	9.19E-04	
AP	01	494093001	10/23/2019	BETA	1.27E-02	8.49E-04	9.81E-04	
AP	01	495754001	11/6/2019	BETA	2.14E-02	1.16E-03	1.11E-03	
AP	01	497462001	11/20/2019	BETA	2.53E-02	1.16E-03	1.00E-03	
AP	01	498454001	12/4/2019	BETA	2.10E-02	1.06E-03	9.57E-04	
AP	01	499693001	12/18/2019	BETA	1.84E-02	1.01E-03	1.01E-03	
AP	01	500194001	12/31/2019	BETA	2.56E-02	1.32E-03	1.25E-03	
AP	01	502090001	12/31/2019	Ac-228	-2.30E-05	3.94E-04	1.33E-03	U
AP	01	502090001	12/31/2019	Ag-108m	1.57E-04	1.03E-04	2.16E-04	U
AP	01	502090001	12/31/2019	Ag-110m	2.09E-04	1.73E-04	6.19E-04	U
AP	01	502090001	12/31/2019	Ba-140	6.39E-02	5.15E-02	1.80E-01	U
AP	01	502090001	12/31/2019	Be-7	8.29E-02	7.76E-03	7.23E-03	
AP	01	502090001	12/31/2019	Ce-141	-1.63E-04	6.08E-04	1.98E-03	U
AP	01	502090001	12/31/2019	Ce-144	9.26E-04	4.13E-04	1.35E-03	U
AP	01	502090001	12/31/2019	Co-57	-2.45E-05	4.56E-05	1.47E-04	U
AP	01	502090001	12/31/2019	Co-58	1.83E-04	1.92E-04	6.95E-04	U
AP	01	502090001	12/31/2019	Co-60	9.56E-05	8.64E-05	3.24E-04	U
AP	01	502090001	12/31/2019	Cr-51	3.21E-03	6.00E-03	2.10E-02	U
AP	01	502090001	12/31/2019	Cs-134	-7.99E-06	9.68E-05	3.02E-04	U
AP	01	502090001	12/31/2019	Cs-137	8.97E-05	9.02E-05	3.10E-04	U
AP	01	502090001	12/31/2019	Fe-59	8.59E-04	9.32E-04	3.27E-03	U
AP	01	502090001	12/31/2019	I-131	0.00E+00	3.10E-01	0.00E+00	UI
AP	01	502090001	12/31/2019	K-40	3.51E-03	1.67E-03	5.87E-03	U
AP	01	502090001	12/31/2019	La-140	1.50E-02	1.94E-02	7.18E-02	U
AP	01	502090001	12/31/2019	Mn-54	-1.67E-04	1.09E-04	2.85E-04	U
AP	01	502090001	12/31/2019	Nb-95	2.31E-04	2.04E-04	7.45E-04	U
AP	01	502090001	12/31/2019	Ru-103	3.02E-04	3.92E-04	1.35E-03	U
AP	01	502090001	12/31/2019	Ru-106	-6.24E-04	8.02E-04	2.32E-03	U
AP	01	502090001	12/31/2019	Sb-124	-2.24E-04	6.59E-04	2.06E-03	U
AP	01	502090001	12/31/2019	Sb-125	-7.63E-05	1.91E-04	5.84E-04	U
AP	01	502090001	12/31/2019	Se-75	-4.47E-06	1.58E-04	4.57E-04	U
AP	01	502090001	12/31/2019	Th-228	-1.05E-04	1.40E-04	4.22E-04	U
AP	01	502090001	12/31/2019	Zn-65	-3.57E-04	2.71E-04	6.85E-04	U
AP	01	502090001	12/31/2019	Zr-95	-1.24E-05	4.18E-04	1.32E-03	U
AP	02	469297002	1/16/2019	BETA	2.60E-02	1.23E-03	1.05E-03	
AP	02	470206002	1/30/2019	BETA	2.14E-02	1.13E-03	1.05E-03	
AP	02	471371002	2/11/2019	BETA	2.98E-02	1.38E-03	1.19E-03	
AP	02	472602002	2/27/2019	BETA	3.09E-02	1.26E-03	9.33E-04	
AP	02	473844002	3/13/2019	BETA	2.60E-02	1.18E-03	9.65E-04	
AP	02	474872002	3/27/2019	BETA	2.70E-02	1.64E-03	1.91E-03	
AP	02	478604002	3/27/2019	Ac-228	2.37E-04	3.56E-04	1.11E-03	U

Seabrook REMP Summary of 2019 Data

SAMPLE TYPE	STATION	LSN	END DATE	NUCLIDE	CONC (pCi/m^3)	STD.DEV. (pCi/m^3)	MDC (pCi/m^3)	FLAGS
AP	02	478604002	3/27/2019	Ag-108m	-6.52E-06	5.77E-05	1.87E-04	U
AP	02	478604002	3/27/2019	Ag-110m	-2.10E-04	1.63E-04	3.74E-04	U
AP	02	478604002	3/27/2019	Ba-140	-2.37E-02	3.60E-02	1.07E-01	U
AP	02	478604002	3/27/2019	Be-7	1.22E-01	8.91E-03	6.53E-03	
AP	02	478604002	3/27/2019	Ce-141	0.00E+00	1.02E-03	1.62E-03	U
AP	02	478604002	3/27/2019	Ce-144	-1.79E-04	4.17E-04	1.31E-03	U
AP	02	478604002	3/27/2019	Co-57	2.67E-05	4.84E-05	1.69E-04	U
AP	02	478604002	3/27/2019	Co-58	-3.09E-04	1.93E-04	5.07E-04	U
AP	02	478604002	3/27/2019	Co-60	6.52E-05	1.08E-04	3.43E-04	U
AP	02	478604002	3/27/2019	Cr-51	8.62E-04	5.87E-03	1.96E-02	U
AP	02	478604002	3/27/2019	Cs-134	9.92E-05	1.07E-04	3.33E-04	U
AP	02	478604002	3/27/2019	Cs-137	-3.90E-05	7.57E-05	2.28E-04	U
AP	02	478604002	3/27/2019	Fe-59	6.90E-06	7.45E-04	2.49E-03	U
AP	02	478604002	3/27/2019	I-131	0.00E+00	2.33E-01	0.00E+00	UI
AP	02	478604002	3/27/2019	K-40	0.00E+00	1.75E-03	1.96E-03	U
AP	02	478604002	3/27/2019	La-140	5.96E-04	1.65E-02	5.41E-02	U
AP	02	478604002	3/27/2019	Mn-54	-3.29E-05	9.36E-05	3.07E-04	U
AP	02	478604002	3/27/2019	Nb-95	1.26E-04	2.14E-04	6.49E-04	U
AP	02	478604002	3/27/2019	Ru-103	-6.91E-05	3.60E-04	1.15E-03	U
AP	02	478604002	3/27/2019	Ru-106	2.90E-04	7.98E-04	2.64E-03	U
AP	02	478604002	3/27/2019	Sb-124	5.24E-04	4.97E-04	1.87E-03	U
AP	02	478604002	3/27/2019	Sb-125	1.87E-04	1.75E-04	6.04E-04	U
AP	02	478604002	3/27/2019	Se-75	-1.45E-04	1.50E-04	4.64E-04	U
AP	02	478604002	3/27/2019	Th-228	4.31E-04	2.36E-04	4.84E-04	U
AP	02	478604002	3/27/2019	Zn-65	-2.58E-04	2.62E-04	7.65E-04	U
AP	02	478604002	3/27/2019	Zr-95	3.15E-04	3.69E-04	1.16E-03	U
AP	02	476459002	4/10/2019	BETA	1.56E-02	1.06E-03	1.22E-03	
AP	02	477788002	4/24/2019	BETA	1.36E-02	6.74E-04	5.93E-04	
AP	02	478754002	5/8/2019	BETA	1.23E-02	6.71E-04	6.77E-04	
AP	02	480192002	5/9/2019	BETA	3.83E-02	5.50E-03	1.03E-02	DL*
AP	02	481290002	6/5/2019	BETA	1.21E-02	7.95E-04	8.73E-04	
AP	02	482681002	6/19/2019	BETA	1.73E-02	9.50E-04	8.80E-04	
AP	02	486655002	6/19/2019	Ac-228	8.45E-04	5.74E-04	8.50E-04	U
AP	02	486655002	6/19/2019	Ag-108m	-7.41E-05	7.97E-05	2.08E-04	U
AP	02	486655002	6/19/2019	Ag-110m	1.54E-04	1.46E-04	5.02E-04	U
AP	02	486655002	6/19/2019	Ba-140	5.72E-02	4.18E-02	1.39E-01	U
AP	02	486655002	6/19/2019	Be-7	9.18E-02	7.05E-03	5.63E-03	
AP	02	486655002	6/19/2019	Ce-141	-4.00E-04	6.79E-04	1.89E-03	U
AP	02	486655002	6/19/2019	Ce-144	3.38E-04	5.11E-04	1.66E-03	U
AP	02	486655002	6/19/2019	Co-57	5.57E-05	6.34E-05	2.08E-04	U
AP	02	486655002	6/19/2019	Co-58	1.57E-04	1.69E-04	5.89E-04	U
AP	02	486655002	6/19/2019	Co-60	4.51E-05	1.11E-04	3.80E-04	U
AP	02	486655002	6/19/2019	Cr-51	-6.58E-03	6.01E-03	1.83E-02	U
AP	02	486655002	6/19/2019	Cs-134	1.52E-04	1.14E-04	3.16E-04	U
AP	02	486655002	6/19/2019	Cs-137	2.83E-05	8.16E-05	2.80E-04	U
AP	02	486655002	6/19/2019	Fe-59	2.48E-04	7.18E-04	2.37E-03	U
AP	02	486655002	6/19/2019	I-131	0.00E+00	2.09E-01	0.00E+00	UI
AP	02	486655002	6/19/2019	K-40	0.00E+00	1.86E-03	2.79E-03	U
AP	02	486655002	6/19/2019	La-140	1.75E-02	1.75E-02	5.63E-02	U

SAMPLE TYPE	STATION	LSN	END DATE	NUCLIDE	CONC (pCi/m^3)	STD.DEV. (pCi/m^3)	MDC (pCi/m^3)	FLAGS
AP	02	486655002	6/19/2019	Mn-54	8.42E-05	1.11E-04	3.77E-04	U
AP	02	486655002	6/19/2019	Nb-95	-2.29E-04	2.72E-04	7.18E-04	U
AP	02	486655002	6/19/2019	Ru-103	3.74E-04	3.67E-04	1.22E-03	U
AP	02	486655002	6/19/2019	Ru-106	6.64E-04	1.07E-03	2.64E-03	U
AP	02	486655002	6/19/2019	Sb-124	9.54E-04	5.83E-04	2.13E-03	U
AP	02	486655002	6/19/2019	Sb-125	-3.07E-04	2.38E-04	6.78E-04	U
AP	02	486655002	6/19/2019	Se-75	1.37E-04	1.49E-04	5.11E-04	U
AP	02	486655002	6/19/2019	Th-228	3.61E-05	2.62E-04	4.23E-04	U
AP	02	486655002	6/19/2019	Zn-65	-6.51E-05	2.83E-04	8.89E-04	U
AP	02	486655002	6/19/2019	Zr-95	2.92E-05	4.69E-04	1.38E-03	U
AP	02	484033002	7/3/2019	BETA	1.72E-02	9.90E-04	1.01E-03	
AP	02	485327002	7/17/2019	BETA	2.53E-02	1.19E-03	9.56E-04	
AP	02	486539002	7/31/2019	BETA	2.83E-02	1.30E-03	1.14E-03	
AP	02	487940002	8/14/2019	BETA	2.65E-02	1.23E-03	1.03E-03	
AP	02	489375002	8/28/2019	BETA	2.55E-02	1.24E-03	1.19E-03	
AP	02	490269002	9/11/2019	BETA	2.31E-02	1.16E-03	9.84E-04	
AP	02	491293002	9/25/2019	BETA	3.06E-02	1.28E-03	9.99E-04	
AP	02	495102002	9/25/2019	Ac-228	-3.29E-04	4.96E-04	1.60E-03	U
AP	02	495102002	9/25/2019	Ag-108m	1.95E-04	8.61E-05	2.85E-04	U
AP	02	495102002	9/25/2019	Ag-110m	2.21E-04	2.26E-04	5.73E-04	U
AP	02	495102002	9/25/2019	Ba-140	-2.44E-02	4.56E-02	1.37E-01	U
AP	02	495102002	9/25/2019	Be-7	1.32E-01	1.04E-02	6.49E-03	
AP	02	495102002	9/25/2019	Ce-141	1.24E-03	7.94E-04	2.53E-03	U
AP	02	495102002	9/25/2019	Ce-144	3.40E-04	5.41E-04	1.75E-03	U
AP	02	495102002	9/25/2019	Co-57	1.07E-05	6.63E-05	2.12E-04	U
AP	02	495102002	9/25/2019	Co-58	-1.96E-04	2.21E-04	6.53E-04	U
AP	02	495102002	9/25/2019	Co-60	2.05E-04	1.38E-04	4.97E-04	U
AP	02	495102002	9/25/2019	Cr-51	-2.54E-03	6.11E-03	1.97E-02	U
AP	02	495102002	9/25/2019	Cs-134	8.01E-05	1.24E-04	4.34E-04	U
AP	02	495102002	9/25/2019	Cs-137	-5.18E-05	9.55E-05	3.06E-04	U
AP	02	495102002	9/25/2019	Fe-59	7.24E-04	8.02E-04	2.84E-03	U
AP	02	495102002	9/25/2019	I-131	-1.01E-01	2.34E-01	0.00E+00	U
AP	02	495102002	9/25/2019	K-40	7.40E-03	2.46E-03	4.28E-03	
AP	02	495102002	9/25/2019	La-140	-1.33E-02	2.04E-02	6.11E-02	U
AP	02	495102002	9/25/2019	Mn-54	-8.68E-05	1.15E-04	3.46E-04	U
AP	02	495102002	9/25/2019	Nb-95	5.10E-04	3.13E-04	7.51E-04	U
AP	02	495102002	9/25/2019	Ru-103	7.94E-05	4.36E-04	1.43E-03	U
AP	02	495102002	9/25/2019	Ru-106	5.16E-04	8.82E-04	2.95E-03	U
AP	02	495102002	9/25/2019	Sb-124	1.55E-05	4.53E-04	1.52E-03	U
AP	02	495102002	9/25/2019	Sb-125	-1.72E-04	2.58E-04	7.87E-04	U
AP	02	495102002	9/25/2019	Se-75	5.02E-05	1.62E-04	5.52E-04	U
AP	02	495102002	9/25/2019	Th-228	6.16E-05	2.12E-04	5.90E-04	U
AP	02	495102002	9/25/2019	Zn-65	4.76E-04	3.51E-04	1.24E-03	U
AP	02	495102002	9/25/2019	Zr-95	-6.16E-04	4.81E-04	1.28E-03	U
AP	02	492911002	10/9/2019	BETA	2.06E-02	1.09E-03	1.12E-03	
AP	02	494093002	10/23/2019	BETA	1.56E-02	1.04E-03	1.17E-03	
AP	02	495754002	11/6/2019	BETA	1.80E-02	1.02E-03	1.07E-03	
AP	02	497462002	11/20/2019	BETA	2.29E-02	1.11E-03	9.58E-04	

Seabrook REMP Summary of 2019 Data

SAMPLE TYPE	STATION	LSN	END DATE	NUCLIDE	CONC (pCi/m^3)	STD.DEV. (pCi/m^3)	MDC (pCi/m^3)	FLAGS
AP	02	498454002	12/4/2019	BETA	2.03E-02	1.08E-03	1.02E-03	
AP	02	499693002	12/18/2019	BETA	1.62E-02	1.01E-03	1.10E-03	
AP	02	500194002	12/31/2019	BETA	2.75E-02	1.37E-03	1.22E-03	
AP	02	502090002	12/31/2019	Ac-228	6.89E-04	6.07E-04	1.63E-03	U
AP	02	502090002	12/31/2019	Ag-108m	-3.13E-05	7.66E-05	2.17E-04	U
AP	02	502090002	12/31/2019	Ag-110m	-1.13E-04	1.55E-04	4.83E-04	U
AP	02	502090002	12/31/2019	Ba-140	1.06E-01	5.59E-02	1.89E-01	U
AP	02	502090002	12/31/2019	Be-7	9.13E-02	8.20E-03	6.64E-03	
AP	02	502090002	12/31/2019	Ce-141	5.26E-04	7.19E-04	2.32E-03	U
AP	02	502090002	12/31/2019	Ce-144	-1.14E-04	3.95E-04	1.23E-03	U
AP	02	502090002	12/31/2019	Co-57	6.04E-05	5.57E-05	1.82E-04	U
AP	02	502090002	12/31/2019	Co-58	-1.61E-04	1.75E-04	5.24E-04	U
AP	02	502090002	12/31/2019	Co-60	-1.11E-05	9.95E-05	3.21E-04	U
AP	02	502090002	12/31/2019	Cr-51	-3.59E-03	5.89E-03	1.89E-02	U
AP	02	502090002	12/31/2019	Cs-134	-4.84E-05	9.51E-05	3.07E-04	U
AP	02	502090002	12/31/2019	Cs-137	1.13E-04	1.07E-04	3.58E-04	U
AP	02	502090002	12/31/2019	Fe-59	6.19E-05	7.65E-04	2.56E-03	U
AP	02	502090002	12/31/2019	I-131	-5.80E-02	2.83E-01	0.00E+00	U
AP	02	502090002	12/31/2019	K-40	2.00E-03	1.77E-03	2.60E-03	U
AP	02	502090002	12/31/2019	La-140	8.25E-03	2.21E-02	7.46E-02	U
AP	02	502090002	12/31/2019	Mn-54	1.39E-05	8.81E-05	3.03E-04	U
AP	02	502090002	12/31/2019	Nb-95	1.01E-04	2.16E-04	7.13E-04	U
AP	02	502090002	12/31/2019	Ru-103	5.78E-04	4.19E-04	1.43E-03	U
AP	02	502090002	12/31/2019	Ru-106	1.28E-03	9.38E-04	3.18E-03	U
AP	02	502090002	12/31/2019	Sb-124	-4.30E-06	5.67E-04	1.82E-03	U
AP	02	502090002	12/31/2019	Sb-125	5.76E-04	2.38E-04	7.71E-04	U
AP	02	502090002	12/31/2019	Se-75	8.90E-05	1.50E-04	5.19E-04	U
AP	02	502090002	12/31/2019	Th-228	0.00E+00	2.03E-04	3.81E-04	U
AP	02	502090002	12/31/2019	Zn-65	-1.18E-06	2.29E-04	7.58E-04	U
AP	02	502090002	12/31/2019	Zr-95	-5.72E-04	4.21E-04	1.07E-03	U
AP	03	469297003	1/16/2019	BETA	1.95E-02	9.69E-04	9.42E-04	
AP	03	470206003	1/30/2019	BETA	2.14E-02	1.02E-03	1.01E-03	
AP	03	471371003	2/11/2019	BETA	2.99E-02	1.36E-03	1.17E-03	
AP	03	472602003	2/27/2019	BETA	2.61E-02	1.05E-03	8.27E-04	
AP	03	473844003	3/13/2019	BETA	2.70E-02	1.17E-03	9.73E-04	
AP	03	474872003	3/27/2019	BETA	2.55E-02	1.12E-03	9.18E-04	
AP	03	478604003	3/27/2019	Ac-228	-2.05E-04	3.66E-04	1.16E-03	U
AP	03	478604003	3/27/2019	Ag-108m	-3.39E-05	6.19E-05	1.81E-04	U
AP	03	478604003	3/27/2019	Ag-110m	9.89E-05	1.93E-04	6.56E-04	U
AP	03	478604003	3/27/2019	Ba-140	2.80E-02	4.61E-02	1.64E-01	U
AP	03	478604003	3/27/2019	Be-7	1.31E-01	9.52E-03	3.98E-03	
AP	03	478604003	3/27/2019	Ce-141	2.15E-04	3.77E-04	1.35E-03	U
AP	03	478604003	3/27/2019	Ce-144	-2.94E-04	3.15E-04	9.05E-04	U
AP	03	478604003	3/27/2019	Co-57	-1.88E-05	3.81E-05	1.07E-04	U
AP	03	478604003	3/27/2019	Co-58	-4.36E-04	2.64E-04	6.01E-04	U
AP	03	478604003	3/27/2019	Co-60	-7.00E-05	1.33E-04	4.04E-04	U
AP	03	478604003	3/27/2019	Cr-51	-7.99E-03	6.28E-03	1.55E-02	U
AP	03	478604003	3/27/2019	Cs-134	1.32E-04	8.69E-05	3.30E-04	U

Seabrook REMP Summary of 2019 Data

SAMPLE TYPE	STATION	LSN	END DATE	NUCLIDE	CONC (pCi/m^3)	STD.DEV. (pCi/m^3)	MDC (pCi/m^3)	FLAGS
AP	03	478604003	3/27/2019	Cs-137	9.93E-05	1.12E-04	3.78E-04	U
AP	03	478604003	3/27/2019	Fe-59	5.81E-04	9.04E-04	3.25E-03	U
AP	03	478604003	3/27/2019	I-131	0.00E+00	2.14E-01	0.00E+00	UI
AP	03	478604003	3/27/2019	K-40	0.00E+00	2.11E-03	3.63E-03	U
AP	03	478604003	3/27/2019	La-140	-3.52E-02	1.95E-02	4.00E-03	U
AP	03	478604003	3/27/2019	Mn-54	1.12E-05	1.16E-04	3.80E-04	U
AP	03	478604003	3/27/2019	Nb-95	-2.67E-05	1.88E-04	5.31E-04	U
AP	03	478604003	3/27/2019	Ru-103	3.18E-04	3.74E-04	1.34E-03	U
AP	03	478604003	3/27/2019	Ru-106	6.66E-04	8.54E-04	3.04E-03	U
AP	03	478604003	3/27/2019	Sb-124	-1.08E-03	1.08E-03	2.81E-03	U
AP	03	478604003	3/27/2019	Sb-125	2.75E-04	1.68E-04	5.97E-04	U
AP	03	478604003	3/27/2019	Se-75	4.48E-05	1.21E-04	4.09E-04	U
AP	03	478604003	3/27/2019	Th-228	3.04E-04	1.23E-04	2.35E-04	
AP	03	478604003	3/27/2019	Zn-65	-3.57E-04	2.09E-04	3.57E-04	U
AP	03	478604003	3/27/2019	Zr-95	4.62E-04	3.19E-04	1.22E-03	U
AP	03	476459003	4/10/2019	BETA	1.74E-02	9.53E-04	9.72E-04	
AP	03	477788003	4/24/2019	BETA	1.62E-02	8.82E-04	8.89E-04	
AP	03	478754003	5/8/2019	BETA	1.70E-02	9.06E-04	8.80E-04	
AP	03	480192003	5/22/2019	BETA	1.64E-02	8.99E-04	9.02E-04	
AP	03	481290003	6/5/2019	BETA	1.18E-02	7.86E-04	9.10E-04	
AP	03	482681003	6/19/2019	BETA	1.55E-02	8.80E-04	8.83E-04	
AP	03	486655003	6/19/2019	Ac-228	0.00E+00	7.86E-04	9.10E-04	U
AP	03	486655003	6/19/2019	Ag-108m	-5.00E-08	6.21E-05	2.07E-04	U
AP	03	486655003	6/19/2019	Ag-110m	-1.35E-04	1.44E-04	3.96E-04	U
AP	03	486655003	6/19/2019	Ba-140	4.44E-02	4.06E-02	1.40E-01	U
AP	03	486655003	6/19/2019	Be-7	1.06E-01	8.27E-03	6.84E-03	
AP	03	486655003	6/19/2019	Ce-141	-5.27E-04	6.16E-04	1.83E-03	U
AP	03	486655003	6/19/2019	Ce-144	9.57E-05	3.93E-04	1.27E-03	U
AP	03	486655003	6/19/2019	Co-57	-1.86E-05	5.44E-05	1.71E-04	U
AP	03	486655003	6/19/2019	Co-58	-2.02E-04	1.95E-04	5.34E-04	U
AP	03	486655003	6/19/2019	Co-60	-5.86E-05	7.97E-05	2.29E-04	U
AP	03	486655003	6/19/2019	Cr-51	-9.18E-03	5.58E-03	1.57E-02	U
AP	03	486655003	6/19/2019	Cs-134	6.52E-06	1.00E-04	3.22E-04	U
AP	03	486655003	6/19/2019	Cs-137	-1.48E-07	8.65E-05	2.68E-04	U
AP	03	486655003	6/19/2019	Fe-59	1.10E-04	6.42E-04	2.19E-03	U
AP	03	486655003	6/19/2019	I-131	0.00E+00	1.92E-01	0.00E+00	UI
AP	03	486655003	6/19/2019	K-40	0.00E+00	1.72E-03	1.08E-03	U
AP	03	486655003	6/19/2019	La-140	-1.60E-02	1.50E-02	3.82E-02	U
AP	03	486655003	6/19/2019	Mn-54	1.14E-04	9.61E-05	3.19E-04	U
AP	03	486655003	6/19/2019	Nb-95	2.14E-04	2.28E-04	7.71E-04	U
AP	03	486655003	6/19/2019	Ru-103	-2.00E-04	2.85E-04	8.70E-04	U
AP	03	486655003	6/19/2019	Ru-106	3.59E-04	7.57E-04	2.55E-03	U
AP	03	486655003	6/19/2019	Sb-124	4.28E-05	5.06E-04	1.66E-03	U
AP	03	486655003	6/19/2019	Sb-125	-3.32E-04	2.26E-04	6.38E-04	U
AP	03	486655003	6/19/2019	Se-75	1.21E-04	1.37E-04	4.76E-04	U
AP	03	486655003	6/19/2019	Th-228	2.77E-04	1.83E-04	3.60E-04	U
AP	03	486655003	6/19/2019	Zn-65	-9.49E-05	2.09E-04	6.61E-04	U
AP	03	486655003	6/19/2019	Zr-95	8.91E-05	3.37E-04	1.11E-03	U

Seabrook REMP Summary of 2019 Data

SAMPLE TYPE	STATION	LSN	END DATE	NUCLIDE	CONC (pCi/m^3)	STD.DEV. (pCi/m^3)	MDC (pCi/m^3)	FLAGS
AP	03	484033003	7/3/2019	BETA	1.41E-02	8.52E-04	9.07E-04	
AP	03	485327003	7/17/2019	BETA	2.45E-02	1.10E-03	8.86E-04	
AP	03	486539003	7/31/2019	BETA	3.54E-02	1.37E-03	9.96E-04	
AP	03	487940003	8/14/2019	BETA	3.05E-02	1.23E-03	8.69E-04	
AP	03	489375003	8/28/2019	BETA	2.66E-02	1.16E-03	9.08E-04	
AP	03	490269003	9/11/2019	BETA	2.35E-02	1.10E-03	1.03E-03	
AP	03	491293003	9/25/2019	BETA	3.13E-02	1.26E-03	9.45E-04	
AP	03	495102003	9/25/2019	Ac-228	2.58E-04	3.47E-04	1.15E-03	U
AP	03	495102003	9/25/2019	Ag-108m	-1.32E-06	4.47E-05	1.49E-04	U
AP	03	495102003	9/25/2019	Ag-110m	-1.15E-04	1.27E-04	3.49E-04	U
AP	03	495102003	9/25/2019	Ba-140	-3.61E-04	3.25E-02	1.08E-01	U
AP	03	495102003	9/25/2019	Be-7	1.20E-01	8.72E-03	5.30E-03	
AP	03	495102003	9/25/2019	Ce-141	-6.21E-04	5.71E-04	1.57E-03	U
AP	03	495102003	9/25/2019	Ce-144	-6.08E-05	3.38E-04	1.07E-03	U
AP	03	495102003	9/25/2019	Co-57	2.58E-05	4.74E-05	1.56E-04	U
AP	03	495102003	9/25/2019	Co-58	-1.98E-04	1.52E-04	3.37E-04	U
AP	03	495102003	9/25/2019	Co-60	1.15E-05	6.49E-05	2.11E-04	U
AP	03	495102003	9/25/2019	Cr-51	3.12E-03	4.57E-03	1.60E-02	U
AP	03	495102003	9/25/2019	Cs-134	-1.77E-04	1.00E-04	2.26E-04	U
AP	03	495102003	9/25/2019	Cs-137	-8.26E-06	7.17E-05	2.13E-04	U
AP	03	495102003	9/25/2019	Fe-59	-9.01E-04	5.68E-04	1.37E-03	U
AP	03	495102003	9/25/2019	I-131	0.00E+00	1.48E-01	0.00E+00	UI
AP	03	495102003	9/25/2019	K-40	1.46E-03	1.61E-03	2.87E-03	U
AP	03	495102003	9/25/2019	La-140	-1.71E-02	1.27E-02	2.80E-02	U
AP	03	495102003	9/25/2019	Mn-54	-1.01E-04	9.18E-05	2.48E-04	U
AP	03	495102003	9/25/2019	Nb-95	-4.95E-05	2.02E-04	6.16E-04	U
AP	03	495102003	9/25/2019	Ru-103	3.23E-04	3.00E-04	1.04E-03	U
AP	03	495102003	9/25/2019	Ru-106	-7.49E-04	7.29E-04	2.09E-03	U
AP	03	495102003	9/25/2019	Sb-124	2.94E-04	4.85E-04	1.74E-03	U
AP	03	495102003	9/25/2019	Sb-125	-7.37E-06	1.58E-04	5.28E-04	U
AP	03	495102003	9/25/2019	Se-75	7.36E-05	1.10E-04	3.87E-04	U
AP	03	495102003	9/25/2019	Th-228	2.06E-04	2.15E-04	4.48E-04	U
AP	03	495102003	9/25/2019	Zn-65	2.41E-04	2.29E-04	8.28E-04	U
AP	03	495102003	9/25/2019	Zr-95	3.30E-04	2.82E-04	1.00E-03	U
AP	03	492911003	10/9/2019	BETA	2.22E-02	1.08E-03	9.65E-04	
AP	03	494093003	10/23/2019	BETA	1.80E-02	9.98E-04	1.01E-03	
AP	03	495754003	11/6/2019	BETA	1.79E-02	9.72E-04	9.49E-04	
AP	03	497462003	11/20/2019	BETA	2.38E-02	1.12E-03	9.89E-04	
AP	03	498454003	12/4/2019	BETA	2.18E-02	1.12E-03	1.06E-03	
AP	03	499693003	12/18/2019	BETA	1.67E-02	1.00E-03	1.05E-03	
AP	03	500194003	12/31/2019	BETA	2.98E-02	1.32E-03	1.02E-03	
AP	03	502090003	12/31/2019	Ac-228	5.45E-04	5.07E-04	1.41E-03	U
AP	03	502090003	12/31/2019	Ag-108m	1.36E-04	7.19E-05	2.45E-04	U
AP	03	502090003	12/31/2019	Ag-110m	-1.18E-04	1.19E-04	3.10E-04	U
AP	03	502090003	12/31/2019	Ba-140	2.47E-02	4.49E-02	1.55E-01	U
AP	03	502090003	12/31/2019	Be-7	1.08E-01	9.59E-03	7.53E-03	
AP	03	502090003	12/31/2019	Ce-141	2.28E-04	6.28E-04	2.07E-03	U
AP	03	502090003	12/31/2019	Ce-144	1.08E-03	4.52E-04	1.23E-03	U

Seabrook REMP Summary of 2019 Data

SAMPLE TYPE	STATION	LSN	END DATE	NUCLIDE	CONC (pCi/m^3)	STD.DEV. (pCi/m^3)	MDC (pCi/m^3)	FLAGS
AP	03	502090003	12/31/2019	Co-57	4.64E-05	5.26E-05	1.77E-04	U
AP	03	502090003	12/31/2019	Co-58	1.12E-04	1.39E-04	4.90E-04	U
AP	03	502090003	12/31/2019	Co-60	1.46E-04	8.62E-05	3.30E-04	U
AP	03	502090003	12/31/2019	Cr-51	1.37E-03	5.06E-03	1.76E-02	U
AP	03	502090003	12/31/2019	Cs-134	1.13E-04	1.12E-04	3.84E-04	U
AP	03	502090003	12/31/2019	Cs-137	-6.28E-05	8.31E-05	2.47E-04	U
AP	03	502090003	12/31/2019	Fe-59	5.73E-04	7.64E-04	2.72E-03	U
AP	03	502090003	12/31/2019	I-131	-2.37E-01	2.96E-01	0.00E+00	U
AP	03	502090003	12/31/2019	K-40	1.29E-03	1.73E-03	2.96E-03	U
AP	03	502090003	12/31/2019	La-140	2.44E-03	2.12E-02	7.03E-02	U
AP	03	502090003	12/31/2019	Mn-54	1.02E-04	1.25E-04	3.86E-04	U
AP	03	502090003	12/31/2019	Nb-95	-2.44E-04	2.14E-04	5.73E-04	U
AP	03	502090003	12/31/2019	Ru-103	1.95E-04	3.79E-04	1.30E-03	U
AP	03	502090003	12/31/2019	Ru-106	-8.63E-04	9.20E-04	2.71E-03	U
AP	03	502090003	12/31/2019	Sb-124	3.47E-04	5.57E-04	1.99E-03	U
AP	03	502090003	12/31/2019	Sb-125	-2.09E-04	2.14E-04	6.54E-04	U
AP	03	502090003	12/31/2019	Se-75	-3.10E-04	1.80E-04	4.52E-04	U
AP	03	502090003	12/31/2019	Th-228	0.00E+00	2.73E-04	3.67E-04	U
AP	03	502090003	12/31/2019	Zn-65	1.76E-04	2.05E-04	7.46E-04	U
AP	03	502090003	12/31/2019	Zr-95	-5.52E-04	3.84E-04	9.49E-04	U
AP	04	469297004	1/16/2019	BETA	2.25E-02	1.05E-03	8.83E-04	
AP	04	470206004	1/30/2019	BETA	2.27E-02	1.08E-03	9.29E-04	
AP	04	471371004	2/11/2019	BETA	2.75E-02	1.29E-03	1.24E-03	
AP	04	472602004	2/27/2019	BETA	2.76E-02	1.12E-03	8.43E-04	
AP	04	473844004	3/13/2019	BETA	3.07E-02	1.26E-03	9.46E-04	
AP	04	474872004	3/27/2019	BETA	2.56E-02	1.07E-03	8.46E-04	
AP	04	478604004	3/27/2019	Ac-228	1.21E-04	3.95E-04	1.37E-03	U
AP	04	478604004	3/27/2019	Ag-108m	-1.63E-05	4.67E-05	1.37E-04	U
AP	04	478604004	3/27/2019	Ag-110m	9.98E-05	1.19E-04	4.12E-04	U
AP	04	478604004	3/27/2019	Ba-140	4.86E-03	3.48E-02	1.18E-01	U
AP	04	478604004	3/27/2019	Be-7	1.32E-01	9.11E-03	5.05E-03	
AP	04	478604004	3/27/2019	Ce-141	-4.20E-04	5.22E-04	1.63E-03	U
AP	04	478604004	3/27/2019	Ce-144	-2.13E-04	3.35E-04	1.07E-03	U
AP	04	478604004	3/27/2019	Co-57	3.26E-05	4.31E-05	1.48E-04	U
AP	04	478604004	3/27/2019	Co-58	-2.63E-04	1.59E-04	3.55E-04	U
AP	04	478604004	3/27/2019	Co-60	2.92E-05	7.46E-05	2.62E-04	U
AP	04	478604004	3/27/2019	Cr-51	4.20E-03	5.55E-03	1.81E-02	U
AP	04	478604004	3/27/2019	Cs-134	3.56E-06	9.30E-05	2.81E-04	U
AP	04	478604004	3/27/2019	Cs-137	8.23E-05	1.04E-04	2.04E-04	U
AP	04	478604004	3/27/2019	Fe-59	-8.89E-05	4.80E-04	1.59E-03	U
AP	04	478604004	3/27/2019	I-131	0.00E+00	2.57E-01	0.00E+00	UI
AP	04	478604004	3/27/2019	K-40	5.22E-03	1.74E-03	2.08E-03	
AP	04	478604004	3/27/2019	La-140	4.82E-03	1.33E-02	4.63E-02	U
AP	04	478604004	3/27/2019	Mn-54	1.68E-06	7.58E-05	2.46E-04	U
AP	04	478604004	3/27/2019	Nb-95	3.49E-04	2.26E-04	7.79E-04	U
AP	04	478604004	3/27/2019	Ru-103	2.77E-04	3.29E-04	1.15E-03	U
AP	04	478604004	3/27/2019	Ru-106	3.69E-04	6.49E-04	2.24E-03	U
AP	04	478604004	3/27/2019	Sb-124	-9.27E-05	3.25E-04	9.74E-04	U

Seabrook REMP Summary of 2019 Data

SAMPLE TYPE	STATION	LSN	END DATE	NUCLIDE	CONC (pCi/m^3)	STD.DEV. (pCi/m^3)	MDC (pCi/m^3)	FLAGS
AP	04	478604004	3/27/2019	Sb-125	-5.67E-06	1.72E-04	5.84E-04	U
AP	04	478604004	3/27/2019	Se-75	-1.00E-04	1.31E-04	3.89E-04	U
AP	04	478604004	3/27/2019	Th-228	0.00E+00	1.92E-04	3.21E-04	U
AP	04	478604004	3/27/2019	Zn-65	3.38E-04	1.50E-04	5.94E-04	U
AP	04	478604004	3/27/2019	Zr-95	-3.09E-04	3.40E-04	9.77E-04	U
AP	04	476459004	4/10/2019	BETA	1.71E-02	8.53E-04	7.63E-04	
AP	04	477788004	4/24/2019	BETA	1.71E-02	9.04E-04	8.74E-04	
AP	04	478754004	5/8/2019	BETA	1.64E-02	8.94E-04	8.58E-04	
AP	04	480192004	5/22/2019	BETA	1.85E-02	9.35E-04	8.20E-04	
AP	04	481290004	6/5/2019	BETA	1.11E-02	7.47E-04	8.44E-04	
AP	04	482681004	6/19/2019	BETA	1.75E-02	9.72E-04	9.88E-04	
AP	04	486655004	6/19/2019	Ac-228	4.50E-04	5.61E-04	1.42E-03	U
AP	04	486655004	6/19/2019	Ag-108m	3.67E-05	5.37E-05	1.88E-04	U
AP	04	486655004	6/19/2019	Ag-110m	2.55E-05	1.64E-04	5.38E-04	U
AP	04	486655004	6/19/2019	Ba-140	-2.31E-03	3.69E-02	1.23E-01	U
AP	04	486655004	6/19/2019	Be-7	1.13E-01	8.10E-03	5.77E-03	
AP	04	486655004	6/19/2019	Ce-141	-1.68E-03	8.42E-04	2.12E-03	U
AP	04	486655004	6/19/2019	Ce-144	-7.66E-04	4.51E-04	1.19E-03	U
AP	04	486655004	6/19/2019	Co-57	-1.74E-05	5.24E-05	1.66E-04	U
AP	04	486655004	6/19/2019	Co-58	-1.36E-04	2.00E-04	6.05E-04	U
AP	04	486655004	6/19/2019	Co-60	-2.26E-04	1.41E-04	3.47E-04	U
AP	04	486655004	6/19/2019	Cr-51	-3.27E-03	5.21E-03	1.71E-02	U
AP	04	486655004	6/19/2019	Cs-134	4.44E-05	8.67E-05	2.96E-04	U
AP	04	486655004	6/19/2019	Cs-137	6.69E-05	9.97E-05	3.10E-04	U
AP	04	486655004	6/19/2019	Fe-59	2.22E-04	6.76E-04	2.24E-03	U
AP	04	486655004	6/19/2019	I-131	0.00E+00	1.91E-01	0.00E+00	UI
AP	04	486655004	6/19/2019	K-40	1.90E-03	1.98E-03	2.71E-03	U
AP	04	486655004	6/19/2019	La-140	1.30E-02	1.82E-02	6.50E-02	U
AP	04	486655004	6/19/2019	Mn-54	-7.34E-05	9.57E-05	2.83E-04	U
AP	04	486655004	6/19/2019	Nb-95	2.37E-05	1.91E-04	6.33E-04	U
AP	04	486655004	6/19/2019	Ru-103	5.22E-04	3.57E-04	1.24E-03	U
AP	04	486655004	6/19/2019	Ru-106	1.41E-03	9.41E-04	3.23E-03	U
AP	04	486655004	6/19/2019	Sb-124	3.62E-05	4.61E-04	1.56E-03	U
AP	04	486655004	6/19/2019	Sb-125	3.44E-04	2.39E-04	8.20E-04	U
AP	04	486655004	6/19/2019	Se-75	2.57E-05	1.57E-04	4.94E-04	U
AP	04	486655004	6/19/2019	Th-228	-1.07E-05	1.56E-04	4.86E-04	U
AP	04	486655004	6/19/2019	Zn-65	-9.52E-05	2.87E-04	7.74E-04	U
AP	04	486655004	6/19/2019	Zr-95	-3.94E-04	3.03E-04	7.88E-04	U
AP	04	484033004	7/3/2019	BETA	1.32E-02	8.85E-04	1.04E-03	
AP	04	485327004	7/17/2019	BETA	2.53E-02	1.18E-03	1.01E-03	
AP	04	487940004	8/14/2019	BETA	3.26E-02	1.32E-03	1.01E-03	
AP	04	489375004	8/28/2019	BETA	3.03E-02	1.29E-03	9.90E-04	
AP	04	490269004	9/11/2019	BETA	2.68E-02	1.19E-03	9.57E-04	

SAMPLE TYPE	STATION	LSN	END DATE	NUCLIDE	CONC (pCi/m^3)	STD.DEV. (pCi/m^3)	MDC (pCi/m^3)	FLAGS
AP	04	491293004	9/25/2019	BETA	3.80E-02	1.39E-03	8.82E-04	
AP	04	495102004	9/25/2019	Ac-228	6.62E-04	6.90E-04	1.57E-03	U
AP	04	495102004	9/25/2019	Ag-108m	0.00E+00	1.13E-04	2.43E-04	U
AP	04	495102004	9/25/2019	Ag-110m	1.53E-04	1.53E-04	5.48E-04	U
AP	04	495102004	9/25/2019	Ba-140	7.28E-02	4.35E-02	1.49E-01	U
AP	04	495102004	9/25/2019	Be-7	1.39E-01	1.04E-02	7.17E-03	
AP	04	495102004	9/25/2019	Ce-141	-8.05E-04	7.12E-04	1.91E-03	U
AP	04	495102004	9/25/2019	Ce-144	4.53E-04	4.29E-04	1.42E-03	U
AP	04	495102004	9/25/2019	Co-57	0.00E+00	9.45E-05	1.62E-04	U
AP	04	495102004	9/25/2019	Co-58	1.05E-04	1.62E-04	5.81E-04	U
AP	04	495102004	9/25/2019	Co-60	-2.27E-05	9.66E-05	3.03E-04	U
AP	04	495102004	9/25/2019	Cr-51	-2.38E-03	6.57E-03	2.17E-02	U
AP	04	495102004	9/25/2019	Cs-134	1.19E-04	8.88E-05	3.26E-04	U
AP	04	495102004	9/25/2019	Cs-137	-2.21E-05	9.31E-05	2.92E-04	U
AP	04	495102004	9/25/2019	Fe-59	-1.66E-04	6.55E-04	2.02E-03	U
AP	04	495102004	9/25/2019	I-131	0.00E+00	2.13E-01	0.00E+00	UI
AP	04	495102004	9/25/2019	K-40	-7.40E-04	1.59E-03	5.67E-03	U
AP	04	495102004	9/25/2019	La-140	2.43E-02	1.94E-02	6.86E-02	U
AP	04	495102004	9/25/2019	Mn-54	-1.96E-05	1.20E-04	4.02E-04	U
AP	04	495102004	9/25/2019	Nb-95	-2.87E-04	2.29E-04	5.88E-04	U
AP	04	495102004	9/25/2019	Ru-103	6.76E-04	4.23E-04	1.44E-03	U
AP	04	495102004	9/25/2019	Ru-106	1.18E-04	8.13E-04	2.66E-03	U
AP	04	495102004	9/25/2019	Sb-124	-4.65E-04	6.79E-04	2.04E-03	U
AP	04	495102004	9/25/2019	Sb-125	6.74E-05	2.05E-04	6.93E-04	U
AP	04	495102004	9/25/2019	Se-75	1.21E-05	1.87E-04	5.79E-04	U
AP	04	495102004	9/25/2019	Th-228	1.93E-04	2.04E-04	5.36E-04	U
AP	04	495102004	9/25/2019	Zn-65	-2.27E-04	2.74E-04	8.06E-04	U
AP	04	495102004	9/25/2019	Zr-95	2.37E-04	4.55E-04	1.43E-03	U
AP	04	492911004	10/9/2019	BETA	2.42E-02	1.14E-03	9.52E-04	
AP	04	494093004	10/23/2019	BETA	1.91E-02	9.70E-04	8.79E-04	
AP	04	495754004	11/6/2019	BETA	2.03E-02	1.03E-03	1.01E-03	
AP	04	497462004	11/20/2019	BETA	3.31E-02	1.40E-03	1.07E-03	
AP	04	498454004	12/4/2019	BETA	3.01E-02	1.36E-03	1.15E-03	
AP	04	499693004	12/18/2019	BETA	2.35E-02	1.21E-03	1.17E-03	
AP	04	500194004	12/31/2019	BETA	3.44E-02	1.37E-03	9.70E-04	
AP	04	502090004	12/31/2019	Ac-228	-2.30E-04	3.48E-04	1.06E-03	U
AP	04	502090004	12/31/2019	Ag-108m	-1.06E-05	4.88E-05	1.62E-04	U
AP	04	502090004	12/31/2019	Ag-110m	1.74E-04	1.27E-04	4.48E-04	U
AP	04	502090004	12/31/2019	Ba-140	7.96E-02	4.28E-02	1.49E-01	U
AP	04	502090004	12/31/2019	Be-7	1.07E-01	7.60E-03	6.33E-03	
AP	04	502090004	12/31/2019	Ce-141	-1.18E-04	5.20E-04	1.66E-03	U
AP	04	502090004	12/31/2019	Ce-144	-3.41E-04	3.36E-04	9.94E-04	U
AP	04	502090004	12/31/2019	Co-57	1.17E-04	8.14E-05	1.28E-04	U

Seabrook REMP Summary of 2019 Data

SAMPLE TYPE	STATION	LSN	END DATE	NUCLIDE	CONC (pCi/m^3)	STD.DEV. (pCi/m^3)	MDC (pCi/m^3)	FLAGS
AP	04	502090004	12/31/2019	Co-58	-6.16E-05	1.72E-04	5.35E-04	U
AP	04	502090004	12/31/2019	Co-60	-4.22E-05	7.19E-05	2.18E-04	U
AP	04	502090004	12/31/2019	Cr-51	-3.12E-04	4.83E-03	1.65E-02	U
AP	04	502090004	12/31/2019	Cs-134	-1.28E-05	8.04E-05	2.43E-04	U
AP	04	502090004	12/31/2019	Cs-137	3.22E-05	7.47E-05	2.30E-04	U
AP	04	502090004	12/31/2019	Fe-59	-2.60E-04	4.64E-04	1.30E-03	U
AP	04	502090004	12/31/2019	I-131	-1.02E-01	2.23E-01	0.00E+00	U
AP	04	502090004	12/31/2019	K-40	1.73E-03	1.44E-03	2.15E-03	U
AP	04	502090004	12/31/2019	La-140	2.95E-02	1.72E-02	6.56E-02	U
AP	04	502090004	12/31/2019	Mn-54	3.17E-05	6.87E-05	2.34E-04	U
AP	04	502090004	12/31/2019	Nb-95	2.04E-04	2.12E-04	7.29E-04	U
AP	04	502090004	12/31/2019	Ru-103	1.59E-05	2.83E-04	9.53E-04	U
AP	04	502090004	12/31/2019	Ru-106	0.00E+00	7.48E-04	2.01E-03	U
AP	04	502090004	12/31/2019	Sb-124	3.58E-06	4.64E-04	1.53E-03	U
AP	04	502090004	12/31/2019	Sb-125	-2.04E-04	1.60E-04	4.62E-04	U
AP	04	502090004	12/31/2019	Se-75	4.45E-05	1.24E-04	3.97E-04	U
AP	04	502090004	12/31/2019	Th-228	1.13E-04	1.71E-04	3.44E-04	U
AP	04	502090004	12/31/2019	Zn-65	9.09E-05	2.43E-04	7.98E-04	U
AP	04	502090004	12/31/2019	Zr-95	5.17E-04	4.99E-04	1.22E-03	U
AP	05	469297005	1/16/2019	BETA	2.36E-02	1.14E-03	1.14E-03	
AP	05	470206005	1/30/2019	BETA	2.33E-02	1.15E-03	1.15E-03	
AP	05	471371005	2/11/2019	BETA	2.67E-02	1.27E-03	1.15E-03	
AP	05	472602005	2/27/2019	BETA	2.97E-02	1.19E-03	8.67E-04	
AP	05	473844005	3/13/2019	BETA	3.04E-02	1.28E-03	1.12E-03	
AP	05	474872005	3/27/2019	BETA	3.27E-02	1.46E-03	1.19E-03	
AP	05	478604005	3/27/2019	Ac-228	9.71E-04	4.98E-04	1.35E-03	U
AP	05	478604005	3/27/2019	Ag-108m	-6.85E-05	6.50E-05	1.92E-04	U
AP	05	478604005	3/27/2019	Ag-110m	-3.22E-04	1.45E-04	2.78E-04	U
AP	05	478604005	3/27/2019	Ba-140	-1.88E-02	4.53E-02	1.41E-01	U
AP	05	478604005	3/27/2019	Be-7	1.38E-01	1.00E-02	7.06E-03	
AP	05	478604005	3/27/2019	Ce-141	-1.14E-03	8.47E-04	2.16E-03	U
AP	05	478604005	3/27/2019	Ce-144	-7.62E-04	4.38E-04	1.13E-03	U
AP	05	478604005	3/27/2019	Co-57	-8.77E-05	6.74E-05	1.78E-04	U
AP	05	478604005	3/27/2019	Co-58	6.49E-05	2.15E-04	6.64E-04	U
AP	05	478604005	3/27/2019	Co-60	-5.40E-06	7.33E-05	2.35E-04	U
AP	05	478604005	3/27/2019	Cr-51	-9.52E-03	6.79E-03	2.00E-02	U
AP	05	478604005	3/27/2019	Cs-134	-1.47E-04	7.93E-05	1.76E-04	U
AP	05	478604005	3/27/2019	Cs-137	4.09E-05	7.02E-05	2.28E-04	U
AP	05	478604005	3/27/2019	Fe-59	-2.92E-04	7.73E-04	2.44E-03	U
AP	05	478604005	3/27/2019	I-131	0.00E+00	3.14E-01	0.00E+00	UI
AP	05	478604005	3/27/2019	K-40	0.00E+00	1.76E-03	2.41E-03	U
AP	05	478604005	3/27/2019	La-140	8.14E-04	2.25E-02	7.22E-02	U
AP	05	478604005	3/27/2019	Mn-54	1.59E-04	1.07E-04	3.80E-04	U

Seabrook REMP Summary of 2019 Data

SAMPLE TYPE	STATION	LSN	END DATE	NUCLIDE	CONC (pCi/m^3)	STD.DEV. (pCi/m^3)	MDC (pCi/m^3)	FLAGS
AP	05	478604005	3/27/2019	Nb-95	2.39E-05	2.19E-04	7.49E-04	U
AP	05	478604005	3/27/2019	Ru-103	4.56E-04	4.10E-04	1.39E-03	U
AP	05	478604005	3/27/2019	Ru-106	1.72E-03	9.63E-04	3.24E-03	U
AP	05	478604005	3/27/2019	Sb-124	4.06E-04	4.56E-04	1.74E-03	U
AP	05	478604005	3/27/2019	Sb-125	2.37E-04	2.20E-04	7.54E-04	U
AP	05	478604005	3/27/2019	Se-75	-3.69E-05	1.44E-04	4.83E-04	U
AP	05	478604005	3/27/2019	Th-228	6.33E-05	1.49E-04	4.91E-04	U
AP	05	478604005	3/27/2019	Zn-65	-1.77E-04	2.53E-04	7.61E-04	U
AP	05	478604005	3/27/2019	Zr-95	1.05E-04	3.23E-04	1.13E-03	U
AP	05	476459005	4/10/2019	BETA	2.87E-02	1.46E-03	1.28E-03	
AP	05	477788005	4/24/2019	BETA	9.68E-03	6.61E-04	7.66E-04	M
AP	05	478754005	5/8/2019	BETA	1.11E-02	7.16E-04	7.85E-04	
AP	05	480192005	5/22/2019	BETA	3.73E-02	2.14E-03	2.11E-03	
AP	05	481290005	6/5/2019	BETA	1.24E-02	8.21E-04	9.35E-04	
AP	05	482681005	6/19/2019	BETA	1.60E-02	8.91E-04	8.61E-04	
AP	05	486655005	6/19/2019	Ac-228	5.52E-04	4.14E-04	1.32E-03	U
AP	05	486655005	6/19/2019	Ag-108m	6.44E-05	6.01E-05	1.98E-04	U
AP	05	486655005	6/19/2019	Ag-110m	6.06E-05	1.63E-04	5.45E-04	U
AP	05	486655005	6/19/2019	Ba-140	2.20E-02	3.85E-02	1.34E-01	U
AP	05	486655005	6/19/2019	Be-7	1.27E-01	9.52E-03	5.55E-03	
AP	05	486655005	6/19/2019	Ce-141	9.63E-04	1.16E-03	1.89E-03	U
AP	05	486655005	6/19/2019	Ce-144	-4.25E-04	4.23E-04	1.25E-03	U
AP	05	486655005	6/19/2019	Co-57	-6.17E-05	6.00E-05	1.79E-04	U
AP	05	486655005	6/19/2019	Co-58	6.09E-05	2.03E-04	6.80E-04	U
AP	05	486655005	6/19/2019	Co-60	9.62E-05	9.91E-05	3.66E-04	U
AP	05	486655005	6/19/2019	Cr-51	3.10E-03	6.42E-03	2.04E-02	U
AP	05	486655005	6/19/2019	Cs-134	1.00E-04	9.33E-05	3.30E-04	U
AP	05	486655005	6/19/2019	Cs-137	1.39E-04	1.07E-04	3.69E-04	U
AP	05	486655005	6/19/2019	Fe-59	-3.58E-05	6.87E-04	2.17E-03	U
AP	05	486655005	6/19/2019	I-131	0.00E+00	1.74E-01	0.00E+00	UI
AP	05	486655005	6/19/2019	K-40	1.49E-03	2.39E-03	4.39E-03	U
AP	05	486655005	6/19/2019	La-140	-1.76E-02	1.48E-02	3.58E-02	U
AP	05	486655005	6/19/2019	Mn-54	-2.71E-05	8.79E-05	2.74E-04	U
AP	05	486655005	6/19/2019	Nb-95	1.25E-04	2.24E-04	7.64E-04	U
AP	05	486655005	6/19/2019	Ru-103	-5.02E-04	3.68E-04	1.04E-03	U
AP	05	486655005	6/19/2019	Ru-106	-6.83E-05	9.65E-04	3.18E-03	U
AP	05	486655005	6/19/2019	Sb-124	4.92E-04	5.81E-04	2.15E-03	U
AP	05	486655005	6/19/2019	Sb-125	1.79E-04	2.06E-04	7.25E-04	U
AP	05	486655005	6/19/2019	Se-75	1.83E-04	1.80E-04	4.95E-04	U
AP	05	486655005	6/19/2019	Th-228	3.95E-04	2.55E-04	5.40E-04	U
AP	05	486655005	6/19/2019	Zn-65	5.80E-04	3.05E-04	7.77E-04	U
AP	05	486655005	6/19/2019	Zr-95	-1.47E-04	3.32E-04	1.02E-03	U
AP	05	484033005	7/3/2019	BETA	2.07E-02	1.02E-03	8.97E-04	

Seabrook REMP Summary of 2019 Data

SAMPLE TYPE	STATION	LSN	END DATE	NUCLIDE	CONC (pCi/m^3)	STD.DEV. (pCi/m^3)	MDC (pCi/m^3)	FLAGS
AP	05	485327005	7/17/2019	BETA	2.54E-02	1.13E-03	9.50E-04	
AP	05	486539005	7/31/2019	BETA	3.43E-02	1.32E-03	9.57E-04	
AP	05	487940005	8/14/2019	BETA	3.08E-02	1.25E-03	9.78E-04	
AP	05	489375005	8/28/2019	BETA	2.95E-02	1.23E-03	8.76E-04	
AP	05	490269005	9/11/2019	BETA	2.26E-02	1.10E-03	9.52E-04	
AP	05	491293005	9/25/2019	BETA	3.08E-02	1.27E-03	1.01E-03	
AP	05	495102005	9/25/2019	Ac-228	1.08E-03	5.88E-04	1.47E-03	U
AP	05	495102005	9/25/2019	Ag-108m	-1.60E-05	6.21E-05	2.01E-04	U
AP	05	495102005	9/25/2019	Ag-110m	3.78E-05	1.17E-04	3.64E-04	U
AP	05	495102005	9/25/2019	Ba-140	-7.37E-03	3.41E-02	1.09E-01	U
AP	05	495102005	9/25/2019	Be-7	1.47E-01	9.53E-03	5.17E-03	
AP	05	495102005	9/25/2019	Ce-141	-4.51E-04	5.33E-04	1.57E-03	U
AP	05	495102005	9/25/2019	Ce-144	-5.61E-04	3.96E-04	1.09E-03	U
AP	05	495102005	9/25/2019	Co-57	3.06E-05	4.95E-05	1.50E-04	U
AP	05	495102005	9/25/2019	Co-58	4.36E-05	1.60E-04	5.54E-04	U
AP	05	495102005	9/25/2019	Co-60	1.22E-04	1.01E-04	3.58E-04	U
AP	05	495102005	9/25/2019	Cr-51	-1.13E-03	4.64E-03	1.54E-02	U
AP	05	495102005	9/25/2019	Cs-134	4.51E-05	8.31E-05	2.93E-04	U
AP	05	495102005	9/25/2019	Cs-137	1.16E-04	9.15E-05	2.18E-04	U
AP	05	495102005	9/25/2019	Fe-59	3.92E-04	6.07E-04	2.12E-03	U
AP	05	495102005	9/25/2019	I-131	0.00E+00	1.87E-01	0.00E+00	UI
AP	05	495102005	9/25/2019	K-40	0.00E+00	1.43E-03	2.86E-03	U
AP	05	495102005	9/25/2019	La-140	-4.12E-03	1.56E-02	4.85E-02	U
AP	05	495102005	9/25/2019	Mn-54	-7.41E-05	9.43E-05	2.94E-04	U
AP	05	495102005	9/25/2019	Nb-95	-1.43E-04	2.25E-04	5.74E-04	U
AP	05	495102005	9/25/2019	Ru-103	6.26E-05	3.01E-04	9.99E-04	U
AP	05	495102005	9/25/2019	Ru-106	-8.81E-04	8.38E-04	2.38E-03	U
AP	05	495102005	9/25/2019	Sb-124	1.01E-04	4.22E-04	1.42E-03	U
AP	05	495102005	9/25/2019	Sb-125	7.87E-05	1.91E-04	6.45E-04	U
AP	05	495102005	9/25/2019	Se-75	3.92E-05	1.23E-04	4.21E-04	U
AP	05	495102005	9/25/2019	Th-228	8.97E-06	1.31E-04	4.22E-04	U
AP	05	495102005	9/25/2019	Zn-65	-4.35E-05	1.81E-04	5.81E-04	U
AP	05	495102005	9/25/2019	Zr-95	4.40E-04	3.60E-04	1.22E-03	U
AP	05	492911005	10/9/2019	BETA	2.37E-02	1.11E-03	9.02E-04	
AP	05	494093005	10/23/2019	BETA	1.87E-02	9.94E-04	9.55E-04	
AP	05	495754005	11/6/2019	BETA	2.37E-02	1.21E-03	1.11E-03	
AP	05	497462005	11/20/2019	BETA	2.42E-02	1.12E-03	9.65E-04	
AP	05	498454005	12/4/2019	BETA	2.20E-02	1.09E-03	9.58E-04	
AP	05	499693005	12/18/2019	BETA	1.77E-02	9.91E-04	1.00E-03	
AP	05	500194005	12/31/2019	BETA	3.12E-02	1.44E-03	1.24E-03	
AP	05	502090005	12/31/2019	Ac-228	1.62E-04	4.16E-04	1.49E-03	U
AP	05	502090005	12/31/2019	Ag-108m	-8.56E-05	6.45E-05	1.80E-04	U
AP	05	502090005	12/31/2019	Ag-110m	2.73E-05	1.46E-04	5.03E-04	U

SAMPLE TYPE	STATION	LSN	END DATE	NUCLIDE	CONC (pCi/m^3)	STD.DEV. (pCi/m^3)	MDC (pCi/m^3)	FLAGS
AP	05	502090005	12/31/2019	Ba-140	4.66E-02	4.98E-02	1.74E-01	U
AP	05	502090005	12/31/2019	Be-7	1.07E-01	9.33E-03	6.04E-03	
AP	05	502090005	12/31/2019	Ce-141	-3.96E-04	5.84E-04	1.79E-03	U
AP	05	502090005	12/31/2019	Ce-144	3.10E-04	3.85E-04	1.30E-03	U
AP	05	502090005	12/31/2019	Co-57	-6.87E-07	5.43E-05	1.78E-04	U
AP	05	502090005	12/31/2019	Co-58	-8.59E-05	2.08E-04	6.20E-04	U
AP	05	502090005	12/31/2019	Co-60	1.01E-04	6.05E-05	2.59E-04	U
AP	05	502090005	12/31/2019	Cr-51	-4.04E-03	7.15E-03	2.08E-02	U
AP	05	502090005	12/31/2019	Cs-134	5.20E-05	9.83E-05	3.30E-04	U
AP	05	502090005	12/31/2019	Cs-137	1.84E-04	1.37E-04	2.57E-04	U
AP	05	502090005	12/31/2019	Fe-59	-5.04E-04	7.03E-04	2.06E-03	U
AP	05	502090005	12/31/2019	I-131	0.00E+00	3.00E-01	0.00E+00	UI
AP	05	502090005	12/31/2019	K-40	0.00E+00	1.65E-03	1.84E-03	U
AP	05	502090005	12/31/2019	La-140	3.92E-03	2.22E-02	7.35E-02	U
AP	05	502090005	12/31/2019	Mn-54	2.30E-05	1.14E-04	3.94E-04	U
AP	05	502090005	12/31/2019	Nb-95	5.19E-04	3.42E-04	6.64E-04	U
AP	05	502090005	12/31/2019	Ru-103	2.85E-04	3.97E-04	1.37E-03	U
AP	05	502090005	12/31/2019	Ru-106	5.20E-04	8.49E-04	2.89E-03	U
AP	05	502090005	12/31/2019	Sb-124	-9.80E-04	7.48E-04	1.85E-03	U
AP	05	502090005	12/31/2019	Sb-125	-2.89E-04	2.25E-04	6.43E-04	U
AP	05	502090005	12/31/2019	Se-75	1.89E-04	1.52E-04	4.99E-04	U
AP	05	502090005	12/31/2019	Th-228	1.24E-04	2.03E-04	5.28E-04	U
AP	05	502090005	12/31/2019	Zn-65	1.79E-04	2.62E-04	9.26E-04	U
AP	05	502090005	12/31/2019	Zr-95	-7.03E-05	3.92E-04	1.22E-03	U
AP	07	469297006	1/16/2019	BETA	2.63E-02	1.17E-03	9.43E-04	
AP	07	470206006	1/30/2019	BETA	2.47E-02	1.14E-03	9.41E-04	
AP	07	471371006	2/11/2019	BETA	2.81E-02	1.27E-03	1.07E-03	
AP	07	472602006	2/27/2019	BETA	3.28E-02	1.23E-03	8.39E-04	
AP	07	473844006	3/13/2019	BETA	2.79E-02	1.15E-03	8.62E-04	
AP	07	474872006	3/27/2019	BETA	2.43E-02	1.04E-03	9.11E-04	
AP	07	478604006	3/27/2019	Ac-228	-2.09E-04	3.49E-04	1.08E-03	U
AP	07	478604006	3/27/2019	Ag-108m	-8.50E-05	5.23E-05	1.37E-04	U
AP	07	478604006	3/27/2019	Ag-110m	5.22E-05	1.07E-04	3.74E-04	U
AP	07	478604006	3/27/2019	Ba-140	1.11E-01	6.47E-02	1.39E-01	U
AP	07	478604006	3/27/2019	Be-7	1.18E-01	8.85E-03	5.28E-03	
AP	07	478604006	3/27/2019	Ce-141	-3.33E-04	6.51E-04	1.80E-03	U
AP	07	478604006	3/27/2019	Ce-144	1.30E-04	3.82E-04	1.21E-03	U
AP	07	478604006	3/27/2019	Co-57	3.89E-05	4.62E-05	1.49E-04	U
AP	07	478604006	3/27/2019	Co-58	-1.78E-04	1.58E-04	4.62E-04	U
AP	07	478604006	3/27/2019	Co-60	3.59E-05	8.61E-05	2.94E-04	U
AP	07	478604006	3/27/2019	Cr-51	-3.17E-03	4.89E-03	1.55E-02	U
AP	07	478604006	3/27/2019	Cs-134	-3.38E-05	6.74E-05	2.16E-04	U
AP	07	478604006	3/27/2019	Cs-137	-9.53E-06	7.06E-05	2.23E-04	U

Seabrook REMP Summary of 2019 Data

SAMPLE TYPE	STATION	LSN	END DATE	NUCLIDE	CONC (pCi/m^3)	STD.DEV. (pCi/m^3)	MDC (pCi/m^3)	FLAGS
AP	07	478604006	3/27/2019	Fe-59	-2.94E-04	5.76E-04	1.79E-03	U
AP	07	478604006	3/27/2019	I-131	0.00E+00	2.41E-01	0.00E+00	UI
AP	07	478604006	3/27/2019	K-40	1.75E-03	1.91E-03	2.30E-03	U
AP	07	478604006	3/27/2019	La-140	-1.08E-02	1.46E-02	4.03E-02	U
AP	07	478604006	3/27/2019	Mn-54	-5.03E-05	8.75E-05	2.80E-04	U
AP	07	478604006	3/27/2019	Nb-95	2.63E-04	1.74E-04	5.07E-04	U
AP	07	478604006	3/27/2019	Ru-103	-1.24E-04	2.88E-04	9.00E-04	U
AP	07	478604006	3/27/2019	Ru-106	4.13E-04	7.50E-04	2.49E-03	U
AP	07	478604006	3/27/2019	Sb-124	-2.40E-04	5.22E-04	1.54E-03	U
AP	07	478604006	3/27/2019	Sb-125	2.60E-04	1.88E-04	6.37E-04	U
AP	07	478604006	3/27/2019	Se-75	1.27E-04	1.20E-04	4.12E-04	U
AP	07	478604006	3/27/2019	Th-228	2.36E-04	1.64E-04	3.24E-04	U
AP	07	478604006	3/27/2019	Zn-65	-6.94E-05	1.67E-04	5.23E-04	U
AP	07	478604006	3/27/2019	Zr-95	3.77E-05	3.00E-04	9.63E-04	U
AP	07	476459006	4/10/2019	BETA	2.00E-02	9.43E-04	7.89E-04	
AP	07	477788006	4/24/2019	BETA	1.85E-02	9.10E-04	7.91E-04	
AP	07	478754006	5/8/2019	BETA	1.79E-02	9.28E-04	9.03E-04	
AP	07	480192006	5/22/2019	BETA	2.33E-02	1.17E-03	1.04E-03	
AP	07	481290006	6/5/2019	BETA	1.85E-02	1.16E-03	1.23E-03	
AP	07	482681006	6/19/2019	BETA	1.42E-02	7.97E-04	7.52E-04	
AP	07	486655006	6/19/2019	Ac-228	-7.03E-04	3.79E-04	9.95E-04	U
AP	07	486655006	6/19/2019	Ag-108m	-1.04E-04	7.55E-05	2.05E-04	U
AP	07	486655006	6/19/2019	Ag-110m	2.04E-04	1.26E-04	4.21E-04	U
AP	07	486655006	6/19/2019	Ba-140	1.60E-02	3.89E-02	1.25E-01	U
AP	07	486655006	6/19/2019	Be-7	1.18E-01	8.09E-03	5.65E-03	
AP	07	486655006	6/19/2019	Ce-141	-2.36E-05	6.85E-04	1.95E-03	U
AP	07	486655006	6/19/2019	Ce-144	-7.79E-07	4.20E-04	1.43E-03	U
AP	07	486655006	6/19/2019	Co-57	-1.30E-04	6.02E-05	1.63E-04	U
AP	07	486655006	6/19/2019	Co-58	-7.28E-05	1.67E-04	5.04E-04	U
AP	07	486655006	6/19/2019	Co-60	-1.18E-04	8.22E-05	1.90E-04	U
AP	07	486655006	6/19/2019	Cr-51	-6.10E-03	5.31E-03	1.60E-02	U
AP	07	486655006	6/19/2019	Cs-134	1.35E-04	8.64E-05	2.94E-04	U
AP	07	486655006	6/19/2019	Cs-137	-5.98E-05	8.41E-05	2.52E-04	U
AP	07	486655006	6/19/2019	Fe-59	4.25E-04	5.73E-04	2.02E-03	U
AP	07	486655006	6/19/2019	I-131	-3.63E-01	2.14E-01	0.00E+00	U
AP	07	486655006	6/19/2019	K-40	5.47E-03	1.40E-03	8.55E-04	
AP	07	486655006	6/19/2019	La-140	-2.06E-02	1.40E-02	3.27E-02	U
AP	07	486655006	6/19/2019	Mn-54	1.07E-04	9.14E-05	3.08E-04	U
AP	07	486655006	6/19/2019	Nb-95	-5.28E-04	2.54E-04	5.72E-04	U
AP	07	486655006	6/19/2019	Ru-103	-2.71E-04	3.78E-04	1.02E-03	U
AP	07	486655006	6/19/2019	Ru-106	1.01E-03	7.58E-04	2.55E-03	U
AP	07	486655006	6/19/2019	Sb-124	-1.49E-04	3.09E-04	8.84E-04	U
AP	07	486655006	6/19/2019	Sb-125	1.92E-04	2.03E-04	6.84E-04	U

SAMPLE TYPE	STATION	LSN	END DATE	NUCLIDE	CONC (pCi/m^3)	STD.DEV. (pCi/m^3)	MDC (pCi/m^3)	FLAGS
AP	07	486655006	6/19/2019	Se-75	6.54E-06	1.43E-04	4.77E-04	U
AP	07	486655006	6/19/2019	Th-228	0.00E+00	2.37E-04	4.57E-04	U
AP	07	486655006	6/19/2019	Zn-65	2.54E-04	1.74E-04	6.02E-04	U
AP	07	486655006	6/19/2019	Zr-95	5.69E-04	3.13E-04	1.07E-03	U
AP	07	484033006	7/3/2019	BETA	1.79E-02	9.01E-04	8.26E-04	
AP	07	485327006	7/17/2019	BETA	2.21E-02	9.43E-04	6.92E-04	
AP	07	486539006	7/31/2019	BETA	3.28E-02	1.29E-03	9.90E-04	
AP	07	487940006	8/14/2019	BETA	2.92E-02	1.14E-03	8.11E-04	
AP	07	489375006	8/28/2019	BETA	2.69E-02	1.11E-03	9.20E-04	
AP	07	490269006	9/11/2019	BETA	2.29E-02	1.01E-03	7.60E-04	
AP	07	491293006	9/25/2019	BETA	3.50E-02	1.24E-03	8.34E-04	
AP	07	495102006	9/25/2019	Ac-228	-1.12E-04	3.32E-04	1.03E-03	U
AP	07	495102006	9/25/2019	Ag-108m	-7.28E-05	5.71E-05	1.64E-04	U
AP	07	495102006	9/25/2019	Ag-110m	1.21E-04	1.01E-04	3.46E-04	U
AP	07	495102006	9/25/2019	Ba-140	2.95E-02	3.16E-02	1.10E-01	U
AP	07	495102006	9/25/2019	Be-7	1.50E-01	9.59E-03	5.13E-03	
AP	07	495102006	9/25/2019	Ce-141	1.83E-04	5.24E-04	1.69E-03	U
AP	07	495102006	9/25/2019	Ce-144	-2.88E-04	3.48E-04	1.04E-03	U
AP	07	495102006	9/25/2019	Co-57	9.16E-06	4.02E-05	1.31E-04	U
AP	07	495102006	9/25/2019	Co-58	-2.41E-04	1.77E-04	4.47E-04	U
AP	07	495102006	9/25/2019	Co-60	3.28E-05	7.61E-05	2.68E-04	U
AP	07	495102006	9/25/2019	Cr-51	1.64E-03	4.46E-03	1.54E-02	U
AP	07	495102006	9/25/2019	Cs-134	7.78E-05	9.05E-05	3.10E-04	U
AP	07	495102006	9/25/2019	Cs-137	-4.33E-05	6.22E-05	1.84E-04	U
AP	07	495102006	9/25/2019	Fe-59	-2.89E-04	4.38E-04	1.32E-03	U
AP	07	495102006	9/25/2019	I-131	-2.25E-01	1.45E-01	0.00E+00	U
AP	07	495102006	9/25/2019	K-40	2.25E-03	1.80E-03	2.57E-03	U
AP	07	495102006	9/25/2019	La-140	1.65E-02	1.36E-02	5.07E-02	U
AP	07	495102006	9/25/2019	Mn-54	1.58E-04	9.77E-05	3.39E-04	U
AP	07	495102006	9/25/2019	Nb-95	2.19E-04	1.79E-04	6.25E-04	U
AP	07	495102006	9/25/2019	Ru-103	5.62E-04	3.02E-04	9.52E-04	U
AP	07	495102006	9/25/2019	Ru-106	-6.44E-04	6.96E-04	1.70E-03	U
AP	07	495102006	9/25/2019	Sb-124	3.21E-04	4.13E-04	1.53E-03	U
AP	07	495102006	9/25/2019	Sb-125	7.54E-05	1.49E-04	5.17E-04	U
AP	07	495102006	9/25/2019	Se-75	-1.54E-04	1.25E-04	3.82E-04	U
AP	07	495102006	9/25/2019	Th-228	2.19E-04	2.05E-04	3.34E-04	U
AP	07	495102006	9/25/2019	Zn-65	0.00E+00	3.43E-04	4.94E-04	U
AP	07	495102006	9/25/2019	Zr-95	-1.25E-04	2.70E-04	8.14E-04	U
AP	07	492911006	10/9/2019	BETA	2.32E-02	1.03E-03	9.22E-04	
AP	07	494093006	10/23/2019	BETA	2.45E-02	1.12E-03	9.36E-04	
AP	07	495754006	11/6/2019	BETA	1.92E-02	9.29E-04	8.47E-04	
AP	07	497462006	11/20/2019	BETA	2.46E-02	1.00E-03	7.32E-04	
AP	07	498454006	12/4/2019	BETA	1.94E-02	9.04E-04	7.64E-04	

Seabrook REMP Summary of 2019 Data

SAMPLE TYPE	STATION	LSN	END DATE	NUCLIDE	CONC (pCi/m^3)	STD.DEV. (pCi/m^3)	MDC (pCi/m^3)	FLAGS
AP	07	499693006	12/18/2019	BETA	1.66E-02	8.39E-04	7.72E-04	
AP	07	500194006	12/31/2019	BETA	3.46E-02	1.27E-03	8.52E-04	
AP	07	502090006	12/31/2019	Ac-228	8.58E-04	4.25E-04	1.47E-03	U
AP	07	502090006	12/31/2019	Ag-108m	8.10E-05	6.28E-05	2.14E-04	U
AP	07	502090006	12/31/2019	Ag-110m	8.16E-05	1.59E-04	4.95E-04	U
AP	07	502090006	12/31/2019	Ba-140	-1.75E-02	5.64E-02	1.52E-01	U
AP	07	502090006	12/31/2019	Be-7	1.21E-01	8.55E-03	6.11E-03	
AP	07	502090006	12/31/2019	Ce-141	-6.40E-04	5.05E-04	1.55E-03	U
AP	07	502090006	12/31/2019	Ce-144	-1.99E-04	3.27E-04	9.68E-04	U
AP	07	502090006	12/31/2019	Co-57	-6.23E-06	4.07E-05	1.26E-04	U
AP	07	502090006	12/31/2019	Co-58	1.04E-04	2.10E-04	7.27E-04	U
AP	07	502090006	12/31/2019	Co-60	4.05E-05	9.66E-05	3.29E-04	U
AP	07	502090006	12/31/2019	Cr-51	1.58E-03	5.91E-03	1.98E-02	U
AP	07	502090006	12/31/2019	Cs-134	6.85E-05	9.63E-05	3.39E-04	U
AP	07	502090006	12/31/2019	Cs-137	-8.20E-05	9.83E-05	3.07E-04	U
AP	07	502090006	12/31/2019	Fe-59	6.92E-04	7.27E-04	2.39E-03	U
AP	07	502090006	12/31/2019	I-131	0.00E+00	3.73E-01	0.00E+00	UI
AP	07	502090006	12/31/2019	K-40	2.89E-04	1.22E-03	4.42E-03	U
AP	07	502090006	12/31/2019	La-140	-3.57E-03	1.98E-02	6.45E-02	U
AP	07	502090006	12/31/2019	Mn-54	5.48E-05	1.11E-04	3.84E-04	U
AP	07	502090006	12/31/2019	Nb-95	9.55E-05	2.54E-04	8.75E-04	U
AP	07	502090006	12/31/2019	Ru-103	4.45E-05	3.51E-04	1.14E-03	U
AP	07	502090006	12/31/2019	Ru-106	-1.79E-04	8.44E-04	2.82E-03	U
AP	07	502090006	12/31/2019	Sb-124	5.38E-05	6.30E-04	2.13E-03	U
AP	07	502090006	12/31/2019	Sb-125	-4.63E-05	1.50E-04	4.69E-04	U
AP	07	502090006	12/31/2019	Se-75	2.45E-04	1.21E-04	4.05E-04	U
AP	07	502090006	12/31/2019	Th-228	4.33E-05	1.59E-04	4.52E-04	U
AP	07	502090006	12/31/2019	Zn-65	-1.96E-04	2.80E-04	8.30E-04	U
AP	07	502090006	12/31/2019	Zr-95	-1.80E-05	4.30E-04	1.44E-03	U
AP	08	469297007	1/16/2019	BETA	2.08E-02	9.85E-04	9.16E-04	
AP	08	470206007	1/30/2019	BETA	2.08E-02	9.94E-04	9.93E-04	
AP	08	471371007	2/11/2019	BETA	2.81E-02	1.30E-03	1.14E-03	
AP	08	472602007	2/27/2019	BETA	2.56E-02	1.02E-03	8.01E-04	
AP	08	473844007	3/13/2019	BETA	2.71E-02	1.15E-03	9.41E-04	
AP	08	474872007	3/27/2019	BETA	2.24E-02	1.03E-03	8.87E-04	
AP	08	478604007	3/27/2019	Ac-228	3.10E-04	4.77E-04	1.42E-03	U
AP	08	478604007	3/27/2019	Ag-108m	-7.95E-06	5.94E-05	1.96E-04	U
AP	08	478604007	3/27/2019	Ag-110m	-6.42E-05	1.49E-04	4.77E-04	U
AP	08	478604007	3/27/2019	Ba-140	-5.98E-03	4.16E-02	1.34E-01	U
AP	08	478604007	3/27/2019	Be-7	1.25E-01	9.06E-03	7.16E-03	
AP	08	478604007	3/27/2019	Ce-141	-2.67E-04	5.24E-04	1.53E-03	U
AP	08	478604007	3/27/2019	Ce-144	-5.21E-04	4.12E-04	1.22E-03	U
AP	08	478604007	3/27/2019	Co-57	-9.11E-05	4.56E-05	1.14E-04	U

SAMPLE TYPE	STATION	LSN	END DATE	NUCLIDE	CONC (pCi/m^3)	STD.DEV. (pCi/m^3)	MDC (pCi/m^3)	FLAGS
AP	08	478604007	3/27/2019	Co-58	-1.33E-04	1.88E-04	4.89E-04	U
AP	08	478604007	3/27/2019	Co-60	-1.99E-04	1.19E-04	2.49E-04	U
AP	08	478604007	3/27/2019	Cr-51	1.39E-03	5.22E-03	1.81E-02	U
AP	08	478604007	3/27/2019	Cs-134	3.52E-05	9.26E-05	3.24E-04	U
AP	08	478604007	3/27/2019	Cs-137	1.44E-04	1.10E-04	2.01E-04	U
AP	08	478604007	3/27/2019	Fe-59	9.37E-05	6.65E-04	2.22E-03	U
AP	08	478604007	3/27/2019	I-131	0.00E+00	2.59E-01	0.00E+00	UI
AP	08	478604007	3/27/2019	K-40	5.88E-03	1.56E-03	3.19E-03	
AP	08	478604007	3/27/2019	La-140	1.57E-02	2.09E-02	7.57E-02	U
AP	08	478604007	3/27/2019	Mn-54	-6.97E-05	1.04E-04	3.23E-04	U
AP	08	478604007	3/27/2019	Nb-95	4.13E-05	1.98E-04	6.86E-04	U
AP	08	478604007	3/27/2019	Ru-103	1.11E-04	3.45E-04	1.17E-03	U
AP	08	478604007	3/27/2019	Ru-106	-1.71E-03	9.92E-04	2.41E-03	U
AP	08	478604007	3/27/2019	Sb-124	-6.28E-04	6.66E-04	1.82E-03	U
AP	08	478604007	3/27/2019	Sb-125	1.03E-04	2.01E-04	6.91E-04	U
AP	08	478604007	3/27/2019	Se-75	8.70E-05	1.41E-04	4.58E-04	U
AP	08	478604007	3/27/2019	Th-228	2.83E-04	2.19E-04	4.64E-04	U
AP	08	478604007	3/27/2019	Zn-65	1.17E-04	2.20E-04	7.68E-04	U
AP	08	478604007	3/27/2019	Zr-95	-7.60E-05	3.53E-04	1.09E-03	U
AP	08	476459007	4/10/2019	BETA	1.91E-02	9.77E-04	9.43E-04	
AP	08	477788007	4/24/2019	BETA	1.58E-02	9.13E-04	9.71E-04	
AP	08	478754007	5/8/2019	BETA	1.76E-02	9.56E-04	9.37E-04	
AP	08	480192007	5/22/2019	BETA	1.50E-02	9.12E-04	9.94E-04	
AP	08	481290007	6/5/2019	BETA	1.30E-02	8.71E-04	1.02E-03	
AP	08	482681007	6/19/2019	BETA	1.66E-02	9.63E-04	9.78E-04	
AP	08	486655007	6/19/2019	Ac-228	1.60E-04	4.96E-04	1.66E-03	U
AP	08	486655007	6/19/2019	Ag-108m	1.07E-05	6.92E-05	2.34E-04	U
AP	08	486655007	6/19/2019	Ag-110m	-1.81E-04	1.90E-04	5.22E-04	U
AP	08	486655007	6/19/2019	Ba-140	-3.37E-02	5.25E-02	1.42E-01	U
AP	08	486655007	6/19/2019	Be-7	9.66E-02	9.51E-03	8.99E-03	
AP	08	486655007	6/19/2019	Ce-141	-6.06E-04	5.91E-04	1.74E-03	U
AP	08	486655007	6/19/2019	Ce-144	6.49E-04	4.33E-04	1.42E-03	U
AP	08	486655007	6/19/2019	Co-57	6.12E-05	4.98E-05	1.65E-04	U
AP	08	486655007	6/19/2019	Co-58	2.84E-04	2.49E-04	8.53E-04	U
AP	08	486655007	6/19/2019	Co-60	-9.25E-05	1.09E-04	3.08E-04	U
AP	08	486655007	6/19/2019	Cr-51	1.06E-02	6.27E-03	2.15E-02	U
AP	08	486655007	6/19/2019	Cs-134	3.78E-05	1.10E-04	3.64E-04	U
AP	08	486655007	6/19/2019	Cs-137	-2.16E-04	1.25E-04	2.84E-04	U
AP	08	486655007	6/19/2019	Fe-59	-1.02E-03	6.78E-04	1.60E-03	U
AP	08	486655007	6/19/2019	I-131	-3.15E-02	1.90E-01	0.00E+00	U
AP	08	486655007	6/19/2019	K-40	4.76E-03	2.07E-03	1.40E-03	
AP	08	486655007	6/19/2019	La-140	1.90E-02	2.30E-02	8.11E-02	U
AP	08	486655007	6/19/2019	Mn-54	1.19E-04	1.24E-04	4.21E-04	U

Seabrook REMP Summary of 2019 Data

SAMPLE TYPE	STATION	LSN	END DATE	NUCLIDE	CONC (pCi/m^3)	STD.DEV. (pCi/m^3)	MDC (pCi/m^3)	FLAGS
AP	08	486655007	6/19/2019	Nb-95	6.20E-04	1.78E-04	7.62E-04	U
AP	08	486655007	6/19/2019	Ru-103	5.58E-05	3.99E-04	1.34E-03	U
AP	08	486655007	6/19/2019	Ru-106	1.79E-03	1.07E-03	3.66E-03	U
AP	08	486655007	6/19/2019	Sb-124	5.29E-05	5.78E-04	1.90E-03	U
AP	08	486655007	6/19/2019	Sb-125	-2.53E-04	2.33E-04	6.94E-04	U
AP	08	486655007	6/19/2019	Se-75	-5.01E-05	1.56E-04	4.74E-04	U
AP	08	486655007	6/19/2019	Th-228	3.35E-05	1.77E-04	4.82E-04	U
AP	08	486655007	6/19/2019	Zn-65	1.26E-04	1.95E-04	6.53E-04	U
AP	08	486655007	6/19/2019	Zr-95	-1.91E-04	4.13E-04	1.25E-03	U
AP	08	484033007	7/3/2019	BETA	1.82E-02	1.03E-03	1.03E-03	
AP	08	485327007	7/17/2019	BETA	2.45E-02	1.17E-03	9.97E-04	
AP	08	486539007	7/31/2019	BETA	3.25E-02	1.36E-03	1.06E-03	
AP	08	487940007	8/14/2019	BETA	2.93E-02	1.29E-03	9.96E-04	
AP	08	489375007	8/28/2019	BETA	2.72E-02	1.27E-03	1.06E-03	
AP	08	490269007	9/11/2019	BETA	2.20E-02	1.16E-03	1.19E-03	
AP	08	491293007	9/25/2019	BETA	3.06E-02	1.24E-03	9.29E-04	
AP	08	495102007	9/25/2019	Ac-228	1.75E-04	4.60E-04	1.40E-03	U
AP	08	495102007	9/25/2019	Ag-108m	-9.04E-05	6.21E-05	1.78E-04	U
AP	08	495102007	9/25/2019	Ag-110m	5.37E-05	1.80E-04	5.34E-04	U
AP	08	495102007	9/25/2019	Ba-140	-6.15E-03	3.81E-02	1.14E-01	U
AP	08	495102007	9/25/2019	Be-7	1.31E-01	9.18E-03	6.71E-03	
AP	08	495102007	9/25/2019	Ce-141	1.37E-05	5.16E-04	1.59E-03	U
AP	08	495102007	9/25/2019	Ce-144	-3.89E-04	3.76E-04	1.15E-03	U
AP	08	495102007	9/25/2019	Co-57	3.53E-05	4.93E-05	1.69E-04	U
AP	08	495102007	9/25/2019	Co-58	-1.02E-04	1.69E-04	4.30E-04	U
AP	08	495102007	9/25/2019	Co-60	-1.24E-05	8.72E-05	2.85E-04	U
AP	08	495102007	9/25/2019	Cr-51	2.51E-03	5.19E-03	1.68E-02	U
AP	08	495102007	9/25/2019	Cs-134	-1.97E-04	9.56E-05	1.84E-04	U
AP	08	495102007	9/25/2019	Cs-137	0.00E+00	1.34E-04	2.22E-04	U
AP	08	495102007	9/25/2019	Fe-59	-7.70E-04	5.64E-04	1.46E-03	U
AP	08	495102007	9/25/2019	I-131	0.00E+00	1.93E-01	0.00E+00	UI
AP	08	495102007	9/25/2019	K-40	2.01E-04	1.36E-03	4.41E-03	U
AP	08	495102007	9/25/2019	La-140	-2.67E-02	1.65E-02	3.53E-02	U
AP	08	495102007	9/25/2019	Mn-54	-2.87E-05	9.15E-05	2.85E-04	U
AP	08	495102007	9/25/2019	Nb-95	3.38E-05	1.84E-04	5.52E-04	U
AP	08	495102007	9/25/2019	Ru-103	3.49E-04	3.32E-04	1.17E-03	U
AP	08	495102007	9/25/2019	Ru-106	4.25E-04	6.57E-04	2.29E-03	U
AP	08	495102007	9/25/2019	Sb-124	-1.98E-04	4.75E-04	1.41E-03	U
AP	08	495102007	9/25/2019	Sb-125	-4.99E-05	1.87E-04	6.27E-04	U
AP	08	495102007	9/25/2019	Se-75	1.25E-06	1.40E-04	4.46E-04	U
AP	08	495102007	9/25/2019	Th-228	-6.56E-05	1.45E-04	4.62E-04	U
AP	08	495102007	9/25/2019	Zn-65	-6.27E-05	1.68E-04	5.38E-04	U
AP	08	495102007	9/25/2019	Zr-95	3.68E-04	2.98E-04	1.07E-03	U

Seabrook REMP Summary of 2019 Data

SAMPLE TYPE	STATION	LSN	END DATE	NUCLIDE	CONC (pCi/m^3)	STD.DEV. (pCi/m^3)	MDC (pCi/m^3)	FLAGS
AP	08	492911007	10/9/2019	BETA	2.25E-02	1.06E-03	9.22E-04	
AP	08	494093007	10/23/2019	BETA	1.83E-02	9.76E-04	9.55E-04	
AP	08	495754007	11/6/2019	BETA	1.98E-02	9.92E-04	9.06E-04	
AP	08	497462007	11/20/2019	BETA	2.20E-02	1.05E-03	9.34E-04	
AP	08	498454007	12/4/2019	BETA	1.98E-02	1.01E-03	9.49E-04	
AP	08	499693007	12/18/2019	BETA	1.84E-02	9.68E-04	9.15E-04	
AP	08	500194007	12/31/2019	BETA	2.83E-02	1.19E-03	8.76E-04	
AP	08	502090007	12/31/2019	Ac-228	4.19E-04	3.46E-04	1.24E-03	U
AP	08	502090007	12/31/2019	Ag-108m	6.41E-05	6.00E-05	2.09E-04	U
AP	08	502090007	12/31/2019	Ag-110m	-5.86E-05	1.55E-04	4.68E-04	U
AP	08	502090007	12/31/2019	Ba-140	-9.04E-03	4.78E-02	1.55E-01	U
AP	08	502090007	12/31/2019	Be-7	1.11E-01	8.16E-03	5.45E-03	
AP	08	502090007	12/31/2019	Ce-141	-6.10E-04	5.75E-04	1.69E-03	U
AP	08	502090007	12/31/2019	Ce-144	4.18E-05	2.98E-04	9.72E-04	U
AP	08	502090007	12/31/2019	Co-57	-3.91E-05	4.14E-05	1.24E-04	U
AP	08	502090007	12/31/2019	Co-58	6.85E-05	2.13E-04	7.04E-04	U
AP	08	502090007	12/31/2019	Co-60	-1.27E-04	8.15E-05	1.66E-04	U
AP	08	502090007	12/31/2019	Cr-51	-2.68E-03	4.67E-03	1.52E-02	U
AP	08	502090007	12/31/2019	Cs-134	1.47E-06	8.79E-05	2.51E-04	U
AP	08	502090007	12/31/2019	Cs-137	7.83E-05	8.40E-05	2.88E-04	U
AP	08	502090007	12/31/2019	Fe-59	-8.72E-04	7.46E-04	1.90E-03	U
AP	08	502090007	12/31/2019	I-131	-1.83E-01	2.78E-01	0.00E+00	U
AP	08	502090007	12/31/2019	K-40	1.58E-03	1.59E-03	3.35E-03	U
AP	08	502090007	12/31/2019	La-140	-5.57E-03	2.24E-02	7.00E-02	U
AP	08	502090007	12/31/2019	Mn-54	4.73E-05	9.61E-05	2.92E-04	U
AP	08	502090007	12/31/2019	Nb-95	-4.16E-04	3.01E-04	7.77E-04	U
AP	08	502090007	12/31/2019	Ru-103	-3.60E-04	3.28E-04	8.56E-04	U
AP	08	502090007	12/31/2019	Ru-106	-7.51E-04	8.36E-04	2.45E-03	U
AP	08	502090007	12/31/2019	Sb-124	3.74E-04	4.06E-04	1.57E-03	U
AP	08	502090007	12/31/2019	Sb-125	1.61E-04	1.97E-04	6.81E-04	U
AP	08	502090007	12/31/2019	Se-75	4.48E-05	1.36E-04	4.31E-04	U
AP	08	502090007	12/31/2019	Th-228	0.00E+00	1.65E-04	2.99E-04	U
AP	08	502090007	12/31/2019	Zn-65	3.49E-04	2.59E-04	9.35E-04	U
AP	08	502090007	12/31/2019	Zr-95	-5.20E-06	3.46E-04	1.11E-03	U
AP	09	469297008	1/16/2019	BETA	2.37E-02	1.11E-03	9.24E-04	
AP	09	470206008	1/30/2019	BETA	2.15E-02	1.04E-03	9.13E-04	
AP	09	471371008	2/11/2019	BETA	2.89E-02	1.32E-03	1.23E-03	
AP	09	472602008	2/27/2019	BETA	2.50E-02	1.04E-03	8.04E-04	
AP	09	473844008	3/13/2019	BETA	2.84E-02	1.27E-03	1.03E-03	
AP	09	474872008	3/27/2019	BETA	2.38E-02	1.05E-03	8.81E-04	
AP	09	478604008	3/27/2019	Ac-228	3.83E-04	4.76E-04	1.61E-03	U
AP	09	478604008	3/27/2019	Ag-108m	-4.53E-05	7.00E-05	2.11E-04	U
AP	09	478604008	3/27/2019	Ag-110m	-3.17E-04	1.71E-04	3.97E-04	U

Seabrook REMP Summary of 2019 Data

SAMPLE TYPE	STATION	LSN	END DATE	NUCLIDE	CONC (pCi/m^3)	STD.DEV. (pCi/m^3)	MDC (pCi/m^3)	FLAGS
AP	09	478604008	3/27/2019	Ba-140	2.18E-02	4.56E-02	1.56E-01	U
AP	09	478604008	3/27/2019	Be-7	1.06E-01	7.92E-03	6.11E-03	
AP	09	478604008	3/27/2019	Ce-141	8.77E-04	6.28E-04	2.09E-03	U
AP	09	478604008	3/27/2019	Ce-144	1.04E-03	4.86E-04	1.55E-03	U
AP	09	478604008	3/27/2019	Co-57	1.66E-05	5.10E-05	1.72E-04	U
AP	09	478604008	3/27/2019	Co-58	3.32E-04	2.47E-04	8.63E-04	U
AP	09	478604008	3/27/2019	Co-60	5.62E-07	1.02E-04	3.35E-04	U
AP	09	478604008	3/27/2019	Cr-51	3.46E-03	6.73E-03	2.26E-02	U
AP	09	478604008	3/27/2019	Cs-134	1.78E-05	1.07E-04	3.62E-04	U
AP	09	478604008	3/27/2019	Cs-137	7.28E-05	8.39E-05	2.88E-04	U
AP	09	478604008	3/27/2019	Fe-59	-6.82E-04	8.21E-04	2.34E-03	U
AP	09	478604008	3/27/2019	I-131	0.00E+00	2.76E-01	0.00E+00	UI
AP	09	478604008	3/27/2019	K-40	3.43E-03	1.99E-03	7.04E-03	U
AP	09	478604008	3/27/2019	La-140	1.30E-02	1.86E-02	6.74E-02	U
AP	09	478604008	3/27/2019	Mn-54	1.03E-04	7.68E-05	3.94E-04	U
AP	09	478604008	3/27/2019	Nb-95	1.10E-04	2.56E-04	8.81E-04	U
AP	09	478604008	3/27/2019	Ru-103	-4.30E-05	4.13E-04	1.37E-03	U
AP	09	478604008	3/27/2019	Ru-106	7.90E-04	9.96E-04	3.38E-03	U
AP	09	478604008	3/27/2019	Sb-124	-3.60E-04	6.30E-04	1.87E-03	U
AP	09	478604008	3/27/2019	Sb-125	9.44E-05	2.40E-04	7.88E-04	U
AP	09	478604008	3/27/2019	Se-75	1.96E-04	1.54E-04	5.23E-04	U
AP	09	478604008	3/27/2019	Th-228	3.47E-04	1.59E-04	3.55E-04	U
AP	09	478604008	3/27/2019	Zn-65	1.93E-04	2.64E-04	9.35E-04	U
AP	09	478604008	3/27/2019	Zr-95	-1.39E-04	4.22E-04	1.38E-03	U
AP	09	476459008	4/10/2019	BETA	1.89E-02	8.59E-04	7.11E-04	
AP	09	477788008	4/24/2019	BETA	1.48E-02	8.04E-04	7.90E-04	
AP	09	478754008	5/8/2019	BETA	1.62E-02	8.40E-04	7.72E-04	
AP	09	480192008	5/22/2019	BETA	1.75E-02	8.66E-04	7.47E-04	
AP	09	481290008	6/5/2019	BETA	1.14E-02	7.22E-04	7.80E-04	
AP	09	482681008	6/19/2019	BETA	1.68E-02	8.75E-04	8.46E-04	
AP	09	486655008	6/19/2019	Ac-228	1.10E-03	6.26E-04	1.61E-03	U
AP	09	486655008	6/19/2019	Ag-108m	1.46E-04	7.91E-05	1.68E-04	U
AP	09	486655008	6/19/2019	Ag-110m	2.14E-04	1.20E-04	4.26E-04	U
AP	09	486655008	6/19/2019	Ba-140	3.73E-02	3.64E-02	1.23E-01	U
AP	09	486655008	6/19/2019	Be-7	1.18E-01	8.59E-03	5.12E-03	
AP	09	486655008	6/19/2019	Ce-141	-5.54E-04	5.70E-04	1.70E-03	U
AP	09	486655008	6/19/2019	Ce-144	0.00E+00	6.70E-04	1.05E-03	U
AP	09	486655008	6/19/2019	Co-57	4.02E-05	4.76E-05	1.57E-04	U
AP	09	486655008	6/19/2019	Co-58	1.63E-04	1.84E-04	6.43E-04	U
AP	09	486655008	6/19/2019	Co-60	-3.99E-06	8.63E-05	2.75E-04	U
AP	09	486655008	6/19/2019	Cr-51	-8.77E-04	4.79E-03	1.60E-02	U
AP	09	486655008	6/19/2019	Cs-134	1.55E-04	8.84E-05	3.11E-04	U
AP	09	486655008	6/19/2019	Cs-137	3.79E-05	8.06E-05	2.64E-04	U

Seabrook REMP Summary of 2019 Data

SAMPLE TYPE	STATION	LSN	END DATE	NUCLIDE	CONC (pCi/m^3)	STD.DEV. (pCi/m^3)	MDC (pCi/m^3)	FLAGS
AP	09	486655008	6/19/2019	Fe-59	1.38E-04	4.83E-04	1.63E-03	U
AP	09	486655008	6/19/2019	I-131	0.00E+00	1.99E-01	0.00E+00	UI
AP	09	486655008	6/19/2019	K-40	1.76E-03	1.56E-03	3.21E-03	U
AP	09	486655008	6/19/2019	La-140	-5.63E-02	2.49E-02	2.97E-02	U
AP	09	486655008	6/19/2019	Mn-54	1.55E-05	9.30E-05	3.15E-04	U
AP	09	486655008	6/19/2019	Nb-95	-1.41E-04	1.91E-04	6.00E-04	U
AP	09	486655008	6/19/2019	Ru-103	3.02E-04	2.94E-04	1.00E-03	U
AP	09	486655008	6/19/2019	Ru-106	-7.96E-04	9.46E-04	2.79E-03	U
AP	09	486655008	6/19/2019	Sb-124	2.68E-05	5.27E-04	1.76E-03	U
AP	09	486655008	6/19/2019	Sb-125	6.12E-05	2.01E-04	6.07E-04	U
AP	09	486655008	6/19/2019	Se-75	2.29E-05	1.30E-04	4.46E-04	U
AP	09	486655008	6/19/2019	Th-228	3.40E-04	2.15E-04	4.46E-04	U
AP	09	486655008	6/19/2019	Zn-65	-1.95E-04	2.24E-04	6.48E-04	U
AP	09	486655008	6/19/2019	Zr-95	9.29E-05	3.68E-04	1.26E-03	U
AP	09	484033008	7/3/2019	BETA	1.92E-02	9.41E-04	8.57E-04	
AP	09	485327008	7/17/2019	BETA	2.69E-02	1.13E-03	8.88E-04	
AP	09	486539008	7/31/2019	BETA	3.00E-02	1.17E-03	9.19E-04	
AP	09	487940008	8/14/2019	BETA	2.97E-02	1.16E-03	8.59E-04	
AP	09	489375008	8/28/2019	BETA	2.73E-02	1.11E-03	8.24E-04	
AP	09	490269008	9/11/2019	BETA	2.48E-02	1.09E-03	8.65E-04	
AP	09	491293008	9/25/2019	BETA	3.40E-02	1.17E-03	6.99E-04	
AP	09	495102008	9/25/2019	Ac-228	0.00E+00	5.17E-04	1.07E-03	U
AP	09	495102008	9/25/2019	Ag-108m	-4.43E-05	5.20E-05	1.57E-04	U
AP	09	495102008	9/25/2019	Ag-110m	1.44E-04	1.05E-04	3.63E-04	U
AP	09	495102008	9/25/2019	Ba-140	-4.34E-03	3.33E-02	9.00E-02	U
AP	09	495102008	9/25/2019	Be-7	1.37E-01	8.45E-03	4.57E-03	
AP	09	495102008	9/25/2019	Ce-141	-8.32E-04	5.83E-04	1.59E-03	U
AP	09	495102008	9/25/2019	Ce-144	-1.85E-04	3.66E-04	1.13E-03	U
AP	09	495102008	9/25/2019	Co-57	4.22E-05	5.21E-05	1.70E-04	U
AP	09	495102008	9/25/2019	Co-58	1.20E-04	1.76E-04	5.38E-04	U
AP	09	495102008	9/25/2019	Co-60	3.27E-06	7.68E-05	2.57E-04	U
AP	09	495102008	9/25/2019	Cr-51	2.65E-03	4.17E-03	1.41E-02	U
AP	09	495102008	9/25/2019	Cs-134	1.54E-05	6.96E-05	2.07E-04	U
AP	09	495102008	9/25/2019	Cs-137	9.28E-05	7.21E-05	2.09E-04	U
AP	09	495102008	9/25/2019	Fe-59	-2.46E-04	5.30E-04	1.62E-03	U
AP	09	495102008	9/25/2019	I-131	-1.66E-01	1.60E-01	0.00E+00	U
AP	09	495102008	9/25/2019	K-40	6.44E-03	1.53E-03	2.55E-03	
AP	09	495102008	9/25/2019	La-140	-5.36E-03	8.24E-03	2.37E-02	U
AP	09	495102008	9/25/2019	Mn-54	2.63E-05	6.75E-05	2.29E-04	U
AP	09	495102008	9/25/2019	Nb-95	1.97E-04	1.50E-04	5.19E-04	U
AP	09	495102008	9/25/2019	Ru-103	-9.84E-05	3.37E-04	8.97E-04	U
AP	09	495102008	9/25/2019	Ru-106	-7.23E-04	6.69E-04	2.05E-03	U
AP	09	495102008	9/25/2019	Sb-124	-7.58E-05	3.81E-04	1.21E-03	U

Seabrook REMP Summary of 2019 Data

SAMPLE TYPE	STATION	LSN	END DATE	NUCLIDE	CONC (pCi/m^3)	STD.DEV. (pCi/m^3)	MDC (pCi/m^3)	FLAGS
AP	09	495102008	9/25/2019	Sb-125	-6.22E-05	1.74E-04	5.52E-04	U
AP	09	495102008	9/25/2019	Se-75	5.27E-06	1.07E-04	3.62E-04	U
AP	09	495102008	9/25/2019	Th-228	2.34E-04	2.33E-04	2.93E-04	U
AP	09	495102008	9/25/2019	Zn-65	-1.38E-05	2.12E-04	6.78E-04	U
AP	09	495102008	9/25/2019	Zr-95	-2.15E-04	2.65E-04	8.10E-04	U
AP	09	492911008	10/9/2019	BETA	2.47E-02	1.07E-03	8.41E-04	
AP	09	494093008	10/23/2019	BETA	2.22E-02	9.81E-04	7.90E-04	
AP	09	495754008	11/6/2019	BETA	1.83E-02	9.32E-04	9.26E-04	
AP	09	497462008	11/20/2019	BETA	2.96E-02	1.26E-03	9.64E-04	
AP	09	498454008	12/4/2019	BETA	2.69E-02	1.23E-03	1.05E-03	
AP	09	499693008	12/18/2019	BETA	2.46E-02	1.18E-03	1.08E-03	
AP	09	500194008	12/31/2019	BETA	3.48E-02	1.33E-03	9.02E-04	
AP	09	502090008	12/31/2019	Ac-228	7.53E-05	4.05E-04	1.38E-03	U
AP	09	502090008	12/31/2019	Ag-108m	-5.07E-05	7.43E-05	2.27E-04	U
AP	09	502090008	12/31/2019	Ag-110m	1.14E-04	1.18E-04	4.29E-04	U
AP	09	502090008	12/31/2019	Ba-140	-1.04E-02	5.02E-02	1.39E-01	U
AP	09	502090008	12/31/2019	Be-7	9.40E-02	8.76E-03	8.17E-03	
AP	09	502090008	12/31/2019	Ce-141	9.86E-04	1.27E-03	2.01E-03	U
AP	09	502090008	12/31/2019	Ce-144	4.01E-04	4.49E-04	1.46E-03	U
AP	09	502090008	12/31/2019	Co-57	2.83E-05	6.10E-05	1.97E-04	U
AP	09	502090008	12/31/2019	Co-58	-4.09E-05	2.00E-04	6.53E-04	U
AP	09	502090008	12/31/2019	Co-60	2.78E-06	1.20E-04	3.87E-04	U
AP	09	502090008	12/31/2019	Cr-51	-3.84E-03	6.64E-03	2.12E-02	U
AP	09	502090008	12/31/2019	Cs-134	-7.03E-05	1.25E-04	3.38E-04	U
AP	09	502090008	12/31/2019	Cs-137	-1.30E-04	1.03E-04	2.80E-04	U
AP	09	502090008	12/31/2019	Fe-59	-1.10E-03	6.87E-04	1.47E-03	U
AP	09	502090008	12/31/2019	I-131	-1.98E-01	3.41E-01	0.00E+00	U
AP	09	502090008	12/31/2019	K-40	2.65E-03	1.90E-03	3.13E-03	U
AP	09	502090008	12/31/2019	La-140	2.03E-03	2.15E-02	7.26E-02	U
AP	09	502090008	12/31/2019	Mn-54	6.51E-05	9.69E-05	3.41E-04	U
AP	09	502090008	12/31/2019	Nb-95	3.24E-04	2.38E-04	8.49E-04	U
AP	09	502090008	12/31/2019	Ru-103	-1.84E-04	3.86E-04	1.19E-03	U
AP	09	502090008	12/31/2019	Ru-106	6.38E-04	9.13E-04	3.04E-03	U
AP	09	502090008	12/31/2019	Sb-124	6.50E-04	6.96E-04	2.56E-03	U
AP	09	502090008	12/31/2019	Sb-125	-1.25E-04	2.16E-04	6.66E-04	U
AP	09	502090008	12/31/2019	Se-75	-4.84E-06	1.65E-04	5.24E-04	U
AP	09	502090008	12/31/2019	Th-228	2.94E-04	2.39E-04	3.90E-04	U
AP	09	502090008	12/31/2019	Zn-65	-5.95E-04	2.82E-04	5.01E-04	U
AP	09	502090008	12/31/2019	Zr-95	-6.32E-04	4.25E-04	1.13E-03	U

Seabrook REMP Summary of 2019 Data

SAMPLE TYPE	STATION	LSN	END DATE	NUCLIDE	CONC (pCi/m^3)	STD.DEV. (pCi/m^3)	MDC (pCi/m^3)	FLAGS
CF	01	469297009	1/16/2019	I-131	-8.73E-04	1.50E-03	4.63E-03	U
CF	01	470206009	1/30/2019	I-131	-1.53E-03	1.35E-03	3.97E-03	U
CF	01	471371009	2/11/2019	I-131	6.01E-04	3.76E-03	1.26E-02	U
CF	01	472602009	2/27/2019	I-131	-6.08E-04	2.20E-03	7.02E-03	U
CF	01	473844009	3/13/2019	I-131	1.50E-03	2.05E-03	6.78E-03	U
CF	01	474872009	3/27/2019	I-131	7.04E-04	1.80E-03	6.38E-03	U
CF	01	476459009	4/10/2019	I-131	-1.91E-03	2.22E-03	5.22E-03	U
CF	01	477788009	4/24/2019	I-131	-3.82E-05	3.40E-03	1.11E-02	U
CF	01	478754009	5/8/2019	I-131	-4.00E-04	1.21E-03	3.61E-03	U
CF	01	480192009	5/22/2019	I-131	-3.70E-03	2.32E-03	5.82E-03	U
CF	01	481290009	6/5/2019	I-131	6.49E-04	1.80E-03	5.98E-03	U
CF	01	482681009	6/19/2019	I-131	3.29E-03	2.32E-03	8.76E-03	U
CF	01	484033009	7/3/2019	I-131	2.26E-03	3.79E-03	1.40E-02	U
CF	01	485327009	7/17/2019	I-131	-1.82E-03	1.89E-03	5.49E-03	U
CF	01	486539009	7/31/2019	I-131	1.95E-03	1.72E-03	6.03E-03	U
CF	01	487940009	8/14/2019	I-131	7.85E-04	1.24E-03	4.33E-03	U
CF	01	489375009	8/28/2019	I-131	-3.32E-03	3.85E-03	1.07E-02	U
CF	01	490269009	9/11/2019	I-131	1.06E-04	2.46E-03	7.70E-03	U
CF	01	491293009	9/25/2019	I-131	-2.25E-03	1.91E-03	5.28E-03	U
CF	01	492911009	10/9/2019	I-131	-2.30E-03	2.60E-03	6.76E-03	U
CF	01	494093009	10/23/2019	I-131	1.49E-03	1.51E-03	5.39E-03	U
CF	01	495754009	11/6/2019	I-131	-4.55E-04	1.80E-03	5.82E-03	U
CF	01	497462009	11/20/2019	I-131	3.23E-03	2.97E-03	9.64E-03	U
CF	01	498454009	12/4/2019	I-131	1.05E-03	2.08E-03	6.82E-03	U
CF	01	499693009	12/18/2019	I-131	5.71E-04	2.47E-03	8.35E-03	U
CF	01	500194009	12/31/2019	I-131	2.86E-03	1.67E-03	6.10E-03	U
CF	02	469297010	1/16/2019	I-131	-1.96E-04	1.74E-03	5.66E-03	U
CF	02	470206010	1/30/2019	I-131	-1.02E-03	1.34E-03	4.13E-03	U
CF	02	471371010	2/11/2019	I-131	-8.35E-03	5.28E-03	8.49E-03	U
CF	02	472602010	2/27/2019	I-131	-2.43E-03	2.37E-03	6.56E-03	U
CF	02	473844010	3/13/2019	I-131	2.15E-03	2.12E-03	7.30E-03	U
CF	02	474872010	3/27/2019	I-131	4.15E-03	5.20E-03	1.88E-02	U
CF	02	476459010	4/10/2019	I-131	2.93E-03	5.36E-03	1.95E-02	U
CF	02	477788010	4/24/2019	I-131	1.98E-03	2.55E-03	9.50E-03	U
CF	02	478754010	5/8/2019	I-131	1.30E-03	9.04E-04	3.22E-03	U
CF	02	480192010	5/9/2019	I-131	-2.19E-02	2.35E-02	7.40E-02	U DL*
CF	02	481290010	6/5/2019	I-131	-1.92E-03	1.29E-03	3.05E-03	U
CF	02	482681010	6/19/2019	I-131	2.41E-03	2.19E-03	8.02E-03	U
CF	02	484033010	7/3/2019	I-131	2.51E-03	3.24E-03	1.18E-02	U
CF	02	485327010	7/17/2019	I-131	1.07E-03	2.28E-03	7.99E-03	U
CF	02	486539010	7/31/2019	I-131	1.71E-03	1.40E-03	5.09E-03	U
CF	02	487940010	8/14/2019	I-131	-2.30E-04	1.46E-03	4.82E-03	U
CF	02	489375010	8/28/2019	I-131	-3.57E-05	1.00E-02	3.32E-02	U
CF	02	490269010	9/11/2019	I-131	1.83E-03	2.35E-03	8.35E-03	U
CF	02	491293010	9/25/2019	I-131	5.58E-03	2.92E-03	5.97E-03	U
CF	02	492911010	10/9/2019	I-131	-7.85E-04	2.32E-03	6.40E-03	U
CF	02	494093010	10/23/2019	I-131	-1.49E-04	1.34E-03	4.51E-03	U
CF	02	495754010	11/6/2019	I-131	-5.65E-04	1.74E-03	5.65E-03	U
CF	02	497462010	11/20/2019	I-131	-2.16E-03	2.46E-03	5.94E-03	U
CF	02	498454010	12/4/2019	I-131	-7.93E-04	2.01E-03	6.36E-03	U

Seabrook REMP Summary of 2019 Data

SAMPLE TYPE	STATION	LSN	END DATE	NUCLIDE	CONC (pCi/m^3)	STD.DEV. (pCi/m^3)	MDC (pCi/m^3)	FLAGS
CF	02	499693010	12/18/2019	I-131	-5.11E-03	2.81E-03	6.92E-03	U
CF	02	500194010	12/31/2019	I-131	-1.13E-03	2.37E-03	7.59E-03	U
CF	03	469297011	1/16/2019	I-131	2.51E-03	1.90E-03	6.54E-03	U
CF	03	470206011	1/30/2019	I-131	1.15E-03	1.28E-03	4.47E-03	U
CF	03	471371011	2/11/2019	I-131	-9.10E-06	3.63E-03	1.19E-02	U
CF	03	472602011	2/27/2019	I-131	6.93E-05	1.78E-03	5.94E-03	U
CF	03	473844011	3/13/2019	I-131	-9.84E-04	1.94E-03	6.05E-03	U
CF	03	474872011	3/27/2019	I-131	3.13E-03	3.20E-03	1.15E-02	U
CF	03	476459011	4/10/2019	I-131	-8.36E-04	3.13E-03	9.49E-03	U
CF	03	477788011	4/24/2019	I-131	5.88E-03	3.54E-03	1.52E-02	U
CF	03	478754011	5/8/2019	I-131	-6.05E-04	1.12E-03	3.49E-03	U
CF	03	480192011	5/22/2019	I-131	-1.89E-03	1.81E-03	5.16E-03	U
CF	03	481290011	6/5/2019	I-131	-2.89E-03	1.80E-03	4.16E-03	U
CF	03	482681011	6/19/2019	I-131	3.48E-03	3.10E-03	1.13E-02	U
CF	03	484033011	7/3/2019	I-131	4.16E-03	2.41E-03	9.55E-03	U
CF	03	485327011	7/17/2019	I-131	1.67E-03	2.11E-03	6.97E-03	U
CF	03	486539011	7/31/2019	I-131	-3.11E-03	1.95E-03	4.99E-03	U
CF	03	487940011	8/14/2019	I-131	1.68E-03	1.43E-03	5.01E-03	U
CF	03	489375011	8/28/2019	I-131	-6.07E-03	7.76E-03	2.26E-02	U
CF	03	490269011	9/11/2019	I-131	2.31E-03	2.43E-03	8.76E-03	U
CF	03	491293011	9/25/2019	I-131	3.49E-03	1.56E-03	5.40E-03	U
CF	03	492911011	10/9/2019	I-131	-1.81E-04	2.43E-03	7.97E-03	U
CF	03	494093011	10/23/2019	I-131	1.60E-03	1.23E-03	4.56E-03	U
CF	03	495754011	11/6/2019	I-131	-1.08E-03	1.81E-03	5.74E-03	U
CF	03	497462011	11/20/2019	I-131	1.29E-03	1.96E-03	6.95E-03	U
CF	03	498454011	12/4/2019	I-131	-1.55E-03	2.84E-03	9.26E-03	U
CF	03	499693011	12/18/2019	I-131	-4.09E-03	3.74E-03	1.09E-02	U
CF	03	500194011	12/31/2019	I-131	-1.14E-03	1.70E-03	5.34E-03	U
CF	04	469297012	1/16/2019	I-131	5.35E-04	1.32E-03	4.50E-03	U
CF	04	470206012	1/30/2019	I-131	-3.18E-03	1.64E-03	3.83E-03	U
CF	04	471371012	2/11/2019	I-131	7.66E-04	4.82E-03	1.59E-02	U
CF	04	472602012	2/27/2019	I-131	6.36E-04	1.40E-03	5.02E-03	U
CF	04	473844012	3/13/2019	I-131	4.95E-04	1.79E-03	5.93E-03	U
CF	04	474872012	3/27/2019	I-131	1.85E-03	2.11E-03	7.23E-03	U
CF	04	476459012	4/10/2019	I-131	3.52E-04	4.27E-03	1.48E-02	U
CF	04	477788012	4/24/2019	I-131	5.15E-03	4.46E-03	1.65E-02	U
CF	04	478754012	5/8/2019	I-131	-9.30E-04	1.42E-03	4.32E-03	U
CF	04	480192012	5/22/2019	I-131	1.20E-03	3.45E-03	1.11E-02	U
CF	04	481290012	6/5/2019	I-131	-2.28E-03	1.82E-03	4.87E-03	U
CF	04	482681012	6/19/2019	I-131	1.12E-03	1.90E-03	6.90E-03	U
CF	04	484033012	7/3/2019	I-131	1.59E-03	2.58E-03	9.16E-03	U
CF	04	485327012	7/17/2019	I-131	-9.19E-05	1.84E-03	6.06E-03	U
CF	04	487940012	8/14/2019	I-131	-1.38E-04	1.46E-03	4.45E-03	U
CF	04	489375012	8/28/2019	I-131	7.76E-03	6.60E-03	2.62E-02	U
CF	04	490269012	9/11/2019	I-131	2.02E-04	2.11E-03	7.01E-03	U
CF	04	491293012	9/25/2019	I-131	3.40E-06	1.72E-03	5.82E-03	U
CF	04	492911012	10/9/2019	I-131	-9.83E-05	1.99E-03	6.68E-03	U
CF	04	494093012	10/23/2019	I-131	-4.85E-04	1.20E-03	3.77E-03	U
CF	04	495754012	11/6/2019	I-131	1.99E-03	1.54E-03	5.53E-03	U

SAMPLE TYPE	STATION	LSN	END DATE	NUCLIDE	CONC (pCi/m^3)	STD.DEV. (pCi/m^3)	MDC (pCi/m^3)	FLAGS
CF	04	497462012	11/20/2019	I-131	-5.94E-05	2.03E-03	6.88E-03	U
CF	04	498454012	12/4/2019	I-131	9.51E-04	2.05E-03	7.23E-03	U
CF	04	499693012	12/18/2019	I-131	-1.36E-03	2.17E-03	6.65E-03	U
CF	04	500194012	12/31/2019	I-131	6.73E-04	1.42E-03	5.00E-03	U
CF	05	469297013	1/16/2019	I-131	-1.95E-03	1.62E-03	4.57E-03	U
CF	05	470206013	1/30/2019	I-131	-3.71E-07	1.43E-03	4.37E-03	U
CF	05	471371013	2/11/2019	I-131	5.55E-03	5.79E-03	2.25E-02	U
CF	05	472602013	2/27/2019	I-131	9.38E-04	1.59E-03	5.84E-03	U
CF	05	473844013	3/13/2019	I-131	-1.32E-03	2.22E-03	7.01E-03	U
CF	05	474872013	3/27/2019	I-131	1.20E-03	1.87E-03	6.92E-03	U
CF	05	476459013	4/10/2019	I-131	4.61E-03	4.85E-03	1.75E-02	U
CF	05	477788013	4/24/2019	I-131	3.93E-04	2.22E-03	7.86E-03	U
CF	05	478754013	5/8/2019	I-131	-5.45E-04	9.09E-04	2.56E-03	U
CF	05	480192013	5/22/2019	I-131	1.49E-03	5.88E-03	1.98E-02	U
CF	05	481290013	6/5/2019	I-131	-1.19E-03	3.11E-03	9.90E-03	U
CF	05	482681013	6/19/2019	I-131	1.55E-03	1.78E-03	6.49E-03	U
CF	05	484033013	7/3/2019	I-131	-3.39E-03	2.23E-03	5.97E-03	U
CF	05	485327013	7/17/2019	I-131	-4.58E-03	3.30E-03	8.29E-03	U
CF	05	486539013	7/31/2019	I-131	-3.99E-04	1.29E-03	4.12E-03	U
CF	05	487940013	8/14/2019	I-131	1.53E-03	1.05E-03	3.90E-03	U
CF	05	489375013	8/28/2019	I-131	-3.48E-03	8.48E-03	2.63E-02	U
CF	05	490269013	9/11/2019	I-131	-8.39E-05	2.44E-03	7.79E-03	U
CF	05	491293013	9/25/2019	I-131	-3.38E-04	1.43E-03	4.67E-03	U
CF	05	492911013	10/9/2019	I-131	-5.56E-04	1.84E-03	6.00E-03	U
CF	05	494093013	10/23/2019	I-131	-1.73E-03	1.65E-03	4.70E-03	U
CF	05	495754013	11/6/2019	I-131	9.83E-04	1.84E-03	6.32E-03	U
CF	05	497462013	11/20/2019	I-131	-2.12E-03	2.27E-03	6.80E-03	U
CF	05	498454013	12/4/2019	I-131	3.80E-03	2.36E-03	8.23E-03	U
CF	05	499693013	12/18/2019	I-131	9.61E-04	2.88E-03	9.91E-03	U
CF	05	500194013	12/31/2019	I-131	-6.65E-04	1.37E-03	4.41E-03	U
CF	07	469297014	1/16/2019	I-131	-1.04E-03	1.16E-03	3.47E-03	U
CF	07	470206014	1/30/2019	I-131	9.47E-04	1.90E-03	6.76E-03	U
CF	07	471371014	2/11/2019	I-131	7.78E-04	3.32E-03	1.16E-02	U
CF	07	472602014	2/27/2019	I-131	5.47E-04	1.92E-03	6.50E-03	U
CF	07	473844014	3/13/2019	I-131	3.61E-03	3.31E-03	1.19E-02	U
CF	07	474872014	3/27/2019	I-131	-4.09E-03	2.24E-03	4.76E-03	U
CF	07	476459014	4/10/2019	I-131	4.19E-03	3.95E-03	1.48E-02	U
CF	07	477788014	4/24/2019	I-131	4.54E-03	5.42E-03	2.09E-02	U
CF	07	478754014	5/8/2019	I-131	3.09E-03	1.16E-03	3.92E-03	U
CF	07	480192014	5/22/2019	I-131	2.26E-03	2.73E-03	9.63E-03	U
CF	07	481290014	6/5/2019	I-131	2.39E-03	3.28E-03	1.17E-02	U
CF	07	482681014	6/19/2019	I-131	1.32E-03	1.89E-03	6.79E-03	U
CF	07	484033014	7/3/2019	I-131	-2.02E-03	1.81E-03	4.77E-03	U
CF	07	485327014	7/17/2019	I-131	1.02E-03	1.63E-03	5.65E-03	U
CF	07	486539014	7/31/2019	I-131	3.73E-03	2.43E-03	5.92E-03	U
CF	07	487940014	8/14/2019	I-131	8.82E-05	1.30E-03	4.44E-03	U
CF	07	489375014	8/28/2019	I-131	3.52E-03	6.27E-03	2.32E-02	U
CF	07	490269014	9/11/2019	I-131	2.07E-04	2.28E-03	7.76E-03	U
CF	07	491293014	9/25/2019	I-131	3.27E-05	1.34E-03	4.43E-03	U

SAMPLE TYPE	STATION	LSN	END DATE	NUCLIDE	CONC (pCi/m^3)	STD.DEV. (pCi/m^3)	MDC (pCi/m^3)	FLAGS
CF	07	492911014	10/9/2019	I-131	-5.13E-04	2.01E-03	6.08E-03	U
CF	07	494093014	10/23/2019	I-131	2.79E-03	1.50E-03	5.22E-03	U
CF	07	495754014	11/6/2019	I-131	-6.27E-04	1.03E-03	3.18E-03	U
CF	07	497462014	11/20/2019	I-131	3.51E-03	1.65E-03	5.65E-03	U
CF	07	498454014	12/4/2019	I-131	1.26E-03	1.76E-03	6.03E-03	U
CF	07	499693014	12/18/2019	I-131	-2.28E-03	2.06E-03	5.93E-03	U
CF	07	500194014	12/31/2019	I-131	3.34E-03	2.40E-03	8.74E-03	U
CF	08	469297015	1/16/2019	I-131	-1.33E-03	1.37E-03	4.06E-03	U
CF	08	470206015	1/30/2019	I-131	-2.95E-04	1.23E-03	3.98E-03	U
CF	08	471371015	2/11/2019	I-131	4.93E-03	3.62E-03	1.33E-02	U
CF	08	472602015	2/27/2019	I-131	-1.50E-03	2.03E-03	6.13E-03	U
CF	08	473844015	3/13/2019	I-131	1.61E-03	1.64E-03	5.56E-03	U
CF	08	474872015	3/27/2019	I-131	5.30E-03	2.37E-03	8.40E-03	U
CF	08	476459015	4/10/2019	I-131	-6.03E-04	3.45E-03	1.07E-02	U
CF	08	477788015	4/24/2019	I-131	6.94E-03	4.49E-03	1.81E-02	U
CF	08	478754015	5/8/2019	I-131	-2.47E-04	1.12E-03	3.65E-03	U
CF	08	480192015	5/22/2019	I-131	-2.13E-03	2.45E-03	7.08E-03	U
CF	08	481290015	6/5/2019	I-131	-7.18E-05	2.11E-03	7.08E-03	U
CF	08	482681015	6/19/2019	I-131	1.41E-03	2.42E-03	8.52E-03	U
CF	08	484033015	7/3/2019	I-131	7.67E-04	1.89E-03	6.66E-03	U
CF	08	485327015	7/17/2019	I-131	3.46E-03	5.39E-03	1.95E-02	U
CF	08	486539015	7/31/2019	I-131	-6.65E-04	1.61E-03	5.10E-03	U
CF	08	487940015	8/14/2019	I-131	-2.60E-04	1.83E-03	5.97E-03	U
CF	08	489375015	8/28/2019	I-131	6.96E-03	8.31E-03	3.29E-02	U
CF	08	490269015	9/11/2019	I-131	4.34E-03	2.81E-03	1.02E-02	U
CF	08	491293015	9/25/2019	I-131	-1.09E-03	1.58E-03	4.90E-03	U
CF	08	492911015	10/9/2019	I-131	-1.26E-03	2.63E-03	8.17E-03	U
CF	08	494093015	10/23/2019	I-131	9.66E-04	1.24E-03	4.35E-03	U
CF	08	495754015	11/6/2019	I-131	-1.95E-03	1.53E-03	4.29E-03	U
CF	08	497462015	11/20/2019	I-131	1.39E-04	1.73E-03	5.76E-03	U
CF	08	498454015	12/4/2019	I-131	-4.25E-05	2.79E-03	9.46E-03	U
CF	08	499693015	12/18/2019	I-131	3.75E-03	2.20E-03	7.77E-03	U
CF	08	500194015	12/31/2019	I-131	-2.52E-03	1.90E-03	5.37E-03	U
CF	09	469297016	1/16/2019	I-131	-8.40E-04	1.45E-03	4.61E-03	U
CF	09	470206016	1/30/2019	I-131	1.12E-03	1.43E-03	5.10E-03	U
CF	09	471371016	2/11/2019	I-131	3.15E-03	2.47E-03	1.10E-02	U
CF	09	472602016	2/27/2019	I-131	-3.01E-03	2.79E-03	8.09E-03	U
CF	09	473844016	3/13/2019	I-131	-4.37E-03	2.45E-03	6.13E-03	U
CF	09	474872016	3/27/2019	I-131	1.16E-03	2.68E-03	9.16E-03	U
CF	09	476459016	4/10/2019	I-131	-3.14E-03	3.57E-03	1.04E-02	U
CF	09	477788016	4/24/2019	I-131	-5.31E-03	3.61E-03	9.28E-03	U
CF	09	478754016	5/8/2019	I-131	-1.38E-04	8.99E-04	2.68E-03	U
CF	09	480192016	5/22/2019	I-131	2.97E-03	1.83E-03	6.57E-03	U
CF	09	481290016	6/5/2019	I-131	-2.87E-04	2.00E-03	6.44E-03	U
CF	09	482681016	6/19/2019	I-131	-9.64E-04	1.72E-03	5.25E-03	U
CF	09	484033016	7/3/2019	I-131	1.82E-03	1.39E-03	4.69E-03	U
CF	09	485327016	7/17/2019	I-131	9.43E-04	2.46E-03	8.49E-03	U
CF	09	486539016	7/31/2019	I-131	0.00E+00	1.88E-03	3.82E-03	U
CF	09	487940016	8/14/2019	I-131	1.27E-03	1.10E-03	3.57E-03	U

Seabrook REMP Summary of 2019 Data

SAMPLE TYPE	STATION	LSN	END DATE	NUCLIDE	CONC (pCi/m^3)	STD.DEV. (pCi/m^3)	MDC (pCi/m^3)	FLAGS
CF	09	489375016	8/28/2019	I-131	1.59E-02	1.04E-02	3.88E-02	U
CF	09	490269016	9/10/2019	I-131	-1.81E-03	2.10E-03	6.35E-03	U
CF	09	491293016	9/25/2019	I-131	2.73E-05	1.25E-03	4.13E-03	U
CF	09	492911016	10/9/2019	I-131	-1.44E-03	1.64E-03	4.92E-03	U
CF	09	494093016	10/23/2019	I-131	0.00E+00	1.19E-03	3.41E-03	U
CF	09	495754016	11/6/2019	I-131	1.28E-03	1.29E-03	4.39E-03	U
CF	09	497462016	11/20/2019	I-131	-3.77E-03	2.50E-03	7.22E-03	U
CF	09	498454016	12/4/2019	I-131	8.65E-04	2.08E-03	7.29E-03	U
CF	09	499693016	12/18/2019	I-131	3.31E-03	2.16E-03	7.43E-03	U
CF	09	500194016	12/31/2019	I-131	1.53E-03	1.42E-03	5.12E-03	U

SAMPLE TYPE	STATION	LSN	END DATE	NUCLIDE	CONC (pCi/kg)	STD.DEV. (pCi/kg)	MDC (pCi/kg)	FLAGS
FH	03	473104001	2/20/2019	Ac-228	0.00E+00	7.43E+01	1.32E+02	U
FH	03	473104001	2/20/2019	Ag-108m	-3.71E+00	6.65E+00	2.05E+01	U
FH	03	473104001	2/20/2019	Ag-110m	-1.68E+01	1.23E+01	3.29E+01	U
FH	03	473104001	2/20/2019	Ba-140	2.03E+01	9.22E+01	2.65E+02	U
FH	03	473104001	2/20/2019	Be-7	-1.38E+01	7.95E+01	2.52E+02	U
FH	03	473104001	2/20/2019	Bi-214	-5.41E+01	2.93E+01	8.26E+01	U
FH	03	473104001	2/20/2019	Ce-141	7.09E+00	1.74E+01	5.62E+01	U
FH	03	473104001	2/20/2019	Ce-144	5.99E+00	5.12E+01	1.64E+02	U
FH	03	473104001	2/20/2019	Co-57	-4.68E+00	6.46E+00	1.97E+01	U
FH	03	473104001	2/20/2019	Co-58	7.12E+00	1.03E+01	3.51E+01	U
FH	03	473104001	2/20/2019	Co-60	-3.27E+00	9.61E+00	3.07E+01	U
FH	03	473104001	2/20/2019	Cr-51	-1.83E+02	1.02E+02	2.71E+02	U
FH	03	473104001	2/20/2019	Cs-134	-7.28E+00	1.01E+01	3.10E+01	U
FH	03	473104001	2/20/2019	Cs-137	2.18E+01	1.39E+01	2.58E+01	U
FH	03	473104001	2/20/2019	Fe-59	-4.09E+00	2.15E+01	6.73E+01	U
FH	03	473104001	2/20/2019	I-131	5.26E+01	4.92E+01	1.51E+02	U
FH	03	473104001	2/20/2019	K-40	2.60E+03	3.04E+02	3.13E+02	
FH	03	473104001	2/20/2019	La-140	-6.84E+00	3.30E+01	1.05E+02	U
FH	03	473104001	2/20/2019	Mn-54	-2.96E+00	1.04E+01	3.32E+01	U
FH	03	473104001	2/20/2019	Nb-95	2.24E+00	1.08E+01	3.62E+01	U
FH	03	473104001	2/20/2019	Pb-212	1.60E+01	2.35E+01	6.34E+01	U
FH	03	473104001	2/20/2019	Pb-214	-1.11E+01	2.58E+01	7.83E+01	U
FH	03	473104001	2/20/2019	Ra-226	-5.41E+01	2.93E+01	8.26E+01	U
FH	03	473104001	2/20/2019	Ru-103	4.64E+00	1.06E+01	3.48E+01	U
FH	03	473104001	2/20/2019	Ru-106	7.03E+01	1.04E+02	3.11E+02	U
FH	03	473104001	2/20/2019	Sb-124	-3.71E+01	2.52E+01	5.95E+01	U
FH	03	473104001	2/20/2019	Sb-125	-1.15E+01	2.13E+01	6.60E+01	U
FH	03	473104001	2/20/2019	Se-75	-2.68E+01	1.22E+01	3.04E+01	U
FH	03	473104001	2/20/2019	Th-228	1.60E+01	2.35E+01	6.34E+01	U
FH	03	473104001	2/20/2019	Th-230	-5.41E+01	2.93E+01	8.26E+01	U
FH	03	473104001	2/20/2019	Tl-208	1.28E+01	1.22E+01	4.13E+01	U
FH	03	473104001	2/20/2019	Zn-65	-3.57E+01	2.13E+01	5.04E+01	U
FH	03	473104001	2/20/2019	Zr-95	5.49E+01	2.32E+01	7.48E+01	U
FH	03	498584001	11/26/2019	Ac-228	2.86E+01	6.91E+01	2.33E+02	U
FH	03	498584001	11/26/2019	Ag-108m	-1.29E+01	1.28E+01	3.73E+01	U
FH	03	498584001	11/26/2019	Ag-110m	-3.96E+01	2.67E+01	6.38E+01	U
FH	03	498584001	11/26/2019	Ba-140	2.34E+02	1.47E+02	4.96E+02	U
FH	03	498584001	11/26/2019	Be-7	4.67E+00	1.24E+02	4.05E+02	U
FH	03	498584001	11/26/2019	Bi-214	-4.23E+01	4.54E+01	1.38E+02	U
FH	03	498584001	11/26/2019	Ce-141	3.00E+01	3.83E+01	7.96E+01	U
FH	03	498584001	11/26/2019	Ce-144	3.94E+01	8.06E+01	2.55E+02	U
FH	03	498584001	11/26/2019	Co-57	-1.74E+00	1.17E+01	3.62E+01	U
FH	03	498584001	11/26/2019	Co-58	1.00E+01	1.76E+01	5.83E+01	U
FH	03	498584001	11/26/2019	Co-60	2.32E+01	1.53E+01	5.80E+01	U
FH	03	498584001	11/26/2019	Cr-51	-2.26E+02	1.89E+02	5.58E+02	U
FH	03	498584001	11/26/2019	Cs-134	1.44E+01	1.63E+01	5.57E+01	U
FH	03	498584001	11/26/2019	Cs-137	-1.70E+01	1.70E+01	4.75E+01	U
FH	03	498584001	11/26/2019	Fe-59	1.67E+01	3.24E+01	1.14E+02	U
FH	03	498584001	11/26/2019	I-131	2.69E+01	5.59E+01	1.89E+02	U

SAMPLE TYPE	STATION	LSN	END DATE	NUCLIDE	CONC (pCi/kg)	STD.DEV. (pCi/kg)	MDC (pCi/kg)	FLAGS
FH	03	498584001	11/26/2019	K-40	5.21E+03	6.08E+02	3.17E+02	
FH	03	498584001	11/26/2019	La-140	6.80E+01	5.26E+01	1.91E+02	U
FH	03	498584001	11/26/2019	Mn-54	-1.51E+01	1.61E+01	4.37E+01	U
FH	03	498584001	11/26/2019	Nb-95	-1.05E+01	2.06E+01	6.17E+01	U
FH	03	498584001	11/26/2019	Pb-212	2.10E+01	3.94E+01	1.01E+02	U
FH	03	498584001	11/26/2019	Pb-214	-6.44E+01	4.55E+01	1.21E+02	U
FH	03	498584001	11/26/2019	Ra-226	-4.23E+01	4.54E+01	1.38E+02	U
FH	03	498584001	11/26/2019	Ru-103	1.83E-01	1.69E+01	5.48E+01	U
FH	03	498584001	11/26/2019	Ru-106	2.22E+02	1.51E+02	5.14E+02	U
FH	03	498584001	11/26/2019	Sb-124	-3.95E-01	2.09E+01	6.69E+01	U
FH	03	498584001	11/26/2019	Sb-125	-6.28E+00	3.95E+01	1.28E+02	U
FH	03	498584001	11/26/2019	Se-75	8.04E+00	1.97E+01	6.69E+01	U
FH	03	498584001	11/26/2019	Th-228	2.10E+01	3.94E+01	1.01E+02	U
FH	03	498584001	11/26/2019	Th-230	-4.23E+01	4.54E+01	1.38E+02	U
FH	03	498584001	11/26/2019	Tl-208	2.02E+00	2.62E+01	5.40E+01	U
FH	03	498584001	11/26/2019	Zn-65	-2.23E+01	3.90E+01	1.21E+02	U
FH	03	498584001	11/26/2019	Zr-95	-1.37E+01	2.68E+01	7.85E+01	U
FH	53	481983002	6/12/2019	Ac-228	2.77E+01	1.47E+01	3.84E+01	U
FH	53	481983002	6/12/2019	Ag-108m	-6.22E-01	1.56E+00	4.94E+00	U
FH	53	481983002	6/12/2019	Ag-110m	-7.02E-01	3.11E+00	9.00E+00	U
FH	53	481983002	6/12/2019	Ba-140	1.42E+01	1.10E+01	3.76E+01	U
FH	53	481983002	6/12/2019	Be-7	-2.05E+01	1.88E+01	5.46E+01	U
FH	53	481983002	6/12/2019	Bi-214	4.73E+00	5.31E+00	1.70E+01	U
FH	53	481983002	6/12/2019	Ce-141	-1.38E-01	3.02E+00	1.04E+01	U
FH	53	481983002	6/12/2019	Ce-144	-1.50E+00	1.08E+01	3.70E+01	U
FH	53	481983002	6/12/2019	Co-57	1.06E-01	1.56E+00	4.88E+00	U
FH	53	481983002	6/12/2019	Co-58	6.16E-01	2.03E+00	7.03E+00	U
FH	53	481983002	6/12/2019	Co-60	1.57E+00	2.84E+00	9.71E+00	U
FH	53	481983002	6/12/2019	Cr-51	-6.11E+00	1.74E+01	5.65E+01	U
FH	53	481983002	6/12/2019	Cs-134	2.41E+00	2.42E+00	7.85E+00	U
FH	53	481983002	6/12/2019	Cs-137	2.34E+00	2.75E+00	8.31E+00	U
FH	53	481983002	6/12/2019	Fe-59	1.72E+01	7.22E+00	2.36E+01	U
FH	53	481983002	6/12/2019	I-131	1.01E+00	4.23E+00	1.42E+01	U
FH	53	481983002	6/12/2019	K-40	3.78E+03	2.21E+02	6.75E+01	
FH	53	481983002	6/12/2019	La-140	-1.41E+00	3.52E+00	1.06E+01	U
FH	53	481983002	6/12/2019	Mn-54	-1.42E+00	2.23E+00	7.11E+00	U
FH	53	481983002	6/12/2019	Nb-95	2.57E+00	2.60E+00	8.65E+00	U
FH	53	481983002	6/12/2019	Pb-212	-1.26E-01	3.67E+00	1.18E+01	U
FH	53	481983002	6/12/2019	Pb-214	8.25E+00	4.80E+00	1.59E+01	U
FH	53	481983002	6/12/2019	Ra-226	4.73E+00	5.31E+00	1.70E+01	U
FH	53	481983002	6/12/2019	Ru-103	4.46E+00	5.15E+00	6.40E+00	U
FH	53	481983002	6/12/2019	Ru-106	5.19E+00	1.73E+01	5.67E+01	U
FH	53	481983002	6/12/2019	Sb-124	-5.88E+00	4.49E+00	9.87E+00	U
FH	53	481983002	6/12/2019	Sb-125	1.20E+01	5.77E+00	1.80E+01	U
FH	53	481983002	6/12/2019	Se-75	8.83E-01	2.40E+00	8.16E+00	U
FH	53	481983002	6/12/2019	Th-228	-1.26E-01	3.67E+00	1.18E+01	U
FH	53	481983002	6/12/2019	Th-230	4.73E+00	5.31E+00	1.70E+01	U
FH	53	481983002	6/12/2019	Tl-208	2.43E+00	3.10E+00	6.83E+00	U
FH	53	481983002	6/12/2019	Zn-65	-1.76E+00	5.42E+00	1.75E+01	U
FH	53	481983002	6/12/2019	Zr-95	1.81E+00	3.85E+00	1.27E+01	U

Seabrook REMP Summary of 2019 Data

SAMPLE TYPE	STATION	LSN	END DATE	NUCLIDE	CONC (pCi/kg)	STD.DEV. (pCi/kg)	MDC (pCi/kg)	FLAGS
FH	53	497220001	11/18/2019	Ac-228	-1.70E+01	8.99E+00	2.03E+01	U
FH	53	497220001	11/18/2019	Ag-108m	3.62E-02	1.00E+00	3.32E+00	U
FH	53	497220001	11/18/2019	Ag-110m	-1.88E-01	1.90E+00	6.37E+00	U
FH	53	497220001	11/18/2019	Ba-140	-1.30E+01	6.89E+00	1.83E+01	U
FH	53	497220001	11/18/2019	Be-7	2.38E-01	9.58E+00	3.16E+01	U
FH	53	497220001	11/18/2019	Bi-214	0.00E+00	5.31E+00	1.03E+01	U
FH	53	497220001	11/18/2019	Ce-141	-2.42E+00	2.14E+00	6.41E+00	U
FH	53	497220001	11/18/2019	Ce-144	5.76E+00	7.01E+00	2.26E+01	U
FH	53	497220001	11/18/2019	Co-57	-1.22E+00	9.52E-01	2.82E+00	U
FH	53	497220001	11/18/2019	Co-58	-5.82E-01	1.34E+00	4.43E+00	U
FH	53	497220001	11/18/2019	Co-60	-2.10E+00	1.58E+00	4.45E+00	U
FH	53	497220001	11/18/2019	Cr-51	-1.29E+01	1.09E+01	3.40E+01	U
FH	53	497220001	11/18/2019	Cs-134	2.11E-01	1.45E+00	4.94E+00	U
FH	53	497220001	11/18/2019	Cs-137	2.38E+00	1.52E+00	4.86E+00	U
FH	53	497220001	11/18/2019	Fe-59	8.03E+00	5.39E+00	1.20E+01	U
FH	53	497220001	11/18/2019	I-131	1.66E+00	1.97E+00	6.66E+00	U
FH	53	497220001	11/18/2019	K-40	3.10E+03	1.74E+02	4.46E+01	
FH	53	497220001	11/18/2019	La-140	5.25E-01	2.00E+00	6.56E+00	U
FH	53	497220001	11/18/2019	Mn-54	-2.59E-01	1.38E+00	4.63E+00	U
FH	53	497220001	11/18/2019	Nb-95	2.05E+00	1.43E+00	4.59E+00	U
FH	53	497220001	11/18/2019	Pb-212	7.50E+00	4.51E+00	8.39E+00	U
FH	53	497220001	11/18/2019	Pb-214	5.01E-01	5.06E+00	1.02E+01	U
FH	53	497220001	11/18/2019	Ra-226	0.00E+00	5.31E+00	1.03E+01	U
FH	53	497220001	11/18/2019	Ru-103	3.51E+00	1.86E+00	3.51E+00	UI
FH	53	497220001	11/18/2019	Ru-106	1.05E+01	1.11E+01	3.65E+01	U
FH	53	497220001	11/18/2019	Sb-124	4.50E+00	2.66E+00	8.98E+00	U
FH	53	497220001	11/18/2019	Sb-125	2.71E+00	3.12E+00	1.05E+01	U
FH	53	497220001	11/18/2019	Se-75	2.49E+00	1.70E+00	5.66E+00	U
FH	53	497220001	11/18/2019	Th-228	7.50E+00	4.51E+00	8.39E+00	U
FH	53	497220001	11/18/2019	Th-230	0.00E+00	5.31E+00	1.03E+01	U
FH	53	497220001	11/18/2019	Tl-208	6.11E+00	2.82E+00	3.89E+00	
FH	53	497220001	11/18/2019	Zn-65	-3.14E+00	3.38E+00	1.04E+01	U
FH	53	497220001	11/18/2019	Zr-95	-1.64E+00	2.55E+00	7.72E+00	U
FH	03	481983001	5/30/2019	Ac-228	0.00E+00	1.83E+01	4.25E+01	U
FH	03	481983001	5/30/2019	Ag-108m	-1.26E+00	2.27E+00	6.49E+00	U
FH	03	481983001	5/30/2019	Ag-110m	-3.89E+00	3.74E+00	1.04E+01	U
FH	03	481983001	5/30/2019	Ba-140	-2.20E+01	2.51E+01	7.86E+01	U
FH	03	481983001	5/30/2019	Be-7	2.16E+01	2.23E+01	7.75E+01	U
FH	03	481983001	5/30/2019	Bi-214	5.75E+00	6.46E+00	1.90E+01	U
FH	03	481983001	5/30/2019	Ce-141	1.63E+00	4.71E+00	1.43E+01	U
FH	03	481983001	5/30/2019	Ce-144	7.42E+00	1.39E+01	4.59E+01	U
FH	03	481983001	5/30/2019	Co-57	3.27E+00	1.90E+00	6.16E+00	U
FH	03	481983001	5/30/2019	Co-58	-2.34E+00	2.88E+00	8.43E+00	U
FH	03	481983001	5/30/2019	Co-60	2.08E+00	3.31E+00	1.15E+01	U
FH	03	481983001	5/30/2019	Cr-51	3.91E+01	3.04E+01	1.02E+02	U
FH	03	481983001	5/30/2019	Cs-134	1.53E+00	3.01E+00	1.01E+01	U
FH	03	481983001	5/30/2019	Cs-137	5.50E-01	2.38E+00	7.93E+00	U
FH	03	481983001	5/30/2019	Fe-59	-7.01E+00	6.76E+00	2.01E+01	U
FH	03	481983001	5/30/2019	I-131	-1.55E+01	1.13E+01	3.31E+01	U
FH	03	481983001	5/30/2019	K-40	3.30E+03	2.30E+02	6.83E+01	

SAMPLE TYPE	STATION	LSN	END DATE	NUCLIDE	CONC (pCi/kg)	STD.DEV. (pCi/kg)	MDC (pCi/kg)	FLAGS
FH	03	481983001	5/30/2019	La-140	-2.50E+00	5.82E+00	1.74E+01	U
FH	03	481983001	5/30/2019	Mn-54	-1.23E+00	2.86E+00	8.86E+00	U
FH	03	481983001	5/30/2019	Nb-95	3.60E+00	2.90E+00	9.97E+00	U
FH	03	481983001	5/30/2019	Pb-212	4.55E+00	7.28E+00	1.67E+01	U
FH	03	481983001	5/30/2019	Pb-214	1.03E+01	7.15E+00	1.93E+01	U
FH	03	481983001	5/30/2019	Ra-226	5.75E+00	6.46E+00	1.90E+01	U
FH	03	481983001	5/30/2019	Ru-103	-1.46E+00	2.83E+00	9.03E+00	U
FH	03	481983001	5/30/2019	Ru-106	-9.74E+00	2.04E+01	6.41E+01	U
FH	03	481983001	5/30/2019	Sb-124	5.29E+00	5.13E+00	1.94E+01	U
FH	03	481983001	5/30/2019	Sb-125	4.64E+00	6.38E+00	2.09E+01	U
FH	03	481983001	5/30/2019	Se-75	5.33E+00	3.28E+00	1.05E+01	U
FH	03	481983001	5/30/2019	Th-228	4.55E+00	7.28E+00	1.67E+01	U
FH	03	481983001	5/30/2019	Th-230	5.75E+00	6.46E+00	1.90E+01	U
FH	03	481983001	5/30/2019	Tl-208	0.00E+00	3.92E+00	7.16E+00	U
FH	03	481983001	5/30/2019	Zn-65	4.28E+00	7.35E+00	2.31E+01	U
FH	03	481983001	5/30/2019	Zr-95	3.64E+00	4.70E+00	1.61E+01	U
FH	03	487896001	8/12/2019	Ac-228	-4.75E+00	7.82E+00	2.32E+01	U
FH	03	487896001	8/12/2019	Ag-108m	-2.82E-01	1.49E+00	4.39E+00	U
FH	03	487896001	8/12/2019	Ag-110m	2.92E+00	2.36E+00	7.74E+00	U
FH	03	487896001	8/12/2019	Ba-140	5.82E+00	7.65E+00	2.57E+01	U
FH	03	487896001	8/12/2019	Be-7	-2.54E-01	1.32E+01	4.37E+01	U
FH	03	487896001	8/12/2019	Bi-214	1.03E+01	5.92E+00	1.22E+01	U
FH	03	487896001	8/12/2019	Ce-141	-3.33E-01	2.78E+00	7.29E+00	U
FH	03	487896001	8/12/2019	Ce-144	-2.24E-01	8.41E+00	2.68E+01	U
FH	03	487896001	8/12/2019	Co-57	-1.31E+00	1.21E+00	3.29E+00	U
FH	03	487896001	8/12/2019	Co-58	8.18E-01	1.44E+00	4.75E+00	U
FH	03	487896001	8/12/2019	Co-60	7.87E-03	1.91E+00	6.32E+00	U
FH	03	487896001	8/12/2019	Cr-51	-1.49E+01	1.25E+01	3.88E+01	U
FH	03	487896001	8/12/2019	Cs-134	-2.17E-01	1.67E+00	5.28E+00	U
FH	03	487896001	8/12/2019	Cs-137	1.68E+00	1.67E+00	5.56E+00	U
FH	03	487896001	8/12/2019	Fe-59	-1.76E-01	4.26E+00	1.43E+01	U
FH	03	487896001	8/12/2019	I-131	1.19E+00	2.66E+00	8.19E+00	U
FH	03	487896001	8/12/2019	K-40	3.83E+03	1.97E+02	4.70E+01	
FH	03	487896001	8/12/2019	La-140	1.15E-01	2.21E+00	6.36E+00	U
FH	03	487896001	8/12/2019	Mn-54	-1.55E+00	1.79E+00	5.27E+00	U
FH	03	487896001	8/12/2019	Nb-95	1.01E+00	1.99E+00	5.78E+00	U
FH	03	487896001	8/12/2019	Pb-212	1.29E+00	4.07E+00	8.06E+00	U
FH	03	487896001	8/12/2019	Pb-214	7.54E+00	4.22E+00	1.22E+01	U
FH	03	487896001	8/12/2019	Ra-226	1.03E+01	5.92E+00	1.22E+01	U
FH	03	487896001	8/12/2019	Ru-103	-1.20E+00	1.57E+00	4.90E+00	U
FH	03	487896001	8/12/2019	Ru-106	7.31E+00	1.56E+01	5.14E+01	U
FH	03	487896001	8/12/2019	Sb-124	3.28E+00	3.46E+00	1.11E+01	U
FH	03	487896001	8/12/2019	Sb-125	4.85E+00	4.15E+00	1.39E+01	U
FH	03	487896001	8/12/2019	Se-75	-5.63E-01	1.74E+00	5.86E+00	U
FH	03	487896001	8/12/2019	Th-228	1.29E+00	4.07E+00	8.06E+00	U
FH	03	487896001	8/12/2019	Th-230	1.03E+01	5.92E+00	1.22E+01	U
FH	03	487896001	8/12/2019	Tl-208	2.74E+00	2.75E+00	5.08E+00	U
FH	03	487896001	8/12/2019	Zn-65	-1.30E+00	4.65E+00	1.46E+01	U
FH	03	487896001	8/12/2019	Zr-95	1.56E+00	2.81E+00	9.26E+00	U

SAMPLE TYPE	STATION	LSN	END DATE	NUCLIDE	CONC (pCi/kg)	STD.DEV. (pCi/kg)	MDC (pCi/kg)	FLAGS
FH	53	487896002	8/13/2019	Ac-228	-2.12E+01	1.02E+01	2.39E+01	U
FH	53	487896002	8/13/2019	Ag-108m	-2.77E-01	1.25E+00	4.07E+00	U
FH	53	487896002	8/13/2019	Ag-110m	1.61E+00	2.30E+00	7.82E+00	U
FH	53	487896002	8/13/2019	Ba-140	1.45E+00	7.44E+00	2.43E+01	U
FH	53	487896002	8/13/2019	Be-7	2.72E+01	1.50E+01	3.85E+01	U
FH	53	487896002	8/13/2019	Bi-214	-5.32E+00	4.43E+00	1.11E+01	U
FH	53	487896002	8/13/2019	Ce-141	-4.46E-01	2.18E+00	6.95E+00	U
FH	53	487896002	8/13/2019	Ce-144	-3.48E+00	7.77E+00	2.46E+01	U
FH	53	487896002	8/13/2019	Co-57	-1.82E+00	1.14E+00	3.26E+00	U
FH	53	487896002	8/13/2019	Co-58	4.67E-01	1.53E+00	5.20E+00	U
FH	53	487896002	8/13/2019	Co-60	5.89E-01	1.84E+00	6.01E+00	U
FH	53	487896002	8/13/2019	Cr-51	-2.71E+00	1.21E+01	4.03E+01	U
FH	53	487896002	8/13/2019	Cs-134	-5.68E-01	1.74E+00	5.73E+00	U
FH	53	487896002	8/13/2019	Cs-137	3.43E+00	1.83E+00	5.77E+00	U
FH	53	487896002	8/13/2019	Fe-59	2.99E+00	4.42E+00	1.47E+01	U
FH	53	487896002	8/13/2019	I-131	-1.38E+00	2.59E+00	8.42E+00	U
FH	53	487896002	8/13/2019	K-40	3.98E+03	2.17E+02	4.91E+01	
FH	53	487896002	8/13/2019	La-140	2.56E+00	2.36E+00	8.31E+00	U
FH	53	487896002	8/13/2019	Mn-54	-5.66E-01	1.57E+00	5.13E+00	U
FH	53	487896002	8/13/2019	Nb-95	2.47E+00	1.81E+00	5.58E+00	U
FH	53	487896002	8/13/2019	Pb-212	-2.71E+00	3.21E+00	9.18E+00	U
FH	53	487896002	8/13/2019	Pb-214	4.56E+00	5.32E+00	1.18E+01	U
FH	53	487896002	8/13/2019	Ra-226	-5.32E+00	4.43E+00	1.11E+01	U
FH	53	487896002	8/13/2019	Ru-103	-1.25E+00	1.54E+00	4.72E+00	U
FH	53	487896002	8/13/2019	Ru-106	-2.37E+01	1.78E+01	4.53E+01	U
FH	53	487896002	8/13/2019	Sb-124	-1.68E+00	3.17E+00	9.88E+00	U
FH	53	487896002	8/13/2019	Sb-125	-3.18E+00	3.99E+00	1.25E+01	U
FH	53	487896002	8/13/2019	Se-75	7.59E-01	1.78E+00	6.12E+00	U
FH	53	487896002	8/13/2019	Th-228	-2.71E+00	3.21E+00	9.18E+00	U
FH	53	487896002	8/13/2019	Th-230	-5.32E+00	4.43E+00	1.11E+01	U
FH	53	487896002	8/13/2019	Tl-208	-3.81E+00	2.15E+00	5.73E+00	U
FH	53	487896002	8/13/2019	Zn-65	-4.19E+00	4.90E+00	1.50E+01	U
FH	53	487896002	8/13/2019	Zr-95	4.55E+00	3.14E+00	1.06E+01	U
FH	06	481983003	5/30/2019	Ac-228	2.66E+01	1.69E+01	5.21E+01	U
FH	06	481983003	5/30/2019	Ag-108m	-6.73E-01	2.12E+00	6.38E+00	U
FH	06	481983003	5/30/2019	Ag-110m	3.09E+00	4.40E+00	1.52E+01	U
FH	06	481983003	5/30/2019	Ba-140	-1.74E+01	2.74E+01	8.12E+01	U
FH	06	481983003	5/30/2019	Be-7	-1.82E+01	2.42E+01	7.14E+01	U
FH	06	481983003	5/30/2019	Bi-214	5.44E+00	6.27E+00	2.20E+01	U
FH	06	481983003	5/30/2019	Ce-141	-7.71E+00	5.71E+00	1.62E+01	U
FH	06	481983003	5/30/2019	Ce-144	4.57E+00	1.31E+01	4.36E+01	U
FH	06	481983003	5/30/2019	Co-57	1.05E-01	1.86E+00	6.12E+00	U
FH	06	481983003	5/30/2019	Co-58	6.45E+00	4.22E+00	1.36E+01	U
FH	06	481983003	5/30/2019	Co-60	4.02E+00	3.98E+00	1.42E+01	U
FH	06	481983003	5/30/2019	Cr-51	3.38E+01	3.13E+01	1.09E+02	U
FH	06	481983003	5/30/2019	Cs-134	2.43E+00	3.60E+00	1.24E+01	U
FH	06	481983003	5/30/2019	Cs-137	-2.86E+00	2.79E+00	8.28E+00	U
FH	06	481983003	5/30/2019	Fe-59	-5.03E+00	6.82E+00	1.91E+01	U
FH	06	481983003	5/30/2019	I-131	1.96E+00	1.36E+01	4.56E+01	U
FH	06	481983003	5/30/2019	K-40	2.50E+03	1.97E+02	7.74E+01	

SAMPLE TYPE	STATION	LSN	END DATE	NUCLIDE	CONC (pCi/kg)	STD.DEV. (pCi/kg)	MDC (pCi/kg)	FLAGS
FH	06	481983003	5/30/2019	La-140	-9.93E+00	8.78E+00	2.05E+01	U
FH	06	481983003	5/30/2019	Mn-54	9.23E-02	3.22E+00	1.07E+01	U
FH	06	481983003	5/30/2019	Nb-95	-1.29E+00	3.67E+00	1.18E+01	U
FH	06	481983003	5/30/2019	Pb-212	8.78E+00	7.65E+00	1.69E+01	U
FH	06	481983003	5/30/2019	Pb-214	1.33E+01	7.41E+00	2.39E+01	U
FH	06	481983003	5/30/2019	Ra-226	5.44E+00	6.27E+00	2.20E+01	U
FH	06	481983003	5/30/2019	Ru-103	-3.51E+00	3.64E+00	1.05E+01	U
FH	06	481983003	5/30/2019	Ru-106	5.80E+01	2.60E+01	6.67E+01	U
FH	06	481983003	5/30/2019	Sb-124	8.73E+00	7.56E+00	2.85E+01	U
FH	06	481983003	5/30/2019	Sb-125	1.28E+01	7.70E+00	2.62E+01	U
FH	06	481983003	5/30/2019	Se-75	1.73E+00	3.32E+00	1.15E+01	U
FH	06	481983003	5/30/2019	Th-228	8.78E+00	7.65E+00	1.69E+01	U
FH	06	481983003	5/30/2019	Th-230	5.44E+00	6.27E+00	2.20E+01	U
FH	06	481983003	5/30/2019	Tl-208	9.65E-01	3.63E+00	1.13E+01	U
FH	06	481983003	5/30/2019	Zn-65	2.08E+00	8.83E+00	2.54E+01	U
FH	06	481983003	5/30/2019	Zr-95	-8.20E+00	6.22E+00	1.71E+01	U
FH	06	498584003	11/27/2019	Ac-228	-9.19E+01	4.52E+01	1.01E+02	U
FH	06	498584003	11/27/2019	Ag-108m	-4.65E+00	6.13E+00	1.83E+01	U
FH	06	498584003	11/27/2019	Ag-110m	2.03E+01	9.23E+00	3.49E+01	U
FH	06	498584003	11/27/2019	Ba-140	1.48E+01	5.51E+01	1.81E+02	U
FH	06	498584003	11/27/2019	Be-7	5.37E+01	7.19E+01	2.45E+02	U
FH	06	498584003	11/27/2019	Bi-214	-2.85E+01	2.13E+01	5.96E+01	U
FH	06	498584003	11/27/2019	Ce-141	-9.59E+00	1.11E+01	3.28E+01	U
FH	06	498584003	11/27/2019	Ce-144	5.22E-01	3.63E+01	1.19E+02	U
FH	06	498584003	11/27/2019	Co-57	3.30E-02	5.11E+00	1.68E+01	U
FH	06	498584003	11/27/2019	Co-58	1.39E+01	6.22E+00	2.41E+01	U
FH	06	498584003	11/27/2019	Co-60	-3.77E-01	8.41E+00	2.78E+01	U
FH	06	498584003	11/27/2019	Cr-51	7.76E+01	8.24E+01	2.86E+02	U
FH	06	498584003	11/27/2019	Cs-134	-1.35E+01	9.86E+00	2.27E+01	U
FH	06	498584003	11/27/2019	Cs-137	-1.49E-01	8.74E+00	2.85E+01	U
FH	06	498584003	11/27/2019	Fe-59	-2.12E+00	2.38E+01	7.55E+01	U
FH	06	498584003	11/27/2019	I-131	1.84E+01	2.49E+01	8.59E+01	U
FH	06	498584003	11/27/2019	K-40	2.56E+03	3.16E+02	2.15E+02	
FH	06	498584003	11/27/2019	La-140	-1.22E+01	1.81E+01	4.97E+01	U
FH	06	498584003	11/27/2019	Mn-54	-4.03E+00	7.83E+00	2.42E+01	U
FH	06	498584003	11/27/2019	Nb-95	1.92E+01	1.07E+01	3.74E+01	U
FH	06	498584003	11/27/2019	Pb-212	-6.87E+00	1.38E+01	4.50E+01	U
FH	06	498584003	11/27/2019	Pb-214	1.11E+00	2.28E+01	6.88E+01	U
FH	06	498584003	11/27/2019	Ra-226	-2.85E+01	2.13E+01	5.96E+01	U
FH	06	498584003	11/27/2019	Ru-103	-7.21E+00	9.46E+00	2.39E+01	U
FH	06	498584003	11/27/2019	Ru-106	1.28E+02	7.71E+01	2.74E+02	U
FH	06	498584003	11/27/2019	Sb-124	6.98E+00	1.33E+01	4.91E+01	U
FH	06	498584003	11/27/2019	Sb-125	2.81E+01	2.21E+01	7.59E+01	U
FH	06	498584003	11/27/2019	Se-75	-4.40E+00	8.88E+00	2.92E+01	U
FH	06	498584003	11/27/2019	Th-228	-6.87E+00	1.38E+01	4.50E+01	U
FH	06	498584003	11/27/2019	Th-230	-2.85E+01	2.13E+01	5.96E+01	U
FH	06	498584003	11/27/2019	Tl-208	-6.78E-01	9.62E+00	3.13E+01	U
FH	06	498584003	11/27/2019	Zn-65	-2.28E+01	1.97E+01	5.02E+01	U
FH	06	498584003	11/27/2019	Zr-95	-2.16E+01	1.58E+01	4.16E+01	U

SAMPLE TYPE	STATION	LSN	END DATE	NUCLIDE	CONC (pCi/kg)	STD.DEV. (pCi/kg)	MDC (pCi/kg)	FLAGS
HA	04	480357001	5/25/2019	Ac-228	5.95E+01	6.10E+01	2.08E+02	U
HA	04	480357001	5/25/2019	Ag-108m	2.39E+01	1.21E+01	3.03E+01	U
HA	04	480357001	5/25/2019	Ag-110m	-6.10E+00	9.73E+00	2.59E+01	U
HA	04	480357001	5/25/2019	Ba-140	8.53E+00	6.00E+01	2.06E+02	U
HA	04	480357001	5/25/2019	Be-7	-1.25E+01	9.27E+01	2.83E+02	U
HA	04	480357001	5/25/2019	Bi-214	-5.05E+01	2.85E+01	7.72E+01	U
HA	04	480357001	5/25/2019	Ce-141	-1.12E+01	1.09E+01	3.04E+01	U
HA	04	480357001	5/25/2019	Ce-144	-3.97E-01	2.88E+01	1.02E+02	U
HA	04	480357001	5/25/2019	Co-57	-4.25E+00	4.50E+00	1.19E+01	U
HA	04	480357001	5/25/2019	Co-58	-5.41E+00	1.46E+01	4.54E+01	U
HA	04	480357001	5/25/2019	Co-60	-8.24E+00	1.41E+01	4.16E+01	U
HA	04	480357001	5/25/2019	Cr-51	-4.20E+01	7.33E+01	2.22E+02	U
HA	04	480357001	5/25/2019	Cs-134	4.44E+00	9.85E+00	3.42E+01	U
HA	04	480357001	5/25/2019	Cs-137	-6.05E+00	1.26E+01	3.95E+01	U
HA	04	480357001	5/25/2019	Fe-59	1.86E+01	2.36E+01	8.68E+01	U
HA	04	480357001	5/25/2019	I-131	-6.44E+00	1.76E+01	5.38E+01	U
HA	04	480357001	5/25/2019	K-40	3.51E+03	4.55E+02	3.70E+02	
HA	04	480357001	5/25/2019	La-140	-7.57E+00	2.69E+01	8.18E+01	U
HA	04	480357001	5/25/2019	Mn-54	-5.95E+00	1.20E+01	3.59E+01	U
HA	04	480357001	5/25/2019	Nb-95	7.21E+00	1.31E+01	4.50E+01	U
HA	04	480357001	5/25/2019	Pb-212	-3.92E+00	1.38E+01	4.32E+01	U
HA	04	480357001	5/25/2019	Pb-214	-1.34E+01	2.33E+01	7.20E+01	U
HA	04	480357001	5/25/2019	Ra-226	-5.05E+01	2.85E+01	7.72E+01	U
HA	04	480357001	5/25/2019	Ru-103	7.13E+00	8.17E+00	3.00E+01	U
HA	04	480357001	5/25/2019	Ru-106	-2.74E+01	8.09E+01	2.59E+02	U
HA	04	480357001	5/25/2019	Sb-124	-1.08E+00	1.94E+01	6.08E+01	U
HA	04	480357001	5/25/2019	Sb-125	2.42E+01	2.33E+01	7.99E+01	U
HA	04	480357001	5/25/2019	Se-75	7.81E-01	9.45E+00	3.15E+01	U
HA	04	480357001	5/25/2019	Th-228	-3.92E+00	1.38E+01	4.32E+01	U
HA	04	480357001	5/25/2019	Th-230	-5.05E+01	2.85E+01	7.72E+01	U
HA	04	480357001	5/25/2019	Tl-208	-7.19E+00	1.12E+01	3.50E+01	U
HA	04	480357001	5/25/2019	Zn-65	4.23E+00	3.20E+01	1.09E+02	U
HA	04	480357001	5/25/2019	Zr-95	4.45E+01	2.46E+01	8.84E+01	U
HA	04	498586001	11/25/2019	Ac-228	-2.30E+01	1.07E+01	2.34E+01	U
HA	04	498586001	11/25/2019	Ag-108m	1.71E+00	2.01E+00	6.38E+00	U
HA	04	498586001	11/25/2019	Ag-110m	-3.75E+00	3.04E+00	7.76E+00	U
HA	04	498586001	11/25/2019	Ba-140	5.38E+01	4.09E+01	6.65E+01	U
HA	04	498586001	11/25/2019	Be-7	-2.02E+01	2.04E+01	5.20E+01	U
HA	04	498586001	11/25/2019	Bi-214	-7.19E-01	4.94E+00	1.56E+01	U
HA	04	498586001	11/25/2019	Ce-141	-3.11E+00	4.11E+00	1.16E+01	U
HA	04	498586001	11/25/2019	Ce-144	-1.46E+00	1.31E+01	3.96E+01	U
HA	04	498586001	11/25/2019	Co-57	2.30E+00	1.66E+00	5.43E+00	U
HA	04	498586001	11/25/2019	Co-58	1.12E+00	2.15E+00	7.29E+00	U

SAMPLE TYPE	STATION	LSN	END DATE	NUCLIDE	CONC (pCi/kg)	STD.DEV. (pCi/kg)	MDC (pCi/kg)	FLAGS
HA	04	498586001	11/25/2019	Co-60	1.03E+00	2.04E+00	7.25E+00	U
HA	04	498586001	11/25/2019	Cr-51	-4.07E+01	2.16E+01	5.61E+01	U
HA	04	498586001	11/25/2019	Cs-134	0.00E+00	3.37E+00	8.69E+00	U
HA	04	498586001	11/25/2019	Cs-137	1.51E+00	2.28E+00	7.76E+00	U
HA	04	498586001	11/25/2019	Fe-59	-6.90E-01	6.56E+00	2.20E+01	U
HA	04	498586001	11/25/2019	I-131	6.85E+00	8.32E+00	2.90E+01	U
HA	04	498586001	11/25/2019	K-40	2.03E+03	1.56E+02	8.78E+01	
HA	04	498586001	11/25/2019	La-140	-3.42E+00	6.19E+00	1.51E+01	U
HA	04	498586001	11/25/2019	Mn-54	3.90E+00	2.64E+00	9.05E+00	U
HA	04	498586001	11/25/2019	Nb-95	-6.15E+00	3.26E+00	7.13E+00	U
HA	04	498586001	11/25/2019	Pb-212	6.63E+00	6.01E+00	2.28E+01	U
HA	04	498586001	11/25/2019	Pb-214	7.72E+00	8.48E+00	1.67E+01	U
HA	04	498586001	11/25/2019	Ra-226	-7.19E-01	4.94E+00	1.56E+01	U
HA	04	498586001	11/25/2019	Ru-103	1.49E+00	2.21E+00	7.39E+00	U
HA	04	498586001	11/25/2019	Ru-106	2.88E+01	1.90E+01	6.62E+01	U
HA	04	498586001	11/25/2019	Sb-124	6.68E+00	5.40E+00	2.06E+01	U
HA	04	498586001	11/25/2019	Sb-125	-5.39E+00	5.39E+00	1.39E+01	U
HA	04	498586001	11/25/2019	Se-75	-3.31E-01	2.67E+00	9.09E+00	U
HA	04	498586001	11/25/2019	Th-228	6.63E+00	6.01E+00	2.28E+01	U
HA	04	498586001	11/25/2019	Th-230	-7.19E-01	4.94E+00	1.56E+01	U
HA	04	498586001	11/25/2019	Tl-208	0.00E+00	4.62E+00	6.63E+00	U
HA	04	498586001	11/25/2019	Zn-65	-4.58E+00	6.14E+00	1.62E+01	U
HA	04	498586001	11/25/2019	Zr-95	-9.70E+00	6.28E+00	1.52E+01	U
HA	54	480357002	5/23/2019	Ac-228	2.00E+00	8.65E+01	1.62E+02	U
HA	54	480357002	5/23/2019	Ag-108m	4.37E+00	9.09E+00	2.94E+01	U
HA	54	480357002	5/23/2019	Ag-110m	-1.54E+01	1.32E+01	3.66E+01	U
HA	54	480357002	5/23/2019	Ba-140	9.75E+00	5.26E+01	1.78E+02	U
HA	54	480357002	5/23/2019	Be-7	1.00E+02	1.53E+02	2.83E+02	U
HA	54	480357002	5/23/2019	Bi-214	5.20E+01	3.95E+01	9.66E+01	U
HA	54	480357002	5/23/2019	Ce-141	7.92E+00	1.65E+01	5.70E+01	U
HA	54	480357002	5/23/2019	Ce-144	3.88E+01	5.77E+01	2.01E+02	U
HA	54	480357002	5/23/2019	Co-57	3.13E+00	7.34E+00	2.57E+01	U
HA	54	480357002	5/23/2019	Co-58	-7.72E+00	1.08E+01	3.27E+01	U
HA	54	480357002	5/23/2019	Co-60	-7.44E+00	1.12E+01	3.41E+01	U
HA	54	480357002	5/23/2019	Cr-51	-1.39E+02	1.09E+02	3.18E+02	U
HA	54	480357002	5/23/2019	Cs-134	-1.37E+01	1.21E+01	3.25E+01	U
HA	54	480357002	5/23/2019	Cs-137	-1.53E+01	1.12E+01	3.21E+01	U
HA	54	480357002	5/23/2019	Fe-59	9.31E+00	2.09E+01	7.12E+01	U
HA	54	480357002	5/23/2019	I-131	-1.90E+00	2.27E+01	7.29E+01	U
HA	54	480357002	5/23/2019	K-40	2.99E+03	3.16E+02	3.47E+02	
HA	54	480357002	5/23/2019	La-140	7.10E+00	1.91E+01	6.31E+01	U
HA	54	480357002	5/23/2019	Mn-54	-6.00E+00	1.05E+01	3.25E+01	U
HA	54	480357002	5/23/2019	Nb-95	-2.90E+00	1.12E+01	3.59E+01	U
HA	54	480357002	5/23/2019	Pb-212	3.18E+01	3.06E+01	7.47E+01	U
HA	54	480357002	5/23/2019	Pb-214	6.73E+01	5.03E+01	9.09E+01	U
HA	54	480357002	5/23/2019	Ra-226	5.20E+01	3.95E+01	9.66E+01	U
HA	54	480357002	5/23/2019	Ru-103	-9.69E-01	1.00E+01	3.37E+01	U
HA	54	480357002	5/23/2019	Ru-106	-1.56E+02	9.84E+01	2.74E+02	U
HA	54	480357002	5/23/2019	Sb-124	2.51E+01	2.40E+01	8.28E+01	U

Seabrook REMP Summary of 2019 Data

SAMPLE TYPE	STATION	LSN	END DATE	NUCLIDE	CONC (pCi/kg)	STD.DEV. (pCi/kg)	MDC (pCi/kg)	FLAGS
HA	54	480357002	5/23/2019	Sb-125	-1.21E+01	2.77E+01	8.55E+01	U
HA	54	480357002	5/23/2019	Se-75	-1.28E+01	1.57E+01	4.66E+01	U
HA	54	480357002	5/23/2019	Th-228	3.18E+01	3.06E+01	7.47E+01	U
HA	54	480357002	5/23/2019	Th-230	5.20E+01	3.95E+01	9.66E+01	U
HA	54	480357002	5/23/2019	Tl-208	-2.05E+01	1.33E+01	3.99E+01	U
HA	54	480357002	5/23/2019	Zn-65	-2.20E+01	2.42E+01	7.39E+01	U
HA	54	480357002	5/23/2019	Zr-95	-2.81E+00	1.80E+01	5.79E+01	U
HA	54	498586002	11/25/2019	Ac-228	-1.33E+01	1.68E+01	5.03E+01	U
HA	54	498586002	11/25/2019	Ag-108m	-5.27E+00	2.46E+00	5.51E+00	U
HA	54	498586002	11/25/2019	Ag-110m	9.12E-01	3.65E+00	1.22E+01	U
HA	54	498586002	11/25/2019	Ba-140	-1.90E+01	2.40E+01	7.28E+01	U
HA	54	498586002	11/25/2019	Be-7	-2.48E+01	2.37E+01	6.93E+01	U
HA	54	498586002	11/25/2019	Bi-214	1.06E+01	1.12E+01	2.90E+01	U
HA	54	498586002	11/25/2019	Ce-141	-5.07E+00	5.54E+00	1.71E+01	U
HA	54	498586002	11/25/2019	Ce-144	2.18E+01	1.75E+01	5.88E+01	U
HA	54	498586002	11/25/2019	Co-57	1.20E+00	2.01E+00	6.83E+00	U
HA	54	498586002	11/25/2019	Co-58	-2.06E+00	2.98E+00	7.13E+00	U
HA	54	498586002	11/25/2019	Co-60	-4.06E+00	3.65E+00	9.66E+00	U
HA	54	498586002	11/25/2019	Cr-51	-2.00E+01	3.46E+01	1.03E+02	U
HA	54	498586002	11/25/2019	Cs-134	-1.77E+00	4.23E+00	1.23E+01	U
HA	54	498586002	11/25/2019	Cs-137	-6.84E-01	3.45E+00	1.12E+01	U
HA	54	498586002	11/25/2019	Fe-59	-1.79E+00	8.59E+00	2.85E+01	U
HA	54	498586002	11/25/2019	I-131	-1.52E+01	1.25E+01	3.28E+01	U
HA	54	498586002	11/25/2019	K-40	1.66E+03	1.65E+02	4.97E+01	
HA	54	498586002	11/25/2019	La-140	-3.42E+00	1.00E+01	3.09E+01	U
HA	54	498586002	11/25/2019	Mn-54	-7.34E+00	3.80E+00	7.88E+00	U
HA	54	498586002	11/25/2019	Nb-95	4.19E+00	3.56E+00	1.27E+01	U
HA	54	498586002	11/25/2019	Pb-212	-8.44E-01	6.12E+00	1.91E+01	U
HA	54	498586002	11/25/2019	Pb-214	-6.45E+00	7.96E+00	2.45E+01	U
HA	54	498586002	11/25/2019	Ra-226	1.06E+01	1.12E+01	2.90E+01	U
HA	54	498586002	11/25/2019	Ru-103	8.16E-02	2.99E+00	1.01E+01	U
HA	54	498586002	11/25/2019	Ru-106	-1.73E+01	2.85E+01	8.81E+01	U
HA	54	498586002	11/25/2019	Sb-124	2.56E+00	2.97E+00	1.36E+01	U
HA	54	498586002	11/25/2019	Sb-125	-3.52E+00	7.42E+00	2.42E+01	U
HA	54	498586002	11/25/2019	Se-75	-4.42E+00	4.15E+00	1.19E+01	U
HA	54	498586002	11/25/2019	Th-228	-8.44E-01	6.12E+00	1.91E+01	U
HA	54	498586002	11/25/2019	Th-230	1.06E+01	1.12E+01	2.90E+01	U
HA	54	498586002	11/25/2019	Tl-208	1.10E+00	5.81E+00	1.01E+01	U
HA	54	498586002	11/25/2019	Zn-65	1.21E+00	7.79E+00	2.69E+01	U
HA	54	498586002	11/25/2019	Zr-95	5.18E+00	6.67E+00	2.32E+01	U

Seabrook REMP Summary of 2019 Data

SAMPLE TYPE	STATION	LSN	END DATE	NUCLIDE	CONC (pCi/kg)	STD.DEV. (pCi/kg)	MDC (pCi/kg)	FLAGS
MU	06	480333001	5/21/2019	Ac-228	1.39E+02	9.07E+01	2.79E+02	U
MU	06	480333001	5/21/2019	Ag-108m	-1.02E+01	1.32E+01	4.13E+01	U
MU	06	480333001	5/21/2019	Ag-110m	-1.37E+01	2.69E+01	8.01E+01	U
MU	06	480333001	5/21/2019	Ba-140	1.45E+02	9.04E+01	2.82E+02	U
MU	06	480333001	5/21/2019	Be-7	1.34E+02	1.43E+02	4.97E+02	U
MU	06	480333001	5/21/2019	Bi-214	-1.86E+01	4.90E+01	1.42E+02	U
MU	06	480333001	5/21/2019	Ce-141	-4.62E+01	2.41E+01	6.22E+01	U
MU	06	480333001	5/21/2019	Ce-144	1.30E+01	7.11E+01	2.37E+02	U
MU	06	480333001	5/21/2019	Co-57	-3.29E+00	8.37E+00	2.71E+01	U
MU	06	480333001	5/21/2019	Co-58	-2.67E+01	2.36E+01	6.48E+01	U
MU	06	480333001	5/21/2019	Co-60	3.69E+01	2.28E+01	6.92E+01	U
MU	06	480333001	5/21/2019	Cr-51	-4.04E+01	1.55E+02	4.70E+02	U
MU	06	480333001	5/21/2019	Cs-134	1.57E+01	2.01E+01	6.82E+01	U
MU	06	480333001	5/21/2019	Cs-137	-5.69E+00	1.74E+01	5.48E+01	U
MU	06	480333001	5/21/2019	Fe-59	8.67E+00	4.03E+01	1.38E+02	U
MU	06	480333001	5/21/2019	I-131	-2.20E+01	3.30E+01	1.06E+02	U
MU	06	480333001	5/21/2019	K-40	1.99E+03	4.95E+02	5.77E+02	
MU	06	480333001	5/21/2019	La-140	7.34E+01	4.04E+01	1.51E+02	U
MU	06	480333001	5/21/2019	Mn-54	3.04E+01	1.19E+01	4.74E+01	U
MU	06	480333001	5/21/2019	Nb-95	3.03E+01	2.14E+01	7.35E+01	U
MU	06	480333001	5/21/2019	Pb-212	-3.89E+01	3.09E+01	8.80E+01	U
MU	06	480333001	5/21/2019	Pb-214	6.01E+01	5.32E+01	9.21E+01	U
MU	06	480333001	5/21/2019	Ra-226	-1.86E+01	4.90E+01	1.42E+02	U
MU	06	480333001	5/21/2019	Ru-103	-2.72E+01	2.03E+01	5.76E+01	U
MU	06	480333001	5/21/2019	Ru-106	2.26E+02	1.73E+02	5.97E+02	U
MU	06	480333001	5/21/2019	Sb-124	2.91E+01	5.27E+01	1.81E+02	U
MU	06	480333001	5/21/2019	Sb-125	3.93E+01	3.82E+01	1.35E+02	U
MU	06	480333001	5/21/2019	Se-75	-1.00E+01	2.03E+01	5.58E+01	U
MU	06	480333001	5/21/2019	Th-228	-3.89E+01	3.09E+01	8.80E+01	U
MU	06	480333001	5/21/2019	Th-230	-1.86E+01	4.90E+01	1.42E+02	U
MU	06	480333001	5/21/2019	Tl-208	0.00E+00	3.42E+01	5.74E+01	U
MU	06	480333001	5/21/2019	Zn-65	-4.19E+01	4.05E+01	1.16E+02	U
MU	06	480333001	5/21/2019	Zr-95	1.46E+01	3.44E+01	1.15E+02	U
MU	06	497214001	11/14/2019	Ac-228	-8.89E+00	1.16E+01	3.42E+01	U
MU	06	497214001	11/14/2019	Ag-108m	8.77E-02	1.56E+00	5.28E+00	U
MU	06	497214001	11/14/2019	Ag-110m	-4.88E+00	3.67E+00	7.82E+00	U
MU	06	497214001	11/14/2019	Ba-140	1.73E+01	1.32E+01	4.64E+01	U
MU	06	497214001	11/14/2019	Be-7	2.07E+01	2.01E+01	6.99E+01	U
MU	06	497214001	11/14/2019	Bi-214	1.98E+00	7.27E+00	2.01E+01	U
MU	06	497214001	11/14/2019	Ce-141	-1.16E+00	3.30E+00	1.04E+01	U
MU	06	497214001	11/14/2019	Ce-144	-8.27E+00	1.12E+01	3.44E+01	U
MU	06	497214001	11/14/2019	Co-57	-7.67E-01	1.48E+00	4.65E+00	U
MU	06	497214001	11/14/2019	Co-58	2.38E+00	2.16E+00	7.58E+00	U

Seabrook REMP Summary of 2019 Data

SAMPLE TYPE	STATION	LSN	END DATE	NUCLIDE	CONC (pCi/kg)	STD.DEV. (pCi/kg)	MDC (pCi/kg)	FLAGS
MU	06	497214001	11/14/2019	Co-60	-6.81E-01	2.41E+00	7.83E+00	U
MU	06	497214001	11/14/2019	Cr-51	9.06E+00	2.00E+01	7.00E+01	U
MU	06	497214001	11/14/2019	Cs-134	4.05E-01	2.24E+00	7.40E+00	U
MU	06	497214001	11/14/2019	Cs-137	1.99E+00	2.44E+00	7.71E+00	U
MU	06	497214001	11/14/2019	Fe-59	-9.35E+00	5.14E+00	9.98E+00	U
MU	06	497214001	11/14/2019	I-131	9.44E-01	4.90E+00	1.69E+01	U
MU	06	497214001	11/14/2019	K-40	9.96E+02	1.00E+02	5.90E+01	
MU	06	497214001	11/14/2019	La-140	1.79E+00	3.63E+00	1.30E+01	U
MU	06	497214001	11/14/2019	Mn-54	1.63E+00	2.43E+00	8.25E+00	U
MU	06	497214001	11/14/2019	Nb-95	-4.36E+00	2.99E+00	7.25E+00	U
MU	06	497214001	11/14/2019	Pb-212	4.10E-01	5.16E+00	9.19E+00	U
MU	06	497214001	11/14/2019	Pb-214	8.37E+00	8.42E+00	1.92E+01	U
MU	06	497214001	11/14/2019	Ra-226	1.98E+00	7.27E+00	2.01E+01	U
MU	06	497214001	11/14/2019	Ru-103	1.29E+00	2.13E+00	7.40E+00	U
MU	06	497214001	11/14/2019	Ru-106	3.59E+00	1.65E+01	5.54E+01	U
MU	06	497214001	11/14/2019	Sb-124	1.85E+00	3.82E+00	1.38E+01	U
MU	06	497214001	11/14/2019	Sb-125	4.92E+00	5.86E+00	1.94E+01	U
MU	06	497214001	11/14/2019	Se-75	9.75E+00	4.66E+00	9.88E+00	U
MU	06	497214001	11/14/2019	Th-228	4.10E-01	5.16E+00	9.19E+00	U
MU	06	497214001	11/14/2019	Th-230	1.98E+00	7.27E+00	2.01E+01	U
MU	06	497214001	11/14/2019	Tl-208	0.00E+00	6.13E+00	4.75E+00	U
MU	06	497214001	11/14/2019	Zn-65	-1.02E+01	6.43E+00	1.53E+01	U
MU	06	497214001	11/14/2019	Zr-95	-1.55E+00	3.87E+00	1.20E+01	U
MU	09	480356001	5/14/2019	Ac-228	3.07E+01	5.86E+01	1.55E+02	U
MU	09	480356001	5/14/2019	Ag-108m	8.35E+00	9.11E+00	3.18E+01	U
MU	09	480356001	5/14/2019	Ag-110m	4.12E+00	1.47E+01	5.10E+01	U
MU	09	480356001	5/14/2019	Ba-140	1.05E+02	1.02E+02	3.09E+02	U
MU	09	480356001	5/14/2019	Be-7	-3.22E+00	1.06E+02	3.50E+02	U
MU	09	480356001	5/14/2019	Bi-214	2.26E+01	4.64E+01	1.15E+02	U
MU	09	480356001	5/14/2019	Ce-141	0.00E+00	3.59E+01	4.33E+01	U
MU	09	480356001	5/14/2019	Ce-144	9.51E+00	5.53E+01	1.82E+02	U
MU	09	480356001	5/14/2019	Co-57	1.54E+01	7.75E+00	2.55E+01	U
MU	09	480356001	5/14/2019	Co-58	-1.87E+01	1.63E+01	3.57E+01	U
MU	09	480356001	5/14/2019	Co-60	-2.54E+01	1.60E+01	3.69E+01	U
MU	09	480356001	5/14/2019	Cr-51	7.18E+01	1.22E+02	4.27E+02	U
MU	09	480356001	5/14/2019	Cs-134	2.95E+00	1.18E+01	3.85E+01	U
MU	09	480356001	5/14/2019	Cs-137	-2.01E+01	1.35E+01	3.41E+01	U
MU	09	480356001	5/14/2019	Fe-59	-2.68E+00	2.26E+01	7.38E+01	U
MU	09	480356001	5/14/2019	I-131	-3.15E+01	5.04E+01	1.51E+02	U
MU	09	480356001	5/14/2019	K-40	1.12E+03	2.98E+02	5.08E+02	
MU	09	480356001	5/14/2019	La-140	-4.17E+01	4.66E+01	1.27E+02	U
MU	09	480356001	5/14/2019	Mn-54	-6.48E+00	1.40E+01	4.20E+01	U
MU	09	480356001	5/14/2019	Nb-95	6.21E-01	1.49E+01	4.75E+01	U
MU	09	480356001	5/14/2019	Pb-212	1.13E+01	3.63E+01	8.29E+01	U
MU	09	480356001	5/14/2019	Pb-214	3.62E+01	3.80E+01	1.03E+02	U
MU	09	480356001	5/14/2019	Ra-226	2.26E+01	4.64E+01	1.15E+02	U
MU	09	480356001	5/14/2019	Ru-103	-4.84E+00	1.18E+01	3.72E+01	U
MU	09	480356001	5/14/2019	Ru-106	-9.82E+01	1.02E+02	2.91E+02	U
MU	09	480356001	5/14/2019	Sb-124	-8.66E+01	4.06E+01	4.53E+01	U

SAMPLE TYPE	STATION	LSN	END DATE	NUCLIDE	CONC (pCi/kg)	STD.DEV. (pCi/kg)	MDC (pCi/kg)	FLAGS
MU	09	480356001	5/14/2019	Sb-125	-1.65E+00	2.54E+01	8.42E+01	U
MU	09	480356001	5/14/2019	Se-75	-1.15E+01	1.46E+01	4.05E+01	U
MU	09	480356001	5/14/2019	Th-228	1.13E+01	3.63E+01	8.29E+01	U
MU	09	480356001	5/14/2019	Th-230	2.26E+01	4.64E+01	1.15E+02	U
MU	09	480356001	5/14/2019	Tl-208	-1.09E+01	1.65E+01	5.50E+01	U
MU	09	480356001	5/14/2019	Zn-65	-2.27E+01	2.88E+01	8.55E+01	U
MU	09	480356001	5/14/2019	Zr-95	-1.67E+01	2.00E+01	5.50E+01	U
MU	09	497216001	11/18/2019	Ac-228	-7.25E+00	8.64E+00	1.94E+01	U
MU	09	497216001	11/18/2019	Ag-108m	1.05E+00	1.02E+00	3.48E+00	U
MU	09	497216001	11/18/2019	Ag-110m	3.17E+00	1.86E+00	6.11E+00	U
MU	09	497216001	11/18/2019	Ba-140	8.00E+00	6.20E+00	2.08E+01	U
MU	09	497216001	11/18/2019	Be-7	4.29E+01	1.42E+01	2.91E+01	
MU	09	497216001	11/18/2019	Bi-214	1.05E+01	6.20E+00	1.17E+01	U
MU	09	497216001	11/18/2019	Ce-141	-2.76E+00	2.47E+00	6.35E+00	U
MU	09	497216001	11/18/2019	Ce-144	-5.49E+00	7.37E+00	2.28E+01	U
MU	09	497216001	11/18/2019	Co-57	2.46E+00	1.61E+00	3.02E+00	U
MU	09	497216001	11/18/2019	Co-58	-5.11E-01	1.51E+00	4.19E+00	U
MU	09	497216001	11/18/2019	Co-60	-9.52E-01	1.20E+00	3.65E+00	U
MU	09	497216001	11/18/2019	Cr-51	-1.32E+01	1.13E+01	3.55E+01	U
MU	09	497216001	11/18/2019	Cs-134	1.27E+00	1.44E+00	4.78E+00	U
MU	09	497216001	11/18/2019	Cs-137	-1.67E-02	1.26E+00	4.10E+00	U
MU	09	497216001	11/18/2019	Fe-59	3.54E+00	2.76E+00	9.62E+00	U
MU	09	497216001	11/18/2019	I-131	9.59E-01	2.07E+00	7.08E+00	U
MU	09	497216001	11/18/2019	K-40	1.16E+03	8.29E+01	3.67E+01	
MU	09	497216001	11/18/2019	La-140	-7.81E-01	2.28E+00	7.25E+00	U
MU	09	497216001	11/18/2019	Mn-54	-6.84E-03	1.17E+00	3.76E+00	U
MU	09	497216001	11/18/2019	Nb-95	4.16E-01	1.31E+00	4.30E+00	U
MU	09	497216001	11/18/2019	Pb-212	6.80E+00	4.04E+00	7.11E+00	U
MU	09	497216001	11/18/2019	Pb-214	9.90E-01	5.85E+00	9.38E+00	U
MU	09	497216001	11/18/2019	Ra-226	1.05E+01	6.20E+00	1.17E+01	U
MU	09	497216001	11/18/2019	Ru-103	-7.68E-01	1.27E+00	4.05E+00	U
MU	09	497216001	11/18/2019	Ru-106	3.44E+00	1.18E+01	3.90E+01	U
MU	09	497216001	11/18/2019	Sb-124	6.08E+00	3.28E+00	1.16E+01	U
MU	09	497216001	11/18/2019	Sb-125	5.16E+00	3.18E+00	1.06E+01	U
MU	09	497216001	11/18/2019	Se-75	6.66E-01	1.41E+00	4.88E+00	U
MU	09	497216001	11/18/2019	Th-228	6.80E+00	4.04E+00	7.11E+00	U
MU	09	497216001	11/18/2019	Th-230	1.05E+01	6.20E+00	1.17E+01	U
MU	09	497216001	11/18/2019	Tl-208	7.85E-01	1.73E+00	5.25E+00	U
MU	09	497216001	11/18/2019	Zn-65	7.48E-01	2.93E+00	1.00E+01	U
MU	09	497216001	11/18/2019	Zr-95	-4.70E+00	2.96E+00	7.05E+00	U
MU	56	480333002	5/23/2019	Ac-228	1.48E+02	8.46E+01	1.86E+02	U
MU	56	480333002	5/23/2019	Ag-108m	7.62E+00	1.15E+01	3.67E+01	U
MU	56	480333002	5/23/2019	Ag-110m	1.50E+01	1.90E+01	5.58E+01	U
MU	56	480333002	5/23/2019	Ba-140	5.03E+01	6.86E+01	2.33E+02	U
MU	56	480333002	5/23/2019	Be-7	-1.20E+02	1.08E+02	3.28E+02	U
MU	56	480333002	5/23/2019	Bi-214	-2.77E+01	3.27E+01	9.90E+01	U
MU	56	480333002	5/23/2019	Ce-141	-4.75E+01	2.63E+01	6.88E+01	U
MU	56	480333002	5/23/2019	Ce-144	-1.64E+01	6.92E+01	2.31E+02	U
MU	56	480333002	5/23/2019	Co-57	-7.16E+00	9.01E+00	2.93E+01	U

Seabrook REMP Summary of 2019 Data

SAMPLE TYPE	STATION	LSN	END DATE	NUCLIDE	CONC (pCi/kg)	STD.DEV. (pCi/kg)	MDC (pCi/kg)	FLAGS
MU	56	480333002	5/23/2019	Co-58	3.90E+00	1.33E+01	4.34E+01	U
MU	56	480333002	5/23/2019	Co-60	-7.44E+00	1.06E+01	3.14E+01	U
MU	56	480333002	5/23/2019	Cr-51	-4.40E+01	1.28E+02	4.02E+02	U
MU	56	480333002	5/23/2019	Cs-134	-1.43E+01	1.31E+01	3.74E+01	U
MU	56	480333002	5/23/2019	Cs-137	-8.60E+00	1.31E+01	3.48E+01	U
MU	56	480333002	5/23/2019	Fe-59	-1.94E+01	2.15E+01	6.38E+01	U
MU	56	480333002	5/23/2019	I-131	2.63E-01	3.26E+01	1.04E+02	U
MU	56	480333002	5/23/2019	K-40	1.16E+02	2.98E+02	3.81E+02	U
MU	56	480333002	5/23/2019	La-140	2.60E+01	2.63E+01	8.94E+01	U
MU	56	480333002	5/23/2019	Mn-54	1.71E+01	1.11E+01	3.71E+01	U
MU	56	480333002	5/23/2019	Nb-95	9.89E+00	1.21E+01	4.02E+01	U
MU	56	480333002	5/23/2019	Pb-212	3.80E+01	3.57E+01	8.99E+01	U
MU	56	480333002	5/23/2019	Pb-214	6.71E+01	4.40E+01	1.12E+02	U
MU	56	480333002	5/23/2019	Ra-226	-2.77E+01	3.27E+01	9.90E+01	U
MU	56	480333002	5/23/2019	Ru-103	-4.51E+00	1.29E+01	4.21E+01	U
MU	56	480333002	5/23/2019	Ru-106	-5.40E+01	9.97E+01	3.14E+02	U
MU	56	480333002	5/23/2019	Sb-124	-1.85E+01	2.88E+01	8.37E+01	U
MU	56	480333002	5/23/2019	Sb-125	-4.16E+00	3.25E+01	1.01E+02	U
MU	56	480333002	5/23/2019	Se-75	7.66E+00	1.60E+01	5.26E+01	U
MU	56	480333002	5/23/2019	Th-228	3.80E+01	3.57E+01	8.99E+01	U
MU	56	480333002	5/23/2019	Th-230	-2.77E+01	3.27E+01	9.90E+01	U
MU	56	480333002	5/23/2019	Tl-208	-1.11E+01	1.62E+01	4.90E+01	U
MU	56	480333002	5/23/2019	Zn-65	-2.78E-01	2.78E+01	7.96E+01	U
MU	56	480333002	5/23/2019	Zr-95	-9.62E+00	2.36E+01	6.62E+01	U
MU	56	497214002	11/14/2019	Ac-228	-1.57E+01	9.56E+00	2.56E+01	U
MU	56	497214002	11/14/2019	Ag-108m	0.00E+00	4.58E+00	4.36E+00	U
MU	56	497214002	11/14/2019	Ag-110m	-3.69E+00	2.33E+00	6.51E+00	U
MU	56	497214002	11/14/2019	Ba-140	2.85E+00	8.57E+00	2.79E+01	U
MU	56	497214002	11/14/2019	Be-7	5.99E+01	2.08E+01	4.13E+01	
MU	56	497214002	11/14/2019	Bi-214	3.36E+00	6.02E+00	9.55E+00	U
MU	56	497214002	11/14/2019	Ce-141	5.78E+00	4.45E+00	7.90E+00	U
MU	56	497214002	11/14/2019	Ce-144	-2.51E+01	1.27E+01	2.67E+01	U
MU	56	497214002	11/14/2019	Co-57	-5.47E-01	1.15E+00	3.56E+00	U
MU	56	497214002	11/14/2019	Co-58	-6.53E-01	1.43E+00	4.64E+00	U
MU	56	497214002	11/14/2019	Co-60	-8.46E-01	1.85E+00	5.70E+00	U
MU	56	497214002	11/14/2019	Cr-51	0.00E+00	2.40E+01	4.39E+01	U
MU	56	497214002	11/14/2019	Cs-134	-1.07E+00	1.65E+00	5.27E+00	U
MU	56	497214002	11/14/2019	Cs-137	-2.63E-01	1.35E+00	4.52E+00	U
MU	56	497214002	11/14/2019	Fe-59	-2.23E+00	3.58E+00	1.11E+01	U
MU	56	497214002	11/14/2019	I-131	-1.11E+00	3.37E+00	1.10E+01	U
MU	56	497214002	11/14/2019	K-40	1.30E+03	9.98E+01	5.23E+01	
MU	56	497214002	11/14/2019	La-140	-3.80E+00	6.30E+00	1.03E+01	U
MU	56	497214002	11/14/2019	Mn-54	1.09E+00	1.59E+00	5.41E+00	U
MU	56	497214002	11/14/2019	Nb-95	3.67E+00	1.75E+00	5.69E+00	U
MU	56	497214002	11/14/2019	Pb-212	5.90E+00	5.57E+00	1.12E+01	U
MU	56	497214002	11/14/2019	Pb-214	0.00E+00	7.28E+00	1.23E+01	U
MU	56	497214002	11/14/2019	Ra-226	3.36E+00	6.02E+00	9.55E+00	U
MU	56	497214002	11/14/2019	Ru-103	-3.20E-01	1.59E+00	5.07E+00	U
MU	56	497214002	11/14/2019	Ru-106	6.48E+00	1.32E+01	4.27E+01	U
MU	56	497214002	11/14/2019	Sb-124	-3.17E+00	3.71E+00	1.11E+01	U

SAMPLE TYPE	STATION	LSN	END DATE	NUCLIDE	CONC (pCi/kg)	STD.DEV. (pCi/kg)	MDC (pCi/kg)	FLAGS
MU	56	497214002	11/14/2019	Sb-125	-1.36E+00	3.77E+00	1.21E+01	U
MU	56	497214002	11/14/2019	Se-75	-7.63E-01	1.84E+00	6.08E+00	U
MU	56	497214002	11/14/2019	Th-228	5.90E+00	5.57E+00	1.12E+01	U
MU	56	497214002	11/14/2019	Th-230	3.36E+00	6.02E+00	9.55E+00	U
MU	56	497214002	11/14/2019	Tl-208	2.08E+00	3.01E+00	4.32E+00	U
MU	56	497214002	11/14/2019	Zn-65	6.88E-01	4.40E+00	1.27E+01	U
MU	56	497214002	11/14/2019	Zr-95	-2.45E+00	2.81E+00	8.82E+00	U
MU	59	480356002	5/14/2019	Ac-228	4.52E+01	4.47E+01	1.28E+02	U
MU	59	480356002	5/14/2019	Ag-108m	8.90E+00	7.75E+00	2.59E+01	U
MU	59	480356002	5/14/2019	Ag-110m	-2.63E+01	1.44E+01	3.54E+01	U
MU	59	480356002	5/14/2019	Ba-140	7.10E+01	7.90E+01	2.61E+02	U
MU	59	480356002	5/14/2019	Be-7	7.85E+01	7.98E+01	2.66E+02	U
MU	59	480356002	5/14/2019	Bi-214	-2.82E+00	2.54E+01	8.43E+01	U
MU	59	480356002	5/14/2019	Ce-141	-3.98E+01	1.82E+01	4.30E+01	U
MU	59	480356002	5/14/2019	Ce-144	2.69E+01	5.21E+01	1.70E+02	U
MU	59	480356002	5/14/2019	Co-57	1.40E-01	6.37E+00	2.06E+01	U
MU	59	480356002	5/14/2019	Co-58	0.00E+00	1.30E+01	3.04E+01	U
MU	59	480356002	5/14/2019	Co-60	-5.38E+00	9.44E+00	2.59E+01	U
MU	59	480356002	5/14/2019	Cr-51	-1.28E+02	9.85E+01	2.89E+02	U
MU	59	480356002	5/14/2019	Cs-134	-1.27E+01	1.07E+01	2.89E+01	U
MU	59	480356002	5/14/2019	Cs-137	2.39E+01	1.06E+01	3.24E+01	U
MU	59	480356002	5/14/2019	Fe-59	-2.49E+01	2.10E+01	5.57E+01	U
MU	59	480356002	5/14/2019	I-131	-2.68E+01	4.01E+01	1.18E+02	U
MU	59	480356002	5/14/2019	K-40	1.36E+03	2.39E+02	2.79E+02	
MU	59	480356002	5/14/2019	La-140	2.25E+01	2.53E+01	8.87E+01	U
MU	59	480356002	5/14/2019	Mn-54	-2.49E+00	8.55E+00	2.74E+01	U
MU	59	480356002	5/14/2019	Nb-95	2.94E+00	1.05E+01	3.52E+01	U
MU	59	480356002	5/14/2019	Pb-212	7.54E+00	2.79E+01	4.54E+01	U
MU	59	480356002	5/14/2019	Pb-214	3.26E+01	4.01E+01	7.74E+01	U
MU	59	480356002	5/14/2019	Ra-226	-2.82E+00	2.54E+01	8.43E+01	U
MU	59	480356002	5/14/2019	Ru-103	-2.16E+00	1.22E+01	3.42E+01	U
MU	59	480356002	5/14/2019	Ru-106	9.29E+01	8.58E+01	2.96E+02	U
MU	59	480356002	5/14/2019	Sb-124	1.17E+01	2.30E+01	7.84E+01	U
MU	59	480356002	5/14/2019	Sb-125	2.51E+01	2.20E+01	7.39E+01	U
MU	59	480356002	5/14/2019	Se-75	8.80E+00	1.05E+01	3.60E+01	U
MU	59	480356002	5/14/2019	Th-228	7.54E+00	2.79E+01	4.54E+01	U
MU	59	480356002	5/14/2019	Th-230	-2.82E+00	2.54E+01	8.43E+01	U
MU	59	480356002	5/14/2019	Tl-208	1.51E+01	1.55E+01	2.77E+01	U
MU	59	480356002	5/14/2019	Zn-65	-3.07E+01	2.41E+01	6.53E+01	U
MU	59	480356002	5/14/2019	Zr-95	2.09E+01	1.73E+01	5.98E+01	U
MU	59	498589002	11/21/2019	Ac-228	4.08E+01	3.12E+01	1.01E+02	U
MU	59	498589002	11/21/2019	Ag-108m	-1.92E+00	5.09E+00	1.64E+01	U
MU	59	498589002	11/21/2019	Ag-110m	1.21E+01	8.42E+00	3.03E+01	U
MU	59	498589002	11/21/2019	Ba-140	1.63E+02	1.09E+02	2.32E+02	U
MU	59	498589002	11/21/2019	Be-7	6.08E+01	7.27E+01	2.51E+02	U
MU	59	498589002	11/21/2019	Bi-214	0.00E+00	2.57E+01	4.42E+01	U
MU	59	498589002	11/21/2019	Ce-141	-7.26E+00	1.45E+01	4.46E+01	U
MU	59	498589002	11/21/2019	Ce-144	-2.89E+01	4.14E+01	1.26E+02	U
MU	59	498589002	11/21/2019	Co-57	3.74E-01	4.81E+00	1.55E+01	U

Seabrook REMP Summary of 2019 Data

SAMPLE TYPE	STATION	LSN	END DATE	NUCLIDE	CONC (pCi/kg)	STD.DEV. (pCi/kg)	MDC (pCi/kg)	FLAGS
MU	59	498589002	11/21/2019	Co-58	1.04E+01	8.76E+00	2.83E+01	U
MU	59	498589002	11/21/2019	Co-60	6.51E-01	5.57E+00	1.89E+01	U
MU	59	498589002	11/21/2019	Cr-51	7.60E+01	8.72E+01	3.04E+02	U
MU	59	498589002	11/21/2019	Cs-134	1.32E+01	8.09E+00	2.83E+01	U
MU	59	498589002	11/21/2019	Cs-137	2.29E+01	8.69E+00	2.83E+01	U
MU	59	498589002	11/21/2019	Fe-59	2.26E+00	1.65E+01	5.66E+01	U
MU	59	498589002	11/21/2019	I-131	1.37E+01	3.74E+01	1.29E+02	U
MU	59	498589002	11/21/2019	K-40	7.82E+02	1.95E+02	2.26E+02	
MU	59	498589002	11/21/2019	La-140	-8.89E+00	1.99E+01	5.93E+01	U
MU	59	498589002	11/21/2019	Mn-54	-5.93E+00	7.23E+00	1.73E+01	U
MU	59	498589002	11/21/2019	Nb-95	1.46E+01	9.98E+00	2.68E+01	U
MU	59	498589002	11/21/2019	Pb-212	-5.20E+00	1.37E+01	4.09E+01	U
MU	59	498589002	11/21/2019	Pb-214	-3.68E+01	2.07E+01	5.31E+01	U
MU	59	498589002	11/21/2019	Ra-226	0.00E+00	2.57E+01	4.42E+01	U
MU	59	498589002	11/21/2019	Ru-103	-2.36E+00	8.79E+00	2.85E+01	U
MU	59	498589002	11/21/2019	Ru-106	4.20E+01	5.42E+01	1.88E+02	U
MU	59	498589002	11/21/2019	Sb-124	-1.95E+01	1.51E+01	2.93E+01	U
MU	59	498589002	11/21/2019	Sb-125	1.28E+01	1.72E+01	5.97E+01	U
MU	59	498589002	11/21/2019	Se-75	-9.75E+00	8.98E+00	2.80E+01	U
MU	59	498589002	11/21/2019	Th-228	-5.20E+00	1.37E+01	4.09E+01	U
MU	59	498589002	11/21/2019	Th-230	0.00E+00	2.57E+01	4.42E+01	U
MU	59	498589002	11/21/2019	Tl-208	2.38E+00	8.73E+00	2.91E+01	U
MU	59	498589002	11/21/2019	Zn-65	1.30E+00	1.37E+01	4.69E+01	U
MU	59	498589002	11/21/2019	Zr-95	2.22E+01	1.65E+01	4.58E+01	U
MS	06	480333004	5/21/2019	Sr-89	-7.42E+01	3.44E+01	7.67E+01	U
MS	06	480333004	5/21/2019	Sr-90	-2.09E+01	3.48E+01	1.19E+02	U
MS	06	497214004	11/14/2019	Sr-89	-1.39E+02	3.34E+01	1.06E+02	U
MS	06	497214004	11/14/2019	Sr-90	5.48E+01	3.00E+01	8.15E+01	U
MS	56	480333005	5/23/2019	Sr-89	-6.22E+01	3.98E+01	9.82E+01	U
MS	56	480333005	5/23/2019	Sr-90	1.68E+01	3.17E+01	1.01E+02	U
MS	56	497214005	11/14/2019	Sr-89	-2.69E+01	4.65E+01	1.38E+02	U
MS	56	497214005	11/14/2019	Sr-90	-2.16E+01	2.51E+01	8.89E+01	U

Seabrook REMP Summary of 2019 Data

SAMPLE TYPE	STATION	LSN	END DATE	NUCLIDE	CONC (pCi/kg)	STD.DEV. (pCi/kg)	MDC (pCi/kg)	FLAGS
SE	02	480343001	5/21/2019	Ac-228	7.87E+02	1.19E+02	1.22E+02	
SE	02	480343001	5/21/2019	Ag-108m	5.50E+00	8.23E+00	2.95E+01	U
SE	02	480343001	5/21/2019	Ag-110m	1.29E+00	1.41E+01	4.63E+01	U
SE	02	480343001	5/21/2019	Ba-140	1.42E+02	1.59E+02	5.64E+02	U
SE	02	480343001	5/21/2019	Be-7	-3.70E+01	1.17E+02	4.01E+02	U
SE	02	480343001	5/21/2019	Bi-214	6.14E+02	6.01E+01	7.15E+01	
SE	02	480343001	5/21/2019	Ce-141	5.14E+01	5.38E+01	8.77E+01	U
SE	02	480343001	5/21/2019	Ce-144	2.29E+02	9.49E+01	2.07E+02	UI
SE	02	480343001	5/21/2019	Co-57	-2.81E+00	7.28E+00	2.52E+01	U
SE	02	480343001	5/21/2019	Co-58	-1.10E+00	1.18E+01	3.68E+01	U
SE	02	480343001	5/21/2019	Co-60	-9.20E+00	1.42E+01	3.82E+01	U
SE	02	480343001	5/21/2019	Cr-51	-9.95E+01	1.40E+02	4.84E+02	U
SE	02	480343001	5/21/2019	Cs-134	2.55E+01	1.32E+01	4.47E+01	U
SE	02	480343001	5/21/2019	Cs-137	7.19E+00	1.22E+01	4.20E+01	U
SE	02	480343001	5/21/2019	Fe-59	-5.68E+01	3.71E+01	1.06E+02	U
SE	02	480343001	5/21/2019	I-131	-4.54E+01	1.06E+02	3.68E+02	U
SE	02	480343001	5/21/2019	K-40	1.64E+04	1.01E+03	3.95E+02	
SE	02	480343001	5/21/2019	La-140	-6.40E+01	5.12E+01	1.33E+02	U
SE	02	480343001	5/21/2019	Mn-54	2.58E+01	1.31E+01	4.35E+01	U
SE	02	480343001	5/21/2019	Nb-95	-3.69E+00	1.57E+01	4.53E+01	U
SE	02	480343001	5/21/2019	Pb-212	9.27E+02	6.34E+01	5.44E+01	
SE	02	480343001	5/21/2019	Pb-214	8.19E+02	6.96E+01	1.86E+02	
SE	02	480343001	5/21/2019	Ra-226	6.14E+02	6.01E+01	7.15E+01	
SE	02	480343001	5/21/2019	Ru-103	4.16E+00	1.37E+01	4.82E+01	U
SE	02	480343001	5/21/2019	Ru-106	-1.83E+02	1.13E+02	2.96E+02	U
SE	02	480343001	5/21/2019	Sb-124	1.56E+01	2.34E+01	8.34E+01	U
SE	02	480343001	5/21/2019	Sb-125	9.01E+00	2.68E+01	9.54E+01	U
SE	02	480343001	5/21/2019	Se-75	1.33E+01	1.42E+01	5.04E+01	U
SE	02	480343001	5/21/2019	Th-228	9.27E+02	6.34E+01	5.44E+01	
SE	02	480343001	5/21/2019	Th-230	6.14E+02	6.01E+01	7.15E+01	
SE	02	480343001	5/21/2019	Tl-208	2.30E+02	3.49E+01	3.21E+01	
SE	02	480343001	5/21/2019	Zn-65	-2.98E+01	3.39E+01	9.23E+01	U
SE	02	480343001	5/21/2019	Zr-95	-1.31E+01	2.41E+01	7.62E+01	U
SE	02	497218001	11/14/2019	Ac-228	1.05E+03	1.24E+02	1.45E+02	
SE	02	497218001	11/14/2019	Ag-108m	5.43E+00	7.82E+00	2.77E+01	U
SE	02	497218001	11/14/2019	Ag-110m	1.23E+01	1.61E+01	5.66E+01	U
SE	02	497218001	11/14/2019	Ba-140	3.56E+01	7.72E+01	2.65E+02	U
SE	02	497218001	11/14/2019	Be-7	-9.60E+01	9.89E+01	3.14E+02	U
SE	02	497218001	11/14/2019	Bi-214	6.69E+02	6.89E+01	6.75E+01	
SE	02	497218001	11/14/2019	Ce-141	5.55E+00	4.16E+01	6.44E+01	U
SE	02	497218001	11/14/2019	Ce-144	1.86E+01	6.20E+01	2.03E+02	U
SE	02	497218001	11/14/2019	Co-57	-6.24E+00	7.28E+00	2.46E+01	U
SE	02	497218001	11/14/2019	Co-58	2.14E+01	1.12E+01	3.23E+01	U
SE	02	497218001	11/14/2019	Co-60	1.27E+01	1.44E+01	4.90E+01	U
SE	02	497218001	11/14/2019	Cr-51	9.43E+00	1.00E+02	3.60E+02	U
SE	02	497218001	11/14/2019	Cs-134	4.62E+01	2.59E+01	5.23E+01	U
SE	02	497218001	11/14/2019	Cs-137	1.00E+01	1.26E+01	4.27E+01	U
SE	02	497218001	11/14/2019	Fe-59	-1.56E+01	2.58E+01	8.16E+01	U
SE	02	497218001	11/14/2019	I-131	2.22E+01	2.87E+01	1.03E+02	U
SE	02	497218001	11/14/2019	K-40	1.51E+04	9.37E+02	3.27E+02	

Seabrook REMP Summary of 2019 Data

SAMPLE TYPE	STATION	LSN	END DATE	NUCLIDE	CONC (pCi/kg)	STD.DEV. (pCi/kg)	MDC (pCi/kg)	FLAGS
SE	02	497218001	11/14/2019	La-140	-1.27E+01	2.43E+01	7.71E+01	U
SE	02	497218001	11/14/2019	Mn-54	1.54E+01	1.28E+01	4.51E+01	U
SE	02	497218001	11/14/2019	Nb-95	1.44E+01	1.54E+01	4.89E+01	U
SE	02	497218001	11/14/2019	Pb-212	1.03E+03	7.11E+01	5.54E+01	
SE	02	497218001	11/14/2019	Pb-214	9.21E+02	8.12E+01	2.00E+02	
SE	02	497218001	11/14/2019	Ra-226	6.69E+02	6.89E+01	6.75E+01	
SE	02	497218001	11/14/2019	Ru-103	-3.40E+00	1.05E+01	3.51E+01	U
SE	02	497218001	11/14/2019	Ru-106	-9.80E+01	1.05E+02	3.21E+02	U
SE	02	497218001	11/14/2019	Sb-124	-3.03E+01	2.54E+01	6.96E+01	U
SE	02	497218001	11/14/2019	Sb-125	-3.26E+00	2.83E+01	9.78E+01	U
SE	02	497218001	11/14/2019	Se-75	-1.58E+01	1.28E+01	4.28E+01	U
SE	02	497218001	11/14/2019	Th-228	1.03E+03	7.11E+01	5.54E+01	
SE	02	497218001	11/14/2019	Th-230	6.69E+02	6.89E+01	6.75E+01	
SE	02	497218001	11/14/2019	Tl-208	2.48E+02	2.90E+01	3.64E+01	
SE	02	497218001	11/14/2019	Zn-65	3.49E+01	2.91E+01	9.11E+01	U
SE	02	497218001	11/14/2019	Zr-95	-9.99E-01	2.07E+01	7.22E+01	U
SE	07	480344001	5/14/2019	Ac-228	4.08E+02	1.13E+02	1.15E+02	
SE	07	480344001	5/14/2019	Ag-108m	-2.61E+00	7.80E+00	2.72E+01	U
SE	07	480344001	5/14/2019	Ag-110m	-2.48E+00	1.74E+01	5.04E+01	U
SE	07	480344001	5/14/2019	Ba-140	-9.87E+01	2.03E+02	6.99E+02	U
SE	07	480344001	5/14/2019	Be-7	8.49E+01	1.18E+02	4.10E+02	U
SE	07	480344001	5/14/2019	Bi-214	2.68E+02	5.45E+01	6.28E+01	
SE	07	480344001	5/14/2019	Ce-141	3.06E+01	2.55E+01	8.55E+01	U
SE	07	480344001	5/14/2019	Ce-144	1.87E+01	4.97E+01	1.80E+02	U
SE	07	480344001	5/14/2019	Co-57	-5.02E+00	6.49E+00	2.21E+01	U
SE	07	480344001	5/14/2019	Co-58	1.31E+01	1.17E+01	4.16E+01	U
SE	07	480344001	5/14/2019	Co-60	6.99E+00	1.00E+01	3.60E+01	U
SE	07	480344001	5/14/2019	Cr-51	2.75E+02	1.61E+02	5.87E+02	U
SE	07	480344001	5/14/2019	Cs-134	-1.13E+01	1.25E+01	3.82E+01	U
SE	07	480344001	5/14/2019	Cs-137	1.38E+01	1.03E+01	3.67E+01	U
SE	07	480344001	5/14/2019	Fe-59	2.89E+01	3.63E+01	1.31E+02	U
SE	07	480344001	5/14/2019	I-131	3.56E+01	1.78E+02	6.49E+02	U
SE	07	480344001	5/14/2019	K-40	1.46E+04	9.68E+02	3.27E+02	
SE	07	480344001	5/14/2019	La-140	4.16E+01	7.51E+01	2.65E+02	U
SE	07	480344001	5/14/2019	Mn-54	1.79E+01	1.19E+01	4.13E+01	U
SE	07	480344001	5/14/2019	Nb-95	-6.44E+00	1.49E+01	4.82E+01	U
SE	07	480344001	5/14/2019	Pb-212	3.94E+02	4.35E+01	5.10E+01	
SE	07	480344001	5/14/2019	Pb-214	1.83E+02	4.75E+01	7.14E+01	
SE	07	480344001	5/14/2019	Ra-226	2.68E+02	5.45E+01	6.28E+01	
SE	07	480344001	5/14/2019	Ru-103	4.00E+01	1.69E+01	5.81E+01	U
SE	07	480344001	5/14/2019	Ru-106	-1.54E+02	1.05E+02	3.04E+02	U
SE	07	480344001	5/14/2019	Sb-124	-3.39E+01	2.21E+01	3.90E+01	U
SE	07	480344001	5/14/2019	Sb-125	2.00E+01	2.78E+01	9.93E+01	U
SE	07	480344001	5/14/2019	Se-75	-6.68E+00	1.38E+01	4.49E+01	U
SE	07	480344001	5/14/2019	Th-228	3.94E+02	4.35E+01	5.10E+01	
SE	07	480344001	5/14/2019	Th-230	2.68E+02	5.45E+01	6.28E+01	
SE	07	480344001	5/14/2019	Tl-208	1.37E+02	2.31E+01	3.11E+01	
SE	07	480344001	5/14/2019	Zn-65	-2.52E+00	2.37E+01	8.15E+01	U
SE	07	480344001	5/14/2019	Zr-95	-3.30E+01	2.43E+01	6.77E+01	U

Seabrook REMP Summary of 2019 Data

SAMPLE TYPE	STATION	LSN	END DATE	NUCLIDE	CONC (pCi/kg)	STD.DEV. (pCi/kg)	MDC (pCi/kg)	FLAGS
SE	07	497217001	11/18/2019	Ac-228	3.37E+02	9.21E+01	1.14E+02	
SE	07	497217001	11/18/2019	Ag-108m	-6.70E-01	8.12E+00	2.82E+01	U
SE	07	497217001	11/18/2019	Ag-110m	-3.96E+00	1.16E+01	3.90E+01	U
SE	07	497217001	11/18/2019	Ba-140	2.26E+01	4.94E+01	1.73E+02	U
SE	07	497217001	11/18/2019	Be-7	2.14E+01	8.88E+01	3.10E+02	U
SE	07	497217001	11/18/2019	Bi-214	2.94E+02	5.65E+01	6.82E+01	
SE	07	497217001	11/18/2019	Ce-141	7.29E+00	1.49E+01	4.87E+01	U
SE	07	497217001	11/18/2019	Ce-144	2.53E+01	5.07E+01	1.80E+02	U
SE	07	497217001	11/18/2019	Co-57	-7.13E-01	6.34E+00	2.23E+01	U
SE	07	497217001	11/18/2019	Co-58	-3.49E+00	8.97E+00	3.04E+01	U
SE	07	497217001	11/18/2019	Co-60	-7.92E+00	1.19E+01	3.64E+01	U
SE	07	497217001	11/18/2019	Cr-51	-4.04E+01	8.15E+01	2.84E+02	U
SE	07	497217001	11/18/2019	Cs-134	1.07E+01	1.12E+01	4.04E+01	U
SE	07	497217001	11/18/2019	Cs-137	5.78E+00	1.08E+01	3.71E+01	U
SE	07	497217001	11/18/2019	Fe-59	-8.18E-01	2.60E+01	8.79E+01	U
SE	07	497217001	11/18/2019	I-131	-1.39E+01	1.90E+01	6.42E+01	U
SE	07	497217001	11/18/2019	K-40	1.61E+04	9.65E+02	3.22E+02	
SE	07	497217001	11/18/2019	La-140	-5.72E+00	1.58E+01	4.83E+01	U
SE	07	497217001	11/18/2019	Mn-54	1.09E+01	1.17E+01	3.29E+01	U
SE	07	497217001	11/18/2019	Nb-95	-8.81E+00	1.21E+01	3.73E+01	U
SE	07	497217001	11/18/2019	Pb-212	4.15E+02	4.10E+01	5.22E+01	
SE	07	497217001	11/18/2019	Pb-214	3.29E+02	5.53E+01	1.32E+02	
SE	07	497217001	11/18/2019	Ra-226	2.94E+02	5.65E+01	6.82E+01	
SE	07	497217001	11/18/2019	Ru-103	6.94E-01	1.05E+01	3.61E+01	U
SE	07	497217001	11/18/2019	Ru-106	0.00E+00	1.49E+02	2.95E+02	U
SE	07	497217001	11/18/2019	Sb-124	2.58E+01	2.17E+01	8.13E+01	U
SE	07	497217001	11/18/2019	Sb-125	-8.47E-01	2.25E+01	7.85E+01	U
SE	07	497217001	11/18/2019	Se-75	-1.98E+00	1.06E+01	3.83E+01	U
SE	07	497217001	11/18/2019	Th-228	4.15E+02	4.10E+01	5.22E+01	
SE	07	497217001	11/18/2019	Th-230	2.94E+02	5.65E+01	6.82E+01	
SE	07	497217001	11/18/2019	Tl-208	1.33E+02	2.30E+01	2.96E+01	
SE	07	497217001	11/18/2019	Zn-65	0.00E+00	2.81E+01	9.23E+01	U
SE	07	497217001	11/18/2019	Zr-95	-4.58E+00	1.80E+01	5.78E+01	U
SE	08	480344002	5/14/2019	Ac-228	2.97E+02	7.97E+01	1.07E+02	
SE	08	480344002	5/14/2019	Ag-108m	-2.88E+00	7.27E+00	2.55E+01	U
SE	08	480344002	5/14/2019	Ag-110m	1.98E+01	1.59E+01	5.52E+01	U
SE	08	480344002	5/14/2019	Ba-140	-1.24E+02	2.09E+02	7.02E+02	U
SE	08	480344002	5/14/2019	Be-7	2.29E+02	1.17E+02	4.10E+02	U
SE	08	480344002	5/14/2019	Bi-214	2.95E+02	5.51E+01	5.90E+01	
SE	08	480344002	5/14/2019	Ce-141	-2.82E+01	2.29E+01	7.55E+01	U
SE	08	480344002	5/14/2019	Ce-144	4.52E+01	4.63E+01	1.70E+02	U
SE	08	480344002	5/14/2019	Co-57	6.87E-01	6.06E+00	2.23E+01	U
SE	08	480344002	5/14/2019	Co-58	-2.67E+01	1.41E+01	3.50E+01	U
SE	08	480344002	5/14/2019	Co-60	-1.05E+01	1.16E+01	3.52E+01	U
SE	08	480344002	5/14/2019	Cr-51	1.99E+02	1.60E+02	5.49E+02	U
SE	08	480344002	5/14/2019	Cs-134	1.91E+01	1.77E+01	4.74E+01	U
SE	08	480344002	5/14/2019	Cs-137	-3.58E+00	1.12E+01	3.86E+01	U
SE	08	480344002	5/14/2019	Fe-59	4.25E+00	4.26E+01	1.44E+02	U
SE	08	480344002	5/14/2019	I-131	-2.14E+02	1.94E+02	5.57E+02	U
SE	08	480344002	5/14/2019	K-40	2.19E+04	1.28E+03	2.30E+02	

Seabrook REMP Summary of 2019 Data

SAMPLE TYPE	STATION	LSN	END DATE	NUCLIDE	CONC (pCi/kg)	STD.DEV. (pCi/kg)	MDC (pCi/kg)	FLAGS
SE	08	480344002	5/14/2019	La-140	-1.53E+02	7.45E+01	1.37E+02	U
SE	08	480344002	5/14/2019	Mn-54	1.83E+00	1.10E+01	3.32E+01	U
SE	08	480344002	5/14/2019	Nb-95	2.26E+01	1.54E+01	5.35E+01	U
SE	08	480344002	5/14/2019	Pb-212	4.65E+02	4.15E+01	4.65E+01	
SE	08	480344002	5/14/2019	Pb-214	3.24E+02	6.12E+01	1.31E+02	
SE	08	480344002	5/14/2019	Ra-226	2.95E+02	5.51E+01	5.90E+01	
SE	08	480344002	5/14/2019	Ru-103	-6.22E+00	1.49E+01	5.13E+01	U
SE	08	480344002	5/14/2019	Ru-106	-6.71E+01	1.11E+02	3.24E+02	U
SE	08	480344002	5/14/2019	Sb-124	2.04E+00	1.59E+01	5.41E+01	U
SE	08	480344002	5/14/2019	Sb-125	-1.12E+01	2.25E+01	7.82E+01	U
SE	08	480344002	5/14/2019	Se-75	1.97E+01	1.35E+01	4.66E+01	U
SE	08	480344002	5/14/2019	Th-228	4.65E+02	4.15E+01	4.65E+01	
SE	08	480344002	5/14/2019	Th-230	2.95E+02	5.51E+01	5.90E+01	
SE	08	480344002	5/14/2019	Tl-208	9.71E+01	2.53E+01	3.21E+01	
SE	08	480344002	5/14/2019	Zn-65	-3.19E+01	2.65E+01	8.05E+01	U
SE	08	480344002	5/14/2019	Zr-95	1.41E+01	2.24E+01	7.83E+01	U
SE	08	497217002	11/18/2019	Ac-228	0.00E+00	1.31E+02	1.40E+02	U
SE	08	497217002	11/18/2019	Ag-108m	1.17E+01	9.98E+00	3.50E+01	U
SE	08	497217002	11/18/2019	Ag-110m	-1.69E+01	1.53E+01	4.70E+01	U
SE	08	497217002	11/18/2019	Ba-140	-5.36E+01	6.36E+01	2.00E+02	U
SE	08	497217002	11/18/2019	Be-7	-1.71E+01	9.36E+01	3.16E+02	U
SE	08	497217002	11/18/2019	Bi-214	2.49E+02	4.50E+01	7.21E+01	
SE	08	497217002	11/18/2019	Ce-141	-7.36E+00	1.62E+01	5.38E+01	U
SE	08	497217002	11/18/2019	Ce-144	-7.77E+01	6.62E+01	2.08E+02	U
SE	08	497217002	11/18/2019	Co-57	-4.39E+00	7.58E+00	2.52E+01	U
SE	08	497217002	11/18/2019	Co-58	5.21E-01	1.09E+01	3.82E+01	U
SE	08	497217002	11/18/2019	Co-60	8.72E+00	1.11E+01	3.53E+01	U
SE	08	497217002	11/18/2019	Cr-51	3.93E+01	1.03E+02	3.32E+02	U
SE	08	497217002	11/18/2019	Cs-134	2.52E+01	1.48E+01	5.17E+01	U
SE	08	497217002	11/18/2019	Cs-137	9.48E+00	1.24E+01	4.23E+01	U
SE	08	497217002	11/18/2019	Fe-59	9.80E-02	2.74E+01	9.26E+01	U
SE	08	497217002	11/18/2019	I-131	2.43E+01	2.13E+01	7.56E+01	U
SE	08	497217002	11/18/2019	K-40	1.67E+04	1.09E+03	3.45E+02	
SE	08	497217002	11/18/2019	La-140	9.34E+00	1.95E+01	5.96E+01	U
SE	08	497217002	11/18/2019	Mn-54	4.10E+00	1.16E+01	3.99E+01	U
SE	08	497217002	11/18/2019	Nb-95	-9.19E+00	1.35E+01	3.89E+01	U
SE	08	497217002	11/18/2019	Pb-212	4.59E+02	4.32E+01	5.92E+01	
SE	08	497217002	11/18/2019	Pb-214	3.20E+02	6.55E+01	8.00E+01	
SE	08	497217002	11/18/2019	Ra-226	2.49E+02	4.50E+01	7.21E+01	
SE	08	497217002	11/18/2019	Ru-103	-3.61E+00	1.23E+01	4.13E+01	U
SE	08	497217002	11/18/2019	Ru-106	1.28E+02	9.67E+01	3.34E+02	U
SE	08	497217002	11/18/2019	Sb-124	-4.60E+00	1.96E+01	6.46E+01	U
SE	08	497217002	11/18/2019	Sb-125	-4.68E+01	2.85E+01	8.19E+01	U
SE	08	497217002	11/18/2019	Se-75	3.73E+01	1.61E+01	5.32E+01	U
SE	08	497217002	11/18/2019	Th-228	4.59E+02	4.32E+01	5.92E+01	
SE	08	497217002	11/18/2019	Th-230	2.49E+02	4.50E+01	7.21E+01	
SE	08	497217002	11/18/2019	Tl-208	1.20E+02	2.84E+01	3.86E+01	
SE	08	497217002	11/18/2019	Zn-65	-5.12E+01	3.19E+01	8.83E+01	U
SE	08	497217002	11/18/2019	Zr-95	1.52E+01	2.32E+01	7.46E+01	U

Seabrook REMP Summary of 2019 Data

SAMPLE TYPE	STATION	LSN	END DATE	NUCLIDE	CONC (pCi/kg)	STD.DEV. (pCi/kg)	MDC (pCi/kg)	FLAGS
SE	52	480343002	5/23/2019	Ac-228	2.82E+03	2.15E+02	1.33E+02	
SE	52	480343002	5/23/2019	Ag-108m	-4.94E+00	9.92E+00	3.47E+01	U
SE	52	480343002	5/23/2019	Ag-110m	-1.76E+00	1.61E+01	5.34E+01	U
SE	52	480343002	5/23/2019	Ba-140	1.03E+02	1.69E+02	6.01E+02	U
SE	52	480343002	5/23/2019	Be-7	-9.64E+01	1.15E+02	3.86E+02	U
SE	52	480343002	5/23/2019	Bi-214	1.62E+03	1.04E+02	7.55E+01	
SE	52	480343002	5/23/2019	Ce-141	-1.78E+01	3.62E+01	1.01E+02	U
SE	52	480343002	5/23/2019	Ce-144	7.89E+01	8.03E+01	2.64E+02	U
SE	52	480343002	5/23/2019	Co-57	8.44E-02	9.42E+00	3.38E+01	U
SE	52	480343002	5/23/2019	Co-58	-1.75E+00	1.62E+01	4.84E+01	U
SE	52	480343002	5/23/2019	Co-60	9.62E+00	1.17E+01	4.15E+01	U
SE	52	480343002	5/23/2019	Cr-51	1.49E+02	1.67E+02	5.62E+02	U
SE	52	480343002	5/23/2019	Cs-134	1.26E+02	4.16E+01	7.38E+01	UI M
SE	52	480343002	5/23/2019	Cs-137	1.16E+01	1.30E+01	4.14E+01	U
SE	52	480343002	5/23/2019	Fe-59	-2.11E+01	3.56E+01	1.10E+02	U
SE	52	480343002	5/23/2019	I-131	1.61E+02	1.03E+02	3.67E+02	U
SE	52	480343002	5/23/2019	K-40	1.16E+04	7.98E+02	2.56E+02	
SE	52	480343002	5/23/2019	La-140	-6.13E+01	6.21E+01	1.56E+02	U
SE	52	480343002	5/23/2019	Mn-54	8.63E+00	1.26E+01	3.91E+01	U
SE	52	480343002	5/23/2019	Nb-95	1.62E+01	1.83E+01	5.70E+01	U
SE	52	480343002	5/23/2019	Pb-212	2.83E+03	1.40E+02	5.96E+01	
SE	52	480343002	5/23/2019	Pb-214	2.03E+03	1.23E+02	8.36E+01	
SE	52	480343002	5/23/2019	Ra-226	1.62E+03	1.04E+02	7.55E+01	
SE	52	480343002	5/23/2019	Ru-103	1.96E+01	1.50E+01	5.36E+01	U
SE	52	480343002	5/23/2019	Ru-106	1.90E+02	1.08E+02	3.71E+02	U
SE	52	480343002	5/23/2019	Sb-124	-2.13E+01	3.49E+01	1.09E+02	U
SE	52	480343002	5/23/2019	Sb-125	-5.94E+01	3.14E+01	9.29E+01	U
SE	52	480343002	5/23/2019	Se-75	6.70E+00	1.62E+01	5.53E+01	U
SE	52	480343002	5/23/2019	Th-228	2.83E+03	1.40E+02	5.96E+01	
SE	52	480343002	5/23/2019	Th-230	1.62E+03	1.04E+02	7.55E+01	
SE	52	480343002	5/23/2019	Tl-208	7.57E+02	4.99E+01	3.85E+01	
SE	52	480343002	5/23/2019	Zn-65	-6.41E+00	3.07E+01	8.70E+01	U
SE	52	480343002	5/23/2019	Zr-95	-1.81E+01	2.86E+01	9.29E+01	U
SE	52	497218002	11/15/2019	Ac-228	8.93E+02	1.36E+02	1.40E+02	
SE	52	497218002	11/15/2019	Ag-108m	1.67E+00	8.49E+00	3.01E+01	U
SE	52	497218002	11/15/2019	Ag-110m	-1.08E+01	1.64E+01	5.11E+01	U
SE	52	497218002	11/15/2019	Ba-140	6.16E+01	6.85E+01	2.35E+02	U
SE	52	497218002	11/15/2019	Be-7	1.39E+01	9.27E+01	3.26E+02	U
SE	52	497218002	11/15/2019	Bi-214	6.84E+02	6.60E+01	6.95E+01	
SE	52	497218002	11/15/2019	Ce-141	-4.61E+01	2.40E+01	6.61E+01	U
SE	52	497218002	11/15/2019	Ce-144	-8.10E+01	6.97E+01	2.22E+02	U
SE	52	497218002	11/15/2019	Co-57	1.72E+01	9.32E+00	3.10E+01	U
SE	52	497218002	11/15/2019	Co-58	-2.19E-01	1.20E+01	4.00E+01	U
SE	52	497218002	11/15/2019	Co-60	8.28E+00	1.13E+01	4.05E+01	U
SE	52	497218002	11/15/2019	Cr-51	-5.16E+01	1.07E+02	3.77E+02	U
SE	52	497218002	11/15/2019	Cs-134	0.00E+00	2.41E+01	5.47E+01	U
SE	52	497218002	11/15/2019	Cs-137	1.34E+01	1.22E+01	4.26E+01	U
SE	52	497218002	11/15/2019	Fe-59	3.80E+01	2.81E+01	9.61E+01	U
SE	52	497218002	11/15/2019	I-131	5.88E+01	3.07E+01	1.06E+02	U
SE	52	497218002	11/15/2019	K-40	1.46E+04	8.87E+02	2.88E+02	

Seabrook REMP Summary of 2019 Data

SAMPLE TYPE	STATION	LSN	END DATE	NUCLIDE	CONC (pCi/kg)	STD.DEV. (pCi/kg)	MDC (pCi/kg)	FLAGS
SE	52	497218002	11/15/2019	La-140	-3.14E+01	2.47E+01	5.37E+01	U
SE	52	497218002	11/15/2019	Mn-54	-1.71E+00	1.28E+01	4.25E+01	U
SE	52	497218002	11/15/2019	Nb-95	-1.11E+01	1.41E+01	3.88E+01	U
SE	52	497218002	11/15/2019	Pb-212	1.19E+03	7.06E+01	6.31E+01	
SE	52	497218002	11/15/2019	Pb-214	8.69E+02	8.56E+01	7.77E+01	
SE	52	497218002	11/15/2019	Ra-226	6.84E+02	6.60E+01	6.95E+01	
SE	52	497218002	11/15/2019	Ru-103	1.52E+01	1.22E+01	4.32E+01	U
SE	52	497218002	11/15/2019	Ru-106	6.51E+01	9.43E+01	3.31E+02	U
SE	52	497218002	11/15/2019	Sb-124	-1.97E+00	2.59E+01	8.61E+01	U
SE	52	497218002	11/15/2019	Sb-125	-4.14E+01	2.95E+01	9.14E+01	U
SE	52	497218002	11/15/2019	Se-75	-2.71E+01	1.72E+01	4.88E+01	U
SE	52	497218002	11/15/2019	Th-228	1.19E+03	7.06E+01	6.31E+01	
SE	52	497218002	11/15/2019	Th-230	6.84E+02	6.60E+01	6.95E+01	
SE	52	497218002	11/15/2019	Tl-208	2.58E+02	3.42E+01	3.80E+01	
SE	52	497218002	11/15/2019	Zn-65	-1.35E+01	3.06E+01	9.04E+01	U
SE	52	497218002	11/15/2019	Zr-95	6.87E+01	2.77E+01	8.89E+01	U
SE	57	480344003	5/14/2019	Ac-228	0.00E+00	9.54E+01	2.32E+02	U
SE	57	480344003	5/14/2019	Ag-108m	-9.55E+00	8.84E+00	2.71E+01	U
SE	57	480344003	5/14/2019	Ag-110m	-1.23E+01	1.44E+01	4.43E+01	U
SE	57	480344003	5/14/2019	Ba-140	-3.76E+01	1.97E+02	6.83E+02	U
SE	57	480344003	5/14/2019	Be-7	-7.51E+01	1.12E+02	3.81E+02	U
SE	57	480344003	5/14/2019	Bi-214	2.61E+02	5.97E+01	6.87E+01	
SE	57	480344003	5/14/2019	Ce-141	-3.72E+01	3.26E+01	9.82E+01	U
SE	57	480344003	5/14/2019	Ce-144	1.13E+01	6.71E+01	2.26E+02	U
SE	57	480344003	5/14/2019	Co-57	-9.55E+00	7.65E+00	2.66E+01	U
SE	57	480344003	5/14/2019	Co-58	1.10E+01	1.40E+01	4.78E+01	U
SE	57	480344003	5/14/2019	Co-60	-4.94E+00	9.66E+00	3.08E+01	U
SE	57	480344003	5/14/2019	Cr-51	-2.28E+02	1.93E+02	6.12E+02	U
SE	57	480344003	5/14/2019	Cs-134	6.51E+00	1.42E+01	4.17E+01	U
SE	57	480344003	5/14/2019	Cs-137	-1.70E+00	9.90E+00	3.36E+01	U
SE	57	480344003	5/14/2019	Fe-59	-5.44E+00	3.52E+01	1.19E+02	U
SE	57	480344003	5/14/2019	I-131	-9.07E+01	2.04E+02	6.77E+02	U
SE	57	480344003	5/14/2019	K-40	2.14E+04	1.38E+03	3.26E+02	
SE	57	480344003	5/14/2019	La-140	-1.47E+01	6.90E+01	2.21E+02	U
SE	57	480344003	5/14/2019	Mn-54	-1.48E+00	1.11E+01	3.67E+01	U
SE	57	480344003	5/14/2019	Nb-95	3.27E+00	1.37E+01	4.65E+01	U
SE	57	480344003	5/14/2019	Pb-212	4.70E+02	5.17E+01	6.17E+01	
SE	57	480344003	5/14/2019	Pb-214	5.04E+02	6.06E+01	1.40E+02	
SE	57	480344003	5/14/2019	Ra-226	2.61E+02	5.97E+01	6.87E+01	
SE	57	480344003	5/14/2019	Ru-103	1.17E+01	1.42E+01	5.09E+01	U
SE	57	480344003	5/14/2019	Ru-106	1.58E+02	8.92E+01	3.03E+02	U
SE	57	480344003	5/14/2019	Sb-124	4.30E+00	2.45E+01	8.06E+01	U
SE	57	480344003	5/14/2019	Sb-125	1.51E+01	2.47E+01	8.39E+01	U
SE	57	480344003	5/14/2019	Se-75	-1.88E+01	1.70E+01	4.88E+01	U
SE	57	480344003	5/14/2019	Th-228	4.70E+02	5.17E+01	6.17E+01	
SE	57	480344003	5/14/2019	Th-230	2.61E+02	5.97E+01	6.87E+01	
SE	57	480344003	5/14/2019	Tl-208	1.39E+02	2.47E+01	3.30E+01	
SE	57	480344003	5/14/2019	Zn-65	2.99E+01	3.02E+01	9.27E+01	U
SE	57	480344003	5/14/2019	Zr-95	-1.43E+01	2.43E+01	7.88E+01	U

Seabrook REMP Summary of 2019 Data

SAMPLE TYPE	STATION	LSN	END DATE	NUCLIDE	CONC (pCi/kg)	STD.DEV. (pCi/kg)	MDC (pCi/kg)	FLAGS
SE	57	497217003	11/18/2019	Ac-228	4.82E+02	1.00E+02	1.18E+02	
SE	57	497217003	11/18/2019	Ag-108m	0.00E+00	2.12E+01	3.04E+01	U
SE	57	497217003	11/18/2019	Ag-110m	-5.66E+00	1.14E+01	3.80E+01	U
SE	57	497217003	11/18/2019	Ba-140	3.99E+01	5.08E+01	1.78E+02	U
SE	57	497217003	11/18/2019	Be-7	-9.60E+00	7.15E+01	2.45E+02	U
SE	57	497217003	11/18/2019	Bi-214	2.90E+02	4.82E+01	5.79E+01	
SE	57	497217003	11/18/2019	Ce-141	-3.58E+00	1.38E+01	4.71E+01	U
SE	57	497217003	11/18/2019	Ce-144	-1.28E+01	5.05E+01	1.73E+02	U
SE	57	497217003	11/18/2019	Co-57	9.17E-01	6.45E+00	2.26E+01	U
SE	57	497217003	11/18/2019	Co-58	1.70E+00	1.03E+01	3.41E+01	U
SE	57	497217003	11/18/2019	Co-60	2.47E+01	1.30E+01	3.99E+01	U
SE	57	497217003	11/18/2019	Cr-51	-7.04E+01	7.91E+01	2.66E+02	U
SE	57	497217003	11/18/2019	Cs-134	6.35E-01	1.10E+01	3.87E+01	U
SE	57	497217003	11/18/2019	Cs-137	7.57E+00	9.01E+00	3.12E+01	U
SE	57	497217003	11/18/2019	Fe-59	5.58E-01	2.38E+01	8.10E+01	U
SE	57	497217003	11/18/2019	I-131	-3.24E+00	1.58E+01	5.53E+01	U
SE	57	497217003	11/18/2019	K-40	1.49E+04	9.24E+02	3.09E+02	
SE	57	497217003	11/18/2019	La-140	-9.41E+00	1.53E+01	4.52E+01	U
SE	57	497217003	11/18/2019	Mn-54	3.22E+00	9.24E+00	3.19E+01	U
SE	57	497217003	11/18/2019	Nb-95	-2.33E+00	1.19E+01	3.86E+01	U
SE	57	497217003	11/18/2019	Pb-212	6.25E+02	4.75E+01	5.24E+01	
SE	57	497217003	11/18/2019	Pb-214	3.98E+02	5.41E+01	1.32E+02	
SE	57	497217003	11/18/2019	Ra-226	2.90E+02	4.82E+01	5.79E+01	
SE	57	497217003	11/18/2019	Ru-103	1.96E+00	9.20E+00	3.19E+01	U
SE	57	497217003	11/18/2019	Ru-106	6.01E+01	7.62E+01	2.65E+02	U
SE	57	497217003	11/18/2019	Sb-124	-2.25E+01	2.40E+01	6.63E+01	U
SE	57	497217003	11/18/2019	Sb-125	-4.67E+01	2.73E+01	6.69E+01	U
SE	57	497217003	11/18/2019	Se-75	1.95E+01	1.16E+01	4.14E+01	U
SE	57	497217003	11/18/2019	Th-228	6.25E+02	4.75E+01	5.24E+01	
SE	57	497217003	11/18/2019	Th-230	2.90E+02	4.82E+01	5.79E+01	
SE	57	497217003	11/18/2019	Tl-208	1.25E+02	2.37E+01	3.37E+01	
SE	57	497217003	11/18/2019	Zn-65	-1.76E+00	2.52E+01	7.45E+01	U
SE	57	497217003	11/18/2019	Zr-95	0.00E+00	3.07E+01	5.80E+01	U

SAMPLE TYPE	STATION	LSN	END DATE	NUCLIDE	CONC (pCi/kg)	STD.DEV. (pCi/kg)	MDC (pCi/kg)	FLAGS
TF	02	482703001	6/18/2019	Ac-228	1.51E+01	1.08E+01	3.72E+01	U
TF	02	482703001	6/18/2019	Ag-108m	-1.93E+00	2.45E+00	7.03E+00	U
TF	02	482703001	6/18/2019	Ag-110m	4.42E+00	3.73E+00	1.30E+01	U
TF	02	482703001	6/18/2019	Ba-140	6.51E+00	1.11E+01	3.70E+01	U
TF	02	482703001	6/18/2019	Be-7	5.17E+01	2.45E+01	7.85E+01	U
TF	02	482703001	6/18/2019	Ce-141	-5.90E-01	3.62E+00	1.11E+01	U
TF	02	482703001	6/18/2019	Ce-144	-1.50E+01	1.34E+01	3.79E+01	U
TF	02	482703001	6/18/2019	Co-57	2.15E+00	1.94E+00	6.15E+00	U
TF	02	482703001	6/18/2019	Co-58	-4.54E+00	2.46E+00	6.13E+00	U
TF	02	482703001	6/18/2019	Co-60	1.37E+00	2.45E+00	8.24E+00	U
TF	02	482703001	6/18/2019	Cr-51	-2.34E+01	2.01E+01	5.97E+01	U
TF	02	482703001	6/18/2019	Cs-134	-4.25E+00	2.84E+00	7.88E+00	U
TF	02	482703001	6/18/2019	Cs-137	-1.06E+00	2.41E+00	7.33E+00	U
TF	02	482703001	6/18/2019	Fe-59	1.56E+01	9.67E+00	2.09E+01	U
TF	02	482703001	6/18/2019	I-131	-6.62E+00	4.34E+00	1.22E+01	U
TF	02	482703001	6/18/2019	K-40	1.89E+03	1.44E+02	7.61E+01	
TF	02	482703001	6/18/2019	La-140	-2.25E+00	2.16E+00	4.49E+00	U
TF	02	482703001	6/18/2019	Mn-54	2.63E+00	2.52E+00	8.05E+00	U
TF	02	482703001	6/18/2019	Nb-95	2.30E+00	2.43E+00	8.53E+00	U
TF	02	482703001	6/18/2019	Ru-103	3.16E-01	2.24E+00	7.32E+00	U
TF	02	482703001	6/18/2019	Ru-106	1.51E+01	2.11E+01	6.37E+01	U
TF	02	482703001	6/18/2019	Sb-124	-5.06E-01	5.09E+00	1.69E+01	U
TF	02	482703001	6/18/2019	Sb-125	2.34E+00	6.76E+00	2.02E+01	U
TF	02	482703001	6/18/2019	Se-75	3.77E+00	5.82E+00	1.04E+01	U
TF	02	482703001	6/18/2019	Th-228	6.99E+00	7.86E+00	1.54E+01	U
TF	02	482703001	6/18/2019	Zn-65	-4.97E-01	5.34E+00	1.74E+01	U
TF	02	482703001	6/18/2019	Zr-95	1.13E+00	4.06E+00	1.40E+01	U
TF	02	485329001	7/17/2019	Ac-228	-3.58E+01	1.62E+01	3.11E+01	U
TF	02	485329001	7/17/2019	Ag-108m	4.70E-01	1.76E+00	6.01E+00	U
TF	02	485329001	7/17/2019	Ag-110m	8.95E-01	2.90E+00	9.64E+00	U
TF	02	485329001	7/17/2019	Ba-140	4.88E+00	1.23E+01	3.70E+01	U
TF	02	485329001	7/17/2019	Be-7	1.16E+01	1.98E+01	6.79E+01	U
TF	02	485329001	7/17/2019	Ce-141	3.84E-01	3.68E+00	1.09E+01	U
TF	02	485329001	7/17/2019	Ce-144	2.20E+00	1.32E+01	4.27E+01	U
TF	02	485329001	7/17/2019	Co-57	-2.26E+00	1.67E+00	4.82E+00	U
TF	02	485329001	7/17/2019	Co-58	2.34E+00	2.42E+00	8.21E+00	U
TF	02	485329001	7/17/2019	Co-60	-1.03E+00	2.97E+00	8.55E+00	U
TF	02	485329001	7/17/2019	Cr-51	-2.42E+01	1.86E+01	5.74E+01	U
TF	02	485329001	7/17/2019	Cs-134	1.35E+00	2.45E+00	8.25E+00	U
TF	02	485329001	7/17/2019	Cs-137	-5.77E-01	2.13E+00	6.89E+00	U
TF	02	485329001	7/17/2019	Fe-59	-2.12E+00	4.88E+00	1.49E+01	U
TF	02	485329001	7/17/2019	I-131	4.35E+00	3.49E+00	1.20E+01	U
TF	02	485329001	7/17/2019	K-40	2.68E+03	1.83E+02	6.76E+01	
TF	02	485329001	7/17/2019	La-140	1.77E+00	2.57E+00	9.29E+00	U
TF	02	485329001	7/17/2019	Mn-54	-9.34E-01	2.15E+00	6.75E+00	U
TF	02	485329001	7/17/2019	Nb-95	-2.30E+00	2.50E+00	7.54E+00	U
TF	02	485329001	7/17/2019	Ru-103	2.73E+00	2.20E+00	7.53E+00	U
TF	02	485329001	7/17/2019	Ru-106	2.15E+01	2.00E+01	6.81E+01	U
TF	02	485329001	7/17/2019	Sb-124	-7.61E+00	5.38E+00	1.38E+01	U
TF	02	485329001	7/17/2019	Sb-125	-1.81E+00	5.58E+00	1.85E+01	U

SAMPLE TYPE	STATION	LSN	END DATE	NUCLIDE	CONC (pCi/kg)	STD.DEV. (pCi/kg)	MDC (pCi/kg)	FLAGS
TF	02	485329001	7/17/2019	Se-75	0.00E+00	4.34E+00	8.88E+00	U
TF	02	485329001	7/17/2019	Th-228	4.60E+00	8.75E+00	1.56E+01	U
TF	02	485329001	7/17/2019	Zn-65	-3.39E+00	5.83E+00	1.53E+01	U
TF	02	485329001	7/17/2019	Zr-95	7.06E-01	3.82E+00	1.27E+01	U
TF	02	487951001	8/13/2019	Ac-228	3.30E+01	2.94E+01	5.31E+01	U
TF	02	487951001	8/13/2019	Ag-108m	-2.06E+00	2.33E+00	7.02E+00	U
TF	02	487951001	8/13/2019	Ag-110m	5.21E+00	3.83E+00	1.32E+01	U
TF	02	487951001	8/13/2019	Ba-140	1.85E+01	1.38E+01	4.56E+01	U
TF	02	487951001	8/13/2019	Be-7	4.39E+00	2.41E+01	7.85E+01	U
TF	02	487951001	8/13/2019	Ce-141	6.09E+00	4.56E+00	1.43E+01	U
TF	02	487951001	8/13/2019	Ce-144	1.99E+01	1.63E+01	5.15E+01	U
TF	02	487951001	8/13/2019	Co-57	1.38E+00	2.09E+00	6.69E+00	U
TF	02	487951001	8/13/2019	Co-58	3.24E+00	3.00E+00	1.04E+01	U
TF	02	487951001	8/13/2019	Co-60	8.80E+00	6.98E+00	1.20E+01	U
TF	02	487951001	8/13/2019	Cr-51	-1.66E+01	2.32E+01	7.32E+01	U
TF	02	487951001	8/13/2019	Cs-134	-8.09E+00	4.52E+00	9.78E+00	U
TF	02	487951001	8/13/2019	Cs-137	1.38E+00	2.91E+00	1.00E+01	U
TF	02	487951001	8/13/2019	Fe-59	-1.01E+00	6.79E+00	2.19E+01	U
TF	02	487951001	8/13/2019	I-131	5.45E+00	4.85E+00	1.62E+01	U
TF	02	487951001	8/13/2019	K-40	3.01E+03	2.12E+02	5.70E+01	
TF	02	487951001	8/13/2019	La-140	-3.41E+00	4.14E+00	1.22E+01	U
TF	02	487951001	8/13/2019	Mn-54	-2.81E+00	3.65E+00	8.81E+00	U
TF	02	487951001	8/13/2019	Nb-95	-7.29E+00	4.04E+00	9.08E+00	U
TF	02	487951001	8/13/2019	Ru-103	-7.11E-01	2.69E+00	8.48E+00	U
TF	02	487951001	8/13/2019	Ru-106	3.37E+01	2.64E+01	9.11E+01	U
TF	02	487951001	8/13/2019	Sb-124	-5.05E+00	7.90E+00	2.01E+01	U
TF	02	487951001	8/13/2019	Sb-125	2.63E+00	7.42E+00	2.45E+01	U
TF	02	487951001	8/13/2019	Se-75	-2.59E+00	3.40E+00	1.09E+01	U
TF	02	487951001	8/13/2019	Th-228	-6.72E+00	6.76E+00	2.02E+01	U
TF	02	487951001	8/13/2019	Zn-65	2.41E+00	7.03E+00	2.34E+01	U
TF	02	487951001	8/13/2019	Zr-95	7.27E+00	5.28E+00	1.82E+01	U
TF	03	482703002	6/18/2019	Ac-228	-8.67E+00	9.22E+00	2.86E+01	U
TF	03	482703002	6/18/2019	Ag-108m	3.48E-03	1.69E+00	5.34E+00	U
TF	03	482703002	6/18/2019	Ag-110m	-8.51E-03	2.58E+00	8.17E+00	U
TF	03	482703002	6/18/2019	Ba-140	-1.11E+00	8.33E+00	2.70E+01	U
TF	03	482703002	6/18/2019	Be-7	2.94E-01	1.28E+01	4.24E+01	U
TF	03	482703002	6/18/2019	Ce-141	-4.83E-01	2.46E+00	7.74E+00	U
TF	03	482703002	6/18/2019	Ce-144	2.31E+01	2.06E+01	3.16E+01	U
TF	03	482703002	6/18/2019	Co-57	6.58E-01	1.31E+00	4.27E+00	U
TF	03	482703002	6/18/2019	Co-58	1.85E+00	2.01E+00	6.80E+00	U
TF	03	482703002	6/18/2019	Co-60	4.50E+00	2.44E+00	8.65E+00	U
TF	03	482703002	6/18/2019	Cr-51	2.45E+01	2.03E+01	5.32E+01	U
TF	03	482703002	6/18/2019	Cs-134	1.85E+00	2.16E+00	6.70E+00	U
TF	03	482703002	6/18/2019	Cs-137	1.25E-01	2.27E+00	7.37E+00	U
TF	03	482703002	6/18/2019	Fe-59	-2.45E-01	3.93E+00	1.31E+01	U
TF	03	482703002	6/18/2019	I-131	-2.80E+00	2.75E+00	8.39E+00	U
TF	03	482703002	6/18/2019	K-40	1.29E+03	1.04E+02	7.07E+01	
TF	03	482703002	6/18/2019	La-140	-1.08E+00	2.93E+00	9.00E+00	U
TF	03	482703002	6/18/2019	Mn-54	-1.58E+00	1.98E+00	5.72E+00	U

SAMPLE TYPE	STATION	LSN	END DATE	NUCLIDE	CONC (pCi/kg)	STD.DEV. (pCi/kg)	MDC (pCi/kg)	FLAGS
TF	03	482703002	6/18/2019	Nb-95	-2.58E+00	2.02E+00	5.37E+00	U
TF	03	482703002	6/18/2019	Ru-103	-1.51E+00	1.65E+00	4.92E+00	U
TF	03	482703002	6/18/2019	Ru-106	3.28E+00	1.64E+01	5.41E+01	U
TF	03	482703002	6/18/2019	Sb-124	2.91E+00	3.25E+00	1.21E+01	U
TF	03	482703002	6/18/2019	Sb-125	7.04E+00	8.21E+00	1.57E+01	U
TF	03	482703002	6/18/2019	Se-75	1.17E+00	2.06E+00	7.15E+00	U
TF	03	482703002	6/18/2019	Th-228	5.81E-01	4.21E+00	1.05E+01	U
TF	03	482703002	6/18/2019	Zn-65	-5.89E+00	4.43E+00	1.23E+01	U
TF	03	482703002	6/18/2019	Zr-95	-2.00E+00	3.07E+00	9.05E+00	U
TF	03	485329002	7/17/2019	Ac-228	-6.74E+00	9.53E+00	2.73E+01	U
TF	03	485329002	7/17/2019	Ag-108m	-1.58E+00	1.58E+00	4.73E+00	U
TF	03	485329002	7/17/2019	Ag-110m	-8.69E-01	2.03E+00	6.60E+00	U
TF	03	485329002	7/17/2019	Ba-140	-1.37E+01	9.31E+00	2.32E+01	U
TF	03	485329002	7/17/2019	Be-7	-1.11E+01	1.44E+01	4.38E+01	U
TF	03	485329002	7/17/2019	Ce-141	-1.21E+00	3.08E+00	9.84E+00	U
TF	03	485329002	7/17/2019	Ce-144	1.03E+00	1.23E+01	4.21E+01	U
TF	03	485329002	7/17/2019	Co-57	2.97E-01	1.51E+00	5.20E+00	U
TF	03	485329002	7/17/2019	Co-58	-1.20E+00	1.90E+00	5.63E+00	U
TF	03	485329002	7/17/2019	Co-60	-2.16E+00	2.06E+00	5.86E+00	U
TF	03	485329002	7/17/2019	Cr-51	2.52E+01	1.75E+01	5.62E+01	U
TF	03	485329002	7/17/2019	Cs-134	-4.13E-01	2.05E+00	6.38E+00	U
TF	03	485329002	7/17/2019	Cs-137	3.09E+00	1.99E+00	6.67E+00	U
TF	03	485329002	7/17/2019	Fe-59	2.25E+00	4.25E+00	1.47E+01	U
TF	03	485329002	7/17/2019	I-131	-2.85E-01	2.94E+00	9.67E+00	U
TF	03	485329002	7/17/2019	K-40	7.23E+02	8.12E+01	6.94E+01	
TF	03	485329002	7/17/2019	La-140	2.76E-01	3.59E+00	1.01E+01	U
TF	03	485329002	7/17/2019	Mn-54	1.10E+00	2.11E+00	6.90E+00	U
TF	03	485329002	7/17/2019	Nb-95	2.67E+00	2.09E+00	6.98E+00	U
TF	03	485329002	7/17/2019	Ru-103	-2.26E+00	1.94E+00	5.62E+00	U
TF	03	485329002	7/17/2019	Ru-106	6.16E+00	1.66E+01	5.45E+01	U
TF	03	485329002	7/17/2019	Sb-124	-1.21E+00	2.51E+00	7.19E+00	U
TF	03	485329002	7/17/2019	Sb-125	3.27E+00	4.72E+00	1.59E+01	U
TF	03	485329002	7/17/2019	Se-75	1.15E+00	2.44E+00	8.25E+00	U
TF	03	485329002	7/17/2019	Th-228	1.23E+00	5.93E+00	1.21E+01	U
TF	03	485329002	7/17/2019	Zn-65	3.97E-01	4.05E+00	1.37E+01	U
TF	03	485329002	7/17/2019	Zr-95	-1.04E+00	2.94E+00	9.02E+00	U
TF	03	487951002	8/13/2019	Ac-228	2.40E+01	1.76E+01	5.22E+01	U
TF	03	487951002	8/13/2019	Ag-108m	8.97E-02	2.54E+00	8.31E+00	U
TF	03	487951002	8/13/2019	Ag-110m	-6.37E+00	4.94E+00	1.42E+01	U
TF	03	487951002	8/13/2019	Ba-140	3.53E+01	1.71E+01	5.14E+01	U
TF	03	487951002	8/13/2019	Be-7	4.69E+01	2.87E+01	9.40E+01	U
TF	03	487951002	8/13/2019	Ce-141	-3.81E-01	4.84E+00	1.52E+01	U
TF	03	487951002	8/13/2019	Ce-144	-3.38E+00	1.77E+01	5.55E+01	U
TF	03	487951002	8/13/2019	Co-57	-3.70E+00	2.42E+00	6.68E+00	U
TF	03	487951002	8/13/2019	Co-58	9.11E-01	3.15E+00	1.07E+01	U
TF	03	487951002	8/13/2019	Co-60	-7.65E-02	3.04E+00	9.73E+00	U
TF	03	487951002	8/13/2019	Cr-51	1.63E+01	2.81E+01	9.48E+01	U
TF	03	487951002	8/13/2019	Cs-134	4.81E+00	3.79E+00	1.31E+01	U
TF	03	487951002	8/13/2019	Cs-137	2.13E+00	3.10E+00	1.08E+01	U

SAMPLE TYPE	STATION	LSN	END DATE	NUCLIDE	CONC (pCi/kg)	STD.DEV. (pCi/kg)	MDC (pCi/kg)	FLAGS
TF	03	487951002	8/13/2019	Fe-59	8.51E+00	7.69E+00	2.62E+01	U
TF	03	487951002	8/13/2019	I-131	1.46E+00	4.89E+00	1.63E+01	U
TF	03	487951002	8/13/2019	K-40	2.63E+03	2.00E+02	1.13E+02	
TF	03	487951002	8/13/2019	La-140	6.32E-01	5.90E+00	1.74E+01	U
TF	03	487951002	8/13/2019	Mn-54	4.61E+00	3.34E+00	1.15E+01	U
TF	03	487951002	8/13/2019	Nb-95	5.27E+00	3.96E+00	1.35E+01	U
TF	03	487951002	8/13/2019	Ru-103	-5.03E+00	3.08E+00	8.08E+00	U
TF	03	487951002	8/13/2019	Ru-106	-2.73E+00	2.89E+01	9.12E+01	U
TF	03	487951002	8/13/2019	Sb-124	-5.55E+00	7.58E+00	2.27E+01	U
TF	03	487951002	8/13/2019	Sb-125	-2.72E+00	7.80E+00	2.49E+01	U
TF	03	487951002	8/13/2019	Se-75	-3.02E-01	3.65E+00	1.23E+01	U
TF	03	487951002	8/13/2019	Th-228	-1.43E+01	8.82E+00	2.06E+01	U
TF	03	487951002	8/13/2019	Zn-65	-2.05E+01	9.53E+00	2.18E+01	U
TF	03	487951002	8/13/2019	Zr-95	-2.17E+00	5.31E+00	1.73E+01	U
TF	06	482703003	6/18/2019	Ac-228	-1.08E+00	9.20E+00	2.91E+01	U
TF	06	482703003	6/18/2019	Ag-108m	1.73E-01	1.43E+00	4.85E+00	U
TF	06	482703003	6/18/2019	Ag-110m	-4.48E+00	3.03E+00	7.44E+00	U
TF	06	482703003	6/18/2019	Ba-140	8.53E+00	8.68E+00	3.03E+01	U
TF	06	482703003	6/18/2019	Be-7	4.15E+01	2.51E+01	4.90E+01	U
TF	06	482703003	6/18/2019	Ce-141	-3.07E+00	3.17E+00	9.49E+00	U
TF	06	482703003	6/18/2019	Ce-144	4.57E-02	1.17E+01	3.82E+01	U
TF	06	482703003	6/18/2019	Co-57	7.01E-01	1.46E+00	4.86E+00	U
TF	06	482703003	6/18/2019	Co-58	-3.56E-01	1.91E+00	6.01E+00	U
TF	06	482703003	6/18/2019	Co-60	3.29E+00	2.37E+00	8.58E+00	U
TF	06	482703003	6/18/2019	Cr-51	1.10E+00	1.48E+01	5.08E+01	U
TF	06	482703003	6/18/2019	Cs-134	-2.60E+00	2.10E+00	5.48E+00	U
TF	06	482703003	6/18/2019	Cs-137	7.45E-01	2.04E+00	6.84E+00	U
TF	06	482703003	6/18/2019	Fe-59	-5.39E+00	4.49E+00	1.27E+01	U
TF	06	482703003	6/18/2019	I-131	1.66E+00	3.20E+00	1.11E+01	U
TF	06	482703003	6/18/2019	K-40	1.13E+03	1.07E+02	5.57E+01	
TF	06	482703003	6/18/2019	La-140	3.93E-01	2.92E+00	8.97E+00	U
TF	06	482703003	6/18/2019	Mn-54	2.02E+00	2.06E+00	7.02E+00	U
TF	06	482703003	6/18/2019	Nb-95	-2.08E+00	1.93E+00	5.28E+00	U
TF	06	482703003	6/18/2019	Ru-103	-8.19E-02	1.80E+00	5.96E+00	U
TF	06	482703003	6/18/2019	Ru-106	1.39E+00	1.57E+01	5.17E+01	U
TF	06	482703003	6/18/2019	Sb-124	1.24E+01	5.51E+00	2.07E+01	U
TF	06	482703003	6/18/2019	Sb-125	-4.99E+00	4.80E+00	1.44E+01	U
TF	06	482703003	6/18/2019	Se-75	2.96E+00	2.72E+00	8.80E+00	U
TF	06	482703003	6/18/2019	Th-228	5.59E+00	4.26E+00	1.32E+01	U
TF	06	482703003	6/18/2019	Zn-65	-7.02E+00	4.63E+00	1.20E+01	U
TF	06	482703003	6/18/2019	Zr-95	-2.33E+00	2.83E+00	7.97E+00	U
TF	06	485329003	7/17/2019	Ac-228	2.43E+01	1.44E+01	2.96E+01	U
TF	06	485329003	7/17/2019	Ag-108m	5.10E-01	1.30E+00	4.35E+00	U
TF	06	485329003	7/17/2019	Ag-110m	-1.41E+00	2.28E+00	7.16E+00	U
TF	06	485329003	7/17/2019	Ba-140	5.16E+00	8.45E+00	2.80E+01	U
TF	06	485329003	7/17/2019	Be-7	0.00E+00	1.95E+01	4.55E+01	U
TF	06	485329003	7/17/2019	Ce-141	-4.86E+00	2.95E+00	7.55E+00	U
TF	06	485329003	7/17/2019	Ce-144	7.08E+00	9.03E+00	2.95E+01	U
TF	06	485329003	7/17/2019	Co-57	2.26E-01	1.11E+00	3.61E+00	U

Seabrook REMP Summary of 2019 Data

SAMPLE TYPE	STATION	LSN	END DATE	NUCLIDE	CONC (pCi/kg)	STD.DEV. (pCi/kg)	MDC (pCi/kg)	FLAGS
TF	06	485329003	7/17/2019	Co-58	9.53E-01	1.76E+00	5.44E+00	U
TF	06	485329003	7/17/2019	Co-60	2.44E+00	2.08E+00	7.12E+00	U
TF	06	485329003	7/17/2019	Cr-51	1.47E+00	1.40E+01	4.72E+01	U
TF	06	485329003	7/17/2019	Cs-134	7.15E-01	1.81E+00	6.22E+00	U
TF	06	485329003	7/17/2019	Cs-137	-3.04E+00	1.76E+00	4.31E+00	U
TF	06	485329003	7/17/2019	Fe-59	-3.66E+00	4.06E+00	1.21E+01	U
TF	06	485329003	7/17/2019	I-131	1.23E+00	2.74E+00	9.27E+00	U
TF	06	485329003	7/17/2019	K-40	6.78E+02	7.21E+01	5.23E+01	
TF	06	485329003	7/17/2019	La-140	-9.85E-01	3.00E+00	9.69E+00	U
TF	06	485329003	7/17/2019	Mn-54	-3.46E-01	1.60E+00	5.28E+00	U
TF	06	485329003	7/17/2019	Nb-95	5.02E-01	1.76E+00	6.00E+00	U
TF	06	485329003	7/17/2019	Ru-103	-1.81E+00	1.89E+00	5.67E+00	U
TF	06	485329003	7/17/2019	Ru-106	2.68E+00	1.60E+01	5.17E+01	U
TF	06	485329003	7/17/2019	Sb-124	-1.48E+00	3.33E+00	1.03E+01	U
TF	06	485329003	7/17/2019	Sb-125	6.18E+00	4.39E+00	1.47E+01	U
TF	06	485329003	7/17/2019	Se-75	-7.62E-01	1.87E+00	6.25E+00	U
TF	06	485329003	7/17/2019	Th-228	-6.43E-01	3.18E+00	1.03E+01	U
TF	06	485329003	7/17/2019	Zn-65	-1.81E-01	4.06E+00	1.32E+01	U
TF	06	485329003	7/17/2019	Zr-95	1.85E+00	3.08E+00	1.07E+01	U
TF	06	487951003	8/13/2019	Ac-228	-8.00E+00	1.32E+01	3.81E+01	U
TF	06	487951003	8/13/2019	Ag-108m	3.51E+00	2.41E+00	7.99E+00	U
TF	06	487951003	8/13/2019	Ag-110m	3.80E+00	4.32E+00	1.31E+01	U
TF	06	487951003	8/13/2019	Ba-140	-8.74E+00	1.35E+01	4.17E+01	U
TF	06	487951003	8/13/2019	Be-7	1.81E+01	2.45E+01	8.15E+01	U
TF	06	487951003	8/13/2019	Ce-141	-4.01E+00	5.20E+00	1.71E+01	U
TF	06	487951003	8/13/2019	Ce-144	1.23E+01	2.36E+01	6.88E+01	U
TF	06	487951003	8/13/2019	Co-57	2.59E+00	2.76E+00	8.59E+00	U
TF	06	487951003	8/13/2019	Co-58	1.78E+00	2.87E+00	9.43E+00	U
TF	06	487951003	8/13/2019	Co-60	2.94E+00	2.76E+00	9.78E+00	U
TF	06	487951003	8/13/2019	Cr-51	2.72E+01	5.66E+01	9.38E+01	U
TF	06	487951003	8/13/2019	Cs-134	4.28E+00	3.01E+00	9.76E+00	U
TF	06	487951003	8/13/2019	Cs-137	-3.43E+00	2.83E+00	7.91E+00	U
TF	06	487951003	8/13/2019	Fe-59	-2.73E+00	6.28E+00	2.03E+01	U
TF	06	487951003	8/13/2019	I-131	1.60E+01	6.28E+00	1.87E+01	U
TF	06	487951003	8/13/2019	K-40	2.41E+03	1.79E+02	7.56E+01	
TF	06	487951003	8/13/2019	La-140	7.39E+00	3.70E+00	1.35E+01	U
TF	06	487951003	8/13/2019	Mn-54	5.49E+00	2.61E+00	8.63E+00	U
TF	06	487951003	8/13/2019	Nb-95	-1.57E-01	2.90E+00	9.19E+00	U
TF	06	487951003	8/13/2019	Ru-103	4.62E+00	2.97E+00	9.78E+00	U
TF	06	487951003	8/13/2019	Ru-106	4.36E+00	2.45E+01	7.97E+01	U
TF	06	487951003	8/13/2019	Sb-124	-2.24E+00	5.67E+00	1.74E+01	U
TF	06	487951003	8/13/2019	Sb-125	3.70E+00	7.73E+00	2.57E+01	U
TF	06	487951003	8/13/2019	Se-75	5.89E-01	3.67E+00	1.23E+01	U
TF	06	487951003	8/13/2019	Th-228	-1.32E+01	7.55E+00	1.80E+01	U
TF	06	487951003	8/13/2019	Zn-65	4.99E+00	6.07E+00	2.11E+01	U
TF	06	487951003	8/13/2019	Zr-95	-2.81E+00	5.04E+00	1.53E+01	U

SAMPLE TYPE	STATION	LSN	END DATE	NUCLIDE	CONC (pCi/kg)	STD.DEV. (pCi/kg)	MDC (pCi/kg)	FLAGS
TG	08	480186001	5/21/2019	Ac-228	1.25E+02	2.64E+01	4.44E+01	
TG	08	480186001	5/21/2019	Ag-108m	-1.73E+00	2.85E+00	9.05E+00	U
TG	08	480186001	5/21/2019	Ag-110m	-1.33E+01	5.52E+00	1.34E+01	U
TG	08	480186001	5/21/2019	Ba-140	-6.75E+01	2.84E+01	5.28E+01	U
TG	08	480186001	5/21/2019	Be-7	7.48E+02	7.46E+01	9.36E+01	
TG	08	480186001	5/21/2019	Ce-141	5.01E+00	4.96E+00	1.53E+01	U
TG	08	480186001	5/21/2019	Ce-144	-5.16E+00	1.68E+01	5.71E+01	U
TG	08	480186001	5/21/2019	Co-57	-2.41E+00	2.29E+00	7.47E+00	U
TG	08	480186001	5/21/2019	Co-58	-6.39E+00	3.76E+00	1.08E+01	U
TG	08	480186001	5/21/2019	Co-60	-2.00E+00	3.18E+00	9.91E+00	U
TG	08	480186001	5/21/2019	Cr-51	-7.14E+00	2.74E+01	9.02E+01	U
TG	08	480186001	5/21/2019	Cs-134	-6.84E+00	4.30E+00	1.15E+01	U
TG	08	480186001	5/21/2019	Cs-137	6.68E+00	6.87E+00	1.07E+01	U
TG	08	480186001	5/21/2019	Fe-59	7.79E-01	7.24E+00	2.43E+01	U
TG	08	480186001	5/21/2019	I-131	-4.41E-01	5.77E+00	1.90E+01	U
TG	08	480186001	5/21/2019	K-40	5.10E+03	2.85E+02	1.04E+02	
TG	08	480186001	5/21/2019	La-140	-7.32E+00	5.45E+00	1.49E+01	U
TG	08	480186001	5/21/2019	Mn-54	1.58E+00	3.41E+00	1.17E+01	U
TG	08	480186001	5/21/2019	Nb-95	-1.51E+00	3.74E+00	1.16E+01	U
TG	08	480186001	5/21/2019	Ru-103	-4.35E+00	4.65E+00	1.06E+01	U
TG	08	480186001	5/21/2019	Ru-106	-2.36E+01	3.27E+01	1.00E+02	U
TG	08	480186001	5/21/2019	Sb-124	7.44E+00	6.93E+00	2.39E+01	U
TG	08	480186001	5/21/2019	Sb-125	1.73E+01	9.22E+00	2.91E+01	U
TG	08	480186001	5/21/2019	Se-75	5.81E-01	3.72E+00	1.25E+01	U
TG	08	480186001	5/21/2019	Th-228	1.19E+01	1.25E+01	1.71E+01	U
TG	08	480186001	5/21/2019	Zn-65	-5.14E+00	8.06E+00	2.58E+01	U
TG	08	480186001	5/21/2019	Zr-95	-2.55E+01	1.15E+01	1.91E+01	U
TG	08	482703004	6/18/2019	Ac-228	4.17E+01	5.39E+01	1.79E+02	U
TG	08	482703004	6/18/2019	Ag-108m	1.07E+01	8.27E+00	2.86E+01	U
TG	08	482703004	6/18/2019	Ag-110m	1.47E+01	1.46E+01	5.21E+01	U
TG	08	482703004	6/18/2019	Ba-140	-5.39E+01	4.89E+01	1.35E+02	U
TG	08	482703004	6/18/2019	Be-7	1.59E+03	2.42E+02	2.92E+02	
TG	08	482703004	6/18/2019	Ce-141	-1.21E+01	1.41E+01	3.83E+01	U
TG	08	482703004	6/18/2019	Ce-144	-3.00E+01	4.56E+01	1.38E+02	U
TG	08	482703004	6/18/2019	Co-57	1.62E+00	5.64E+00	1.83E+01	U
TG	08	482703004	6/18/2019	Co-58	-9.70E+00	1.12E+01	3.39E+01	U
TG	08	482703004	6/18/2019	Co-60	1.05E+01	1.13E+01	4.06E+01	U
TG	08	482703004	6/18/2019	Cr-51	3.31E+01	7.56E+01	2.59E+02	U
TG	08	482703004	6/18/2019	Cs-134	0.00E+00	2.48E+01	4.91E+01	U
TG	08	482703004	6/18/2019	Cs-137	8.73E+00	1.21E+01	4.04E+01	U
TG	08	482703004	6/18/2019	Fe-59	-2.66E+01	2.41E+01	6.55E+01	U
TG	08	482703004	6/18/2019	I-131	1.52E+01	1.54E+01	5.32E+01	U
TG	08	482703004	6/18/2019	K-40	4.17E+03	4.47E+02	3.50E+02	
TG	08	482703004	6/18/2019	La-140	-3.43E+00	1.62E+01	5.26E+01	U
TG	08	482703004	6/18/2019	Mn-54	-2.99E+00	1.03E+01	3.34E+01	U
TG	08	482703004	6/18/2019	Nb-95	-8.19E+00	1.47E+01	4.26E+01	U
TG	08	482703004	6/18/2019	Ru-103	-1.37E+01	9.74E+00	2.55E+01	U
TG	08	482703004	6/18/2019	Ru-106	4.35E+01	9.12E+01	3.03E+02	U
TG	08	482703004	6/18/2019	Sb-124	1.95E+01	2.72E+01	9.93E+01	U
TG	08	482703004	6/18/2019	Sb-125	-2.49E+01	2.48E+01	7.23E+01	U

SAMPLE TYPE	STATION	LSN	END DATE	NUCLIDE	CONC (pCi/kg)	STD.DEV. (pCi/kg)	MDC (pCi/kg)	FLAGS
TG	08	482703004	6/18/2019	Se-75	2.13E+01	1.22E+01	4.02E+01	U
TG	08	482703004	6/18/2019	Th-228	-1.17E+01	1.70E+01	5.44E+01	U
TG	08	482703004	6/18/2019	Zn-65	5.11E+01	2.65E+01	9.30E+01	U
TG	08	482703004	6/18/2019	Zr-95	-2.70E+01	1.87E+01	5.01E+01	U
TG	08	485329004	7/17/2019	Ac-228	-8.22E+00	3.76E+01	1.10E+02	U
TG	08	485329004	7/17/2019	Ag-108m	4.38E+00	6.29E+00	2.17E+01	U
TG	08	485329004	7/17/2019	Ag-110m	-2.15E+01	1.32E+01	3.27E+01	U
TG	08	485329004	7/17/2019	Ba-140	-3.22E+00	3.91E+01	1.29E+02	U
TG	08	485329004	7/17/2019	Be-7	8.55E+02	1.31E+02	1.87E+02	
TG	08	485329004	7/17/2019	Ce-141	-4.74E+01	1.88E+01	3.58E+01	U
TG	08	485329004	7/17/2019	Ce-144	1.83E+01	4.38E+01	1.45E+02	U
TG	08	485329004	7/17/2019	Co-57	-2.28E+00	5.55E+00	1.77E+01	U
TG	08	485329004	7/17/2019	Co-58	2.62E+00	8.67E+00	2.84E+01	U
TG	08	485329004	7/17/2019	Co-60	-1.50E+01	7.34E+00	1.29E+01	U
TG	08	485329004	7/17/2019	Cr-51	6.31E+00	6.65E+01	2.28E+02	U
TG	08	485329004	7/17/2019	Cs-134	1.49E+01	9.27E+00	3.14E+01	U
TG	08	485329004	7/17/2019	Cs-137	3.95E+00	7.63E+00	2.57E+01	U
TG	08	485329004	7/17/2019	Fe-59	1.40E+01	1.69E+01	5.95E+01	U
TG	08	485329004	7/17/2019	I-131	1.38E+01	1.26E+01	4.36E+01	U
TG	08	485329004	7/17/2019	K-40	3.65E+03	3.65E+02	2.53E+02	
TG	08	485329004	7/17/2019	La-140	2.27E+01	1.22E+01	4.18E+01	U
TG	08	485329004	7/17/2019	Mn-54	-1.15E+01	8.50E+00	2.25E+01	U
TG	08	485329004	7/17/2019	Nb-95	-9.53E+00	9.91E+00	2.47E+01	U
TG	08	485329004	7/17/2019	Ru-103	6.71E+00	6.93E+00	2.21E+01	U
TG	08	485329004	7/17/2019	Ru-106	1.09E+02	7.57E+01	2.57E+02	U
TG	08	485329004	7/17/2019	Sb-124	-1.67E+01	1.83E+01	4.98E+01	U
TG	08	485329004	7/17/2019	Sb-125	1.88E-01	1.92E+01	6.45E+01	U
TG	08	485329004	7/17/2019	Se-75	-3.59E+00	1.02E+01	3.11E+01	U
TG	08	485329004	7/17/2019	Th-228	-9.58E+00	1.66E+01	4.75E+01	U
TG	08	485329004	7/17/2019	Zn-65	4.94E+00	1.74E+01	5.98E+01	U
TG	08	485329004	7/17/2019	Zr-95	-2.26E+01	1.45E+01	3.66E+01	U
TG	08	487951004	8/13/2019	Ac-228	7.38E+01	6.58E+01	1.39E+02	U
TG	08	487951004	8/13/2019	Ag-108m	-7.60E+00	6.09E+00	1.77E+01	U
TG	08	487951004	8/13/2019	Ag-110m	-2.18E+00	9.66E+00	3.17E+01	U
TG	08	487951004	8/13/2019	Ba-140	9.21E+00	3.70E+01	1.21E+02	U
TG	08	487951004	8/13/2019	Be-7	6.64E+02	1.06E+02	2.02E+02	
TG	08	487951004	8/13/2019	Ce-141	2.43E+00	9.21E+00	2.71E+01	U
TG	08	487951004	8/13/2019	Ce-144	-4.60E+01	3.64E+01	9.28E+01	U
TG	08	487951004	8/13/2019	Co-57	2.97E-01	3.80E+00	1.22E+01	U
TG	08	487951004	8/13/2019	Co-58	-8.48E+00	8.28E+00	2.52E+01	U
TG	08	487951004	8/13/2019	Co-60	-2.49E+00	9.01E+00	2.83E+01	U
TG	08	487951004	8/13/2019	Cr-51	1.30E+02	8.61E+01	1.46E+02	U
TG	08	487951004	8/13/2019	Cs-134	1.08E+01	8.51E+00	2.97E+01	U
TG	08	487951004	8/13/2019	Cs-137	6.75E-01	8.57E+00	2.74E+01	U
TG	08	487951004	8/13/2019	Fe-59	-9.20E-02	1.46E+01	4.79E+01	U
TG	08	487951004	8/13/2019	I-131	-1.22E+00	1.28E+01	3.78E+01	U
TG	08	487951004	8/13/2019	K-40	4.20E+03	3.72E+02	2.61E+02	
TG	08	487951004	8/13/2019	La-140	3.07E-01	8.40E+00	2.84E+01	U
TG	08	487951004	8/13/2019	Mn-54	4.10E-01	7.66E+00	2.58E+01	U

Seabrook REMP Summary of 2019 Data

SAMPLE TYPE	STATION	LSN	END DATE	NUCLIDE	CONC (pCi/kg)	STD.DEV. (pCi/kg)	MDC (pCi/kg)	FLAGS
TG	08	487951004	8/13/2019	Nb-95	-3.67E+00	1.17E+01	2.80E+01	U
TG	08	487951004	8/13/2019	Ru-103	4.05E+00	8.19E+00	2.40E+01	U
TG	08	487951004	8/13/2019	Ru-106	-8.28E+01	7.87E+01	2.27E+02	U
TG	08	487951004	8/13/2019	Sb-124	3.15E+01	1.91E+01	7.02E+01	U
TG	08	487951004	8/13/2019	Sb-125	-1.44E+01	1.59E+01	4.78E+01	U
TG	08	487951004	8/13/2019	Se-75	4.05E+00	7.64E+00	2.62E+01	U
TG	08	487951004	8/13/2019	Th-228	-8.23E+00	1.39E+01	3.99E+01	U
TG	08	487951004	8/13/2019	Zn-65	6.21E+00	2.01E+01	5.95E+01	U
TG	08	487951004	8/13/2019	Zr-95	3.88E+00	1.34E+01	4.60E+01	U
TG	08	490029001	9/10/2019	Ac-228	-4.65E+00	4.85E+01	1.08E+02	U
TG	08	490029001	9/10/2019	Ag-108m	6.95E-01	5.88E+00	1.93E+01	U
TG	08	490029001	9/10/2019	Ag-110m	3.40E+01	1.72E+01	3.41E+01	U
TG	08	490029001	9/10/2019	Ba-140	2.30E+00	3.29E+01	1.07E+02	U
TG	08	490029001	9/10/2019	Be-7	8.07E+02	1.22E+02	1.82E+02	
TG	08	490029001	9/10/2019	Ce-141	1.51E+01	1.12E+01	3.70E+01	U
TG	08	490029001	9/10/2019	Ce-144	6.25E+00	4.03E+01	1.38E+02	U
TG	08	490029001	9/10/2019	Co-57	-1.05E-02	5.13E+00	1.76E+01	U
TG	08	490029001	9/10/2019	Co-58	-1.26E+00	6.58E+00	2.07E+01	U
TG	08	490029001	9/10/2019	Co-60	3.73E+00	7.68E+00	2.31E+01	U
TG	08	490029001	9/10/2019	Cr-51	-1.11E+01	6.26E+01	2.07E+02	U
TG	08	490029001	9/10/2019	Cs-134	-5.13E+00	7.48E+00	2.27E+01	U
TG	08	490029001	9/10/2019	Cs-137	2.92E+00	6.76E+00	2.19E+01	U
TG	08	490029001	9/10/2019	Fe-59	-1.77E-01	1.30E+01	4.35E+01	U
TG	08	490029001	9/10/2019	I-131	1.15E+01	1.24E+01	4.10E+01	U
TG	08	490029001	9/10/2019	K-40	3.80E+03	3.13E+02	2.06E+02	
TG	08	490029001	9/10/2019	La-140	-1.40E+01	1.10E+01	3.12E+01	U
TG	08	490029001	9/10/2019	Mn-54	1.14E+01	7.51E+00	2.37E+01	U
TG	08	490029001	9/10/2019	Nb-95	9.42E+00	7.60E+00	2.43E+01	U
TG	08	490029001	9/10/2019	Ru-103	2.95E+00	6.80E+00	2.23E+01	U
TG	08	490029001	9/10/2019	Ru-106	1.87E+01	5.76E+01	1.87E+02	U
TG	08	490029001	9/10/2019	Sb-124	-8.81E+00	1.37E+01	4.20E+01	U
TG	08	490029001	9/10/2019	Sb-125	4.95E+00	1.81E+01	5.98E+01	U
TG	08	490029001	9/10/2019	Se-75	1.31E+00	8.58E+00	2.88E+01	U
TG	08	490029001	9/10/2019	Th-228	1.14E+01	2.73E+01	4.71E+01	U
TG	08	490029001	9/10/2019	Zn-65	1.09E+01	1.63E+01	4.95E+01	U
TG	08	490029001	9/10/2019	Zr-95	-2.06E+01	1.19E+01	3.13E+01	U
TG	08	492910001	10/8/2019	Ac-228	-1.14E+01	3.14E+01	1.00E+02	U
TG	08	492910001	10/8/2019	Ag-108m	3.72E+00	6.42E+00	2.22E+01	U
TG	08	492910001	10/8/2019	Ag-110m	6.74E-01	1.09E+01	3.50E+01	U
TG	08	492910001	10/8/2019	Ba-140	8.16E+01	4.08E+01	1.32E+02	U
TG	08	492910001	10/8/2019	Be-7	1.51E+03	1.70E+02	2.08E+02	
TG	08	492910001	10/8/2019	Ce-141	-8.31E+00	1.29E+01	3.81E+01	U
TG	08	492910001	10/8/2019	Ce-144	1.42E+01	4.49E+01	1.46E+02	U
TG	08	492910001	10/8/2019	Co-57	1.32E+00	5.59E+00	1.82E+01	U
TG	08	492910001	10/8/2019	Co-58	3.21E+00	6.77E+00	2.30E+01	U
TG	08	492910001	10/8/2019	Co-60	9.59E+00	9.76E+00	3.52E+01	U
TG	08	492910001	10/8/2019	Cr-51	6.47E+01	7.06E+01	2.47E+02	U
TG	08	492910001	10/8/2019	Cs-134	6.57E+00	7.23E+00	2.54E+01	U
TG	08	492910001	10/8/2019	Cs-137	-1.30E-01	8.30E+00	2.71E+01	U

SAMPLE TYPE	STATION	LSN	END DATE	NUCLIDE	CONC (pCi/kg)	STD.DEV. (pCi/kg)	MDC (pCi/kg)	FLAGS
TG	08	492910001	10/8/2019	Fe-59	3.57E+00	1.56E+01	5.40E+01	U
TG	08	492910001	10/8/2019	I-131	-9.27E+00	1.29E+01	4.09E+01	U
TG	08	492910001	10/8/2019	K-40	3.09E+03	3.35E+02	2.13E+02	
TG	08	492910001	10/8/2019	La-140	-8.92E-01	1.35E+01	4.39E+01	U
TG	08	492910001	10/8/2019	Mn-54	-2.05E+00	7.85E+00	2.44E+01	U
TG	08	492910001	10/8/2019	Nb-95	-1.17E+01	7.99E+00	2.00E+01	U
TG	08	492910001	10/8/2019	Ru-103	0.00E+00	1.63E+01	1.86E+01	U
TG	08	492910001	10/8/2019	Ru-106	-1.23E+01	7.49E+01	2.42E+02	U
TG	08	492910001	10/8/2019	Sb-124	-6.91E+00	1.70E+01	5.08E+01	U
TG	08	492910001	10/8/2019	Sb-125	2.47E+00	1.85E+01	6.26E+01	U
TG	08	492910001	10/8/2019	Se-75	5.63E+00	9.18E+00	3.22E+01	U
TG	08	492910001	10/8/2019	Th-228	4.80E+01	2.73E+01	5.10E+01	U
TG	08	492910001	10/8/2019	Zn-65	2.38E+00	1.82E+01	6.21E+01	U
TG	08	492910001	10/8/2019	Zr-95	-2.12E+00	1.21E+01	3.82E+01	U
TG	09	480186002	5/21/2019	Ac-228	-5.69E+01	2.95E+01	6.02E+01	U
TG	09	480186002	5/21/2019	Ag-108m	3.83E+00	3.14E+00	1.03E+01	U
TG	09	480186002	5/21/2019	Ag-110m	-3.27E+00	4.75E+00	1.53E+01	U
TG	09	480186002	5/21/2019	Ba-140	6.05E-01	1.80E+01	5.83E+01	U
TG	09	480186002	5/21/2019	Be-7	6.85E+02	8.39E+01	1.02E+02	
TG	09	480186002	5/21/2019	Ce-141	2.35E+00	5.67E+00	1.78E+01	U
TG	09	480186002	5/21/2019	Ce-144	3.95E+01	2.28E+01	6.84E+01	U
TG	09	480186002	5/21/2019	Co-57	5.65E+00	2.98E+00	8.83E+00	U
TG	09	480186002	5/21/2019	Co-58	-2.13E+00	3.80E+00	1.25E+01	U
TG	09	480186002	5/21/2019	Co-60	4.08E+00	4.50E+00	1.51E+01	U
TG	09	480186002	5/21/2019	Cr-51	2.27E+01	3.24E+01	1.09E+02	U
TG	09	480186002	5/21/2019	Cs-134	1.13E+01	6.57E+00	1.54E+01	U
TG	09	480186002	5/21/2019	Cs-137	7.29E+00	4.80E+00	1.17E+01	U
TG	09	480186002	5/21/2019	Fe-59	-1.09E+01	8.63E+00	2.56E+01	U
TG	09	480186002	5/21/2019	I-131	-3.71E+00	6.36E+00	2.05E+01	U
TG	09	480186002	5/21/2019	K-40	4.81E+03	2.82E+02	1.18E+02	
TG	09	480186002	5/21/2019	La-140	-4.85E+00	5.81E+00	1.71E+01	U
TG	09	480186002	5/21/2019	Mn-54	-5.06E-01	3.46E+00	1.16E+01	U
TG	09	480186002	5/21/2019	Nb-95	6.10E+00	4.12E+00	1.39E+01	U
TG	09	480186002	5/21/2019	Ru-103	4.70E+00	4.10E+00	1.22E+01	U
TG	09	480186002	5/21/2019	Ru-106	-1.83E+01	3.71E+01	1.16E+02	U
TG	09	480186002	5/21/2019	Sb-124	6.47E+00	9.27E+00	2.90E+01	U
TG	09	480186002	5/21/2019	Sb-125	6.12E+00	9.29E+00	3.08E+01	U
TG	09	480186002	5/21/2019	Se-75	2.74E+00	4.56E+00	1.54E+01	U
TG	09	480186002	5/21/2019	Th-228	1.34E-01	1.05E+01	2.35E+01	U
TG	09	480186002	5/21/2019	Zn-65	2.00E+01	1.68E+01	3.25E+01	U
TG	09	480186002	5/21/2019	Zr-95	-1.03E+00	7.11E+00	2.24E+01	U
TG	09	482703005	6/18/2019	Ac-228	8.28E+00	4.56E+01	1.36E+02	U
TG	09	482703005	6/18/2019	Ag-108m	3.19E+00	8.07E+00	2.69E+01	U
TG	09	482703005	6/18/2019	Ag-110m	-1.36E+01	1.35E+01	4.05E+01	U
TG	09	482703005	6/18/2019	Ba-140	-4.49E+01	4.96E+01	1.47E+02	U
TG	09	482703005	6/18/2019	Be-7	5.76E+02	1.61E+02	2.67E+02	
TG	09	482703005	6/18/2019	Ce-141	8.54E+00	1.35E+01	3.96E+01	U
TG	09	482703005	6/18/2019	Ce-144	-3.81E+01	4.61E+01	1.37E+02	U
TG	09	482703005	6/18/2019	Co-57	-1.82E+00	5.70E+00	1.77E+01	U

SAMPLE TYPE	STATION	LSN	END DATE	NUCLIDE	CONC (pCi/kg)	STD.DEV. (pCi/kg)	MDC (pCi/kg)	FLAGS
TG	09	482703005	6/18/2019	Co-58	-1.68E+01	1.20E+01	3.49E+01	U
TG	09	482703005	6/18/2019	Co-60	-1.44E+01	1.22E+01	3.36E+01	U
TG	09	482703005	6/18/2019	Cr-51	7.59E+00	7.75E+01	2.59E+02	U
TG	09	482703005	6/18/2019	Cs-134	-1.30E-01	1.03E+01	3.49E+01	U
TG	09	482703005	6/18/2019	Cs-137	1.25E+01	1.14E+01	3.76E+01	U
TG	09	482703005	6/18/2019	Fe-59	8.25E+00	2.09E+01	7.09E+01	U
TG	09	482703005	6/18/2019	I-131	2.16E+01	1.58E+01	5.30E+01	U
TG	09	482703005	6/18/2019	K-40	4.68E+03	4.44E+02	4.82E+02	
TG	09	482703005	6/18/2019	La-140	-6.71E+00	1.49E+01	4.45E+01	U
TG	09	482703005	6/18/2019	Mn-54	-4.55E+00	1.06E+01	3.47E+01	U
TG	09	482703005	6/18/2019	Nb-95	1.65E+01	1.25E+01	4.31E+01	U
TG	09	482703005	6/18/2019	Ru-103	-1.04E+01	1.24E+01	3.28E+01	U
TG	09	482703005	6/18/2019	Ru-106	-1.37E+02	1.04E+02	2.88E+02	U
TG	09	482703005	6/18/2019	Sb-124	-2.24E+01	2.22E+01	6.31E+01	U
TG	09	482703005	6/18/2019	Sb-125	-3.89E+01	3.17E+01	7.71E+01	U
TG	09	482703005	6/18/2019	Se-75	-1.33E+01	1.06E+01	3.23E+01	U
TG	09	482703005	6/18/2019	Th-228	1.52E+01	2.84E+01	4.74E+01	U
TG	09	482703005	6/18/2019	Zn-65	-2.01E+01	2.61E+01	7.98E+01	U
TG	09	482703005	6/18/2019	Zr-95	8.22E+00	1.81E+01	6.26E+01	U
TG	09	485329005	7/17/2019	Ac-228	0.00E+00	4.99E+01	8.26E+01	U
TG	09	485329005	7/17/2019	Ag-108m	6.14E-01	5.22E+00	1.77E+01	U
TG	09	485329005	7/17/2019	Ag-110m	1.78E+01	9.45E+00	3.22E+01	U
TG	09	485329005	7/17/2019	Ba-140	-3.27E+01	3.05E+01	9.06E+01	U
TG	09	485329005	7/17/2019	Be-7	6.50E+02	1.37E+02	1.88E+02	
TG	09	485329005	7/17/2019	Ce-141	-3.01E+01	1.42E+01	2.91E+01	U
TG	09	485329005	7/17/2019	Ce-144	0.00E+00	5.34E+01	1.10E+02	U
TG	09	485329005	7/17/2019	Co-57	1.16E+00	4.33E+00	1.42E+01	U
TG	09	485329005	7/17/2019	Co-58	-2.55E-01	7.15E+00	2.30E+01	U
TG	09	485329005	7/17/2019	Co-60	-2.08E+00	6.62E+00	2.13E+01	U
TG	09	485329005	7/17/2019	Cr-51	2.04E+01	5.89E+01	1.88E+02	U
TG	09	485329005	7/17/2019	Cs-134	4.33E+00	8.60E+00	2.86E+01	U
TG	09	485329005	7/17/2019	Cs-137	-1.87E+00	7.08E+00	2.27E+01	U
TG	09	485329005	7/17/2019	Fe-59	1.04E+01	1.51E+01	4.82E+01	U
TG	09	485329005	7/17/2019	I-131	7.58E+00	9.68E+00	3.37E+01	U
TG	09	485329005	7/17/2019	K-40	5.81E+03	4.57E+02	2.11E+02	
TG	09	485329005	7/17/2019	La-140	-7.20E+00	1.45E+01	3.56E+01	U
TG	09	485329005	7/17/2019	Mn-54	5.48E+00	6.51E+00	2.20E+01	U
TG	09	485329005	7/17/2019	Nb-95	6.29E+00	6.24E+00	2.14E+01	U
TG	09	485329005	7/17/2019	Ru-103	4.98E+00	6.37E+00	2.19E+01	U
TG	09	485329005	7/17/2019	Ru-106	2.07E+01	6.51E+01	1.97E+02	U
TG	09	485329005	7/17/2019	Sb-124	4.22E+00	1.49E+01	5.06E+01	U
TG	09	485329005	7/17/2019	Sb-125	3.00E+01	2.39E+01	6.13E+01	U
TG	09	485329005	7/17/2019	Se-75	-1.13E+01	8.68E+00	2.37E+01	U
TG	09	485329005	7/17/2019	Th-228	3.36E+00	1.66E+01	4.52E+01	U
TG	09	485329005	7/17/2019	Zn-65	1.71E+01	1.45E+01	5.19E+01	U
TG	09	485329005	7/17/2019	Zr-95	7.93E+00	1.15E+01	3.89E+01	U
TG	09	487951005	8/13/2019	Ac-228	-6.45E+01	4.18E+01	8.23E+01	U
TG	09	487951005	8/13/2019	Ag-108m	-6.28E+00	5.00E+00	1.51E+01	U
TG	09	487951005	8/13/2019	Ag-110m	-2.96E+00	8.15E+00	2.51E+01	U

Seabrook REMP Summary of 2019 Data

SAMPLE TYPE	STATION	LSN	END DATE	NUCLIDE	CONC (pCi/kg)	STD.DEV. (pCi/kg)	MDC (pCi/kg)	FLAGS
TG	09	487951005	8/13/2019	Ba-140	-1.30E+01	2.77E+01	8.88E+01	U
TG	09	487951005	8/13/2019	Be-7	8.35E+02	1.12E+02	1.39E+02	
TG	09	487951005	8/13/2019	Ce-141	1.22E+01	8.77E+00	2.13E+01	U
TG	09	487951005	8/13/2019	Ce-144	1.50E+01	2.48E+01	8.12E+01	U
TG	09	487951005	8/13/2019	Co-57	4.13E+00	3.34E+00	1.08E+01	U
TG	09	487951005	8/13/2019	Co-58	-1.74E+00	6.43E+00	2.02E+01	U
TG	09	487951005	8/13/2019	Co-60	1.59E+01	1.92E+01	2.33E+01	U
TG	09	487951005	8/13/2019	Cr-51	9.96E+00	4.59E+01	1.57E+02	U
TG	09	487951005	8/13/2019	Cs-134	-6.78E+00	6.98E+00	2.04E+01	U
TG	09	487951005	8/13/2019	Cs-137	1.12E+01	7.55E+00	2.46E+01	U
TG	09	487951005	8/13/2019	Fe-59	7.17E+00	1.23E+01	4.24E+01	U
TG	09	487951005	8/13/2019	I-131	1.50E+01	9.25E+00	3.08E+01	U
TG	09	487951005	8/13/2019	K-40	4.52E+03	3.36E+02	1.84E+02	
TG	09	487951005	8/13/2019	La-140	-5.61E+00	1.01E+01	3.07E+01	U
TG	09	487951005	8/13/2019	Mn-54	3.72E+00	5.82E+00	1.91E+01	U
TG	09	487951005	8/13/2019	Nb-95	-3.34E+00	6.16E+00	1.90E+01	U
TG	09	487951005	8/13/2019	Ru-103	-9.05E-02	5.86E+00	1.94E+01	U
TG	09	487951005	8/13/2019	Ru-106	6.94E+01	5.69E+01	1.88E+02	U
TG	09	487951005	8/13/2019	Sb-124	1.16E+00	1.15E+01	3.75E+01	U
TG	09	487951005	8/13/2019	Sb-125	1.35E+01	1.49E+01	5.06E+01	U
TG	09	487951005	8/13/2019	Se-75	-1.56E+00	6.72E+00	2.07E+01	U
TG	09	487951005	8/13/2019	Th-228	2.31E-01	1.36E+01	3.28E+01	U
TG	09	487951005	8/13/2019	Zn-65	1.48E+01	1.34E+01	4.63E+01	U
TG	09	487951005	8/13/2019	Zr-95	2.26E+01	1.25E+01	4.02E+01	U
TG	09	490029002	9/10/2019	Ac-228	8.19E+01	7.57E+01	9.44E+01	U
TG	09	490029002	9/10/2019	Ag-108m	-1.65E+01	7.01E+00	1.78E+01	U
TG	09	490029002	9/10/2019	Ag-110m	-1.39E-01	1.17E+01	3.72E+01	U
TG	09	490029002	9/10/2019	Ba-140	2.34E+01	3.80E+01	1.27E+02	U
TG	09	490029002	9/10/2019	Be-7	1.17E+03	1.41E+02	2.08E+02	
TG	09	490029002	9/10/2019	Ce-141	1.90E+01	1.95E+01	3.17E+01	U
TG	09	490029002	9/10/2019	Ce-144	-5.41E+01	3.68E+01	1.08E+02	U
TG	09	490029002	9/10/2019	Co-57	6.19E+00	4.21E+00	1.34E+01	U
TG	09	490029002	9/10/2019	Co-58	-3.57E+00	8.04E+00	2.50E+01	U
TG	09	490029002	9/10/2019	Co-60	4.47E+00	9.16E+00	3.08E+01	U
TG	09	490029002	9/10/2019	Cr-51	1.15E+02	7.16E+01	1.98E+02	U
TG	09	490029002	9/10/2019	Cs-134	3.55E+00	8.66E+00	2.81E+01	U
TG	09	490029002	9/10/2019	Cs-137	-8.46E+00	8.94E+00	2.73E+01	U
TG	09	490029002	9/10/2019	Fe-59	-1.67E+01	1.64E+01	5.07E+01	U
TG	09	490029002	9/10/2019	I-131	7.91E+00	1.22E+01	4.14E+01	U
TG	09	490029002	9/10/2019	K-40	3.93E+03	3.24E+02	2.62E+02	
TG	09	490029002	9/10/2019	La-140	1.48E+01	1.37E+01	4.60E+01	U
TG	09	490029002	9/10/2019	Mn-54	-3.73E+00	8.52E+00	2.65E+01	U
TG	09	490029002	9/10/2019	Nb-95	-3.83E+00	9.34E+00	2.59E+01	U
TG	09	490029002	9/10/2019	Ru-103	-3.34E+00	7.44E+00	2.41E+01	U
TG	09	490029002	9/10/2019	Ru-106	7.11E+00	7.39E+01	2.42E+02	U
TG	09	490029002	9/10/2019	Sb-124	-3.02E+01	1.85E+01	4.69E+01	U
TG	09	490029002	9/10/2019	Sb-125	3.44E+01	2.55E+01	6.58E+01	U
TG	09	490029002	9/10/2019	Se-75	2.09E+00	8.72E+00	2.73E+01	U
TG	09	490029002	9/10/2019	Th-228	2.08E+00	2.06E+01	4.61E+01	U
TG	09	490029002	9/10/2019	Zn-65	-3.77E+00	1.75E+01	5.59E+01	U

Seabrook REMP Summary of 2019 Data

SAMPLE TYPE	STATION	LSN	END DATE	NUCLIDE	CONC (pCi/kg)	STD.DEV. (pCi/kg)	MDC (pCi/kg)	FLAGS
TG	09	490029002	9/10/2019	Zr-95	-5.23E+00	1.54E+01	4.86E+01	U
TG	09	492910002	10/8/2019	Ac-228	1.96E+01	3.32E+01	1.19E+02	U
TG	09	492910002	10/8/2019	Ag-108m	8.39E-01	5.78E+00	1.94E+01	U
TG	09	492910002	10/8/2019	Ag-110m	-5.95E+00	7.28E+00	2.15E+01	U
TG	09	492910002	10/8/2019	Ba-140	-1.14E+01	3.53E+01	1.12E+02	U
TG	09	492910002	10/8/2019	Be-7	5.34E+02	1.27E+02	1.65E+02	
TG	09	492910002	10/8/2019	Ce-141	0.00E+00	2.47E+01	3.37E+01	U
TG	09	492910002	10/8/2019	Ce-144	4.22E+01	4.17E+01	1.37E+02	U
TG	09	492910002	10/8/2019	Co-57	3.76E+00	5.36E+00	1.76E+01	U
TG	09	492910002	10/8/2019	Co-58	-2.14E+00	8.25E+00	2.51E+01	U
TG	09	492910002	10/8/2019	Co-60	1.77E+00	9.11E+00	3.03E+01	U
TG	09	492910002	10/8/2019	Cr-51	1.84E+02	7.61E+01	2.44E+02	U
TG	09	492910002	10/8/2019	Cs-134	1.42E+00	1.01E+01	3.07E+01	U
TG	09	492910002	10/8/2019	Cs-137	-4.71E-01	8.19E+00	2.62E+01	U
TG	09	492910002	10/8/2019	Fe-59	-1.06E+01	1.55E+01	4.70E+01	U
TG	09	492910002	10/8/2019	I-131	-6.02E-01	1.22E+01	4.07E+01	U
TG	09	492910002	10/8/2019	K-40	6.04E+03	4.66E+02	2.38E+02	
TG	09	492910002	10/8/2019	La-140	-2.22E+01	1.71E+01	4.45E+01	U
TG	09	492910002	10/8/2019	Mn-54	-1.67E+00	7.44E+00	2.47E+01	U
TG	09	492910002	10/8/2019	Nb-95	8.74E+00	7.88E+00	2.67E+01	U
TG	09	492910002	10/8/2019	Ru-103	6.94E-03	7.16E+00	2.35E+01	U
TG	09	492910002	10/8/2019	Ru-106	7.03E+01	5.80E+01	2.01E+02	U
TG	09	492910002	10/8/2019	Sb-124	-1.27E+01	1.68E+01	4.90E+01	U
TG	09	492910002	10/8/2019	Sb-125	-2.14E+01	1.78E+01	5.13E+01	U
TG	09	492910002	10/8/2019	Se-75	-6.79E+00	8.25E+00	2.65E+01	U
TG	09	492910002	10/8/2019	Th-228	3.02E+01	2.74E+01	4.87E+01	U
TG	09	492910002	10/8/2019	Zn-65	1.90E+01	1.60E+01	5.73E+01	U
TG	09	492910002	10/8/2019	Zr-95	-3.73E-01	1.62E+01	4.56E+01	U
TG	10	480186003	5/21/2019	Ac-228	7.68E+00	3.67E+01	9.71E+01	U
TG	10	480186003	5/21/2019	Ag-108m	1.89E+00	4.30E+00	1.43E+01	U
TG	10	480186003	5/21/2019	Ag-110m	-2.20E+00	7.73E+00	2.35E+01	U
TG	10	480186003	5/21/2019	Ba-140	1.30E+01	2.69E+01	8.80E+01	U
TG	10	480186003	5/21/2019	Be-7	1.04E+03	1.22E+02	1.56E+02	
TG	10	480186003	5/21/2019	Ce-141	2.71E+00	1.55E+01	2.12E+01	U
TG	10	480186003	5/21/2019	Ce-144	4.13E+00	2.66E+01	8.60E+01	U
TG	10	480186003	5/21/2019	Co-57	5.55E+00	3.72E+00	1.18E+01	U
TG	10	480186003	5/21/2019	Co-58	9.04E+00	5.64E+00	1.87E+01	U
TG	10	480186003	5/21/2019	Co-60	6.49E+00	5.83E+00	1.93E+01	U
TG	10	480186003	5/21/2019	Cr-51	4.84E+01	4.53E+01	1.52E+02	U
TG	10	480186003	5/21/2019	Cs-134	3.75E+00	5.98E+00	2.03E+01	U
TG	10	480186003	5/21/2019	Cs-137	1.23E+02	1.31E+01	1.80E+01	
TG	10	480186003	5/21/2019	Fe-59	1.06E+01	1.14E+01	3.81E+01	U
TG	10	480186003	5/21/2019	I-131	4.03E+00	8.95E+00	3.01E+01	U
TG	10	480186003	5/21/2019	K-40	3.23E+03	2.49E+02	1.71E+02	
TG	10	480186003	5/21/2019	La-140	-2.49E+00	8.92E+00	2.92E+01	U
TG	10	480186003	5/21/2019	Mn-54	5.57E+00	5.20E+00	1.76E+01	U
TG	10	480186003	5/21/2019	Nb-95	7.65E+00	6.97E+00	1.83E+01	U
TG	10	480186003	5/21/2019	Ru-103	-1.01E+00	5.58E+00	1.81E+01	U

SAMPLE TYPE	STATION	LSN	END DATE	NUCLIDE	CONC (pCi/kg)	STD.DEV. (pCi/kg)	MDC (pCi/kg)	FLAGS
TG	10	480186003	5/21/2019	Ru-106	1.64E+01	4.93E+01	1.59E+02	U
TG	10	480186003	5/21/2019	Sb-124	1.03E+01	1.15E+01	3.98E+01	U
TG	10	480186003	5/21/2019	Sb-125	3.03E+00	1.30E+01	4.30E+01	U
TG	10	480186003	5/21/2019	Se-75	-3.24E+00	6.62E+00	1.99E+01	U
TG	10	480186003	5/21/2019	Th-228	4.13E+00	1.66E+01	3.43E+01	U
TG	10	480186003	5/21/2019	Zn-65	-2.33E+01	1.98E+01	3.97E+01	U
TG	10	480186003	5/21/2019	Zr-95	-1.04E+01	9.44E+00	2.94E+01	U
TG	10	482703006	6/18/2019	Ac-228	-2.90E+01	5.67E+01	1.80E+02	U
TG	10	482703006	6/18/2019	Ag-108m	-2.15E+01	1.07E+01	2.44E+01	U
TG	10	482703006	6/18/2019	Ag-110m	-3.03E+00	1.45E+01	4.64E+01	U
TG	10	482703006	6/18/2019	Ba-140	-2.77E+01	5.31E+01	1.60E+02	U
TG	10	482703006	6/18/2019	Be-7	6.59E+02	1.80E+02	2.93E+02	
TG	10	482703006	6/18/2019	Ce-141	-1.15E+01	1.58E+01	4.82E+01	U
TG	10	482703006	6/18/2019	Ce-144	3.86E+01	4.83E+01	1.64E+02	U
TG	10	482703006	6/18/2019	Co-57	1.42E+01	1.47E+01	2.50E+01	U
TG	10	482703006	6/18/2019	Co-58	1.70E+01	1.45E+01	5.07E+01	U
TG	10	482703006	6/18/2019	Co-60	1.72E+01	1.24E+01	4.68E+01	U
TG	10	482703006	6/18/2019	Cr-51	-1.20E+02	1.13E+02	2.98E+02	U
TG	10	482703006	6/18/2019	Cs-134	-1.39E+01	1.55E+01	4.62E+01	U
TG	10	482703006	6/18/2019	Cs-137	3.09E+00	1.09E+01	3.76E+01	U
TG	10	482703006	6/18/2019	Fe-59	-1.20E+01	2.48E+01	7.35E+01	U
TG	10	482703006	6/18/2019	I-131	-2.42E+01	1.88E+01	5.32E+01	U
TG	10	482703006	6/18/2019	K-40	4.23E+03	4.95E+02	5.41E+02	
TG	10	482703006	6/18/2019	La-140	3.62E+01	2.38E+01	8.87E+01	U
TG	10	482703006	6/18/2019	Mn-54	-1.10E+01	1.26E+01	3.71E+01	U
TG	10	482703006	6/18/2019	Nb-95	3.57E+01	1.58E+01	5.21E+01	U
TG	10	482703006	6/18/2019	Ru-103	2.30E+00	1.11E+01	3.63E+01	U
TG	10	482703006	6/18/2019	Ru-106	1.03E+02	1.07E+02	3.80E+02	U
TG	10	482703006	6/18/2019	Sb-124	2.17E+01	3.31E+01	1.17E+02	U
TG	10	482703006	6/18/2019	Sb-125	-2.34E+01	2.77E+01	8.20E+01	U
TG	10	482703006	6/18/2019	Se-75	4.36E+00	1.26E+01	4.37E+01	U
TG	10	482703006	6/18/2019	Th-228	-2.54E+01	2.08E+01	6.59E+01	U
TG	10	482703006	6/18/2019	Zn-65	5.68E+01	3.14E+01	1.11E+02	U
TG	10	482703006	6/18/2019	Zr-95	3.18E+01	2.73E+01	8.77E+01	U
TG	10	485329006	7/17/2019	Ac-228	1.02E+02	3.27E+01	4.34E+01	
TG	10	485329006	7/17/2019	Ag-108m	3.63E+00	2.66E+00	9.18E+00	U
TG	10	485329006	7/17/2019	Ag-110m	0.00E+00	1.05E+01	1.44E+01	U
TG	10	485329006	7/17/2019	Ba-140	1.23E+01	1.41E+01	4.89E+01	U
TG	10	485329006	7/17/2019	Be-7	7.16E+02	7.70E+01	7.52E+01	
TG	10	485329006	7/17/2019	Ce-141	-8.75E+00	5.20E+00	1.43E+01	U
TG	10	485329006	7/17/2019	Ce-144	1.53E+01	1.67E+01	5.48E+01	U
TG	10	485329006	7/17/2019	Co-57	-2.86E+00	2.29E+00	6.73E+00	U
TG	10	485329006	7/17/2019	Co-58	-3.71E+00	3.78E+00	1.11E+01	U
TG	10	485329006	7/17/2019	Co-60	4.87E+00	3.89E+00	1.39E+01	U
TG	10	485329006	7/17/2019	Cr-51	-1.11E+01	2.82E+01	8.51E+01	U
TG	10	485329006	7/17/2019	Cs-134	-9.34E-01	4.08E+00	1.31E+01	U
TG	10	485329006	7/17/2019	Cs-137	4.11E+00	3.33E+00	1.14E+01	U
TG	10	485329006	7/17/2019	Fe-59	-9.58E+00	9.17E+00	2.18E+01	U

Seabrook REMP Summary of 2019 Data

SAMPLE TYPE	STATION	LSN	END DATE	NUCLIDE	CONC (pCi/kg)	STD.DEV. (pCi/kg)	MDC (pCi/kg)	FLAGS
TG	10	485329006	7/17/2019	I-131	-1.67E+00	4.22E+00	1.40E+01	U
TG	10	485329006	7/17/2019	K-40	4.63E+03	3.00E+02	8.46E+01	
TG	10	485329006	7/17/2019	La-140	1.53E+00	4.96E+00	1.71E+01	U
TG	10	485329006	7/17/2019	Mn-54	7.72E-01	3.68E+00	1.21E+01	U
TG	10	485329006	7/17/2019	Nb-95	-1.74E-01	3.22E+00	1.05E+01	U
TG	10	485329006	7/17/2019	Ru-103	-1.29E+00	2.94E+00	9.56E+00	U
TG	10	485329006	7/17/2019	Ru-106	-3.75E+01	2.98E+01	8.59E+01	U
TG	10	485329006	7/17/2019	Sb-124	-6.06E+00	6.79E+00	1.90E+01	U
TG	10	485329006	7/17/2019	Sb-125	5.30E+00	7.65E+00	2.65E+01	U
TG	10	485329006	7/17/2019	Se-75	-1.84E+00	3.86E+00	1.17E+01	U
TG	10	485329006	7/17/2019	Th-228	4.50E+00	9.10E+00	1.59E+01	U
TG	10	485329006	7/17/2019	Zn-65	5.43E+00	1.02E+01	3.04E+01	U
TG	10	485329006	7/17/2019	Zr-95	-5.61E+00	6.11E+00	1.81E+01	U
TG	10	487951006	8/13/2019	Ac-228	3.62E+01	2.73E+01	7.82E+01	U
TG	10	487951006	8/13/2019	Ag-108m	2.44E+00	4.73E+00	1.15E+01	U
TG	10	487951006	8/13/2019	Ag-110m	-2.27E+00	5.61E+00	1.79E+01	U
TG	10	487951006	8/13/2019	Ba-140	-5.51E+00	1.88E+01	5.91E+01	U
TG	10	487951006	8/13/2019	Be-7	1.36E+03	1.14E+02	1.04E+02	
TG	10	487951006	8/13/2019	Ce-141	7.23E-01	8.96E+00	1.47E+01	U
TG	10	487951006	8/13/2019	Ce-144	-1.77E+01	2.08E+01	5.92E+01	U
TG	10	487951006	8/13/2019	Co-57	-1.30E+00	2.57E+00	8.25E+00	U
TG	10	487951006	8/13/2019	Co-58	5.92E+00	4.41E+00	1.49E+01	U
TG	10	487951006	8/13/2019	Co-60	2.11E+01	7.90E+00	2.41E+01	U
TG	10	487951006	8/13/2019	Cr-51	1.44E+01	3.52E+01	1.19E+02	U
TG	10	487951006	8/13/2019	Cs-134	9.75E+00	5.41E+00	1.86E+01	U
TG	10	487951006	8/13/2019	Cs-137	-2.15E+00	4.14E+00	1.35E+01	U
TG	10	487951006	8/13/2019	Fe-59	-1.72E+00	1.07E+01	3.39E+01	U
TG	10	487951006	8/13/2019	I-131	4.68E+00	6.74E+00	2.27E+01	U
TG	10	487951006	8/13/2019	K-40	4.38E+03	3.10E+02	1.07E+02	
TG	10	487951006	8/13/2019	La-140	-1.62E+01	1.07E+01	2.55E+01	U
TG	10	487951006	8/13/2019	Mn-54	-5.34E+00	4.63E+00	1.37E+01	U
TG	10	487951006	8/13/2019	Nb-95	2.14E+00	4.48E+00	1.52E+01	U
TG	10	487951006	8/13/2019	Ru-103	-1.34E+00	4.02E+00	1.27E+01	U
TG	10	487951006	8/13/2019	Ru-106	3.96E+01	3.73E+01	1.29E+02	U
TG	10	487951006	8/13/2019	Sb-124	7.63E+00	8.75E+00	3.06E+01	U
TG	10	487951006	8/13/2019	Sb-125	-2.22E+00	1.02E+01	3.30E+01	U
TG	10	487951006	8/13/2019	Se-75	-7.17E-01	4.75E+00	1.61E+01	U
TG	10	487951006	8/13/2019	Th-228	-1.70E+00	8.56E+00	2.47E+01	U
TG	10	487951006	8/13/2019	Zn-65	-8.62E+00	1.19E+01	3.57E+01	U
TG	10	487951006	8/13/2019	Zr-95	8.26E+00	7.36E+00	2.29E+01	U
TG	10	490029003	9/10/2019	Ac-228	8.19E+00	5.05E+01	8.29E+01	U
TG	10	490029003	9/10/2019	Ag-108m	1.57E+00	4.21E+00	1.39E+01	U
TG	10	490029003	9/10/2019	Ag-110m	-1.63E+00	7.69E+00	2.57E+01	U
TG	10	490029003	9/10/2019	Ba-140	5.59E+01	4.23E+01	1.36E+02	U
TG	10	490029003	9/10/2019	Be-7	1.38E+03	1.29E+02	1.57E+02	
TG	10	490029003	9/10/2019	Ce-141	-1.17E+01	9.79E+00	2.83E+01	U
TG	10	490029003	9/10/2019	Ce-144	-1.93E+01	2.83E+01	9.52E+01	U
TG	10	490029003	9/10/2019	Co-57	6.31E+00	5.09E+00	1.18E+01	U
TG	10	490029003	9/10/2019	Co-58	3.75E+00	5.84E+00	1.87E+01	U

Seabrook REMP Summary of 2019 Data

SAMPLE TYPE	STATION	LSN	END DATE	NUCLIDE	CONC (pCi/kg)	STD.DEV. (pCi/kg)	MDC (pCi/kg)	FLAGS
TG	10	490029003	9/10/2019	Co-60	7.74E+00	5.94E+00	1.97E+01	U
TG	10	490029003	9/10/2019	Cr-51	7.80E+01	5.56E+01	1.81E+02	U
TG	10	490029003	9/10/2019	Cs-134	3.40E+00	5.96E+00	2.04E+01	U
TG	10	490029003	9/10/2019	Cs-137	1.43E+01	1.03E+01	2.08E+01	U
TG	10	490029003	9/10/2019	Fe-59	-2.27E+01	1.43E+01	3.50E+01	U
TG	10	490029003	9/10/2019	I-131	2.46E+01	1.80E+01	5.82E+01	U
TG	10	490029003	9/10/2019	K-40	3.80E+03	2.65E+02	1.68E+02	
TG	10	490029003	9/10/2019	La-140	-2.39E+01	1.44E+01	3.86E+01	U
TG	10	490029003	9/10/2019	Mn-54	-1.27E+00	5.24E+00	1.76E+01	U
TG	10	490029003	9/10/2019	Nb-95	9.10E+00	6.62E+00	2.09E+01	U
TG	10	490029003	9/10/2019	Ru-103	-7.97E+00	6.36E+00	1.90E+01	U
TG	10	490029003	9/10/2019	Ru-106	-1.80E+01	4.98E+01	1.57E+02	U
TG	10	490029003	9/10/2019	Sb-124	2.90E+00	1.21E+01	3.96E+01	U
TG	10	490029003	9/10/2019	Sb-125	3.70E+00	1.50E+01	4.42E+01	U
TG	10	490029003	9/10/2019	Se-75	6.55E+00	6.41E+00	2.13E+01	U
TG	10	490029003	9/10/2019	Th-228	1.57E+00	1.70E+01	2.72E+01	U
TG	10	490029003	9/10/2019	Zn-65	-8.87E+00	1.16E+01	3.53E+01	U
TG	10	490029003	9/10/2019	Zr-95	-1.01E+01	1.10E+01	3.28E+01	U
TG	10	492910003	10/8/2019	Ac-228	5.94E+01	5.05E+01	1.28E+02	U
TG	10	492910003	10/8/2019	Ag-108m	-1.11E+01	1.00E+01	2.56E+01	U
TG	10	492910003	10/8/2019	Ag-110m	1.87E+01	1.27E+01	4.31E+01	U
TG	10	492910003	10/8/2019	Ba-140	-1.34E+02	6.68E+01	1.19E+02	U
TG	10	492910003	10/8/2019	Be-7	1.43E+03	1.86E+02	2.29E+02	
TG	10	492910003	10/8/2019	Ce-141	-1.70E+01	1.24E+01	3.87E+01	U
TG	10	492910003	10/8/2019	Ce-144	-2.98E+01	4.78E+01	1.44E+02	U
TG	10	492910003	10/8/2019	Co-57	-5.33E+00	5.93E+00	1.75E+01	U
TG	10	492910003	10/8/2019	Co-58	6.85E+00	8.89E+00	2.76E+01	U
TG	10	492910003	10/8/2019	Co-60	-4.43E-01	7.70E+00	2.49E+01	U
TG	10	492910003	10/8/2019	Cr-51	-6.86E+00	7.45E+01	2.46E+02	U
TG	10	492910003	10/8/2019	Cs-134	8.94E+00	1.11E+01	3.57E+01	U
TG	10	492910003	10/8/2019	Cs-137	2.80E+00	8.64E+00	2.79E+01	U
TG	10	492910003	10/8/2019	Fe-59	3.34E+01	1.89E+01	6.38E+01	U
TG	10	492910003	10/8/2019	I-131	2.62E+01	1.73E+01	5.65E+01	U
TG	10	492910003	10/8/2019	K-40	4.13E+03	3.53E+02	2.57E+02	
TG	10	492910003	10/8/2019	La-140	9.29E+00	1.26E+01	4.30E+01	U
TG	10	492910003	10/8/2019	Mn-54	-5.38E+00	8.87E+00	2.86E+01	U
TG	10	492910003	10/8/2019	Nb-95	1.97E+01	9.94E+00	3.28E+01	U
TG	10	492910003	10/8/2019	Ru-103	4.64E+00	9.21E+00	3.03E+01	U
TG	10	492910003	10/8/2019	Ru-106	4.80E+01	7.87E+01	2.57E+02	U
TG	10	492910003	10/8/2019	Sb-124	-9.58E+00	1.73E+01	5.44E+01	U
TG	10	492910003	10/8/2019	Sb-125	-1.75E+00	1.98E+01	6.45E+01	U
TG	10	492910003	10/8/2019	Se-75	-5.31E+00	1.07E+01	3.34E+01	U
TG	10	492910003	10/8/2019	Th-228	4.68E+01	2.51E+01	5.55E+01	U
TG	10	492910003	10/8/2019	Zn-65	1.18E+00	1.86E+01	6.16E+01	U
TG	10	492910003	10/8/2019	Zr-95	-7.51E+00	1.56E+01	5.13E+01	U

Seabrook REMP Summary of 2019 Data

SAMPLE TYPE	STATION	LSN	END DATE	NUCLIDE	CONC (pCi/kg)	STD.DEV. (pCi/kg)	MDC (pCi/kg)	FLAGS
TM	15	469281001	1/16/2019	Ac-228	0.00E+00	5.18E+00	8.60E+00	U
TM	15	469281001	1/16/2019	Ag-108m	-4.08E-01	4.45E-01	1.42E+00	U
TM	15	469281001	1/16/2019	Ag-110m	-9.53E-01	7.91E-01	2.30E+00	U
TM	15	469281001	1/16/2019	Ba-140	1.54E+00	2.63E+00	8.76E+00	U
TM	15	469281001	1/16/2019	Be-7	1.30E-01	4.49E+00	1.50E+01	U
TM	15	469281001	1/16/2019	Ce-141	1.96E+00	1.09E+00	3.07E+00	U
TM	15	469281001	1/16/2019	Ce-144	1.47E+00	3.65E+00	1.18E+01	U
TM	15	469281001	1/16/2019	Co-57	-3.88E-01	4.88E-01	1.53E+00	U
TM	15	469281001	1/16/2019	Co-58	-5.38E-01	5.59E-01	1.68E+00	U
TM	15	469281001	1/16/2019	Co-60	1.26E+00	7.19E-01	2.12E+00	U
TM	15	469281001	1/16/2019	Cr-51	4.61E+00	4.96E+00	1.68E+01	U
TM	15	469281001	1/16/2019	Cs-134	1.34E+00	6.76E-01	2.08E+00	U
TM	15	469281001	1/16/2019	Cs-137	0.00E+00	8.18E-01	1.83E+00	U
TM	15	469281001	1/16/2019	Fe-59	-1.05E+00	1.30E+00	4.18E+00	U
TM	15	469281001	1/16/2019	K-40	1.77E+03	1.00E+02	1.70E+01	
TM	15	469281001	1/16/2019	La-140	-5.91E-01	8.36E-01	2.59E+00	U
TM	15	469281001	1/16/2019	Mn-54	3.74E-01	5.65E-01	1.83E+00	U
TM	15	469281001	1/16/2019	Nb-95	-1.07E+00	9.13E-01	1.93E+00	U
TM	15	469281001	1/16/2019	Ru-103	2.76E-01	5.70E-01	1.91E+00	U
TM	15	469281001	1/16/2019	Ru-106	3.21E+00	4.68E+00	1.55E+01	U
TM	15	469281001	1/16/2019	Sb-124	9.87E-01	1.12E+00	3.78E+00	U
TM	15	469281001	1/16/2019	Sb-125	3.29E-01	1.35E+00	4.56E+00	U
TM	15	469281001	1/16/2019	Se-75	-2.10E-01	7.04E-01	2.40E+00	U
TM	15	469281001	1/16/2019	Th-228	1.35E-01	2.03E+00	3.90E+00	U
TM	15	469281001	1/16/2019	Zn-65	9.37E-02	1.57E+00	4.69E+00	U
TM	15	469281001	1/16/2019	Zr-95	-1.19E+00	1.01E+00	2.98E+00	U
TM	15	471370001	2/11/2019	Ac-228	-7.94E+00	4.03E+00	7.22E+00	U
TM	15	471370001	2/11/2019	Ag-108m	6.28E-02	4.28E-01	1.42E+00	U
TM	15	471370001	2/11/2019	Ag-110m	-9.10E-03	6.79E-01	2.28E+00	U
TM	15	471370001	2/11/2019	Ba-140	3.31E+00	2.90E+00	9.41E+00	U
TM	15	471370001	2/11/2019	Be-7	-4.03E-01	5.88E+00	1.36E+01	U
TM	15	471370001	2/11/2019	Ce-141	-6.92E-01	1.01E+00	3.12E+00	U
TM	15	471370001	2/11/2019	Ce-144	3.14E-01	3.48E+00	1.12E+01	U
TM	15	471370001	2/11/2019	Co-57	3.03E-01	4.55E-01	1.46E+00	U
TM	15	471370001	2/11/2019	Co-58	1.64E-01	5.28E-01	1.80E+00	U
TM	15	471370001	2/11/2019	Co-60	9.57E-01	6.30E-01	2.05E+00	U
TM	15	471370001	2/11/2019	Cr-51	7.61E+00	5.31E+00	1.74E+01	U
TM	15	471370001	2/11/2019	Cs-134	1.94E-01	4.98E-01	1.70E+00	U
TM	15	471370001	2/11/2019	Cs-137	5.82E+00	1.03E+00	1.71E+00	M
TM	15	471370001	2/11/2019	Fe-59	1.56E+00	1.56E+00	4.18E+00	U
TM	15	471370001	2/11/2019	K-40	1.45E+03	8.19E+01	1.74E+01	
TM	15	471370001	2/11/2019	La-140	-3.99E-01	9.55E-01	2.55E+00	U
TM	15	471370001	2/11/2019	Mn-54	4.28E-01	4.84E-01	1.65E+00	U
TM	15	471370001	2/11/2019	Nb-95	2.04E-01	5.13E-01	1.76E+00	U
TM	15	471370001	2/11/2019	Ru-103	-2.74E-01	5.44E-01	1.54E+00	U
TM	15	471370001	2/11/2019	Ru-106	8.43E-02	4.34E+00	1.40E+01	U
TM	15	471370001	2/11/2019	Sb-124	-7.51E-01	9.67E-01	3.04E+00	U
TM	15	471370001	2/11/2019	Sb-125	-4.87E-01	1.36E+00	4.45E+00	U
TM	15	471370001	2/11/2019	Se-75	-8.43E-01	7.10E-01	2.27E+00	U
TM	15	471370001	2/11/2019	Th-228	-2.49E+00	1.83E+00	3.60E+00	U

Seabrook REMP Summary of 2019 Data

SAMPLE TYPE	STATION	LSN	END DATE	NUCLIDE	CONC (pCi/kg)	STD.DEV. (pCi/kg)	MDC (pCi/kg)	FLAGS
TM	15	471370001	2/11/2019	Zn-65	2.11E+00	1.58E+00	4.62E+00	U
TM	15	471370001	2/11/2019	Zr-95	5.92E-01	9.19E-01	3.15E+00	U
TM	15	473847001	3/13/2019	Ac-228	3.59E+00	4.77E+00	8.23E+00	U
TM	15	473847001	3/13/2019	Ag-108m	7.83E-01	4.52E-01	1.43E+00	U
TM	15	473847001	3/13/2019	Ag-110m	1.14E-01	7.50E-01	2.41E+00	U
TM	15	473847001	3/13/2019	Ba-140	6.28E+00	4.91E+00	1.59E+01	U DL
TM	15	473847001	3/13/2019	Be-7	-2.74E+00	4.82E+00	1.55E+01	U
TM	15	473847001	3/13/2019	Bi-214	3.39E+00	2.36E+00	3.88E+00	U
TM	15	473847001	3/13/2019	Ce-141	2.67E+00	2.55E+00	3.70E+00	U
TM	15	473847001	3/13/2019	Ce-144	5.07E+00	3.72E+00	1.23E+01	U
TM	15	473847001	3/13/2019	Co-57	-3.55E-01	4.65E-01	1.56E+00	U
TM	15	473847001	3/13/2019	Co-58	-3.82E-01	6.02E-01	1.88E+00	U
TM	15	473847001	3/13/2019	Co-60	1.16E+00	7.42E-01	1.96E+00	U
TM	15	473847001	3/13/2019	Cr-51	-5.18E+00	6.51E+00	2.11E+01	U
TM	15	473847001	3/13/2019	Cs-134	-1.75E-01	5.49E-01	1.74E+00	U
TM	15	473847001	3/13/2019	Cs-137	4.13E+00	1.06E+00	1.71E+00	M
TM	15	473847001	3/13/2019	Fe-59	2.09E+00	1.56E+00	5.21E+00	U
TM	15	473847001	3/13/2019	I-131	-2.46E-01	2.39E-01	7.71E-01	U
TM	15	473847001	3/13/2019	K-40	1.41E+03	7.65E+01	1.68E+01	
TM	15	473847001	3/13/2019	La-140	3.62E-01	1.47E+00	4.95E+00	U
TM	15	473847001	3/13/2019	Mn-54	-2.12E-01	5.18E-01	1.63E+00	U
TM	15	473847001	3/13/2019	Nb-95	6.60E-01	8.42E-01	2.06E+00	U
TM	15	473847001	3/13/2019	Pb-212	-2.07E+00	2.04E+00	3.68E+00	U
TM	15	473847001	3/13/2019	Pb-214	-4.28E+00	2.20E+00	3.83E+00	U
TM	15	473847001	3/13/2019	Ru-103	-1.65E-01	6.64E-01	1.93E+00	U
TM	15	473847001	3/13/2019	Ru-106	3.47E+00	4.75E+00	1.49E+01	U
TM	15	473847001	3/13/2019	Sb-124	2.27E+00	1.34E+00	4.47E+00	U
TM	15	473847001	3/13/2019	Sb-125	1.03E-01	1.29E+00	4.26E+00	U
TM	15	473847001	3/13/2019	Se-75	9.31E-03	7.20E-01	2.43E+00	U
TM	15	473847001	3/13/2019	Th-228	-2.07E+00	2.04E+00	3.68E+00	U
TM	15	473847001	3/13/2019	Zn-65	1.05E+00	1.25E+00	4.28E+00	U
TM	15	473847001	3/13/2019	Zr-95	-1.71E-01	1.06E+00	3.40E+00	U
TM	15	476463001	4/10/2019	Ac-228	5.49E+00	2.69E+00	8.47E+00	U
TM	15	476463001	4/10/2019	Ag-108m	2.64E-02	4.84E-01	1.62E+00	U
TM	15	476463001	4/10/2019	Ag-110m	3.42E-01	7.96E-01	2.72E+00	U
TM	15	476463001	4/10/2019	Ba-140	8.24E-01	3.59E+00	1.19E+01	U
TM	15	476463001	4/10/2019	Be-7	9.97E+00	5.82E+00	1.68E+01	U
TM	15	476463001	4/10/2019	Bi-214	2.54E+00	2.52E+00	4.30E+00	U
TM	15	476463001	4/10/2019	Ce-141	-4.01E+00	2.02E+00	3.25E+00	U
TM	15	476463001	4/10/2019	Ce-144	2.80E+00	3.55E+00	1.15E+01	U
TM	15	476463001	4/10/2019	Co-57	1.31E-01	4.68E-01	1.53E+00	U
TM	15	476463001	4/10/2019	Co-58	9.70E-01	6.34E-01	1.99E+00	U
TM	15	476463001	4/10/2019	Co-60	-9.87E-01	6.63E-01	1.89E+00	U
TM	15	476463001	4/10/2019	Cr-51	-8.70E+00	5.68E+00	1.74E+01	U
TM	15	476463001	4/10/2019	Cs-134	5.67E-02	6.45E-01	2.06E+00	U
TM	15	476463001	4/10/2019	Cs-137	6.16E+00	9.86E-01	1.79E+00	M
TM	15	476463001	4/10/2019	Fe-59	8.50E-01	1.45E+00	4.86E+00	U
TM	15	476463001	4/10/2019	I-131	-3.01E-01	2.28E-01	6.90E-01	U
TM	15	476463001	4/10/2019	K-40	1.52E+03	9.02E+01	1.69E+01	

SAMPLE TYPE	STATION	LSN	END DATE	NUCLIDE	CONC (pCi/kg)	STD.DEV. (pCi/kg)	MDC (pCi/kg)	FLAGS
TM	15	476463001	4/10/2019	La-140	2.42E+00	1.10E+00	3.54E+00	U
TM	15	476463001	4/10/2019	Mn-54	3.46E-01	5.59E-01	1.91E+00	U
TM	15	476463001	4/10/2019	Nb-95	2.16E-01	6.39E-01	2.06E+00	U
TM	15	476463001	4/10/2019	Pb-212	3.53E+00	2.27E+00	3.81E+00	U
TM	15	476463001	4/10/2019	Pb-214	1.65E+00	2.32E+00	4.08E+00	U
TM	15	476463001	4/10/2019	Ru-103	-7.02E-01	6.16E-01	1.90E+00	U
TM	15	476463001	4/10/2019	Ru-106	6.64E+00	5.24E+00	1.69E+01	U
TM	15	476463001	4/10/2019	Sb-124	0.00E+00	2.87E+00	3.70E+00	U
TM	15	476463001	4/10/2019	Sb-125	5.49E-01	1.39E+00	4.65E+00	U
TM	15	476463001	4/10/2019	Se-75	-4.26E-01	7.72E-01	2.35E+00	U
TM	15	476463001	4/10/2019	Th-228	3.53E+00	2.27E+00	3.81E+00	U
TM	15	476463001	4/10/2019	Zn-65	-9.92E-01	1.49E+00	4.78E+00	U
TM	15	476463001	4/10/2019	Zr-95	-1.60E+00	1.19E+00	3.41E+00	U
TM	15	477793001	4/24/2019	Ac-228	6.54E+00	4.10E+00	7.21E+00	U
TM	15	477793001	4/24/2019	Ag-108m	-8.04E-01	4.41E-01	1.23E+00	U
TM	15	477793001	4/24/2019	Ag-110m	4.55E-01	6.63E-01	2.26E+00	U
TM	15	477793001	4/24/2019	Ba-140	-2.10E+00	2.75E+00	8.54E+00	U
TM	15	477793001	4/24/2019	Be-7	3.21E+00	4.17E+00	1.37E+01	U
TM	15	477793001	4/24/2019	Bi-214	3.49E-01	2.10E+00	3.69E+00	U
TM	15	477793001	4/24/2019	Ce-141	-1.38E+00	8.84E-01	2.75E+00	U
TM	15	477793001	4/24/2019	Ce-144	-3.69E+00	3.02E+00	9.74E+00	U
TM	15	477793001	4/24/2019	Co-57	-6.46E-02	3.87E-01	1.33E+00	U
TM	15	477793001	4/24/2019	Co-58	1.27E-01	4.65E-01	1.59E+00	U
TM	15	477793001	4/24/2019	Co-60	-2.01E-02	5.15E-01	1.70E+00	U
TM	15	477793001	4/24/2019	Cr-51	5.60E-01	5.16E+00	1.54E+01	U
TM	15	477793001	4/24/2019	Cs-134	5.49E-01	8.99E-01	1.73E+00	U
TM	15	477793001	4/24/2019	Cs-137	7.92E+00	1.26E+00	1.52E+00	M
TM	15	477793001	4/24/2019	Fe-59	-1.01E+00	1.14E+00	3.63E+00	U
TM	15	477793001	4/24/2019	I-131	-8.28E-01	4.44E-01	1.08E+00	U DL*
TM	15	477793001	4/24/2019	K-40	1.47E+03	7.40E+01	1.43E+01	
TM	15	477793001	4/24/2019	La-140	-1.24E+00	8.56E-01	2.38E+00	U
TM	15	477793001	4/24/2019	Mn-54	6.89E-02	5.11E-01	1.54E+00	U
TM	15	477793001	4/24/2019	Nb-95	-6.26E-01	7.18E-01	1.61E+00	U
TM	15	477793001	4/24/2019	Pb-212	1.15E+00	1.81E+00	3.42E+00	U
TM	15	477793001	4/24/2019	Pb-214	3.61E+00	1.88E+00	3.90E+00	U
TM	15	477793001	4/24/2019	Ru-103	-1.15E+00	5.72E-01	1.53E+00	U
TM	15	477793001	4/24/2019	Ru-106	-3.13E+00	4.19E+00	1.29E+01	U
TM	15	477793001	4/24/2019	Sb-124	-8.11E-01	9.26E-01	2.75E+00	U
TM	15	477793001	4/24/2019	Sb-125	-1.57E+00	1.27E+00	3.85E+00	U
TM	15	477793001	4/24/2019	Se-75	3.00E-01	6.05E-01	2.03E+00	U
TM	15	477793001	4/24/2019	Th-228	1.15E+00	1.81E+00	3.42E+00	U
TM	15	477793001	4/24/2019	Zn-65	-1.25E+00	1.18E+00	3.68E+00	U
TM	15	477793001	4/24/2019	Zr-95	7.61E-01	9.52E-01	3.06E+00	U
TM	15	478748001	5/8/2019	Ac-228	3.75E-02	3.93E+00	9.08E+00	U
TM	15	478748001	5/8/2019	Ag-108m	1.81E-01	4.72E-01	1.59E+00	U
TM	15	478748001	5/8/2019	Ag-110m	1.03E+00	8.58E-01	2.62E+00	U
TM	15	478748001	5/8/2019	Ba-140	-5.27E-01	3.67E+00	1.20E+01	U
TM	15	478748001	5/8/2019	Be-7	5.75E+00	5.35E+00	1.77E+01	U
TM	15	478748001	5/8/2019	Bi-214	3.56E+00	2.84E+00	4.81E+00	U

Seabrook REMP Summary of 2019 Data

SAMPLE TYPE	STATION	LSN	END DATE	NUCLIDE	CONC (pCi/kg)	STD.DEV. (pCi/kg)	MDC (pCi/kg)	FLAGS
TM	15	478748001	5/8/2019	Ce-141	-2.01E+00	1.69E+00	3.44E+00	U
TM	15	478748001	5/8/2019	Ce-144	-6.27E+00	4.15E+00	1.13E+01	U
TM	15	478748001	5/8/2019	Co-57	1.32E+00	8.66E-01	1.50E+00	U
TM	15	478748001	5/8/2019	Co-58	2.74E-01	7.00E-01	2.01E+00	U
TM	15	478748001	5/8/2019	Co-60	5.82E-01	7.93E-01	2.34E+00	U
TM	15	478748001	5/8/2019	Cr-51	-6.00E+00	5.77E+00	1.86E+01	U
TM	15	478748001	5/8/2019	Cs-134	-6.24E-01	6.84E-01	2.04E+00	U
TM	15	478748001	5/8/2019	Cs-137	5.22E+00	1.40E+00	2.02E+00	M
TM	15	478748001	5/8/2019	Fe-59	2.01E+00	1.68E+00	5.56E+00	U
TM	15	478748001	5/8/2019	I-131	5.66E-01	5.76E-01	1.37E+00	U DL
TM	15	478748001	5/8/2019	K-40	1.53E+03	7.64E+01	1.81E+01	
TM	15	478748001	5/8/2019	La-140	1.64E+00	1.24E+00	4.12E+00	U
TM	15	478748001	5/8/2019	Mn-54	-2.66E-01	5.73E-01	1.91E+00	U
TM	15	478748001	5/8/2019	Nb-95	5.83E-01	7.46E-01	2.16E+00	U
TM	15	478748001	5/8/2019	Pb-212	-2.98E+00	1.69E+00	3.65E+00	U
TM	15	478748001	5/8/2019	Pb-214	-9.21E-01	2.11E+00	4.20E+00	U
TM	15	478748001	5/8/2019	Ru-103	3.76E-01	6.27E-01	2.09E+00	U
TM	15	478748001	5/8/2019	Ru-106	2.63E+00	4.91E+00	1.61E+01	U
TM	15	478748001	5/8/2019	Sb-124	1.43E-01	1.22E+00	4.14E+00	U
TM	15	478748001	5/8/2019	Sb-125	3.36E-01	1.47E+00	4.95E+00	U
TM	15	478748001	5/8/2019	Se-75	-4.72E-01	8.06E-01	2.45E+00	U
TM	15	478748001	5/8/2019	Th-228	-2.98E+00	1.69E+00	3.65E+00	U
TM	15	478748001	5/8/2019	Zn-65	-1.53E+00	1.59E+00	4.99E+00	U
TM	15	478748001	5/8/2019	Zr-95	-7.63E-01	1.34E+00	3.66E+00	U
TM	15	480182001	5/22/2019	Ac-228	-6.94E+00	3.68E+00	6.53E+00	U
TM	15	480182001	5/22/2019	Ag-108m	1.92E-02	4.09E-01	1.37E+00	U
TM	15	480182001	5/22/2019	Ag-110m	-7.11E-01	7.54E-01	2.26E+00	U
TM	15	480182001	5/22/2019	Ba-140	3.44E+00	2.45E+00	7.98E+00	U
TM	15	480182001	5/22/2019	Be-7	-4.10E+00	4.20E+00	1.33E+01	U
TM	15	480182001	5/22/2019	Bi-214	1.03E+00	2.26E+00	3.99E+00	U
TM	15	480182001	5/22/2019	Ce-141	-2.09E+00	9.96E-01	2.69E+00	U
TM	15	480182001	5/22/2019	Ce-144	-8.46E-01	3.07E+00	9.93E+00	U
TM	15	480182001	5/22/2019	Co-57	1.41E-02	4.05E-01	1.32E+00	U
TM	15	480182001	5/22/2019	Co-58	-4.16E-01	5.12E-01	1.56E+00	U
TM	15	480182001	5/22/2019	Co-60	-7.41E-02	5.58E-01	1.84E+00	U
TM	15	480182001	5/22/2019	Cr-51	3.68E+00	4.35E+00	1.48E+01	U
TM	15	480182001	5/22/2019	Cs-134	6.36E-01	5.89E-01	1.82E+00	U
TM	15	480182001	5/22/2019	Cs-137	9.82E+00	9.73E-01	1.63E+00	M
TM	15	480182001	5/22/2019	Fe-59	-3.58E-01	1.29E+00	3.77E+00	U
TM	15	480182001	5/22/2019	I-131	-3.32E-01	2.79E-01	8.86E-01	U
TM	15	480182001	5/22/2019	K-40	1.49E+03	7.56E+01	1.65E+01	
TM	15	480182001	5/22/2019	La-140	-1.72E+00	8.07E-01	1.93E+00	U
TM	15	480182001	5/22/2019	Mn-54	-1.10E-01	5.54E-01	1.67E+00	U
TM	15	480182001	5/22/2019	Nb-95	-5.89E-02	5.01E-01	1.61E+00	U
TM	15	480182001	5/22/2019	Pb-212	-2.20E+00	1.56E+00	3.27E+00	U
TM	15	480182001	5/22/2019	Pb-214	3.42E+00	2.37E+00	4.21E+00	U
TM	15	480182001	5/22/2019	Ru-103	1.56E-01	5.47E-01	1.64E+00	U
TM	15	480182001	5/22/2019	Ru-106	-3.51E+00	4.35E+00	1.36E+01	U
TM	15	480182001	5/22/2019	Sb-124	-8.09E-01	1.14E+00	3.49E+00	U
TM	15	480182001	5/22/2019	Sb-125	4.37E-01	1.27E+00	4.28E+00	U

Seabrook REMP Summary of 2019 Data

SAMPLE TYPE	STATION	LSN	END DATE	NUCLIDE	CONC (pCi/kg)	STD.DEV. (pCi/kg)	MDC (pCi/kg)	FLAGS
TM	15	480182001	5/22/2019	Se-75	-2.19E+00	8.71E-01	2.04E+00	U
TM	15	480182001	5/22/2019	Th-228	-2.20E+00	1.56E+00	3.27E+00	U
TM	15	480182001	5/22/2019	Zn-65	-8.61E-01	1.19E+00	3.85E+00	U
TM	15	480182001	5/22/2019	Zr-95	-1.13E+00	9.26E-01	2.73E+00	U
TM	15	481282001	6/5/2019	Ac-228	-1.91E+00	3.16E+00	7.84E+00	U
TM	15	481282001	6/5/2019	Ag-108m	1.82E-01	4.20E-01	1.39E+00	U
TM	15	481282001	6/5/2019	Ag-110m	-3.80E-01	6.88E-01	2.18E+00	U
TM	15	481282001	6/5/2019	Ba-140	1.08E+00	3.37E+00	7.70E+00	U
TM	15	481282001	6/5/2019	Be-7	4.82E+00	4.08E+00	1.32E+01	U
TM	15	481282001	6/5/2019	Bi-214	3.07E-01	2.24E+00	3.89E+00	U
TM	15	481282001	6/5/2019	Ce-141	-4.76E-01	8.88E-01	2.72E+00	U
TM	15	481282001	6/5/2019	Ce-144	2.41E+00	3.36E+00	1.05E+01	U
TM	15	481282001	6/5/2019	Co-57	-5.33E-01	4.43E-01	1.31E+00	U
TM	15	481282001	6/5/2019	Co-58	-3.64E-02	4.48E-01	1.51E+00	U
TM	15	481282001	6/5/2019	Co-60	1.17E+00	6.20E-01	1.97E+00	U
TM	15	481282001	6/5/2019	Cr-51	2.70E+00	4.22E+00	1.41E+01	U
TM	15	481282001	6/5/2019	Cs-134	-4.09E-02	5.21E-01	1.76E+00	U
TM	15	481282001	6/5/2019	Cs-137	3.80E+00	8.96E-01	1.58E+00	M
TM	15	481282001	6/5/2019	Fe-59	2.84E+00	2.10E+00	3.77E+00	U
TM	15	481282001	6/5/2019	I-131	-1.50E-01	2.54E-01	8.40E-01	U
TM	15	481282001	6/5/2019	K-40	1.64E+03	8.17E+01	1.40E+01	
TM	15	481282001	6/5/2019	La-140	5.63E-01	6.50E-01	1.94E+00	U
TM	15	481282001	6/5/2019	Mn-54	-6.26E-01	5.29E-01	1.44E+00	U
TM	15	481282001	6/5/2019	Nb-95	4.29E-01	5.06E-01	1.73E+00	U
TM	15	481282001	6/5/2019	Pb-212	3.32E+00	2.25E+00	3.37E+00	U
TM	15	481282001	6/5/2019	Pb-214	2.27E-01	2.19E+00	3.76E+00	U
TM	15	481282001	6/5/2019	Ru-103	-7.66E-01	5.14E-01	1.50E+00	U
TM	15	481282001	6/5/2019	Ru-106	-1.70E+00	4.25E+00	1.34E+01	U
TM	15	481282001	6/5/2019	Sb-124	-8.92E-02	9.32E-01	2.98E+00	U
TM	15	481282001	6/5/2019	Sb-125	3.23E-01	1.31E+00	3.88E+00	U
TM	15	481282001	6/5/2019	Se-75	-2.10E-03	5.97E-01	2.01E+00	U
TM	15	481282001	6/5/2019	Th-228	3.32E+00	2.25E+00	3.37E+00	U
TM	15	481282001	6/5/2019	Zn-65	2.35E+00	1.31E+00	4.17E+00	U
TM	15	481282001	6/5/2019	Zr-95	1.43E-01	8.81E-01	2.80E+00	U
TM	15	482696001	6/19/2019	Ac-228	-5.93E+00	4.22E+00	9.35E+00	U
TM	15	482696001	6/19/2019	Ag-108m	5.52E-02	5.09E-01	1.66E+00	U
TM	15	482696001	6/19/2019	Ag-110m	7.83E-01	9.87E-01	2.91E+00	U
TM	15	482696001	6/19/2019	Ba-140	-1.51E+00	2.94E+00	9.23E+00	U
TM	15	482696001	6/19/2019	Be-7	8.48E+00	5.40E+00	1.70E+01	U
TM	15	482696001	6/19/2019	Bi-214	8.65E-01	2.78E+00	4.65E+00	U
TM	15	482696001	6/19/2019	Ce-141	2.60E-01	1.16E+00	3.38E+00	U
TM	15	482696001	6/19/2019	Ce-144	-2.06E+00	4.09E+00	1.27E+01	U
TM	15	482696001	6/19/2019	Co-57	3.43E-01	5.21E-01	1.66E+00	U
TM	15	482696001	6/19/2019	Co-58	5.24E-02	6.61E-01	1.95E+00	U
TM	15	482696001	6/19/2019	Co-60	-1.70E-01	6.73E-01	2.13E+00	U
TM	15	482696001	6/19/2019	Cr-51	-3.63E+00	5.49E+00	1.78E+01	U
TM	15	482696001	6/19/2019	Cs-134	1.96E+00	1.07E+00	2.42E+00	U
TM	15	482696001	6/19/2019	Cs-137	1.18E+00	8.79E-01	2.14E+00	U
TM	15	482696001	6/19/2019	Fe-59	-2.11E+00	1.66E+00	4.94E+00	U

SAMPLE TYPE	STATION	LSN	END DATE	NUCLIDE	CONC (pCi/kg)	STD.DEV. (pCi/kg)	MDC (pCi/kg)	FLAGS
TM	15	482696001	6/19/2019	I-131	-2.39E-01	1.58E-01	4.73E-01	U
TM	15	482696001	6/19/2019	K-40	1.73E+03	9.46E+01	2.07E+01	
TM	15	482696001	6/19/2019	La-140	1.03E+00	9.18E-01	2.82E+00	U
TM	15	482696001	6/19/2019	Mn-54	9.36E-02	5.79E-01	1.94E+00	U
TM	15	482696001	6/19/2019	Nb-95	3.27E-01	6.35E-01	2.15E+00	U
TM	15	482696001	6/19/2019	Pb-212	3.68E-01	2.40E+00	4.70E+00	U
TM	15	482696001	6/19/2019	Pb-214	-4.13E-01	1.88E+00	4.64E+00	U
TM	15	482696001	6/19/2019	Ru-103	5.80E-01	6.90E-01	2.01E+00	U
TM	15	482696001	6/19/2019	Ru-106	-3.39E+00	5.61E+00	1.72E+01	U
TM	15	482696001	6/19/2019	Sb-124	-3.37E-01	1.27E+00	4.15E+00	U
TM	15	482696001	6/19/2019	Sb-125	1.53E+00	1.56E+00	5.09E+00	U
TM	15	482696001	6/19/2019	Se-75	-9.11E-01	8.01E-01	2.54E+00	U
TM	15	482696001	6/19/2019	Th-228	3.68E-01	2.40E+00	4.70E+00	U
TM	15	482696001	6/19/2019	Zn-65	1.07E+00	1.63E+00	5.35E+00	U
TM	15	482696001	6/19/2019	Zr-95	1.96E-01	1.09E+00	3.68E+00	U
TM	15	484053001	7/3/2019	Ac-228	-4.74E+00	4.14E+00	8.77E+00	U
TM	15	484053001	7/3/2019	Ag-108m	6.87E-01	5.64E-01	1.87E+00	U
TM	15	484053001	7/3/2019	Ag-110m	2.66E-02	9.11E-01	2.91E+00	U
TM	15	484053001	7/3/2019	Ba-140	3.55E+00	2.90E+00	9.53E+00	U
TM	15	484053001	7/3/2019	Be-7	1.49E+00	5.03E+00	1.68E+01	U
TM	15	484053001	7/3/2019	Bi-214	0.00E+00	3.26E+00	5.46E+00	U
TM	15	484053001	7/3/2019	Ce-141	-1.97E+00	1.61E+00	3.61E+00	U
TM	15	484053001	7/3/2019	Ce-144	5.45E+00	4.50E+00	1.41E+01	U
TM	15	484053001	7/3/2019	Co-57	-1.57E-01	5.55E-01	1.77E+00	U
TM	15	484053001	7/3/2019	Co-58	-3.69E-01	6.11E-01	1.90E+00	U
TM	15	484053001	7/3/2019	Co-60	2.65E-01	6.90E-01	2.33E+00	U
TM	15	484053001	7/3/2019	Cr-51	2.85E-01	5.35E+00	1.82E+01	U
TM	15	484053001	7/3/2019	Cs-134	-2.44E-01	6.90E-01	2.18E+00	U
TM	15	484053001	7/3/2019	Cs-137	1.76E+00	7.60E-01	2.27E+00	U
TM	15	484053001	7/3/2019	Fe-59	1.71E+00	1.44E+00	4.85E+00	U
TM	15	484053001	7/3/2019	I-131	-3.62E-02	1.32E-01	4.43E-01	U
TM	15	484053001	7/3/2019	K-40	1.72E+03	1.12E+02	1.56E+01	
TM	15	484053001	7/3/2019	La-140	2.48E-01	8.69E-01	2.57E+00	U
TM	15	484053001	7/3/2019	Mn-54	-5.98E-02	7.24E-01	2.06E+00	U
TM	15	484053001	7/3/2019	Nb-95	-4.24E-01	6.43E-01	2.00E+00	U
TM	15	484053001	7/3/2019	Pb-212	-2.03E+00	2.19E+00	4.54E+00	U
TM	15	484053001	7/3/2019	Pb-214	-1.34E+00	2.71E+00	5.59E+00	U
TM	15	484053001	7/3/2019	Ru-103	-3.60E-01	6.45E-01	2.09E+00	U
TM	15	484053001	7/3/2019	Ru-106	-8.64E+00	9.86E+00	1.64E+01	U
TM	15	484053001	7/3/2019	Sb-124	3.91E-01	1.18E+00	3.94E+00	U
TM	15	484053001	7/3/2019	Sb-125	1.36E+00	1.66E+00	5.56E+00	U
TM	15	484053001	7/3/2019	Se-75	6.19E-01	8.08E-01	2.76E+00	U
TM	15	484053001	7/3/2019	Th-228	-2.03E+00	2.19E+00	4.54E+00	U
TM	15	484053001	7/3/2019	Zn-65	-1.11E+00	1.73E+00	4.92E+00	U
TM	15	484053001	7/3/2019	Zr-95	7.86E-01	1.14E+00	3.72E+00	U
TM	15	485326001	7/17/2019	Ac-228	2.05E+00	5.46E+00	9.76E+00	U
TM	15	485326001	7/17/2019	Ag-108m	5.45E-01	5.73E-01	1.69E+00	U
TM	15	485326001	7/17/2019	Ag-110m	-2.84E-01	8.49E-01	2.74E+00	U
TM	15	485326001	7/17/2019	Ba-140	-6.49E-01	2.94E+00	9.33E+00	U

Seabrook REMP Summary of 2019 Data

SAMPLE TYPE	STATION	LSN	END DATE	NUCLIDE	CONC (pCi/kg)	STD.DEV. (pCi/kg)	MDC (pCi/kg)	FLAGS
TM	15	485326001	7/17/2019	Be-7	2.39E+00	4.80E+00	1.57E+01	U
TM	15	485326001	7/17/2019	Bi-214	-2.40E-01	1.42E+00	4.24E+00	U
TM	15	485326001	7/17/2019	Ce-141	-1.92E+00	1.40E+00	3.07E+00	U
TM	15	485326001	7/17/2019	Ce-144	-6.25E+00	3.91E+00	1.14E+01	U
TM	15	485326001	7/17/2019	Co-57	3.31E-01	4.67E-01	1.53E+00	U
TM	15	485326001	7/17/2019	Co-58	5.79E-01	6.63E-01	2.21E+00	U
TM	15	485326001	7/17/2019	Co-60	3.43E-01	7.74E-01	2.61E+00	U
TM	15	485326001	7/17/2019	Cr-51	-5.63E+00	5.30E+00	1.68E+01	U
TM	15	485326001	7/17/2019	Cs-134	-2.66E-01	6.67E-01	2.17E+00	U
TM	15	485326001	7/17/2019	Cs-137	1.28E+00	6.96E-01	2.25E+00	U
TM	15	485326001	7/17/2019	Fe-59	-8.27E-01	1.71E+00	5.34E+00	U
TM	15	485326001	7/17/2019	I-131	-4.23E-01	1.60E-01	3.94E-01	U
TM	15	485326001	7/17/2019	K-40	1.65E+03	9.00E+01	2.08E+01	
TM	15	485326001	7/17/2019	La-140	-1.54E+00	1.03E+00	2.83E+00	U
TM	15	485326001	7/17/2019	Mn-54	-1.00E+00	1.06E+00	2.08E+00	U
TM	15	485326001	7/17/2019	Nb-95	4.20E-01	6.35E-01	2.13E+00	U
TM	15	485326001	7/17/2019	Pb-212	-9.95E-01	1.77E+00	3.95E+00	U
TM	15	485326001	7/17/2019	Pb-214	9.31E-01	1.31E+00	4.37E+00	U
TM	15	485326001	7/17/2019	Ru-103	-1.12E+00	7.45E-01	1.87E+00	U
TM	15	485326001	7/17/2019	Ru-106	-2.02E+00	5.52E+00	1.85E+01	U
TM	15	485326001	7/17/2019	Sb-124	2.23E-01	1.44E+00	4.70E+00	U
TM	15	485326001	7/17/2019	Sb-125	1.85E-01	1.57E+00	5.16E+00	U
TM	15	485326001	7/17/2019	Se-75	3.49E-01	7.41E-01	2.53E+00	U
TM	15	485326001	7/17/2019	Th-228	-9.95E-01	1.77E+00	3.95E+00	U
TM	15	485326001	7/17/2019	Zn-65	2.39E-02	1.74E+00	5.58E+00	U
TM	15	485326001	7/17/2019	Zr-95	-2.43E-01	1.15E+00	3.81E+00	U
TM	15	487930001	8/14/2019	Ac-228	-2.93E+00	3.61E+00	9.18E+00	U
TM	15	487930001	8/14/2019	Ag-108m	7.09E-01	5.47E-01	1.75E+00	U
TM	15	487930001	8/14/2019	Ag-110m	-2.44E-02	8.24E-01	2.77E+00	U
TM	15	487930001	8/14/2019	Ba-140	-1.22E+00	2.88E+00	9.07E+00	U
TM	15	487930001	8/14/2019	Be-7	4.32E+00	5.41E+00	1.75E+01	U
TM	15	487930001	8/14/2019	Bi-214	2.48E+00	1.41E+00	4.31E+00	U
TM	15	487930001	8/14/2019	Ce-141	-9.89E-01	1.04E+00	3.35E+00	U
TM	15	487930001	8/14/2019	Ce-144	-6.14E+00	4.24E+00	1.25E+01	U
TM	15	487930001	8/14/2019	Co-57	4.91E-02	5.29E-01	1.79E+00	U
TM	15	487930001	8/14/2019	Co-58	6.92E-01	5.98E-01	2.02E+00	U
TM	15	487930001	8/14/2019	Co-60	5.05E-03	6.75E-01	2.22E+00	U
TM	15	487930001	8/14/2019	Cr-51	1.36E+00	5.09E+00	1.68E+01	U
TM	15	487930001	8/14/2019	Cs-134	2.74E-01	6.51E-01	2.22E+00	U
TM	15	487930001	8/14/2019	Cs-137	6.74E+00	1.62E+00	1.94E+00	M
TM	15	487930001	8/14/2019	Fe-59	1.44E+00	1.96E+00	4.73E+00	U
TM	15	487930001	8/14/2019	I-131	4.20E-01	1.95E-01	5.96E-01	U
TM	15	487930001	8/14/2019	K-40	1.72E+03	8.04E+01	1.72E+01	
TM	15	487930001	8/14/2019	La-140	5.90E-01	7.81E-01	2.62E+00	U
TM	15	487930001	8/14/2019	Mn-54	1.13E+00	6.40E-01	1.58E+00	U
TM	15	487930001	8/14/2019	Nb-95	7.10E-01	7.23E-01	2.19E+00	U
TM	15	487930001	8/14/2019	Pb-212	0.00E+00	2.48E+00	3.83E+00	U
TM	15	487930001	8/14/2019	Pb-214	-1.57E+00	2.17E+00	4.26E+00	U

SAMPLE TYPE	STATION	LSN	END DATE	NUCLIDE	CONC (pCi/kg)	STD.DEV. (pCi/kg)	MDC (pCi/kg)	FLAGS
TM	15	487930001	8/14/2019	Ru-103	-1.28E+00	1.18E+00	2.03E+00	U
TM	15	487930001	8/14/2019	Ru-106	-7.26E-01	5.57E+00	1.77E+01	U
TM	15	487930001	8/14/2019	Sb-124	-1.66E+00	1.31E+00	3.72E+00	U
TM	15	487930001	8/14/2019	Sb-125	-1.07E+00	1.53E+00	4.81E+00	U
TM	15	487930001	8/14/2019	Se-75	9.52E-01	7.48E-01	2.42E+00	U
TM	15	487930001	8/14/2019	Th-228	0.00E+00	2.48E+00	3.83E+00	U
TM	15	487930001	8/14/2019	Zn-65	-1.61E+00	1.44E+00	4.43E+00	U
TM	15	487930001	8/14/2019	Zr-95	4.21E-01	1.08E+00	3.67E+00	U
TM	15	489378001	8/28/2019	Ac-228	-4.57E+00	3.50E+00	7.99E+00	U
TM	15	489378001	8/28/2019	Ag-108m	5.91E-01	4.94E-01	1.59E+00	U
TM	15	489378001	8/28/2019	Ag-110m	-4.41E-01	8.06E-01	2.64E+00	U
TM	15	489378001	8/28/2019	Ba-140	-1.04E+01	6.50E+00	1.30E+01	U
TM	15	489378001	8/28/2019	Be-7	1.09E+01	7.35E+00	1.73E+01	U
TM	15	489378001	8/28/2019	Bi-214	3.72E+00	2.52E+00	4.44E+00	U
TM	15	489378001	8/28/2019	Ce-141	3.34E+00	2.50E+00	3.69E+00	U
TM	15	489378001	8/28/2019	Ce-144	-6.14E+00	4.11E+00	1.27E+01	U
TM	15	489378001	8/28/2019	Co-57	-5.09E-01	5.47E-01	1.78E+00	U
TM	15	489378001	8/28/2019	Co-58	-7.93E-01	7.60E-01	2.10E+00	U
TM	15	489378001	8/28/2019	Co-60	1.04E+00	9.76E-01	2.17E+00	U
TM	15	489378001	8/28/2019	Cr-51	-6.31E+00	6.22E+00	1.93E+01	U
TM	15	489378001	8/28/2019	Cs-134	1.10E+00	7.12E-01	2.29E+00	U
TM	15	489378001	8/28/2019	Cs-137	4.96E+00	1.17E+00	2.00E+00	M
TM	15	489378001	8/28/2019	Fe-59	-1.05E-01	1.54E+00	5.10E+00	U
TM	15	489378001	8/28/2019	I-131	-6.30E-01	8.65E-01	2.77E+00	U DL
TM	15	489378001	8/28/2019	K-40	1.54E+03	7.42E+01	1.61E+01	
TM	15	489378001	8/28/2019	La-140	1.82E-01	1.21E+00	3.96E+00	U
TM	15	489378001	8/28/2019	Mn-54	7.43E-01	7.43E-01	1.75E+00	U
TM	15	489378001	8/28/2019	Nb-95	-1.65E-01	6.55E-01	2.20E+00	U
TM	15	489378001	8/28/2019	Pb-212	0.00E+00	3.06E+00	3.68E+00	U
TM	15	489378001	8/28/2019	Pb-214	3.03E+00	1.46E+00	4.39E+00	U
TM	15	489378001	8/28/2019	Ru-103	4.95E-01	7.61E-01	2.21E+00	U
TM	15	489378001	8/28/2019	Ru-106	-3.07E-01	5.48E+00	1.74E+01	U
TM	15	489378001	8/28/2019	Sb-124	4.11E+00	1.90E+00	4.29E+00	U
TM	15	489378001	8/28/2019	Sb-125	1.40E+00	1.72E+00	5.02E+00	U
TM	15	489378001	8/28/2019	Se-75	1.67E+00	8.62E-01	2.64E+00	U
TM	15	489378001	8/28/2019	Th-228	0.00E+00	3.06E+00	3.68E+00	U
TM	15	489378001	8/28/2019	Zn-65	6.23E-01	1.44E+00	4.82E+00	U
TM	15	489378001	8/28/2019	Zr-95	7.19E-01	1.07E+00	3.66E+00	U
TM	15	490471001	9/11/2019	Ac-228	-9.80E-01	2.38E+00	5.62E+00	U
TM	15	490471001	9/11/2019	Ag-108m	-1.29E-01	3.59E-01	1.08E+00	U
TM	15	490471001	9/11/2019	Ag-110m	-3.98E-01	5.80E-01	1.81E+00	U
TM	15	490471001	9/11/2019	Ba-140	-2.62E+00	2.87E+00	8.12E+00	U
TM	15	490471001	9/11/2019	Be-7	5.38E+00	3.55E+00	1.16E+01	U
TM	15	490471001	9/11/2019	Bi-214	0.00E+00	2.15E+00	3.14E+00	U
TM	15	490471001	9/11/2019	Ce-141	-1.60E+00	8.46E-01	2.37E+00	U
TM	15	490471001	9/11/2019	Ce-144	2.44E+00	2.56E+00	8.22E+00	U
TM	15	490471001	9/11/2019	Co-57	-1.11E+00	5.63E-01	1.04E+00	U
TM	15	490471001	9/11/2019	Co-58	-4.26E-01	4.37E-01	1.34E+00	U

Seabrook REMP Summary of 2019 Data

SAMPLE TYPE	STATION	LSN	END DATE	NUCLIDE	CONC (pCi/kg)	STD.DEV. (pCi/kg)	MDC (pCi/kg)	FLAGS
TM	15	490471001	9/11/2019	Co-60	-1.67E+00	7.97E-01	1.59E+00	U
TM	15	490471001	9/11/2019	Cr-51	8.93E+00	4.34E+00	1.36E+01	U
TM	15	490471001	9/11/2019	Cs-134	6.22E-01	4.51E-01	1.45E+00	U
TM	15	490471001	9/11/2019	Cs-137	5.03E+00	9.00E-01	1.26E+00	M
TM	15	490471001	9/11/2019	Fe-59	-8.31E-01	1.03E+00	3.13E+00	U
TM	15	490471001	9/11/2019	I-131	-1.59E-02	3.49E-01	1.15E+00	U DL
TM	15	490471001	9/11/2019	K-40	1.70E+03	8.17E+01	1.14E+01	
TM	15	490471001	9/11/2019	La-140	-5.99E-01	7.66E-01	2.41E+00	U
TM	15	490471001	9/11/2019	Mn-54	-5.31E-01	4.13E-01	1.23E+00	U
TM	15	490471001	9/11/2019	Nb-95	-1.92E-01	4.33E-01	1.39E+00	U
TM	15	490471001	9/11/2019	Pb-212	0.00E+00	1.77E+00	2.16E+00	U
TM	15	490471001	9/11/2019	Pb-214	-3.67E-01	1.83E+00	3.03E+00	U
TM	15	490471001	9/11/2019	Ru-103	1.43E-01	4.54E-01	1.38E+00	U
TM	15	490471001	9/11/2019	Ru-106	2.52E+00	3.38E+00	1.13E+01	U
TM	15	490471001	9/11/2019	Sb-124	-1.71E+00	1.03E+00	2.34E+00	U
TM	15	490471001	9/11/2019	Sb-125	-8.35E-01	9.60E-01	3.12E+00	U
TM	15	490471001	9/11/2019	Se-75	2.58E-01	5.46E-01	1.72E+00	U
TM	15	490471001	9/11/2019	Th-228	0.00E+00	1.77E+00	2.16E+00	U
TM	15	490471001	9/11/2019	Zn-65	-1.38E+00	1.08E+00	3.15E+00	U
TM	15	490471001	9/11/2019	Zr-95	2.29E-01	7.48E-01	2.46E+00	U
TM	15	491292001	9/25/2019	Ac-228	-1.98E+00	3.90E+00	9.30E+00	U
TM	15	491292001	9/25/2019	Ag-108m	-4.94E-01	6.62E-01	1.83E+00	U
TM	15	491292001	9/25/2019	Ag-110m	2.10E+00	1.40E+00	3.17E+00	U
TM	15	491292001	9/25/2019	Ba-140	4.27E+00	3.50E+00	1.12E+01	U
TM	15	491292001	9/25/2019	Be-7	-4.60E+00	5.71E+00	1.76E+01	U
TM	15	491292001	9/25/2019	Bi-214	1.07E-01	2.74E+00	4.81E+00	U
TM	15	491292001	9/25/2019	Ce-141	-1.43E+00	1.75E+00	3.83E+00	U
TM	15	491292001	9/25/2019	Ce-144	-1.63E+00	4.34E+00	1.35E+01	U
TM	15	491292001	9/25/2019	Co-57	2.75E-01	5.72E-01	1.81E+00	U
TM	15	491292001	9/25/2019	Co-58	6.26E-02	6.34E-01	2.12E+00	U
TM	15	491292001	9/25/2019	Co-60	-2.20E-01	9.25E-01	2.54E+00	U
TM	15	491292001	9/25/2019	Cr-51	-1.05E+01	7.20E+00	1.91E+01	U
TM	15	491292001	9/25/2019	Cs-134	6.84E-01	7.24E-01	2.28E+00	U
TM	15	491292001	9/25/2019	Cs-137	3.77E+00	1.09E+00	2.00E+00	M
TM	15	491292001	9/25/2019	Fe-59	1.24E+00	1.75E+00	5.75E+00	U
TM	15	491292001	9/25/2019	I-131	8.77E-02	1.90E-01	6.28E-01	U
TM	15	491292001	9/25/2019	K-40	1.75E+03	1.01E+02	2.16E+01	
TM	15	491292001	9/25/2019	La-140	-1.03E+00	1.08E+00	3.31E+00	U
TM	15	491292001	9/25/2019	Mn-54	-1.07E+00	7.08E-01	2.08E+00	U
TM	15	491292001	9/25/2019	Nb-95	-8.05E-01	7.19E-01	2.24E+00	U
TM	15	491292001	9/25/2019	Pb-212	-1.95E+00	1.92E+00	4.61E+00	U
TM	15	491292001	9/25/2019	Pb-214	-5.71E-01	1.90E+00	5.24E+00	U
TM	15	491292001	9/25/2019	Ru-103	-2.08E-01	7.32E-01	2.06E+00	U
TM	15	491292001	9/25/2019	Ru-106	-3.74E+00	5.54E+00	1.82E+01	U
TM	15	491292001	9/25/2019	Sb-124	5.12E-01	1.29E+00	4.39E+00	U
TM	15	491292001	9/25/2019	Sb-125	-2.62E+00	1.77E+00	5.13E+00	U
TM	15	491292001	9/25/2019	Se-75	-3.24E-01	8.10E-01	2.68E+00	U
TM	15	491292001	9/25/2019	Th-228	-1.95E+00	1.92E+00	4.61E+00	U
TM	15	491292001	9/25/2019	Zn-65	2.60E+00	1.75E+00	5.63E+00	U
TM	15	491292001	9/25/2019	Zr-95	-2.25E-01	1.16E+00	3.86E+00	U

SAMPLE TYPE	STATION	LSN	END DATE	NUCLIDE	CONC (pCi/kg)	STD.DEV. (pCi/kg)	MDC (pCi/kg)	FLAGS
TM	15	492908001	10/9/2019	Ac-228	3.21E+00	4.55E+00	6.41E+00	U
TM	15	492908001	10/9/2019	Ag-108m	-3.07E-01	4.28E-01	1.37E+00	U
TM	15	492908001	10/9/2019	Ag-110m	-7.95E-01	6.88E-01	2.13E+00	U
TM	15	492908001	10/9/2019	Ba-140	5.92E-01	2.47E+00	8.02E+00	U
TM	15	492908001	10/9/2019	Be-7	2.20E+00	4.63E+00	1.36E+01	U
TM	15	492908001	10/9/2019	Bi-214	1.29E+00	2.39E+00	3.28E+00	U
TM	15	492908001	10/9/2019	Ce-141	1.36E+00	9.28E-01	2.67E+00	U
TM	15	492908001	10/9/2019	Ce-144	-1.36E+00	3.02E+00	9.63E+00	U
TM	15	492908001	10/9/2019	Co-57	7.97E-02	4.09E-01	1.33E+00	U
TM	15	492908001	10/9/2019	Co-58	-2.24E-01	5.66E-01	1.64E+00	U
TM	15	492908001	10/9/2019	Co-60	-1.35E-01	9.37E-01	1.95E+00	U
TM	15	492908001	10/9/2019	Cr-51	-3.76E+00	4.49E+00	1.46E+01	U
TM	15	492908001	10/9/2019	Cs-134	-3.55E-01	5.53E-01	1.81E+00	U
TM	15	492908001	10/9/2019	Cs-137	7.06E+00	1.04E+00	1.75E+00	M
TM	15	492908001	10/9/2019	Fe-59	-2.85E+00	1.43E+00	3.87E+00	U
TM	15	492908001	10/9/2019	I-131	-5.61E-02	1.97E-01	6.65E-01	U
TM	15	492908001	10/9/2019	K-40	1.51E+03	7.40E+01	1.32E+01	
TM	15	492908001	10/9/2019	La-140	-2.54E-01	7.28E-01	2.38E+00	U
TM	15	492908001	10/9/2019	Mn-54	-4.04E-01	5.12E-01	1.65E+00	U
TM	15	492908001	10/9/2019	Nb-95	2.37E-01	4.94E-01	1.68E+00	U
TM	15	492908001	10/9/2019	Pb-212	0.00E+00	1.92E+00	3.39E+00	U
TM	15	492908001	10/9/2019	Pb-214	8.44E-01	2.54E+00	3.83E+00	U
TM	15	492908001	10/9/2019	Ru-103	-2.17E-01	5.64E-01	1.61E+00	U
TM	15	492908001	10/9/2019	Ru-106	-3.52E+00	4.57E+00	1.40E+01	U
TM	15	492908001	10/9/2019	Sb-124	7.37E-02	1.09E+00	3.63E+00	U
TM	15	492908001	10/9/2019	Sb-125	1.40E+00	1.32E+00	4.30E+00	U
TM	15	492908001	10/9/2019	Se-75	6.07E-01	6.10E-01	2.06E+00	U
TM	15	492908001	10/9/2019	Th-228	0.00E+00	1.92E+00	3.39E+00	U
TM	15	492908001	10/9/2019	Zn-65	1.55E+00	1.44E+00	4.17E+00	U
TM	15	492908001	10/9/2019	Zr-95	-3.59E-01	8.83E-01	2.93E+00	U
TM	15	495740001	11/6/2019	Ac-228	5.26E+00	4.96E+00	8.56E+00	U
TM	15	495740001	11/6/2019	Ag-108m	8.60E-02	5.01E-01	1.49E+00	U
TM	15	495740001	11/6/2019	Ag-110m	1.18E+00	7.89E-01	2.61E+00	U
TM	15	495740001	11/6/2019	Ba-140	3.83E+00	3.85E+00	8.02E+00	U
TM	15	495740001	11/6/2019	Be-7	1.31E+00	4.22E+00	1.40E+01	U
TM	15	495740001	11/6/2019	Bi-214	1.62E+00	2.65E+00	4.42E+00	U
TM	15	495740001	11/6/2019	Ce-141	-1.21E+00	1.29E+00	2.88E+00	U
TM	15	495740001	11/6/2019	Ce-144	1.47E-01	3.77E+00	1.12E+01	U
TM	15	495740001	11/6/2019	Co-57	-8.53E-01	5.00E-01	1.43E+00	U
TM	15	495740001	11/6/2019	Co-58	1.37E-01	5.07E-01	1.73E+00	U
TM	15	495740001	11/6/2019	Co-60	2.82E-01	6.61E-01	1.93E+00	U
TM	15	495740001	11/6/2019	Cr-51	-9.24E+00	5.09E+00	1.50E+01	U
TM	15	495740001	11/6/2019	Cs-134	1.66E-01	5.52E-01	1.89E+00	U
TM	15	495740001	11/6/2019	Cs-137	1.09E+01	1.30E+00	1.66E+00	M
TM	15	495740001	11/6/2019	Fe-59	-1.56E+00	1.32E+00	4.04E+00	U
TM	15	495740001	11/6/2019	I-131	1.76E-01	1.69E-01	5.72E-01	U
TM	15	495740001	11/6/2019	K-40	1.59E+03	8.27E+01	1.72E+01	
TM	15	495740001	11/6/2019	La-140	-3.07E-01	8.29E-01	2.60E+00	U
TM	15	495740001	11/6/2019	Mn-54	-1.49E-01	4.79E-01	1.60E+00	U
TM	15	495740001	11/6/2019	Nb-95	7.51E-02	1.28E+00	1.60E+00	U

Seabrook REMP Summary of 2019 Data

SAMPLE TYPE	STATION	LSN	END DATE	NUCLIDE	CONC (pCi/kg)	STD.DEV. (pCi/kg)	MDC (pCi/kg)	FLAGS
TM	15	495740001	11/6/2019	Pb-212	1.33E+00	2.10E+00	3.78E+00	U
TM	15	495740001	11/6/2019	Pb-214	-2.77E+00	2.03E+00	4.43E+00	U
TM	15	495740001	11/6/2019	Ru-103	-9.94E-01	6.76E-01	1.69E+00	U
TM	15	495740001	11/6/2019	Ru-106	-2.15E+00	4.76E+00	1.51E+01	U
TM	15	495740001	11/6/2019	Sb-124	1.29E-02	1.00E+00	3.39E+00	U
TM	15	495740001	11/6/2019	Sb-125	-1.33E+00	1.36E+00	4.27E+00	U
TM	15	495740001	11/6/2019	Se-75	-6.69E-01	7.03E-01	2.30E+00	U
TM	15	495740001	11/6/2019	Th-228	1.33E+00	2.10E+00	3.78E+00	U
TM	15	495740001	11/6/2019	Zn-65	-3.93E-01	1.32E+00	4.33E+00	U
TM	15	495740001	11/6/2019	Zr-95	-7.44E-01	1.32E+00	3.13E+00	U
TM	15	498457001	12/4/2019	Ac-228	-2.20E+00	3.78E+00	8.04E+00	U
TM	15	498457001	12/4/2019	Ag-108m	7.20E-01	4.58E-01	1.50E+00	U
TM	15	498457001	12/4/2019	Ag-110m	-2.51E-01	7.38E-01	2.33E+00	U
TM	15	498457001	12/4/2019	Ba-140	-9.27E-01	2.39E+00	7.80E+00	U
TM	15	498457001	12/4/2019	Be-7	7.12E+00	7.44E+00	1.27E+01	U
TM	15	498457001	12/4/2019	Bi-214	3.56E+00	2.33E+00	4.07E+00	U
TM	15	498457001	12/4/2019	Ce-141	1.40E+00	1.04E+00	3.05E+00	U
TM	15	498457001	12/4/2019	Ce-144	2.98E+00	3.52E+00	1.14E+01	U
TM	15	498457001	12/4/2019	Co-57	6.69E-02	4.53E-01	1.48E+00	U
TM	15	498457001	12/4/2019	Co-58	-2.31E-01	5.41E-01	1.71E+00	U
TM	15	498457001	12/4/2019	Co-60	3.15E-01	6.05E-01	2.05E+00	U
TM	15	498457001	12/4/2019	Cr-51	1.15E+01	7.67E+00	1.56E+01	U
TM	15	498457001	12/4/2019	Cs-134	1.29E+00	6.41E-01	1.98E+00	U
TM	15	498457001	12/4/2019	Cs-137	6.66E+00	1.01E+00	1.64E+00	M
TM	15	498457001	12/4/2019	Fe-59	-1.27E+00	1.20E+00	3.81E+00	U
TM	15	498457001	12/4/2019	I-131	-1.35E-03	2.47E-01	8.42E-01	U
TM	15	498457001	12/4/2019	K-40	1.50E+03	8.28E+01	1.55E+01	
TM	15	498457001	12/4/2019	La-140	1.03E-02	7.21E-01	2.38E+00	U
TM	15	498457001	12/4/2019	Mn-54	-6.84E-01	4.93E-01	1.41E+00	U
TM	15	498457001	12/4/2019	Nb-95	6.59E-01	6.09E-01	1.79E+00	U
TM	15	498457001	12/4/2019	Pb-212	0.00E+00	2.77E+00	4.03E+00	U
TM	15	498457001	12/4/2019	Pb-214	8.11E-01	2.48E+00	4.30E+00	U
TM	15	498457001	12/4/2019	Ru-103	-2.75E-01	4.91E-01	1.60E+00	U
TM	15	498457001	12/4/2019	Ru-106	-2.58E+00	4.55E+00	1.46E+01	U
TM	15	498457001	12/4/2019	Sb-124	-9.79E-01	1.02E+00	3.04E+00	U
TM	15	498457001	12/4/2019	Sb-125	1.48E+00	1.36E+00	4.56E+00	U
TM	15	498457001	12/4/2019	Se-75	1.14E-01	6.93E-01	2.17E+00	U
TM	15	498457001	12/4/2019	Th-228	0.00E+00	2.77E+00	4.03E+00	U
TM	15	498457001	12/4/2019	Zn-65	2.67E-01	1.21E+00	4.13E+00	U
TM	15	498457001	12/4/2019	Zr-95	5.24E-01	9.23E-01	3.03E+00	U

Seabrook REMP Summary of 2019 Data

SAMPLE TYPE	STATION	LSN	END DATE	NUCLIDE	CONC (pCi/kg)	STD.DEV. (pCi/kg)	MDC (pCi/kg)	FLAGS
WG	01	473846001	3/13/2019	Ac-228	1.23E-01	3.79E+00	5.85E+00	U
WG	01	473846001	3/13/2019	Ag-108m	2.49E-01	5.78E-01	1.01E+00	U
WG	01	473846001	3/13/2019	Ag-110m	-3.04E-01	5.13E-01	1.58E+00	U
WG	01	473846001	3/13/2019	Ba-140	-1.74E+00	3.37E+00	1.09E+01	U
WG	01	473846001	3/13/2019	Be-7	-2.06E+00	3.71E+00	1.21E+01	U
WG	01	473846001	3/13/2019	BETA	6.69E+00	1.46E+00	3.43E+00	
WG	01	473846001	3/13/2019	Bi-214	-2.22E+00	1.59E+00	2.85E+00	U
WG	01	473846001	3/13/2019	Ce-141	-5.50E+00	1.95E+00	2.73E+00	U
WG	01	473846001	3/13/2019	Ce-144	1.46E+00	2.57E+00	8.28E+00	U
WG	01	473846001	3/13/2019	Co-57	1.62E-01	3.37E-01	1.09E+00	U
WG	01	473846001	3/13/2019	Co-58	-5.57E-01	4.32E-01	1.25E+00	U
WG	01	473846001	3/13/2019	Co-60	3.50E-01	3.81E-01	1.30E+00	U
WG	01	473846001	3/13/2019	Cr-51	-2.78E+00	4.52E+00	1.50E+01	U
WG	01	473846001	3/13/2019	Cs-134	7.66E-01	4.39E-01	1.39E+00	U
WG	01	473846001	3/13/2019	Cs-137	2.47E-01	3.86E-01	1.27E+00	U
WG	01	473846001	3/13/2019	Fe-59	-1.40E+00	9.24E-01	2.72E+00	U
WG	01	473846001	3/13/2019	H-3	1.53E+02	1.37E+02	4.30E+02	U
WG	01	473846001	3/13/2019	I-131	2.31E+00	1.92E+00	6.41E+00	U
WG	01	473846001	3/13/2019	K-40	1.08E+01	1.09E+01	1.45E+01	U
WG	01	473846001	3/13/2019	La-140	-2.74E-01	1.30E+00	4.24E+00	U
WG	01	473846001	3/13/2019	Mn-54	-2.73E-01	3.57E-01	1.09E+00	U
WG	01	473846001	3/13/2019	Nb-95	3.87E-01	4.29E-01	1.40E+00	U
WG	01	473846001	3/13/2019	Pb-212	6.86E-02	1.23E+00	2.82E+00	U
WG	01	473846001	3/13/2019	Pb-214	0.00E+00	2.10E+00	3.13E+00	U
WG	01	473846001	3/13/2019	Ru-103	6.22E-01	5.38E-01	1.61E+00	U
WG	01	473846001	3/13/2019	Ru-106	-8.83E-01	3.35E+00	1.09E+01	U
WG	01	473846001	3/13/2019	Sb-124	4.82E-01	1.02E+00	3.40E+00	U
WG	01	473846001	3/13/2019	Sb-125	-1.22E+00	1.01E+00	3.13E+00	U
WG	01	473846001	3/13/2019	Se-75	-1.77E-01	5.04E-01	1.72E+00	U
WG	01	473846001	3/13/2019	Th-228	6.86E-02	1.23E+00	2.82E+00	U
WG	01	473846001	3/13/2019	Zn-65	6.62E-01	9.01E-01	2.76E+00	U
WG	01	473846001	3/13/2019	Zr-95	3.65E-01	7.16E-01	2.35E+00	U
WG	01	481286001	6/5/2019	Ac-228	-3.32E+00	3.26E+00	6.22E+00	U
WG	01	481286001	6/5/2019	Ag-108m	-5.02E-02	3.83E-01	1.25E+00	U
WG	01	481286001	6/5/2019	Ag-110m	-4.79E-01	5.88E-01	1.87E+00	U
WG	01	481286001	6/5/2019	Ba-140	-1.02E+00	2.08E+00	6.58E+00	U
WG	01	481286001	6/5/2019	Be-7	-4.11E+00	3.61E+00	1.10E+01	U
WG	01	481286001	6/5/2019	BETA	7.30E+00	1.39E+00	2.48E+00	
WG	01	481286001	6/5/2019	Bi-214	1.06E+01	2.06E+00	2.74E+00	
WG	01	481286001	6/5/2019	Ce-141	8.12E-01	1.51E+00	2.27E+00	U
WG	01	481286001	6/5/2019	Ce-144	-1.06E+00	2.74E+00	8.73E+00	U
WG	01	481286001	6/5/2019	Co-57	-5.88E-01	3.74E-01	1.10E+00	U
WG	01	481286001	6/5/2019	Co-58	2.59E-01	4.35E-01	1.47E+00	U
WG	01	481286001	6/5/2019	Co-60	-3.49E-01	4.64E-01	1.41E+00	U
WG	01	481286001	6/5/2019	Cr-51	-4.87E+00	3.95E+00	1.24E+01	U
WG	01	481286001	6/5/2019	Cs-134	-1.20E-01	4.62E-01	1.54E+00	U
WG	01	481286001	6/5/2019	Cs-137	-3.23E-01	4.80E-01	1.47E+00	U
WG	01	481286001	6/5/2019	Fe-59	-3.35E-01	9.18E-01	2.95E+00	U
WG	01	481286001	6/5/2019	H-3	-3.45E+01	1.96E+02	6.51E+02	U
WG	01	481286001	6/5/2019	I-131	2.59E-01	6.87E-01	2.30E+00	U

SAMPLE TYPE	STATION	LSN	END DATE	NUCLIDE	CONC (pCi/kg)	STD.DEV. (pCi/kg)	MDC (pCi/kg)	FLAGS
WG	01	481286001	6/5/2019	K-40	-1.67E+01	1.12E+01	2.27E+01	U
WG	01	481286001	6/5/2019	La-140	-6.18E-01	7.63E-01	2.04E+00	U
WG	01	481286001	6/5/2019	Mn-54	8.57E-01	4.67E-01	1.50E+00	U
WG	01	481286001	6/5/2019	Nb-95	5.15E-01	4.44E-01	1.49E+00	U
WG	01	481286001	6/5/2019	Pb-212	9.23E-01	1.68E+00	2.47E+00	U
WG	01	481286001	6/5/2019	Pb-214	8.81E+00	2.05E+00	4.56E+00	
WG	01	481286001	6/5/2019	Ru-103	3.80E-01	4.59E-01	1.35E+00	U
WG	01	481286001	6/5/2019	Ru-106	-2.94E+00	4.02E+00	1.24E+01	U
WG	01	481286001	6/5/2019	Sb-124	-1.81E+00	1.19E+00	2.77E+00	U
WG	01	481286001	6/5/2019	Sb-125	-1.25E+00	1.22E+00	3.79E+00	U
WG	01	481286001	6/5/2019	Se-75	7.75E-01	5.79E-01	1.92E+00	U
WG	01	481286001	6/5/2019	Th-228	9.23E-01	1.68E+00	2.47E+00	U
WG	01	481286001	6/5/2019	Zn-65	-3.26E-01	1.07E+00	3.00E+00	U
WG	01	481286001	6/5/2019	Zr-95	-7.75E-02	7.42E-01	2.49E+00	U
WG	01	489981001	9/10/2019	Ac-228	0.00E+00	5.58E+00	8.61E+00	U
WG	01	489981001	9/10/2019	Ag-108m	3.62E-01	4.55E-01	1.51E+00	U
WG	01	489981001	9/10/2019	Ag-110m	4.73E-01	7.49E-01	2.45E+00	U
WG	01	489981001	9/10/2019	Ba-140	-3.69E+00	3.05E+00	9.16E+00	U
WG	01	489981001	9/10/2019	Be-7	-3.37E+00	4.62E+00	1.46E+01	U
WG	01	489981001	9/10/2019	BETA	6.03E+00	1.46E+00	3.64E+00	
WG	01	489981001	9/10/2019	Bi-214	9.58E+00	2.80E+00	3.49E+00	
WG	01	489981001	9/10/2019	Ce-141	-6.58E-01	1.11E+00	3.31E+00	U
WG	01	489981001	9/10/2019	Ce-144	-4.04E+00	4.30E+00	1.25E+01	U
WG	01	489981001	9/10/2019	Co-57	4.57E-01	5.19E-01	1.75E+00	U
WG	01	489981001	9/10/2019	Co-58	7.39E-01	5.81E-01	1.89E+00	U
WG	01	489981001	9/10/2019	Co-60	1.14E+00	6.01E-01	2.00E+00	U
WG	01	489981001	9/10/2019	Cr-51	-4.72E+00	5.71E+00	1.74E+01	U
WG	01	489981001	9/10/2019	Cs-134	2.45E-01	5.79E-01	1.89E+00	U
WG	01	489981001	9/10/2019	Cs-137	1.00E+00	6.70E-01	1.77E+00	U
WG	01	489981001	9/10/2019	Fe-59	-7.74E-01	1.10E+00	3.31E+00	U
WG	01	489981001	9/10/2019	H-3	4.34E+02	3.96E+02	5.84E+02	U
WG	01	489981001	9/10/2019	I-131	1.03E+00	1.02E+00	3.38E+00	U
WG	01	489981001	9/10/2019	K-40	0.00E+00	1.39E+01	1.59E+01	U
WG	01	489981001	9/10/2019	La-140	-1.53E+00	9.85E-01	2.79E+00	U
WG	01	489981001	9/10/2019	Mn-54	-9.91E-01	5.61E-01	1.49E+00	U
WG	01	489981001	9/10/2019	Nb-95	-2.59E-01	5.69E-01	1.79E+00	U
WG	01	489981001	9/10/2019	Pb-212	-4.62E+00	2.20E+00	4.16E+00	U
WG	01	489981001	9/10/2019	Pb-214	1.20E+01	2.98E+00	5.74E+00	
WG	01	489981001	9/10/2019	Ru-103	-6.19E-01	5.87E-01	1.80E+00	U
WG	01	489981001	9/10/2019	Ru-106	-1.07E+00	6.97E+00	1.47E+01	U
WG	01	489981001	9/10/2019	Sb-124	1.19E+00	1.28E+00	4.44E+00	U
WG	01	489981001	9/10/2019	Sb-125	1.62E+00	1.46E+00	4.81E+00	U
WG	01	489981001	9/10/2019	Se-75	-8.52E-01	7.73E-01	2.44E+00	U
WG	01	489981001	9/10/2019	Th-228	-4.62E+00	2.20E+00	4.16E+00	U
WG	01	489981001	9/10/2019	Zn-65	1.30E-02	1.13E+00	3.19E+00	U
WG	01	489981001	9/10/2019	Zr-95	-1.19E-01	9.67E-01	3.11E+00	U
WG	01	498459001	12/4/2019	Ac-228	4.95E+00	6.91E+00	1.17E+01	U
WG	01	498459001	12/4/2019	Ag-108m	-5.35E-01	5.76E-01	1.86E+00	U
WG	01	498459001	12/4/2019	Ag-110m	4.02E-01	9.19E-01	3.02E+00	U

Seabrook REMP Summary of 2019 Data

SAMPLE TYPE	STATION	LSN	END DATE	NUCLIDE	CONC (pCi/kg)	STD.DEV. (pCi/kg)	MDC (pCi/kg)	FLAGS
WG	01	498459001	12/4/2019	Ba-140	7.77E+00	5.44E+00	1.24E+01	U
WG	01	498459001	12/4/2019	Be-7	-8.15E-01	5.76E+00	1.94E+01	U
WG	01	498459001	12/4/2019	BETA	5.61E+00	1.21E+00	2.43E+00	
WG	01	498459001	12/4/2019	Bi-214	0.00E+00	4.75E+00	7.90E+00	U
WG	01	498459001	12/4/2019	Ce-141	1.22E+00	1.19E+00	3.64E+00	U
WG	01	498459001	12/4/2019	Ce-144	-1.86E+00	4.37E+00	1.44E+01	U
WG	01	498459001	12/4/2019	Co-57	2.76E-01	5.78E-01	1.94E+00	U
WG	01	498459001	12/4/2019	Co-58	-7.68E-01	7.04E-01	2.07E+00	U
WG	01	498459001	12/4/2019	Co-60	7.16E-01	8.13E-01	2.80E+00	U
WG	01	498459001	12/4/2019	Cr-51	3.62E+00	6.67E+00	2.12E+01	U
WG	01	498459001	12/4/2019	Cs-134	1.67E-01	1.33E+00	2.75E+00	U
WG	01	498459001	12/4/2019	Cs-137	9.23E-02	7.18E-01	2.38E+00	U
WG	01	498459001	12/4/2019	Fe-59	-2.62E+00	1.27E+00	3.11E+00	U
WG	01	498459001	12/4/2019	H-3	-1.01E+02	1.66E+02	5.63E+02	U
WG	01	498459001	12/4/2019	I-131	-2.17E+00	1.41E+00	3.84E+00	U
WG	01	498459001	12/4/2019	K-40	8.25E+00	1.90E+01	2.30E+01	U
WG	01	498459001	12/4/2019	La-140	-8.09E-01	1.29E+00	4.01E+00	U
WG	01	498459001	12/4/2019	Mn-54	1.57E+00	5.42E-01	1.96E+00	U
WG	01	498459001	12/4/2019	Nb-95	1.28E+00	8.36E-01	2.51E+00	U
WG	01	498459001	12/4/2019	Pb-212	-3.71E-01	2.47E+00	4.99E+00	U
WG	01	498459001	12/4/2019	Pb-214	9.91E+00	3.47E+00	4.67E+00	
WG	01	498459001	12/4/2019	Ru-103	5.40E-01	7.35E-01	2.28E+00	U
WG	01	498459001	12/4/2019	Ru-106	-1.59E+00	5.54E+00	1.81E+01	U
WG	01	498459001	12/4/2019	Sb-124	2.27E+00	2.07E+00	7.04E+00	U
WG	01	498459001	12/4/2019	Sb-125	2.08E+00	1.71E+00	5.84E+00	U
WG	01	498459001	12/4/2019	Se-75	-2.23E-01	9.52E-01	3.01E+00	U
WG	01	498459001	12/4/2019	Th-228	-3.71E-01	2.47E+00	4.99E+00	U
WG	01	498459001	12/4/2019	Zn-65	-1.50E+00	1.36E+00	4.13E+00	U
WG	01	498459001	12/4/2019	Zr-95	7.91E-01	1.12E+00	3.76E+00	U
WG	13	473846002	3/13/2019	Ac-228	1.41E+00	4.42E+00	6.89E+00	U
WG	13	473846002	3/13/2019	Ag-108m	-1.98E-01	3.73E-01	1.22E+00	U
WG	13	473846002	3/13/2019	Ag-110m	2.53E-01	6.00E-01	2.05E+00	U
WG	13	473846002	3/13/2019	Ba-140	-7.18E+00	4.49E+00	1.29E+01	U
WG	13	473846002	3/13/2019	Be-7	6.59E-01	4.24E+00	1.41E+01	U
WG	13	473846002	3/13/2019	BETA	3.01E+00	1.12E+00	3.09E+00	U
WG	13	473846002	3/13/2019	Bi-214	1.01E+01	2.32E+00	2.49E+00	
WG	13	473846002	3/13/2019	Ce-141	-3.68E+00	1.92E+00	3.28E+00	U
WG	13	473846002	3/13/2019	Ce-144	-5.50E+00	3.30E+00	9.55E+00	U
WG	13	473846002	3/13/2019	Co-57	-1.79E-01	3.85E-01	1.24E+00	U
WG	13	473846002	3/13/2019	Co-58	-4.11E-01	5.25E-01	1.59E+00	U
WG	13	473846002	3/13/2019	Co-60	-1.02E-01	4.75E-01	1.54E+00	U
WG	13	473846002	3/13/2019	Cr-51	-6.15E+00	5.41E+00	1.73E+01	U
WG	13	473846002	3/13/2019	Cs-134	-3.16E-01	4.93E-01	1.51E+00	U
WG	13	473846002	3/13/2019	Cs-137	-1.10E+00	7.78E-01	1.52E+00	U
WG	13	473846002	3/13/2019	Fe-59	2.50E+00	2.30E+00	3.62E+00	U
WG	13	473846002	3/13/2019	H-3	-1.18E+02	1.36E+02	4.60E+02	U
WG	13	473846002	3/13/2019	I-131	-8.72E-01	2.07E+00	6.90E+00	U
WG	13	473846002	3/13/2019	K-40	-1.18E+01	1.23E+01	2.09E+01	U
WG	13	473846002	3/13/2019	La-140	7.37E-01	1.56E+00	5.11E+00	U
WG	13	473846002	3/13/2019	Mn-54	-3.84E-01	3.98E-01	1.27E+00	U

SAMPLE TYPE	STATION	LSN	END DATE	NUCLIDE	CONC (pCi/kg)	STD.DEV. (pCi/kg)	MDC (pCi/kg)	FLAGS
WG	13	473846002	3/13/2019	Nb-95	-6.30E-01	5.72E-01	1.69E+00	U
WG	13	473846002	3/13/2019	Pb-212	-1.06E-01	1.44E+00	3.12E+00	U
WG	13	473846002	3/13/2019	Pb-214	0.00E+00	2.97E+00	4.31E+00	U
WG	13	473846002	3/13/2019	Ru-103	-2.56E-01	6.29E-01	1.82E+00	U
WG	13	473846002	3/13/2019	Ru-106	7.56E+00	4.27E+00	1.34E+01	U
WG	13	473846002	3/13/2019	Sb-124	2.87E-03	1.22E+00	3.91E+00	U
WG	13	473846002	3/13/2019	Sb-125	1.10E+00	1.17E+00	3.89E+00	U
WG	13	473846002	3/13/2019	Se-75	3.66E-01	6.64E-01	2.08E+00	U
WG	13	473846002	3/13/2019	Th-228	-1.06E-01	1.44E+00	3.12E+00	U
WG	13	473846002	3/13/2019	Zn-65	2.97E+00	1.29E+00	3.14E+00	U
WG	13	473846002	3/13/2019	Zr-95	6.99E-01	9.02E-01	2.92E+00	U
WG	13	481286002	6/5/2019	Ac-228	-9.46E-01	2.63E+00	6.45E+00	U
WG	13	481286002	6/5/2019	Ag-108m	2.03E-01	3.78E-01	1.28E+00	U
WG	13	481286002	6/5/2019	Ag-110m	1.55E-01	5.58E-01	1.80E+00	U
WG	13	481286002	6/5/2019	Ba-140	-2.10E+00	4.29E+00	6.89E+00	U
WG	13	481286002	6/5/2019	Be-7	-1.32E+00	3.76E+00	1.24E+01	U
WG	13	481286002	6/5/2019	BETA	2.71E+00	1.24E+00	3.46E+00	U
WG	13	481286002	6/5/2019	Bi-214	6.07E+01	3.87E+00	2.90E+00	
WG	13	481286002	6/5/2019	Ce-141	-1.67E+00	9.67E-01	2.77E+00	U
WG	13	481286002	6/5/2019	Ce-144	4.55E+00	3.28E+00	1.04E+01	U
WG	13	481286002	6/5/2019	Co-57	2.34E-01	4.21E-01	1.38E+00	U
WG	13	481286002	6/5/2019	Co-58	-1.22E+00	5.47E-01	1.34E+00	U
WG	13	481286002	6/5/2019	Co-60	7.18E-01	5.18E-01	1.73E+00	U
WG	13	481286002	6/5/2019	Cr-51	-1.31E+00	3.97E+00	1.35E+01	U
WG	13	481286002	6/5/2019	Cs-134	-2.29E-01	4.87E-01	1.53E+00	U
WG	13	481286002	6/5/2019	Cs-137	9.93E-01	5.30E-01	1.60E+00	U
WG	13	481286002	6/5/2019	Fe-59	-5.61E-01	9.04E-01	2.94E+00	U
WG	13	481286002	6/5/2019	H-3	-6.92E+01	1.98E+02	6.61E+02	U
WG	13	481286002	6/5/2019	I-131	-2.66E-01	7.13E-01	2.39E+00	U
WG	13	481286002	6/5/2019	K-40	1.45E+00	1.12E+01	1.56E+01	U
WG	13	481286002	6/5/2019	La-140	3.28E-01	7.74E-01	2.57E+00	U
WG	13	481286002	6/5/2019	Mn-54	-7.42E-01	5.68E-01	1.43E+00	U
WG	13	481286002	6/5/2019	Nb-95	1.26E+00	5.76E-01	1.59E+00	U
WG	13	481286002	6/5/2019	Pb-212	-3.06E+00	1.74E+00	3.26E+00	U
WG	13	481286002	6/5/2019	Pb-214	5.82E+01	3.85E+00	3.46E+00	
WG	13	481286002	6/5/2019	Ru-103	2.84E-01	5.05E-01	1.52E+00	U
WG	13	481286002	6/5/2019	Ru-106	-5.32E+00	4.40E+00	1.33E+01	U
WG	13	481286002	6/5/2019	Sb-124	-5.84E-01	1.07E+00	3.32E+00	U
WG	13	481286002	6/5/2019	Sb-125	-8.28E-01	1.25E+00	4.08E+00	U
WG	13	481286002	6/5/2019	Se-75	-4.86E-01	6.61E-01	2.00E+00	U
WG	13	481286002	6/5/2019	Th-228	-3.06E+00	1.74E+00	3.26E+00	U
WG	13	481286002	6/5/2019	Zn-65	-2.02E-01	8.93E-01	2.60E+00	U
WG	13	481286002	6/5/2019	Zr-95	-1.41E-01	7.52E-01	2.41E+00	U
WG	13	489981002	9/10/2019	Ac-228	3.67E+00	5.18E+00	8.99E+00	U
WG	13	489981002	9/10/2019	Ag-108m	-4.98E-01	5.58E-01	1.70E+00	U
WG	13	489981002	9/10/2019	Ag-110m	-2.85E-01	7.92E-01	2.57E+00	U
WG	13	489981002	9/10/2019	Ba-140	-2.05E+00	3.12E+00	9.55E+00	U
WG	13	489981002	9/10/2019	Be-7	3.99E+00	5.01E+00	1.61E+01	U
WG	13	489981002	9/10/2019	BETA	3.10E+00	1.10E+00	3.13E+00	U

SAMPLE TYPE	STATION	LSN	END DATE	NUCLIDE	CONC (pCi/kg)	STD.DEV. (pCi/kg)	MDC (pCi/kg)	FLAGS
WG	13	489981002	9/10/2019	Bi-214	1.53E+00	2.30E+00	4.74E+00	U
WG	13	489981002	9/10/2019	Ce-141	8.95E-02	1.14E+00	3.84E+00	U
WG	13	489981002	9/10/2019	Ce-144	8.69E+00	4.65E+00	1.45E+01	U
WG	13	489981002	9/10/2019	Co-57	-3.65E-01	5.49E-01	1.82E+00	U
WG	13	489981002	9/10/2019	Co-58	-2.15E-01	5.90E-01	1.93E+00	U
WG	13	489981002	9/10/2019	Co-60	1.19E+00	7.34E-01	2.37E+00	U
WG	13	489981002	9/10/2019	Cr-51	-9.69E-01	5.93E+00	1.92E+01	U
WG	13	489981002	9/10/2019	Cs-134	1.38E+00	7.63E-01	2.22E+00	U
WG	13	489981002	9/10/2019	Cs-137	-7.22E-02	6.12E-01	2.05E+00	U
WG	13	489981002	9/10/2019	Fe-59	-4.56E-01	1.24E+00	3.97E+00	U
WG	13	489981002	9/10/2019	H-3	1.75E+02	3.66E+02	5.85E+02	U
WG	13	489981002	9/10/2019	I-131	1.82E+00	1.21E+00	3.82E+00	U
WG	13	489981002	9/10/2019	K-40	7.87E+00	1.71E+01	1.99E+01	U
WG	13	489981002	9/10/2019	La-140	-1.82E+00	1.16E+00	3.31E+00	U
WG	13	489981002	9/10/2019	Mn-54	2.80E-02	6.24E-01	1.82E+00	U
WG	13	489981002	9/10/2019	Nb-95	-3.53E-02	5.93E-01	1.97E+00	U
WG	13	489981002	9/10/2019	Pb-212	-4.10E+00	2.91E+00	6.54E+00	U
WG	13	489981002	9/10/2019	Pb-214	9.37E-01	2.43E+00	4.81E+00	U
WG	13	489981002	9/10/2019	Ru-103	-1.78E+00	1.11E+00	1.97E+00	U
WG	13	489981002	9/10/2019	Ru-106	2.55E+00	5.26E+00	1.79E+01	U
WG	13	489981002	9/10/2019	Sb-124	6.82E-01	1.50E+00	5.12E+00	U
WG	13	489981002	9/10/2019	Sb-125	-1.92E+00	1.70E+00	5.07E+00	U
WG	13	489981002	9/10/2019	Se-75	7.98E-01	8.68E-01	2.84E+00	U
WG	13	489981002	9/10/2019	Th-228	-4.10E+00	2.91E+00	6.54E+00	U
WG	13	489981002	9/10/2019	Zn-65	-2.71E-01	1.31E+00	4.21E+00	U
WG	13	489981002	9/10/2019	Zr-95	-5.80E-01	1.09E+00	3.55E+00	U
WG	13	498459002	12/4/2019	Ac-228	-5.09E+00	4.27E+00	7.76E+00	U
WG	13	498459002	12/4/2019	Ag-108m	-4.35E-01	4.84E-01	1.32E+00	U
WG	13	498459002	12/4/2019	Ag-110m	1.75E-01	6.99E-01	2.32E+00	U
WG	13	498459002	12/4/2019	Ba-140	9.96E-01	2.49E+00	8.06E+00	U
WG	13	498459002	12/4/2019	Be-7	3.38E+00	4.21E+00	1.38E+01	U
WG	13	498459002	12/4/2019	BETA	8.62E-01	8.84E-01	2.68E+00	U
WG	13	498459002	12/4/2019	Bi-214	1.33E+00	2.27E+00	4.22E+00	U
WG	13	498459002	12/4/2019	Ce-141	8.92E-01	8.77E-01	2.63E+00	U
WG	13	498459002	12/4/2019	Ce-144	-2.40E+00	3.10E+00	9.76E+00	U
WG	13	498459002	12/4/2019	Co-57	-4.42E-01	4.05E-01	1.25E+00	U
WG	13	498459002	12/4/2019	Co-58	2.80E-01	5.33E-01	1.67E+00	U
WG	13	498459002	12/4/2019	Co-60	2.12E-02	6.06E-01	2.02E+00	U
WG	13	498459002	12/4/2019	Cr-51	-1.91E+00	4.50E+00	1.49E+01	U
WG	13	498459002	12/4/2019	Cs-134	9.24E-02	6.21E-01	1.92E+00	U
WG	13	498459002	12/4/2019	Cs-137	-3.34E-01	5.42E-01	1.77E+00	U
WG	13	498459002	12/4/2019	Fe-59	2.66E-01	1.40E+00	3.96E+00	U
WG	13	498459002	12/4/2019	H-3	-2.40E+02	1.48E+02	5.28E+02	U
WG	13	498459002	12/4/2019	I-131	-7.43E-02	8.70E-01	2.88E+00	U
WG	13	498459002	12/4/2019	K-40	-3.60E+00	1.16E+01	2.67E+01	U
WG	13	498459002	12/4/2019	La-140	-1.81E-01	1.05E+00	3.38E+00	U
WG	13	498459002	12/4/2019	Mn-54	-5.22E-01	5.01E-01	1.53E+00	U
WG	13	498459002	12/4/2019	Nb-95	-2.08E-01	5.43E-01	1.71E+00	U
WG	13	498459002	12/4/2019	Pb-212	5.42E-01	1.95E+00	3.76E+00	U
WG	13	498459002	12/4/2019	Pb-214	-4.53E+00	2.82E+00	4.25E+00	U

Seabrook REMP Summary of 2019 Data

SAMPLE TYPE	STATION	LSN	END DATE	NUCLIDE	CONC (pCi/kg)	STD.DEV. (pCi/kg)	MDC (pCi/kg)	FLAGS
WG	13	498459002	12/4/2019	Ru-103	1.27E-01	5.74E-01	1.67E+00	U
WG	13	498459002	12/4/2019	Ru-106	4.75E+00	4.87E+00	1.49E+01	U
WG	13	498459002	12/4/2019	Sb-124	9.44E-01	1.44E+00	4.80E+00	U
WG	13	498459002	12/4/2019	Sb-125	-3.16E-01	1.31E+00	4.25E+00	U
WG	13	498459002	12/4/2019	Se-75	5.68E-01	6.35E-01	2.16E+00	U
WG	13	498459002	12/4/2019	Th-228	5.42E-01	1.95E+00	3.76E+00	U
WG	13	498459002	12/4/2019	Zn-65	1.67E+00	1.33E+00	4.07E+00	U
WG	13	498459002	12/4/2019	Zr-95	-9.05E-01	8.52E-01	2.61E+00	U
WG	14	473846003	3/13/2019	Ac-228	-1.05E+00	3.05E+00	6.06E+00	U
WG	14	473846003	3/13/2019	Ag-108m	-1.17E-01	3.20E-01	1.04E+00	U
WG	14	473846003	3/13/2019	Ag-110m	2.00E-01	5.18E-01	1.75E+00	U
WG	14	473846003	3/13/2019	Ba-140	1.61E+00	3.58E+00	1.17E+01	U
WG	14	473846003	3/13/2019	Be-7	6.65E-01	3.73E+00	1.22E+01	U
WG	14	473846003	3/13/2019	BETA	5.62E+00	1.23E+00	2.74E+00	
WG	14	473846003	3/13/2019	Bi-214	1.73E+01	2.69E+00	2.47E+00	
WG	14	473846003	3/13/2019	Ce-141	-7.92E-01	9.25E-01	2.84E+00	U
WG	14	473846003	3/13/2019	Ce-144	5.17E+00	3.17E+00	8.16E+00	U
WG	14	473846003	3/13/2019	Co-57	-2.20E-01	3.36E-01	1.05E+00	U
WG	14	473846003	3/13/2019	Co-58	-5.20E-01	4.29E-01	1.34E+00	U
WG	14	473846003	3/13/2019	Co-60	-7.33E-02	3.93E-01	1.26E+00	U
WG	14	473846003	3/13/2019	Cr-51	-2.71E+00	4.69E+00	1.54E+01	U
WG	14	473846003	3/13/2019	Cs-134	1.14E+00	4.82E-01	1.45E+00	U
WG	14	473846003	3/13/2019	Cs-137	-9.01E-01	6.92E-01	1.22E+00	U
WG	14	473846003	3/13/2019	Fe-59	-1.68E+00	1.03E+00	2.94E+00	U
WG	14	473846003	3/13/2019	H-3	2.27E+02	1.47E+02	4.53E+02	U
WG	14	473846003	3/13/2019	I-131	-7.72E-01	1.92E+00	6.32E+00	U
WG	14	473846003	3/13/2019	K-40	9.38E+00	1.19E+01	1.15E+01	U
WG	14	473846003	3/13/2019	La-140	-3.00E+00	1.39E+00	3.64E+00	U
WG	14	473846003	3/13/2019	Mn-54	-1.06E-02	3.71E-01	1.25E+00	U
WG	14	473846003	3/13/2019	Nb-95	-1.00E+00	7.37E-01	1.53E+00	U
WG	14	473846003	3/13/2019	Pb-212	-6.59E-01	1.35E+00	2.67E+00	U
WG	14	473846003	3/13/2019	Pb-214	2.24E+01	2.22E+00	4.91E+00	
WG	14	473846003	3/13/2019	Ru-103	-1.26E-01	4.83E-01	1.56E+00	U
WG	14	473846003	3/13/2019	Ru-106	-1.79E+00	3.58E+00	1.13E+01	U
WG	14	473846003	3/13/2019	Sb-124	3.89E-02	9.31E-01	3.13E+00	U
WG	14	473846003	3/13/2019	Sb-125	-2.10E-02	9.86E-01	3.25E+00	U
WG	14	473846003	3/13/2019	Se-75	-7.61E-01	5.62E-01	1.68E+00	U
WG	14	473846003	3/13/2019	Th-228	-6.59E-01	1.35E+00	2.67E+00	U
WG	14	473846003	3/13/2019	Zn-65	-3.04E-01	9.44E-01	2.68E+00	U
WG	14	473846003	3/13/2019	Zr-95	2.64E-01	7.47E-01	2.55E+00	U
WG	14	481286003	6/5/2019	Ac-228	-3.33E+00	3.29E+00	7.05E+00	U
WG	14	481286003	6/5/2019	Ag-108m	8.95E-01	6.54E-01	1.48E+00	U
WG	14	481286003	6/5/2019	Ag-110m	-1.82E-01	5.94E-01	1.90E+00	U
WG	14	481286003	6/5/2019	Ba-140	2.73E+00	2.30E+00	7.61E+00	U
WG	14	481286003	6/5/2019	Be-7	-4.98E+00	4.04E+00	1.26E+01	U
WG	14	481286003	6/5/2019	BETA	4.21E+00	9.83E-01	1.84E+00	
WG	14	481286003	6/5/2019	Bi-214	6.90E+01	4.19E+00	2.94E+00	
WG	14	481286003	6/5/2019	Ce-141	9.96E-01	9.74E-01	3.08E+00	U
WG	14	481286003	6/5/2019	Ce-144	9.35E+00	5.41E+00	1.09E+01	U

SAMPLE TYPE	STATION	LSN	END DATE	NUCLIDE	CONC (pCi/kg)	STD.DEV. (pCi/kg)	MDC (pCi/kg)	FLAGS
WG	14	481286003	6/5/2019	Co-57	2.45E-01	4.61E-01	1.49E+00	U
WG	14	481286003	6/5/2019	Co-58	3.12E-01	4.85E-01	1.44E+00	U
WG	14	481286003	6/5/2019	Co-60	6.73E-01	9.07E-01	1.68E+00	U
WG	14	481286003	6/5/2019	Cr-51	-4.69E+00	4.55E+00	1.49E+01	U
WG	14	481286003	6/5/2019	Cs-134	-1.09E-01	4.73E-01	1.53E+00	U
WG	14	481286003	6/5/2019	Cs-137	1.56E-01	4.91E-01	1.47E+00	U
WG	14	481286003	6/5/2019	Fe-59	-4.78E-01	9.46E-01	2.94E+00	U
WG	14	481286003	6/5/2019	H-3	5.60E+01	2.04E+02	6.64E+02	U
WG	14	481286003	6/5/2019	I-131	-1.03E+00	8.42E-01	2.55E+00	U
WG	14	481286003	6/5/2019	K-40	-2.38E+01	1.07E+01	2.20E+01	U
WG	14	481286003	6/5/2019	La-140	1.29E+00	9.94E-01	2.37E+00	U
WG	14	481286003	6/5/2019	Mn-54	-2.20E-01	4.16E-01	1.32E+00	U
WG	14	481286003	6/5/2019	Nb-95	1.79E-01	5.05E-01	1.50E+00	U
WG	14	481286003	6/5/2019	Pb-212	2.45E+00	1.85E+00	2.90E+00	U
WG	14	481286003	6/5/2019	Pb-214	8.92E+01	5.13E+00	9.79E+00	
WG	14	481286003	6/5/2019	Ru-103	-1.18E+00	6.08E-01	1.52E+00	U
WG	14	481286003	6/5/2019	Ru-106	-1.57E+00	3.97E+00	1.29E+01	U
WG	14	481286003	6/5/2019	Sb-124	2.30E-01	8.90E-01	3.01E+00	U
WG	14	481286003	6/5/2019	Sb-125	8.73E-01	1.27E+00	4.30E+00	U
WG	14	481286003	6/5/2019	Se-75	8.81E-01	7.05E-01	2.16E+00	U
WG	14	481286003	6/5/2019	Th-228	2.45E+00	1.85E+00	2.90E+00	U
WG	14	481286003	6/5/2019	Zn-65	4.35E-01	1.06E+00	3.08E+00	U
WG	14	481286003	6/5/2019	Zr-95	-4.13E-01	7.86E-01	2.51E+00	U
WG	14	489981003	9/10/2019	Ac-228	2.92E-01	3.46E+00	6.69E+00	U
WG	14	489981003	9/10/2019	Ag-108m	4.91E-01	4.50E-01	1.34E+00	U
WG	14	489981003	9/10/2019	Ag-110m	-2.48E-01	5.60E-01	1.85E+00	U
WG	14	489981003	9/10/2019	Ba-140	-7.65E-01	2.24E+00	7.18E+00	U
WG	14	489981003	9/10/2019	Be-7	-7.66E+00	4.10E+00	1.13E+01	U
WG	14	489981003	9/10/2019	BETA	2.73E+00	1.03E+00	2.65E+00	M
WG	14	489981003	9/10/2019	Bi-214	3.09E+01	2.86E+00	2.84E+00	
WG	14	489981003	9/10/2019	Ce-141	-3.46E+00	1.45E+00	2.57E+00	U
WG	14	489981003	9/10/2019	Ce-144	-1.26E+00	3.15E+00	9.89E+00	U
WG	14	489981003	9/10/2019	Co-57	-3.88E-01	4.06E-01	1.24E+00	U
WG	14	489981003	9/10/2019	Co-58	-5.38E-01	4.37E-01	1.36E+00	U
WG	14	489981003	9/10/2019	Co-60	3.35E-01	5.07E-01	1.68E+00	U
WG	14	489981003	9/10/2019	Cr-51	-1.89E+00	4.05E+00	1.34E+01	U
WG	14	489981003	9/10/2019	Cs-134	-3.50E-01	4.50E-01	1.46E+00	U
WG	14	489981003	9/10/2019	Cs-137	1.02E+00	5.40E-01	1.52E+00	U
WG	14	489981003	9/10/2019	Fe-59	-2.82E-02	8.86E-01	2.94E+00	U
WG	14	489981003	9/10/2019	H-3	5.73E+02	4.15E+02	5.86E+02	U
WG	14	489981003	9/10/2019	I-131	-3.43E-01	8.38E-01	2.75E+00	U
WG	14	489981003	9/10/2019	K-40	-1.63E+01	9.84E+00	2.21E+01	U
WG	14	489981003	9/10/2019	La-140	-3.62E-02	7.71E-01	2.48E+00	U
WG	14	489981003	9/10/2019	Mn-54	-2.17E-01	4.05E-01	1.34E+00	U
WG	14	489981003	9/10/2019	Nb-95	1.78E-01	5.33E-01	1.52E+00	U
WG	14	489981003	9/10/2019	Pb-212	2.03E+00	1.61E+00	2.61E+00	U
WG	14	489981003	9/10/2019	Pb-214	3.44E+01	2.83E+00	3.01E+00	

SAMPLE TYPE	STATION	LSN	END DATE	NUCLIDE	CONC (pCi/kg)	STD.DEV. (pCi/kg)	MDC (pCi/kg)	FLAGS
WG	14	489981003	9/10/2019	Ru-103	3.16E-01	4.88E-01	1.45E+00	U
WG	14	489981003	9/10/2019	Ru-106	-8.68E+00	4.59E+00	1.23E+01	U
WG	14	489981003	9/10/2019	Sb-124	7.54E-01	9.59E-01	3.18E+00	U
WG	14	489981003	9/10/2019	Sb-125	-7.81E-01	1.13E+00	3.63E+00	U
WG	14	489981003	9/10/2019	Se-75	1.04E+00	6.16E-01	1.99E+00	U
WG	14	489981003	9/10/2019	Th-228	2.03E+00	1.61E+00	2.61E+00	U
WG	14	489981003	9/10/2019	Zn-65	1.42E+00	1.01E+00	2.92E+00	U
WG	14	489981003	9/10/2019	Zr-95	-5.97E-01	8.41E-01	2.56E+00	U
WG	14	498459003	12/4/2019	Ac-228	0.00E+00	5.17E+00	7.25E+00	U
WG	14	498459003	12/4/2019	Ag-108m	-2.66E-01	4.44E-01	1.43E+00	U
WG	14	498459003	12/4/2019	Ag-110m	-5.31E-02	6.13E-01	2.04E+00	U
WG	14	498459003	12/4/2019	Ba-140	-4.57E+00	3.74E+00	8.75E+00	U
WG	14	498459003	12/4/2019	Be-7	-8.06E-02	4.31E+00	1.41E+01	U
WG	14	498459003	12/4/2019	BETA	3.92E+00	1.12E+00	2.64E+00	M
WG	14	498459003	12/4/2019	Bi-214	1.07E+02	5.71E+00	3.34E+00	
WG	14	498459003	12/4/2019	Ce-141	-2.94E-01	1.04E+00	3.04E+00	U
WG	14	498459003	12/4/2019	Ce-144	1.87E+00	3.46E+00	1.12E+01	U
WG	14	498459003	12/4/2019	Co-57	-1.76E-01	4.32E-01	1.39E+00	U
WG	14	498459003	12/4/2019	Co-58	1.77E-01	5.43E-01	1.62E+00	U
WG	14	498459003	12/4/2019	Co-60	1.06E-01	5.30E-01	1.71E+00	U
WG	14	498459003	12/4/2019	Cr-51	4.54E+00	4.81E+00	1.61E+01	U
WG	14	498459003	12/4/2019	Cs-134	-7.60E-01	6.82E-01	1.73E+00	U
WG	14	498459003	12/4/2019	Cs-137	3.26E-02	5.23E-01	1.66E+00	U
WG	14	498459003	12/4/2019	Fe-59	-2.31E+00	1.14E+00	2.97E+00	U
WG	14	498459003	12/4/2019	H-3	-5.91E+01	1.63E+02	5.44E+02	U
WG	14	498459003	12/4/2019	I-131	-3.32E-02	9.54E-01	3.18E+00	U
WG	14	498459003	12/4/2019	K-40	0.00E+00	1.21E+01	1.64E+01	U
WG	14	498459003	12/4/2019	La-140	-1.80E+00	1.07E+00	2.82E+00	U
WG	14	498459003	12/4/2019	Mn-54	7.72E-01	5.31E-01	1.57E+00	U
WG	14	498459003	12/4/2019	Nb-95	9.95E-01	6.08E-01	1.78E+00	U
WG	14	498459003	12/4/2019	Pb-212	1.34E+00	1.58E+00	3.02E+00	U
WG	14	498459003	12/4/2019	Pb-214	1.26E+02	6.35E+00	1.14E+01	
WG	14	498459003	12/4/2019	Ru-103	-7.44E-01	5.66E-01	1.70E+00	U
WG	14	498459003	12/4/2019	Ru-106	-1.17E+00	4.57E+00	1.45E+01	U
WG	14	498459003	12/4/2019	Sb-124	-3.17E+00	1.27E+00	2.83E+00	U
WG	14	498459003	12/4/2019	Sb-125	1.32E+00	1.38E+00	4.52E+00	U
WG	14	498459003	12/4/2019	Se-75	8.84E-02	6.35E-01	2.17E+00	U
WG	14	498459003	12/4/2019	Th-228	1.34E+00	1.58E+00	3.02E+00	U
WG	14	498459003	12/4/2019	Zn-65	-2.24E+00	1.98E+00	3.56E+00	U
WG	14	498459003	12/4/2019	Zr-95	-2.53E+00	1.33E+00	2.83E+00	U

Seabrook REMP Summary of 2019 Data

SAMPLE TYPE	STATION	LSN	END DATE	NUCLIDE	CONC (pCi/kg)	STD.DEV. (pCi/kg)	MDC (pCi/kg)	FLAGS
WS	01	469896001	1/17/2019	Ac-228	-7.42E+00	3.59E+00	5.98E+00	U
WS	01	469896001	1/17/2019	Ag-108m	-2.33E-01	3.47E-01	1.11E+00	U
WS	01	469896001	1/17/2019	Ag-110m	9.00E-02	5.14E-01	1.74E+00	U
WS	01	469896001	1/17/2019	Ba-140	5.19E+00	2.97E+00	9.26E+00	U
WS	01	469896001	1/17/2019	Be-7	1.42E+00	3.61E+00	1.19E+01	U
WS	01	469896001	1/17/2019	Bi-214	0.00E+00	2.06E+00	2.40E+00	U
WS	01	469896001	1/17/2019	Ce-141	-3.19E+00	1.67E+00	2.70E+00	U
WS	01	469896001	1/17/2019	Ce-144	1.28E-02	2.71E+00	8.66E+00	U
WS	01	469896001	1/17/2019	Co-57	9.93E-02	3.55E-01	1.15E+00	U
WS	01	469896001	1/17/2019	Co-58	-3.61E-01	4.35E-01	1.23E+00	U
WS	01	469896001	1/17/2019	Co-60	9.96E-01	4.90E-01	1.53E+00	U
WS	01	469896001	1/17/2019	Cr-51	-2.23E+00	4.29E+00	1.42E+01	U
WS	01	469896001	1/17/2019	Cs-134	-2.44E-01	4.02E-01	1.32E+00	U
WS	01	469896001	1/17/2019	Cs-137	-3.84E-02	3.98E-01	1.27E+00	U
WS	01	469896001	1/17/2019	Fe-59	-1.26E+00	9.60E-01	2.86E+00	U
WS	01	469896001	1/17/2019	I-131	3.20E-01	1.20E+00	4.04E+00	U
WS	01	469896001	1/17/2019	K-40	3.64E+02	2.55E+01	1.16E+01	
WS	01	469896001	1/17/2019	La-140	6.19E-01	9.52E-01	3.11E+00	U
WS	01	469896001	1/17/2019	Mn-54	-6.92E-02	7.59E-01	1.29E+00	U
WS	01	469896001	1/17/2019	Nb-95	6.51E-01	4.38E-01	1.46E+00	U
WS	01	469896001	1/17/2019	Pb-212	0.00E+00	1.65E+00	2.97E+00	U
WS	01	469896001	1/17/2019	Pb-214	1.61E+00	1.77E+00	3.32E+00	U
WS	01	469896001	1/17/2019	Ru-103	-4.09E-01	6.50E-01	1.43E+00	U
WS	01	469896001	1/17/2019	Ru-106	5.80E+00	3.73E+00	1.17E+01	U
WS	01	469896001	1/17/2019	Sb-124	-1.42E+00	1.07E+00	3.20E+00	U
WS	01	469896001	1/17/2019	Sb-125	4.74E-01	1.06E+00	3.51E+00	U
WS	01	469896001	1/17/2019	Se-75	2.19E-01	5.60E-01	1.91E+00	U
WS	01	469896001	1/17/2019	Th-228	0.00E+00	1.65E+00	2.97E+00	U
WS	01	469896001	1/17/2019	Zn-65	1.36E+00	9.80E-01	2.89E+00	U
WS	01	469896001	1/17/2019	Zr-95	4.03E-01	7.18E-01	2.46E+00	U
WS	01	472603001	2/19/2019	Ac-228	-4.21E-01	2.95E+00	6.16E+00	U
WS	01	472603001	2/19/2019	Ag-108m	-1.44E-01	3.02E-01	1.01E+00	U
WS	01	472603001	2/19/2019	Ag-110m	-1.42E-01	5.04E-01	1.60E+00	U
WS	01	472603001	2/19/2019	Ba-140	1.32E+00	2.74E+00	9.26E+00	U
WS	01	472603001	2/19/2019	Be-7	6.34E+00	3.74E+00	1.21E+01	U
WS	01	472603001	2/19/2019	Bi-214	1.14E+00	2.12E+00	2.94E+00	U
WS	01	472603001	2/19/2019	Ce-141	-2.20E+00	9.17E-01	2.40E+00	U
WS	01	472603001	2/19/2019	Ce-144	-1.37E+00	2.35E+00	7.69E+00	U
WS	01	472603001	2/19/2019	Co-57	-5.95E-01	3.34E-01	9.86E-01	U
WS	01	472603001	2/19/2019	Co-58	-2.47E-01	3.94E-01	1.23E+00	U
WS	01	472603001	2/19/2019	Co-60	6.18E-01	4.27E-01	1.42E+00	U
WS	01	472603001	2/19/2019	Cr-51	1.17E+00	4.54E+00	1.32E+01	U
WS	01	472603001	2/19/2019	Cs-134	-9.34E-01	6.86E-01	1.35E+00	U
WS	01	472603001	2/19/2019	Cs-137	2.59E-01	1.04E+00	1.19E+00	U
WS	01	472603001	2/19/2019	Fe-59	-1.11E+00	8.59E-01	2.64E+00	U
WS	01	472603001	2/19/2019	I-131	1.84E-01	1.36E+00	4.24E+00	U
WS	01	472603001	2/19/2019	K-40	3.61E+02	2.21E+01	1.11E+01	
WS	01	472603001	2/19/2019	La-140	-7.42E-01	1.16E+00	3.15E+00	U
WS	01	472603001	2/19/2019	Mn-54	4.70E-01	3.86E-01	1.25E+00	U
WS	01	472603001	2/19/2019	Nb-95	-8.35E-01	7.52E-01	1.44E+00	U

SAMPLE TYPE	STATION	LSN	END DATE	NUCLIDE	CONC (pCi/kg)	STD.DEV. (pCi/kg)	MDC (pCi/kg)	FLAGS
WS	01	472603001	2/19/2019	Pb-212	-1.42E+00	1.25E+00	2.72E+00	U
WS	01	472603001	2/19/2019	Pb-214	-1.57E+00	1.71E+00	2.89E+00	U
WS	01	472603001	2/19/2019	Ru-103	-7.88E-01	4.48E-01	1.31E+00	U
WS	01	472603001	2/19/2019	Ru-106	3.47E+00	3.37E+00	1.12E+01	U
WS	01	472603001	2/19/2019	Sb-124	-1.48E+00	9.87E-01	2.74E+00	U
WS	01	472603001	2/19/2019	Sb-125	-8.04E-01	9.74E-01	3.20E+00	U
WS	01	472603001	2/19/2019	Se-75	2.05E-01	5.22E-01	1.67E+00	U
WS	01	472603001	2/19/2019	Th-228	-1.42E+00	1.25E+00	2.72E+00	U
WS	01	472603001	2/19/2019	Zn-65	-2.85E+00	1.43E+00	2.67E+00	U
WS	01	472603001	2/19/2019	Zr-95	-2.42E+00	1.19E+00	2.24E+00	U
WS	01	474347001	3/13/2019	Ac-228	0.00E+00	2.94E+00	6.36E+00	U
WS	01	474347001	3/13/2019	Ag-108m	9.42E-01	5.39E-01	1.18E+00	U
WS	01	474347001	3/13/2019	Ag-110m	-3.36E-01	6.49E-01	1.86E+00	U
WS	01	474347001	3/13/2019	Ba-140	-1.75E+00	4.20E+00	1.33E+01	U
WS	01	474347001	3/13/2019	Be-7	-4.26E+00	4.29E+00	1.32E+01	U
WS	01	474347001	3/13/2019	Bi-214	2.03E+00	2.09E+00	3.29E+00	U
WS	01	474347001	3/13/2019	Ce-141	5.54E-01	1.67E+00	2.57E+00	U
WS	01	474347001	3/13/2019	Ce-144	2.74E+00	2.53E+00	7.85E+00	U
WS	01	474347001	3/13/2019	Co-57	-1.71E-01	3.16E-01	9.81E-01	U
WS	01	474347001	3/13/2019	Co-58	-1.64E-01	4.75E-01	1.58E+00	U
WS	01	474347001	3/13/2019	Co-60	1.60E-01	4.67E-01	1.53E+00	U
WS	01	474347001	3/13/2019	Cr-51	1.07E+00	5.03E+00	1.68E+01	U
WS	01	474347001	3/13/2019	Cs-134	-2.49E-01	4.37E-01	1.44E+00	U
WS	01	474347001	3/13/2019	Cs-137	5.42E-01	4.63E-01	1.47E+00	U
WS	01	474347001	3/13/2019	Fe-59	-8.38E-01	1.10E+00	3.47E+00	U
WS	01	474347001	3/13/2019	I-131	2.14E-01	2.42E+00	7.18E+00	U
WS	01	474347001	3/13/2019	K-40	3.64E+02	2.27E+01	1.31E+01	
WS	01	474347001	3/13/2019	La-140	-1.20E+00	1.55E+00	4.67E+00	U
WS	01	474347001	3/13/2019	Mn-54	-1.54E+00	9.99E-01	1.39E+00	U
WS	01	474347001	3/13/2019	Nb-95	-1.06E+00	8.34E-01	1.61E+00	U
WS	01	474347001	3/13/2019	Pb-212	4.50E-01	1.25E+00	2.69E+00	U
WS	01	474347001	3/13/2019	Pb-214	1.05E+00	1.35E+00	3.15E+00	U
WS	01	474347001	3/13/2019	Ru-103	-3.27E-02	5.78E-01	1.67E+00	U
WS	01	474347001	3/13/2019	Ru-106	-1.01E+00	3.67E+00	1.16E+01	U
WS	01	474347001	3/13/2019	Sb-124	-6.43E-01	1.09E+00	3.54E+00	U
WS	01	474347001	3/13/2019	Sb-125	1.30E+00	1.09E+00	3.54E+00	U
WS	01	474347001	3/13/2019	Se-75	-5.06E-02	5.20E-01	1.75E+00	U
WS	01	474347001	3/13/2019	Th-228	4.50E-01	1.25E+00	2.69E+00	U
WS	01	474347001	3/13/2019	Zn-65	1.66E+00	1.27E+00	3.41E+00	U
WS	01	474347001	3/13/2019	Zr-95	-5.53E-02	8.60E-01	2.91E+00	U
WS	01	478605001	3/13/2019	H-3	2.06E+02	1.22E+02	3.69E+02	U
WS	01	476664001	4/11/2019	Ac-228	-1.47E+00	4.14E+00	8.39E+00	U
WS	01	476664001	4/11/2019	Ag-108m	-1.09E+00	4.66E-01	1.17E+00	U
WS	01	476664001	4/11/2019	Ag-110m	1.20E+00	7.00E-01	2.28E+00	U
WS	01	476664001	4/11/2019	Ba-140	-1.01E+00	3.09E+00	9.87E+00	U
WS	01	476664001	4/11/2019	Be-7	-3.71E+00	4.41E+00	1.38E+01	U
WS	01	476664001	4/11/2019	Bi-214	0.00E+00	1.86E+00	3.72E+00	U
WS	01	476664001	4/11/2019	Ce-141	1.77E+00	2.07E+00	2.60E+00	U

Seabrook REMP Summary of 2019 Data

SAMPLE TYPE	STATION	LSN	END DATE	NUCLIDE	CONC (pCi/kg)	STD.DEV. (pCi/kg)	MDC (pCi/kg)	FLAGS
WS	01	476664001	4/11/2019	Ce-144	1.96E+00	2.94E+00	9.74E+00	U
WS	01	476664001	4/11/2019	Co-57	4.95E-02	3.79E-01	1.27E+00	U
WS	01	476664001	4/11/2019	Co-58	-6.60E-01	5.60E-01	1.65E+00	U
WS	01	476664001	4/11/2019	Co-60	-3.45E-01	5.77E-01	1.86E+00	U
WS	01	476664001	4/11/2019	Cr-51	1.23E+00	4.47E+00	1.52E+01	U
WS	01	476664001	4/11/2019	Cs-134	2.67E-01	5.51E-01	1.86E+00	U
WS	01	476664001	4/11/2019	Cs-137	4.29E-02	5.03E-01	1.72E+00	U
WS	01	476664001	4/11/2019	Fe-59	7.69E-02	1.16E+00	3.76E+00	U
WS	01	476664001	4/11/2019	I-131	-1.00E+00	1.18E+00	3.79E+00	U
WS	01	476664001	4/11/2019	K-40	3.12E+02	2.68E+01	1.81E+01	
WS	01	476664001	4/11/2019	La-140	-9.49E-01	1.13E+00	3.47E+00	U
WS	01	476664001	4/11/2019	Mn-54	-2.74E-01	4.72E-01	1.52E+00	U
WS	01	476664001	4/11/2019	Nb-95	4.35E-01	5.08E-01	1.72E+00	U
WS	01	476664001	4/11/2019	Pb-212	-3.09E+00	2.00E+00	3.40E+00	U
WS	01	476664001	4/11/2019	Pb-214	-1.35E-01	1.98E+00	3.86E+00	U
WS	01	476664001	4/11/2019	Ru-103	7.37E-01	5.92E-01	1.74E+00	U
WS	01	476664001	4/11/2019	Ru-106	6.29E+00	4.65E+00	1.48E+01	U
WS	01	476664001	4/11/2019	Sb-124	2.09E+00	1.34E+00	4.48E+00	U
WS	01	476664001	4/11/2019	Sb-125	-1.49E+00	1.27E+00	3.90E+00	U
WS	01	476664001	4/11/2019	Se-75	-6.95E-02	6.21E-01	1.93E+00	U
WS	01	476664001	4/11/2019	Th-228	-3.09E+00	2.00E+00	3.40E+00	U
WS	01	476664001	4/11/2019	Zn-65	-2.03E-01	1.14E+00	3.65E+00	U
WS	01	476664001	4/11/2019	Zr-95	3.31E-01	8.62E-01	2.93E+00	U
WS	01	480480001	5/21/2019	Ac-228	-9.94E-01	3.22E+00	6.07E+00	U
WS	01	480480001	5/21/2019	Ag-108m	4.62E-01	3.32E-01	1.09E+00	U
WS	01	480480001	5/21/2019	Ag-110m	-1.92E-01	5.16E-01	1.62E+00	U
WS	01	480480001	5/21/2019	Ba-140	-3.63E-01	2.92E+00	9.63E+00	U
WS	01	480480001	5/21/2019	Be-7	4.24E+00	3.72E+00	1.23E+01	U
WS	01	480480001	5/21/2019	Bi-214	-2.17E+00	1.59E+00	2.97E+00	U
WS	01	480480001	5/21/2019	Ce-141	1.32E+00	9.86E-01	2.54E+00	U
WS	01	480480001	5/21/2019	Ce-144	-1.94E+00	2.68E+00	8.37E+00	U
WS	01	480480001	5/21/2019	Co-57	5.87E-01	3.76E-01	1.16E+00	U
WS	01	480480001	5/21/2019	Co-58	3.18E-01	4.43E-01	1.44E+00	U
WS	01	480480001	5/21/2019	Co-60	-2.46E-01	4.14E-01	1.33E+00	U
WS	01	480480001	5/21/2019	Cr-51	4.12E+00	4.44E+00	1.51E+01	U
WS	01	480480001	5/21/2019	Cs-134	8.46E-01	4.42E-01	1.38E+00	U
WS	01	480480001	5/21/2019	Cs-137	-7.06E-01	4.26E-01	1.20E+00	U
WS	01	480480001	5/21/2019	Fe-59	1.02E+00	9.87E-01	3.36E+00	U
WS	01	480480001	5/21/2019	I-131	-1.90E+00	1.38E+00	4.27E+00	U
WS	01	480480001	5/21/2019	K-40	3.12E+02	2.21E+01	1.31E+01	
WS	01	480480001	5/21/2019	La-140	-1.42E+00	1.07E+00	3.08E+00	U
WS	01	480480001	5/21/2019	Mn-54	-6.28E-02	3.93E-01	1.25E+00	U
WS	01	480480001	5/21/2019	Nb-95	3.87E-02	4.19E-01	1.36E+00	U
WS	01	480480001	5/21/2019	Pb-212	-7.00E-01	1.31E+00	2.87E+00	U
WS	01	480480001	5/21/2019	Pb-214	-3.46E+00	1.91E+00	2.95E+00	U
WS	01	480480001	5/21/2019	Ru-103	-7.68E-02	4.79E-01	1.42E+00	U
WS	01	480480001	5/21/2019	Ru-106	2.04E+00	3.39E+00	1.12E+01	U
WS	01	480480001	5/21/2019	Sb-124	3.29E-01	1.17E+00	3.41E+00	U
WS	01	480480001	5/21/2019	Sb-125	-1.74E+00	1.10E+00	3.27E+00	U
WS	01	480480001	5/21/2019	Se-75	-4.04E-01	5.22E-01	1.74E+00	U

Seabrook REMP Summary of 2019 Data

SAMPLE TYPE	STATION	LSN	END DATE	NUCLIDE	CONC (pCi/kg)	STD.DEV. (pCi/kg)	MDC (pCi/kg)	FLAGS
WS	01	480480001	5/21/2019	Th-228	-7.00E-01	1.31E+00	2.87E+00	U
WS	01	480480001	5/21/2019	Zn-65	5.14E-01	8.30E-01	2.84E+00	U
WS	01	480480001	5/21/2019	Zr-95	-1.10E+00	7.91E-01	2.28E+00	U
WS	01	482130001	6/12/2019	Ac-228	-1.63E+00	3.45E+00	7.94E+00	U
WS	01	482130001	6/12/2019	Ag-108m	5.14E-01	4.82E-01	1.56E+00	U
WS	01	482130001	6/12/2019	Ag-110m	6.50E-01	7.46E-01	2.53E+00	U
WS	01	482130001	6/12/2019	Ba-140	-2.11E+00	2.65E+00	8.14E+00	U
WS	01	482130001	6/12/2019	Be-7	1.96E+00	6.73E+00	1.54E+01	U
WS	01	482130001	6/12/2019	Bi-214	8.07E-01	1.21E+00	3.89E+00	U
WS	01	482130001	6/12/2019	Ce-141	-6.24E+00	2.11E+00	2.93E+00	U
WS	01	482130001	6/12/2019	Ce-144	-6.55E+00	3.78E+00	1.13E+01	U
WS	01	482130001	6/12/2019	Co-57	1.72E-01	4.59E-01	1.55E+00	U
WS	01	482130001	6/12/2019	Co-58	-1.14E+00	5.71E-01	1.57E+00	U
WS	01	482130001	6/12/2019	Co-60	1.89E-01	5.40E-01	1.80E+00	U
WS	01	482130001	6/12/2019	Cr-51	2.14E+00	4.63E+00	1.53E+01	U
WS	01	482130001	6/12/2019	Cs-134	-1.50E-01	5.86E-01	1.72E+00	U
WS	01	482130001	6/12/2019	Cs-137	-5.93E-01	5.68E-01	1.67E+00	U
WS	01	482130001	6/12/2019	Fe-59	-2.34E-01	1.03E+00	3.40E+00	U
WS	01	482130001	6/12/2019	I-131	1.35E+00	8.80E-01	2.80E+00	U
WS	01	482130001	6/12/2019	K-40	3.11E+02	2.49E+01	1.63E+01	
WS	01	482130001	6/12/2019	La-140	-3.00E-01	8.07E-01	2.56E+00	U
WS	01	482130001	6/12/2019	Mn-54	-1.41E+00	8.49E-01	1.84E+00	U
WS	01	482130001	6/12/2019	Nb-95	8.96E-01	5.86E-01	1.95E+00	U
WS	01	482130001	6/12/2019	Pb-212	3.43E+00	2.30E+00	3.60E+00	U
WS	01	482130001	6/12/2019	Pb-214	4.57E-01	1.67E+00	3.87E+00	U
WS	01	482130001	6/12/2019	Ru-103	-9.74E-01	6.29E-01	1.55E+00	U
WS	01	482130001	6/12/2019	Ru-106	7.50E+00	4.91E+00	1.55E+01	U
WS	01	482130001	6/12/2019	Sb-124	-1.50E+00	1.27E+00	3.66E+00	U
WS	01	482130001	6/12/2019	Sb-125	-1.17E+00	1.50E+00	4.66E+00	U
WS	01	482130001	6/12/2019	Se-75	-2.60E-01	6.69E-01	2.18E+00	U
WS	01	482130001	6/12/2019	Th-228	3.43E+00	2.30E+00	3.60E+00	U
WS	01	482130001	6/12/2019	Zn-65	-2.43E-01	1.13E+00	3.72E+00	U
WS	01	482130001	6/12/2019	Zr-95	-1.19E-02	8.52E-01	2.89E+00	U
WS	01	486656001	6/12/2019	H-3	-1.78E+02	1.24E+02	4.26E+02	U
WS	01	484920001	7/9/2019	Ac-228	-3.37E+00	3.43E+00	6.29E+00	U
WS	01	484920001	7/9/2019	Ag-108m	-6.79E-01	4.00E-01	1.16E+00	U
WS	01	484920001	7/9/2019	Ag-110m	-2.54E-01	5.89E-01	1.82E+00	U
WS	01	484920001	7/9/2019	Ba-140	-4.02E+00	2.85E+00	7.38E+00	U
WS	01	484920001	7/9/2019	Be-7	1.72E+01	7.21E+00	1.22E+01	UI
WS	01	484920001	7/9/2019	Bi-214	0.00E+00	2.26E+00	2.81E+00	U
WS	01	484920001	7/9/2019	Ce-141	1.36E-01	8.76E-01	2.58E+00	U
WS	01	484920001	7/9/2019	Ce-144	-1.73E+00	2.89E+00	9.04E+00	U
WS	01	484920001	7/9/2019	Co-57	2.40E-01	3.69E-01	1.18E+00	U
WS	01	484920001	7/9/2019	Co-58	1.39E-01	4.74E-01	1.52E+00	U
WS	01	484920001	7/9/2019	Co-60	5.34E-01	4.67E-01	1.57E+00	U
WS	01	484920001	7/9/2019	Cr-51	2.21E+00	3.97E+00	1.35E+01	U
WS	01	484920001	7/9/2019	Cs-134	-4.98E-01	6.02E-01	1.53E+00	U
WS	01	484920001	7/9/2019	Cs-137	-7.80E-01	7.65E-01	1.55E+00	U

Seabrook REMP Summary of 2019 Data

SAMPLE TYPE	STATION	LSN	END DATE	NUCLIDE	CONC (pCi/kg)	STD.DEV. (pCi/kg)	MDC (pCi/kg)	FLAGS
WS	01	484920001	7/9/2019	Fe-59	1.05E+00	9.52E-01	3.21E+00	U
WS	01	484920001	7/9/2019	I-131	-7.22E-01	8.91E-01	2.88E+00	U
WS	01	484920001	7/9/2019	K-40	3.13E+02	2.21E+01	1.27E+01	
WS	01	484920001	7/9/2019	La-140	-1.15E+00	9.02E-01	2.61E+00	U
WS	01	484920001	7/9/2019	Mn-54	-3.22E-01	4.39E-01	1.34E+00	U
WS	01	484920001	7/9/2019	Nb-95	-4.22E-01	4.73E-01	1.43E+00	U
WS	01	484920001	7/9/2019	Pb-212	1.33E+00	1.64E+00	3.13E+00	U
WS	01	484920001	7/9/2019	Pb-214	1.15E+00	2.18E+00	3.64E+00	U
WS	01	484920001	7/9/2019	Ru-103	2.51E-01	4.85E-01	1.61E+00	U
WS	01	484920001	7/9/2019	Ru-106	7.67E+00	4.22E+00	1.32E+01	U
WS	01	484920001	7/9/2019	Sb-124	2.27E-01	1.13E+00	3.25E+00	U
WS	01	484920001	7/9/2019	Sb-125	-6.41E-02	1.12E+00	3.73E+00	U
WS	01	484920001	7/9/2019	Se-75	-1.48E+00	8.73E-01	1.90E+00	U
WS	01	484920001	7/9/2019	Th-228	1.33E+00	1.64E+00	3.13E+00	U
WS	01	484920001	7/9/2019	Zn-65	5.83E-01	9.39E-01	2.84E+00	U
WS	01	484920001	7/9/2019	Zr-95	-6.62E-01	8.45E-01	2.58E+00	U
WS	01	487900001	8/12/2019	Ac-228	5.48E+00	4.21E+00	8.47E+00	U
WS	01	487900001	8/12/2019	Ag-108m	4.92E-01	4.35E-01	1.45E+00	U
WS	01	487900001	8/12/2019	Ag-110m	6.66E-01	6.67E-01	2.29E+00	U
WS	01	487900001	8/12/2019	Ba-140	1.24E+00	2.80E+00	9.29E+00	U
WS	01	487900001	8/12/2019	Be-7	-2.40E+00	4.26E+00	1.37E+01	U
WS	01	487900001	8/12/2019	Bi-214	2.07E+00	2.57E+00	3.58E+00	U
WS	01	487900001	8/12/2019	Ce-141	1.71E+00	1.07E+00	3.11E+00	U
WS	01	487900001	8/12/2019	Ce-144	3.30E+00	3.27E+00	1.06E+01	U
WS	01	487900001	8/12/2019	Co-57	4.87E-01	4.14E-01	1.34E+00	U
WS	01	487900001	8/12/2019	Co-58	1.03E+00	5.89E-01	1.85E+00	U
WS	01	487900001	8/12/2019	Co-60	-2.77E-01	5.53E-01	1.74E+00	U
WS	01	487900001	8/12/2019	Cr-51	7.43E+00	4.91E+00	1.63E+01	U
WS	01	487900001	8/12/2019	Cs-134	-8.68E-01	5.99E-01	1.66E+00	U
WS	01	487900001	8/12/2019	Cs-137	-6.52E-01	1.09E+00	1.79E+00	U
WS	01	487900001	8/12/2019	Fe-59	7.93E-02	1.17E+00	3.90E+00	U
WS	01	487900001	8/12/2019	I-131	-1.10E-01	9.72E-01	3.27E+00	U
WS	01	487900001	8/12/2019	K-40	3.46E+02	2.38E+01	1.56E+01	
WS	01	487900001	8/12/2019	La-140	-9.13E-01	1.05E+00	3.12E+00	U
WS	01	487900001	8/12/2019	Mn-54	1.14E+00	6.00E-01	1.64E+00	U
WS	01	487900001	8/12/2019	Nb-95	-7.87E-01	5.83E-01	1.65E+00	U
WS	01	487900001	8/12/2019	Pb-212	5.71E-01	1.86E+00	3.48E+00	U
WS	01	487900001	8/12/2019	Pb-214	0.00E+00	2.55E+00	4.07E+00	U
WS	01	487900001	8/12/2019	Ru-103	-8.66E-01	5.87E-01	1.73E+00	U
WS	01	487900001	8/12/2019	Ru-106	-1.77E+00	4.61E+00	1.47E+01	U
WS	01	487900001	8/12/2019	Sb-124	2.11E+00	1.36E+00	4.70E+00	U
WS	01	487900001	8/12/2019	Sb-125	2.90E-01	1.33E+00	4.46E+00	U
WS	01	487900001	8/12/2019	Se-75	1.07E+00	7.43E-01	2.27E+00	U
WS	01	487900001	8/12/2019	Th-228	5.71E-01	1.86E+00	3.48E+00	U
WS	01	487900001	8/12/2019	Zn-65	-1.26E+00	1.21E+00	3.72E+00	U
WS	01	487900001	8/12/2019	Zr-95	9.09E-01	8.98E-01	2.93E+00	U
WS	01	490277001	9/10/2019	Ac-228	0.00E+00	4.28E+00	5.84E+00	U
WS	01	490277001	9/10/2019	Ag-108m	1.32E-01	3.18E-01	1.07E+00	U
WS	01	490277001	9/10/2019	Ag-110m	4.17E-02	5.02E-01	1.61E+00	U

SAMPLE TYPE	STATION	LSN	END DATE	NUCLIDE	CONC (pCi/kg)	STD.DEV. (pCi/kg)	MDC (pCi/kg)	FLAGS
WS	01	490277001	9/10/2019	Ba-140	-1.51E+00	2.56E+00	8.24E+00	U
WS	01	490277001	9/10/2019	Be-7	1.01E+00	3.27E+00	1.10E+01	U
WS	01	490277001	9/10/2019	Bi-214	-1.21E-01	1.40E+00	2.85E+00	U
WS	01	490277001	9/10/2019	Ce-141	-4.55E+00	1.67E+00	2.46E+00	U
WS	01	490277001	9/10/2019	Ce-144	1.20E+00	2.49E+00	8.10E+00	U
WS	01	490277001	9/10/2019	Co-57	-1.53E-01	3.26E-01	1.05E+00	U
WS	01	490277001	9/10/2019	Co-58	-6.86E-01	4.20E-01	1.16E+00	U
WS	01	490277001	9/10/2019	Co-60	3.32E-01	4.51E-01	1.35E+00	U
WS	01	490277001	9/10/2019	Cr-51	5.00E+00	4.05E+00	1.36E+01	U
WS	01	490277001	9/10/2019	Cs-134	7.51E-01	4.27E-01	1.33E+00	U
WS	01	490277001	9/10/2019	Cs-137	9.00E-02	3.69E-01	1.21E+00	U
WS	01	490277001	9/10/2019	Fe-59	1.10E+00	8.69E-01	2.91E+00	U
WS	01	490277001	9/10/2019	I-131	-4.97E-01	1.15E+00	3.87E+00	U
WS	01	490277001	9/10/2019	K-40	3.13E+02	2.37E+01	1.31E+01	
WS	01	490277001	9/10/2019	La-140	-6.29E-01	9.37E-01	2.92E+00	U
WS	01	490277001	9/10/2019	Mn-54	1.48E-01	3.74E-01	1.21E+00	U
WS	01	490277001	9/10/2019	Nb-95	7.47E-02	4.09E-01	1.32E+00	U
WS	01	490277001	9/10/2019	Pb-212	6.67E-01	1.55E+00	2.64E+00	U
WS	01	490277001	9/10/2019	Pb-214	-1.13E+00	1.56E+00	2.92E+00	U
WS	01	490277001	9/10/2019	Ru-103	-1.02E+00	5.36E-01	1.33E+00	U
WS	01	490277001	9/10/2019	Ru-106	6.43E+00	4.32E+00	1.07E+01	U
WS	01	490277001	9/10/2019	Sb-124	-1.50E+00	1.17E+00	2.86E+00	U
WS	01	490277001	9/10/2019	Sb-125	2.81E-01	9.72E-01	3.28E+00	U
WS	01	490277001	9/10/2019	Se-75	5.54E-01	5.42E-01	1.69E+00	U
WS	01	490277001	9/10/2019	Th-228	6.67E-01	1.55E+00	2.64E+00	U
WS	01	490277001	9/10/2019	Zn-65	-1.55E-01	7.73E-01	2.58E+00	U
WS	01	490277001	9/10/2019	Zr-95	-1.33E+00	7.47E-01	2.04E+00	U
WS	01	495108001	9/10/2019	H-3	1.09E+02	1.21E+02	3.80E+02	U
WS	01	492907001	10/8/2019	Ac-228	-1.20E+01	4.99E+00	8.11E+00	U
WS	01	492907001	10/8/2019	Ag-108m	3.32E-01	5.17E-01	1.74E+00	U
WS	01	492907001	10/8/2019	Ag-110m	9.19E-02	7.68E-01	2.47E+00	U
WS	01	492907001	10/8/2019	Ba-140	2.59E+00	3.04E+00	1.01E+01	U
WS	01	492907001	10/8/2019	Be-7	-3.23E+00	4.92E+00	1.58E+01	U
WS	01	492907001	10/8/2019	Bi-214	-2.41E+00	2.40E+00	4.61E+00	U
WS	01	492907001	10/8/2019	Ce-141	-4.46E+00	2.03E+00	3.59E+00	U
WS	01	492907001	10/8/2019	Ce-144	3.86E+00	4.14E+00	1.32E+01	U
WS	01	492907001	10/8/2019	Co-57	3.82E-01	5.37E-01	1.73E+00	U
WS	01	492907001	10/8/2019	Co-58	4.56E-01	6.06E-01	1.98E+00	U
WS	01	492907001	10/8/2019	Co-60	-7.32E-01	6.00E-01	1.78E+00	U
WS	01	492907001	10/8/2019	Cr-51	6.79E-01	5.63E+00	1.92E+01	U
WS	01	492907001	10/8/2019	Cs-134	8.66E-01	6.00E-01	1.94E+00	U
WS	01	492907001	10/8/2019	Cs-137	3.91E-01	5.77E-01	1.90E+00	U
WS	01	492907001	10/8/2019	Fe-59	6.17E-01	1.21E+00	4.13E+00	U
WS	01	492907001	10/8/2019	I-131	1.79E+00	1.25E+00	4.14E+00	U
WS	01	492907001	10/8/2019	K-40	3.05E+02	2.92E+01	1.85E+01	
WS	01	492907001	10/8/2019	La-140	2.01E+00	1.23E+00	4.08E+00	U
WS	01	492907001	10/8/2019	Mn-54	-2.03E-01	5.55E-01	1.74E+00	U
WS	01	492907001	10/8/2019	Nb-95	6.08E-02	5.90E-01	1.91E+00	U
WS	01	492907001	10/8/2019	Pb-212	7.32E-01	2.23E+00	4.24E+00	U

SAMPLE TYPE	STATION	LSN	END DATE	NUCLIDE	CONC (pCi/kg)	STD.DEV. (pCi/kg)	MDC (pCi/kg)	FLAGS
WS	01	492907001	10/8/2019	Pb-214	3.43E+00	2.76E+00	4.74E+00	U
WS	01	492907001	10/8/2019	Ru-103	-1.42E+00	6.94E-01	1.87E+00	U
WS	01	492907001	10/8/2019	Ru-106	-5.02E+00	4.88E+00	1.49E+01	U
WS	01	492907001	10/8/2019	Sb-124	1.01E-01	1.29E+00	4.24E+00	U
WS	01	492907001	10/8/2019	Sb-125	-1.63E+00	1.57E+00	4.93E+00	U
WS	01	492907001	10/8/2019	Se-75	-8.26E-01	7.70E-01	2.49E+00	U
WS	01	492907001	10/8/2019	Th-228	7.32E-01	2.23E+00	4.24E+00	U
WS	01	492907001	10/8/2019	Zn-65	8.35E-01	1.34E+00	4.10E+00	U
WS	01	492907001	10/8/2019	Zr-95	2.41E-01	1.06E+00	3.46E+00	U
WS	01	497362001	11/11/2019	Ac-228	-4.06E+00	3.48E+00	6.02E+00	U
WS	01	497362001	11/11/2019	Ag-108m	2.69E-01	3.31E-01	1.12E+00	U
WS	01	497362001	11/11/2019	Ag-110m	4.28E-01	5.91E-01	1.94E+00	U
WS	01	497362001	11/11/2019	Ba-140	-4.09E+00	3.09E+00	9.36E+00	U
WS	01	497362001	11/11/2019	Be-7	2.86E+00	3.56E+00	1.20E+01	U
WS	01	497362001	11/11/2019	Bi-214	2.20E+00	1.88E+00	2.66E+00	U
WS	01	497362001	11/11/2019	Ce-141	-7.23E-01	8.65E-01	2.70E+00	U
WS	01	497362001	11/11/2019	Ce-144	1.59E+00	2.66E+00	8.65E+00	U
WS	01	497362001	11/11/2019	Co-57	-3.24E-01	3.51E-01	1.09E+00	U
WS	01	497362001	11/11/2019	Co-58	-9.43E-01	4.79E-01	1.24E+00	U
WS	01	497362001	11/11/2019	Co-60	4.14E-01	4.16E-01	1.43E+00	U
WS	01	497362001	11/11/2019	Cr-51	-4.14E+00	4.49E+00	1.48E+01	U
WS	01	497362001	11/11/2019	Cs-134	-2.43E-01	4.61E-01	1.38E+00	U
WS	01	497362001	11/11/2019	Cs-137	-5.40E-01	4.36E-01	1.31E+00	U
WS	01	497362001	11/11/2019	Fe-59	-9.12E-01	9.85E-01	2.90E+00	U
WS	01	497362001	11/11/2019	I-131	6.72E-01	1.23E+00	4.24E+00	U
WS	01	497362001	11/11/2019	K-40	3.58E+02	2.36E+01	1.27E+01	
WS	01	497362001	11/11/2019	La-140	3.28E-02	8.49E-01	2.82E+00	U
WS	01	497362001	11/11/2019	Mn-54	5.22E-01	3.88E-01	1.27E+00	U
WS	01	497362001	11/11/2019	Nb-95	-6.43E-01	7.94E-01	1.42E+00	U
WS	01	497362001	11/11/2019	Pb-212	1.61E+00	1.58E+00	2.22E+00	U
WS	01	497362001	11/11/2019	Pb-214	-1.10E+00	1.49E+00	3.27E+00	U
WS	01	497362001	11/11/2019	Ru-103	3.94E-01	1.01E+00	1.56E+00	U
WS	01	497362001	11/11/2019	Ru-106	1.80E+00	3.55E+00	1.19E+01	U
WS	01	497362001	11/11/2019	Sb-124	-2.34E-01	1.03E+00	3.34E+00	U
WS	01	497362001	11/11/2019	Sb-125	-2.98E+00	1.78E+00	3.33E+00	U
WS	01	497362001	11/11/2019	Se-75	1.36E+00	6.50E-01	1.89E+00	U
WS	01	497362001	11/11/2019	Th-228	1.61E+00	1.58E+00	2.22E+00	U
WS	01	497362001	11/11/2019	Zn-65	5.58E-01	9.58E-01	3.09E+00	U
WS	01	497362001	11/11/2019	Zr-95	0.00E+00	1.73E+00	2.48E+00	U
WS	01	499709001	12/17/2019	Ac-228	2.64E+00	4.38E+00	6.38E+00	U
WS	01	499709001	12/17/2019	Ag-108m	-7.11E-02	3.89E-01	1.27E+00	U
WS	01	499709001	12/17/2019	Ag-110m	5.32E-01	5.39E-01	1.83E+00	U
WS	01	499709001	12/17/2019	Ba-140	5.55E-02	2.43E+00	7.88E+00	U
WS	01	499709001	12/17/2019	Be-7	-1.27E+00	3.95E+00	1.27E+01	U
WS	01	499709001	12/17/2019	Bi-214	1.44E+00	2.34E+00	2.55E+00	U
WS	01	499709001	12/17/2019	Ce-141	-3.47E+00	1.69E+00	2.88E+00	U
WS	01	499709001	12/17/2019	Ce-144	-2.25E+00	3.03E+00	1.01E+01	U
WS	01	499709001	12/17/2019	Co-57	-1.16E-01	3.93E-01	1.34E+00	U
WS	01	499709001	12/17/2019	Co-58	-5.37E-01	4.42E-01	1.28E+00	U

Seabrook REMP Summary of 2019 Data

SAMPLE TYPE	STATION	LSN	END DATE	NUCLIDE	CONC (pCi/kg)	STD.DEV. (pCi/kg)	MDC (pCi/kg)	FLAGS
WS	01	499709001	12/17/2019	Co-60	5.02E-02	4.61E-01	1.53E+00	U
WS	01	499709001	12/17/2019	Cr-51	-2.03E+00	4.55E+00	1.49E+01	U
WS	01	499709001	12/17/2019	Cs-134	-2.33E-01	4.50E-01	1.39E+00	U
WS	01	499709001	12/17/2019	Cs-137	7.36E-02	4.60E-01	1.48E+00	U
WS	01	499709001	12/17/2019	Fe-59	-1.28E-01	1.08E+00	3.17E+00	U
WS	01	499709001	12/17/2019	I-131	-4.04E-01	1.02E+00	3.33E+00	U
WS	01	499709001	12/17/2019	K-40	3.59E+02	2.49E+01	1.26E+01	
WS	01	499709001	12/17/2019	La-140	-4.96E-01	7.86E-01	2.46E+00	U
WS	01	499709001	12/17/2019	Mn-54	7.03E-02	4.07E-01	1.30E+00	U
WS	01	499709001	12/17/2019	Nb-95	2.69E-02	7.19E-01	1.52E+00	U
WS	01	499709001	12/17/2019	Pb-212	-3.95E-01	1.58E+00	3.19E+00	U
WS	01	499709001	12/17/2019	Pb-214	-3.62E+00	2.11E+00	3.41E+00	U
WS	01	499709001	12/17/2019	Ru-103	-5.59E-01	4.68E-01	1.41E+00	U
WS	01	499709001	12/17/2019	Ru-106	2.20E+00	3.72E+00	1.21E+01	U
WS	01	499709001	12/17/2019	Sb-124	-1.71E-01	1.01E+00	3.27E+00	U
WS	01	499709001	12/17/2019	Sb-125	-1.21E+00	1.12E+00	3.46E+00	U
WS	01	499709001	12/17/2019	Se-75	1.31E-01	6.07E-01	2.03E+00	U
WS	01	499709001	12/17/2019	Th-228	-3.95E-01	1.58E+00	3.19E+00	U
WS	01	499709001	12/17/2019	Zn-65	-8.80E-01	9.15E-01	2.88E+00	U
WS	01	499709001	12/17/2019	Zr-95	4.54E-01	8.14E-01	2.62E+00	U
WS	01	502154001	12/17/2019	H-3	-2.66E+02	1.45E+02	5.16E+02	U
WS	10	480480004	5/15/2019	Ac-228	-5.35E+00	3.10E+00	6.25E+00	U
WS	10	480480004	5/15/2019	Ag-108m	-6.67E-01	3.42E-01	9.64E-01	U
WS	10	480480004	5/15/2019	Ag-110m	4.00E-01	5.29E-01	1.72E+00	U
WS	10	480480004	5/15/2019	Ba-140	-1.53E+00	4.07E+00	1.33E+01	U
WS	10	480480004	5/15/2019	Be-7	-6.02E+00	4.19E+00	1.27E+01	U
WS	10	480480004	5/15/2019	Bi-214	6.18E-01	2.36E+00	2.38E+00	U
WS	10	480480004	5/15/2019	Ce-141	-8.56E+00	2.61E+00	2.97E+00	U
WS	10	480480004	5/15/2019	Ce-144	-1.50E+00	2.68E+00	8.51E+00	U
WS	10	480480004	5/15/2019	Co-57	1.59E-01	3.61E-01	1.18E+00	U
WS	10	480480004	5/15/2019	Co-58	-7.25E-01	4.67E-01	1.31E+00	U
WS	10	480480004	5/15/2019	Co-60	-1.49E-01	3.63E-01	1.18E+00	U
WS	10	480480004	5/15/2019	Cr-51	4.12E+00	5.23E+00	1.79E+01	U
WS	10	480480004	5/15/2019	Cs-134	-2.10E-01	4.61E-01	1.29E+00	U
WS	10	480480004	5/15/2019	Cs-137	2.35E-01	3.93E-01	1.30E+00	U
WS	10	480480004	5/15/2019	Fe-59	-2.55E-01	9.24E-01	3.10E+00	U
WS	10	480480004	5/15/2019	H-3	-8.77E+01	1.91E+02	6.43E+02	U
WS	10	480480004	5/15/2019	I-131	3.77E-01	2.27E+00	7.73E+00	U
WS	10	480480004	5/15/2019	K-40	1.45E+02	1.51E+01	1.23E+01	
WS	10	480480004	5/15/2019	La-140	6.82E-01	1.44E+00	4.28E+00	U
WS	10	480480004	5/15/2019	Mn-54	1.59E-01	4.13E-01	1.34E+00	U
WS	10	480480004	5/15/2019	Nb-95	3.38E-02	8.10E-01	1.67E+00	U
WS	10	480480004	5/15/2019	Pb-212	9.52E-01	1.87E+00	2.17E+00	U
WS	10	480480004	5/15/2019	Pb-214	-2.05E+00	1.61E+00	3.22E+00	U
WS	10	480480004	5/15/2019	Ru-103	-1.24E-01	6.92E-01	1.63E+00	U
WS	10	480480004	5/15/2019	Ru-106	2.83E+00	3.38E+00	1.12E+01	U
WS	10	480480004	5/15/2019	Sb-124	-2.01E+00	1.20E+00	3.25E+00	U
WS	10	480480004	5/15/2019	Sb-125	-6.28E-01	1.01E+00	3.32E+00	U
WS	10	480480004	5/15/2019	Se-75	4.57E-02	5.89E-01	1.84E+00	U

Seabrook REMP Summary of 2019 Data

SAMPLE TYPE	STATION	LSN	END DATE	NUCLIDE	CONC (pCi/kg)	STD.DEV. (pCi/kg)	MDC (pCi/kg)	FLAGS
WS	10	480480004	5/15/2019	Th-228	9.52E-01	1.87E+00	2.17E+00	U
WS	10	480480004	5/15/2019	Zn-65	1.35E-01	8.36E-01	2.85E+00	U
WS	10	480480004	5/15/2019	Zr-95	1.34E-01	7.87E-01	2.57E+00	U
WS	10	497362004	11/20/2019	Ac-228	-3.84E+00	3.07E+00	6.75E+00	U
WS	10	497362004	11/20/2019	Ag-108m	4.07E-01	3.97E-01	1.33E+00	U
WS	10	497362004	11/20/2019	Ag-110m	-9.15E-01	7.46E-01	2.14E+00	U
WS	10	497362004	11/20/2019	Ba-140	1.95E-01	2.37E+00	7.02E+00	U
WS	10	497362004	11/20/2019	Be-7	3.03E+00	3.87E+00	1.29E+01	U
WS	10	497362004	11/20/2019	Bi-214	5.57E+00	2.26E+00	3.01E+00	
WS	10	497362004	11/20/2019	Ce-141	-3.95E+00	1.50E+00	2.22E+00	U
WS	10	497362004	11/20/2019	Ce-144	-8.94E-01	2.53E+00	8.10E+00	U
WS	10	497362004	11/20/2019	Co-57	-1.99E-02	3.39E-01	1.10E+00	U
WS	10	497362004	11/20/2019	Co-58	-3.77E-02	5.06E-01	1.61E+00	U
WS	10	497362004	11/20/2019	Co-60	-2.55E-01	5.09E-01	1.62E+00	U
WS	10	497362004	11/20/2019	Cr-51	9.65E-01	3.72E+00	1.27E+01	U
WS	10	497362004	11/20/2019	Cs-134	-7.46E-01	6.18E-01	1.80E+00	U
WS	10	497362004	11/20/2019	Cs-137	-3.56E-01	4.99E-01	1.55E+00	U
WS	10	497362004	11/20/2019	Fe-59	3.91E-01	1.00E+00	3.39E+00	U
WS	10	497362004	11/20/2019	I-131	-1.47E+00	7.45E-01	2.11E+00	U
WS	10	497362004	11/20/2019	K-40	1.83E+02	1.84E+01	1.65E+01	
WS	10	497362004	11/20/2019	La-140	-6.22E-02	8.00E-01	2.59E+00	U
WS	10	497362004	11/20/2019	Mn-54	3.61E-01	4.71E-01	1.53E+00	U
WS	10	497362004	11/20/2019	Nb-95	-3.14E-01	4.82E-01	1.49E+00	U
WS	10	497362004	11/20/2019	Pb-212	1.50E+00	1.51E+00	2.40E+00	U
WS	10	497362004	11/20/2019	Pb-214	1.81E-01	2.02E+00	3.14E+00	U
WS	10	497362004	11/20/2019	Ru-103	6.70E-01	5.95E-01	1.46E+00	U
WS	10	497362004	11/20/2019	Ru-106	2.00E+00	4.67E+00	1.38E+01	U
WS	10	497362004	11/20/2019	Sb-124	4.32E-01	1.12E+00	3.71E+00	U
WS	10	497362004	11/20/2019	Sb-125	1.91E-01	1.12E+00	3.75E+00	U
WS	10	497362004	11/20/2019	Se-75	-6.03E-01	6.18E-01	1.82E+00	U
WS	10	497362004	11/20/2019	Th-228	1.50E+00	1.51E+00	2.40E+00	U
WS	10	497362004	11/20/2019	Zn-65	9.87E-01	1.08E+00	3.66E+00	U
WS	10	497362004	11/20/2019	Zr-95	-8.69E-01	9.13E-01	2.75E+00	U
WS	51	469896002	1/17/2019	Ac-228	2.81E+00	4.05E+00	5.87E+00	U
WS	51	469896002	1/17/2019	Ag-108m	1.03E-01	2.95E-01	9.87E-01	U
WS	51	469896002	1/17/2019	Ag-110m	-8.29E-02	5.08E-01	1.42E+00	U
WS	51	469896002	1/17/2019	Ba-140	-7.05E+00	4.25E+00	7.64E+00	U
WS	51	469896002	1/17/2019	Be-7	2.25E+00	3.37E+00	1.12E+01	U
WS	51	469896002	1/17/2019	Bi-214	1.12E-01	1.96E+00	2.30E+00	U
WS	51	469896002	1/17/2019	Ce-141	-1.95E+00	8.77E-01	2.29E+00	U
WS	51	469896002	1/17/2019	Ce-144	-2.97E+00	2.55E+00	7.68E+00	U
WS	51	469896002	1/17/2019	Co-57	-1.39E-01	3.04E-01	9.63E-01	U
WS	51	469896002	1/17/2019	Co-58	6.15E-01	4.11E-01	1.30E+00	U
WS	51	469896002	1/17/2019	Co-60	-3.54E-01	3.62E-01	1.11E+00	U
WS	51	469896002	1/17/2019	Cr-51	-1.63E+00	3.77E+00	1.26E+01	U
WS	51	469896002	1/17/2019	Cs-134	-3.65E-01	4.02E-01	1.21E+00	U
WS	51	469896002	1/17/2019	Cs-137	-9.67E-01	5.99E-01	1.22E+00	U
WS	51	469896002	1/17/2019	Fe-59	1.29E+00	1.17E+00	2.81E+00	U
WS	51	469896002	1/17/2019	I-131	-4.94E-01	1.07E+00	3.55E+00	U

SAMPLE TYPE	STATION	LSN	END DATE	NUCLIDE	CONC (pCi/kg)	STD.DEV. (pCi/kg)	MDC (pCi/kg)	FLAGS
WS	51	469896002	1/17/2019	K-40	3.28E+02	2.14E+01	1.25E+01	
WS	51	469896002	1/17/2019	La-140	-2.02E+00	9.44E-01	2.33E+00	U
WS	51	469896002	1/17/2019	Mn-54	-3.31E-01	3.58E-01	1.07E+00	U
WS	51	469896002	1/17/2019	Nb-95	4.77E-02	3.66E-01	1.18E+00	U
WS	51	469896002	1/17/2019	Pb-212	2.67E-01	1.42E+00	2.07E+00	U
WS	51	469896002	1/17/2019	Pb-214	1.36E+00	1.55E+00	2.91E+00	U
WS	51	469896002	1/17/2019	Ru-103	-1.21E+00	5.11E-01	1.31E+00	U
WS	51	469896002	1/17/2019	Ru-106	1.34E+00	3.21E+00	1.05E+01	U
WS	51	469896002	1/17/2019	Sb-124	2.34E+00	1.38E+00	2.94E+00	U
WS	51	469896002	1/17/2019	Sb-125	3.12E-01	9.20E-01	3.08E+00	U
WS	51	469896002	1/17/2019	Se-75	-5.12E-01	4.95E-01	1.61E+00	U
WS	51	469896002	1/17/2019	Th-228	2.67E-01	1.42E+00	2.07E+00	U
WS	51	469896002	1/17/2019	Zn-65	3.64E-01	7.34E-01	2.49E+00	U
WS	51	469896002	1/17/2019	Zr-95	1.53E+00	7.67E-01	2.34E+00	U
WS	51	472603002	2/19/2019	Ac-228	-7.69E+00	3.86E+00	6.95E+00	U
WS	51	472603002	2/19/2019	Ag-108m	-4.63E-01	4.06E-01	1.22E+00	U
WS	51	472603002	2/19/2019	Ag-110m	-2.26E-01	6.42E-01	2.12E+00	U
WS	51	472603002	2/19/2019	Ba-140	2.99E+00	5.44E+00	1.18E+01	U
WS	51	472603002	2/19/2019	Be-7	2.77E+00	4.88E+00	1.41E+01	U
WS	51	472603002	2/19/2019	Bi-214	4.88E+00	1.69E+00	2.94E+00	
WS	51	472603002	2/19/2019	Ce-141	1.49E+00	1.92E+00	2.99E+00	U
WS	51	472603002	2/19/2019	Ce-144	4.58E-01	3.08E+00	1.03E+01	U
WS	51	472603002	2/19/2019	Co-57	-4.76E-01	7.40E-01	1.40E+00	U
WS	51	472603002	2/19/2019	Co-58	-5.89E-01	1.30E+00	1.59E+00	U
WS	51	472603002	2/19/2019	Co-60	7.27E-03	4.97E-01	1.63E+00	U
WS	51	472603002	2/19/2019	Cr-51	-3.40E+00	5.07E+00	1.61E+01	U
WS	51	472603002	2/19/2019	Cs-134	1.13E+00	5.21E-01	1.63E+00	U
WS	51	472603002	2/19/2019	Cs-137	-7.54E-01	4.71E-01	1.41E+00	U
WS	51	472603002	2/19/2019	Fe-59	-3.82E-01	1.08E+00	3.54E+00	U
WS	51	472603002	2/19/2019	I-131	-1.05E+00	1.57E+00	4.96E+00	U
WS	51	472603002	2/19/2019	K-40	3.52E+02	2.19E+01	1.37E+01	
WS	51	472603002	2/19/2019	La-140	-3.77E-01	1.16E+00	3.68E+00	U
WS	51	472603002	2/19/2019	Mn-54	2.60E-01	4.46E-01	1.46E+00	U
WS	51	472603002	2/19/2019	Nb-95	1.20E+00	5.76E-01	1.80E+00	U
WS	51	472603002	2/19/2019	Pb-212	-1.76E+00	1.54E+00	2.87E+00	U
WS	51	472603002	2/19/2019	Pb-214	2.71E-01	1.65E+00	3.54E+00	U
WS	51	472603002	2/19/2019	Ru-103	-6.96E-01	5.74E-01	1.70E+00	U
WS	51	472603002	2/19/2019	Ru-106	2.66E+00	3.83E+00	1.31E+01	U
WS	51	472603002	2/19/2019	Sb-124	1.14E+00	1.23E+00	4.05E+00	U
WS	51	472603002	2/19/2019	Sb-125	-8.18E-02	1.20E+00	3.84E+00	U
WS	51	472603002	2/19/2019	Se-75	6.57E-01	6.12E-01	1.98E+00	U
WS	51	472603002	2/19/2019	Th-228	-1.76E+00	1.54E+00	2.87E+00	U
WS	51	472603002	2/19/2019	Zn-65	2.65E+00	1.26E+00	3.56E+00	U
WS	51	472603002	2/19/2019	Zr-95	-1.31E-01	8.38E-01	2.81E+00	U
WS	51	474347002	3/19/2019	Ac-228	-3.18E+00	3.23E+00	6.64E+00	U
WS	51	474347002	3/19/2019	Ag-108m	-1.51E-01	3.70E-01	1.20E+00	U
WS	51	474347002	3/19/2019	Ag-110m	-8.10E-01	6.78E-01	1.82E+00	U
WS	51	474347002	3/19/2019	Ba-140	3.09E-01	3.24E+00	1.05E+01	U
WS	51	474347002	3/19/2019	Be-7	4.76E+00	5.25E+00	1.29E+01	U

Seabrook REMP Summary of 2019 Data

SAMPLE TYPE	STATION	LSN	END DATE	NUCLIDE	CONC (pCi/kg)	STD.DEV. (pCi/kg)	MDC (pCi/kg)	FLAGS
WS	51	474347002	3/19/2019	Bi-214	-2.02E+00	2.08E+00	3.36E+00	U
WS	51	474347002	3/19/2019	Ce-141	7.92E-01	9.16E-01	2.89E+00	U
WS	51	474347002	3/19/2019	Ce-144	1.01E+00	2.84E+00	9.08E+00	U
WS	51	474347002	3/19/2019	Co-57	3.16E-01	3.68E-01	1.17E+00	U
WS	51	474347002	3/19/2019	Co-58	6.38E-01	4.62E-01	1.54E+00	U
WS	51	474347002	3/19/2019	Co-60	-5.77E-01	5.56E-01	1.43E+00	U
WS	51	474347002	3/19/2019	Cr-51	-4.65E-01	4.58E+00	1.53E+01	U
WS	51	474347002	3/19/2019	Cs-134	-2.65E-01	4.55E-01	1.50E+00	U
WS	51	474347002	3/19/2019	Cs-137	-8.90E-02	7.02E-01	1.53E+00	U
WS	51	474347002	3/19/2019	Fe-59	1.18E+00	1.02E+00	3.36E+00	U
WS	51	474347002	3/19/2019	I-131	-4.93E-03	1.45E+00	4.82E+00	U
WS	51	474347002	3/19/2019	K-40	2.96E+02	2.15E+01	1.45E+01	
WS	51	474347002	3/19/2019	La-140	-1.20E+00	1.11E+00	3.46E+00	U
WS	51	474347002	3/19/2019	Mn-54	1.76E-02	4.50E-01	1.34E+00	U
WS	51	474347002	3/19/2019	Nb-95	-5.64E-01	6.95E-01	1.57E+00	U
WS	51	474347002	3/19/2019	Pb-212	1.44E+00	1.73E+00	3.12E+00	U
WS	51	474347002	3/19/2019	Pb-214	7.60E-02	1.46E+00	3.38E+00	U
WS	51	474347002	3/19/2019	Ru-103	-1.88E-01	5.60E-01	1.61E+00	U
WS	51	474347002	3/19/2019	Ru-106	-1.04E+01	4.60E+00	1.15E+01	U
WS	51	474347002	3/19/2019	Sb-124	-1.07E+00	9.52E-01	2.88E+00	U
WS	51	474347002	3/19/2019	Sb-125	1.07E+00	1.12E+00	3.69E+00	U
WS	51	474347002	3/19/2019	Se-75	1.18E-01	5.51E-01	1.88E+00	U
WS	51	474347002	3/19/2019	Th-228	1.44E+00	1.73E+00	3.12E+00	U
WS	51	474347002	3/19/2019	Zn-65	-3.58E-01	1.04E+00	2.93E+00	U
WS	51	474347002	3/19/2019	Zr-95	8.21E-01	7.58E-01	2.57E+00	U
WS	51	478605002	3/19/2019	H-3	2.82E+02	1.27E+02	3.74E+02	U
WS	51	476664002	4/11/2019	Ac-228	3.14E+00	4.14E+00	5.68E+00	U
WS	51	476664002	4/11/2019	Ag-108m	-6.00E-01	4.54E-01	1.20E+00	U
WS	51	476664002	4/11/2019	Ag-110m	-5.93E-01	5.88E-01	1.84E+00	U
WS	51	476664002	4/11/2019	Ba-140	-1.76E+00	2.83E+00	8.87E+00	U
WS	51	476664002	4/11/2019	Be-7	3.30E+00	4.38E+00	1.29E+01	U
WS	51	476664002	4/11/2019	Bi-214	2.31E+00	2.30E+00	2.93E+00	U
WS	51	476664002	4/11/2019	Ce-141	-1.71E+00	8.88E-01	2.39E+00	U
WS	51	476664002	4/11/2019	Ce-144	3.14E+00	2.68E+00	8.15E+00	U
WS	51	476664002	4/11/2019	Co-57	2.73E-01	3.34E-01	1.05E+00	U
WS	51	476664002	4/11/2019	Co-58	1.54E-01	4.72E-01	1.61E+00	U
WS	51	476664002	4/11/2019	Co-60	-1.15E-01	5.16E-01	1.66E+00	U
WS	51	476664002	4/11/2019	Cr-51	4.20E+00	4.40E+00	1.46E+01	U
WS	51	476664002	4/11/2019	Cs-134	-5.11E-01	5.07E-01	1.61E+00	U
WS	51	476664002	4/11/2019	Cs-137	1.03E+00	7.48E-01	1.48E+00	U
WS	51	476664002	4/11/2019	Fe-59	-3.94E-01	1.05E+00	3.40E+00	U
WS	51	476664002	4/11/2019	I-131	1.23E+00	1.11E+00	3.65E+00	U
WS	51	476664002	4/11/2019	K-40	2.17E+02	1.94E+01	1.16E+01	
WS	51	476664002	4/11/2019	La-140	7.54E-01	9.94E-01	3.26E+00	U
WS	51	476664002	4/11/2019	Mn-54	9.55E-02	4.13E-01	1.40E+00	U
WS	51	476664002	4/11/2019	Nb-95	-1.53E+00	1.12E+00	1.67E+00	U
WS	51	476664002	4/11/2019	Pb-212	9.64E-01	1.76E+00	2.41E+00	U
WS	51	476664002	4/11/2019	Pb-214	-6.32E-01	1.81E+00	3.48E+00	U
WS	51	476664002	4/11/2019	Ru-103	-4.87E-03	5.15E-01	1.49E+00	U

SAMPLE TYPE	STATION	LSN	END DATE	NUCLIDE	CONC (pCi/kg)	STD.DEV. (pCi/kg)	MDC (pCi/kg)	FLAGS
WS	51	476664002	4/11/2019	Ru-106	-1.34E+00	4.27E+00	1.35E+01	U
WS	51	476664002	4/11/2019	Sb-124	7.69E-01	1.26E+00	4.33E+00	U
WS	51	476664002	4/11/2019	Sb-125	5.15E-02	1.33E+00	3.91E+00	U
WS	51	476664002	4/11/2019	Se-75	6.03E-01	5.64E-01	1.88E+00	U
WS	51	476664002	4/11/2019	Th-228	9.64E-01	1.76E+00	2.41E+00	U
WS	51	476664002	4/11/2019	Zn-65	-9.05E-01	1.07E+00	3.34E+00	U
WS	51	476664002	4/11/2019	Zr-95	1.71E+00	8.94E-01	2.89E+00	U
WS	51	480480002	5/23/2019	Ac-228	2.89E+00	4.74E+00	5.36E+00	U
WS	51	480480002	5/23/2019	Ag-108m	2.04E-01	3.24E-01	1.07E+00	U
WS	51	480480002	5/23/2019	Ag-110m	3.50E-01	5.11E-01	1.73E+00	U
WS	51	480480002	5/23/2019	Ba-140	7.16E-01	5.00E+00	8.45E+00	U
WS	51	480480002	5/23/2019	Be-7	-2.03E+00	3.51E+00	1.12E+01	U
WS	51	480480002	5/23/2019	Bi-214	3.45E-01	1.99E+00	3.03E+00	U
WS	51	480480002	5/23/2019	Ce-141	-3.74E+00	1.56E+00	2.44E+00	U
WS	51	480480002	5/23/2019	Ce-144	2.69E+00	2.64E+00	8.17E+00	U
WS	51	480480002	5/23/2019	Co-57	1.30E-01	3.38E-01	1.06E+00	U
WS	51	480480002	5/23/2019	Co-58	2.37E-01	3.93E-01	1.34E+00	U
WS	51	480480002	5/23/2019	Co-60	-1.99E-01	8.82E-01	1.41E+00	U
WS	51	480480002	5/23/2019	Cr-51	-1.20E+00	3.92E+00	1.30E+01	U
WS	51	480480002	5/23/2019	Cs-134	-1.16E+00	7.13E-01	1.33E+00	U
WS	51	480480002	5/23/2019	Cs-137	-7.23E-01	6.36E-01	1.30E+00	U
WS	51	480480002	5/23/2019	Fe-59	-7.30E-01	1.00E+00	2.78E+00	U
WS	51	480480002	5/23/2019	I-131	1.11E-01	1.09E+00	3.63E+00	U
WS	51	480480002	5/23/2019	K-40	3.08E+02	2.09E+01	1.10E+01	
WS	51	480480002	5/23/2019	La-140	-1.94E+00	1.02E+00	2.66E+00	U
WS	51	480480002	5/23/2019	Mn-54	4.19E-01	3.96E-01	1.20E+00	U
WS	51	480480002	5/23/2019	Nb-95	-8.21E-02	3.75E-01	1.27E+00	U
WS	51	480480002	5/23/2019	Pb-212	-9.61E-01	1.27E+00	2.57E+00	U
WS	51	480480002	5/23/2019	Pb-214	-3.27E+00	1.70E+00	2.96E+00	U
WS	51	480480002	5/23/2019	Ru-103	-5.13E-01	4.43E-01	1.35E+00	U
WS	51	480480002	5/23/2019	Ru-106	3.83E+00	3.50E+00	1.12E+01	U
WS	51	480480002	5/23/2019	Sb-124	-2.15E-01	9.63E-01	3.06E+00	U
WS	51	480480002	5/23/2019	Sb-125	2.93E-01	9.75E-01	3.22E+00	U
WS	51	480480002	5/23/2019	Se-75	-5.44E-01	5.11E-01	1.64E+00	U
WS	51	480480002	5/23/2019	Th-228	-9.61E-01	1.27E+00	2.57E+00	U
WS	51	480480002	5/23/2019	Zn-65	1.19E+00	8.46E-01	2.78E+00	U
WS	51	480480002	5/23/2019	Zr-95	-6.61E-01	7.21E-01	2.16E+00	U
WS	51	482130002	6/12/2019	Ac-228	-3.30E+00	3.09E+00	6.69E+00	U
WS	51	482130002	6/12/2019	Ag-108m	-9.57E-03	3.84E-01	1.29E+00	U
WS	51	482130002	6/12/2019	Ag-110m	-8.81E-01	6.52E-01	1.84E+00	U
WS	51	482130002	6/12/2019	Ba-140	-1.94E+00	2.14E+00	6.69E+00	U
WS	51	482130002	6/12/2019	Be-7	6.64E-01	3.79E+00	1.27E+01	U
WS	51	482130002	6/12/2019	Bi-214	-4.06E+00	1.93E+00	3.30E+00	U
WS	51	482130002	6/12/2019	Ce-141	1.48E+00	1.31E+00	2.45E+00	U
WS	51	482130002	6/12/2019	Ce-144	-9.67E-02	3.06E+00	9.82E+00	U
WS	51	482130002	6/12/2019	Co-57	-7.15E-02	3.99E-01	1.28E+00	U
WS	51	482130002	6/12/2019	Co-58	-2.40E-01	4.20E-01	1.30E+00	U
WS	51	482130002	6/12/2019	Co-60	2.64E-01	5.12E-01	1.74E+00	U
WS	51	482130002	6/12/2019	Cr-51	-3.37E+00	4.07E+00	1.33E+01	U

Seabrook REMP Summary of 2019 Data

SAMPLE TYPE	STATION	LSN	END DATE	NUCLIDE	CONC (pCi/kg)	STD.DEV. (pCi/kg)	MDC (pCi/kg)	FLAGS
WS	51	482130002	6/12/2019	Cs-134	1.13E+00	6.52E-01	1.61E+00	U
WS	51	482130002	6/12/2019	Cs-137	2.16E-01	4.79E-01	1.58E+00	U
WS	51	482130002	6/12/2019	Fe-59	2.54E+00	1.10E+00	3.46E+00	U
WS	51	482130002	6/12/2019	I-131	-3.44E-02	7.15E-01	2.42E+00	U
WS	51	482130002	6/12/2019	K-40	2.96E+02	2.30E+01	1.50E+01	
WS	51	482130002	6/12/2019	La-140	-1.77E-02	7.58E-01	2.49E+00	U
WS	51	482130002	6/12/2019	Mn-54	2.63E-01	4.26E-01	1.40E+00	U
WS	51	482130002	6/12/2019	Nb-95	4.06E-02	7.52E-01	1.59E+00	U
WS	51	482130002	6/12/2019	Pb-212	-1.91E-01	1.42E+00	3.44E+00	U
WS	51	482130002	6/12/2019	Pb-214	-1.74E+00	1.73E+00	3.63E+00	U
WS	51	482130002	6/12/2019	Ru-103	1.27E-01	4.90E-01	1.47E+00	U
WS	51	482130002	6/12/2019	Ru-106	6.06E-01	4.36E+00	1.29E+01	U
WS	51	482130002	6/12/2019	Sb-124	-9.96E-01	1.09E+00	3.27E+00	U
WS	51	482130002	6/12/2019	Sb-125	-2.96E-01	1.16E+00	3.84E+00	U
WS	51	482130002	6/12/2019	Se-75	5.64E-02	5.87E-01	2.02E+00	U
WS	51	482130002	6/12/2019	Th-228	-1.91E-01	1.42E+00	3.44E+00	U
WS	51	482130002	6/12/2019	Zn-65	-8.20E-03	1.02E+00	3.44E+00	U
WS	51	482130002	6/12/2019	Zr-95	3.16E-01	8.19E-01	2.68E+00	U
WS	51	486656002	6/12/2019	H-3	1.62E+01	1.26E+02	4.13E+02	U
WS	51	484920002	7/10/2019	Ac-228	-5.93E+00	3.79E+00	7.18E+00	U
WS	51	484920002	7/10/2019	Ag-108m	-4.89E-01	3.93E-01	1.20E+00	U
WS	51	484920002	7/10/2019	Ag-110m	1.25E+00	1.11E+00	1.95E+00	U
WS	51	484920002	7/10/2019	Ba-140	2.12E+00	2.54E+00	7.43E+00	U
WS	51	484920002	7/10/2019	Be-7	-7.83E-01	3.81E+00	1.18E+01	U
WS	51	484920002	7/10/2019	Bi-214	5.76E-01	2.15E+00	3.71E+00	U
WS	51	484920002	7/10/2019	Ce-141	1.43E-01	1.95E+00	2.48E+00	U
WS	51	484920002	7/10/2019	Ce-144	3.28E+00	2.85E+00	9.03E+00	U
WS	51	484920002	7/10/2019	Co-57	1.24E-01	3.55E-01	1.16E+00	U
WS	51	484920002	7/10/2019	Co-58	-3.32E-01	4.77E-01	1.35E+00	U
WS	51	484920002	7/10/2019	Co-60	5.16E-01	5.68E-01	1.64E+00	U
WS	51	484920002	7/10/2019	Cr-51	-4.24E-01	4.10E+00	1.32E+01	U
WS	51	484920002	7/10/2019	Cs-134	1.83E-01	5.24E-01	1.57E+00	U
WS	51	484920002	7/10/2019	Cs-137	-2.33E-01	5.01E-01	1.56E+00	U
WS	51	484920002	7/10/2019	Fe-59	7.34E-01	9.14E-01	3.03E+00	U
WS	51	484920002	7/10/2019	I-131	4.63E-01	8.51E-01	2.85E+00	U
WS	51	484920002	7/10/2019	K-40	2.87E+02	2.26E+01	1.48E+01	
WS	51	484920002	7/10/2019	La-140	-5.39E-01	8.05E-01	2.57E+00	U
WS	51	484920002	7/10/2019	Mn-54	-8.71E-02	4.38E-01	1.46E+00	U
WS	51	484920002	7/10/2019	Nb-95	1.28E+00	9.36E-01	1.53E+00	U
WS	51	484920002	7/10/2019	Pb-212	2.06E+00	2.12E+00	2.94E+00	U
WS	51	484920002	7/10/2019	Pb-214	-5.55E-01	1.58E+00	3.37E+00	U
WS	51	484920002	7/10/2019	Ru-103	-1.06E+00	5.44E-01	1.48E+00	U
WS	51	484920002	7/10/2019	Ru-106	-5.52E+00	5.79E+00	1.35E+01	U
WS	51	484920002	7/10/2019	Sb-124	4.19E-01	9.98E-01	3.37E+00	U
WS	51	484920002	7/10/2019	Sb-125	7.71E-01	1.17E+00	3.86E+00	U
WS	51	484920002	7/10/2019	Se-75	1.31E+00	6.20E-01	1.92E+00	U
WS	51	484920002	7/10/2019	Th-228	2.06E+00	2.12E+00	2.94E+00	U
WS	51	484920002	7/10/2019	Zn-65	-1.04E+00	1.20E+00	3.21E+00	U
WS	51	484920002	7/10/2019	Zr-95	7.97E-01	7.78E-01	2.63E+00	U

SAMPLE TYPE	STATION	LSN	END DATE	NUCLIDE	CONC (pCi/kg)	STD.DEV. (pCi/kg)	MDC (pCi/kg)	FLAGS
WS	51	487900002	8/13/2019	Ac-228	6.94E+00	5.59E+00	8.40E+00	U
WS	51	487900002	8/13/2019	Ag-108m	-7.88E-01	5.11E-01	1.48E+00	U
WS	51	487900002	8/13/2019	Ag-110m	6.14E-01	7.31E-01	2.46E+00	U
WS	51	487900002	8/13/2019	Ba-140	2.26E+00	2.87E+00	9.31E+00	U
WS	51	487900002	8/13/2019	Be-7	-6.29E-01	4.59E+00	1.48E+01	U
WS	51	487900002	8/13/2019	Bi-214	-3.45E+00	2.20E+00	4.18E+00	U
WS	51	487900002	8/13/2019	Ce-141	-2.81E+00	1.25E+00	3.16E+00	U
WS	51	487900002	8/13/2019	Ce-144	-2.35E+00	3.79E+00	1.17E+01	U
WS	51	487900002	8/13/2019	Co-57	2.99E-01	4.96E-01	1.58E+00	U
WS	51	487900002	8/13/2019	Co-58	-6.13E-01	5.74E-01	1.78E+00	U
WS	51	487900002	8/13/2019	Co-60	9.48E-01	6.07E-01	1.98E+00	U
WS	51	487900002	8/13/2019	Cr-51	3.22E-01	4.93E+00	1.64E+01	U
WS	51	487900002	8/13/2019	Cs-134	5.20E-01	6.11E-01	2.07E+00	U
WS	51	487900002	8/13/2019	Cs-137	-8.49E-02	5.46E-01	1.84E+00	U
WS	51	487900002	8/13/2019	Fe-59	-8.69E-01	1.24E+00	3.87E+00	U
WS	51	487900002	8/13/2019	I-131	5.49E-02	1.03E+00	3.40E+00	U
WS	51	487900002	8/13/2019	K-40	3.35E+02	2.66E+01	1.69E+01	
WS	51	487900002	8/13/2019	La-140	-8.28E-02	1.02E+00	3.39E+00	U
WS	51	487900002	8/13/2019	Mn-54	9.97E-03	5.05E-01	1.69E+00	U
WS	51	487900002	8/13/2019	Nb-95	1.10E+00	6.11E-01	1.98E+00	U
WS	51	487900002	8/13/2019	Pb-212	-2.05E+00	2.26E+00	4.14E+00	U
WS	51	487900002	8/13/2019	Pb-214	-2.97E+00	2.24E+00	4.05E+00	U
WS	51	487900002	8/13/2019	Ru-103	8.83E-01	6.33E-01	1.84E+00	U
WS	51	487900002	8/13/2019	Ru-106	2.20E+00	4.83E+00	1.55E+01	U
WS	51	487900002	8/13/2019	Sb-124	1.07E+00	1.28E+00	4.40E+00	U
WS	51	487900002	8/13/2019	Sb-125	-2.40E+00	1.53E+00	4.38E+00	U
WS	51	487900002	8/13/2019	Se-75	-3.67E-01	7.52E-01	2.23E+00	U
WS	51	487900002	8/13/2019	Th-228	-2.05E+00	2.26E+00	4.14E+00	U
WS	51	487900002	8/13/2019	Zn-65	-1.72E+00	1.27E+00	3.66E+00	U
WS	51	487900002	8/13/2019	Zr-95	1.41E+00	9.88E-01	3.30E+00	U
WS	51	490277002	9/11/2019	Ac-228	0.00E+00	3.62E+00	4.04E+00	U
WS	51	490277002	9/11/2019	Ag-108m	-6.05E-02	3.18E-01	1.07E+00	U
WS	51	490277002	9/11/2019	Ag-110m	-4.64E-01	4.89E-01	1.49E+00	U
WS	51	490277002	9/11/2019	Ba-140	-1.91E+00	2.45E+00	7.90E+00	U
WS	51	490277002	9/11/2019	Be-7	0.00E+00	7.09E+00	1.08E+01	U
WS	51	490277002	9/11/2019	Bi-214	1.58E-01	1.94E+00	2.40E+00	U
WS	51	490277002	9/11/2019	Ce-141	1.45E+00	1.25E+00	2.56E+00	U
WS	51	490277002	9/11/2019	Ce-144	-3.22E+00	2.82E+00	8.58E+00	U
WS	51	490277002	9/11/2019	Co-57	2.72E-01	3.61E-01	1.16E+00	U
WS	51	490277002	9/11/2019	Co-58	-4.06E-01	3.77E-01	1.15E+00	U
WS	51	490277002	9/11/2019	Co-60	-5.01E-02	3.45E-01	1.16E+00	U
WS	51	490277002	9/11/2019	Cr-51	4.35E+00	4.04E+00	1.36E+01	U
WS	51	490277002	9/11/2019	Cs-134	2.25E-02	4.13E-01	1.35E+00	U
WS	51	490277002	9/11/2019	Cs-137	-2.52E-01	3.79E-01	1.22E+00	U
WS	51	490277002	9/11/2019	Fe-59	-2.72E-01	8.14E-01	2.56E+00	U
WS	51	490277002	9/11/2019	I-131	-1.18E+00	1.07E+00	3.45E+00	U
WS	51	490277002	9/11/2019	K-40	3.40E+02	2.21E+01	9.09E+00	
WS	51	490277002	9/11/2019	La-140	3.24E-01	7.90E-01	2.69E+00	U
WS	51	490277002	9/11/2019	Mn-54	1.40E-01	3.50E-01	1.15E+00	U
WS	51	490277002	9/11/2019	Nb-95	-1.74E+00	8.82E-01	1.24E+00	U

SAMPLE TYPE	STATION	LSN	END DATE	NUCLIDE	CONC (pCi/kg)	STD.DEV. (pCi/kg)	MDC (pCi/kg)	FLAGS
WS	51	490277002	9/11/2019	Pb-212	3.42E-01	1.59E+00	2.76E+00	U
WS	51	490277002	9/11/2019	Pb-214	-7.43E-01	1.69E+00	3.13E+00	U
WS	51	490277002	9/11/2019	Ru-103	-2.43E-01	4.36E-01	1.28E+00	U
WS	51	490277002	9/11/2019	Ru-106	-6.08E-01	3.08E+00	1.02E+01	U
WS	51	490277002	9/11/2019	Sb-124	-5.21E-01	8.20E-01	2.62E+00	U
WS	51	490277002	9/11/2019	Sb-125	-7.66E+00	3.93E+00	3.15E+00	U
WS	51	490277002	9/11/2019	Se-75	1.17E-01	5.60E-01	1.75E+00	U
WS	51	490277002	9/11/2019	Th-228	3.42E-01	1.59E+00	2.76E+00	U
WS	51	490277002	9/11/2019	Zn-65	5.57E-01	7.71E-01	2.50E+00	U
WS	51	490277002	9/11/2019	Zr-95	-1.24E+00	7.21E-01	2.03E+00	U
WS	51	495108002	9/11/2019	H-3	1.22E+02	1.18E+02	3.68E+02	U
WS	51	492907002	10/9/2019	Ac-228	0.00E+00	4.39E+00	7.13E+00	U
WS	51	492907002	10/9/2019	Ag-108m	5.92E-01	4.12E-01	1.34E+00	U
WS	51	492907002	10/9/2019	Ag-110m	-2.31E-01	6.57E-01	2.18E+00	U
WS	51	492907002	10/9/2019	Ba-140	-5.06E-01	2.48E+00	8.02E+00	U
WS	51	492907002	10/9/2019	Be-7	5.40E+00	4.48E+00	1.46E+01	U
WS	51	492907002	10/9/2019	Bi-214	1.11E+00	2.64E+00	3.18E+00	U
WS	51	492907002	10/9/2019	Ce-141	2.63E-01	1.65E+00	2.66E+00	U
WS	51	492907002	10/9/2019	Ce-144	-4.03E+00	3.39E+00	1.02E+01	U
WS	51	492907002	10/9/2019	Co-57	3.01E-01	4.28E-01	1.38E+00	U
WS	51	492907002	10/9/2019	Co-58	-2.02E+00	8.80E-01	1.58E+00	U
WS	51	492907002	10/9/2019	Co-60	-6.66E-01	5.25E-01	1.52E+00	U
WS	51	492907002	10/9/2019	Cr-51	-1.31E+00	4.28E+00	1.43E+01	U
WS	51	492907002	10/9/2019	Cs-134	-6.71E-02	4.96E-01	1.68E+00	U
WS	51	492907002	10/9/2019	Cs-137	0.00E+00	8.48E-01	1.55E+00	U
WS	51	492907002	10/9/2019	Fe-59	9.16E-01	9.93E-01	3.34E+00	U
WS	51	492907002	10/9/2019	I-131	1.40E+00	9.76E-01	3.19E+00	U
WS	51	492907002	10/9/2019	K-40	3.63E+02	2.57E+01	1.35E+01	
WS	51	492907002	10/9/2019	La-140	-2.60E+00	1.48E+00	2.77E+00	U
WS	51	492907002	10/9/2019	Mn-54	-1.34E+00	5.35E-01	1.30E+00	U
WS	51	492907002	10/9/2019	Nb-95	8.00E-01	1.01E+00	1.49E+00	U
WS	51	492907002	10/9/2019	Pb-212	3.12E+00	2.06E+00	3.41E+00	U
WS	51	492907002	10/9/2019	Pb-214	5.43E-01	2.06E+00	3.92E+00	U
WS	51	492907002	10/9/2019	Ru-103	1.11E-01	5.47E-01	1.62E+00	U
WS	51	492907002	10/9/2019	Ru-106	2.41E+00	4.72E+00	1.38E+01	U
WS	51	492907002	10/9/2019	Sb-124	-3.90E-01	1.12E+00	3.69E+00	U
WS	51	492907002	10/9/2019	Sb-125	6.42E-01	1.20E+00	4.00E+00	U
WS	51	492907002	10/9/2019	Se-75	-4.74E-01	7.00E-01	2.09E+00	U
WS	51	492907002	10/9/2019	Th-228	3.12E+00	2.06E+00	3.41E+00	U
WS	51	492907002	10/9/2019	Zn-65	3.64E-01	1.43E+00	3.09E+00	U
WS	51	492907002	10/9/2019	Zr-95	1.28E-01	8.26E-01	2.64E+00	U
WS	51	497362002	11/14/2019	Ac-228	2.12E+00	4.59E+00	6.19E+00	U
WS	51	497362002	11/14/2019	Ag-108m	-2.48E-01	4.41E-01	1.41E+00	U
WS	51	497362002	11/14/2019	Ag-110m	-2.35E-01	6.10E-01	2.03E+00	U
WS	51	497362002	11/14/2019	Ba-140	-2.26E+00	3.07E+00	9.53E+00	U
WS	51	497362002	11/14/2019	Be-7	-4.94E+00	4.87E+00	1.50E+01	U
WS	51	497362002	11/14/2019	Bi-214	-2.33E+00	2.19E+00	4.23E+00	U
WS	51	497362002	11/14/2019	Ce-141	9.59E-01	1.06E+00	3.58E+00	U

SAMPLE TYPE	STATION	LSN	END DATE	NUCLIDE	CONC (pCi/kg)	STD.DEV. (pCi/kg)	MDC (pCi/kg)	FLAGS
WS	51	497362002	11/14/2019	Ce-144	3.69E+00	3.65E+00	1.23E+01	U
WS	51	497362002	11/14/2019	Co-57	1.50E-01	5.25E-01	1.63E+00	U
WS	51	497362002	11/14/2019	Co-58	0.00E+00	6.65E-01	1.37E+00	U
WS	51	497362002	11/14/2019	Co-60	-1.40E+00	8.27E-01	1.58E+00	U
WS	51	497362002	11/14/2019	Cr-51	7.60E+00	5.57E+00	1.81E+01	U
WS	51	497362002	11/14/2019	Cs-134	4.75E-01	6.07E-01	1.76E+00	U
WS	51	497362002	11/14/2019	Cs-137	3.09E-01	5.06E-01	1.64E+00	U
WS	51	497362002	11/14/2019	Fe-59	-2.57E+00	1.21E+00	3.11E+00	U
WS	51	497362002	11/14/2019	I-131	4.91E-01	1.39E+00	4.62E+00	U
WS	51	497362002	11/14/2019	K-40	3.48E+02	2.70E+01	1.41E+01	
WS	51	497362002	11/14/2019	La-140	-3.47E-01	9.04E-01	2.88E+00	U
WS	51	497362002	11/14/2019	Mn-54	2.17E-01	4.94E-01	1.59E+00	U
WS	51	497362002	11/14/2019	Nb-95	6.75E-01	5.87E-01	1.88E+00	U
WS	51	497362002	11/14/2019	Pb-212	0.00E+00	2.76E+00	3.84E+00	U
WS	51	497362002	11/14/2019	Pb-214	-2.21E+00	1.94E+00	4.16E+00	U
WS	51	497362002	11/14/2019	Ru-103	-8.39E-01	6.50E-01	1.70E+00	U
WS	51	497362002	11/14/2019	Ru-106	1.57E-01	4.20E+00	1.35E+01	U
WS	51	497362002	11/14/2019	Sb-124	-1.10E+00	1.28E+00	3.87E+00	U
WS	51	497362002	11/14/2019	Sb-125	2.14E-01	1.34E+00	4.41E+00	U
WS	51	497362002	11/14/2019	Se-75	1.06E+00	7.71E-01	2.51E+00	U
WS	51	497362002	11/14/2019	Th-228	0.00E+00	2.76E+00	3.84E+00	U
WS	51	497362002	11/14/2019	Zn-65	1.29E+00	1.15E+00	3.51E+00	U
WS	51	497362002	11/14/2019	Zr-95	-5.07E-01	9.55E-01	2.95E+00	U
WS	51	499709002	12/17/2019	Ac-228	1.28E+00	6.39E+00	1.03E+01	U
WS	51	499709002	12/17/2019	Ag-108m	-2.16E-01	4.93E-01	1.65E+00	U
WS	51	499709002	12/17/2019	Ag-110m	9.99E-01	8.42E-01	2.76E+00	U
WS	51	499709002	12/17/2019	Ba-140	6.32E-01	3.39E+00	1.14E+01	U
WS	51	499709002	12/17/2019	Be-7	-1.84E+00	5.46E+00	1.64E+01	U
WS	51	499709002	12/17/2019	Bi-214	-2.97E+00	2.87E+00	5.54E+00	U
WS	51	499709002	12/17/2019	Ce-141	-5.84E-01	1.15E+00	3.45E+00	U
WS	51	499709002	12/17/2019	Ce-144	-5.73E-01	3.72E+00	1.23E+01	U
WS	51	499709002	12/17/2019	Co-57	-3.47E-01	5.34E-01	1.62E+00	U
WS	51	499709002	12/17/2019	Co-58	9.00E-02	5.95E-01	1.94E+00	U
WS	51	499709002	12/17/2019	Co-60	2.24E-01	1.34E+00	2.17E+00	U
WS	51	499709002	12/17/2019	Cr-51	-5.96E+00	6.40E+00	1.91E+01	U
WS	51	499709002	12/17/2019	Cs-134	-2.10E-01	6.85E-01	2.19E+00	U
WS	51	499709002	12/17/2019	Cs-137	8.98E-01	6.15E-01	2.02E+00	U
WS	51	499709002	12/17/2019	Fe-59	-1.01E+00	1.35E+00	4.37E+00	U
WS	51	499709002	12/17/2019	I-131	-1.17E+00	1.48E+00	4.43E+00	U
WS	51	499709002	12/17/2019	K-40	2.94E+02	2.91E+01	2.39E+01	
WS	51	499709002	12/17/2019	La-140	-1.87E+00	1.34E+00	3.76E+00	U
WS	51	499709002	12/17/2019	Mn-54	1.36E-01	6.08E-01	1.99E+00	U
WS	51	499709002	12/17/2019	Nb-95	-2.49E-01	7.05E-01	2.26E+00	U
WS	51	499709002	12/17/2019	Pb-212	1.38E+00	2.68E+00	4.57E+00	U
WS	51	499709002	12/17/2019	Pb-214	-1.30E+00	2.83E+00	5.19E+00	U
WS	51	499709002	12/17/2019	Ru-103	-6.67E-01	6.52E-01	2.07E+00	U
WS	51	499709002	12/17/2019	Ru-106	-5.44E+00	5.96E+00	1.65E+01	U
WS	51	499709002	12/17/2019	Sb-124	-1.13E+00	1.49E+00	4.53E+00	U
WS	51	499709002	12/17/2019	Sb-125	-2.14E+00	1.55E+00	4.78E+00	U
WS	51	499709002	12/17/2019	Se-75	-7.58E-01	8.36E-01	2.55E+00	U

Seabrook REMP Summary of 2019 Data

SAMPLE TYPE	STATION	LSN	END DATE	NUCLIDE	CONC (pCi/kg)	STD.DEV. (pCi/kg)	MDC (pCi/kg)	FLAGS
WS	51	499709002	12/17/2019	Th-228	1.38E+00	2.68E+00	4.57E+00	U
WS	51	499709002	12/17/2019	Zn-65	1.22E+00	1.56E+00	4.80E+00	U
WS	51	499709002	12/17/2019	Zr-95	2.12E+00	1.18E+00	3.78E+00	U
WS	51	502154002	12/17/2019	H-3	-2.31E+02	1.50E+02	5.26E+02	U

FLAGS

A blank Flag field indicates that the measured activity is considered positive as it is greater than the MDC and has no other qualifiers noted.

U: **Target isotope was analyzed for but not detected above the MDC and LLD.**
UI: **Uncertain identification for gamma spectroscopy.**
X: **Lab-specific qualifier:**
(1) False positive due to the presence of radon gas in the water.
M: **Reported result is less than the LLD and greater than the MDC.**
DL: **Measured MDC is greater than the LLD.**
DL*: **Near miss of MDC being within round-off difference of being greater than the LLD.**