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**TECHNICAL MEMORANDUM**  
**SUBAREA 5D, ROUND 2, SOIL SAMPLE RESULTS**  
**SANTA SUSANA FIELD LABORATORY SITE**  
**AREA IV RADIOLOGICAL STUDY**

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**DATE:** November 26, 2012  
**SUBJECT:** Subarea 5D, Round 2 Soil Sample Results

**CONTRACT NO:** EP-S7-05-05  
**TASK ORDER NO:** 0038

## **1.0 INTRODUCTION**

HydroGeoLogic, Inc. (HGL) is conducting a comprehensive radiological characterization study of Area IV and the Northern Buffer Zone (NBZ) at the Santa Susana Field Laboratory (SSFL) site in Ventura County, California. This work is being executed under U.S. Environmental Protection Agency (USEPA) Region 7 Architect and Engineering Services Contract EP-S7-05-05, Task Order 0038. The technical lead on the project is USEPA Region 9.

As part of the radiological study, surface, subsurface, and drainage soil samples were collected from locations identified from geophysical surveys, gamma scanning, historical aerial photographs and findings of the Historical Site Assessment. Sampling efforts in the study area were divided into subareas. Analytical results from the Round 1 sampling activities were reviewed in conjunction with the aforementioned lines of evidence, and sample locations were targeted for further investigation in the Round 2 soil sampling effort. This technical memorandum documents the soil sampling activities, analytical results, and conclusions of the Round 2 soil sampling. The primary objective of the soil sampling effort was to further investigate potential radionuclide contamination by laterally and vertically delineating radionuclide concentrations that exceeded project established Radiological Trigger Levels (RTL) detected during the Round 1 sampling activities. This objective was achieved through the collection and analysis of step-out surface and subsurface soil samples, as described in Section 4.2 of the Final Field Sampling Plan (FSP) for Soil Sampling (HGL, 2012a). If an exceedance was isolated, a step-out location was placed approximately 15 feet north, south, east, and west of the Round 1 exceedance locations. If there were multiple Round 1 exceedances in a specific area, step-out sampling locations were targeted around the

exceedances to best characterize the lateral and vertical extent of potential radionuclide impacted soils.

The approach for Round 2 soil sampling was to identify potential sample locations from the lines of evidence listed above, prepare a Round 2 Field Sampling Plan (FSP) Addendum for the subarea, present the FSP, and review and finalize proposed locations with USEPA's SSFL Technical Stakeholder Workgroup.

## **2.0 SOIL SAMPLING ACTIVITIES**

### **2.1 Soil Sample Location Placement and Utility Clearance**

A total of 135 Round 2 surface soil, subsurface soil, and drainage samples were proposed based on Round 1 sample exceedances detected at 20 locations. The rationale for Round 2 step-out sample locations is detailed in the Subarea 5D Round 2 Addendum to the Final FSP for Soil Sampling (HGL, 2012b). Table 1 summarizes the proposed samples and lists the samples collected by area and sample type. Figure 1 illustrates all the soil sample locations (proposed and collected). Deviations from the FSP are discussed in Section 2.3.

The proposed sampling locations were discussed during the technical review meeting held on May 30, 2012, with members of USEPA's SSFL Technical Stakeholder Workgroup consisting of representatives of the Department of Energy (DOE), the State of California Department of Toxic Substances Control (DTSC), The Boeing Company (Boeing), USEPA, and the community.

After the locations were finalized with the Stakeholder Workgroup, proposed sampling locations were marked in the field using a SPS 852 handheld Trimble global positioning system (GPS) and magnetic survey spikes. Before sampling activities commenced, utility clearances were performed at each location by Underground Service Alert (Dig Alert) and a private utility locator.

### **2.2 Sample Collection**

Surface soil samples were collected using a stainless steel trowel or shovel. Subsurface samples were collected using a Geoprobe 6600 Series direct-push technology unit or a hand auger. Soil samples were collected in accordance with the procedures detailed in the Final FSP for Soil Sampling (HGL, 2012a), and the Subarea 5D Round 2 FSP Addendum (HGL, 2012b). Soil cores were logged and the boring logs are provided in Attachment 2. A total of 131 soil samples (two drainage, 65 surface, and 64 subsurface) were collected from June 14, 2012, to July 10, 2012.

During the May 30, 2012, technical review meeting, recommendations and action items including those on the topic of Likely Chemical Remediation Zones (LCRZ) and Likely Decontamination and Decommissioning Zone (LD&DZ) were discussed. Building 4055 was identified as a LD&DZ. A small zone around the former gaseous fission product hold-up tanks associated with the Hot Lab (Former Building 4020), an area associated with Former

Building 4873 and 4363 and an area east of Building 4055 were identified by DOE and DTSC as a LCRZ. USEPA understands that most, if not all, surface soil and infrastructure (building structures, concrete slabs, above-ground pipelines and underground pipelines etc.) may be excavated and removed from areas identified as LD&DZ and LCRZ. In accordance with USEPA’s role under the Administrative Order on Consent (AOC) for Remedial Action (DTSC, 2010) between DTSC and DOE for the SSFL site, USEPA will conduct confirmation soil sampling to verify that site remediation goals have been achieved at all such remediation zones. These follow-on efforts are not included in the current scope of work and will be accomplished using additional external funding.

### 2.3 Deviations from the Field Sampling Plan Addendum

Subsurface soil samples were not collected from four locations due to insufficient soil volume as a result of shallow refusal at bedrock. When shallow refusal was encountered two additional attempts were made, within a five foot radius, to reach the proposed depth. If after the third attempt the proposed depth could not be reached a sample was collected, if possible. Table 2 summarizes the deviations from the FSP.

**Table 2**  
**Summary of Subsurface Sample Deviations**

Sample Location	Sample ID	Deviation	Justification
5DS-00041	50637	Not sampled	Shallow refusal at 1.0 ft bgs on bedrock.
5DS-00045	50645	Not sampled	Shallow refusal at 1.5 ft bgs on bedrock.
5DS-00047	50649	Not sampled	Shallow refusal at 1.0 ft bgs on bedrock.
5DS-00048	50651	Not sampled	Shallow refusal at 1.0 ft bgs on bedrock.

**Notes:**

bgs - below ground surface

ft - feet

ID - identification

### 2.4 Soil Boring Summary

A total of 67 subsurface borings were attempted, of which 35 borings were advanced to 10 feet below ground surface (bgs), 15 borings were terminated between 5 to 10 feet bgs, and 17 were completed at a depth less than 5 feet bgs. The 32 boreholes that were not advanced to a depth of 10 feet bgs were terminated because of refusal on bedrock.

Soil samples were classified and described in accordance with the Final FSP for Soil Sampling (HGL, 2012a). The most common soil types observed were sand, silty sand, silt, and silty clay. A total of 33 locations encountered fill material in all or a portion of the boring. The fill material consisted of soils that exhibited a mottled texture and frequently contained material such as concrete, asphalt, or glass. A total of 34 borings consisted of only native soil. A summary of the boring log information is presented in Table A.1 and the boring logs are provided in Attachment 2.

### **3.0 SOIL ANALYTICAL RESULTS**

Analyses of soil samples were conducted in accordance with the Final Quality Assurance Project Plan (QAPP) for Soil Sampling (HGL, 2012c). All samples were collected in accordance with the rationale presented in Table 2.3 of the Final FSP for Soil Sampling (HGL, 2012a). Round 2 sample locations and analytical suites are presented in the Subarea 5D Round 2 FSP Addendum (HGL, 2012b). Deviations from the Round 2 FSP addendum are presented in Section 2.3.

#### **3.1 Round 1 Data Quality Gap Reanalysis**

A data quality gap is a sample result for which the minimum detectable concentration (MDC) is greater than the RTL, but the reported activity is below the RTL, indicating an indeterminate result that may or may not exceed the RTL. The elevated MDC could be the result of sample matrix or spectral interference or, in some cases, laboratory issues that prevent accurate quantification of sample activity to a level low enough to support the RTLs.

The use of RTLs is predicated on the assumption that analytical results will be of known and predictable quality, with the uncertainty constrained to a level that supports direct comparison of results to RTLs. The reported analytical uncertainty is sufficiently reliable to be considered, however the magnitude of that uncertainty may not always allow direct comparison of the activity to the RTL, as discussed above. In many cases, the reported activity is sufficiently below the RTL (more than the associated, elevated  $2\sigma$  total propagated uncertainty) to decide that the result does not represent an exceedance. For these cases, results are removed from further data quality gap assessment.

During the Round 1 sampling event, there were 13 samples (14 results) identified as data quality gaps in which the laboratory was directed to reanalyze the sample to achieve a lower MDC value. The Round 1 data quality gaps are summarized below:

- Samples 50488 and 50124 were identified as data quality gaps for curium (Cm)-243/244, resulting from low chemical yields of 37.5 percent and 42.5 percent, respectively.
- Samples 50363 and 50326 were identified as data quality gaps for plutonium (Pu)-238 and Pu-239/240, respectively, resulting from the use of a detector with slightly elevated background count rate in the spectral region of interest.
- Samples 50076, 50325, and 50407 were identified as a data quality gaps for Pu-238, resulting from lower chemical yields than typically observed, as well as elevated instrument background count rates.
- Sample 50090 was identified as a data quality gap for thorium (Th)-229, resulting from the use of a detector with an elevated background count rate.
- Sample 50475 was identified as a data quality gap for Sr-90. The root cause is undetermined but is believed to be associated with routine statistical fluctuations in the sample and/or background count rate, as well as lower than typical chemical yield.

- Samples 50144, 50164, 50195, and 50222 were identified as having data quality gaps for cobalt (Co)-60. In addition, sample 50164 also was identified as having a data quality gap for sodium (Na)-22. These samples were all counted on the same gamma spectrometry detector that to have a lower counting efficiency at higher gamma emission energies than other detectors employed in the laboratory.

The MDC values for all reanalyzed samples were lower than the RTLs; therefore, these samples are no longer considered data quality gaps. However, the reanalysis of sample 50090 resulted in a naturally occurring radioactive material (NORM) exceedance for Th-229 with a concentration of 0.168 picocuries per gram (pCi/g) exceeding the RTL of 0.145 pCi/g. The Round 1 data quality gaps are presented in the Final Technical Memorandum, Subarea 5D Round 1 Soil Sample Results (HGL, 2012d). Table 3 summarizes the reanalyzed activity values, reanalyzed MDC values, and RTLs.

### **3.2 Round 2 Analytical Results**

Round 2 soil sampling locations were determined based on RTL exceedances detected in Round 1 soil samples. The Round 2 samples were tested for those analytes that were detected above the RTL in Round 1 samples.

Radiological trigger levels are reference soil concentrations for the radionuclides of concern for the SSFL Area IV Radiological Study. They were designed for screening analytical results of site soil and sediment collected during Round 1 sampling to inform decisions for Round 2 sampling (also called step-out sampling). Individual Round 1 analytical results were compared to RTLs and if results exceed an RTL step-out sampling was conducted. The primary purpose of the RTLs were to guide the placement of Round 2 sampling locations and will not be used to screen Round 2 sample results.

The Round 2 analytical results are documented in this technical memorandum; however, the analytical results have not been screened using the RTLs. The Subarea 5D Round 2 analytical results will be evaluated, along with Round 1 results, using Field Action Level (FAL) established specifically for the SSFL Area IV Radiological Study. The results of the evaluation will be presented in the Radiological Characterization of Soils in Area IV and NBZ report.

Figure 1 presents the locations of the soil samples collected during the Round 1 and Round 2 sampling events. A summary of the Round 2 analytical results is provided in Table A.2.

## **4.0 QUALITY ASSURANCE/QUALITY CONTROL SAMPLES**

In addition to the environmental samples collected, quality control samples were collected as described in the QAPP (HGL, 2012c). The results of the quality control samples collected and their affect on data usability are described in the following subsections.

### **4.1 Field Duplicates**

Field duplicate soil samples were collected at a frequency of 1 per 20 samples (5 percent). A total of eight field duplicate samples were collected during the Round 2 sampling event. The

field duplicate evaluation criterion includes an additional  $1\sigma$  uncertainty factor of 10 percent to allow for heterogeneity of co-located, but non-homogenized, field samples.

The comparability of a field duplicate result to that of the original sample is assessed by evaluating the Z-score ( $Z_{DUP}$ ). The Z-score is a statistical test that indicates how many standard deviations an observation is from the expected value. The Z-score is defined in the QAPP (HGL, 2012c), and the  $Z_{DUP}$  is calculated as follows:

$$Z_{DUP} = \frac{|X_s - X_d|}{\sqrt{u_s^2 + u_d^2}}$$

where:

$X_s$	=	activity of the sample
$X_d$	=	activity of the duplicate
$u_s$	=	combined standard ( $1\sigma$ ) uncertainty of the sample
$u_d$	=	combined standard ( $1\sigma$ ) uncertainty of the duplicate

Higher  $Z_{DUP}$  scores indicate greater disparity between the sample and the duplicate results. A  $Z_{DUP}$  score of 2.0, for example, indicates that the duplicate result differs from the sample result by twice the overall uncertainty of the two results. By extension, a  $Z_{DUP}$  score of 1.96 (the warning level) indicates that the two results are statistically equivalent, at the 95 percent confidence interval. A  $Z_{DUP}$  score of 2.58 (the exceedance level) indicates that the two results are statistically equivalent, at the 99 percent confidence interval.

A  $Z_{DUP}$  evaluation is performed on each paired set of analytes for which parent and duplicate data are reported. This quality assurance/quality control assessment is performed on the validated laboratory results approved and accepted by the project, and recorded in the project database as of September 19, 2012. Subsequent modifications to the approved data or the project database may not be reflected in this assessment.

Round 2 field duplicate sample data includes 224 individual radionuclide results from 112 sample/duplicate paired results. Those results included several analytes that were subsequently removed from consideration and, thus, were not evaluated. In addition, any individual radionuclide results that were rejected by data validation were removed from consideration. Finally, analytes that are simply inferred from previously reported results, such as yttrium-90 which is inferred from the reported Sr-90 results, are considered redundant and also have been removed from consideration.

The  $Z_{DUP}$  evaluation of the remaining 94 qualified data pairs follows:

- 93  $Z_{DUP}$  evaluation results (98.9 percent) were within the expected 95 percent confidence interval for this evaluation, with  $Z_{DUP}$  less than 1.96;
- One  $Z_{DUP}$  evaluation result (1.1 percent) was between the 95 percent and 99 percent confidence interval with a  $Z_{DUP}$  at or above 1.96, but below 2.58; and

- Zero  $Z_{DUP}$  evaluation results (0.0 percent) exceeded the 99 percent confidence interval, with a  $Z_{DUP}$  value at or above 2.58.

The  $Z_{DUP}$  statistical test predicts that, in a homogeneous sample/duplicate pairing, 4 percent of reported  $Z_{DUP}$  scores (approximately four  $Z_{DUP}$  evaluation results in this  $Z_{DUP}$  set) will be in the “warning” range between 1.96 and 2.58. In addition, 1 percent (approximately one  $Z_{DUP}$  evaluation result in this  $Z_{DUP}$  set) is expected to exceed a  $Z_{DUP}$  score of 2.58.

A review of the  $Z_{DUP}$  “warnings” and “exceedances,” and the associated laboratory data, has been conducted and the frequency and magnitude of the  $Z_{DUP}$  scores in this dataset are at or below the expected range and do not appear to indicate a data quality excursion. A summary of the parent and associated duplicate sample results is provided Table A.3.

## **4.2 Equipment Rinsate and Source Water Blanks**

Equipment rinsate blanks were collected at a frequency of one per day for each type of sampling equipment used per field team. Equipment rinsate blanks were collected in accordance with the Final FSP for Soil Sampling (HGL, 2012a) and the Final QAPP (HGL, 2012c). A total of 43 rinsate samples and one source water sample were collected during the Round 2 sampling event. Each sample was tested for isotopic uranium (U), as a surrogate indicator of cross contamination. Any results that were rejected for laboratory quality reasons would have been removed from consideration, as in the evaluation of field duplicate samples. In this dataset, however, no sample results were rejected. Rinsate and source water samples also were analyzed for tritium if it was included in the analytical suite for samples collected that day.

This equipment rinsate assessment was performed on the validated laboratory results, approved and accepted by the project data manager, and recorded in the project database as of September 19, 2012. Subsequent modifications to the approved data or the project database may not be reflected in this assessment.

In all cases, the samples were analyzed by the laboratory as received and the Total activity is reported.

Round 2 rinsate and source water samples include 260 Total activity results, from which 130 data pairs were evaluated by Z-score duplicate comparison. The  $Z_{DUP}$  scores are summarized below:

- 127  $Z_{DUP}$  evaluation results (97.7 percent) were within the expected 95 percent confidence interval for this evaluation, with  $Z_{DUP}$  less than 1.96;
- Two  $Z_{DUP}$  evaluation results (1.5 percent) was between the 95 percent and 99 percent confidence interval with  $Z_{DUP}$  at or above 1.96, but below 2.58; and
- One  $Z_{DUP}$  evaluation result (0.8 percent) exceeded the 99 percent confidence interval, with  $Z_{DUP}$  values at or above 2.58.

As with the field duplicates, the  $Z_{DUP}$  statistical test predicts that approximately 4 percent of reported  $Z_{DUP}$  scores (approximately 5  $Z_{DUP}$  evaluation result in this  $Z_{DUP}$  set) will be in the range between 1.96 and 2.58. The two results in the “warning” range are within the expected frequency.

The single exceedance, with a U-234 Z-score of 2.7, is within the expected frequency and magnitude. Further review of the associated laboratory data indicates that no RTL exceedances are attributable to the sampling equipment. The Z-score exceedance is believed to be a routine statistical excursion.

The evaluation of equipment blank results indicates that the decontamination of the field sampling equipment is acceptable and that there is no evidence of sample cross contamination from the sampling equipment that would adversely affect the quality or usability of the reported field sample data. A summary of the rinsate and source water blank analytical results is provided in Table A.4.

## **5.0 CONCLUSIONS**

The Round 2 analytical results are documented in this technical memorandum; however, the analytical results have not been screened using the RTLs. Radiological trigger levels were reference soil concentrations designed to be used as a decision making tool to guide the placement of Round 2 step-out sampling locations. No additional step-out sampling will be conducted as part of the SSFL Area IV Study; therefore, there is no technical reason to compare the data to RTLs.

The Subarea 5D Round 1 and Round 2 analytical results will be evaluated using FALs established specifically for the SSFL Area IV Radiological Study. The results of the evaluation will be presented in the Radiological Characterization of Soils in Area IV and NBZ report.

## **6.0 REFERENCES**

Department of Toxic Substances Control, 2010. Administrative Order On Consent For Remedial Action, Santa Susana Field Laboratory, Simi Hills, Ventura County, California. December.

HydroGeoLogic, Inc. (HGL), 2012a. Final Field Sampling Plan for Soil Sampling, Area IV Radiological Study, Santa Susana Field Laboratory, Ventura County, California. March.

HGL, 2012b. Subarea 5D Round 2 Addendum to the Final Field Sampling Plan for Soil Sampling, Area IV Radiological Study, Santa Susana Field Laboratory, Ventura County, California. March.

HGL, 2012c. Final Quality Assurance Project Plan for Soil Sampling, Area IV Radiological Study, Santa Susana Field Laboratory, Ventura County, California. March.



HGL, 2012d. Final Technical Memorandum, Subarea 5D Round 1 Soil Sample Results, Santa Susana Field Laboratory, Area IV Radiological Study. August.

**LIST OF TABLES**

Table 1	Summary of Planned and Collected Step-out Samples by Area
Table 2	Summary of Subsurface Sample Deviations
Table 3	Summary of Reanalyzed Samples

**FIGURE LIST**

Figure 1	Subarea 5D Sample Locations Round 1 and Round 2
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**LIST OF ATTACHMENTS**

Attachment 1	Tables
Attachment 2	Boring Logs

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**TABLES**

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**Table 1**  
**Summary of Planned and Collected Step-out Samples by Area**  
**Subarea 5D, Round 2**

Area	Drainage		Surface		Subsurface		Total	
	Planned	Collected	Planned	Collected	Planned	Collected	Planned	Collected
Hot Lab (Former Building 4020)	2	2	21	21	24	24	47	47
Building 4055 Area	0	0	7	7	7	7	14	14
Pond Dredge Area and Former Buildings 4375/4874/4875	0	0	9	9	9	9	18	18
Former Building 4353 Area and Former Buildings 4173/4865 Ground Scar	0	0	20	20	20	20	40	40
Subarea 5D-South	0	0	8	8	8	4	16	12
<b>Total</b>	<b>2</b>	<b>2</b>	<b>65</b>	<b>65</b>	<b>68</b>	<b>64</b>	<b>135</b>	<b>131</b>

**Table 3  
Summary of Reanalyzed Samples  
Subarea 5D, Round 2**

Location ID	Sample ID	Analyte Name	Reanalyzed Activity	Reanalyzed MDC	RTL
5DN-00033	50076	Pu-238	0.0090	0.0166	0.042
5DN-00039	50090	Th-229	0.168	0.0758	0.145
5DN-00056	50124	Cm-243/244	-0.0071	0.0356	0.044
5DN-00067	50144	Co-60	0.0048	0.0236	0.028
5DN-00080	50164	Co-60	0.0048	0.0229	0.028
5DN-00080	50164	Na-22	-0.0036	0.0309	0.037
5DN-00096	50195	Co-60	0.0023	0.018	0.028
5DN-00109	50222	Co-60	-0.0089	0.0231	0.028
5DN-00163	50325	Pu-238	0.0020	0.0189	0.042
5DN-00164	50326	Pu-239/240	0.0015	0.0139	0.04
5DN-00184	50363	Pu-238	0.0085	0.0271	0.042
5DN-00206	50407	Pu-238	0.0030	0.0112	0.042
5DS-00018	50475	Sr-90	-0.0392	0.233	0.485
5DS-00025	50488	Cm-243/244	0	0.0248	0.044

**Notes:**

Refer to Table 2.1 of the Final Field Sampling Plan for Soil Sampling (HGL, 2012a) for a definition of radionuclide symbols.

Reporting units in picocuries per gram.

ID - identification

MDC - minimum detectable concentration

RTL - radiological trigger level

**FIGURE**

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# Plate 1 Subarea 5D Sample Locations Round 1 and Round 2 Santa Susana Field Laboratory

U.S. EPA Region 9



### Legend

#### Soil Sample Locations

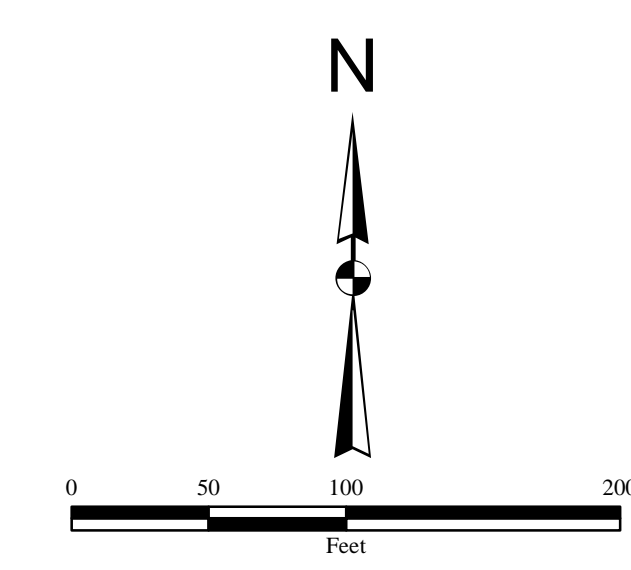
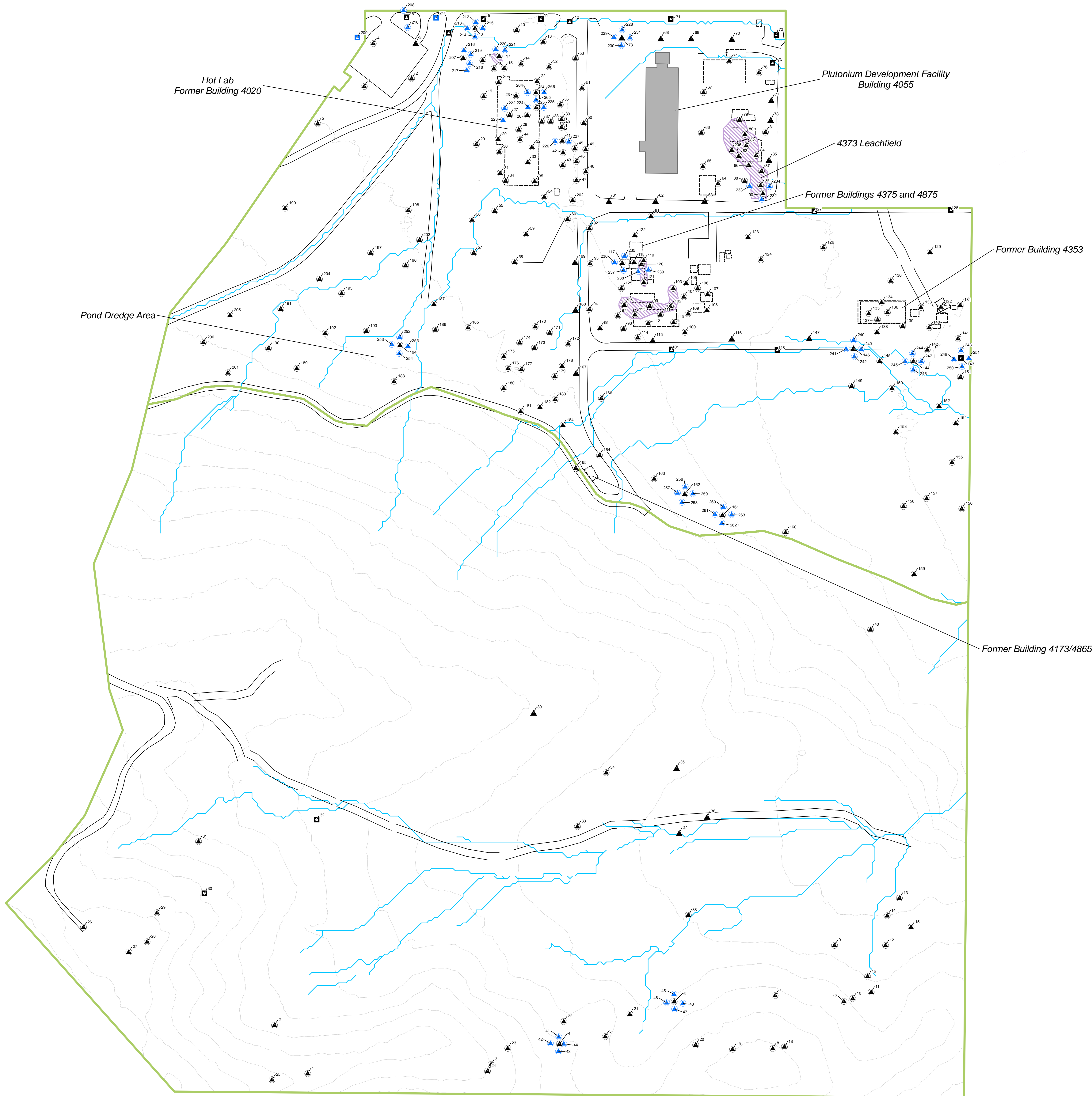
- Round 1 - Drainage
- Round 1 - Drainage Subsurface
- ▲ Round 1 - Surface Subsurface
- ▲ Round 1 - Drainage Subsurface
- Round 2 - Drainage Subsurface
- ▲ Round 2 - Surface Subsurface

#### Likely Remediation Zones

- Chemical (as of 5/2012)
- Subareas

#### Structures

- Existing
- Removed
- Roads
- Approximate Drainage Pathways
- 20-foot elevation contours



**ATTACHMENT 1**

Tables

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**LIST OF ATTACHMENT TABLES**

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Table A.1	Boring Log Summary
Table A.2	Analytical Results Summary
Table A.3	Parent and Field Duplicate Sample Results Summary
Table A.4	Rinsate and Source Water Comparison Summary

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**Table A.1**  
**Boring Log Summary**  
**Subarea 5D, Round 2**

Sample Location	Surface Collection Interval (ft bgs)	Subsurface Collection Interval (ft bgs)	Soil Description	Total Depth (ft bgs)	Refusal Depth (ft bgs)	Notes/Comments	Northing <sup>1</sup>	Easting <sup>1</sup>
5DN-00208	0.0-0.5	1-5	ML/CL/SM	10.00	NA	Fill to 0.8 ft, target depth reached.	1,906,780.57	6,345,452.47
5DN-00209	0.25-0.75	1-5	CL/SC	6.00	6.00	Fill to 5.0 ft, refusal on bedrock.	1,906,728.91	6,345,363.78
5DN-00210	0.0-0.5	1-5	ML/SM/CL/SM	10.00	NA	Fill to 0.9 ft, target depth reached.	1,906,747.58	6,345,460.24
5DN-00211	0.0-0.5	1-5	CL/SM/SC	9.80	9.80	Fill to 2.0, refusal on bedrock.	1,906,766.41	6,345,514.99
5DN-00212	0.0-0.5	1-5	ML/CL/SM	10.00	NA	Fill to 1.5 ft, target depth reached.	1,906,758.23	6,345,590.90
5DN-00213	0.0-0.5	1-5	CL/SM	10.00	NA	Fill to 1.0 ft, target depth reached.	1,906,747.00	6,345,574.65
5DN-00214	0.0-0.5	1-5	ML/CL/SM/SP	10.00	NA	Fill to 1.0 ft, target depth reached.	1,906,730.22	6,345,589.69
5DN-00215	0.0-0.5	1-5	SM/CL/ML/SM	10.00	NA	Fill to 0.75 ft, target depth reached.	1,906,746.73	6,345,604.32
5DN-00216	0.0-0.5	1-5	CL/SM/SP	5.00	NA	Fill to 2.5 ft, refusal on bedrock.	1,906,704.95	6,345,568.36
5DN-00217	0.0-0.5	1-5	CL	10.00	NA	Fill to 10 ft, target depth reached.	1,906,665.80	6,345,573.62
5DN-00218	0.0-0.5	1-5	CL/SC	8.75	NA	Fill to 8.75 ft, refusal on bedrock.	1,906,678.98	6,345,579.20
5DN-00219	0.0-0.5	1-5	CL/SM/SP	6.67	NA	Fill to 3.0 ft, refusal on bedrock.	1,906,695.76	6,345,581.49
5DN-00220	0.0-0.5	1-5	CL/SM/SP	7.00	NA	Fill to 4.5 ft, refusal on bedrock.	1,906,705.92	6,345,629.17
5DN-00221	0.0-0.5	1-5	CL/SM/ML/SP	10.00	NA	Fill to 5.0 ft, target depth reached.	1,906,705.06	6,345,646.95
5DN-00222	0.0-0.5	1-5	CL	10.00	NA	Fill to 10 ft, target depth reached.	1,906,592.68	6,345,646.25
5DN-00223	0.0-0.5	1-5	CL/ML/SP	10.00	NA	Fill to 5.0 ft, target depth reached.	1,906,570.07	6,345,643.52
5DN-00224	0.0-0.5	23.25-25.0	CL/SM/SC/SP	25.00	NA	Fill to 23.25 ft, sample collected below sand layer, refusal on bedrock.	1,906,595.33	6,345,691.16
5DN-00225	0.0-0.5	18.25-20.5	CL/SM/SP/SC	20.50	NA	Fill to 18.25 ft, sample collected below sand layer, refusal on bedrock.	1,906,594.75	6,345,721.33
5DN-00226	0.0-0.5	1-5	CL/SP	10.00	NA	Fill to 10 ft, target depth reached.	1,906,529.39	6,345,743.18

**Table A.1**  
**Boring Log Summary**  
**Subarea 5D, Round 2**

Sample Location	Surface Collection Interval (ft bgs)	Subsurface Collection Interval (ft bgs)	Soil Description	Total Depth (ft bgs)	Refusal Depth (ft bgs)	Notes/Comments	Northing <sup>1</sup>	Easting <sup>1</sup>
5DN-00227	0.0-0.5	1-5	CL	10.00	NA	Fill to 10 ft, target depth reached.	1,906,528.54	6,345,769.12
5DN-00228	0.4-0.9	1-5	CL	10.00	NA	Fill to 10 ft, target depth reached.	1,906,743.62	6,345,871.92
5DN-00229	0.3-0.8	1-5	CL/SM/CL	10.00	NA	Target depth reached.	1,906,729.36	6,345,856.00
5DN-00230	0.5-1.0	1-5	CL/SM/CL	10.00	NA	Target depth reached.	1,906,712.94	6,345,870.59
5DN-00231	0.3-0.8	1-5	CL	10.00	NA	Fill to 10 ft, target depth reached.	1,906,728.47	6,345,887.02
5DN-00232	0.3-0.8	1-2.3	SM/CL/SP	2.30	NA	Fill to 0.75 ft, refusal on bedrock.	1,906,418.00	6,346,139.69
5DN-00233	0.0-0.5	1-5	ML/CL/SP	5.00	NA	Refusal on bedrock.	1,906,443.52	6,346,116.44
5DN-00234	0.0-0.5	1-3.5	ML/CL	3.50	NA	Refusal on bedrock.	1,906,442.65	6,346,154.42
5DN-00235	0.0-0.5	1-5	CL	8.00	NA	Fill to 7.3 ft, refusal on bedrock.	1,906,309.60	6,345,876.34
5DN-00236	0.0-0.5	1-5	CL/SM/SP	7.33	NA	Fill to 6.7 ft, refusal on bedrock.	1,906,297.37	6,345,857.11
5DN-00237	0.0-0.5	1-5	CL/SM	10.00	NA	Fill to 10 ft, target depth reached.	1,906,281.78	6,345,874.53
5DN-00238	0.0-0.5	1-5	CL/SP/ML	8.00	NA	Fill to 6.75 ft, refusal on bedrock.	1,906,279.58	6,345,902.53
5DN-00239	0.0-0.5	1-5	CL/SM/SP/ML	10.00	NA	Fill to 6.7 ft, target depth reached.	1,906,282.95	6,345,922.25
5DN-00240	0.0-0.5	1-2.2	SM/ML/SP	2.20	NA	Refusal on bedrock.	1,906,147.81	6,346,315.92
5DN-00241	0.0-0.5	1-3	ML/SM/SP	3.00	NA	Refusal on bedrock.	1,906,131.42	6,346,301.34
5DN-00242	0.0-0.5	1-3	ML/SP/SM/SP	3.00	NA	Refusal on bedrock.	1,906,116.38	6,346,317.36
5DN-00243	0.0-0.5	1-3.5	SM/ML/CL/SP	3.50	NA	Refusal on bedrock.	1,906,130.36	6,346,330.61
5DN-00244	0-0.0.5	1-5	ML/CL	5.00	NA	Refusal on bedrock.	1,906,122.20	6,346,428.69
5DN-00245	0.0-0.5	1-4.5	ML/CL	4.50	NA	Refusal on bedrock.	1,906,107.02	6,346,414.93
5DN-00246	0.0-0.5	1-4	ML/SM	4.00	NA	Refusal on bedrock.	1,906,091.26	6,346,430.59

**Table A.1**  
**Boring Log Summary**  
**Subarea 5D, Round 2**

Sample Location	Surface Collection Interval (ft bgs)	Subsurface Collection Interval (ft bgs)	Soil Description	Total Depth (ft bgs)	Refusal Depth (ft bgs)	Notes/Comments	Northing <sup>1</sup>	Easting <sup>1</sup>
5DN-00247	0.0-0.5	1-4	ML/SM/ML	4.00	NA	Refusal on bedrock.	1,906,107.10	6,346,445.97
5DN-00248	0.0-0.5	1-5	ML/CL/SM	10.00	NA	Target depth reached.	1,906,128.03	6,346,521.99
5DN-00249	0.0-0.5	1-5	ML/CL/SM	8.50	NA	Refusal on bedrock.	1,906,112.00	6,346,508.57
5DN-00250	0.0-0.5	1-5	ML	5.00	NA	Refusal on bedrock.	1,906,097.15	6,346,524.09
5DN-00251	0.0-0.5	1-5	ML/CL	9.50	NA	Refusal on bedrock.	1,906,113.91	6,346,537.30
5DN-00252	0.0-0.5	1-5	ML/CL	10.00	NA	Target depth reached.	1,906,153.94	6,345,444.93
5DN-00253	0.0-0.5	1-5	ML/CL	10.00	NA	Target depth reached.	1,906,139.79	6,345,429.92
5DN-00254	0.0-0.5	1-5	ML/CL	10.00	NA	Target depth reached.	1,906,122.34	6,345,444.31
5DN-00255	0.0-0.5	1-5	ML/CL	10.00	NA	Fill to 1.5 ft, target depth reached.	1,906,136.78	6,345,460.93
5DN-00256	0.0-0.5	1-5	CL	10.00	NA	Target depth reached.	1,905,866.42	6,345,993.10
5DN-00257	0.0-0.5	1-5	ML/CL	10.00	NA	Target depth reached.	1,905,854.76	6,345,978.05
5DN-00258	0.0-0.5	1-5	CL	10.00	NA	Fill to 10 ft, target depth reached.	1,905,836.50	6,345,986.74
5DN-00259	0.0-0.5	1-5	CL	10.00	NA	Target depth reached.	1,905,853.52	6,346,007.47
5DN-00260	0.0-0.5	1-5	ML/CL/SC	10.00	NA	Target depth reached.	1,905,827.81	6,346,066.03
5DN-00261	0.0-0.5	1-5	ML/CL	10.00	NA	Target depth reached.	1,905,813.73	6,346,049.86
5DN-00262	0.0-0.5	1-5	ML/CL	10.00	NA	Target depth reached.	1,905,796.72	6,346,063.19
5DN-00263	0.0-0.5	1-5	ML/CL/SC	8.58	NA	Refusal on bedrock.	1,905,812.84	6,346,081.94
5DN-00264	0.0-0.5	1-5	CL/ML/SM/CL	10.00	NA	Fill to 2.0 ft, target depth reached.	1,906,623.05	6,345,690.04
5DN-00265	0.0-0.5	1-5, 21.5-23.5	CL/ML/SM/SP	25.00	NA	Fill to 21.5 ft, sample collected below sand layer, refusal on bedrock.	1,906,609.29	6,345,706.42
5DN-00266	0.0-0.5	1-5	CL/ML/SM/CL	10.00	NA	Fill to 0.75 ft., target depth reached.	1,906,623.92	6,345,722.04



**Table A.1**  
**Boring Log Summary**  
**Subarea 5D, Round 2**

Sample Location	Surface Collection Interval (ft bgs)	Subsurface Collection Interval (ft bgs)	Soil Description	Total Depth (ft bgs)	Refusal Depth (ft bgs)	Notes/Comments	Northing <sup>1</sup>	Easting <sup>1</sup>
5DS-00041	0.0-0.5	NA	ML	1.00	NA	Refusal on bedrock.	1,904,810.82	6,345,750.07
5DS-00042	0.0-0.5	1-2.5	ML/SM	2.50	NA	Refusal on bedrock.	1,904,798.43	6,345,734.21
5DS-00043	0.0-0.5	1-1.5	ML/SM	1.50	NA	Refusal on bedrock.	1,904,783.16	6,345,749.67
5DS-00044	0.0-0.5	0.5-1.5	ML	1.50	NA	Refusal on bedrock.	1,904,797.46	6,345,759.80
5DS-00045	0.0-0.5	NA	ML/SM	1.50	NA	Refusal on bedrock.	1,904,892.83	6,345,971.43
5DS-00046	0.0-0.5	1-2	ML/SM	2.00	NA	Refusal on bedrock.	1,904,876.19	6,345,957.10
5DS-00047	0.0-0.5	NA	ML	1.00	NA	Refusal on bedrock.	1,904,864.31	6,345,972.38
5DS-00048	0.0-0.5	NA	ML/SM	1.00	NA	Refusal on bedrock.	1,904,875.06	6,345,988.28

**Notes:**

<sup>1</sup>Northing and easting measured using NAD83 SPZ5 US Feet

bgs - below ground surface

CL - clay

ft - feet

ML - silt

NA - not applicable

SC - clayey sand

SM - silty sand

SP - poorly graded sand

**Table A.2**  
**Analytical Results Summary**  
**Subarea 5D, Round 2**

Sample Location	Sample ID	Analyte Name	Activity	MDC	TPU	Sample Depth (feet bgs)
5DN-00208	50518	Sr-90	0.0084 U	0.186	0.0499	0.00 - 0.50
5DN-00208	50519	Sr-90	-0.0654 U	0.302	0.0782	1.00 - 5.00
5DN-00209	50520	Sr-90	-0.116 U	0.299	0.0731	0.25 - 0.75
5DN-00209	50521	Sr-90	0.0268 U	0.287	0.0778	1.00 - 5.00
5DN-00210	50522	Sr-90	-0.0938 U	0.212	0.0511	0.00 - 0.50
5DN-00210	50523	Sr-90	-0.0172 U	0.213	0.0541	1.00 - 5.00
5DN-00211	50524	Sr-90	0.0296 U	0.233	0.0641	0.00 - 0.50
5DN-00211	50525	Sr-90	-0.0101 U	0.337	0.0896	1.00 - 5.00
5DN-00212	50526	Sr-90	0.0988 U	0.209	0.0641	0.00 - 0.50
5DN-00212	50527	Sr-90	-0.0309 U	0.211	0.0554	1.00 - 5.00
5DN-00213	50528	Sr-90	0.408	0.245	0.099	0.00 - 0.50
5DN-00213	50529	Sr-90	0.233	0.214	0.0818	1.00 - 5.00
5DN-00214	50530	Sr-90	0.0889 U	0.24	0.072	0.00 - 0.50
5DN-00214	50531	Sr-90	-0.0028 U	0.17	0.0444	1.00 - 5.00
5DN-00215	50532	Sr-90	-0.0229 U	0.156	0.0381	0.00 - 0.50
5DN-00215	50533	Sr-90	0.177 U	0.356	0.11	1.00 - 5.00
5DN-00216	50534	Ac-227	0.0015 U	0.21	0.062	0.00 - 0.50
5DN-00216	50534	Bi-212	0.882	0.135	0.0962	0.00 - 0.50
5DN-00216	50534	Bi-214	0.93	0.0328	0.0453	0.00 - 0.50
5DN-00216	50534	Cd-113m	-1.8 U	139	44.2	0.00 - 0.50
5DN-00216	50534	Co-60	0.0064 U	0.0195	0.0057	0.00 - 0.50
5DN-00216	50534	Cs-134	0.0069 U	0.0163	0.0055	0.00 - 0.50
5DN-00216	50534	Cs-137	0.0387	0.0187	0.0066	0.00 - 0.50
5DN-00216	50534	Eu-152	-0.0071 U	0.0513	0.0161	0.00 - 0.50
5DN-00216	50534	Eu-154	0.0014 U J	0.101	0.0301	0.00 - 0.50
5DN-00216	50534	Eu-155	0.059 JSK	0.075	0.0265	0.00 - 0.50
5DN-00216	50534	Ho-166m	0.0115 U	0.0284	0.0086	0.00 - 0.50
5DN-00216	50534	K-40	19.9	0.139	1.17	0.00 - 0.50
5DN-00216	50534	Na-22	0.0077 U	0.0219	0.0065	0.00 - 0.50
5DN-00216	50534	Nb-94	0.008 JSK	0.0156	0.0048	0.00 - 0.50
5DN-00216	50534	Np-236	-0.0031 U	0.0398	0.0122	0.00 - 0.50
5DN-00216	50534	Np-239	0.0098 U	0.141	0.0414	0.00 - 0.50
5DN-00216	50534	Pa-231	-0.0032 U	0.87	0.258	0.00 - 0.50
5DN-00216	50534	Pb-212	1.51	0.0353	0.101	0.00 - 0.50

**Table A.2**  
**Analytical Results Summary**  
**Subarea 5D, Round 2**

Sample Location	Sample ID	Analyte Name	Activity	MDC	TPU	Sample Depth (feet bgs)
5DN-00216	50534	Pb-214	1.12	0.0362	0.0564	0.00 - 0.50
5DN-00216	50534	Sb-125	0.0069 U	0.046	0.0139	0.00 - 0.50
5DN-00216	50534	Sn-126	-0.0025 U	0.0175	0.0052	0.00 - 0.50
5DN-00216	50534	Sr-90	0.25 U	0.456	0.142	0.00 - 0.50
5DN-00216	50534	Th-234	1.33	0.328	0.166	0.00 - 0.50
5DN-00216	50534	Tl-208	0.437	0.0169	0.0258	0.00 - 0.50
5DN-00216	50534	Tm-171	-7.27 U	16.4	5.84	0.00 - 0.50
5DN-00216	50535	Ac-227	-0.02 U	0.155	0.046	1.00 - 5.00
5DN-00216	50535	Bi-212	0.936	0.107	0.0764	1.00 - 5.00
5DN-00216	50535	Bi-214	0.902	0.0238	0.0422	1.00 - 5.00
5DN-00216	50535	Cd-113m	10.7 U	107	31.5	1.00 - 5.00
5DN-00216	50535	Co-60	-0.0082 U	0.0133	0.0044	1.00 - 5.00
5DN-00216	50535	Cs-134	-0.0037 U	0.0114	0.004	1.00 - 5.00
5DN-00216	50535	Cs-137	0.0039 U	0.0144	0.0048	1.00 - 5.00
5DN-00216	50535	Eu-152	-0.0298 U J	0.0375	0.0135	1.00 - 5.00
5DN-00216	50535	Eu-154	-0.0202 U J	0.0755	0.0233	1.00 - 5.00
5DN-00216	50535	Eu-155	0.104 SK	0.0534	0.023	1.00 - 5.00
5DN-00216	50535	Ho-166m	0.0046 U	0.0222	0.0065	1.00 - 5.00
5DN-00216	50535	K-40	16.4	0.102	0.897	1.00 - 5.00
5DN-00216	50535	Na-22	-0.0116 U	0.0152	0.0061	1.00 - 5.00
5DN-00216	50535	Nb-94	0.0085 JSK	0.0132	0.0042	1.00 - 5.00
5DN-00216	50535	Np-236	-0.0105 U	0.0296	0.0095	1.00 - 5.00
5DN-00216	50535	Np-239	0.0094 U	0.108	0.0316	1.00 - 5.00
5DN-00216	50535	Pa-231	-0.331 U	0.643	0.208	1.00 - 5.00
5DN-00216	50535	Pb-212	1.44	0.0264	0.077	1.00 - 5.00
5DN-00216	50535	Pb-214	0.928	0.0274	0.0427	1.00 - 5.00
5DN-00216	50535	Sb-125	0.0076 U	0.0368	0.0111	1.00 - 5.00
5DN-00216	50535	Sn-126	0.0023 U	0.0147	0.0043	1.00 - 5.00
5DN-00216	50535	Sr-90	-0.0335 U	0.257	0.0642	1.00 - 5.00
5DN-00216	50535	Th-234	1.45	0.222	0.126	1.00 - 5.00
5DN-00216	50535	Tl-208	0.455	0.0135	0.0252	1.00 - 5.00
5DN-00216	50535	Tm-171	-3.23 U	9.04	3.16	1.00 - 5.00
5DN-00217	50536	Ac-227	0.0293 U	0.187	0.0578	0.00 - 0.50
5DN-00217	50536	Bi-212	0.909	0.126	0.0712	0.00 - 0.50

**Table A.2**  
**Analytical Results Summary**  
**Subarea 5D, Round 2**

Sample Location	Sample ID	Analyte Name	Activity	MDC	TPU	Sample Depth (feet bgs)
5DN-00217	50536	Bi-214	1.07	0.0305	0.0507	0.00 - 0.50
5DN-00217	50536	Cd-113m	-2.36 U	124	38.3	0.00 - 0.50
5DN-00217	50536	Co-60	0.0033 U	0.0172	0.0049	0.00 - 0.50
5DN-00217	50536	Cs-134	0.0119 JSK	0.0154	0.0058	0.00 - 0.50
5DN-00217	50536	Cs-137	0.0449	0.0153	0.0068	0.00 - 0.50
5DN-00217	50536	Eu-152	-0.0239 U	0.0452	0.0146	0.00 - 0.50
5DN-00217	50536	Eu-154	0.052 J	0.0914	0.0319	0.00 - 0.50
5DN-00217	50536	Eu-155	0.0642 JSK	0.0647	0.0241	0.00 - 0.50
5DN-00217	50536	Ho-166m	0.0087 U	0.0262	0.0077	0.00 - 0.50
5DN-00217	50536	K-40	18.7	0.13	1.01	0.00 - 0.50
5DN-00217	50536	Na-22	-0.0145 U J	0.0189	0.0067	0.00 - 0.50
5DN-00217	50536	Nb-94	-0.0019 U	0.0146	0.0043	0.00 - 0.50
5DN-00217	50536	Np-236	-0.0071 U	0.0342	0.0103	0.00 - 0.50
5DN-00217	50536	Np-239	-0.0184 U	0.124	0.0384	0.00 - 0.50
5DN-00217	50536	Pa-231	-0.25 U	0.755	0.236	0.00 - 0.50
5DN-00217	50536	Pb-212	1.38	0.0321	0.079	0.00 - 0.50
5DN-00217	50536	Pb-214	1.18	0.0329	0.0556	0.00 - 0.50
5DN-00217	50536	Sb-125	0.0079 U	0.0441	0.013	0.00 - 0.50
5DN-00217	50536	Sn-126	-0.0034 U	0.0167	0.0049	0.00 - 0.50
5DN-00217	50536	Sr-90	-0.0741 U	0.242	0.0572	0.00 - 0.50
5DN-00217	50536	Th-234	1.59	0.27	0.158	0.00 - 0.50
5DN-00217	50536	Tl-208	0.475	0.0159	0.0274	0.00 - 0.50
5DN-00217	50536	Tm-171	-3.59 U	12.4	4.11	0.00 - 0.50
5DN-00217	50537	Ac-227	0.0002 U	0.198	0.0578	1.00 - 5.00
5DN-00217	50537	Bi-212	0.973	0.128	0.078	1.00 - 5.00
5DN-00217	50537	Bi-214	1.08	0.0298	0.0511	1.00 - 5.00
5DN-00217	50537	Cd-113m	2.98 U	129	38.9	1.00 - 5.00
5DN-00217	50537	Co-60	0.0009 U	0.0177	0.0052	1.00 - 5.00
5DN-00217	50537	Cs-134	0.0037 U	0.0148	0.0051	1.00 - 5.00
5DN-00217	50537	Cs-137	-0.0055 U	0.0166	0.0058	1.00 - 5.00
5DN-00217	50537	Eu-152	-0.0015 U	0.0487	0.0155	1.00 - 5.00
5DN-00217	50537	Eu-154	-0.0685 U J	0.0907	0.0327	1.00 - 5.00
5DN-00217	50537	Eu-155	0.0771 SK	0.0684	0.0258	1.00 - 5.00
5DN-00217	50537	Ho-166m	-0.0027 U	0.0261	0.0076	1.00 - 5.00

**Table A.2**  
**Analytical Results Summary**  
**Subarea 5D, Round 2**

Sample Location	Sample ID	Analyte Name	Activity	MDC	TPU	Sample Depth (feet bgs)
5DN-00217	50537	K-40	17.9	0.119	0.982	1.00 - 5.00
5DN-00217	50537	Na-22	-0.0038 U	0.0187	0.0057	1.00 - 5.00
5DN-00217	50537	Nb-94	-0.0001 U	0.0159	0.0046	1.00 - 5.00
5DN-00217	50537	Np-236	-0.0004 U	0.0372	0.0113	1.00 - 5.00
5DN-00217	50537	Np-239	-0.0269 U	0.131	0.039	1.00 - 5.00
5DN-00217	50537	Pa-231	0.0421 U	0.807	0.236	1.00 - 5.00
5DN-00217	50537	Pb-212	1.57	0.0334	0.089	1.00 - 5.00
5DN-00217	50537	Pb-214	1.25	0.0336	0.0576	1.00 - 5.00
5DN-00217	50537	Sb-125	0.0071 U	0.0467	0.0139	1.00 - 5.00
5DN-00217	50537	Sn-126	-0.0101 U	0.0168	0.0056	1.00 - 5.00
5DN-00217	50537	Sr-90	-0.0262 U	0.223	0.0551	1.00 - 5.00
5DN-00217	50537	Th-234	1.48	0.298	0.161	1.00 - 5.00
5DN-00217	50537	Tl-208	0.469	0.0172	0.0269	1.00 - 5.00
5DN-00217	50537	Tm-171	-4.59 U	13	4.53	1.00 - 5.00
5DN-00218	50538	Ac-227	0.0307 U	0.216	0.0635	0.00 - 0.50
5DN-00218	50538	Bi-212	0.898	0.143	0.0947	0.00 - 0.50
5DN-00218	50538	Bi-214	1.05	0.0339	0.0501	0.00 - 0.50
5DN-00218	50538	Cd-113m	-39.8 U	142	49.3	0.00 - 0.50
5DN-00218	50538	Co-60	0.0059 U	0.0191	0.0056	0.00 - 0.50
5DN-00218	50538	Cs-134	0.0041 U	0.0172	0.006	0.00 - 0.50
5DN-00218	50538	Cs-137	0.014	0.0191	0.0083	0.00 - 0.50
5DN-00218	50538	Eu-152	-0.0363 U	0.0519	0.0227	0.00 - 0.50
5DN-00218	50538	Eu-154	-0.0399 U J	0.103	0.0325	0.00 - 0.50
5DN-00218	50538	Eu-155	0.0644 JSK	0.0762	0.0273	0.00 - 0.50
5DN-00218	50538	Ho-166m	-0.0198 U J	0.0281	0.0097	0.00 - 0.50
5DN-00218	50538	K-40	19	0.136	1.03	0.00 - 0.50
5DN-00218	50538	Na-22	0.0106 J	0.022	0.0068	0.00 - 0.50
5DN-00218	50538	Nb-94	0.0005 U	0.0173	0.005	0.00 - 0.50
5DN-00218	50538	Np-236	-0.019 U	0.0403	0.0132	0.00 - 0.50
5DN-00218	50538	Np-239	-0.0306 U	0.143	0.0428	0.00 - 0.50
5DN-00218	50538	Pa-231	-0.201 U	0.883	0.305	0.00 - 0.50
5DN-00218	50538	Pb-212	1.44	0.0362	0.0815	0.00 - 0.50
5DN-00218	50538	Pb-214	1.12	0.0376	0.0528	0.00 - 0.50
5DN-00218	50538	Sb-125	-0.0277 U	0.0484	0.0162	0.00 - 0.50

**Table A.2**  
**Analytical Results Summary**  
**Subarea 5D, Round 2**

Sample Location	Sample ID	Analyte Name	Activity	MDC	TPU	Sample Depth (feet bgs)
5DN-00218	50538	Sn-126	-0.0077 U	0.0186	0.0058	0.00 - 0.50
5DN-00218	50538	Sr-90	0.0521 U	0.292	0.0817	0.00 - 0.50
5DN-00218	50538	Th-234	1.7	0.316	0.183	0.00 - 0.50
5DN-00218	50538	Tl-208	0.453	0.0181	0.0274	0.00 - 0.50
5DN-00218	50538	Tm-171	-11.2 U J	13.9	5.53	0.00 - 0.50
5DN-00218	50539	Ac-227	-0.0053 U	0.181	0.0529	1.00 - 5.00
5DN-00218	50539	Bi-212	0.984	0.121	0.0783	1.00 - 5.00
5DN-00218	50539	Bi-214	0.959	0.0281	0.0459	1.00 - 5.00
5DN-00218	50539	Cd-113m	2.48 U	118	38.9	1.00 - 5.00
5DN-00218	50539	Co-60	-0.0008 U	0.0153	0.0045	1.00 - 5.00
5DN-00218	50539	Cs-134	0.0021 U	0.0135	0.0046	1.00 - 5.00
5DN-00218	50539	Cs-137	0.0059 U	0.0155	0.0054	1.00 - 5.00
5DN-00218	50539	Eu-152	-0.0101 U	0.044	0.0143	1.00 - 5.00
5DN-00218	50539	Eu-154	-0.0422 U J	0.0821	0.0268	1.00 - 5.00
5DN-00218	50539	Eu-155	0.0744 SK	0.0646	0.0243	1.00 - 5.00
5DN-00218	50539	Ho-166m	-0.0129 U	0.0226	0.0078	1.00 - 5.00
5DN-00218	50539	K-40	16.6	0.119	0.903	1.00 - 5.00
5DN-00218	50539	Na-22	0.0099 J	0.0186	0.0057	1.00 - 5.00
5DN-00218	50539	Nb-94	-0.0004 U	0.014	0.0043	1.00 - 5.00
5DN-00218	50539	Np-236	0.0015 U	0.0362	0.011	1.00 - 5.00
5DN-00218	50539	Np-239	-0.0029 U	0.12	0.035	1.00 - 5.00
5DN-00218	50539	Pa-231	0.0759 U	0.75	0.236	1.00 - 5.00
5DN-00218	50539	Pb-212	1.45	0.0299	0.0811	1.00 - 5.00
5DN-00218	50539	Pb-214	1.11	0.031	0.0518	1.00 - 5.00
5DN-00218	50539	Sb-125	0.0097 U	0.0419	0.0125	1.00 - 5.00
5DN-00218	50539	Sn-126	0.003 U	0.0161	0.0049	1.00 - 5.00
5DN-00218	50539	Sr-90	-0.0041 U	0.239	0.0609	1.00 - 5.00
5DN-00218	50539	Th-234	1.81	0.294	0.165	1.00 - 5.00
5DN-00218	50539	Tl-208	0.42	0.0151	0.0244	1.00 - 5.00
5DN-00218	50539	Tm-171	-1.59 U	14	4.74	1.00 - 5.00
5DN-00219	50540	Ac-227	-0.136 U	0.198	0.0699	0.00 - 0.50
5DN-00219	50540	Bi-212	0.757	0.132	0.083	0.00 - 0.50
5DN-00219	50540	Bi-214	0.9	0.0334	0.045	0.00 - 0.50
5DN-00219	50540	Cd-113m	-49.1 U	132	44.2	0.00 - 0.50

**Table A.2**  
**Analytical Results Summary**  
**Subarea 5D, Round 2**

Sample Location	Sample ID	Analyte Name	Activity	MDC	TPU	Sample Depth (feet bgs)
5DN-00219	50540	Co-60	0.0053 U	0.0183	0.0054	0.00 - 0.50
5DN-00219	50540	Cs-134	0.0084 JSK	0.0164	0.0058	0.00 - 0.50
5DN-00219	50540	Cs-137	0.0771	0.0185	0.0124	0.00 - 0.50
5DN-00219	50540	Eu-152	-0.0233 U	0.0485	0.0186	0.00 - 0.50
5DN-00219	50540	Eu-154	-0.0551 U J	0.0959	0.032	0.00 - 0.50
5DN-00219	50540	Eu-155	0.0382 SK	0.0723	0.027	0.00 - 0.50
5DN-00219	50540	Ho-166m	-0.0187 U	0.0281	0.0099	0.00 - 0.50
5DN-00219	50540	K-40	16.9	0.14	0.924	0.00 - 0.50
5DN-00219	50540	Na-22	-0.0036 U	0.0209	0.0063	0.00 - 0.50
5DN-00219	50540	Nb-94	-0.0029 U	0.0164	0.005	0.00 - 0.50
5DN-00219	50540	Np-236	-0.0086 U	0.0394	0.013	0.00 - 0.50
5DN-00219	50540	Np-239	-0.0236 U	0.135	0.0419	0.00 - 0.50
5DN-00219	50540	Pa-231	-0.202 U	0.843	0.259	0.00 - 0.50
5DN-00219	50540	Pb-212	1.32	0.0337	0.0743	0.00 - 0.50
5DN-00219	50540	Pb-214	1.08	0.036	0.0501	0.00 - 0.50
5DN-00219	50540	Sb-125	0.013 U	0.0476	0.0142	0.00 - 0.50
5DN-00219	50540	Sn-126	0.0046 U	0.0189	0.0057	0.00 - 0.50
5DN-00219	50540	Sr-90	0.0175 U	0.324	0.0876	0.00 - 0.50
5DN-00219	50540	Th-234	1.14	0.332	0.142	0.00 - 0.50
5DN-00219	50540	Tl-208	0.41	0.0173	0.0241	0.00 - 0.50
5DN-00219	50540	Tm-171	-2.94 U	16.2	5.51	0.00 - 0.50
5DN-00219	50541	Ac-227	-0.0167 U	0.191	0.0589	1.00 - 5.00
5DN-00219	50541	Bi-212	1.06	0.129	0.0815	1.00 - 5.00
5DN-00219	50541	Bi-214	1.02	0.0299	0.0484	1.00 - 5.00
5DN-00219	50541	Cd-113m	62.3 U	133	42.7	1.00 - 5.00
5DN-00219	50541	Co-60	-0.0054 U	0.0162	0.0049	1.00 - 5.00
5DN-00219	50541	Cs-134	0.0005 U	0.0141	0.0049	1.00 - 5.00
5DN-00219	50541	Cs-137	0.0017 U	0.0175	0.0061	1.00 - 5.00
5DN-00219	50541	Eu-152	-0.0276 U	0.0485	0.018	1.00 - 5.00
5DN-00219	50541	Eu-154	-0.0249 U J	0.0912	0.0326	1.00 - 5.00
5DN-00219	50541	Eu-155	0.0989 SK	0.0659	0.0258	1.00 - 5.00
5DN-00219	50541	Ho-166m	0.0042 U	0.0271	0.0082	1.00 - 5.00
5DN-00219	50541	K-40	19.5	0.132	1.06	1.00 - 5.00
5DN-00219	50541	Na-22	-0.0009 U	0.021	0.0063	1.00 - 5.00

**Table A.2**  
**Analytical Results Summary**  
**Subarea 5D, Round 2**

Sample Location	Sample ID	Analyte Name	Activity	MDC	TPU	Sample Depth (feet bgs)
5DN-00219	50541	Nb-94	0.0077 U	0.0159	0.005	1.00 - 5.00
5DN-00219	50541	Np-236	0.0029 U	0.0369	0.0133	1.00 - 5.00
5DN-00219	50541	Np-239	-0.0152 U	0.133	0.0408	1.00 - 5.00
5DN-00219	50541	Pa-231	0.0079 U	0.821	0.262	1.00 - 5.00
5DN-00219	50541	Pb-212	1.6	0.0325	0.0908	1.00 - 5.00
5DN-00219	50541	Pb-214	1.14	0.0345	0.054	1.00 - 5.00
5DN-00219	50541	Sb-125	0.0337 JSK	0.0447	0.015	1.00 - 5.00
5DN-00219	50541	Sn-126	0.004 U	0.0175	0.0053	1.00 - 5.00
5DN-00219	50541	Sr-90	-0.0719 U	0.26	0.058	1.00 - 5.00
5DN-00219	50541	Th-234	1.51	0.287	0.14	1.00 - 5.00
5DN-00219	50541	Tl-208	0.505	0.0167	0.0278	1.00 - 5.00
5DN-00219	50541	Tm-171	-2.66 U	11.5	3.87	1.00 - 5.00
5DN-00220	50542	Sr-90	0.0082 U	0.153	0.0408	0.00 - 0.50
5DN-00220	50543	Sr-90	0.0297 U	0.208	0.0579	1.00 - 5.00
5DN-00221	50544	Sr-90	-0.0369 U	0.168	0.0396	0.00 - 0.50
5DN-00221	50545	Sr-90	0.202	0.275	0.0892	1.00 - 5.00
5DN-00222	50546	Sr-90	-0.0236 U	0.248	0.0676	0.00 - 0.50
5DN-00222	50547	Sr-90	0.158 U	0.294	0.0913	1.00 - 5.00
5DN-00223	50548	Sr-90	0.148	0.243	0.0771	0.00 - 0.50
5DN-00223	50549	Sr-90	0.162	0.237	0.0766	1.00 - 5.00
5DN-00224	50550	Sr-90	0.2	0.247	0.0843	0.00 - 0.50
5DN-00224	50551	Sr-90	0.169 U	0.385	0.117	23.25 - 25.00
5DN-00225	50552	Sr-90	-0.0368 U	0.375	0.0992	0.00 - 0.50
5DN-00225	50553	Sr-90	0.0011 U	0.29	0.0784	18.25 - 20.50
5DN-00226	50554	Sr-90	0.0058 U	0.15	0.0399	0.00 - 0.50
5DN-00226	50555	Sr-90	-0.0538 U	0.242	0.0642	1.00 - 5.00
5DN-00227	50556	Sr-90	-0.0274 U	0.201	0.0534	0.00 - 0.50
5DN-00227	50557	Ac-227	0.0417 U	0.21	0.0617	1.00 - 5.00
5DN-00227	50557	Bi-212	0.831	0.146	0.094	1.00 - 5.00
5DN-00227	50557	Bi-214	0.907	0.0346	0.0452	1.00 - 5.00
5DN-00227	50557	Cd-113m	-65.4 U	137	47.6	1.00 - 5.00
5DN-00227	50557	Co-60	-0.0004 U	0.0174	0.0051	1.00 - 5.00
5DN-00227	50557	Cs-134	-0.0011 U	0.0163	0.0057	1.00 - 5.00
5DN-00227	50557	Cs-137	0.0167 J	0.021	0.0072	1.00 - 5.00



**Table A.2**  
**Analytical Results Summary**  
**Subarea 5D, Round 2**

Sample Location	Sample ID	Analyte Name	Activity	MDC	TPU	Sample Depth (feet bgs)
5DN-00227	50557	Eu-152	-0.0089 U	0.05	0.0258	1.00 - 5.00
5DN-00227	50557	Eu-154	-0.0402 U	0.105	0.033	1.00 - 5.00
5DN-00227	50557	Eu-155	0.068 JSK	0.0756	0.0276	1.00 - 5.00
5DN-00227	50557	Ho-166m	-0.0065 U	0.0287	0.0086	1.00 - 5.00
5DN-00227	50557	K-40	17.9	0.143	0.976	1.00 - 5.00
5DN-00227	50557	Na-22	-0.005 U	0.0204	0.0063	1.00 - 5.00
5DN-00227	50557	Nb-94	-0.002 U	0.0167	0.0049	1.00 - 5.00
5DN-00227	50557	Np-236	-0.034 U J	0.0391	0.0145	1.00 - 5.00
5DN-00227	50557	Np-239	-0.0544 U	0.141	0.0435	1.00 - 5.00
5DN-00227	50557	Pa-231	-0.452 U	0.85	0.313	1.00 - 5.00
5DN-00227	50557	Pb-212	1.46	0.036	0.083	1.00 - 5.00
5DN-00227	50557	Pb-214	1.06	0.0364	0.0514	1.00 - 5.00
5DN-00227	50557	Sb-125	0.0022 U	0.0498	0.0148	1.00 - 5.00
5DN-00227	50557	Sn-126	-0.0065 U	0.0184	0.0056	1.00 - 5.00
5DN-00227	50557	Sr-90	-0.0059 U	0.226	0.058	1.00 - 5.00
5DN-00227	50557	Th-234	1.58	0.322	0.174	1.00 - 5.00
5DN-00227	50557	Tl-208	0.458	0.0178	0.0267	1.00 - 5.00
5DN-00227	50557	Tm-171	-6.59 U	14	5.07	1.00 - 5.00
5DN-00228	50558	Ac-227	-0.136 U	0.192	0.0687	0.40 - 0.90
5DN-00228	50558	Bi-212	0.988	0.158	0.0957	0.40 - 0.90
5DN-00228	50558	Bi-214	1.03	0.0375	0.052	0.40 - 0.90
5DN-00228	50558	Cd-113m	-43.9 U	127	41	0.40 - 0.90
5DN-00228	50558	Co-60	-0.0145 U J	0.0204	0.0071	0.40 - 0.90
5DN-00228	50558	Cs-134	-0.0036 U	0.0186	0.0065	0.40 - 0.90
5DN-00228	50558	Cs-137	-0.0012 U J	0.0223	0.0067	0.40 - 0.90
5DN-00228	50558	Eu-152	-0.0189 U	0.051	0.0157	0.40 - 0.90
5DN-00228	50558	Eu-154	-0.0533 U	0.122	0.0391	0.40 - 0.90
5DN-00228	50558	Eu-155	0.121 SK	0.0564	0.0288	0.40 - 0.90
5DN-00228	50558	Ho-166m	-0.018 U	0.0321	0.0104	0.40 - 0.90
5DN-00228	50558	K-40	19.9	0.174	1.09	0.40 - 0.90
5DN-00228	50558	Na-22	0.0068 U	0.0271	0.0081	0.40 - 0.90
5DN-00228	50558	Nb-94	0.0065 U	0.0201	0.0062	0.40 - 0.90
5DN-00228	50558	Np-236	-0.0029 U	0.0321	0.0115	0.40 - 0.90
5DN-00228	50558	Np-239	0.0679 J	0.131	0.0422	0.40 - 0.90

**Table A.2**  
**Analytical Results Summary**  
**Subarea 5D, Round 2**

Sample Location	Sample ID	Analyte Name	Activity	MDC	TPU	Sample Depth (feet bgs)
5DN-00228	50558	Pa-231	-0.0612 U	0.814	0.252	0.40 - 0.90
5DN-00228	50558	Pb-212	1.4	0.0331	0.0779	0.40 - 0.90
5DN-00228	50558	Pb-214	1.14	0.0374	0.0528	0.40 - 0.90
5DN-00228	50558	Sb-125	0.0427 JSK	0.0517	0.0176	0.40 - 0.90
5DN-00228	50558	Sn-126	-0.0048 U	0.0208	0.0065	0.40 - 0.90
5DN-00228	50558	Sr-90	0.673	0.243	0.125	0.40 - 0.90
5DN-00228	50558	Th-234	1.37	0.243	0.119	0.40 - 0.90
5DN-00228	50558	Tl-208	0.489	0.0198	0.0296	0.40 - 0.90
5DN-00228	50558	Tm-171	6.84 J	7.55	3.01	0.40 - 0.90
5DN-00228	50559	Sr-90	0.133 U	0.242	0.0756	1.00 - 5.00
5DN-00229	50560	Ac-227	-0.0639 U	0.197	0.0603	0.30 - 0.80
5DN-00229	50560	Bi-212	0.936	0.139	0.0882	0.30 - 0.80
5DN-00229	50560	Bi-214	1.04	0.0303	0.0503	0.30 - 0.80
5DN-00229	50560	Cd-113m	51.5 U	132	40.1	0.30 - 0.80
5DN-00229	50560	Co-60	-0.0031 U	0.0177	0.0052	0.30 - 0.80
5DN-00229	50560	Cs-134	0.0097 JSK	0.0153	0.0053	0.30 - 0.80
5DN-00229	50560	Cs-137	0.0226 J	0.0176	0.0074	0.30 - 0.80
5DN-00229	50560	Eu-152	-0.014 U	0.0467	0.0164	0.30 - 0.80
5DN-00229	50560	Eu-154	-0.0666 U	0.0966	0.0341	0.30 - 0.80
5DN-00229	50560	Eu-155	0.0958 SK	0.0642	0.0299	0.30 - 0.80
5DN-00229	50560	Ho-166m	0.0023 U	0.0281	0.0081	0.30 - 0.80
5DN-00229	50560	K-40	21.2	0.131	1.17	0.30 - 0.80
5DN-00229	50560	Na-22	-0.0055 U	0.0209	0.0066	0.30 - 0.80
5DN-00229	50560	Nb-94	0.0041 U	0.0168	0.0049	0.30 - 0.80
5DN-00229	50560	Np-236	-0.0225 U	0.0353	0.0122	0.30 - 0.80
5DN-00229	50560	Np-239	0.0197 U	0.132	0.0387	0.30 - 0.80
5DN-00229	50560	Pa-231	-0.346 U	0.809	0.263	0.30 - 0.80
5DN-00229	50560	Pb-212	1.56	0.0336	0.0845	0.30 - 0.80
5DN-00229	50560	Pb-214	1.14	0.0356	0.0531	0.30 - 0.80
5DN-00229	50560	Sb-125	0.0144 U	0.0456	0.0138	0.30 - 0.80
5DN-00229	50560	Sn-126	-0.006 U	0.0176	0.0054	0.30 - 0.80
5DN-00229	50560	Sr-90	0.314	0.462	0.147	0.30 - 0.80
5DN-00229	50560	Th-234	1.48	0.277	0.142	0.30 - 0.80
5DN-00229	50560	Tl-208	0.475	0.0174	0.0271	0.30 - 0.80

**Table A.2**  
**Analytical Results Summary**  
**Subarea 5D, Round 2**

Sample Location	Sample ID	Analyte Name	Activity	MDC	TPU	Sample Depth (feet bgs)
5DN-00229	50560	Tm-171	5.96 J	11.4	4.01	0.30 - 0.80
5DN-00229	50561	Sr-90	-0.0188 U	0.253	0.064	1.00 - 5.00
5DN-00230	50562	Ac-227	-0.0404 U	0.192	0.0589	0.50 - 1.00
5DN-00230	50562	Bi-212	0.905	0.12	0.0803	0.50 - 1.00
5DN-00230	50562	Bi-214	0.987	0.0284	0.0474	0.50 - 1.00
5DN-00230	50562	Cd-113m	-36.8 U	125	40.4	0.50 - 1.00
5DN-00230	50562	Co-60	0.0003 U	0.0164	0.0047	0.50 - 1.00
5DN-00230	50562	Cs-134	-0.0016 U	0.0139	0.0047	0.50 - 1.00
5DN-00230	50562	Cs-137	0.0074 U J	0.0165	0.0057	0.50 - 1.00
5DN-00230	50562	Eu-152	-0.0393 U J	0.0458	0.0176	0.50 - 1.00
5DN-00230	50562	Eu-154	-0.0474 U	0.0898	0.0302	0.50 - 1.00
5DN-00230	50562	Eu-155	0.0514 JSK	0.0668	0.0228	0.50 - 1.00
5DN-00230	50562	Ho-166m	-0.0051 U	0.025	0.0075	0.50 - 1.00
5DN-00230	50562	K-40	20	0.13	1.08	0.50 - 1.00
5DN-00230	50562	Na-22	-0.0066 U	0.0187	0.0058	0.50 - 1.00
5DN-00230	50562	Nb-94	0.0089 JSK	0.0152	0.0048	0.50 - 1.00
5DN-00230	50562	Np-236	-0.0343 U J	0.0344	0.0132	0.50 - 1.00
5DN-00230	50562	Np-239	-0.0534 U	0.128	0.0407	0.50 - 1.00
5DN-00230	50562	Pa-231	0.0789 U	0.805	0.251	0.50 - 1.00
5DN-00230	50562	Pb-212	1.43	0.0323	0.0915	0.50 - 1.00
5DN-00230	50562	Pb-214	1.12	0.0331	0.0564	0.50 - 1.00
5DN-00230	50562	Sb-125	0.0265 JSK	0.0434	0.0143	0.50 - 1.00
5DN-00230	50562	Sn-126	-0.0062 U	0.0156	0.0049	0.50 - 1.00
5DN-00230	50562	Sr-90	-0.105 U	0.244	0.0547	0.50 - 1.00
5DN-00230	50562	Th-234	1.32	0.274	0.15	0.50 - 1.00
5DN-00230	50562	Tl-208	0.436	0.0148	0.025	0.50 - 1.00
5DN-00230	50562	Tm-171	-5.21 U	11.3	4.18	0.50 - 1.00
5DN-00230	50563	Sr-90	0.579	0.304	0.132	1.00 - 5.00
5DN-00231	50564	Ac-227	0.0129 U	0.204	0.0631	0.30 - 0.80
5DN-00231	50564	Bi-212	0.966	0.135	0.0856	0.30 - 0.80
5DN-00231	50564	Bi-214	1.08	0.0314	0.0512	0.30 - 0.80
5DN-00231	50564	Cd-113m	22 U	134	41.4	0.30 - 0.80
5DN-00231	50564	Co-60	-0.0031 U	0.0185	0.0054	0.30 - 0.80
5DN-00231	50564	Cs-134	-0.0027 U	0.0146	0.0052	0.30 - 0.80

**Table A.2**  
**Analytical Results Summary**  
**Subarea 5D, Round 2**

Sample Location	Sample ID	Analyte Name	Activity	MDC	TPU	Sample Depth (feet bgs)
5DN-00231	50564	Cs-137	-0.0017 U J	0.0169	0.006	0.30 - 0.80
5DN-00231	50564	Eu-152	-0.0131 U	0.0481	0.015	0.30 - 0.80
5DN-00231	50564	Eu-154	-0.0474 U	0.0978	0.032	0.30 - 0.80
5DN-00231	50564	Eu-155	0.0938 JSK	0.07	0.0299	0.30 - 0.80
5DN-00231	50564	Ho-166m	0.0085 U	0.029	0.0085	0.30 - 0.80
5DN-00231	50564	K-40	21.7	0.145	1.18	0.30 - 0.80
5DN-00231	50564	Na-22	0.0067 U	0.022	0.007	0.30 - 0.80
5DN-00231	50564	Nb-94	0.0076 U	0.0171	0.0052	0.30 - 0.80
5DN-00231	50564	Np-236	-0.0125 U	0.0362	0.0112	0.30 - 0.80
5DN-00231	50564	Np-239	-0.0029 U	0.134	0.0411	0.30 - 0.80
5DN-00231	50564	Pa-231	0.287 U	0.845	0.25	0.30 - 0.80
5DN-00231	50564	Pb-212	1.53	0.0331	0.0872	0.30 - 0.80
5DN-00231	50564	Pb-214	1.26	0.0348	0.0593	0.30 - 0.80
5DN-00231	50564	Sb-125	-0.0032 U	0.0455	0.0135	0.30 - 0.80
5DN-00231	50564	Sn-126	-0.0066 U	0.0171	0.0053	0.30 - 0.80
5DN-00231	50564	Sr-90	0.0622 U	0.173	0.0512	0.30 - 0.80
5DN-00231	50564	Th-234	1.81	0.299	0.172	0.30 - 0.80
5DN-00231	50564	Tl-208	0.484	0.0156	0.0277	0.30 - 0.80
5DN-00231	50564	Tm-171	3.28 U	13.5	4.37	0.30 - 0.80
5DN-00231	50565	Sr-90	0.067 U	0.258	0.0757	1.00 - 5.00
5DN-00232	50566	Sr-90	0.163 U	0.311	0.0967	0.30 - 0.80
5DN-00232	50567	Sr-90	-0.0205 U	0.25	0.0635	1.00 - 2.30
5DN-00233	50568	Sr-90	0.0533 U	0.184	0.0543	0.00 - 0.50
5DN-00233	50569	Sr-90	0.21	0.203	0.0716	1.00 - 5.00
5DN-00234	50570	Sr-90	-0.0119 U	0.243	0.0671	0.00 - 0.50
5DN-00234	50571	Sr-90	0.257	0.345	0.112	1.00 - 3.50
5DN-00235	50572	Np-237	-0.0054 U J	0.0268	0.0064	0.00 - 0.50
5DN-00235	50572	Pu-238	0.0054	0.0073	0.005	0.00 - 0.50
5DN-00235	50572	Pu-239/240	-0.0012 U	0.0211	0.0051	0.00 - 0.50
5DN-00235	50572	Sr-90	0.0434 U	0.307	0.0884	0.00 - 0.50
5DN-00235	50573	Np-237	-0.0058 U J	0.0288	0.0069	1.00 - 5.00
5DN-00235	50573	Pu-238	-0.0022 U	0.0199	0.0045	1.00 - 5.00
5DN-00235	50573	Pu-239/240	0	0.0084	0.0038	1.00 - 5.00
5DN-00235	50573	Sr-90	0.0778 U	0.258	0.0762	1.00 - 5.00

**Table A.2**  
**Analytical Results Summary**  
**Subarea 5D, Round 2**

Sample Location	Sample ID	Analyte Name	Activity	MDC	TPU	Sample Depth (feet bgs)
5DN-00236	50574	Np-237	-0.0019 U J	0.0252	0.0064	0.00 - 0.50
5DN-00236	50574	Pu-238	0	0.0065	0.003	0.00 - 0.50
5DN-00236	50574	Pu-239/240	0.0024	0.0065	0.0038	0.00 - 0.50
5DN-00236	50574	Sr-90	0.643	0.327	0.133	0.00 - 0.50
5DN-00236	50575	Np-237	-0.0071 U J	0.0328	0.0071	1.00 - 5.00
5DN-00236	50575	Pu-238	-0.0036 U	0.0199	0.004	1.00 - 5.00
5DN-00236	50575	Pu-239/240	-0.0018 U	0.0161	0.0036	1.00 - 5.00
5DN-00236	50575	Sr-90	0.0591 U	0.259	0.0753	1.00 - 5.00
5DN-00237	50576	Np-237	0.0046 U J	0.0171	0.0057	0.00 - 0.50
5DN-00237	50576	Pu-238	0.0088	0.008	0.0063	0.00 - 0.50
5DN-00237	50576	Pu-239/240	0.0008 U	0.0187	0.0051	0.00 - 0.50
5DN-00237	50576	Sr-90	-0.0135 U	0.237	0.0641	0.00 - 0.50
5DN-00237	50577	Np-237	0.007 J	0.0172	0.0062	1.00 - 5.00
5DN-00237	50577	Pu-238	0.0007 U	0.0169	0.0046	1.00 - 5.00
5DN-00237	50577	Pu-239/240	0.0053	0.0072	0.005	1.00 - 5.00
5DN-00237	50577	Sr-90	-0.0898 U	0.347	0.0927	1.00 - 5.00
5DN-00238	50578	Sr-90	-0.0075 U	0.359	0.0995	0.00 - 0.50
5DN-00238	50579	Sr-90	0.0004 U	0.206	0.0547	1.00 - 5.00
5DN-00239	50580	Sr-90	0.0622 U	0.256	0.0741	0.00 - 0.50
5DN-00239	50581	Sr-90	0.0778 U	0.328	0.0955	1.00 - 5.00
5DN-00240	50582	Np-237	-0.0117 U J	0.0383	0.0083	0.00 - 0.50
5DN-00240	50582	Pu-238	-0.0043 U	0.0198	0.0043	0.00 - 0.50
5DN-00240	50582	Pu-239/240	0 U	0.0156	0.0043	0.00 - 0.50
5DN-00240	50583	Np-237	0.0024 U J	0.0224	0.0064	1.00 - 2.20
5DN-00240	50583	Pu-238	0.0044 U	0.016	0.0053	1.00 - 2.20
5DN-00240	50583	Pu-239/240	0 U	0.016	0.0043	1.00 - 2.20
5DN-00241	50584	Np-237	0.0145 J	0.0099	0.009	0.00 - 0.50
5DN-00241	50584	Pu-238	0 U	0.0147	0.004	0.00 - 0.50
5DN-00241	50584	Pu-239/240	0.008	0.0147	0.0057	0.00 - 0.50
5DN-00241	50585	Np-237	-0.0024 U J	0.0221	0.0053	1.00 - 3.00
5DN-00241	50585	Pu-238	-0.0044 U	0.0203	0.0044	1.00 - 3.00
5DN-00241	50585	Pu-239/240	0.0022	0.0059	0.0038	1.00 - 3.00
5DN-00242	50586	Np-237	0.0155 J	0.0228	0.0093	0.00 - 0.50
5DN-00242	50586	Pu-238	-0.0024 U	0.0223	0.0054	0.00 - 0.50

**Table A.2**  
**Analytical Results Summary**  
**Subarea 5D, Round 2**

Sample Location	Sample ID	Analyte Name	Activity	MDC	TPU	Sample Depth (feet bgs)
5DN-00242	50586	Pu-239/240	0 U	0.0177	0.0048	0.00 - 0.50
5DN-00242	50587	Np-237	0.0027 U J	0.0195	0.0059	1.00 - 3.00
5DN-00242	50587	Pu-238	0.0023 U	0.0169	0.0051	1.00 - 3.00
5DN-00242	50587	Pu-239/240	0 U	0.0169	0.0046	1.00 - 3.00
5DN-00243	50588	Np-237	0 U J	0.0234	0.0062	0.00 - 0.50
5DN-00243	50588	Pu-238	0.0038	0.0051	0.0038	0.00 - 0.50
5DN-00243	50588	Pu-239/240	0.0037	0.0051	0.0038	0.00 - 0.50
5DN-00243	50589	Np-237	0.0024 U J	0.0176	0.0054	1.00 - 3.50
5DN-00243	50589	Pu-238	0 U	0.0235	0.0064	1.00 - 3.50
5DN-00243	50589	Pu-239/240	0.0032	0.0086	0.0055	1.00 - 3.50
5DN-00244	50590	Sr-90	0.0322 U	0.149	0.0423	0.00 - 0.50
5DN-00244	50591	Sr-90	0.0863 U	0.237	0.0708	1.00 - 5.00
5DN-00245	50592	Sr-90	0.0834 U	0.168	0.0521	0.00 - 0.50
5DN-00245	50593	Sr-90	-0.0325 U	0.158	0.0374	1.00 - 4.50
5DN-00246	50594	Sr-90	-0.0663 U	0.246	0.0614	0.00 - 0.50
5DN-00246	50595	Sr-90	-0.0209 U	0.154	0.0379	1.00 - 4.00
5DN-00247	50596	Sr-90	0.0339 U	0.182	0.0513	0.00 - 0.50
5DN-00247	50597	Sr-90	0.0059 U	0.139	0.0363	1.00 - 4.00
5DN-00248	50598	Sr-90	0.422	0.221	0.0896	0.00 - 0.50
5DN-00248	50599	Sr-90	0.0341 U	0.193	0.0551	1.00 - 5.00
5DN-00249	50600	Sr-90	0.0275 U	0.175	0.0498	0.00 - 0.50
5DN-00249	50601	Sr-90	0.0392 U	0.231	0.0659	1.00 - 5.00
5DN-00250	50602	Sr-90	0.0096 U	0.199	0.0558	0.00 - 0.50
5DN-00250	50603	Sr-90	-0.0274 U	0.197	0.0518	1.00 - 5.00
5DN-00251	50604	Sr-90	0.06 U	0.168	0.0502	0.00 - 0.50
5DN-00251	50605	Sr-90	-0.0577 U	0.219	0.0566	1.00 - 5.00
5DN-00252	50606	Sr-90	0.326	0.346	0.116	0.00 - 0.50
5DN-00252	50607	Ac-227	0.0673 U	0.202	0.0631	1.00 - 5.00
5DN-00252	50607	Bi-212	0.873	0.136	0.0754	1.00 - 5.00
5DN-00252	50607	Bi-214	1.06	0.0306	0.051	1.00 - 5.00
5DN-00252	50607	Cd-113m	30.3 U	131	41.8	1.00 - 5.00
5DN-00252	50607	Co-60	0.0017 U	0.0184	0.0053	1.00 - 5.00
5DN-00252	50607	Cs-134	0.0005 U	0.015	0.0052	1.00 - 5.00
5DN-00252	50607	Cs-137	0.0049 U	0.0182	0.0064	1.00 - 5.00

**Table A.2**  
**Analytical Results Summary**  
**Subarea 5D, Round 2**

Sample Location	Sample ID	Analyte Name	Activity	MDC	TPU	Sample Depth (feet bgs)
5DN-00252	50607	Eu-152	-0.0001 U	0.0486	0.0186	1.00 - 5.00
5DN-00252	50607	Eu-154	-0.0824 U J	0.1	0.037	1.00 - 5.00
5DN-00252	50607	Eu-155	0.0932 SK	0.0673	0.0259	1.00 - 5.00
5DN-00252	50607	Ho-166m	-0.0119 U	0.0279	0.0091	1.00 - 5.00
5DN-00252	50607	K-40	23.7	0.142	1.29	1.00 - 5.00
5DN-00252	50607	Na-22	0.0148 J	0.022	0.0081	1.00 - 5.00
5DN-00252	50607	Nb-94	0.0025 U	0.0164	0.005	1.00 - 5.00
5DN-00252	50607	Np-236	-0.0118 U	0.0369	0.0117	1.00 - 5.00
5DN-00252	50607	Np-239	-0.0411 U	0.133	0.0421	1.00 - 5.00
5DN-00252	50607	Pa-231	-0.0947 U	0.823	0.255	1.00 - 5.00
5DN-00252	50607	Pb-212	1.51	0.0334	0.0864	1.00 - 5.00
5DN-00252	50607	Pb-214	1.18	0.0346	0.0559	1.00 - 5.00
5DN-00252	50607	Sb-125	0.0142 U	0.0462	0.0139	1.00 - 5.00
5DN-00252	50607	Sn-126	0.0012 U	0.0176	0.0053	1.00 - 5.00
5DN-00252	50607	Sr-90	0.0956 U	0.297	0.0881	1.00 - 5.00
5DN-00252	50607	Th-234	1.56	0.295	0.14	1.00 - 5.00
5DN-00252	50607	Tl-208	0.423	0.0181	0.0246	1.00 - 5.00
5DN-00252	50607	Tm-171	-1.35 U	11.8	3.94	1.00 - 5.00
5DN-00253	50608	Sr-90	-0.0718 U	0.187	0.0427	0.00 - 0.50
5DN-00253	50609	Ac-227	0.0046 U	0.201	0.0584	1.00 - 5.00
5DN-00253	50609	Bi-212	0.828	0.136	0.0863	1.00 - 5.00
5DN-00253	50609	Bi-214	0.987	0.0318	0.0484	1.00 - 5.00
5DN-00253	50609	Cd-113m	68.3 J	135	42.9	1.00 - 5.00
5DN-00253	50609	Co-60	-0.0011 U	0.0186	0.0054	1.00 - 5.00
5DN-00253	50609	Cs-134	0.0007 U	0.0155	0.0051	1.00 - 5.00
5DN-00253	50609	Cs-137	-0.0065 U	0.0191	0.0059	1.00 - 5.00
5DN-00253	50609	Eu-152	-0.0144 U	0.0475	0.0157	1.00 - 5.00
5DN-00253	50609	Eu-154	-0.0282 U	0.0977	0.0305	1.00 - 5.00
5DN-00253	50609	Eu-155	0.0837 SK	0.0686	0.0298	1.00 - 5.00
5DN-00253	50609	Ho-166m	-0.0016 U	0.0286	0.0084	1.00 - 5.00
5DN-00253	50609	K-40	22.9	0.148	1.27	1.00 - 5.00
5DN-00253	50609	Na-22	-0.008 U	0.0211	0.0066	1.00 - 5.00
5DN-00253	50609	Nb-94	0.0137 JSK	0.0178	0.0059	1.00 - 5.00
5DN-00253	50609	Np-236	-0.0107 U	0.0371	0.0115	1.00 - 5.00

**Table A.2**  
**Analytical Results Summary**  
**Subarea 5D, Round 2**

Sample Location	Sample ID	Analyte Name	Activity	MDC	TPU	Sample Depth (feet bgs)
5DN-00253	50609	Np-239	0.0177 U	0.133	0.0386	1.00 - 5.00
5DN-00253	50609	Pa-231	0.0118 U	0.825	0.241	1.00 - 5.00
5DN-00253	50609	Pb-212	1.42	0.0339	0.0788	1.00 - 5.00
5DN-00253	50609	Pb-214	1.18	0.0343	0.0554	1.00 - 5.00
5DN-00253	50609	Sb-125	0.0052 U	0.0452	0.0135	1.00 - 5.00
5DN-00253	50609	Sn-126	0.0044 U	0.0189	0.0055	1.00 - 5.00
5DN-00253	50609	Sr-90	-0.0577 U	0.271	0.0713	1.00 - 5.00
5DN-00253	50609	Th-234	1.79	0.286	0.162	1.00 - 5.00
5DN-00253	50609	Tl-208	0.441	0.0176	0.0256	1.00 - 5.00
5DN-00253	50609	Tm-171	-5.27 U	13.6	4.67	1.00 - 5.00
5DN-00254	50610	Sr-90	-0.03 U	0.132	0.0308	0.00 - 0.50
5DN-00254	50611	Ac-227	-0.0095 U	0.171	0.0503	1.00 - 5.00
5DN-00254	50611	Bi-212	0.842	0.115	0.0794	1.00 - 5.00
5DN-00254	50611	Bi-214	0.908	0.0272	0.0435	1.00 - 5.00
5DN-00254	50611	Cd-113m	-11.7 U	115	33.9	1.00 - 5.00
5DN-00254	50611	Co-60	0.005 U	0.0162	0.0047	1.00 - 5.00
5DN-00254	50611	Cs-134	-0.0005 U	0.0132	0.0044	1.00 - 5.00
5DN-00254	50611	Cs-137	-0.0051 U	0.016	0.0049	1.00 - 5.00
5DN-00254	50611	Eu-152	-0.026 U	0.0404	0.0154	1.00 - 5.00
5DN-00254	50611	Eu-154	-0.0449 U	0.0836	0.0279	1.00 - 5.00
5DN-00254	50611	Eu-155	0.0704 SK	0.0572	0.0239	1.00 - 5.00
5DN-00254	50611	Ho-166m	0.0011 U	0.0243	0.0071	1.00 - 5.00
5DN-00254	50611	K-40	21	0.11	1.15	1.00 - 5.00
5DN-00254	50611	Na-22	-0.0042 U	0.0185	0.0055	1.00 - 5.00
5DN-00254	50611	Nb-94	0.0044 U	0.0138	0.0041	1.00 - 5.00
5DN-00254	50611	Np-236	0.0009 U	0.0317	0.0097	1.00 - 5.00
5DN-00254	50611	Np-239	0.0204 U	0.114	0.0336	1.00 - 5.00
5DN-00254	50611	Pa-231	-0.023 U	0.7	0.213	1.00 - 5.00
5DN-00254	50611	Pb-212	1.34	0.0287	0.0724	1.00 - 5.00
5DN-00254	50611	Pb-214	1	0.0295	0.0468	1.00 - 5.00
5DN-00254	50611	Sb-125	-0.0222 U	0.0384	0.0129	1.00 - 5.00
5DN-00254	50611	Sn-126	0.0041 U	0.0153	0.0045	1.00 - 5.00
5DN-00254	50611	Sr-90	0.0085 U	0.196	0.0527	1.00 - 5.00
5DN-00254	50611	Th-234	1.07	0.247	0.111	1.00 - 5.00



**Table A.2**  
**Analytical Results Summary**  
**Subarea 5D, Round 2**

Sample Location	Sample ID	Analyte Name	Activity	MDC	TPU	Sample Depth (feet bgs)
5DN-00254	50611	Tl-208	0.423	0.0143	0.0247	1.00 - 5.00
5DN-00254	50611	Tm-171	-3.62 U	9.59	3.37	1.00 - 5.00
5DN-00255	50612	Sr-90	0.118	0.193	0.0622	0.00 - 0.50
5DN-00255	50613	Ac-227	-0.0525 U	0.187	0.0591	1.00 - 5.00
5DN-00255	50613	Bi-212	0.859	0.131	0.0715	1.00 - 5.00
5DN-00255	50613	Bi-214	0.94	0.0302	0.045	1.00 - 5.00
5DN-00255	50613	Cd-113m	-31.5 U	123	40.1	1.00 - 5.00
5DN-00255	50613	Co-60	0.003 U	0.0173	0.005	1.00 - 5.00
5DN-00255	50613	Cs-134	0.0039 U	0.0146	0.0051	1.00 - 5.00
5DN-00255	50613	Cs-137	-0.0078 U	0.0167	0.0055	1.00 - 5.00
5DN-00255	50613	Eu-152	0.0004 U	0.0467	0.0166	1.00 - 5.00
5DN-00255	50613	Eu-154	-0.0662 U J	0.0933	0.0329	1.00 - 5.00
5DN-00255	50613	Eu-155	0.0499 SK	0.0654	0.0174	1.00 - 5.00
5DN-00255	50613	Ho-166m	-0.0048 U	0.0267	0.0082	1.00 - 5.00
5DN-00255	50613	K-40	21.5	0.12	1.17	1.00 - 5.00
5DN-00255	50613	Na-22	-0.0188 U J	0.0193	0.0076	1.00 - 5.00
5DN-00255	50613	Nb-94	0.0059 U	0.0157	0.0049	1.00 - 5.00
5DN-00255	50613	Np-236	-0.005 U	0.0357	0.0107	1.00 - 5.00
5DN-00255	50613	Np-239	0.0306 U	0.131	0.0404	1.00 - 5.00
5DN-00255	50613	Pa-231	0.0359 U	0.808	0.257	1.00 - 5.00
5DN-00255	50613	Pb-212	1.41	0.0324	0.0808	1.00 - 5.00
5DN-00255	50613	Pb-214	1.06	0.0332	0.0504	1.00 - 5.00
5DN-00255	50613	Sb-125	0.0059 U	0.0443	0.0131	1.00 - 5.00
5DN-00255	50613	Sn-126	0.009 J	0.0175	0.0056	1.00 - 5.00
5DN-00255	50613	Sr-90	0.0288 U	0.251	0.07	1.00 - 5.00
5DN-00255	50613	Th-234	1.46	0.277	0.139	1.00 - 5.00
5DN-00255	50613	Tl-208	0.431	0.0167	0.0248	1.00 - 5.00
5DN-00255	50613	Tm-171	-5.2 U	11.3	3.97	1.00 - 5.00
5DN-00256	50614	Sr-90	0.0887 U	0.253	0.0752	0.00 - 0.50
5DN-00256	50615	Sr-90	0.0957	0.143	0.047	1.00 - 5.00
5DN-00257	50616	Sr-90	0.0604 U	0.235	0.0683	0.00 - 0.50
5DN-00257	50617	Sr-90	-0.0676 U	0.217	0.0519	1.00 - 5.00
5DN-00258	50618	Sr-90	0.004 U	0.179	0.0489	0.00 - 0.50
5DN-00258	50619	Sr-90	0.107	0.162	0.0525	1.00 - 5.00

**Table A.2**  
**Analytical Results Summary**  
**Subarea 5D, Round 2**

Sample Location	Sample ID	Analyte Name	Activity	MDC	TPU	Sample Depth (feet bgs)
5DN-00259	50620	Sr-90	0.0548 U	0.15	0.0446	0.00 - 0.50
5DN-00259	50621	Sr-90	0.0673 U	0.148	0.0453	1.00 - 5.00
5DN-00260	50622	Am-241	0 U	0.0163	0.0044	0.00 - 0.50
5DN-00260	50623	Am-241	0.0061	0.0055	0.0045	1.00 - 5.00
5DN-00261	50624	Am-241	0.0044	0.0059	0.0044	0.00 - 0.50
5DN-00261	50625	Am-241	0.0065	0.0058	0.0048	1.00 - 5.00
5DN-00262	50626	Am-241	0.0062	0.0056	0.0046	0.00 - 0.50
5DN-00262	50627	Am-241	0.0064	0.0058	0.0048	1.00 - 5.00
5DN-00263	50628	Am-241	0.004	0.0054	0.004	0.00 - 0.50
5DN-00263	50629	Am-241	0.0104	0.0056	0.0055	1.00 - 5.00
5DN-00264	50630	U-232	-0.0221 U	0.0869	0.0192	0.00 - 0.50
5DN-00264	50630	U-233/234	0.508	0.0894	0.0692	0.00 - 0.50
5DN-00264	50630	U-235/236	0.0588	0.0588	0.0234	0.00 - 0.50
5DN-00264	50630	U-238	0.57	0.0396	0.0711	0.00 - 0.50
5DN-00264	50631	U-232	0.0067 U	0.0602	0.0166	1.00 - 5.00
5DN-00264	50631	U-233/234	0.702	0.105	0.0942	1.00 - 5.00
5DN-00264	50631	U-235/236	0.0523	0.0796	0.0281	1.00 - 5.00
5DN-00264	50631	U-238	0.681	0.0433	0.0889	1.00 - 5.00
5DN-00265	50632	Sr-90	0.168 U	0.312	0.0971	0.00 - 0.50
5DN-00265	50632	U-232	0.018 U	0.0728	0.0214	0.00 - 0.50
5DN-00265	50632	U-233/234	0.727	0.0724	0.0935	0.00 - 0.50
5DN-00265	50632	U-235/236	0.0789	0.0603	0.0283	0.00 - 0.50
5DN-00265	50632	U-238	0.691	0.018	0.0888	0.00 - 0.50
5DN-00265	50633	Sr-90	-0.0615 U	0.262	0.0694	21.50 - 23.50
5DN-00265	50633	U-232	-0.0174 U	0.113	0.027	21.50 - 23.50
5DN-00265	50633	U-233/234	0.694	0.0708	0.0831	21.50 - 23.50
5DN-00265	50633	U-235/236	0.0909	0.0317	0.0239	21.50 - 23.50
5DN-00265	50633	U-238	0.719	0.0134	0.0834	21.50 - 23.50
5DN-00265	50659	Sr-90	0.0542 U	0.284	0.0819	1.00 - 5.00
5DN-00265	50659	U-232	0.0052 U	0.067	0.018	1.00 - 5.00
5DN-00265	50659	U-233/234	0.742	0.0656	0.0858	1.00 - 5.00
5DN-00265	50659	U-235/236	0.102	0.0482	0.0265	1.00 - 5.00
5DN-00265	50659	U-238	0.88	0.0378	0.0961	1.00 - 5.00
5DN-00266	50634	U-232	0.0322	0.0661	0.0218	0.00 - 0.50

**Table A.2**  
**Analytical Results Summary**  
**Subarea 5D, Round 2**

Sample Location	Sample ID	Analyte Name	Activity	MDC	TPU	Sample Depth (feet bgs)
5DN-00266	50634	U-233/234	0.776	0.0855	0.0945	0.00 - 0.50
5DN-00266	50634	U-235/236	0.0411	0.0579	0.0216	0.00 - 0.50
5DN-00266	50634	U-238	0.671	0.0454	0.0834	0.00 - 0.50
5DN-00266	50635	U-232	-0.0011 U	0.0782	0.0203	1.00 - 5.00
5DN-00266	50635	U-233/234	0.669	0.0623	0.0835	1.00 - 5.00
5DN-00266	50635	U-235/236	0.0802	0.0155	0.0235	1.00 - 5.00
5DN-00266	50635	U-238	0.8	0.0155	0.0936	1.00 - 5.00
5DS-00041	50636	Ac-227	-0.0378 U	0.254	0.079	0.00 - 0.50
5DS-00041	50636	Bi-212	1.73	0.206	0.138	0.00 - 0.50
5DS-00041	50636	Bi-214	1.83	0.0449	0.0873	0.00 - 0.50
5DS-00041	50636	Cd-113m	28.7 U	165	50.9	0.00 - 0.50
5DS-00041	50636	Co-60	-0.0076 U	0.0252	0.0076	0.00 - 0.50
5DS-00041	50636	Cs-134	0.0011 U	0.0225	0.0077	0.00 - 0.50
5DS-00041	50636	Cs-137	0.128	0.026	0.0135	0.00 - 0.50
5DS-00041	50636	Eu-152	-0.0106 U	0.0648	0.0206	0.00 - 0.50
5DS-00041	50636	Eu-154	-0.0437 U J	0.139	0.0498	0.00 - 0.50
5DS-00041	50636	Eu-155	0.178 SK	0.075	0.0347	0.00 - 0.50
5DS-00041	50636	Ho-166m	0.0246 JSK	0.0435	0.0134	0.00 - 0.50
5DS-00041	50636	K-40	17.9	0.219	0.995	0.00 - 0.50
5DS-00041	50636	Na-22	-0.0038 U	0.0289	0.0088	0.00 - 0.50
5DS-00041	50636	Nb-94	0.0104 U	0.0248	0.0078	0.00 - 0.50
5DS-00041	50636	Np-236	-0.0194 U	0.0424	0.0134	0.00 - 0.50
5DS-00041	50636	Np-239	0.0586 U	0.17	0.0532	0.00 - 0.50
5DS-00041	50636	Pa-231	0.243 U	1.06	0.33	0.00 - 0.50
5DS-00041	50636	Pb-212	2.65	0.0428	0.145	0.00 - 0.50
5DS-00041	50636	Pb-214	2.07	0.0477	0.0944	0.00 - 0.50
5DS-00041	50636	Sb-125	0.0064 U	0.0658	0.0193	0.00 - 0.50
5DS-00041	50636	Sn-126	-0.0102 U	0.026	0.0084	0.00 - 0.50
5DS-00041	50636	Th-234	2.77	0.299	0.195	0.00 - 0.50
5DS-00041	50636	Tl-208	0.837	0.0252	0.0471	0.00 - 0.50
5DS-00041	50636	Tm-171	3.34 U	9.75	3.44	0.00 - 0.50
5DS-00041	50636	U-233/234	1.52	0.093	0.143	0.00 - 0.50
5DS-00041	50636	U-235/236	0.0676	0.0464	0.0257	0.00 - 0.50
5DS-00041	50636	U-238	1.53	0.0375	0.141	0.00 - 0.50

**Table A.2**  
**Analytical Results Summary**  
**Subarea 5D, Round 2**

Sample Location	Sample ID	Analyte Name	Activity	MDC	TPU	Sample Depth (feet bgs)
5DS-00042	50638	Ac-227	0.0422 U	0.219	0.0675	0.00 - 0.50
5DS-00042	50638	Bi-212	1.3	0.139	0.0957	0.00 - 0.50
5DS-00042	50638	Bi-214	1.61	0.0328	0.0718	0.00 - 0.50
5DS-00042	50638	Cd-113m	-83.6 U	141	49.8	0.00 - 0.50
5DS-00042	50638	Co-60	0.0079 U J	0.0178	0.0053	0.00 - 0.50
5DS-00042	50638	Cs-134	0.0065 U	0.0166	0.0059	0.00 - 0.50
5DS-00042	50638	Cs-137	0.109	0.0194	0.0121	0.00 - 0.50
5DS-00042	50638	Eu-152	-0.0486 U J	0.0525	0.0226	0.00 - 0.50
5DS-00042	50638	Eu-154	0.0124 U	0.095	0.0325	0.00 - 0.50
5DS-00042	50638	Eu-155	0.176 SK	0.0736	0.0329	0.00 - 0.50
5DS-00042	50638	Ho-166m	-0.0016 U	0.0283	0.0086	0.00 - 0.50
5DS-00042	50638	K-40	17.9	0.149	0.976	0.00 - 0.50
5DS-00042	50638	Na-22	-0.0017 U	0.0196	0.007	0.00 - 0.50
5DS-00042	50638	Nb-94	0.0023 U	0.0165	0.005	0.00 - 0.50
5DS-00042	50638	Np-236	-0.0247 U	0.041	0.014	0.00 - 0.50
5DS-00042	50638	Np-239	-0.0352 U	0.147	0.0458	0.00 - 0.50
5DS-00042	50638	Pa-231	-0.176 U	0.909	0.295	0.00 - 0.50
5DS-00042	50638	Pb-212	2.17	0.0373	0.123	0.00 - 0.50
5DS-00042	50638	Pb-214	1.79	0.0389	0.0803	0.00 - 0.50
5DS-00042	50638	Sb-125	-0.0018 U	0.0499	0.0148	0.00 - 0.50
5DS-00042	50638	Sn-126	0.0061 U	0.0184	0.0057	0.00 - 0.50
5DS-00042	50638	Th-234	2.52	0.314	0.199	0.00 - 0.50
5DS-00042	50638	Tl-208	0.674	0.0183	0.0367	0.00 - 0.50
5DS-00042	50638	Tm-171	-7.16 U	13.1	4.72	0.00 - 0.50
5DS-00042	50638	U-233/234	1.19	0.0766	0.11	0.00 - 0.50
5DS-00042	50638	U-235/236	0.0644	0.0364	0.0218	0.00 - 0.50
5DS-00042	50638	U-238	1.26	0.0364	0.113	0.00 - 0.50
5DS-00042	50639	Ac-227	-0.0665 U	0.257	0.0796	1.00 - 2.50
5DS-00042	50639	Bi-212	1.88	0.154	0.129	1.00 - 2.50
5DS-00042	50639	Bi-214	2.1	0.0366	0.093	1.00 - 2.50
5DS-00042	50639	Cd-113m	-21.4 U	168	52.9	1.00 - 2.50
5DS-00042	50639	Co-60	-0.0013 U J	0.0189	0.0055	1.00 - 2.50
5DS-00042	50639	Cs-134	0.0126 JSK	0.0179	0.0065	1.00 - 2.50
5DS-00042	50639	Cs-137	0.0172 J	0.0223	0.0083	1.00 - 2.50

**Table A.2**  
**Analytical Results Summary**  
**Subarea 5D, Round 2**

Sample Location	Sample ID	Analyte Name	Activity	MDC	TPU	Sample Depth (feet bgs)
5DS-00042	50639	Eu-152	-0.0371 U	0.0613	0.0236	1.00 - 2.50
5DS-00042	50639	Eu-154	-0.0145 U	0.101	0.0358	1.00 - 2.50
5DS-00042	50639	Eu-155	0.161 SK	0.0845	0.0351	1.00 - 2.50
5DS-00042	50639	Ho-166m	0.0029 U	0.0324	0.0096	1.00 - 2.50
5DS-00042	50639	K-40	16.7	0.154	0.911	1.00 - 2.50
5DS-00042	50639	Na-22	0.0135 J	0.022	0.0078	1.00 - 2.50
5DS-00042	50639	Nb-94	0.005 U	0.0195	0.0058	1.00 - 2.50
5DS-00042	50639	Np-236	-0.0159 U	0.0478	0.0193	1.00 - 2.50
5DS-00042	50639	Np-239	-0.142 U J	0.172	0.0627	1.00 - 2.50
5DS-00042	50639	Pa-231	-0.446 U	1.02	0.356	1.00 - 2.50
5DS-00042	50639	Pb-212	3.14	0.0427	0.198	1.00 - 2.50
5DS-00042	50639	Pb-214	2.42	0.0448	0.115	1.00 - 2.50
5DS-00042	50639	Sb-125	0.0285 JSK	0.0578	0.0187	1.00 - 2.50
5DS-00042	50639	Sn-126	-0.0056 U	0.0208	0.0064	1.00 - 2.50
5DS-00042	50639	Th-234	3.24	0.375	0.27	1.00 - 2.50
5DS-00042	50639	Tl-208	0.959	0.019	0.0513	1.00 - 2.50
5DS-00042	50639	Tm-171	-6.31 U	15.5	5.69	1.00 - 2.50
5DS-00042	50639	U-233/234	1.72	0.0878	0.144	1.00 - 2.50
5DS-00042	50639	U-235/236	0.0788	0.0427	0.0239	1.00 - 2.50
5DS-00042	50639	U-238	1.79	0.0439	0.146	1.00 - 2.50
5DS-00043	50640	Ac-227	0.018 U	0.248	0.0727	0.00 - 0.50
5DS-00043	50640	Bi-212	1.21	0.161	0.115	0.00 - 0.50
5DS-00043	50640	Bi-214	1.48	0.0371	0.0679	0.00 - 0.50
5DS-00043	50640	Cd-113m	-157 U J	161	65.2	0.00 - 0.50
5DS-00043	50640	Co-60	-0.002 U	0.0203	0.0061	0.00 - 0.50
5DS-00043	50640	Cs-134	0.0043 U	0.0189	0.0066	0.00 - 0.50
5DS-00043	50640	Cs-137	0.314	0.0208	0.0198	0.00 - 0.50
5DS-00043	50640	Eu-152	-0.0205 U	0.0607	0.0319	0.00 - 0.50
5DS-00043	50640	Eu-154	0.0408 U J	0.118	0.0353	0.00 - 0.50
5DS-00043	50640	Eu-155	0.112 JSK	0.089	0.0388	0.00 - 0.50
5DS-00043	50640	Ho-166m	0.0008 U	0.033	0.0096	0.00 - 0.50
5DS-00043	50640	K-40	17.7	0.161	0.966	0.00 - 0.50
5DS-00043	50640	Na-22	-0.0163 U J	0.0219	0.0079	0.00 - 0.50
5DS-00043	50640	Nb-94	-0.0008 U	0.0191	0.0056	0.00 - 0.50

**Table A.2**  
**Analytical Results Summary**  
**Subarea 5D, Round 2**

Sample Location	Sample ID	Analyte Name	Activity	MDC	TPU	Sample Depth (feet bgs)
5DS-00043	50640	Np-236	-0.0029 U	0.0466	0.0142	0.00 - 0.50
5DS-00043	50640	Np-239	-0.021 U	0.166	0.0489	0.00 - 0.50
5DS-00043	50640	Pa-231	-0.362 U	1.04	0.338	0.00 - 0.50
5DS-00043	50640	Pb-212	2.06	0.0415	0.116	0.00 - 0.50
5DS-00043	50640	Pb-214	1.67	0.0442	0.0763	0.00 - 0.50
5DS-00043	50640	Sb-125	0.0195 U	0.058	0.0176	0.00 - 0.50
5DS-00043	50640	Sn-126	0.003 U	0.0214	0.0062	0.00 - 0.50
5DS-00043	50640	Th-234	2.14	0.369	0.208	0.00 - 0.50
5DS-00043	50640	Tl-208	0.637	0.0223	0.0356	0.00 - 0.50
5DS-00043	50640	Tm-171	-7.56 U	16.4	5.93	0.00 - 0.50
5DS-00043	50640	U-233/234	1.21	0.0864	0.124	0.00 - 0.50
5DS-00043	50640	U-235/236	0.0203 U	0.0626	0.0204	0.00 - 0.50
5DS-00043	50640	U-238	1.4	0.0409	0.136	0.00 - 0.50
5DS-00043	50641	Ac-227	-0.0816 U	0.241	0.0746	1.00 - 1.50
5DS-00043	50641	Bi-212	1.37	0.151	0.105	1.00 - 1.50
5DS-00043	50641	Bi-214	1.5	0.0362	0.0683	1.00 - 1.50
5DS-00043	50641	Cd-113m	1.53 U	163	49.8	1.00 - 1.50
5DS-00043	50641	Co-60	-0.0027 U J	0.0194	0.0057	1.00 - 1.50
5DS-00043	50641	Cs-134	-0.0006 U	0.0176	0.0059	1.00 - 1.50
5DS-00043	50641	Cs-137	0.0067 U	0.0213	0.0072	1.00 - 1.50
5DS-00043	50641	Eu-152	-0.0158 U	0.0585	0.0206	1.00 - 1.50
5DS-00043	50641	Eu-154	0.0408 U	0.11	0.038	1.00 - 1.50
5DS-00043	50641	Eu-155	0.104 SK	0.0848	0.0319	1.00 - 1.50
5DS-00043	50641	Ho-166m	-0.0003 U	0.0322	0.0095	1.00 - 1.50
5DS-00043	50641	K-40	16.4	0.166	0.968	1.00 - 1.50
5DS-00043	50641	Na-22	-0.0128 U	0.0218	0.0083	1.00 - 1.50
5DS-00043	50641	Nb-94	0.0146 JSK	0.0192	0.0064	1.00 - 1.50
5DS-00043	50641	Np-236	0.0003 U	0.0469	0.0151	1.00 - 1.50
5DS-00043	50641	Np-239	0.0238 U	0.165	0.0487	1.00 - 1.50
5DS-00043	50641	Pa-231	0.0769 U	1.01	0.31	1.00 - 1.50
5DS-00043	50641	Pb-212	2.34	0.0413	0.155	1.00 - 1.50
5DS-00043	50641	Pb-214	1.68	0.0426	0.0817	1.00 - 1.50
5DS-00043	50641	Sb-125	0.0024 U	0.0539	0.0163	1.00 - 1.50
5DS-00043	50641	Sn-126	0.0041 U	0.02	0.0059	1.00 - 1.50

**Table A.2**  
**Analytical Results Summary**  
**Subarea 5D, Round 2**

Sample Location	Sample ID	Analyte Name	Activity	MDC	TPU	Sample Depth (feet bgs)
5DS-00043	50641	Th-234	2.35	0.386	0.229	1.00 - 1.50
5DS-00043	50641	Tl-208	0.698	0.02	0.0384	1.00 - 1.50
5DS-00043	50641	Tm-171	-2.29 U	20	6.75	1.00 - 1.50
5DS-00043	50641	U-233/234	1.32	0.0793	0.127	1.00 - 1.50
5DS-00043	50641	U-235/236	0.103	0.0459	0.0305	1.00 - 1.50
5DS-00043	50641	U-238	1.33	0.0459	0.126	1.00 - 1.50
5DS-00044	50642	Ac-227	-0.103 U	0.285	0.0897	0.00 - 0.50
5DS-00044	50642	Bi-212	1.6	0.182	0.132	0.00 - 0.50
5DS-00044	50642	Bi-214	1.93	0.0438	0.0901	0.00 - 0.50
5DS-00044	50642	Cd-113m	-17.1 U	191	59.5	0.00 - 0.50
5DS-00044	50642	Co-60	-0.0037 U	0.0234	0.0071	0.00 - 0.50
5DS-00044	50642	Cs-134	0.006 U	0.0219	0.0075	0.00 - 0.50
5DS-00044	50642	Cs-137	0.12	0.024	0.0121	0.00 - 0.50
5DS-00044	50642	Eu-152	-0.0335 U	0.0689	0.0245	0.00 - 0.50
5DS-00044	50642	Eu-154	0.0257 U J	0.125	0.042	0.00 - 0.50
5DS-00044	50642	Eu-155	0.123 SK	0.103	0.0424	0.00 - 0.50
5DS-00044	50642	Ho-166m	0.0131 U	0.0379	0.0115	0.00 - 0.50
5DS-00044	50642	K-40	16	0.201	0.895	0.00 - 0.50
5DS-00044	50642	Na-22	-0.0146 U	0.0261	0.0087	0.00 - 0.50
5DS-00044	50642	Nb-94	0.0201 JSK	0.0224	0.008	0.00 - 0.50
5DS-00044	50642	Np-236	-0.0084 U	0.0558	0.0176	0.00 - 0.50
5DS-00044	50642	Np-239	-0.0253 U	0.193	0.0582	0.00 - 0.50
5DS-00044	50642	Pa-231	-0.365 U	1.17	0.367	0.00 - 0.50
5DS-00044	50642	Pb-212	2.7	0.0491	0.162	0.00 - 0.50
5DS-00044	50642	Pb-214	2.12	0.0487	0.098	0.00 - 0.50
5DS-00044	50642	Sb-125	0.0106 U	0.0651	0.019	0.00 - 0.50
5DS-00044	50642	Sn-126	0.0027 U	0.0242	0.0072	0.00 - 0.50
5DS-00044	50642	Th-234	3.19	0.461	0.301	0.00 - 0.50
5DS-00044	50642	Tl-208	0.794	0.0248	0.0453	0.00 - 0.50
5DS-00044	50642	Tm-171	3.41 U	24.4	8.37	0.00 - 0.50
5DS-00044	50642	U-233/234	1.36	0.111	0.14	0.00 - 0.50
5DS-00044	50642	U-235/236	0.0273 U	0.0878	0.0272	0.00 - 0.50
5DS-00044	50642	U-238	1.64	0.0192	0.157	0.00 - 0.50
5DS-00044	50643	Ac-227	-0.118 U	0.305	0.0967	0.50 - 1.50

**Table A.2**  
**Analytical Results Summary**  
**Subarea 5D, Round 2**

Sample Location	Sample ID	Analyte Name	Activity	MDC	TPU	Sample Depth (feet bgs)
5DS-00044	50643	Bi-212	2.08	0.196	0.148	0.50 - 1.50
5DS-00044	50643	Bi-214	2.23	0.0455	0.102	0.50 - 1.50
5DS-00044	50643	Cd-113m	27.7 U	205	66.6	0.50 - 1.50
5DS-00044	50643	Co-60	0.0129 J	0.025	0.0077	0.50 - 1.50
5DS-00044	50643	Cs-134	-0.0006 U	0.0229	0.0079	0.50 - 1.50
5DS-00044	50643	Cs-137	0.0325	0.0259	0.01	0.50 - 1.50
5DS-00044	50643	Eu-152	-0.0245 U	0.0749	0.0271	0.50 - 1.50
5DS-00044	50643	Eu-154	0.0227 U	0.127	0.0427	0.50 - 1.50
5DS-00044	50643	Eu-155	0.151 SK	0.112	0.0458	0.50 - 1.50
5DS-00044	50643	Ho-166m	-0.0171 U	0.0401	0.0129	0.50 - 1.50
5DS-00044	50643	K-40	15.6	0.196	0.874	0.50 - 1.50
5DS-00044	50643	Na-22	0.0018 U	0.0267	0.0092	0.50 - 1.50
5DS-00044	50643	Nb-94	0.0022 U	0.0239	0.0072	0.50 - 1.50
5DS-00044	50643	Np-236	-0.0077 U	0.0614	0.0217	0.50 - 1.50
5DS-00044	50643	Np-239	0.0093 U	0.211	0.063	0.50 - 1.50
5DS-00044	50643	Pa-231	-0.004 U	1.3	0.405	0.50 - 1.50
5DS-00044	50643	Pb-212	3.44	0.0528	0.205	0.50 - 1.50
5DS-00044	50643	Pb-214	2.5	0.0541	0.117	0.50 - 1.50
5DS-00044	50643	Sb-125	-0.011 U	0.0686	0.0203	0.50 - 1.50
5DS-00044	50643	Sn-126	-0.003 U	0.0264	0.008	0.50 - 1.50
5DS-00044	50643	Th-234	4.1	0.5	0.362	0.50 - 1.50
5DS-00044	50643	Tl-208	1.05	0.0254	0.0574	0.50 - 1.50
5DS-00044	50643	Tm-171	-18.9 U	26.5	10.3	0.50 - 1.50
5DS-00044	50643	U-233/234	1.88	0.084	0.16	0.50 - 1.50
5DS-00044	50643	U-235/236	0.128	0.0402	0.0314	0.50 - 1.50
5DS-00044	50643	U-238	1.95	0.0403	0.163	0.50 - 1.50
5DS-00045	50644	Ac-227	-0.0032 U	0.219	0.0642	0.00 - 0.50
5DS-00045	50644	Bi-212	1.28	0.135	0.101	0.00 - 0.50
5DS-00045	50644	Bi-214	1.59	0.0336	0.0719	0.00 - 0.50
5DS-00045	50644	Cd-113m	-23.2 U	143	42.5	0.00 - 0.50
5DS-00045	50644	Co-60	0.0039 U J	0.0179	0.0053	0.00 - 0.50
5DS-00045	50644	Cs-134	0.0026 U	0.0169	0.0059	0.00 - 0.50
5DS-00045	50644	Cs-137	0.0709	0.0188	0.0086	0.00 - 0.50
5DS-00045	50644	Eu-152	0.003 U	0.0535	0.018	0.00 - 0.50



**Table A.2**  
**Analytical Results Summary**  
**Subarea 5D, Round 2**

Sample Location	Sample ID	Analyte Name	Activity	MDC	TPU	Sample Depth (feet bgs)
5DS-00045	50644	Eu-154	0.0255 U	0.0999	0.0337	0.00 - 0.50
5DS-00045	50644	Eu-155	0.121 SK	0.0728	0.029	0.00 - 0.50
5DS-00045	50644	Ho-166m	0.0047 U	0.0292	0.0084	0.00 - 0.50
5DS-00045	50644	K-40	18.1	0.142	0.991	0.00 - 0.50
5DS-00045	50644	Na-22	0.0015 U	0.0198	0.0068	0.00 - 0.50
5DS-00045	50644	Nb-94	0.0063 U	0.0173	0.0051	0.00 - 0.50
5DS-00045	50644	Np-236	0.0163 U	0.0411	0.0158	0.00 - 0.50
5DS-00045	50644	Np-237	0.0097 J	0.0088	0.0073	0.00 - 0.50
5DS-00045	50644	Np-239	-0.0237 U	0.147	0.0434	0.00 - 0.50
5DS-00045	50644	Pa-231	0.242 U	0.921	0.283	0.00 - 0.50
5DS-00045	50644	Pb-212	2.17	0.0362	0.121	0.00 - 0.50
5DS-00045	50644	Pb-214	1.82	0.0388	0.0818	0.00 - 0.50
5DS-00045	50644	Pu-238	0 U	0.0181	0.0048	0.00 - 0.50
5DS-00045	50644	Pu-239/240	0.0017 U	0.0156	0.0044	0.00 - 0.50
5DS-00045	50644	Sb-125	0.0082 U	0.0498	0.0149	0.00 - 0.50
5DS-00045	50644	Sn-126	-0.0121 U	0.0182	0.0062	0.00 - 0.50
5DS-00045	50644	Th-234	2.77	0.34	0.212	0.00 - 0.50
5DS-00045	50644	Tl-208	0.665	0.0188	0.036	0.00 - 0.50
5DS-00045	50644	Tm-171	-5.31 U	14.6	5.12	0.00 - 0.50
5DS-00045	50644	U-233/234	1.23	0.0864	0.119	0.00 - 0.50
5DS-00045	50644	U-235/236	0.0557	0.0429	0.0227	0.00 - 0.50
5DS-00045	50644	U-238	1.44	0.0493	0.132	0.00 - 0.50
5DS-00046	50646	Ac-227	-0.118 U	0.251	0.0835	0.00 - 0.50
5DS-00046	50646	Bi-212	1.38	0.165	0.109	0.00 - 0.50
5DS-00046	50646	Bi-214	1.55	0.0389	0.0699	0.00 - 0.50
5DS-00046	50646	Cd-113m	-155 U J	167	64.8	0.00 - 0.50
5DS-00046	50646	Co-60	-0.0048 U J	0.0207	0.0063	0.00 - 0.50
5DS-00046	50646	Cs-134	0.0082 U	0.0183	0.0063	0.00 - 0.50
5DS-00046	50646	Cs-137	0.0714	0.021	0.0101	0.00 - 0.50
5DS-00046	50646	Eu-152	-0.0416 U	0.0619	0.0239	0.00 - 0.50
5DS-00046	50646	Eu-154	0.102 J	0.123	0.0469	0.00 - 0.50
5DS-00046	50646	Eu-155	0.126 SK	0.0933	0.0367	0.00 - 0.50
5DS-00046	50646	Ho-166m	0.0125 U	0.0334	0.0101	0.00 - 0.50
5DS-00046	50646	K-40	17.9	0.176	1.12	0.00 - 0.50

**Table A.2**  
**Analytical Results Summary**  
**Subarea 5D, Round 2**

Sample Location	Sample ID	Analyte Name	Activity	MDC	TPU	Sample Depth (feet bgs)
5DS-00046	50646	Na-22	-0.0027 U	0.0243	0.0072	0.00 - 0.50
5DS-00046	50646	Nb-94	0.0133 JSK	0.0199	0.0065	0.00 - 0.50
5DS-00046	50646	Np-236	-0.0106 U	0.0508	0.0166	0.00 - 0.50
5DS-00046	50646	Np-237	-0.0082 U J	0.0357	0.0082	0.00 - 0.50
5DS-00046	50646	Np-239	-0.0093 U	0.171	0.0528	0.00 - 0.50
5DS-00046	50646	Pa-231	-0.281 U	1.05	0.334	0.00 - 0.50
5DS-00046	50646	Pb-212	2.09	0.0423	0.138	0.00 - 0.50
5DS-00046	50646	Pb-214	1.74	0.0448	0.0871	0.00 - 0.50
5DS-00046	50646	Pu-238	-0.0026 U	0.0237	0.0057	0.00 - 0.50
5DS-00046	50646	Pu-239/240	0.0025 U	0.0187	0.0057	0.00 - 0.50
5DS-00046	50646	Sb-125	0.0084 U	0.0581	0.0174	0.00 - 0.50
5DS-00046	50646	Sn-126	0.0064 U	0.0222	0.0066	0.00 - 0.50
5DS-00046	50646	Th-234	2.45	0.429	0.251	0.00 - 0.50
5DS-00046	50646	Tl-208	0.632	0.0203	0.0349	0.00 - 0.50
5DS-00046	50646	Tm-171	-10.4 U	24.6	8.59	0.00 - 0.50
5DS-00046	50646	U-233/234	1.44	0.069	0.125	0.00 - 0.50
5DS-00046	50646	U-235/236	0.0547	0.0148	0.0189	0.00 - 0.50
5DS-00046	50646	U-238	1.4	0.0517	0.121	0.00 - 0.50
5DS-00046	50647	Ac-227	-0.201 U J	0.222	0.0827	1.00 - 2.00
5DS-00046	50647	Bi-212	1.4	0.145	0.108	1.00 - 2.00
5DS-00046	50647	Bi-214	1.52	0.0332	0.0695	1.00 - 2.00
5DS-00046	50647	Cd-113m	-29.1 U	148	48.2	1.00 - 2.00
5DS-00046	50647	Co-60	-0.0062 U J	0.0181	0.0056	1.00 - 2.00
5DS-00046	50647	Cs-134	-0.008 U	0.0159	0.0058	1.00 - 2.00
5DS-00046	50647	Cs-137	0.0058 U	0.0192	0.0084	1.00 - 2.00
5DS-00046	50647	Eu-152	-0.0487 U J	0.0532	0.0222	1.00 - 2.00
5DS-00046	50647	Eu-154	-0.064 U	0.1	0.0351	1.00 - 2.00
5DS-00046	50647	Eu-155	0.0812 JSK	0.0843	0.0318	1.00 - 2.00
5DS-00046	50647	Ho-166m	-0.0068 U	0.0297	0.009	1.00 - 2.00
5DS-00046	50647	K-40	18.4	0.14	1.01	1.00 - 2.00
5DS-00046	50647	Na-22	0.0065 U	0.0216	0.0073	1.00 - 2.00
5DS-00046	50647	Nb-94	0.0066 U	0.0176	0.0053	1.00 - 2.00
5DS-00046	50647	Np-236	-0.0281 U	0.0427	0.0149	1.00 - 2.00
5DS-00046	50647	Np-237	0.0057 U J	0.0525	0.015	1.00 - 2.00

**Table A.2**  
**Analytical Results Summary**  
**Subarea 5D, Round 2**

Sample Location	Sample ID	Analyte Name	Activity	MDC	TPU	Sample Depth (feet bgs)
5DS-00046	50647	Np-239	-0.0121 U	0.153	0.0453	1.00 - 2.00
5DS-00046	50647	Pa-231	-0.129 U	0.925	0.287	1.00 - 2.00
5DS-00046	50647	Pb-212	2.24	0.0373	0.132	1.00 - 2.00
5DS-00046	50647	Pb-214	1.75	0.0392	0.0812	1.00 - 2.00
5DS-00046	50647	Pu-238	0.0029	0.0078	0.005	1.00 - 2.00
5DS-00046	50647	Pu-239/240	0	0.0078	0.0041	1.00 - 2.00
5DS-00046	50647	Sb-125	0.0002 U	0.0497	0.0151	1.00 - 2.00
5DS-00046	50647	Sn-126	0.0019 U	0.0192	0.0057	1.00 - 2.00
5DS-00046	50647	Th-234	2.49	0.352	0.227	1.00 - 2.00
5DS-00046	50647	Tl-208	0.661	0.0187	0.036	1.00 - 2.00
5DS-00046	50647	Tm-171	-7.43 U	17.4	6.17	1.00 - 2.00
5DS-00046	50647	U-233/234	1.28	0.0727	0.113	1.00 - 2.00
5DS-00046	50647	U-235/236	0.0839	0.0142	0.0226	1.00 - 2.00
5DS-00046	50647	U-238	1.16	0.0462	0.104	1.00 - 2.00
5DS-00047	50648	Ac-227	-0.0637 U	0.219	0.0663	0.00 - 0.50
5DS-00047	50648	Bi-212	1.42	0.139	0.105	0.00 - 0.50
5DS-00047	50648	Bi-214	1.72	0.0345	0.0772	0.00 - 0.50
5DS-00047	50648	Cd-113m	59.2 U	148	46.2	0.00 - 0.50
5DS-00047	50648	Co-60	-0.004 U J	0.0176	0.0054	0.00 - 0.50
5DS-00047	50648	Cs-134	-0.0019 U	0.0163	0.0057	0.00 - 0.50
5DS-00047	50648	Cs-137	0.159	0.0189	0.0117	0.00 - 0.50
5DS-00047	50648	Eu-152	-0.0278 U	0.0536	0.0196	0.00 - 0.50
5DS-00047	50648	Eu-154	-0.0652 U	0.099	0.0341	0.00 - 0.50
5DS-00047	50648	Eu-155	0.151 SK	0.0814	0.0345	0.00 - 0.50
5DS-00047	50648	Ho-166m	-0.0016 U	0.0292	0.0089	0.00 - 0.50
5DS-00047	50648	K-40	18.5	0.132	1.01	0.00 - 0.50
5DS-00047	50648	Na-22	-0.0006 U	0.0193	0.0061	0.00 - 0.50
5DS-00047	50648	Nb-94	0.0145 JSK	0.0177	0.0062	0.00 - 0.50
5DS-00047	50648	Np-236	-0.019 U	0.0441	0.0143	0.00 - 0.50
5DS-00047	50648	Np-237	-0.0075 U J	0.0269	0.0056	0.00 - 0.50
5DS-00047	50648	Np-239	0.0175 U	0.151	0.0441	0.00 - 0.50
5DS-00047	50648	Pa-231	-0.283 U	0.906	0.286	0.00 - 0.50
5DS-00047	50648	Pb-212	2.24	0.0374	0.123	0.00 - 0.50
5DS-00047	50648	Pb-214	1.9	0.0395	0.0847	0.00 - 0.50

**Table A.2**  
**Analytical Results Summary**  
**Subarea 5D, Round 2**

Sample Location	Sample ID	Analyte Name	Activity	MDC	TPU	Sample Depth (feet bgs)
5DS-00047	50648	Pu-238	-0.0043 U	0.0201	0.0043	0.00 - 0.50
5DS-00047	50648	Pu-239/240	0.0043	0.0059	0.0043	0.00 - 0.50
5DS-00047	50648	Sb-125	0.001 U	0.0504	0.015	0.00 - 0.50
5DS-00047	50648	Sn-126	0.0006 U	0.019	0.0058	0.00 - 0.50
5DS-00047	50648	Th-234	2.79	0.373	0.225	0.00 - 0.50
5DS-00047	50648	Tl-208	0.661	0.0192	0.0361	0.00 - 0.50
5DS-00047	50648	Tm-171	0.201 U	17.6	5.93	0.00 - 0.50
5DS-00047	50648	U-233/234	1.4	0.0767	0.123	0.00 - 0.50
5DS-00047	50648	U-235/236	0.0324	0.0502	0.0186	0.00 - 0.50
5DS-00047	50648	U-238	1.37	0.0524	0.119	0.00 - 0.50
5DS-00048	50650	Ac-227	-0.147 U	0.234	0.0866	0.00 - 0.50
5DS-00048	50650	Bi-212	1.41	0.16	0.108	0.00 - 0.50
5DS-00048	50650	Bi-214	1.76	0.0359	0.08	0.00 - 0.50
5DS-00048	50650	Cd-113m	4.83 U	159	48	0.00 - 0.50
5DS-00048	50650	Co-60	0.0004 U	0.0192	0.0055	0.00 - 0.50
5DS-00048	50650	Cs-134	0.0255 SK	0.018	0.0078	0.00 - 0.50
5DS-00048	50650	Cs-137	0.213	0.0208	0.0156	0.00 - 0.50
5DS-00048	50650	Eu-152	-0.0155 U	0.0609	0.0186	0.00 - 0.50
5DS-00048	50650	Eu-154	0.012 U	0.109	0.0373	0.00 - 0.50
5DS-00048	50650	Eu-155	0.0955 SK	0.0827	0.0323	0.00 - 0.50
5DS-00048	50650	Ho-166m	-0.0161 U	0.0316	0.0102	0.00 - 0.50
5DS-00048	50650	K-40	18	0.17	1.01	0.00 - 0.50
5DS-00048	50650	Na-22	-0.0005 U	0.0237	0.0069	0.00 - 0.50
5DS-00048	50650	Nb-94	0.0148 JSK	0.0198	0.0066	0.00 - 0.50
5DS-00048	50650	Np-236	-0.0395 U J	0.0454	0.0182	0.00 - 0.50
5DS-00048	50650	Np-237	0.0137 J	0.0333	0.0108	0.00 - 0.50
5DS-00048	50650	Np-239	-0.0247 U	0.162	0.0475	0.00 - 0.50
5DS-00048	50650	Pa-231	-0.27 U	0.998	0.302	0.00 - 0.50
5DS-00048	50650	Pb-212	2.36	0.0411	0.129	0.00 - 0.50
5DS-00048	50650	Pb-214	2.03	0.043	0.0903	0.00 - 0.50
5DS-00048	50650	Pu-238	0.0036 U	0.0489	0.0137	0.00 - 0.50
5DS-00048	50650	Pu-239/240	-0.0094 U	0.0413	0.0099	0.00 - 0.50
5DS-00048	50650	Sb-125	0.0226 U	0.0583	0.018	0.00 - 0.50
5DS-00048	50650	Sn-126	-0.0053 U	0.0208	0.0063	0.00 - 0.50

**Table A.2  
Analytical Results Summary  
Subarea 5D, Round 2**

Sample Location	Sample ID	Analyte Name	Activity	MDC	TPU	Sample Depth (feet bgs)
5DS-00048	50650	Th-234	2.92	0.375	0.232	0.00 - 0.50
5DS-00048	50650	Tl-208	0.726	0.02	0.0398	0.00 - 0.50
5DS-00048	50650	Tm-171	0.0099 U	17.2	5.65	0.00 - 0.50
5DS-00048	50650	U-233/234	1.19	0.0983	0.116	0.00 - 0.50
5DS-00048	50650	U-235/236	0.0618	0.0424	0.0235	0.00 - 0.50
5DS-00048	50650	U-238	1.26	0.0425	0.118	0.00 - 0.50

**Notes:**

Refer to Table 2.1 of the Final Field Sampling Plan for Soil Sampling (HGL, 2012a) for a definition of radionuclide symbols.

Reporting units in picocuries per gram.

bgs - below ground surface

ID - identification

MDC - minimum detectable concentration

RTL - radiological trigger level

TPU - total propagated uncertainty

J - The analyte was detected at the reported concentration; the quantitation is an estimate.

K - Analyte present. Reported value may be biased high. Actual value is expected to be lower.

S - Analyte result is subject to spectral interference. Unless otherwise qualified, the data is believed to be consistent with the

U - Not considered detected. The associated number is the reported concentration.

**Table A.3**  
**Parent and Field Duplicate Results Summary**  
**Subarea 5D, Round 2**

Sample Location	Parent Sample					Field Duplicate Sample				
	Sample ID	Analyte Name	Activity	MDC	TPU	Sample ID	Analyte Name	Activity	MDC	TPU
5DN-00217	50537	Ac-227	0.0002 U	0.198	0.0578	50653	Ac-227	-0.0043 U	0.237	0.073
5DS-00047	50648	Ac-227	-0.0637 U	0.219	0.0663	50654	Ac-227	-0.073 U	0.226	0.0689
5DS-00048	50650	Ac-227	-0.147 U	0.234	0.0866	50657	Ac-227	-0.0161 U	0.24	0.0722
5DN-00262	50626	Am-241	0.0062	0.0056	0.0046	50652	Am-241	0.0082	0.0151	0.0058
5DN-00217	50537	Bi-212	0.973	0.128	0.078	50653	Bi-212	0.902	0.163	0.0895
5DS-00047	50648	Bi-212	1.42	0.139	0.105	50654	Bi-212	1.44	0.155	0.107
5DS-00048	50650	Bi-212	1.41	0.16	0.108	50657	Bi-212	1.47	0.164	0.11
5DN-00217	50537	Bi-214	1.08	0.0298	0.0511	50653	Bi-214	1.01	0.0365	0.0496
5DS-00047	50648	Bi-214	1.72	0.0345	0.0772	50654	Bi-214	1.65	0.0368	0.075
5DS-00048	50650	Bi-214	1.76	0.0359	0.08	50657	Bi-214	1.75	0.0392	0.0787
5DN-00217	50537	Cd-113m	2.98 U	129	38.9	50653	Cd-113m	-165 U J	150	62.4
5DS-00047	50648	Cd-113m	59.2 U	148	46.2	50654	Cd-113m	-35.1 U	152	47
5DS-00048	50650	Cd-113m	4.83 U	159	48	50657	Cd-113m	1.94 U	161	49.9
5DN-00217	50537	Co-60	0.0009 U	0.0177	0.0052	50653	Co-60	0.0125 J	0.0219	0.0067
5DS-00047	50648	Co-60	-0.0040 U J	0.0176	0.0054	50654	Co-60	0.0036 U J	0.0189	0.0054
5DS-00048	50650	Co-60	0.0004 U	0.0192	0.0055	50657	Co-60	0.0075 U	0.0212	0.0063
5DN-00217	50537	Cs-134	0.0037 U	0.0148	0.0051	50653	Cs-134	-0.0081 U	0.0171	0.0062
5DS-00047	50648	Cs-134	-0.0019 U	0.0163	0.0057	50654	Cs-134	0.0076 U	0.0172	0.0058
5DS-00048	50650	Cs-134	0.0255 SK	0.018	0.0078	50657	Cs-134	0.0081 U	0.019	0.0066
5DN-00217	50537	Cs-137	-0.0055 U	0.0166	0.0058	50653	Cs-137	0.0070 U	0.0209	0.0071
5DS-00047	50648	Cs-137	0.159	0.0189	0.0117	50654	Cs-137	0.162	0.0195	0.012

**Table A.3**  
**Parent and Field Duplicate Results Summary**  
**Subarea 5D, Round 2**

Sample Location	Parent Sample					Field Duplicate Sample				
	Sample ID	Analyte Name	Activity	MDC	TPU	Sample ID	Analyte Name	Activity	MDC	TPU
5DS-00048	50650	Cs-137	0.213	0.0208	0.0156	50657	Cs-137	0.17	0.0215	0.0134
5DN-00217	50537	Eu-152	-0.0015 U	0.0487	0.0155	50653	Eu-152	-0.0097 U	0.0584	0.0201
5DS-00047	50648	Eu-152	-0.0278 U	0.0536	0.0196	50654	Eu-152	-0.0468 U J	0.0565	0.0205
5DS-00048	50650	Eu-152	-0.0155 U	0.0609	0.0186	50657	Eu-152	-0.01 U	0.0592	0.0198
5DN-00217	50537	Eu-154	-0.0685 U J	0.0907	0.0327	50653	Eu-154	-0.0643 U J	0.11	0.0376
5DS-00047	50648	Eu-154	-0.0652 U	0.099	0.0341	50654	Eu-154	-0.0538 U	0.107	0.0354
5DS-00048	50650	Eu-154	0.012 U	0.109	0.0373	50657	Eu-154	0.0409 U	0.116	0.0392
5DN-00217	50537	Eu-155	0.0771 SK	0.0684	0.0258	50653	Eu-155	0.0781 JSK	0.0883	0.0317
5DS-00047	50648	Eu-155	0.151 SK	0.0814	0.0345	50654	Eu-155	0.0885 SK	0.0793	0.0309
5DS-00048	50650	Eu-155	0.0955 SK	0.0827	0.0323	50657	Eu-155	0.105 SK	0.0812	0.03
5DN-00217	50537	Ho-166m	-0.0027 U	0.0261	0.0076	50653	Ho-166m	0.0031 U	0.033	0.0096
5DS-00047	50648	Ho-166m	-0.0016 U	0.0292	0.0089	50654	Ho-166m	-0.0154 U	0.0304	0.0098
5DS-00048	50650	Ho-166m	-0.0161 U	0.0316	0.0102	50657	Ho-166m	-0.0035 U	0.0329	0.0099
5DN-00217	50537	K-40	17.9	0.119	0.982	50653	K-40	17.6	0.16	1.1
5DS-00047	50648	K-40	18.5	0.132	1.01	50654	K-40	17.8	0.157	0.996
5DS-00048	50650	K-40	18	0.17	1.01	50657	K-40	17.8	0.172	0.978
5DN-00217	50537	Na-22	-0.0038 U	0.0187	0.0057	50653	Na-22	-0.0088 U	0.0246	0.0077
5DS-00047	50648	Na-22	-0.0006 U	0.0193	0.0061	50654	Na-22	0.0016 U	0.0219	0.0068
5DS-00048	50650	Na-22	-0.0005 U	0.0237	0.0069	50657	Na-22	0.0024 U	0.0231	0.0079
5DN-00217	50537	Nb-94	-0.0001 U	0.0159	0.0046	50653	Nb-94	-0.0013 U	0.0181	0.0053
5DS-00047	50648	Nb-94	0.0145 JSK	0.0177	0.0062	50654	Nb-94	0.0107 JSK	0.0184	0.00578

**Table A.3**  
**Parent and Field Duplicate Results Summary**  
**Subarea 5D, Round 2**

Sample Location	Parent Sample					Field Duplicate Sample				
	Sample ID	Analyte Name	Activity	MDC	TPU	Sample ID	Analyte Name	Activity	MDC	TPU
5DS-00048	50650	Nb-94	0.0148 JSK	0.0198	0.0066	50657	Nb-94	0.0070 U	0.0203	0.00618
5DN-00217	50537	Np-236	-0.0004 U	0.0372	0.0113	50653	Np-236	-0.0233 U	0.0454	0.0148
5DS-00047	50648	Np-236	-0.019 U	0.0441	0.0143	50654	Np-236	-0.0040 U	0.0438	0.0132
5DS-00048	50650	Np-236	-0.0395 U J	0.0454	0.0182	50657	Np-236	-0.0209 U	0.0448	0.0149
5DS-00047	50648	Np-237	-0.0075 U J	0.0269	0.0056	50654	Np-237	0.0044 J	0.0060	0.0044
5DS-00048	50650	Np-237	0.0137 J	0.0333	0.0108	50657	Np-237	0.0139 J	0.0307	0.0107
5DN-00217	50537	Np-239	-0.0269 U	0.131	0.039	50653	Np-239	-0.0114 U	0.159	0.0489
5DS-00047	50648	Np-239	0.0175 U	0.151	0.0441	50654	Np-239	-0.0408 U	0.152	0.0456
5DS-00048	50650	Np-239	-0.0247 U	0.162	0.0475	50657	Np-239	-0.0138 U	0.16	0.048
5DN-00217	50537	Pa-231	0.0421 U	0.807	0.236	50653	Pa-231	-0.154 U	0.969	0.304
5DS-00047	50648	Pa-231	-0.283 U	0.906	0.286	50654	Pa-231	0.187 U	0.961	0.284
5DS-00048	50650	Pa-231	-0.27 U	0.998	0.302	50657	Pa-231	-0.3 U	1.01	0.314
5DN-00217	50537	Pb-212	1.57	0.0334	0.089	50653	Pb-212	1.57	0.0395	0.104
5DS-00047	50648	Pb-212	2.24	0.0374	0.123	50654	Pb-212	2.29	0.0401	0.125
5DS-00048	50650	Pb-212	2.36	0.0411	0.129	50657	Pb-212	2.29	0.0404	0.139
5DN-00217	50537	Pb-214	1.25	0.0336	0.0576	50653	Pb-214	1.14	0.0401	0.0591
5DS-00047	50648	Pb-214	1.9	0.0395	0.0847	50654	Pb-214	1.89	0.0404	0.0841
5DS-00048	50650	Pb-214	2.03	0.043	0.0903	50657	Pb-214	1.94	0.0433	0.093
5DS-00047	50648	Pu-238	-0.0043 U	0.0201	0.00432	50654	Pu-238	0.0046 U	0.0247	0.0073
5DS-00048	50650	Pu-238	0.0036 U	0.0489	0.0137	50657	Pu-238	0.0163	0.0268	0.0107
5DS-00047	50648	Pu-239/240	0.0043	0.00585	0.0043	50654	Pu-239/240	-0.0046 U	0.0301	0.0073



**Table A.3**  
**Parent and Field Duplicate Results Summary**  
**Subarea 5D, Round 2**

Sample Location	Parent Sample					Field Duplicate Sample				
	Sample ID	Analyte Name	Activity	MDC	TPU	Sample ID	Analyte Name	Activity	MDC	TPU
5DS-00048	50650	Pu-239/240	-0.0094 U	0.0413	0.0099	50657	Pu-239/240	0.0084	0.0268	0.0092
5DN-00217	50537	Sb-125	0.0071 U	0.0467	0.0139	50653	Sb-125	0.0495 JSK	0.0549	0.0195
5DS-00047	50648	Sb-125	0.0010 U	0.0504	0.015	50654	Sb-125	-0.0267 U	0.0523	0.0172
5DS-00048	50650	Sb-125	0.0226 U	0.0583	0.018	50657	Sb-125	0.0115 U	0.058	0.017
5DN-00217	50537	Sn-126	-0.0101 U	0.0168	0.0056	50653	Sn-126	0.0072 U	0.0215	0.0064
5DS-00047	50648	Sn-126	0.0006 U	0.019	0.0058	50654	Sn-126	0.0067 U	0.0204	0.0061
5DS-00048	50650	Sn-126	-0.0053 U	0.0208	0.0063	50657	Sn-126	0.0001 U	0.0216	0.0064
5DN-00213	50528	Sr-90	0.408	0.245	0.099	50655	Sr-90	0.253	0.221	0.0796
5DN-00217	50537	Sr-90	-0.0262 U	0.223	0.0551	50653	Sr-90	-0.0451 U	0.295	0.0724
5DN-00234	50570	Sr-90	-0.0119 U	0.243	0.0671	50660	Sr-90	-0.0501 U	0.237	0.0605
5DN-00245	50592	Sr-90	0.0834 U	0.168	0.0521	50656	Sr-90	0.185	0.227	0.0758
5DN-00265	50632	Sr-90	0.168 U	0.312	0.0971	50658	Sr-90	0.164	0.253	0.0805
5DN-00217	50537	Tl-208	0.469	0.0172	0.0269	50653	Tl-208	0.485	0.02	0.0284
5DS-00047	50648	Tl-208	0.661	0.0192	0.0361	50654	Tl-208	0.656	0.0196	0.0359
5DS-00048	50650	Tl-208	0.726	0.02	0.0398	50657	Tl-208	0.726	0.0211	0.0399
5DN-00217	50537	Tm-171	-4.59 U	13	4.53	50653	Tm-171	-9.96 U	22.5	7.91
5DS-00047	50648	Tm-171	0.201 U	17.6	5.93	50654	Tm-171	0.327 U	16.3	5.37
5DS-00048	50650	Tm-171	0.0099 U	17.2	5.65	50657	Tm-171	7.07 U	14.4	5.15
5DN-00265	50632	U-232	0.018 U	0.0728	0.0214	50658	U-232	0.0036 U	0.0975	0.0255
5DN-00265	50632	U-233/234	0.727	0.0724	0.0935	50658	U-233/234	0.694	0.0673	0.0876
5DS-00047	50648	U-233/234	1.4	0.0767	0.123	50654	U-233/234	1.28	0.0656	0.114

**Table A.3**  
**Parent and Field Duplicate Results Summary**  
**Subarea 5D, Round 2**

Sample Location	Parent Sample					Field Duplicate Sample				
	Sample ID	Analyte Name	Activity	MDC	TPU	Sample ID	Analyte Name	Activity	MDC	TPU
5DS-00048	50650	U-233/234	1.19	0.0983	0.116	50657	U-233/234	1.18	0.0445	0.11
5DN-00265	50632	U-235/236	0.0789	0.0603	0.0283	50658	U-235/236	0.0783	0.0456	0.0251
5DS-00047	50648	U-235/236	0.0324	0.0502	0.0186	50654	U-235/236	0.0676	0.0424	0.0223
5DS-00048	50650	U-235/236	0.0618	0.0424	0.0235	50657	U-235/236	0.0483	0.0163	0.0189
5DN-00265	50632	U-238	0.691	0.018	0.0888	50658	U-238	0.716	0.0367	0.0883
5DS-00047	50648	U-238	1.37	0.0524	0.119	50654	U-238	1.36	0.0474	0.118
5DS-00048	50650	U-238	1.26	0.0425	0.118	50657	U-238	1.33	0.0132	0.119

**Notes:**

Refer to Table 2.1 of the Final Field Sampling Plan for Soil Sampling (HGL, 2012a) for a definition of radionuclide symbols.

Reporting units in picocuries per gram.

ID - identification

MDC - minimum detectable concentration

TPU - total propagated uncertainty

J - The analyte was detected at the reported concentration; the quantitation is an estimate.

K - Analyte present. Reported value may be biased high. Actual value is expected to be lower.

S - Analyte result is subject to spectral interference. Unless otherwise qualified, the data is believed to be consistent with the background study results and may be used for its intended purpose.

U - Not considered detected. The associated number is the reported concentration.

**Table A.4**  
**Rinsate and Source Comparison Summary**  
**Subarea 5D, Round 2**

Sample Type	Sample ID	H-3 <sup>1</sup>			U-233/U-234			U-235/U-236			U-238		
		Activity	MDC	TPU	Activity	MDC	TPU	Activity	MDC	TPU	Activity	MDC	TPU
Rinsate	R0587	--	--	--	-0.0254 U	0.155	0.0368	-0.00222 U	0.126	0.0313	0.0256	0.0716	0.0253
Source	S0281	--	--	--	-0.0573 U	0.181	0.0354	0.00875 U	0.123	0.0273	0.0162 U	0.0805	0.0201
Rinsate	R0588	--	--	--	-0.0153 U	0.0942	0.0225	-0.00358 U	0.0641	0.0153	0.0103 U	0.0519	0.0155
Source	S0281	--	--	--	-0.0573 U	0.181	0.0354	0.00875 U	0.123	0.0273	0.0162 U	0.0805	0.0201
Rinsate	R0589	--	--	--	-0.00283 U	0.107	0.0275	0.00579 U	0.0815	0.0221	0.00234 U	0.0533	0.0146
Source	S0281	--	--	--	-0.0573 U	0.181	0.0354	0.00875 U	0.123	0.0273	0.0162 U	0.0805	0.0201
Rinsate	R0590	--	--	--	0.0338	0.0826	0.0276	0.0225 U	0.0694	0.0226	0.00911 U	0.0453	0.0143
Source	S0281	--	--	--	-0.0573 U	0.181	0.0354	0.00875 U	0.123	0.0273	0.0162 U	0.0805	0.0201
Rinsate	R0591	--	--	--	0.0764	0.0841	0.0346	0.0195	0.0264	0.0183	0.0337	0.0502	0.021
Source	S0281	--	--	--	-0.0573 U	0.181	0.0354	0.00875 U	0.123	0.0273	0.0162 U	0.0805	0.0201
Rinsate	R0592	--	--	--	0.0185 U	0.0789	0.0246	0.0362	0.0245	0.0214	0.0512	0.0198	0.0216
Source	S0281	--	--	--	-0.0573 U	0.181	0.0354	0.00875 U	0.123	0.0273	0.0162 U	0.0805	0.0201
Rinsate	R0593	--	--	--	0.0566	0.0658	0.0314	0.0341	0.0308	0.0242	0.0459	0.0249	0.0237
Source	S0281	--	--	--	-0.0573 U	0.181	0.0354	0.00875 U	0.123	0.0273	0.0162 U	0.0805	0.0201
Rinsate	R0594	--	--	--	-0.00769 U	0.128	0.032	0.0237	0.0321	0.0223	0.0191	0.0259	0.018
Source	S0281	--	--	--	-0.0573 U	0.181	0.0354	0.00875 U	0.123	0.0273	0.0162 U	0.0805	0.0201
Rinsate	R0595	--	--	--	-0.00148 U	0.106	0.0276	0.0291	0.0263	0.0207	0.0393	0.0213	0.0202
Source	S0281	--	--	--	-0.0573 U	0.181	0.0354	0.00875 U	0.123	0.0273	0.0162 U	0.0805	0.0201
Rinsate	R0596	--	--	--	0.0242 U	0.0683	0.0244	0.0315	0.0613	0.0237	0.0177	0.0496	0.0175
Source	S0281	--	--	--	-0.0573 U	0.181	0.0354	0.00875 U	0.123	0.0273	0.0162 U	0.0805	0.0201
Rinsate	R0597	--	--	--	0.0163 U	0.128	0.036	-0.00724 U	0.0641	0.0144	0.00228 U	0.0518	0.0142
Source	S0281	--	--	--	-0.0573 U	0.181	0.0354	0.00875 U	0.123	0.0273	0.0162 U	0.0805	0.0201
Rinsate	R0598	--	--	--	-0.0185 U	0.123	0.0298	0.0298	0.0269	0.0212	0.0241	0.0218	0.0172
Source	S0281	--	--	--	-0.0573 U	0.181	0.0354	0.00875 U	0.123	0.0273	0.0162 U	0.0805	0.0201

**Table A.4**  
**Rinsate and Source Comparison Summary**  
**Subarea 5D, Round 2**

Sample Type	Sample ID	H-3 <sup>1</sup>			U-233/U-234			U-235/U-236			U-238		
		Activity	MDC	TPU	Activity	MDC	TPU	Activity	MDC	TPU	Activity	MDC	TPU
Rinsate	R0599	--	--	--	0.0171 U	0.119	0.034	0.0494	0.0334	0.0292	0.00998	0.0271	0.0159
Source	S0281	--	--	--	-0.0573 U	0.181	0.0354	0.00875 U	0.123	0.0273	0.0162 U	0.0805	0.0201
Rinsate	R0726	--	--	--	-0.0286 U	0.116	0.0278	0.00803	0.0218	0.0128	0.0343	0.0414	0.0186
Source	S0281	--	--	--	-0.0573 U	0.181	0.0354	0.00875 U	0.123	0.0273	0.0162 U	0.0805	0.0201
Rinsate	R0727	--	--	--	-0.0222 U	0.0996	0.0229	0.0135 U	0.0681	0.0204	0.014	0.0189	0.0131
Source	S0281	--	--	--	-0.0573 U	0.181	0.0354	0.00875 U	0.123	0.0273	0.0162 U	0.0805	0.0201
Rinsate	R0728	--	--	--	0.0176 U	0.0702	0.0237	0.00995	0.027	0.0158	-0.00934 U	0.0729	0.0163
Source	S0281	--	--	--	-0.0573 U	0.181	0.0354	0.00875 U	0.123	0.0273	0.0162 U	0.0805	0.0201
Rinsate	R0729	--	--	--	-0.0296 U	0.127	0.0299	-0.0112 U	0.087	0.0194	-0.0056 U	0.0496	0.0111
Source	S0281	--	--	--	-0.0573 U	0.181	0.0354	0.00875 U	0.123	0.0273	0.0162 U	0.0805	0.0201
Rinsate	R0730	--	--	--	-0.0462 U	0.114	0.0246	0.00233 U	0.053	0.0145	0.00861 U	0.0429	0.0135
Source	S0281	--	--	--	-0.0573 U	0.181	0.0354	0.00875 U	0.123	0.0273	0.0162 U	0.0805	0.0201
Rinsate	R0731	--	--	--	-0.0376 U	0.106	0.0224	0.0119 U	0.0591	0.0186	0.0075	0.0203	0.0119
Source	S0281	231	403	126	-0.0573 U	0.181	0.0354	0.00875 U	0.123	0.0273	0.0162 U	0.0805	0.0201
Rinsate	R0732	--	--	--	0.00111 U	0.0878	0.0233	0.00232 U	0.0529	0.0145	0.00564 U	0.0608	0.0165
Source	S0281	231	403	126	-0.0573 U	0.181	0.0354	0.00875 U	0.123	0.0273	0.0162 U	0.0805	0.0201
Rinsate	R0733	--	--	--	-0.0163 U	0.115	0.0284	0.00898	0.0243	0.0143	0.0113 U	0.0573	0.0171
Source	S0281	231	403	126	-0.0573 U	0.181	0.0354	0.00875 U	0.123	0.0273	0.0162 U	0.0805	0.0201
Rinsate	R0734	--	--	--	-0.00978 U	0.0747	0.0177	-0.00345 U	0.0618	0.0148	-0.00203 U	0.074	0.0186
Source	S0281	231	403	126	-0.0573 U	0.181	0.0354	0.00875 U	0.123	0.0273	0.0162 U	0.0805	0.0201
Rinsate	R0735	--	--	--	0.027 U	0.095	0.0302	0.00314 U	0.0714	0.0195	0.00508 U	0.0715	0.0194
Source	S0281	231	403	126	-0.0573 U	0.181	0.0354	0.00875 U	0.123	0.0273	0.0162 U	0.0805	0.0201
Rinsate	R0738	--	--	--	-0.0524 U	0.131	0.029	0.00366 U	0.0996	0.026	0.00414 U	0.0583	0.0158
Source	S0281	231	403	126	-0.0573 U	0.181	0.0354	0.00875 U	0.123	0.0273	0.0162 U	0.0805	0.0201

**Table A.4**  
**Rinsate and Source Comparison Summary**  
**Subarea 5D, Round 2**

Sample Type	Sample ID	H-3 <sup>1</sup>			U-233/U-234			U-235/U-236			U-238		
		Activity	MDC	TPU	Activity	MDC	TPU	Activity	MDC	TPU	Activity	MDC	TPU
Rinsate	R0739	--	--	--	-0.0151 U	0.104	0.0252	-0.0105 U	0.0823	0.0184	-0.00118 U	0.0666	0.0166
Source	S0281	231	403	126	-0.0573 U	0.181	0.0354	0.00875 U	0.123	0.0273	0.0162 U	0.0805	0.0201
Rinsate	R0740	--	--	--	-0.0133 U	0.108	0.0256	0.011	0.0299	0.0175	0.0179	0.0242	0.0168
Source	S0281	231	403	126	-0.0573 U	0.181	0.0354	0.00875 U	0.123	0.0273	0.0162 U	0.0805	0.0201
Rinsate	R0741	--	--	--	0.0239 U	0.0726	0.0245	0.00507 U	0.0714	0.0193	-0.00322 U	0.0578	0.0138
Source	S0281	231	403	126	-0.0573 U	0.181	0.0354	0.00875 U	0.123	0.0273	0.0162 U	0.0805	0.0201
Rinsate	R0744	70.3	326	95.6	0.0143 U	0.0864	0.0257	-0.0117 U	0.091	0.0203	0.00683 U	0.0736	0.02
Source	S0281	231	403	126	-0.0573 U	0.181	0.0354	0.00875 U	0.123	0.0273	0.0162 U	0.0805	0.0201
Rinsate	R0800	--	--	--	0.0357 U	0.104	0.0321	0.0111 U	0.0551	0.0174	0.00196 U	0.0445	0.0122
Source	S0281	231	403	126	-0.0573 U	0.181	0.0354	0.00875 U	0.123	0.0273	0.0162 U	0.0805	0.0201
Rinsate	R0801	--	--	--	0.0338 U	0.0966	0.0308	0.0153 U	0.0772	0.0231	0.0203 U	0.0624	0.0203
Source	S0281	231	403	126	-0.0573 U	0.181	0.0354	0.00875 U	0.123	0.0273	0.0162 U	0.0805	0.0201
Rinsate	R0802	--	--	--	-0.00812 U	0.101	0.0252	0.0175	0.0237	0.0164	0.00396 U	0.0557	0.0151
Source	S0281	231	403	126	-0.0573 U	0.181	0.0354	0.00875 U	0.123	0.0273	0.0162 U	0.0805	0.0201
Rinsate	R0803	--	--	--	0.0116 U	0.0962	0.0271	-0.00133 U	0.0752	0.0187	0.0202	0.0182	0.0144
Source	S0281	231	403	126	-0.0573 U	0.181	0.0354	0.00875 U	0.123	0.0273	0.0162 U	0.0805	0.0201
Rinsate	R0804	--	--	--	-0.0397 U	0.11	0.0235	-0.0053 U	0.0962	0.0236	-0.00114 U	0.0647	0.0161
Source	S0281	231	403	126	-0.0573 U	0.181	0.0354	0.00875 U	0.123	0.0273	0.0162 U	0.0805	0.0201
Rinsate	R0806	--	--	--	-0.0552 U	0.126	0.0277	-0.0124 U	0.0676	0.0137	0	0.0188	0.00856
Source	S0281	231	403	126	-0.0573 U	0.181	0.0354	0.00875 U	0.123	0.0273	0.0162 U	0.0805	0.0201
Rinsate	R0807	--	--	--	-0.0131 U	0.107	0.0264	0.018	0.0243	0.0169	0.0093 U	0.0463	0.0146
Source	S0281	231	403	126	-0.0573 U	0.181	0.0354	0.00875 U	0.123	0.0273	0.0162 U	0.0805	0.0201
Rinsate	R0808	--	--	--	-0.0102 U	0.0783	0.0192	0	0.018	0.00818	-0.00086 U	0.0486	0.0121
Source	S0281	231	403	126	-0.0573 U	0.181	0.0354	0.00875 U	0.123	0.0273	0.0162 U	0.0805	0.0201

**Table A.4**  
**Rinsate and Source Comparison Summary**  
**Subarea 5D, Round 2**

Sample Type	Sample ID	H-3 <sup>1</sup>			U-233/U-234			U-235/U-236			U-238		
		Activity	MDC	TPU	Activity	MDC	TPU	Activity	MDC	TPU	Activity	MDC	TPU
Rinsate	R0809	--	--	--	-0.00111 U	0.0859	0.0223	-0.00404 U	0.0725	0.0173	-0.0161 U	0.0673	0.013
Source	S0281	231	403	126	-0.0573 U	0.181	0.0354	0.00875 U	0.123	0.0273	0.0162 U	0.0805	0.0201
Rinsate	R0810	--	--	--	-0.0426 U	0.109	0.0227	0.0142 U	0.072	0.0215	0.00295 U	0.0805	0.021
Source	S0281	231	403	126	-0.0573 U	0.181	0.0354	0.00875 U	0.123	0.0273	0.0162 U	0.0805	0.0201
Rinsate	R0811	--	--	--	-0.0141 U	0.0838	0.0219	0.0124	0.0337	0.0198	0.0101	0.0273	0.016
Source	S0281	231	403	126	-0.0573 U	0.181	0.0354	0.00875 U	0.123	0.0273	0.0162 U	0.0805	0.0201
Rinsate	R0812	--	--	--	-0.0267 U	0.0964	0.0209	0.0143 U	0.0726	0.0217	0.00952 U	0.0474	0.015
Source	S0281	231	403	126	-0.0573 U	0.181	0.0354	0.00875 U	0.123	0.0273	0.0162 U	0.0805	0.0201
Rinsate	R0813	--	--	--	0.0175 U	0.077	0.0239	-0.00387 U	0.0694	0.0166	0.00711	0.0193	0.0113
Source	S0281	231	403	126	-0.0573 U	0.181	0.0354	0.00875 U	0.123	0.0273	0.0162 U	0.0805	0.0201
Rinsate	R0814	--	--	--	-0.0146 U	0.135	0.0331	0.0239	0.0324	0.0225	-0.0209 U	0.0874	0.0169
Source	S0281	231	403	126	-0.0573 U	0.181	0.0354	0.00875 U	0.123	0.0273	0.0162 U	0.0805	0.0201
Rinsate	R0815	--	--	--	-0.0497 U	0.143	0.0297	0	0.0362	0.0165	-0.00173 U	0.0979	0.0244
Source	S0281	231	403	126	-0.0573 U	0.181	0.0354	0.00875 U	0.123	0.0273	0.0162 U	0.0805	0.0201

**Notes:**

Refer to Table 2.1 of the Final Field Sampling Plan for Soil Sampling (HGL, 2012a) for a definition of radionuclide symbols.

<sup>1</sup>H-3 analyses was only required if it was included in the analytical suite for samples collected that day.

Reporting units in picocuries per liter.

-- - analyte not required/analyzed

MDC - minimum detectable concentration

TPU - total propagated uncertainty

U - Not considered detected. The associated number is the reported concentration.

**ATTACHMENT 2**

**Boring Logs**

*The boring logs are provided in a separate pdf due to size restrictions.*

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